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ANNUAL PLAN 1982-83

PART II

SECTORAL PROGRAMMES

PLANNING COMMISSION, GOVERNMENT OF PAKISTAN

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ANNUAL PLAN 1983-84

PART I

GENERAL PRINCIPLES

PLANNING COMMISSION, GOVERNMENT OF PUNJAB

Lahore, Punjab, India

INTRODUCTION

This document is Part-II of the Planning Commission's earlier publication entitled "Annual Plan 1982-83 : Economic Framework and Main Features of Sectoral Programmes" published in June, 1982. It gives the details of the Sectoral Programmes relating to "Production Programmes and Physical Infrastructure as well as Human Resources and Social Development".

INTRODUCTION

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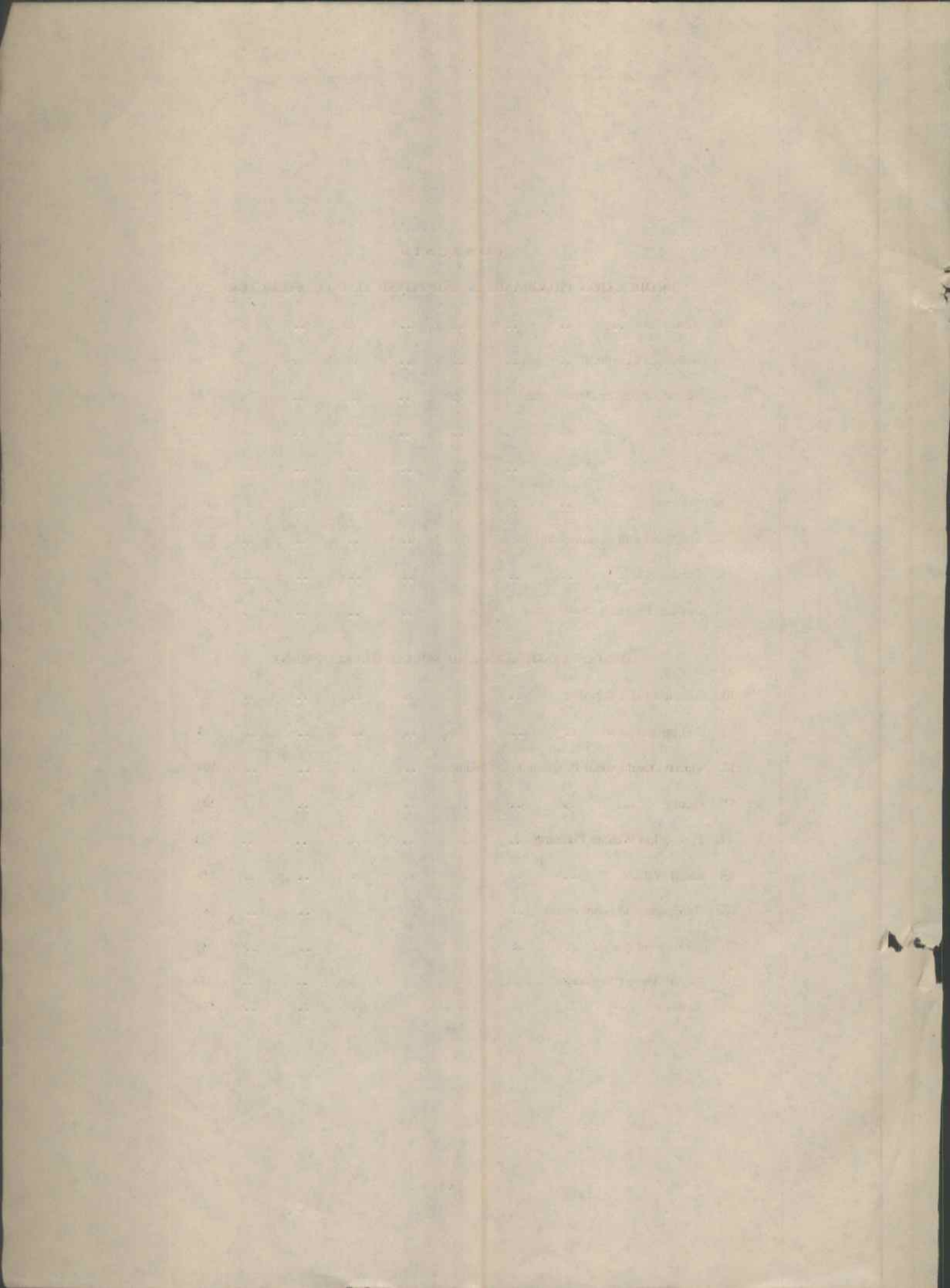
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**PRODUCTION PROGRAMMES AND PHYSICAL
INFRASTRUCTURE**

THE UNIVERSITY OF CHICAGO
PHYSICS DEPARTMENT

CHAPTER 1

AGRICULTURE

Agriculture sector grew at the rate of 3 per cent during 1981-82 against the target of 5.1 per cent fixed for the year and estimated growth of 4.0 per cent of last year. Despite outstanding performance of sugarcane and cotton, surpassing their targets, and near achievement of the target for rice, the growth in agriculture could not be maintained at its previous pace because of continual adverse weather conditions during most part of the wheat season. Against the target of 12.20 million tonnes of wheat during 1981-82 the production is likely to be 11.42 million tonnes. Furthermore, the production of pulses fell short and showed only 68 per cent achievement of the target.

2. During the year availability of institutional credit has increased significantly. Against the disbursement of Rs. 5255.115 million during 1981-82 it is programmed to disburse Rs. 6167 million during 1982-83. The year also witnessed reorganization of extension institutions and intensification of efforts with a view to transferring technology to small farmers. Under farm mechanization, it is programmed to initiate distribution of small tractors among the smaller farmers which was a pre-requisite for intensification of efforts and adoption of new technology in agriculture.

Financial Allocation

3. A sum of Rs. 1717.272 million has been provided in the normal ADP 1982-83 for the Agriculture and Food Sector against Rs. 1724.678 million in 1981-82, showing a nominal decrease of 0.4 per cent. It is estimated that a sum of Rs. 1440.574 million was utilized during 1981-82, which comes to about 84 per cent.

4. The break-down of the allocation for 1982-83 by executing agencies, *vis-a-vis* allocation for 1981-82 is shown below:—

TABLE 1
Financial Allocation for 1982-83

Executing Agency	ADP 1981-82	Revised Estimates 1981-82	ADP Allocation 1982-83	%age change over 1981-82	
				ADP	Revised Estimates
A. Normal ADP :					
Federal	909.712	881.047	874.098	(-)4	(+)1
Baluchistan	113.600	86.622	121.863	(+)7	(+)41
N.W.F.P.	106.662	89.915	98.028	(-)8	(+)9
Sind	132.900	101.246	145.170	(+)9	(+)43
Punjab	461.844	281.744	478.113	(+)4	(+)70
Total	1724.678	1440.574	1717.272	(-)0.4	(+)19
B. Special Programme for Baluchistan & Tribal Areas of NWFP					
	—	—	163.000	—	—
GRAND TOTAL	1724.678	1440.574	1880.272	9.0	(+)30.5

5. The sub-sector-wise details of allocation for 1982-83 alongwith the allocation and revised estimates of 1981-82 may be seen in Annexures I—VIII.

PHYSICAL ACHIEVEMENTS AND TARGETS

Crop Production

6. The estimated production of major crops from 1977-78 to 1980-81, likely achievement during 1981-82 and target for 1982-83 are shown in Table-2:

TABLE 2
Production of Major Crops during the Fifth Plan Period

Crops	1977-78	1978-79	1979-80	1980-81	1981-82			1982-83
					Target	Estimat- ed achie- vement	% age achie- ment	Target
					('000' tonnes)			
1. Total Foodgrain ..	12,861	14,000	15,541	16,114	17,300	16,359	94	17,420
Wheat ..	8,367	9,950	10,805	11,475	12,200	11,420	94	12,200
Rice ..	2,950	3,272	3,216	3,120	3,400	3,338	98	3,500
Maize ..	821	799	875	947	970	906	93	980
Other Foodgrains ..	723	699	645	572	730	700	96	740
2. Sugarcane ..	30,077	27,326	27,498	32,359	33,500	34,560	103	35,000
3. Cotton(lint) ..	575	473	728	715	783	756	97	816
	(3,380)	(2,783)	(4,282)	(4,201)	(4,600)	(4,447)		(4,800)
4. Oilseeds ..	1,472	1,261	1,774	1,760	1,972	1,857	94	2,071
Cotton ..	1,150	946	1,456	1,430	1,566	1,512	97	1,632
Rape and Mustard	236	248	247	252	300	241	80	320
Groundnut ..	72	46	50	57	65	71	118	75
Sesamum ..	13	19	19	18	20	20	100	20
Other oil seeds ..	1	2	2	3	21	13	62	24
5. Pulses ..	813	737	511	488	740	502	68	740
Gram ..	614	538	313	303	500	300	60	500
Mash ..	27	25	33	34	40	36	90	40
Moong ..	31	30	33	31	40	35	88	40
Masoor ..	34	39	37	30	40	31	78	40
Other Pulses ..	107	105	95	90	120	100	83	120

Note :—Figures in parantheses indicate production of cotton in thousand bales, each of 375 lbs.

Wheat

7. Against the record production of 11.47 million tonnes in 1980-81, the production during 1981-82 is estimated to be 11.42 million tonnes. The target for the year was fixed at 12.20 million tonnes. The long dry weather at sowing time and late rains in *Rabi* 1981-82 resulted in lower production by about 6 per cent. A production target of 12.20 million tonnes has been fixed for 1982-83 which is 6 per cent lower than the Fifth Plan target of 13.00 million tonnes.

Rice

8. A record production of 3.34 million tonnes has been estimated for the year 1981-82 against the target of 3.40 million tonnes mainly due to extension in area under the crop. A production target of 3.50 million tonnes has been

fixed for 1982-83 which is 12 per cent lower than the Fifth Plan Target of 3.96 million tonnes.

Sugarcane

9. Production of sugarcane has shown rapid increase during 1980-81 and 1981-82. Against the production of 30.08 million tonnes in 1977-79, a set back thereafter upto 1979-80, the production increased to a record level of 32.36 and 34.56 million tonnes during 1980-81 and 1981-82, respectively. The main factors contributing to phenomenal increase in sugarcane production has been mainly due to better support prices and incentives provided to sugarcane growers and sugar mills. A production target of 35.00 million tonnes has been fixed for 1982-83 which is slightly higher than that envisaged in the Fifth Plan (34.85 million tonnes).

Cotton

10. Production of cotton lint during 1977-78 was 575 thousand tonnes which decreased to 473 thousand tonnes during 1978-79. It is showing an increasing trend since 1979-80 after a set back in previous years. Against the production of 715 thousand tonnes during 1980-81, the estimated production during 1981-82 is 756 thousand tonnes. The crop was very good in its early stages. Despite wide variation of day and night temperature resulting in premature opening and shedding of bolls coupled with attack of insect pests, a higher production than last year was made possible due to good impact of early growth. A production target of 816 thousand tonnes has been fixed for 1982-83 which is about 8 per cent lower than the Fifth Plan target of 889 thousand tonnes.

Fertilizer

11. The fertilizer consumption during 1981-82 has been 1080 thousand nutrient tons against the offtake target of 1145 thousand nutrient tons. The offtake target for 1982-83 has been fixed at 1182 thousand nutrient tons, showing an increase of 9.4 per cent over the estimated consumption of 1981-82. The province-wise offtake during 1980-81, 1981-82 and the target for 1982-83 are shown in Table 3.

TABLE 3
Fertilizer Off-take during 1980-81, 1981-82 and Targets for 1982-83

Province	Offtake 1980-81	Offtake 1981-82	Offtake Target 1982-83
	— 000 N/tons —		
Punjab	698	711	756
Sind	303	291	331
N.W.F.P.	73	72	83
Baluchistan	5	6	12
Total	1079	1080	1182

22. Seed industry projects would cater to the seed requirement of major crops initially. Seed multiplication programme of improved seeds of pulses, oilseeds and vegetables are not being attended to properly and Provincial Governments should undertake new measures in this area. Private sector may also be induced for the purpose.

Plant Protection

23. As an important measure to minimize the losses caused by insect pests and diseases, coverage by plant protection measures increased significantly during the 1970—80 decade. In February, 1980 the procurement of pesticides was transferred to private sector in the provinces of Punjab and Sind and the subsidy on ground operations was completely withdrawn. In NWFP, and Baluchistan, the subsidy on pesticides will be reduced to 10 per cent in 1982-83 from a level of 25 per cent during 1981-82. The aerial operation, at full cost, introduced in February, 1980 in Punjab and Sind, would be extended to NWFP during 1982-83 as against 25 per cent in 1981-82.

24. The targets of plant protection coverage by curative measures fixed for 1982-83, both through aerial and ground operations is 3.59 million spray hectares (3.07 million spray hectares by ground operations and 0.52 million spray hectares by aerial operations) against the estimated coverage of 2.46 million spray hectares during 1981-82 (2.22 million spray hectares by ground operations 0.24 million spray hectares by aerial operations).

25. The province-wise break-down of the estimated coverage during 1981-82 and the targets for 1982-83 are shown in table 5. The crop-wise and province-wise details of estimated coverage for 1981-82 and targets for 1982-83 are set out in Annexure XI to XV.

TABLE 5

Estimated Plant Protection Coverage for 1981-82 and Target for 1982-83

Province	Estimated Coverage 1981-82			Targets for 1982-83		
	Aerial operation	Ground operation	Total	Aerial operation	Ground operation	Total
	— thousand spray hectares —					
Punjab	—	1089.00	1089.00	90.00	2028.00	2118.00
Sind	0.41	761.82	762.23	107.00	540.49	647.49
N.W.F.P.	159.20	331.04	490.24	229.00	343.95	572.95
Baluchistan	86.00	37.38	123.38	93.00	155.05	248.05
Total	245.61	2219.24	2464.85	519.00	3067.49	3586.49

26. Efforts are needed for improving/|extending plant protection coverage and for making them more effective, especially in areas and on crops where the pest attack is heavy and losses tend to be high. For the purpose, the emphasis need to be placed on the following :

- Supply of sprayers to the farmers at the subsidized rate.
- Provision of repair facilities of spraying equipments.

- (c) Training of farmers in ground plant protection operations.
- (d) Availability of spare parts for sprayers.
- (e) Availability of right type of pesticides at the right time and at reasonable prices.
- (f) Adequate supply of credit to purchase pesticides.

Greater emphasis would be given on cultural practices for controlling the pest and diseases to keep the population of different insect pests below the economic threshold level.

Mechanization

27. Farm mechanization is an important factor for agricultural development in Pakistan. Additional water supply permits more intensive cultivation, but this is only possible if the land can be prepared for a second crop within a few weeks after the first crop is harvested. With animal draught power, only a small part of the land can be prepared in time. In addition, the new seed varieties require better seed-bed preparation and efficient utilization of fertilizer, which is only possible with mechanical power and modern implements.

28. Farm power requirements are not static. Normally they increased with progressive modernization of agriculture. Government has streamlined the policies and procedures for import and supply of tractors to the farmers in order to meet the increased demand.

29. The provincial governments maintain a fleet of bulldozers for hiring out to farmers for land development. The targets for land development for 1981-82 and 1982-83 alongwith achievements during 1981-82 are given in Table 6.

TABLE 6

Targets and Achievement for Land Development in 1981-82 and Targets for 1982-83

	1981-82		1982-83
	Target for land development	Area developed	Target of area to be developed
	— 000 hectares —		
Punjab	60.0	64.8	60.7
Sind	32.0	26.5	30.0
N.W.F.P.	4.0	3.6	4.5
Baluchistan	30.1	6.3	14.4
Total	126.1	101.2	109.6

30. In order to cater to the needs of the small farmers it is proposed to introduce, at an increasing scale, the use of 20—35 HP tractor alongwith other suitable implements on concessional rates. A special programme through the Agriculture Development Bank of Pakistan would be launched during 1982-83 for the purpose. Rs. 100 million have been earmarked for the purpose which would be met through a Japanese credit grant.

44. Availability of credit has substantially increased from Rs. 1472.30 million in 1975-76 to Rs. 4020.74 million in 1980-81, while the estimates for 1981-82 stand at Rs. 5255.12 million against the target of Rs. 6167.00 million fixed for 1982-83. Agency-wise details are given in table 7.

TABLE 7

Institutional Credit to Farmers

(Million Rupees)

Year	Institutional Credit Agency				Total
	ADBP	Agri. cooperatives	Commercial Banks and others	Taccavi	
1975-76	532.85	105.70	808.05	25.70	1472.30
1979-80	416.94	263.71	138.10	12.70	2074.45
1980-81	1067.00	1128.23	1816.13	9.36	4020.74
1981-82 (estimates)	1557.38	1251.30	2436.10	10.34	5255.12
1982-83 (Target) ..	2250.00	1843.00	2063.00	11.00	6167.00

The loaning operation by institutional credit agencies are anticipated to increase to Rs. 6167 million during 1982-83.

45. The Agricultural Development Bank proposes to introduce corporate Planning during the year. The operational objectives of the bank during 1982-83 would be : (a) Substantial increase in sound loaning ; (b) Emphasis on small farmers loaning ; and (c) Broad Technology Spread—diversification of loaning.

46. In addition, the bank will expand its supervised credit programme and cover 20,000 villages upto June, 1983 against about 11,000 villages upto June, 1982. The Bank plans to lay special emphasis on recovery of loans and it expects to recover 90 per cent of the current dues.

47. The recovery position of all the agricultural institutional credit agencies is far below the satisfactory level. Steps need to be taken to improve the situation. It is only possible if the government makes concerted efforts and takes appropriate measures in this area.

Cooperatives

48. The Fifth Plan laid down emphasis on promotion of development cooperatives. Accordingly, a number of schemes like establishment of cooperative farms, establishment of dairy cooperative farming societies, development of female industrial centres, cooperatives education etc. were implemented by Provincial cooperative departments during the first four years of the Plan. However, it appears to be inadequate to make the movement effective.

49. The Federal Bank for Cooperatives (FBC) which was established primarily to improve the flow of credit to small farmers through cooperative societies disbursed about Rs. 985 million to various Provincial cooperative banks for onwards disbursement to the farmers through cooperative societies during 1981-82. The target for 1982-83 has been fixed at Rs. 1843 million.

50. Besides provision of finances to the Provincial cooperative banks, the FBC has taken several steps to improve the working of cooperative societies. These steps include :

- (a) Creation of special Cooperative Development Fund with the specific purpose of promoting growth of cooperative movement ;
- (b) In-service training of 310 officers of Provincial Cooperative Banks ;
- (c) Establishment of Agricultural Marketing and Storages Limited Company for improving the marketing of perishable agricultural produce. It has also prepared a number of feasibility studies for various projects.

51. During 1982-83, the Bank Plans to impart training to 200 officers of the Provincial Cooperative Banks and establish a Research and Statistics Cell. In addition, the Agricultural Marketing and Storages Limited plans to establish fruit and vegetables sale points at Islamabad and Karachi.

N.W.F.P.

52. Under the scheme Training of Office Bearers and Education of Members of Cooperative Societies, 6 Sub-Divisional level classes were held during 1981-82.

53. To make the cooperative movement effective in the Province a scheme "Establishment/Revitalization of Viable Multipurpose Cooperative Societies" in each Union Council was started during 1981-82 and 316 multipurpose cooperative societies have since been formed. The societies at the remaining Union Councils will be established during 1982-83.

Punjab

54. The schemes pertaining to cooperative education and training and development of cooperative female industrial centres were initiated during 1981-82.

Sind

55. Work on the schemes of two cooperative farms, one each in revenue division of Sukkur and Hyderabad continued during 1981-82. Similarly, work on other schemes like "Upgrading of Cooperative Training Institute" to the level of College, Organization of Sind Cooperative Union and Cooperative Farming Centres at Jam Sahib and Mirpur Khas continued during the year.

69. For the development of *barani* areas, Barani Agriculture College, Rawalpindi, was established during 1979-80 and total enrolment of students was 90 during 1981-82. Hostel building for the college students has been completed and work remained in progress on residential buildings for the staff. During 1982-83, it is programmed to admit 45 students in first year class and award 5 merit and 5 other scholarships to the students of college. Construction work on residential building will continue.

70. During 1981-82, 338 students were admitted against the target of 360 for field assistants course at the Agriculture Training Institutes of Sargodha, Rahim Yar Khan, and Dahgal Rawalpindi, 311 students successfully completed two years diploma course of field assistants from these three Agri. Training Institutes during the year. It is anticipated that 370 students will be admitted during 1982-83. The training programme, which consisted of in-service training course for 104 extension workers and 18 courses for 652 farmers during 1981-82 at the two Agricultural Training Institutes Sargodha and Rahim Yar Khan, will be further expanded to train 1,200 farmers and 310 extension staff during 1982-83. About 820 scholarships will be awarded to students during 1982-83.

71. Work on the development of University of Agriculture, Tandojam, started in 1977 under the Third Education Project, continued during 1981-82. A total of 1,850 students were enrolled and 442 completed their studies. It is proposed to admit 1,975 students in graduate and post-graduate classes and 480 students will complete the studies. During 1981-82, 125 students admitted and 120 successfully had completed the two years field assistants/stock assistants course from Agricultural Training Institute, Sakrand. It is anticipated that during 1982-83, 120 students will qualify this course.

72. In NWFP, Agricultural College, Peshawar, has been upgraded to Agricultural University in 1981-82. During the year, 502 students were enrolled in various classes. During this period 95 students passed B.Sc (Hons), examination while another 71 students passed M.Sc/M.Sc (Hons). It is anticipated that enrolment in various classes will be 534, while 96 will complete graduate and 50 students post-graduate studies during 1982-83.

73. The facilities at the Agricultural Training Institute, Peshawar, were further expanded and 58 students completed a 2-year diploma course for field assistant and 9 for stock assistants course during 1981-82. In addition, in-service training was imparted to 13 agriculture officers, 40 field assistants, and 6 stock assistants. A training course for 88 progressive farmers was organized. The institute will organize in-service training course for 200 persons during 1982-83. Rs. 0.210 million were provided for award of scholarship to the trainees during 1982-83. It is also anticipated that 50 field assistants and 10 stock assistants will complete the course during the year.

Agricultural Economics and Statistics

74. Experience has shown that the monitoring and evaluation has been one of the weak links in implementation of development programmes. Cognizant of such a situation Punjab Government has established :—

- (i) Planning and Evaluation Cell ; and
- (ii) Policy and Programme Framing Cell during 1981-82.

75. In order to strengthen the quality of agricultural data the work on the scheme entitled "Strengthening of Statistical Organization in Agricultural Department" will continue during 1981-82 in Sind. Similarly at Peshawar under the scheme "Improved Crop Estimates Project in NWFP" additional staff was posted and crop estimation survey was carried over in 24 Villages of Peshawar District during the year. During 1982-83 production survey of major crop and acreage survey of 150 villages will be undertaken. With the same purpose in view the work on two new schemes viz : "Strengthening of Statistical Organization in Agriculture Department" and "Setting up of Project Preparation Cell in Agriculture Department" has been initiated in Baluchistan during the year. The activities will be accelerated by enhanced provision in the Annual Development Programme during 1982-83.

76. Preliminary work on Third Census of Agriculture was started in 1980, while actual field enumeration was undertaken in 1979-80. During 1981-82 work relating to writing of computer programme for final tabulation, reconciliation of census/post enumeration survey data, and preparation of preliminary report was undertaken. The census organization proposes to complete the remaining work during the current year. Rs. 1.336 million have been allocated for their on-going scheme "Pakistan Census of Agriculture" to complete the scheme in 1982-83. This amount will be utilized for printing, publication and distribution of the report of Pakistan Census of Agriculture, 1980.

Agricultural Extension

77. The Fifth Plan laid emphasis on strengthening and reorganization of agricultural extension services on scientific lines. At present, the system is being refined through emphasis upon training and visit (T&V) system. Two projects one each in Punjab and Sind based on T&V system are under implementation with the assistance of World Bank. In Punjab, the project is under implementation in 5 districts, covering an area of 6.5 million hectares. The Sind Project covers 12 districts (5 districts under intensive programme and 7 districts under extensive programme). The extension staff is now adequately mobile with provision of motorcycles to the Agricultural Officers and bicycles to the Field Assistants. In addition, the extension staff will be provided residential/office accommodation.

78. During 1981-82, the Extension Department of Punjab organized 25 Agricultural *melas*, planted 26,600 demonstration plots and established 5 adaptive research farms etc. Training and visit system remained in progress with full thrust in 5 district viz. Jhelum, Sargodha, Shekhupura, Vehari and Rahim Yar

Khan. Under crop intensification programme in Sahiwal districts, an area of 0.356 million hectares was covered during 1981-82. Under this programme, about 53.1 Km. of rural road and various infrastructure facilities were developed during the year 1981-82. In addition, 14,070 tonnes of DAP fertilizer was supplied in the district. The target fixed for 1982-83 is to construct about 64 Km. roads, supply of 66 bicycles to extension staff and distribute 26,000 tonnes of DAP. The target for loan disbursement during Rabi and Kharif 1982-83 comes to be Rs. 12.20 million.

79. Under cotton maximization programme cotton was sown an area of 73,421 hectares in the project during 1981-82, against target of 72,845 hectares and the average yield per acre varied from 1,171 to 1,774 Kg. of seed cotton per acre. The target set for 1982-83 for sowing cotton in the project areas in 72,845 hectares.

80. In Sind, the extension department organized 85 *melas*, 73 demonstration plots and established 4 adaptive research farms during 1981-82. The work on World Bank assisted extension project remained in progress in 12 districts (5 districts under intensive programme and 7 districts under extensive programme). Under this project, the extension staff is made adequately mobile. In addition, the extension staff is being provided residential/office accommodation in the project area. An area of 24,000 hectares were sown to cotton crop, under cotton maximization programmes.

81. In NWFP, 4,635 demonstration plots and 31 *melas* were organized by the department during 1981-82. Under training and Visit, system an area of about 0.445 million hectares were covered by this extension approach. It is anticipated that 6,830 demonstration plots and 39 *melas* shows will be organized during 1982-83 in the Province.

82. In Northern Areas and Azad Kashmir, projects for strengthening of Agricultural Extension Services will continue during 1982-83.

83. In Baluchistan, work on on-going scheme "Construction of Residential Accommodation for Agricultural Extension Service" will be continued during 1982-83.

Animal Husbandry

84. Livestock products are essential to meet nutritional requirements of human population and its by-products to provide raw material to some of the industries. To improve nutritional standards, the target laid down during Fifth Plan was very modest. Even so, the full achievement of these targets is difficult except in case of poultry. In case of milk and meat, achievement will be around 90 per cent. Production targets and its achievements are given in details in Annexure XVIII.

85. For achievement of these targets, the public sector development programmes provided infrastructure and institutional facilities. These included

provision of facilities for improved breeding, disease control, marketing, processing, education and training which are discussed below :—

Breeding programme.—To increase the productivity of the indigenous livestock, quality bulls|rams|bucks and female stock was raised|procured for distribution to farmers for direct breeding. In addition, artificial insemination centres were established. Production units were also established to produce semen for distribution to A. I. Centres. These facilities will be further strengthened|improved during 1982-83. Performance so far and target for 1982-83 are shown in Annexure XIX.

Animal Health

86. To check mortality and morbidity, the programme for disease control includes establishment of veterinary hospitals, dispensaries, centres and diagnostic laboratories for preventive and curative treatment of animals and veterinary research institutes for production of sera|vaccines. The existing institutions will be strengthened and improved during 1982-83 for efficient and extensive coverages. Details of targets and achievements are given in Annexure XX.

87. *Marketing/processing.*—Improvement of marketing was not so far given due attention. A district project has now been launched to improve marketing of milk in the Punjab which is still in the teething stage. Processing plants for milk and milk products have been established but some of these had to be closed down on account of operational problems|difficulties. Attention is being given to revitalise these plants. Development of dairy industry is now being given greater attention. Comprehensive projects have been launched/initiated for the development|improvement of dairy industry in Baluchistan, Sind and Punjab. Under these programmes, producers|farmers will be organised in co-operative groups to market their produce.

88. A fattening unit has been established in the Punjab to fatten the animals for beef purposes, while in Baluchistan four such units will be established for mutton.

89. With greater attention being paid to meat and dairy resource development, about 30 feed mills have been established mostly in the private sector. Production cost of the product of these mills is high due to high prices of its ingredients. Research is being undertaken to use non-conventional ingredients to reduce the feed cost.

90. *Education and Training.*—The success of the development programme largely depends on the availability of trained manpower. Institutes have been established in accordance with the need for various activities. The manpower trained in various categories and to be trained during 1982-83 is given in Annexure XXI.

64 cycles and 6 motorcycles will be provided in 1982-83 to make frequent checks possible by anti-poaching squads. The development activities will continue in other provinces also.

Watershed Management

102. Watershed management practices are of prime importance to increase the life span of our reservoirs and irrigation system. It is estimated that Managla and Tarbela dams are facing tremendous silt load and 42,000 acre feet of water in Mangla and 100,00 acre feet in Tarbela are being annually replaced by the silt. The 5th Five-Year Plan envisaged emphasis on watershed management practices through implementation of various projects in provinces and Azad Kashmir.

103. Un-organized harvesting at the up-hills and inadequate maintenance of the forests have resulted in increased erosion by hill torrents. It is therefore, necessary to step up re-afforesting the up-hill areas whenever they are harvested. An integrated approach is needed in this regard through coordination of agencies responsible for harvesting of trees and undertaking watershed management practices. Various schemes like Watershed Management and Forest Extension in NWFP/Dir/Swat and Mangla remained under implementation during 1978-82 to cater to these needs.

104. During 1981-82, 11,000 hectares of land were raised under tree cover and 4,55,000 fruit plants were planted. In addition to this 172 hectares of land were protected through soil conservation operations. In addition, spurs and embankments were constructed covering 4,956 cubic meters. During 1982-83 it is proposed to afforest 16,000 hectares and plant 6,50,000 fruit plants during the year, under the existing schemes. Soil conservation operations will also be continued to protect 777 hectares of land from erosion.

Fisheries

105. Fisheries development has great potential for the provision of nutritious food and increase in the valuable exports. Main development aspects include catch of untapped deep sea fishery resources with the help of modern gear, exploration and assessment of stocks in our waters and introduction of modern methods of fish farming in the inland waters. Improvement of old and construction of new fish harbours are essential to streamline berthing facilities. Present on shore facilities are also considered inadequate which need to be increased.

106. The 5th Five-Year Plan envisaged an increase in fish production from 253 thousand metric tons in 1977-78 to 338 thousand metric tons in 1982-83. The level of production reached during 1981-82 is estimated at 301,000 tons. The lower rate of increase is due to the lack of effective management and under-harvesting of the stocks.

107. Besides meeting the consumption needs, fish is exported in considerable quantities. Fish and fish preparations including fish meal exported in 1981-82 earned foreign exchange worth Rs. 758 million. With tremendous untapped

fisheries resources, exports can be substantially increased. Shrimps being the major source of foreign exchange need special attention.

108. In addition to above marine, inland fisheries has a great potential to utilize unexploited water areas through aquaculture development.

109. The programmes for 1982-83 are based on the 5th Plan priorities and national objective to boost fisheries production in inland as well as marine areas. Major programme include construction of Korangi Fisheries Port near Karachi and Rehabilitation of Karachi Fisheries Port alongwith establishment of Fisheries Training Centre at Karachi costing Rs. 564 million with financial help of Asian Development Bank. In addition to this development of inland fisheries in Sind, Punjab and NWFP for provision of facilities to the farmers at their door stop for establishment of fish farms has been undertaken. The Federal Government is sponsoring another important scheme aimed at exploration of untapped fisheries resources in Pakistan waters with the assistance of UNDP. It is estimated that 3,14,000 metric tons of fish will be produced in 1982-83 against the level of 3,38,000 metric tons envisaged to be achieved by the end of 5th Five-Year Plan.

110. Private Sector encouragement for increasing fish production is essential, and the sail boats need to be converted into mechanized vessels by fitting marine engines in the same boat. Duty free import of fish catching equipment allowed by Government would contribute positively.

111. Presently about 32 processing plants are working with a capacity of processing 340 metric tons of fish and shrimps. Sufficient facilities have been provided under Marine Fisheries and Aquaculture Development Projects assisted by ADB for development of processing plants through private sector.

Sl. No.	Particulars	1981-82	1982-83	1983-84	1984-85
11	Agri. Extension	100.00	100.00	100.00	100.00
12	Agri. Extension	100.00	100.00	100.00	100.00
13	Agri. Extension	100.00	100.00	100.00	100.00
14	Agri. Extension	100.00	100.00	100.00	100.00
15	Agri. Extension	100.00	100.00	100.00	100.00
16	Agri. Extension	100.00	100.00	100.00	100.00
17	Agri. Extension	100.00	100.00	100.00	100.00
18	Agri. Extension	100.00	100.00	100.00	100.00
19	Agri. Extension	100.00	100.00	100.00	100.00
20	Agri. Extension	100.00	100.00	100.00	100.00
21	Agri. Extension	100.00	100.00	100.00	100.00
22	Agri. Extension	100.00	100.00	100.00	100.00
23	Agri. Extension	100.00	100.00	100.00	100.00
24	Agri. Extension	100.00	100.00	100.00	100.00
25	Agri. Extension	100.00	100.00	100.00	100.00
26	Agri. Extension	100.00	100.00	100.00	100.00
27	Agri. Extension	100.00	100.00	100.00	100.00
28	Agri. Extension	100.00	100.00	100.00	100.00
29	Agri. Extension	100.00	100.00	100.00	100.00
30	Agri. Extension	100.00	100.00	100.00	100.00
31	Agri. Extension	100.00	100.00	100.00	100.00
32	Agri. Extension	100.00	100.00	100.00	100.00
33	Agri. Extension	100.00	100.00	100.00	100.00
34	Agri. Extension	100.00	100.00	100.00	100.00
35	Agri. Extension	100.00	100.00	100.00	100.00
36	Agri. Extension	100.00	100.00	100.00	100.00
37	Agri. Extension	100.00	100.00	100.00	100.00
38	Agri. Extension	100.00	100.00	100.00	100.00
39	Agri. Extension	100.00	100.00	100.00	100.00
40	Agri. Extension	100.00	100.00	100.00	100.00
41	Agri. Extension	100.00	100.00	100.00	100.00
42	Agri. Extension	100.00	100.00	100.00	100.00
43	Agri. Extension	100.00	100.00	100.00	100.00
44	Agri. Extension	100.00	100.00	100.00	100.00
45	Agri. Extension	100.00	100.00	100.00	100.00
46	Agri. Extension	100.00	100.00	100.00	100.00
47	Agri. Extension	100.00	100.00	100.00	100.00
48	Agri. Extension	100.00	100.00	100.00	100.00
49	Agri. Extension	100.00	100.00	100.00	100.00
50	Agri. Extension	100.00	100.00	100.00	100.00
51	Agri. Extension	100.00	100.00	100.00	100.00
52	Agri. Extension	100.00	100.00	100.00	100.00
53	Agri. Extension	100.00	100.00	100.00	100.00
54	Agri. Extension	100.00	100.00	100.00	100.00
55	Agri. Extension	100.00	100.00	100.00	100.00
56	Agri. Extension	100.00	100.00	100.00	100.00
57	Agri. Extension	100.00	100.00	100.00	100.00
58	Agri. Extension	100.00	100.00	100.00	100.00
59	Agri. Extension	100.00	100.00	100.00	100.00
60	Agri. Extension	100.00	100.00	100.00	100.00
61	Agri. Extension	100.00	100.00	100.00	100.00
62	Agri. Extension	100.00	100.00	100.00	100.00
63	Agri. Extension	100.00	100.00	100.00	100.00
64	Agri. Extension	100.00	100.00	100.00	100.00
65	Agri. Extension	100.00	100.00	100.00	100.00
66	Agri. Extension	100.00	100.00	100.00	100.00
67	Agri. Extension	100.00	100.00	100.00	100.00
68	Agri. Extension	100.00	100.00	100.00	100.00
69	Agri. Extension	100.00	100.00	100.00	100.00
70	Agri. Extension	100.00	100.00	100.00	100.00
71	Agri. Extension	100.00	100.00	100.00	100.00
72	Agri. Extension	100.00	100.00	100.00	100.00
73	Agri. Extension	100.00	100.00	100.00	100.00
74	Agri. Extension	100.00	100.00	100.00	100.00
75	Agri. Extension	100.00	100.00	100.00	100.00
76	Agri. Extension	100.00	100.00	100.00	100.00
77	Agri. Extension	100.00	100.00	100.00	100.00
78	Agri. Extension	100.00	100.00	100.00	100.00
79	Agri. Extension	100.00	100.00	100.00	100.00
80	Agri. Extension	100.00	100.00	100.00	100.00
81	Agri. Extension	100.00	100.00	100.00	100.00
82	Agri. Extension	100.00	100.00	100.00	100.00
83	Agri. Extension	100.00	100.00	100.00	100.00
84	Agri. Extension	100.00	100.00	100.00	100.00
85	Agri. Extension	100.00	100.00	100.00	100.00
86	Agri. Extension	100.00	100.00	100.00	100.00
87	Agri. Extension	100.00	100.00	100.00	100.00
88	Agri. Extension	100.00	100.00	100.00	100.00
89	Agri. Extension	100.00	100.00	100.00	100.00
90	Agri. Extension	100.00	100.00	100.00	100.00
91	Agri. Extension	100.00	100.00	100.00	100.00
92	Agri. Extension	100.00	100.00	100.00	100.00
93	Agri. Extension	100.00	100.00	100.00	100.00
94	Agri. Extension	100.00	100.00	100.00	100.00
95	Agri. Extension	100.00	100.00	100.00	100.00
96	Agri. Extension	100.00	100.00	100.00	100.00
97	Agri. Extension	100.00	100.00	100.00	100.00
98	Agri. Extension	100.00	100.00	100.00	100.00
99	Agri. Extension	100.00	100.00	100.00	100.00
100	Agri. Extension	100.00	100.00	100.00	100.00
Total		10000.00	10000.00	10000.00	10000.00

ANNUAL DEVELOPMENT PROGRAMME 1982-83
AGRICULTURE AND FOOD SECTOR
SUMMARY—ALL PROVINCES

(Million Rupees)

Sub-sector Category	ADP 1981-82	Revised Estimates 1981-82	ADP 1982		
			Ongoing	New	Total
I. Crop Production Sub-sectors					
1. Fertilizers	—	—	—	—	—
2. Improved Seed	90.173	51.347	58.131	8.382	66.513
3. Plant Protection	21.611	12.645	3.824	6.600	10.424
4. Soil Surveys	5.350	4.380	3.425	1.000	4.425
5. Mechanization	54.971	34.098	25.550	23.000	48.550
6. Soil Conservation	14.719	12.957	28.140	4.600	32.740
II. Infrastructure and Institutional arrangements					
7. Agri. Marketing	2.000	—	0.500	—	0.500
8. Cooperatives	6.967	5.211	4.499	1.183	5.682
9. Government Foodgrain Storages.	75.586	65.039	50.459	24.475	74.934
10. Research on crop Production	58.593	46.050	57.976	12.333	70.309
11. Agri. Education	26.678	21.876	13.841	—	13.841
12. Agri. Extension	104.358	94.062	139.475	0.250	139.725
13. Agri. Credit	3.000	3.000	1.500	—	1.500
14. Agricultural Economics and Statistics	3.275	3.622	5.775	0.723	6.498
15. Land Utilization and Develop- ment	6.000	—	—	—	—
III. Other Sub-sectors					
16. Animal Husbandry	186.742	112.650	146.503	35.067	181.570
17. Range Management	4.934	4.657	4.476	0.200	4.676
18. Forestry	84.441	44.985	78.883	24.855	103.738
19. Watershed Management	10.645	15.950	16.252	1.000	17.252
20. Wild Life	6.723	11.268	8,045	1.250	9.295
21. Fisheries	48.200	15.730	48.118	2.884	51.002
Total	814.966	559.527	695.372	147.802	843.174(a)

(a) Excludes (i) Rs. 237.931 million for schemes related to Water Resources Sector.

(ii) Rs. 261.174 million for schemes relating to Energy Sector; and

(iii) Rs. 440.000 million for schemes relating to Rural Development Sector.

**ANNUAL DEVELOPMENT PROGRAMMES 1982-83
AGRICULTURE AND FOOD SECTOR**

SUMMARY—BALUCHISTAN

Sub-sector/Category	(Million Rupees)					
	1981-82		1982-83			
	ADP	Revised Estimates	On-going	New	Total	
I. Crop Production Sub-sectors						
1. Fertilizer	—	—	—	—	—	
2. Improved Seed	12.045	10.280	17.721	4.500	22.221	
3. Plant Protection	0.800	—	—	6.600	6.600	
4. Soil Surveys	—	—	—	—	—	
5. Mechanization	1.481	1.330	2.187	—	2.187	
6. Soil Conservation	0.695	0.460	0.487	1.000	1.487	
II. Infra structure and Institutional Arrangements						
7. Agril. Marketing	—	—	—	—	—	
8. Cooperative	1.000	1,000	1,500	—	1,500	
9. Government Foodgrain Storages	2,500	4,205	2,500	—	2,500	
10. Research on crop production	0.870	—	—	0.300	0.300	
11. Agriculture Education	3,500	0.330	3,500	—	3,500	
12. Agriculture Extension	0.500	0.500	5,000	—	5,000	
13. Agricultural Economics and Statistics	0.800	0.800	2,750	—	2,750	
III. Other Sub-sectors						
14. Animal Husbandry	75,900	61,162	65,611	0.500	66,111	
15. Range Management	—	—	—	0.200	0.200	
16. Forestry	2,059	2,289	2,522	0.806	3,328	
17. Wild Life	1,350	0.376	0.335	—	0,335	
18. Fisheries	4,100	3,890	3,844	—	3,844	
Total	113,600	86,622	107,957	13,906	121,863(a)	

Note:— (a) It excludes Rs. 12.031 million for on Farm Water Management and Water Recharge which has been reflected under Water Resources Sector.

**ANNUAL DEVELOPMENT PROGRAMME 1982-83
AGRICULTURE AND FOOD SECTOR**

SUMMARY — N.W.F.P.

(Million Rupees)

Sub-sector/Category	1981-82		1982-83 ADP		
	ADP	Revised Estimates	On-going	New	Total
I. Crop Production Sub-sectors					
1. Fertilizers	—	—	—	—	—
2. Improved Seed	10.577	1.895	2.655	3.882	6.537
3. Plant Protection	11.500	11.548	2.056	—	2.056
4. Soil Surveys	2.291	2.631	1.018	—	1.018
5. Mechanization	4.975	1.584	7.000	—	7.000
6. Soil Conservation	2.000	1.950	2.882	—	2.882
II. Infra-structure and Institutional Arrangements					
7. Agril. Marketing	—	—	—	—	—
8. Cooperatives	2.700	1.600	1.012	—	1.012
9. Government Foodgrain Storages	6.586	3.864	9.650	—	9.650
10. Research on Crop Production	7.164	3.435	10.984	—	10.984
11. Agril. Education	1.376	0.906	0.962	—	0.962
12. Agril. Extension	9.553	10.155	7.106	—	7.106
13. Agricultural Economics and Statistics	0.200	0.160	0.200	—	0.200
III. Other Sub-sectors					
14. Animal Husbandry	15.834	8.822	11.493	2.362	13.855
15. Range Management	0.100	—	—	—	—
16. Forestry	18.666	15.288	16.321	0.500	16.821
17. Watershed Management	8.800	13.697	11.787	—	11.787
18. Wild Life	0.300	2.090	2.500	—	2.500
19. Fisheries	4.000	0.290	2.958	0.700	3.658
Total	106.622	89.915	90.584	7.444	98.028

Note:— It excludes (a) Rs. 24.413 million for irrigation schemes which are being reflected under Water Resources Sector.

(b) Rs. 0.674 million for schemes relating to Energy Sector.

**ANNUAL DEVELOPMENT PROGRAMME 1982-83
AGRICULTURE AND FOOD SECTOR**

SUMMARY — SIND

Sub-sector/Category	ADP 1981-82	Revised Estimates 1981-82	ADP 1982-83		
			On-going	New	Total
I. Crop Production sub-sectors					
1. Fertilizer	—	—	—	—	—
2. Improved Seed	16,534	13,343	8,613	—	8,613
3. Plant Protection	0.811	0.097	0.768	—	0.768
4. Soil Sureys	0.359	0.222	0.407	1.000	1.407
5. Mechanization	23,165	29,077	13,667	1,000	14,667
6. Soil Conservation	—	—	—	—	—
II. Infra-structure and Institutional arrangements					
7. Agril. Marketing	2,000	—	0.500	—	0.500
8. Cooperatives	0.700	0.245	0.670	—	0.670
9. Government Foodgrain Storages	1,200	3,170	2,109	0.675	2,784
10. Research on crop Production	20,087	14,287	21,010	0.983	12,993
11. Agril. Education	6,652	6,486	0,129	—	0,129
12. Agril. Extension	25,000	16,247	45,110	—	45,110
13. Agricultural Economics and Statistics	1,675	1,539	2,525	—	2,525
III. Other Sub-sectors					
14. Animal Husbandry	8,967	6,013	8,204	3,400	11,604
15. Range Management	—	—	—	—	—
16. Forestry	12,508	7,114	12,267	5,650	17,917
17. Watershed Management	—	—	—	—	—
18. Wild life	0,692	0,563	0,333	0,750	1,083
19. Fisheries	12,550	2,843	15,400	—	15,400
Total	132,900	101,246	131,712	13,458	145,170*

*Excludes Rs. 16,500 million for On Farm Water Management Project which has been reflected under Water Resources Sector.

Annexure VIII

**ANNUAL DEVELOPMENT PROGRAMME, 1982-83, AGRICULTURE AND FOOD SECTOR
SUMMARY—FEDERAL PROGRAMME (DIVISION-WISE)**

Divisions/Sub-Sectors.	(Million Rupees)				
	1981-82		1982-83		
	ADP	Revised Estimates	Ongoing	New	Total
1	2	3	4	5	6
I. Food and Agriculture Division.	209.577	191.853	294.893	19.685	314.578
1. Improved Seeds	4.168	1.231	2.083	—	2.083
2. Plant Protection	6.963	5.835	3.000	—	3.000
3. Agri. Marketing	0.552	0.546	—	—	—
4. Government Storages ..	154.781	154.962	262.519	—	262.519
5. Research on Crop Production ..	4.615	4.615	4.000	—	4.000
6. Agri. Extension	7.800	7.800	2.000	14.685	16.685
7. Soil Survey	0.087	0.087	—	—	—
8. Forestry	18.032	10.365	15.418	3.000	18.418
9. Watershed Management ..	6.337	1.100	4.500	—	4.500
10. Wild Life	6.242	5.312	1.373	2.000	3.373
II. Planning Division	312.216	281.512	185.867	—	185.847
1. N.L.C. (Storages)	296.887	266.263	172.000	—	172.000
2. NFDC (Fertilizers)	15.329	15.249	13.867	—	13.867
III. PARC	175.144	145.254	137.306	3.153	140.459
IV. Education Division	44.782	44.782	47.770	—	47.770
V. Commerce Division	22.612	68.766	22.517	0.344	22.861
1. Government Storage	20.710	66.865	19.509	—	19.509
2. Agri. Research (Tobacco Board)	1.901	1.901	3.008	0.344	3.352
3. Agri. Market	0.001	—	—	—	—
VI. Livestock Division	31.697	11.634	16.856	0.430	17.286
1. Animal Husbandry	1.950	1.950	0.430	0.430	0.860
2. Fisheries	29.747	9.684	16.426	—	16.426
VII. Interior Division	4.498	7.988	—	35.028	35.029
1. Improved Seeds	—	—	—	0.071	0.071
2. Fisheries	—	—	—	0.516	0.516
3. Animal Husbandry	—	—	—	0.258	0.258
4. Soil Conservation	—	—	—	0.688	0.688
5. Agri. Extension	4.498	7.988	—	33.495	33.495

1	2	3	4	5	6
VIII. Industries Division (Oil Seeds) ..	10.000	25.000	21.500	—	21.500
IX. Statistics Division	2.438	2.137	1.149	—	1.149
X. Finance Division	35.400	35.400	—	—	—
XI. Kashmir Affairs Division ..	41.803	45.164	59.372	5.628	65.000
1. Azad Kashmir	29.250	31.050	46.100	2.900	49.000
2. Northern Areas	12.553	14.114	13.272	2.728	16.000
XII. State and F.R. Division	19.545	21.557	9.419	13.181	22.600
1. FATA	19.045	21.057	9.419	12.781	22.200
2. FATADC	0.500	0.500	—	0.400	0.400
Total Agri. and Food : Sector	909.712	881.047	796.649	77.449	874.098
Subsidy on Fertilizer ..	1950.000		1600.000	—	1600.000
XIII. Special Programme for Baluchistan and Tribal Areas of NWFP ..	—	—	—	163.000	163.000
GRAND TOTAL ..	909.712	881.047	796.649	240.449	1,037.098

CROP-WISE COVERAGE OF AREA BY AERIAL AND GROUND OPERATIONS DURING 1981-82 AND 1982-83

('000' Hectares)

Crops	Estimated Coverage 1981-82						Target for 1982-83					
	Aerial Operations		Ground Operations		Total		Aerial Operations		Ground Operations		Total	
	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray
Cotton	—	—	260.25	929.50	260.25	929.50	34.00	115.00	382.43	1,398.19	416.43	1,513.19
Paddy	80.00	80.00	288.47	345.47	368.47	425.47	163.00	163.00	264.75	406.68	427.75	569.68
Sugarcane	158.41*	158.41*	152.73	330.47	311.14	488.88	142.00*	229.00*	167.85	320.20	309.85	549.20
Maize	—	—	52.97	65.99	52.97	65.99	—	—	79.92	133.92	79.92	133.92
Oilseeds	—	—	8.48	8.71	8.48	8.71	—	—	10.11	11.73	10.11	11.73
Orchards	3.62	7.20	62.71	146.85	66.33	154.05	4.00	12.00	92.44	224.78	96.44	236.78
Tobacco	—	—	24.73	49.02	24.73	49.02	—	—	26.70	54.22	26.70	54.22
Vegetables	—	—	81.13	191.13	81.13	191.13	—	—	86.30	195.50	86.30	195.50
Others	—	—	152.10	152.10	152.10	152.10	—	—	318.22	322.27	318.22	322.27
Total	242.03	245.61	1,083.57	2,219.24	1,325.60	2,464.85	343.00	519.00	1,428.72	3,067.49	1,771.72	3,586.49

Note 1—*Includes figures both of Sugarcane and Maize.

Annexure XII

ESTIMATED CROP-WISE COVERAGE BY GROUND OPERATIONS IN VARIOUS PROVINCES OF PAKISTAN DURING 1981-82

('000' Hectares)

Crops	Punjab		Sind		NWFP		Baluchistan		Total	
	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray
Cotton	160.00	638.00	95.75	287.00	4.48	4.48	0.02	0.02	260.25	929.50
Paddy	55.00	112.00	200.18	200.18	32.37	32.37	0.92	0.92	288.47	345.47
Sugarcane	24.00	73.00	96.47	192.95	32.26	64.52	—	—	152.73	330.47
Maize	6.00	19.00	0.03	0.03	46.54	46.54	0.40	0.42	52.97	65.99
Oilseeds	—	—	0.23	0.46	7.28	7.28	0.97	0.97	8.48	8.71
Orchards	37.00	109.00	3.78	3.78	12.14	24.28	9.79	9.79	62.71	146.85
Tobacco	—	—	—	—	24.29	48.58	0.44	0.44	24.73	49.02
Vegetables	36.00	107.00	24.86	51.72	12.14	24.28	8.13	8.13	81.13	191.13
Others	31.00	31.00	25.70	25.70	78.71	78.71	16.69	16.69	152.10	152.10
Total ..	349.00	1,089.00	447.00	761.82	250.21	331.04	37.36	37.38	1,083.57	2,219.24

Annexure XIII

TARGETS OF CROP-WISE COVERAGE OF AREA BY GROUND OPERATIONS IN VARIOUS PROVINCES OF PAKISTAN DURING 1982-83

('000' Hectares)

Crops	Punjab		Sind		NWFP		Baluchistan		Total	
	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray
Cotton	264.00	1,053.00	112.77	338.31	5.26	5.26	0.40	1.62	382.43	1,398.19
Paddy	133.00	264.00	84.40	84.40	36.42	36.42	10.93	21.86	264.75	406.68
Sugarcane	61.00	183.00	76.50	76.50	50.35	60.70	—	—	167.85	320.20
Maize	27.00	81.00	2.00	2.00	50.52	50.52	0.40	0.40	79.92	133.92
Oilseeds	—	—	0.40	0.40	8.09	8.09	1.62	3.24	10.11	11.73
Orchards	51.00	154.00	4.00	4.00	13.15	26.30	24.29	40.48	92.44	224.78
Tobacco	—	—	—	—	26.30	52.60	0.40	1.62	26.70	54.22
Vegetables	38.00	114.00	18.35	18.35	12.14	24.28	17.81	38.87	86.30	195.50
Others	179.00	179.00	16.53	16.53	79.78	79.78	42.91	46.96	318.22	322.27
Total	753.00	2,028.00	314.95	540.49	262.01	343.95	98.76	155.05	1,428.72	3,067.49

ESTIMATED CROP-WISE COVERAGE BY AERIAL OPERATIONS IN VARIOUS PROVINCES DURING 1981-82

('000' Hectares)

Crops	Punjab		Sind		NWFP		Baluchistan		Total	
	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray
Paddy	—	—	—	—	—	—	80.00	80.00	80.00	80.00
Sugarcane/Maize	—	—	0.41	0.41	158.00	158.00	—	—	158.41	158.41
Orchards	—	—	—	—	0.62	1.20	3.00	6.00	3.62	7.20
Total	—	—	0.41	0.41	158.62	159.20	83.00	86.00	242.03	245.61

TARGETS OF CROP-WISE COVERAGE BY AERIAL OPERATIONS IN VARIOUS PROVINCES DURING 1982-83

('000' Hectares)

Crops	Punjab		Sind		NWFP		Baluchistan		Total	
	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray	Actual	Spray
Cotton	12.00	49.00	22.00	66.00	—	—	—	—	34.00	115.00
Paddy	41.00	41.00	41.00	41.00	—	—	81.00	81.00	163.00	163.00
Sugarcane/Maize	—	—	—	—	142.00	229.00	—	—	142.00	229.00
Orchards	—	—	—	—	—	—	4.00	12.00	4.00	12.00
Total	53.00	90.00	63.00	107.00	142.00	229.00	85.00	93.00	343.00	519.00

SUPPORT/PROCUREMENT PRICES FIXED BY THE GOVERNMENT

	1981-82		1982-83	
	Per 100 kgs	Per 40 kgs	Per 100 kgs	Per 40 kgs
	.....Rupees.....			
Wheat	145.00	58.00	160.00	64.00
Rice/Paddy				
(i) Basmati Paddy	212.50	85.00	220	85
(ii) Basmati Rice (FAQ)	375.00	150.00	385	154
(iii) Irri-6 Paddy	112.50	45.00 (a)	112.50 (b)	49.00 (a)
(iv) Irri-6 Rice Special (15% broken)	207.50	83	222.50	89
(v) Irri-6 Rice FAQ (40% broken).	181.25	72.50	200	80.00
Seed Cotton				
(i) AC 134, BSI NT	425	170	437.50	175
(ii) B-557, 149-F	445	178	457.50	183
(iii) Sarmast, Qalandri MS-39, MS-40, MNH-93, K-68-9, Deltapine.	480	192	492.50	197
(iv) Desi	415	166	420	168.00
Cotton Lint (c)				
(i) BSI, NT-15/16" Staple Length.	1122.50	449.00	1122.50	449.00
(ii) B-557, 149-F, F-1-1/32" Staple Length	1182.50	473.00	1182.50	473.00
(iii) Sarmast, Qalandri, MS-39, MS-40, MNH-93, K-68-9, Deltapine 1-1/8" Staple Length	1287.50	515.00	1287.50	515.00
(iv) Desi	1047.50	419.00	1047.50	419.00
Soyabean	292.50	117	292.50	117
Sunflower	322.50	133	332.50	133
Safflower	280	112	280	112
Sugarcane				
(i) Punjab	24.12	9.65	24.12	9.65
(ii) Sind	24.52	9.81	24.52	9.81
(iii) NWFP	23.45	9.38	23.45	9.38
Maize	85	34	85	34
Potato	67.50	27	67.50	27
Onion	47.50	19	47.50	19
Pulses				
(i) Gram (black whole)	120	48	120	48
(ii) Masoor (whole)	187.50	75	187.50	75

(a) Plus a premium of Rs. 4 per 40 kg. for better quality paddy.

(b) Plus a premium of Rs. 10 per 100 kg. for better quality paddy.

(c) The price of roller ginned cotton will be lower by Rs. 40 per 100 kgs.

GOVERNMENT STORAGE CAPACITY

Agency	Estimated Capacity		Target for 1982-83	Estimated capacity in June 1983	
	June 1981	June 1982			
.....000 Tonnes.....					
I. Total wheat (a+b)	2 053	2,936	414	3,350
(a) Provincial	1,974	2,857	64	2,921
Punjab	1,305	1,912	60	1,972
Sind	444	560	1	561
NWFP	164	302	1	303
Baluchistan	61	83	2	85
(b) Federal	79	79	350	429
Food and Agri. Division	20	20	250	270
AK & NA	25	25	—	25
Defence Division	34	34	—	34
N.L.C.	—	—	100	100
II. Commerce Division				
(i) For rice (Rice Export Corporation)	838	838	—	838
(ii) For Cotton (Cotton Export Corporation)	11	31	15	46
Total	2,902	3,805	429	4,234

TABLE SHOWING PRODUCTION OF MILK, MEAT AND EGGS

S.No.	Items	Production from 1978-79 to 1981-82				5th Plan Targets	Percentage achievement by 1981-82 when compared to 5th Plan Targets	Targets for 1982-83	Expected percentage achievement by 1982-83 of the Plan Target
		1978-79	1979-80	1980-81	1981-82				
1.	Milk (000 tonnes)	7,154	7,299	7,459	7,609	8,839	86	7,773	87.9
2.	Meat (000 tonnes)	782	823	869	918	1,022	89.8	971	95
3.	Eggs, (million nos)	1,805	2,094	2,427	2,815	2,647	106	3,264	123

TABLE SHOWING MILK AND MEAT RESOURCE DEVELOPMENT

S.No.	Items	Unit	Previous Achievement upto 1980-81				Estimated Achievement 1981-82				Target for 1982-83			
			Baluch-istan	Sind	NWFP	Punjab	Baluchi-istan	Sind	NWFP	Punjab	Baluch-istan	Sind	NWFP	Punjab
Direct Breeding on														
(a) Maintenance Subsidy †														
	(i) Cow Bulls	Nos.	—	—	—	—	153	4	—	—	153	—	—	—
	(ii) Buffalo Bulls	"	—	—	—	—	—	1	—	—	—	—	—	—
	(iii) Rams/Bucks	"	—	—	—	—	—	—	—	—	—	—	—	—
(b) New Stud Stock Supplied †														
	(i) Cow Bulls	"	—	—	—	—	110	16	—	159*	150	—	—	—
	(ii) Buffalo Bulls	"	—	—	—	—	—	18	—	964*	—	—	—	—
	(iii) Rams/Bucks	"	—	—	—	—	—	—	52	2,829*	—	—	52	4000*
Livestock Farms Opened †														
	(a) Experimental	"	2	3	1	26**	—	—	—	1	—	—	1	—
	(b) Breeding	"	1	2	1	—	1	—	—	—	—	—	—	—
	(c) Dairy †													
	(i) Private	"	131	—	—	—	5	—	—	—	5	—	—	—
	(ii) Public	"	2	—	—	—	1	—	—	—	2	—	—	—
	(d) Fattening †													
	(i) Public	"	—	—	—	1	1	—	—	—	4	—	—	—
	(ii) Private	"	—	—	—	—	—	—	—	—	—	—	—	—
No. of animals fattened †														
	(i) Public Farms	"	—	—	—	—	500	—	—	409	500	—	—	500
	(ii) Private Farms	"	—	—	—	—	—	—	—	—	—	—	—	—
No. of Semen Production Units..														
	No. of A.I. Centres	"	8	10	37	210	2	—	10	10	2	3	—	10
	No. of Inseminations Performed..	"	—	—	—	N.A.	1,144	1,857	35,000	N.A.	1,500	3,000	42,000	N.A.

* Includes both male and female stock issued for breeding purposes.

** Includes those under Public, PLB and Grantee farms.

TABLE SHOWING PERFORMANCE OF THE DISEASE CONTROL PROGRAMME

S.No.	Items	Unit	Previous achievement upto 80-81				Estimated production during 81-82				Targets for 1982-83			
			Baluch-istan	NWFP	Sind	Punjab	Baluch-istan	NWFP	Sind	Punjab	Baluch-istan	NWFP	Sind	Punjab
1.	No. of Veterinary Hospitals	Nos.	46	35	45	391	1	—	N.A.	—	1	—	1	—
2.	No. of Vet. Dispansaries/Centres	Nos.	252	372	339	1,885	—	11	N.A.	2	—	2	4	6
3.	No. of Diagnostic Laboratories/Centres	Nos.	1	1	2	5	—	—	N.A.	5	—	—	—	—
4.	Treatment of Animals	Million Nos.	—	—	—	—	3.780	1.029	1.074	10.00	4.00	Not fixed	1.500	10.50
5.	Treatment of Poultry	Do.	—	—	—	—	1.893	—	0.156	12.41	2.00	—	0.250	12.50
6.	Vaccination of Animals	Do.	—	—	—	—	3.364	0.626	2.820	27.16	3.50	Not fixed	3.300	27.50
7.	Vaccination of Poultry	Do.	—	—	—	—	1.478	2.134	0.665	1.95	2.00	Do.	0.800	2.60
8.	Sera/Vaccine produced	Do.	—	—	—	—	1.360	4.264	60.740*	62.00	2.10	9.000	—	68.00*
	(a) H.S.V.	Do.	—	—	—	—	—	0.034	—	—	—	1.000	—	—
	(b) B.Q.V.	Do.	—	—	—	—	0.060	0.178	—	—	0.10	0.700	—	—
	(c) E.T.V.	Do.	—	—	—	—	0.300	0.039	—	—	0.50	0.450	—	—
	(d) A.S.V.	Do.	—	—	—	—	—	0.013	—	—	—	0.250	—	—
	(e) N.D.V.	Do.	—	—	—	—	—	4.000	58.170	—	—	6.600	N.A.	—
	(f) Anthrax	Do.	—	—	—	—	1.000	—	—	—	1.500	—	—	—
	(g) Fowlpox	Do.	—	—	—	—	—	—	2.400	—	—	—	N.A.	—
	(h) Spurochactosis	Do.	—	—	—	—	—	—	0.170	—	—	—	N.A.	—

* Include all types of vaccine.

TABLE SHOWING TARGETS AND ACHIEVEMENTS UNDER THE TRAINING AND EDUCATION PROGRAMME

S.No.	Items	Unit	Persons trained upto 1980-81				Estimated to be trained by the end of 1981-82				Target for 1982-83			
			Baluch-istan	NWFP	Sind	Punjab	Baluch-istan	NWFP	Sind	Punjab	Baluch-istan	NWFP	Sind	Punjab
1.	Veterinary, A.H. graduates/VAS	Nos.	121	110	42	N.A.	34	6	N.A.	32	40	22	N.A.	40
2.	Stock/veterinary Assistants	"	120	797	70	"	30	40	"	33	30	50	"	50
3.	Artificial Inseminators	"	8	37	35	"	2	10	"	N.A.	8	10	"	N.A.
4.	Veterinary Auxiliaries	"	—	700	—	"	—	300	"	N.A.	—	300	"	N.A.

TABLE SHOWING PERFORMANCE OF POULTRY PRODUCTION SECTOR

S.No.	Items	Unit	Previous achievement upto 1980-81				Estimate Achievement during 1981-82				Targets for 1982-83			
			Baluch-istan	NWFP	Sind	Punjab	Baluch-istan	NWFP	Sind	Punjab	Baluch-istan	NWFP	Sind	Punjab
1.	Poultry Farms 1	Nos.	87	80	2,607	1,820	5	—	N.A	290	11	—	—	301
	(a) Public	Do.	12	5	—	8	—	—	N.A	2	1	—	—	1
	(b) Private	Do.	75	75	—	1,812	5	—	N.A	288	10	—	—	300
2.	Production at Govt. Farms :													
	(a) Eggs	Million Nos.	—	—	—	—	3.446	0.575	0.169	1.76	4.00	0.600	—	2.00
	(b) Poultry meatbirds	Million Kgs.	—	—	—	—	0.200	—	—	0.11	0.300	—	—	0.14
3.	Increased Poultry/Broiler Production Programme 1													
	(a) Layers Produced	Million Nos.	—	—	—	—	0.250	—	25% of target	3.00	0.350	—	N.A	3.25
	(b) Broilers Produced	Million Kgs.	—	—	—	—	0.350	—	30% of target	10.00	0.400	—	N.A	12.00
	(c) Eggs Produced	Million Nos.	—	—	—	—	50.00	—	17% to 20% of target	12.00	50.00	—	N.A	14.00

C₂

Species	Sex	Age	Weight (g)	Wing (mm)	Tarsus (mm)	Bill (mm)	Claw (mm)	Stomach	Notes
17. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
18. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
19. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
20. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
21. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
22. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
23. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
24. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
25. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
26. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
27. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
28. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
29. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
30. Blue Jay	♂	Im	100	100	100	100	100	100	0.500

Species	Sex	Age	Weight (g)	Wing (mm)	Tarsus (mm)	Bill (mm)	Claw (mm)	Stomach	Notes
31. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
32. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
33. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
34. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
35. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
36. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
37. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
38. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
39. Blue Jay	♂	Im	100	100	100	100	100	100	0.500
40. Blue Jay	♂	Im	100	100	100	100	100	100	0.500

RESEARCH REPORT ON THE BIRDS OF THE STATE OF TEXAS, 1914-1915

CHAPTER 2

FERTILIZER SUBSIDY

Initially when fertilizer was introduced as a new element in the economics of agriculture, it was necessary to popularize it by providing subsidy to farmers. The Government has succeeded in increasing fertilizer availability and off-take considerably through its marketing and subsidized pricing policies with favourable impact on crop production.

2. On the other hand subsidy on fertilizer is a heavy burden on the exchequer and accounts for a large proportion of allocation that could be spent on the development of other disciplines|programmes of agriculture. Further, the Government is required to reduce the subsidy per unit cost of fertilizer with the intention of eliminating it by June 1985, under the IDA credit agreement for fertilizer. Efforts to reduce sibsidy on fertilizer without hurting the programme have continued since February 1980, when the Government decided to enhance the sale prices of fertilizer by 50 per cent. In March 1982, the sale prices were further increased by 5—11 per cent. The sale prices of various types of fertilizer prevailing before and after March, 1982 are shown in Table 1 below :

TABLE

Sale Prices of Fertilizer

Types of Fertilizer	(Rupees per bag of 50 kgs)		
	Nutrient (per cent)	Sale Price before March, 1982	Current sale Prices
Urea	N=46	93	103
Ammonium Sulphate	N=21	42	47
Calcium Ammonium Nitrate	N=26	50	55
Dia Ammonium Phosphate	N=18 P=46	100	105
Nitrophos ¶	N=23 P=23	78	84
NPK Compound		63	65

3. Scaling down of fertilizer subsidy would be kept under constant review during 1982-83.

4. It has become a general practice that any increase in the price of fertilizer should be accompanied by an increase in the support price of farm products. A stage has probably come when these two should be delinked. The farmers would

out of 41 MA of gross culturable area, nearly 12 MA are severely waterlogged (depth of water table within 5 ft.). Overall development in general and agriculture productivity in particular is adversely affected in this area.

5. Contrary to the old strategy of reclaiming waterlogged area (water table depth 0—10 ft.), priority is given to 'disaster areas' where water table lies between 0—5 ft. The total 'disaster area' of 11.95 million acres (MA) is distributed in the 3 provinces as under: Punjab 4.26 M. A. (36 per cent); Sind 7.57 M. A. (63 per cent) and N.W.F.P. 0.12 M. A. (1.0 per cent). As this area is much smaller than the area where watertable is 0—10 ft., it is easier to tackle and get quick and increased benefits.

Water Management

6. In view of the encouraging results obtained from the pilot On-Farm Water Management (OFWM) project, the programme is extended with the assistance of the World Bank and the Asian Development Bank. Similarly, the unprecedented momentum of the "crash" watercourse cleaning programme will continue during 1982-83. The evaluation of On-Farm Water-Management programme is in progress. A clear picture would emerge after the programme has been evaluated. The scope of the programme is given below:

TABLE 1

Coverage of watercourse clearing programme

Province	Total Water-courses	Achievements upto 1981-82			Balance
		Improved	Cleaned	Total	
Punjab	49,332	1,300	28,600	29,900	19,432
Sind	35,018	400	—	400	34,618
N.W.F.P.	3,357	150	—	150	3,207
Baluchistan	1,393	30	—	30	1,363
Total	89,100	1,880	28,600	30,480	58,620

Flood Control

7. The first phase of Flood Protection/Control Programme encompassed raising and strengthening of bunds which involved about 6,000 Million Cubic Feet (MCF) of earthwork. Up to 1981-82 about 3,400 MCFt had been achieved. The balance work is 2,600 MCFt.

PROGRAMME FOR 1982-83

8. During 1982-83, the water resources development sector has been allocated Rs. 4384.337 million which is 13 per cent more than the revised estimates of 1981-82. The allocations for the key programmes namely, water development and drainage and reclamation, have been increased. There is

also a substantial increase in the water management programme. The Federal and Provincial allocations by broad categories are analysed below :

TABLE 2
Allocations by Broad Categories

Item	(Rs. million)		
	1981-82 (Revised Estimates)	1982-83	% change (+) or (-)
A. Normal ADP :-			
Federal Water Development	1614.4	2383.7	+47
Flood Protection	274.8	266.6	2.9
Tarbela/IBP	1323.8	852.5	-36
Provincial Water Dev.	631.3	814.5	+29
Total	3871.3	4384.3	+13
B. Special Prog for Baluchistan and Tribal Areas of N.W.F.P.			
	—	116.0	—
GRAND TOTAL	3871.3	4500.3	16.2

9. The agency-wise and sub-sector-wise break up of the Federal and Provincial Governments (Combined) allocations is given in Annex. I and II respectively.

10. The basic strategy of development during the year includes :

- (a) providing dependable surface water supplies, preventing excess water losses through better management (by involving the private sector), developing groundwater (public and private sector tubewells).
- (b) protecting lands from waterlogging and salinity and the ravages of floods.
- (c) carrying out related surveys, investigation and research.

11. Priority will be accorded to the surface water development where the main programme include Tarbela (remaining works), irrigation rehabilitation work, canal remodeling and water management. Under the ground water development, the priority goes to public and private tubewells. Flood control and survey investigation and research also share the usual priority.

12. Allocations to the main sub-sectors for Federal programme are shown in Annexure III and are summarised below :

TABLE 3
Federal ADP by Sub-sectors

Item	(Rs. million)		
	1981-82 (Revised Estimates)	1982-83	%change (+)or(-)
Irrigation	581.3	1059.1	+82
Drainage & Reclamation	949.2	1161.9	+22
Flood protection/control	269.5	266.6	-1
Water management (Federal)	11.1	14.1	+27
Survey, Investigation and Research	84.9	126.9	+49
Tarbela/IBP	1323.8	852.5	-35
Total	*3234.7	3502.9	+8

*Includes Water Management and Miscellaneous Works in all the Provinces.

Federal programmes

13. Nearly 80 per cent of the total anticipated expenditure during 1982-83 will be under federal programme. The programmes, which will be undertaken by various ministries, are discussed below :—

The programme of the Ministry of Water and Power comprises the following major projects.

- (1) *Tarbela/Indus Basin Projects*.—This includes expenditure on the Tarbela Dam (Repairs and flip bucket), Mangla Watershed Management Project, Tarbela re-settlement, maintenance of the Link Canals and Barrage. Small amounts have also been provided for remodelling of lower Chenab and Upper Jhelum Canals and Chashma Barrage raising. A large part of the expenditure is contribution to Tarbela Development Fund.
- (2) *Irrigation*.—Under this programme, work will continue on the Chashma Right Bank Canal (CRBC) project; Khanpur Dam will be completed during the year and remedial works on Hub Dam will continue. A project of rehabilitating the irrigation and surface drainage system in all the four provinces has been launched from 1982-83, and about 9 per cent of the total CCA shall be covered during the year under the programme.
- (3) *Drainage and Reclamation (Accelerated Programme)*.—Under this programme, work will continue on the on-going

SCARPS. The major projects are SCARP VI (Panjnad Abbasia remaining units), Lower Rechna, SCARP CBDC in the Punjab. Major projects in Sind are LBOD, East Khairpur tile drain, Rohri South project, Ghotki, Kotri surface drain. In the NWFP the major project is Mardan SCARP.

(4) *Survey, Investigation and Research.*—The on-going programmes such as surface water hydrology, Mona reclamation project, Lower Indus water management Research project, Central Monitoring Organization will continue. The new investigation projects are SCARP Transition and Command water management, studies for which are being undertaken under UNDP Umbrella programme. Investigations are also included for Ghotiari|Mancher Lake and Thal Reservoir, Proto type research on alluvial channels and planning for water resources in Baluchistan will continue. Provision for setting up the International Waterlogging and Salinity Research Institute with Italian Assistance has also been made.

(5) *Flood Control Programme.*—This programme will continue under the Federal Flood Commission. The work will be executed by the Provincial Irrigation Departments.

(b) *Ministry of Food and Agriculture.*—The important programme of water management is being carried out by the provinces and allocations are described under the provincial programmes. However a small amount is provided under the Federal programme for technical assistance, coordination, monitoring and evaluation etc.

(c) *Federally Administered Tribal Area (FATA).*—Work will continue on about 50 on-going schemes of which about 44 will be completed during 1982-83. About 31 tubewells will be energized to deliver about 14,300 acre feet of water to an additional area of 22,000 acres. Moreover, 57 new water development schemes will also be undertaken along surveys and investigations for identification of future potential schemes.

(d) *Pakistan Meteorological Department.*—Work will continue on projects related to collection of vital meteorological data for aviation and agricultural purposes.

(e) *Science and Technology Division.*—Water-related research will be undertaken through its Irrigation Research Council. Bulk of the expenditure will be on research related to drainage and reclamation.

(f) On Presidential directive Survey of Pakistan has been allocated additional amount of Rs. 19.1 million for purchase of one aircraft to undertake extensive surveys.

WATER RESOURCES SECTOR—DISTRIBUTION OF EXPENDITURE (1981-82) AND ALLOCATION (1981-82)

(Rs. in Million)

Sub-sector	Federal		Punjab		Sind		N.W.F.P.		Baluchistan		Total	
	Revised Ests. (1981-82)	Alloca- tions (1982-88)	Revised Ests. (1981-82)	Alloca- tions (1982-83)	Revised Ests. (1981-82)	Alloca- tions. (8192-83)	Revised Ests. (1981-82)	Alloca- tions. (1982-83)	Revised Ests. (1981-82)	Alloca- tions. (1982-83)	Revised Est. (1981-82)	Alloca- tions. (1982-83)
1. Irrigation (including re- habilitation)	581.265	1059.142	54.442	209.602	91.086	130.135	102.901	139.783	17.49	41.426	847.184	1580.089
2. Drainage and Rehabilita- tion	949.225	1161.967	127.544	40.900	4.738	4.895	1.600	—	—	—	1083.107	1207.762
3. Flood Control	269.50	266.600	2.110	0.930	2.925	3.000	0.250	3.74	—	—	274.785	274.270
4. On Farm Water Manage- ment	11.069	14.161	121.545	155.487	10.000	16.50	14.628	21.713	—	11.65	157.242	219.511
5. Survey, Investigation and Research	84.85	126.947	6.428	12.348	3.251	1.97	12.89	3.46	31.87	40.70	139.289	180.425
6. Misc.	15.012	21.500	22.763	35.72	—	—	8.149	7.52	—	—	45.924	64.740
7. Indus Basin Tarbela	1323.757	852.540	—	—	—	—	—	—	—	—	1323.757	852.540
Total	3234.678	3502.857	334.832	454.987	112.000	156.500	140.418	176.216	49.36	93.777	3871.288	4384.337

ACCELERATED PROGRAMME OF WATERLOGGING AND SALINITY

Sl. No.	Name of Project	Est. Ach. upto 1918-82		Targets 1982-83		Drain E/W (Mcf)
		T/wells energised (Nos).	Drain E/work (Mcft)	Tubewells (Nos) Drilled	Ener-gized	
1.	SCARP II (Chaj Doab)	3010	469	—	—	—
2.	Panjand Abbasia Unit II-V	—	20	50	50	51
3.	Replacement of T.W. Ph. II	496	—	42	42	—
4.	W.L. along TSMB Link	8	7	44	44	7
5.	Lower Rechna (Khairwala)	—	15	—	—	42
6.	Fordwah Sadiqia Unit II	—	15	—	—	22
7.	SCARP CBDC (Pandoki)	—	15	20	20	19
8.	Deg Drainage basin	—	—	—	—	12
	Punjab (Total)	3514	549	150	150	194
9.	Mardan SCARP	—	30	—	—	25
	NWFP (Total)	—	30	—	—	25
10.	Left Bank Outfall Drain	—	519	—	—	87
11.	East Khairpur Tile	—	25	—	—	190 Km
12.	Larkana-Shikarpur Stage-II	—	626	(liabilities)	—	—
13.	Kotri Surface Drain	—	1599	—	—	96
14.	North Dadu	—	72	—	—	14
15.	Rotri South	180	—	212	212	—
16.	Chotki F.G.W.	400	400	85	85	—
17.	Replacement of Tubewells	128	—	51	51	—
18.						
	SIND (Total)	708	2791	348	348	202+ 190 Km
	Total (Pakistan)	4222	3371	498	498	421+ 190 Km

ACCELERATED PROGRAMME OF WATERLOGGING AND SALINITY

(Million Rs.)

Sl. No.	Name & Status of the Scheme	Ested. cost	Ested. Expdt. upto 1980-81	Revised Ests. 1981-82	Provision for 1982-83	% age in (+) or (-)
A. Punjab						
a. On-going schemes :						
1.	SCARP-II (A)	1293.27	1202.45	230.00	101.64	-22
2.	AWL along CJ Link (A)	44.55	10.75	14.00	8.47	-40
3.	AWL along TSMB Link (A)	57.39	1.08	20.00	23.63	+18
4.	Panjnad Abbasia Unit II-V	1776.50	54.85	109.00	175.33	60
5.	Replacement of T.W (A)	217.89	73.41	40.00	25.41	-30
6.	Lower Rechna (Khairwala) (A)	293.00	—	33.51	34.73	+4
b. New Schemes :						
7.	Fordwah Sadiqie-II (UA)	213.21	—	7.00	42.35	+500
8.	SCARP CBDC (Pundoki)"	151.00	—	14.50	38.12	+192
9.	Deg Drainage Basin (UA)	—	—	—	8.47	
c.	Project Planning	—	128.06	25.00	22.20	-12
Total (Punjab)				410.00	480.35	+17
B. Sind						
a. On-going schemes :						
10.	L.B.O.D. (Revised PC-I under consideration (A)	916.70	378.86	92.00	126.04	+34
11.	East Khairpur Tile (A)	330.48	189.23	77.53	72.43	-7
12.	Larkana Sh. St. II	404.57	277.35	74.00	26.49	-94
13.	Kotri Sur. Drain Pt. II	980.00	116.99	30.00	42.35	+41
14.	North Dadu (A)	321.13	46.80	34.39	16.94	-51
15.	Rohri South (A)	993.31	122.26	28.00	133.83	+378
19.	Ghotki FGW (A)	428.26	140.32	46.89	43.19	+8
17.	Rep. of T.W. (A)	39.76	12.51	8.00	11.01	+37.6
b.	Project Planning	—	54.02	13.25	12.59	-4
Total (Sind)				404.06	484.87	+20
C. N.W.F.P.						
a. On-going schemes :						
18.	Mardan SCARP Ph. I	1790.40	25.93	39.61	186.32	+370
b.	Project Planning	—	108.98	9.12	10.43	+14
Total (NWFP)				85.73	196.75	+129
Total (Acc : Programme)				899.79	1161.97	+29

WATER AVAILABILITY AT FARMGATE

(MAF)

		1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83 Target
Water Availability at Farmgate.									
A. Surface Water Availability :									
(i) Canal withdrawals (Canal Head)	.. ..	98.91	97.33	102.69	96.63	105.24	107.40	98.82	102.97
(ii) Farmgate	.. ..	59.35	58.40	61.61	57.18	63.14	64.44	61.98	65.24
B. Ground Water Availability :									
(i) Private Tubewells	.. ..	19.43	20.52	21.61	22.77	23.97	25.14	26.31	27.30
(ii) Public Tubewells	.. ..							
(a) SCARPS	.. ..	5.78	5.27	5.83	6.22	6.59	6.90	7.52	7.57
(b) Others	.. ..	0.38	0.38	0.38	0.40	0.44	0.54	0.64	0.74
Total (Public T/wells)	.. ..	6.16	5.65	6.21	6.62	7.03	7.44	8.16	8.31
Total (Ground Water)	.. ..	26.59	26.17	27.82	29.41	31.00	32.58	34.47	35.61
GRAND TOTAL	.. ..	94.94	84.51	89.44	87.39	94.14	97.02	96.45	100.85

Annexure VII

OVERALL WATER AVAILABILITY AT FARMGATE

		(Million Acre Fet)						
Year		Surface Water		Groundwater		Total Availability		
		Act Canal Heads	At Farm-gate	Public Tube-wells	Private-Tube-wells			
1975-76	Kharif	62.91	37.75	3.08	9.81	51.55		
	Rabi	36.00	21.60	3.08	9.72	34.39		
	Total ..	98.91	59.35	6.61	19.43	85.94		
1976-77	Kharif	58.47	35.08	2.82	10.26	48.16		
	Rabi	38.86	23.32	2.83	10.26	36.41		
	Total ..	97.33	58.47	5.65	20.42	84.57		
1977-78	Kharif	64.53	38.72	3.11	10.80	52.62		
	Rabi	38.16	22.90	3.10	10.81	36.81		
	Total ..	102.69	61.62	6.21	21.61	89.44		
1978-79	Kharif	60.10	36.06	3.31	11.40	50.77		
	Rabi	36.53	21.92	3.31	11.39	36.62		
	Total ..	96.63	57.98	6.62	22.77	87.93		
1979-80	Kharif	68.22	40.83	3.52	11.98	56.43		
	Rabi	37.02	22.21	3.51	11.99	37.71		
	Total ..	105.24	63.14	7.03	23.97	94.14		
1980-81	Kharif	69.43	41.66	3.72	12.57	57.95		
	Rabi	37.97	22.78	3.72	12.57	39.07		
	Total ..	107.40	64.44	7.44	25.14	97.02		
1981-82 ¹	Kharif	65.24	39.14	3.92	13.15	56.21		
	Rabi	33.58	61.72	7.82	13.15	39.85		
	Total ..	98.82	61.92	7.84	26.30	96.06		

¹Based on WAPDA Punjab WRM 169 and Working paper for H.P. Distribution Committee.

Water Losses :	(i) From canal head to outlet	..	..	..	25% of canal head.
	(ii) From outlet to farmgate	..	..	..	15% of canal head.
	Total	..	..	..	40% of canal head.

RELEASES FROM TARBELA RESERVOIR—RABI 1981-82

Month	Release (MAF)
October (1981)	1.855 ¹
November (1981)	0.920
December (1981)	N.A.
January (1982)	0.439
February (1982)	1.353
March ..	1.194
Total Rabi (1982-82)	(6.050)²

¹Source : WAPDA, Water Account of Indus System Operation During Rabi (1881-82) from October to March.

²Source : Working paper for N P Distribution Committee, (preliminary data).

RIM STATIONS INFLOWS OF WESTERN RIVERS

(Million Acre Ft.)

Year	Indus at Kalabagh (Above)			Jhelum at Mangla (Above)			Chenab at Marala (Above)			Total		
	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total
1975-76	66.31	11.78	78.09	20.29	5.09	25.38	27.75	5.08	32.83	114.35	21.95	136.30
1976-77	65.07	11.37	76.44	20.62	4.03	24.65	25.43	3.40	29.17	111.12	19.14	130.26
1977-78	64.10	13.66	77.76	14.54	5.10	19.64	21.72	5.05	26.77	100.36	23.81	124.17
1978-79	90.40	15.85	106.25	19.70	4.91	24.61	26.80	5.43	32.23	136.90	26.19	163.09
Average												
1940-41 to 1979-80	77.64	13.04	70.68	17.49	4.76	22.25	21.80	4.48	26.28	116.73	22.28	139.21
1979-80	72.86	15.71	88.57	15.53	5.19	20.72	20.31	3.99	24.28	108.70	24.87	133.57
1980-81	71.60	14.99	86.57	17.71	5.70	23.41	20.46	5.69	26.15	109.77	26.38	136.15
1981-82	NA	NA	NA	18.37	4.22	—	23.45	4.60	—	—	—	—

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¹Provincial data based on WAPDA Pub. WRM 169 and working paper for H.P. Distrib. Committee.

REVIEW OF WATER AVAILABILITY DURING 1981-82

Source	At Canal Head			At Farm gate ⁴		
	Kharif	Rabi	Total	Kharif	Rabi	Total
A. Surface Water						
(i) Canal withdrawals (Actual) ..	65.24 ¹	33.58 ²	98.82	39.14	20.15	59.29
(ii) Water course imp. ¹ ..	—	—	—	1.85	0.84	2.69
Total ..	65.24	33.58	98.82	40.99	20.99	61.98
B. Ground Water						
(i) Private Tubewells ..	—	—	—	13.15	13.1	26.31
(ii) Public Tubewells :						
(a) SCARP Tubewells ..	—	—	—	3.76	3.76	7.52
(b) Other ..	—	—	—	0.32	0.32	0.64
Sub-total Public T. Wells ..	—	—	—	4.08	4.08	8.16
Sub-total Ground Water ..	—	—	—	17.23	17.24	34.47
Total Water Availability ..	—	—	—	58.22	38.23	96.45

¹Based on WAPDA Punjab WRM 169.

²Based on Working Paper for H/P. Distrib. Committee.

³Target 1981-82 :

Regular Water courses ..	..	..	594 Nos.	
Water Availability ..	..	..	594 × 108	= 0.064 MAF
Crash Programme ..	..	..	3100 Nos.	
Water Availability ..	..	..	3100 × 100	= 310000 = 0.310 MAF.
Total W. Availability during (1981-82) ..	..	..		= 0.375 MAF.
Water Availability upto 1980-81 ..	..	..		= 2.32
Total W. Availability upto (1981-82) ..	..	..		= 2.69 MAF.

⁴On the basis of 40% losses from canal head.

Annexure XI

(Million Acre Feet, MAF)

Source	At canal head			At farm gate		
	Kharif	Rabi	Total	Kharif	Rabi	Total
A. Surface Water¹						
1. Canal withdrawals ² (Benchmark) ..	64.50	29.53	94.03	38.70	17.72	56.42
2. Tarbela ³ ..	1.00	6.90	7.90	0.60	1.14	4.74
3. Hub Dam ..	0.066	0.033	0.099	0.04	0.02	0.06
4. Canal Remodelling & small irrigation schemes	0.82	0.12	0.94	0.60	0.13	0.73
5. Water courses imp ⁴	—	—	—	2.15	1.14	2.29
Sub-total	66.386	36.583	102.969	42.09	23.15	65.24
B. Ground Water⁵						
1. Private Tubewells ..	—	—	—	13.65	13.65	27.300
2. SCARP Tubewells.	—	—	—	3.79	3.78	7.57
3. Other Public Tube- wells	—	—	—	0.37	0.37	0.74
Sub-total	—	—	—	17.81	17.80	35.61
GRAND TOTAL ..	66.386	36.583	102.969	59.900	40.95	100.85

1 Surface Water .. Canal Distributaries Losses 25% of canal head
Sanctioned water courses Losses 15% of canal head
40% of canal head

2 Average 7 years canal withdrawals (1966-67—1977—80)

3 15% conveyance losses in rivers have been deducted.

4 Target 1982-83 :

Regular water courses 470 Nos.
Water availability $470 \times 108 = 50760$
Crash programme : 5500
Water availability : $5500 \times 100 = 550000$
Total Water/availability during 1982-83 = 0.60 MAF
Water availability upto 1981-82 = 2.67 MAF
Total upto 1982-83 : 3.29 MAF

5 Ground water :

Private tubewells Q = 1.05 cs Eff. 20% losses —5%
annual pumpage = 145 A.F.
SCARP T/wells (5793 × 615) Q = 2.00 cs. Eff. 50% losses — 15%
annual pumpage = 615 A.F.
Other public T/wells (220 × 46) Q = 1.5 cs. Eff. 50% losses — 15%
annual pumpage = 461 A.F.

ON FARM WATER MANAGEMENT PROGRAMME (IDA/IFAD AND ADB)

Description	Target 1981-82			Achieve. upto Apr. 1982			Target 1982-83		
	IDA/ IFAD ¹	A.D.B. ²	Total IFAD	IDA/IFAD	A.D.B.	Total	IDA/ IFAD	A.D.B.	Total
Water courses improvement (Nos)	507	87	594	363	73	436	684	359	1,043
Water courses cleaned (Nos)	3,100	—	3,100	1,936	—	1,936	5,500	—	55,00 ³
P.L.L. (Acres.)	10,030	—	10,030	10,329	—	10,329	12,050	—	12,050
Demonstration plots (Nos.)	407	87	494	37	24	61	570	359	727
Tubewells Installation (Nos)	—	95	95	—	—	—	—	285	285
Training (Nos)	906	884	1,790	966	161	1,127	933	884	1,817

¹IDA/IFDA—On Farm Water Management Project assisted by World Bank IDA and IFAD.

²ADB—On Farm Water Management Project assisted by Asian Development Bank.

³Does not include 15,000 watercourses to be cleaned this year by Punjab under its own "Crash Programme".

PHYSICAL TARGETS AND ACHIEVEMENTS FOR 1981-82 AND TARGETS FOR 1982-83

**(WATER RESOURCES)
(SIND)**

Sub-sector	Unit	Targets (81-82)	Achievements (82-83)	Targets (82-83)	Remarks
1	2	3	4	5	6
Survey and Investigation					
(a) Reconnaissance and Survey	Sq. mile	30	25	25	
(b) Topographic Survey	Sq. mile	40	30	25	
(c) Detailed investigations (Dam Sites)	Nos.	Nil	—	—	
(d) Investigation for surface water development scheme.	Nos.	Nil	—	—	
(e) Others (Fixing Sub-Soil Observation Pipes in Guddu and Kotri.		423	—	423	Due to delay in release of fund the targets of 1981-82 could not be achieved.
Irrigation					
(a) Extension of Canal	Miles	15.0	15.0	18	
(b) Remodelling of canals	Miles	175	175	190	Note: Additional 509 miles target from World Bank Rehabilitation Programme
(c) Enlargement of canals	Nos.	—	—	—	
(d) Remodelling Structures	Nos.	17	15	22	
(e) New Structures	Nos.	20	18	20	
(f) Residential Accommodation.	Nos.	14	9	11	
(g) Metalled Road (lacs)	Sq. fts.	24	24	4	Work on Dadu Moro Bridge approaches being completed during 1981-82.
(h) Small Dam (W/works)	Mcf.	—	—	—	
(i) Public tubewells	Nos.	—	—	—	— pertains to WAPDA
(j) Pumping Stations	Nos.	1	1	1	
(k) Subsidised tubewells	Nos.	Pertains to Agriculture Deptt.			
(l) Cropped area benefited :					
(i) Surface Water	Acres	135,000	128,000	137,000	
(ii) Groud water	Acres	—	—	—	
Drainage and Reclamation					
(a) Extension and Remodelling of open drains	Miles	75	70.00	75.00	
(b) Area protected	Sq. miles	115.00	105.00	110.0	
(c) Strengthening/restoration	Miles	—	—	—	
(d) Structures	Nos.	145	135	140	

	1	2	3	4	5	6
Flood Protection						
(a) Extension of Flood embankments Miles			—	—	—	
(b) Stone pitching Miles			6	17	19	
(c) Strengthening/restoration .. Miles			57.0	79	110	
(d) Structures Nos.			2	—	—	
(e) E/Work in Mcft. .. Nos.			215	161	247	
Water Management						
(a) Watercourse improved .. Nos.			105	(42)	105	
(b) Watercourse cleaned .. Nos.			400	123	500	
(c) Precision land levelling .. Acres			3300	2700	3300	
(d) Others —			—	—	—	
Requirement of Material						
(a) Cement Tons			15000	9600	9900	Govt. controlled supply. Other materials are being arranged by Private agencies/supplies/contractors.
(b) Bricks Lacks						
(c) Re-inforcing structural steel. Tons						
(d) Blind pipe and strainer .. Ft.						
(e) Timber Cft.						
Loan and Machinery						
(a) Drilling Rings Nos.			—	—	—	
(b) Pumps Nos.			—	—	—	
(c) Draglines Nos.			1	—	$\frac{1}{2+3} = 5$	
(d) Dozer Nos.			5	—	$\frac{1}{4+23} = 7$	
(e) Scraper Nos.			—	—	$10+4^2 = 4$	
(f) Compressor Nos.			—	—	—	
(g) Hy. Excavator/Dredgers .. Nos.			—	—	$14+1 = 25$	

¹ From Provincial Maintenance Grant.

² From World Bank Rehabilitation Project.

PHYSICAL TARGETS AND ACHIEVEMENTS FOR 1981-82 AND TARGETS 1982-83
(WATER RESOURCES)
(BALUCHISTAN)

Sub-sector	Unit.	Targets (81-82)	Achieve- ment 81-82)	Targets (82-83)	Remarks
1	2	3	4	5	6
Survey and Investigation					
(a) Reconnaissance and Survey.	Sq. mile.	1,760	1,760	1,728	
(b) Topographic survey ...	Sq. mile.	940	940	2,200	
(c) Detailed investigations (Dam Sites).	Nos.	—	—	—	
(d) Investigation for surface Water development scheme.	Nos.	—	—	—	
(e) Others					
Irrigation					
(a) Extension of Canals	Mils.	—	—	—	
(b) Remodelling of Canals	Mils.	—	—	—	
(c) Enlargement of canals	Nos.	—	—	—	
(d) Remodelling of structures.	Nos.	—	—	—	
(e) New Structures ...	Nos.	17	17	15	
(f) Residential Accommodation.	Nos.	12	12	—	
(g) Metalled road ...	Sq. ft.	—	—	—	
(h) Small Dams (W/works)	Mcf.	7	7	3	
(i) Public tubewells ...	Nos.	—	—	—	
(j) Pumping stations ...	Nos.	29	28	31	
(k) Subsidised tubewells ...	Nos.	25	25	25	
(l) Cropped area benefited					
(i) surface water ...	Acres	13,000	12,500	16,000	
(ii) ground water ...	Acres	2,000	2,000	2,000	
		(on subsidised basis)			
Drainage and Reclamation					
(a) Extension and remodeling of open drains	Miles.	—	—	—	
(b) Area protected ...	Sq. miles	—	—	—	
(c) Strengthening/restoration.	Miles	—	—	—	
(d) Structures	Nos.	—	—	—	

1	2	3	4	5	6
Flood Protection					
(a) Extension of Flood embankment.	Miles	10	10	4	
(b) Stone pitching ..	Miles	10	10	4	
(c) Strengthening/restoration	Miles	1/4	1/4	1	
(d) Structures	Nos.	—	—	—	
(e) E/work in Mcft. ..	Nos.	5.5	5.0	6.0	
Water Management					
(a) Watercourse improved	Miles.	12	9	18	
(b) Watercourse cleaned ...	Nos.	300	113	400	
(c) Precision land levelling	Acres.	430	260	600	
(d) Others	Nos.	8	8	12	
Requirement of Material					
(a) Cement	Tons.	—	—	—	
(b) Bricks	Lacks	—	—	—	
(c) Reinforcing structural steel	Tons.	—	—	—	
(d) Blind pipe and strainer	Ft.	—	—	—	
(e) Timber	Cft.	—	—	—	
Plant and Machinery					
(a) Drilling Rigs ...	Nos.	—	—	—	
(b) Pumps	Nos.	—	—	—	
(c) Draglines	Nos.	—	—	—	
(d) Dozer	Nos.	—	—	—	
(e) Scraper	Nos.	—	—	—	
(f) Compressor	Nos.	—	—	—	
(g) Hy. Excavator ...	Nos.	—	—	—	

PHYSICAL TARGETS AND ACHIEVEMENTS FOR 1981-82 AND TARGETS 1982-83

(WATER RESOURCES)

(FATA DC)

Sub-sector.	Unit.	Targets (81-82)	Achievement (81-82)	Targets (82-83)	Remarks
1	2	3	4	5	6
Survey and Investigation					
(a) Reconnaissance and survey.	Sq. mile.	100	100	100	
(b) Topographic survey	Sq. mile.	10	10	10	
(c) Detailed investigations (Dam sites).	Nos.	—	—	—	
(d) Investigation for surface water development scheme.	Nos.	70	67	70	
(e) Others	Nos.	20	16	20	
Irrigation					
(a) Extension of canals	Miles.	—	—	—	
(b) Remodelling of canals.	Miles.	—	—	—	
(c) Enlargement of canals.	Nos.	—	—	—	
(d) Remodelling of structures.	Nos.	—	—	—	
(e) New structures	Nos.	209	25	418	
(f) Residential accommodation.	Nos.	—	—	4	
(g) Metalled road	Sq. fts.	—	—	—	
(h) Small Dams (E/works).	Mcf.	—	—	—	
(i) Public tubewells	Nos.	77	77	31	
(j) Pumping Stations	Nos.	—	—	—	
(k) Subsidised tubewells	Nos.	—	—	—	
(l) Cropped area benefited.	Acres.	9,945	1,570	11,736	
(ii) Ground water	Acres.	1,550	—	27,460	
Drainage and Reclamation					
(a) Extension and remodeling of open drains.	Miles.	—	—	—	
(b) Area protected	Sq. mile.	—	—	—	
(c) Strengthening/restoration	Miles.	—	—	—	
(d) Structures	Nos.	—	—	—	

1	2	3	4	5	6
Flood Protection					
(a) Extension of Flood embankment.	Miles.	—	—	—	—
(b) Stone pitching ..	Miles.	—	—	—	—
(c) Strengthening/restoration	Miles.	—	—	—	—
(d) Structures	Nos.	3 spurs	3 spurs	—	—
(e) E/work in Mcft.	Nos.	0.01272	0.01272	—	—
Water Management					
(a) Watercourse improved.	Miles.	5	1	600	—
(b) Watercourse cleaned ..	Nos.	—	—	—	—
(c) Precision land levelling	Acres.	—	—	—	—
(d) Others	—	—	—	—	—
Requirements of Material					
(a) Cement	Tons.	6,000	43,000	13,260	—
(b) Bricks	Lacks.	7,35,000	7,35,000	8,70,000	—
(c) Re-inforcing structural steel.	Tons.	60	23	60	—
(d) Blind pipe and strainer.	Ft.	52,500	20,600	21,700	—
(e) Timber	Cft.	2,400	1,600	2,500	—
Plant and Machinery					
(a) Drilling Rigs ..	Nos.	—	—	—	—
(b) Pumps	Nos.	—	—	—	—
(c) Draglines	Nos.	—	—	—	—
(d) Dozer	Nos.	—	—	—	—
(e) Scraper	Nos.	—	—	—	—
(f) Compressor	Nos.	1	1	3	—
(g) Hy. Excavator ..	Nos.	—	—	—	—

CHAPTER 4

ENERGY

The development of energy resources in the country is progressing satisfactorily in line with the national energy policy which accords highest priority to the generation of hydel power and its transmission to the southern parts of the country to overcome the power shortages. In addition, intensive exploration for oil is encouraged to reduce the heavy burden of POL imports. Besides, the gas resources are exploited through quick development of discovered and proven reserves, to meet the increasing needs of industrial and domestic consumers. Due emphasis is also placed on the development of rural energy supplies, particularly through rural electrification and other non-conventional sources.

2. During 1981-82, the total commercial energy supply is estimated at 621.59 trillion K.j., as against the Annual Plan forecast of 611.05 trillion K.j., thus yielding a *per capita* supply of 7.3 million K.j. Gas shortages were experienced during the year which also affected the generation capacity of some of the gas-based power stations.

3. However, the Annual Development Programme for 1982-83, attempts to ease power shortages, extend village electrification, cut power losses, and substitute domestic energy for imported oil and increase gas production by 18 per cent. In the power generation, it will enable commissioning of Tarbela Units 5—8, adding a capacity of 700 MW to the system. The other major electricity generation projects on which work will remain in progress are Tarbela Units 9 and 10 (350 MW), 210 MW Guddu Unit-4, 300 MW Gas Turbines and 25 MW Gas Turbines at Quetta.

4. On the electric transmission side, a 500 kV line is being constructed from Faisalabad to Karachi for integrating the northern hydel stations with the thermal stations in the south. This transmission line has already been energised at 220 kV level between Faisalabad-Guddu and the work on the remaining part remained in progress during 1981-82. A second circuit 500 kV transmission line is being constructed from Tarbela to Faisalabad to transmit additional hydel energy which will become available from Tarbela. The other main transmission schemes are 220 kV Tarbela-Mardan and 220 kV Faisalabad-Sahiwal line.

5. On the distribution of power side, it is proposed to add 200,000 new domestic/commercial, 6,000 agricultural and 5,000 industrial consumers to the WAPDA system. Special emphasis is being laid to village electrification. It is proposed to electrify 3,000 new villages as against 1,800 during 1981-82.

6. In the fuel sector, maximum priority is given to the completion of natural gas pipeline to Quetta and necessary distribution network. To augment the supply of natural gas, additional wells will be drilled at Sui and Mari fields and the field of Pirkoh will be developed to supply gas by early 1984 and from the field Khandkot by end 1985.

7. A great emphasis is also being laid on exploration of new resources of oil and gas. OGDC will drill 12 wells out of which 3 wells will be exploratory, 5 wells will be appraisal and 4 wells development. In addition, 36 wells will be in different stages of execution under oil concession agreements. Maximum efforts will be made to develop the already known fields which include Toot and Khaskheli. The total local production of crude will increase from 10,729 barrels to 15,820 barrels per day by the end of June, 1983. The total gas production will increase to 338.4 billion cubic feet as against 324.8 billion cubic feet in 1981-82, showing an improvement of 4 per cent.

8. As a result, the energy supply during the year is projected to reach 661.06 trillion K.j., a growth of 6.3 per cent. In terms of *per capita* supply, it will be 7.6 million K.j. A sum of Rs. 8.20 billion has been allocated to the Energy Sector, which is 21.9 per cent higher than the allocations in the preceding year. (Details in Annexure D).

9. The energy development programmes fall in two major sub-sectors—Power and Fuels. A review of 1981-82 and programmes for 1982-83 for each sub-sector is given in the following paragraphs. (Details in Annexure II).

POWER

REVIEW OF 1981-82

Generation

10. The Annual Plan 1981-82 envisaged continuation of work on a number of generation schemes which were to be completed during 1982-83 and onwards. The installed capacity in the WAPDA system remained 3225 MW (excluding MESCO and REPCO). Major schemes, which remained in different stages of implementation were Tarbela units 5—8, Tarbela units 9 and 10, 25 MW gas turbine at Quetta and Planning and Investigation of Major Hydro Electric Projects. Tarbela units 5—8 are expected to be commissioned during October 1982 and February 1983. Besides, preliminary work was done with regard to the projects of Guddu unit IV and 300 MW gas turbines. Tenders for Guddu unit IV were invited.

11. In the KESC system, work remained in progress on 200 MW Pipri Thermal Power Station unit-1 and unit-2. The unit-1 is expected to be completed in September 1983. Complementary transmission lines to hook-up the generating station with the KESC system will also be completed simultaneously.

12. The total installed capacity in the two electrical systems is given in the following table :—

TABLE 1
Installed Capacity of WAPDA and KESC

System	1980-81	1981-82	
		Target	Achievement
WAPDA*	3225	3225	3225
KESC	855	855	855
Total	4080	4080	4080

*excluding MESCO 20 M W and REPCO 9 MW recently taken over by WAPDA.

13. The maximum demand and energy position is summarized in the table below :—

TABLE 2
Maximum Demand and Energy Supply Position

Item	1980-81 (Actuals)			1981-82 (Estimated)		
	WAPDA	KESC	TOTAL	WAPDA	KESC	TOTAL
Power demand (MW).. .. .	2,473	540	3013	2789	620	3,409
Energy Generation (Gwh)						
(a) Hydel	9,046	—	9046	9,241	—	9,241
(b) Thermal	4,157	2,764	6,921	5,699	2,696	8,395
(c) Import/Purchase	3	181	184	1	467	468
(d) Export/Sale	—	3	3	—	39	39
(e) Aggregate generation (Incl : Import and Exports)	13,206	2948	16,154	14,941	3,163	18,104

Transmission

14. In the transmission filed, work continued on second circuit 500 kV Tarbela-Faisalabad line, 220 kV double circuit Tarbela-Mardan line, power Development in Azad Kashmir (transmission facilities) and 220 kV double circuit Faisalabad-Sahiwal. The progress made so far on each of these projects in relation to targets fixed is given in the following table :—

TABLE 3
Progress of Transmission Line Projects

Sl. No.	Name of the project	Targets for 1981-82	Achievements/Status in brief 1981-82
1	2	3	4
1.	500 kV Faisalabad-Multan-Guddu-Karachi Transmission line.	In progress	(i) Transmission line construction- 47% (ii) Grid Station construction at Jamshoro, Dadu and Guddu 80%
2.	2nd 500 kV Tarbela-Faisalabad Transmission Line.	In progress	Transmission line construction. 55%
3.	Power Development in Azad Kashmir.	Advanced stages of completion.	Transmission line 70% Grid Station. 85%
4.	220 kV Double circuit Faisalabad-Sahiwal Transmission line.	—	Transmission line 10%
5.	PC-Pole Plants	Advanced stage of completion.	— 100%

15. The scheme of 500 kV second circuit Tarbela-Faisalabad transmission line was also approved.

16. In the Secondary Transmission Line and Grid Station Project 890 k.m. of transmission lines of 130/66/33 kV were constructed and 62 Grid Stations were completed.

Distribution

17. During 1981-82, WAPDA provided connections to an estimated 290,571 consumers against a target of 211,000. The total number of new connections provided by KESC is estimated to be 40,147 against the target of 34,244. A break-up of connections and category-wise detail is given below:—

TABLE 4
Number of New Consumers

Category	(Nos.)					
	WAPDA			KESC		
	1980-81	1981-82		1980-81	1981-82	
	Target	Achievement	Target	Achievement		
Domestic	241,951	200,000	264,177	29,350	33,208	31,652
Commercial	12,493		13,641				7,440	8,021
Industrial	6,668	6,000	6,500	430	1,009	454
Tubewells	6,639	5,000	6,000	7	27	20
Bulk Supply	446	—	133	—	—	—
(Other Public lighting etc).	95	—	120	—	—	—
Total	268,292	211,000	290,571	37,227	34,244	40,147

Village Electrification

18. 1393 villages were electrified by WAPDA during 1981-82. Besides, 189 villages were electrified in FATA and the Government of the Punjab energised 119 more villages. 135 villages were electrified in Azad Kashmir.

19. Work remained in progress on the installation of diesel sets under the project of installation of diesel sets in 14 townships in Baluchistan.

Small Hydel Stations

20. It was envisaged that the installation of small hydel stations at the remaining five sites out of the ten approved sites would be completed during 1981-82. Work has been completed at 3 sites whereas it will be in advanced stage of execution on the remaining 2 sites.

Pakistan Atomic Energy Commission

21. PAEC and M/s. SENER have completed a feasibility study on the Chashma Nuclear Power Project (CHASHNUPP) and up-dated the previous cost estimates. A revised PC-I for installation of 900 MW nuclear power plant has been approved by ECNEC and further work has been initiated. Work on other projects related to fuel reprocessing, uranium exploration, nuclear medical centre and agricultural centre etc. remained in progress.

Programme for 1982-83

22. Maximum effort is being made to reduce the gap between the generation and demand of power. For this purpose both WAPDA and KESC have drawn contingency plans for 1982-83 within the framework of the 6th-Five Year Plan, for which necessary provision is made in respect of generation, transmission and distribution facilities. Out of total ADP of Rs. 6127.53 million for Power, a major share of Rs. 4,830.7 million has been provided to WAPDA. Another major allocation of Rs. 572 million is in respect of the Pakistan Atomic Energy Commission (PAEC).

WAPDA's Programme

23. The break-up of WAPDA's allocation of Rs. 4,830.7 million is given below :—

	<i>Rs. Million</i>								
Generation	1110.1
Transmission	673.6
Secondary transmission and grid stations	1580.0
Distribution	1467.0
Total	4830.7

Generation

24. The existing installed capacity of WAPDA of 3225 MW would be increased by 700 MW to reach to 3925 MW by commissioning Tarbela units 5 to 8 which are scheduled to come in operation from October 1982 to February 1983. For this purpose an amount of Rs. 156.569 million has been provided. An amount of Rs. 319.512 million has been provided for Tarbela units 9 and 10. These two units are scheduled for commissioning by December 1984 and June 1985, respectively. An amount of Rs. 131.294 million has been provided in respect of Guddu-4 which is scheduled to be commissioned in August 1985. An amount of Rs. 157.899 million has been provided in respect of 300 MW gas turbines at a suitable location in Sind. The gas turbines are scheduled to be commissioned in January 1985. An amount of Rs. 41 million has been provided in respect of "Planning and Investigation of Major Hydro Electric Projects" in order to have a portfolio of major hydro electric projects properly ranked. An amount of Rs. 94 million has been provided in respect of detailed investigation for Kala Bagh Dam Project. Besides the above, provisions have been made in respect of the preliminary studies for Lakhra Power Station, Tarbela unit 11—14, 10 MW Hydel Station at Gilgit, Mini Coal-fired power stations in Baluchistan second 25 MW Quetta gas turbines and investigation in Chitral.

Transmission

25. The major allocation of Rs. 465.663 million is in respect of 500 kV Guddu-Jamshoro transmission line which is expected to be completed by 1983-84 and will be initially energised at 220 kV, to be up-graded to 500 kV in 1984-85,

An amount of Rs. 48.047 million has been provided for second 500 kV Tarbela—Faisalabad line which will be completed concurrently with Tarbela unit 9 and 10 in December 1984 and June 1985, respectively. Work will also continue on 220 kV double circuit Tarbela—Mardan line and 220 kV Faisalabad-Sahiwal line. A provision of Rs. 46.495 million has been made in respect of power development in Azad Kashmir. Provision has also been made for starting of design and preliminary work in respect of 220 kV Mardan-Peshawar line and 220 kV Dadu-Khuzdar line.

26. An amount of Rs. 1,580.00 million has been provided in 1982-83 for the secondary transmission lines grid stations. This amount is meant for drawing 1318 km of 132/66 kV transmission line and installing/augmenting 87 grid stations. This will be spread all over Pakistan in WAPDA System.

27. *Distribution.*—In respect of distribution of power and village Electrification, an amount of Rs. 1,467 million has been provided out of which Rs. 1,020 million is for the main schemes of WAPDA, Rs. 407 million for programme under ADB loan and Rs. 40 million for installation of diesel generating sets in Baluchistan. An amount of Rs. 246.23 million has been separately provided outside ADP in the Special Development Plan in Baluchistan for Rural Electrification. Government of Punjab has also planned electrification of 800 villages based on the principle of cost sharing of 1/3 by the beneficiary villages and remaining 2/3 by the Government of Punjab. The over-all picture for electrification of villages emerges as follows:—

TABLE 5
Rural Electrification Programme 1982-83

	General	ADB Programme	Kuwait Fund	Government of Punjab	Total
Punjab	806	115	—	500	1,721
Sind	302	43	—	—	345
NWFP	230	33	—	—	263
Baluchistan	62	9	200	—	271
A.K.	—	—	—	—	250
FATA	—	—	—	—	150
Total	1,400	200	200	800	3,000

Atomic Energy Commission

28. A block allocation of Rs. 500 million has been made in respect of the project Fuel Reprocessing Plant and 900 MW Chashma Nuclear Power Project.

An amount of Rs. 72 million has been provided for other projects of PAEC; important ones being Nuclear Mineral Survey (Rs. 35.00 million) Exploration of Uranium in D. G. Khan (Rs. 12.00 million), PAEC Headquarter Building (Rs. 12.212 million).

Directorate General of Energy Resources

29. An allocation of Rs. 59.03 million has been made for DGER. Rs. 10 million has been provided for Bio-gas Development project for the installation of 600 bio-gas units in different parts of Pakistan through cost sharing basis. An amount of Rs. 7.55 million has been provided for Rural Energy Project in connection with solar water heater, solar cookers and wind mills. An amount of Rs. 17.80 million has been provided for "Village Electrification through Renewable Sources" for completion of two energy centres using combination of solar photovoltaic and bio-gas and wind mill. An amount of Rs. 12.70 million has been provided for Solar Energy Development Project for completing 3 units of 30 KW photovoltaic system alongwith development of down stream facilities. The balance amount has been provided for the projects namely Economic Studies in Energy Sector, Energy Conservation Project and Energy Balances and Investment Forecast Projects.

FUELS

30. The contribution of fossil fuels in the total commercial energy supply is estimated to be 81.2 per cent during 1981-82. The main features of the efforts in the fuel sub-sector have been to step up exploration and development of new oil and gas fields, accelerate development of discovered and proven fields, augment arrangements of transportation and storage of oil and continue effort for increased utilization of coal.

Natural Gas

31. *Review of 1981-82.*—The natural gas supply during 1981-82 was 7.71 per cent higher than the consumption during 1980-81. This is despite the fact that gas shortages were experienced during the year 1981-82 as a result of supply as well as transmission constraints. The supply of gas to power stations both in north and south of the country was curtailed besides supply to various industries. During the year the project to minimize curtailment of gas supply to manufacturing industries (SNGPL Project V Phase-I) was approved and was under implementation. To enhance the natural gas supply, the Pirkoh gas field was being developed and the project of linking Pirkoh to Sui by laying a 74 k.m. pipeline was also approved and remained under implementation. Besides, installation of compression on the Indus Right Bank Pipeline was also in advanced stage of execution. To supply natural gas to Quetta, a project of laying 349 k.m. of pipeline from Shakarpur to Quetta has already been started under President's directive. This project was in full-swing and it is expected that the transmission pipeline up to Quetta will be completed by December, 1982. To enable IGC to distribute this gas in major towns along the pipeline to Quetta, necessary administrative arrangements are lined up so that consumers get the connection with the completion of the Pipeline Project.

32. The agency-wise break-up of gas sales/consumption and category—break-up of the sales/consumption is given in the following table :—

TABLE 6
Agency-wise Break-up of Gas Sales/Consumption (MMCF)

Agency	1980-81	1981-82	%change
SNGPL	116,413	123,548	6.1
KGC	61,589	62,632	1.7
IGC	28,956	25,027	-13.6
Sub-Total ..	206,958	211,207	
Guddu	21,722	27,031	24.4
Mari	31,066	44,422	43.0
Total ..	259,746	282,660	8.8

TABLE 7
Company-wise Category-wise Gas Sales/Consumption (MMCF)

Company	Power		Cement		Genl Industries		Commercial	
	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82
1	2	3	4	5	6	7	8	9
SNGPL	20,939	20,445	11,109	11,377	39,832	40,795	4,828	5,403
KGC	29,731	25,093	4,262	4,618	19,095	23,103	20,83	2,258
IGC	12,315	8,982	10,769	10,435	3,225	2,714	679	716
Sub-Total ..	62,985	53,394	26,120	27,838	26,430	67,740	75,21	9,660
Guddu	21,722	27,031						
Mari	—	—						
Total ..	84,707	80,425						

Company	Domestic		Fertilizer		Total	
	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82
	10	11	12	13	14	15
SNGPL	8,756	13,908	30,949	31,620	116,413	123,548
KGC	6,418	7,560	—	—	61,589	62,632
IGC	1,968	2,180	—	—	28,956	25,027
Sub-Total ..	17,142	23,648	30,949	31,620	206,958	211,207
Guddu ²	—	—	—	—	21,722	27,031
Mari	—	—	31,066	44,422	31,066	44,422
Total ..	17,559	20,406	62,015	76,042	259,746	282,660

33. Programme for 1982-83. The sale of natural gas is projected at 304,322 MMCF in 1982-83 an increase of 7.7 per cent over the previous year. The tentative projection of company-wise sale are given in the following table :—

TABLE 8

Summary of Company-wise Gas Sales

							(MMCF)			
Company							1981-82	1982-83	%change	
SNGPL	..	..	..	..	..	..	123,548	131,750	6.6
KGC	..	..	..	..	..	..	62,632	62,050	-1.0
IGC	..	..	..	..	..	..	25,027	26,747	6.8
Sub-Total							..	211,207	220,547	4.4
Guddu	..	..	..	..	..	..	27,031	27,700	2.5
Mari	..	..	..	..	..	..	44,422	56,075	26.2
Total							..	282,660	304,322	7.7

TABLE 9

Category-wise and Company-wise Gas Sales

							(MMCF)				
Company							Power	Cement	General Industry	Commercial	
							1982-83	1982-83	1982-83	1982-83	
SNGPL	..	..	..	..	..	..	17,702	12,555	39,999	5,913
KGC	..	..	..	..	..	..	19,035	4,931	26,298	2,321
IGC	..	..	..	..	..	..	8,827	11,535	3,322	772
Sub-Total							..	57,107	32,571	71,127	10,143
Guddu	..	..	..	..	..	..	27,700			
							Domestic	Fertilizer	Total		
							1982-83	1982-83	1982-83		
SNGPL	..	..	..	..	..	..	21,600	33,981	131,750	
KGC	..	..	..	..	..	..	9,465	—	62,050	
IGC	..	..	..	..	..	..	2,291	—	26,747	
Mari	..	..	..	..	..	..	—	56,075	56,075	

N, B.—This reflects the latest position.

34. The main projects which will be under implementation during 1982-83 are : Supply of Natural Gas to Quetta (Transmission Project), Quetta Natural Gas Distribution Project, Supply of Natural Gas to Villages around Sui integration of Pirkoh gas field with Sui, field, installation of standby compression and purification banks and projects of SNGPL.

35. An allocation of Rs. 287.8 million has been made for Directorate General of Gas Resources. This allocation fully provides for the demand for Quetta Natural Gas Transmission (Rs. 127.735 million), Distribution Project (Rs. 70.000 million) and Sui field villages gas distribution project (Rs. 1.905 million). Besides, Government equity contribution for SGTC projects of Pirkoh Gas Field Integration and Standby Purification projects has also been made (Rs. 78.13 million). A provision of Rs. 10.00 million as equity has also been made for SNGPL projects and it is proposed that during the year 1982-83 also work on some of the projects will be done from funds outside ADP resources.

36. The natural gas pipeline to Quetta will be completed by December, 1982. Major works in respect of distribution project for natural gas distribution in Quetta and other major towns will also be completed by the end of 1982.

Oil

37. *Review of 1981-82.*—The total domestic consumption of POL during 1981-82 is estimated at 5.051 metric million tons as against the target of 5.108 million metric tons. The balance sheet of disposal of POL is given in the tables below :—

TABLE 10
Production Consumption and Trade of Petroleum and Petroleum Products 1981-82.

	1981-82	
	Quantity (000 M/tons)	Value (Mill. US\$)
Domestic Oil Production	525	—
Crude Oil Import FOB	4,426	1,143
Domestic Production	4,634	—
Products Import FOB	1,566	487
Domestic Consumption of Products	5,051	—
Products Export	963	185
Sales to Foreign Carriers	260	120
Change in stock	(—)74	..
Net Imports FOB	4,740	1,220

38. The fuel bill (net import liability) for the year under review was estimated at \$1,388.16 million. According to the latest estimates, the net import

bill for 1981-82 is \$ 1,380 million. A comparison of the targets *vis-a-vis* latest estimates is given below :—

TABLE 11

Oil Import Bill

	1981-82 Target		1981-82 (Revised Estimates)	
	Quantity (Million tons)	Value (Million \$)	Quantity (Million tons)	Value (Million \$)
Import of crude	4.32	1100.38	4.426	1,143
Import of Products	1.48	546.96	1.604	537
Export of Products	0.66	111.66	0.971	187
Foreign Bunkers/Aviation Supplies	0.36	147.52	0.244	113
Net Import Liability	—	1388.16		1380

39. The total domestic production of oil during 1981-82 was 10,862 barrels/day. Details of production from various fields are given below :—

TABLE 12

Domestic Production of Oil 1981-82

Item	(US bbls)	
	Target for 1981-82	Achievement 1981-82
Oil Production		
(i) Toot	1,118,483	550,789
(ii) Meyal	3,175,490	2,573,283
(iii) Balkasar]	145,200	219,713
(iv) Joyamir	155,200	159,978
(v) Dhulian	50,005	81,555
(vi) Adhi	236,870	114,102
(vii) Khaskheli	—	262,469
(viii) Khaur	—	2,836
Total	4,881,248	3,964,725

TABLE 13
Oil Production Targets, 1981-82

Item	(US bbls/day)	
	Target 1981-82 (per day)	Achieve- ment 1981-82
Oil Production		
(i) Toot	3,064	1,509
(ii) Meyal	8,700	7,050
(iii) Balkassar	398	602
(iv) Joyamir	425	438
(v) Dhulian	137	223
(vi) Adhi	649	313
(vii) Khaskheli	—	719
(viii) Khaur	—	8
Total	13,373	10,862

40. In the private sector|joint venture it was estimated that 8 exploratory wells and 7 development wells will be drilled during 1981-82. The present estimate is that 6 exploratory and 6 appraisal and development wells will be drilled by June, 1982.

41. *OGDC*.—*OGDC* had set a target of drilling 29,950 meters out of which 6,900 meters was for exploration and 23,050 was for development. As against this, total drilling is estimated at 19,922 meters out of which 5,051 was for exploration and 14,871 for development. The field-wise break-up is given below whereas well-wise details are given in Annexure III.

TABLE 14
OGDC's Drilling Operations, 1981-82

Item	Target for 1981-82	Achieve- ment 1981-82
Drilling (metre) :		
(i) Exploratory	6,900	5,051
(ii) Development :		
(a) Toot	14,650	8,923
(b) Pirkoh	6,700	4,439
(c) Dhodak	1,700	1,509
Total (development)	23,050	14,871
GRAND TOTAL	29,950	19,922

42. To enhance overall exploration activity, OGDC proposed to drill 10 structures through joint ventures/contracts. A project for this was prepared by OGDC during 1981-82. It was estimated that well No. 2 at Pirkoh and well No. 15 at Toot would be in advanced stage of drilling by the end of fiscal year 1981-82. There were structural problems with Dhodak No. 4 and so the drilling was carried out upto 1509 metres during 1981-82. It is now proposed to develop Dhodak on pilot scale so that its features and technical performance may be first evaluated before further development.

Programmes for 1982-83

43. It is expected that the total POL consumption in the country during 1982-83 will increase to 5.2 million metric tons from a level of 5.051 million metric tons in the preceding year. The balance sheet of disposal of POL during 1982-83 is given in the following table :

TABLE 15
Production Consumption and Trade in Petroleum and Petroleum Products
1982-83

	1982-83	
	Quantity	Value
	(000 M/tons)	(Mill. US \$)
Domestic oil Production	766	
Crude Oil Import FOB	4,301	1,096
Domestic Production	4,744	
Products Import FOB	1,687	554
Domestic Consumption of Products	5,249	
Products Export	821	158
Sales to Foreign Carriers	288	131
Change in stock	73	
Net Imports FOB	4,753	1,361

The total oil import bill for the country during 1982-83 is projected to \$ 1,361 million. A break-up is given below :

TABLE 16
Net Oil Import Bill

Products	1981-82		1982-83	
	Quantity (Million tons)	Value (Mil- lion \$)	Quantity (Million tons)	Value (Mil- lion \$)
Import of Crude	4.426	1,143	4.301	1,096
Import of Products	1.604	537	1.687	554
Export of Products	0.971	187	0.821	158
Foreign Bunkers/Aviation Supplies	0.244	113	0.288	131
Net Import Liability		13,80		1,361

F. T.—This reflects the latest position.

provision of Rs. 10.775 million has been made for HDIP for 1982-83. This will enable modernisation and strengthening of fuels laboratories in Karachi, conversion of automobiles to CNG and expansion of laboratories evaluation centre at Karachi.

53. *Energy Development in special areas.*—The government lays great emphasis on the development of back ward/under developed areas and in this connection special attention is being paid to electrification work. A transmission line has been constructed to supply electricity to Azad Kashmir through four points.

54. Under the project, installation of small hydel stations in northern areas, NWFP and Azad Kashmir 8 small stations have been completed and it is expected that the remaining two stations will be completed by the end of fiscal year 1982-83. In order to supply electricity to far-flung areas of Baluchistan, WAPDA is laying a transmission net work under the project of secondary transmission line and grid station. Besides, 25 MW gas turbine is being installed in Quetta, and small diesel plants with low tension lines are also being installed at far-flung areas. The 132 Kv transmission lines from KESC system has been extended to Vinder, Utal and Bela, and electricity has been supplied through KESC system. Special emphasis is also laid on the village electrification as a whole and Baluchistan in particular. A natural gas pipeline is being laid from Shikarpur to Quetta and project for its distribution in major towns *en-route* Quetta is also under implementation. As stated in the preceding paragraphs a feasibility study for setting up a coal based plant at Duki in Baluchistan is also being carried out.

ENERGY SUPPLIES 1981-82 AND 1982-83

Sl. No.	Source	1981-82 Target			1981-82 Revised Estimate			1982-83 Target		
		Quantity	Energy Trillion K.J.	%	Quantity	Energy Trillion K.J.	%	Quantity	Energy Trillion K.J.	%
1	2	3	4	5	6	7	8	9	10	11
1.	Natural Purified Gas (Excluding fertilizer feedstock purification and other losses)	5255.60 million m ³ .	191.83		5416.0 million m ³ .	197.70		5639.27 million m ³ .	205.84	
2.	Natural Gas from Mari (Excluding feedstock).	287.99 million m ³ .	7.81		750.9 million m ³ .	20.33		947.9 million m ³ .	25.66	
3.	Raw Natural Gas (excluding Sui field)	864.09 million m ³ .	30.19		761.6 million m ³ .	26.60		780.4 million m ³ .	27.26	
	Total Gas	6408.58 million m ³ .	229.83	37.6	6444.8 million m ³ .	244.63	39.4	7367.5 million m ³ .	258.76	39.1
4.	Oil (Net export, Ocean Bunker refinery losses and non-energy use).	4841 million metric ton.	225.12	36.8	4.84 million metric ton.	225.14	36.2	5.10 million metric ton.	237.04	35.9
5.	Coal (Production data)	1.50 million metric ton.	29.06	4.9	1.578 million metric ton.	31.20	5.0	1.700 million metric ton.	33.61	5.1
6.	Hydro Electricity (Generation data)	9556 Gwh.	120.96	19.8	9241 Gwh.	116.97	18.8	10,000 Gwh.	126.58	19.2

1	2	3	4	5	6	7	8	9	10	11
7. Nuclear	(Generation data)	.. .. 259 Gwh	3.28	0.5	133 Gwh	1.68	0.3	125 Gwh.	1.58	0.2
8. LPG.	(Production data)	.. .. 42910 metric ton.	2.20	0.4	38600 metric ton.	1.97	0.3	68160 metric ton.	3.49	0.5
GRAND TOTAL		.. ..	611.05	100		621.59	100		61.06	100

The above table needs refinement as clear accounting of losses could not be done at this stage. M/s. IEDC are working for Planning Divis on to clarify this aspect.

Note : (a). Gas consumption as fuel in fertilizer factory is assumed to be 25% of the consumption in the factory.

(b) Consumption of Coal is based on estimates.

(c) Heat Rates :

Raw natural gas	.. .. .	933 BTU/cft.	or	349 Th KJ/dam ³	34.9 Th KJ/m ³
Natural Gas purified	.. .. .	975 BTU/cft.	or	365 Th KJ/dam ³	36.5 Th KJ/m ³
Mari Gas	.. .. .	723 BTU/cft.	or	271 Th. KJ/dam ³	27.1 Th KJ/m ³
Hydel and Nuclear	.. .. .	12000 BTU/KWH.	or	12658 KJ/KWH	
LPG:	.. .. .	22000 BTU/lb.	or	51168 KJ/Kg.	
Oil	.. .. .	20000 BTU/lb.	or	46517 KJ/Kg.	
Coal	.. .. .	5800 BTU/lb.	or	19770 KJ/Kg.	

Annexure II

ADP ALLOCATIONS FOR ENERGY SECTOR BY AGENCIES

		(Rs. in million)	
		1981-82	1982-83
POWER			
A. Normal ADP :			
Federal :			
1. WAPDA	.. .. .	4003.74	4830.7
2. KESC	.. .. .	128.771	3.8
3. 100 Small Hydel Station in NWFP, NA, A.K.	.. .. .	19.408	19.6
4. Pakistan Atomic Energy Commission	.. .. .	548.847	572.0
5. Directorate General of Energy Resources	.. .. .	37.293	59.0
6. Azad Kashmir	.. .. .	48.75	82.8
7. Northern Areas	.. .. .	24.375	35.6
8. S & FR Division (FATA)	.. .. .	35.7	46.3
9. M/o Science & Technology	.. .. .	0.1	0.1
Total (Federal)		4847.984	5649.9
Punjab	.. .. .	150.10	223.7
N.W.F.P.	.. .. .	10.21	7.7
B. Special Development Plan for Baluchistan (Rural Electrification).		—	246.23
GRAND TOTAL (Power)		5008.294	6127.53
FUEL			
Federal :			
OGDC	.. .. .	995.137	1284.2
Directorate General of Petroleum Concessions	.. .. .	274.563	486.8
Directorate General of Gas Operations	.. .. .	438.316	287.8
HDIP	.. .. .	10.886	10.8
Total Federal		1718.902	2069.6
Provincial :			
Punjab	.. .. .	—	0.5
N.W.F.P.	.. .. .	0.25	0.5
Total (Provincial)		0.25	1.0
Total (Fuel)		1719.152	2070.6
Total (Energy)		6727.446	8198.13

Item	Target for 1981-82	Estimated Achievement 1981-82			Target 1982-83
		July 1981—April— March, 82	June, 82	Total	
Well-wise detail :					
Hayal-1	—	1826	—	1826	—
Dakni-1	4900	310	1690	2000	2700
Zinda-pir	2000	—	—	—	—
Loti-1	—	—	—	—	1000
Sanghar	—	—	—	—	2500
Toot-11	—	475	—	475	2500
Toot-12	—	319	—	319	—
Toot-13	3150	1874	—	1874	—
Toot-14	3850	1412	1088	2500	2100
Toot-15	4650	—	1700	1700	2900
Toot-16	3000	—	—	—	2600
Toot-17	—	—	—	—	2200
Pirkoh-2	1700	2045	455	2500	—
Pirkoh-3	2500	—	—	—	2400
Pirkoh-4	2500	—	400	400	1850
Pirkoh-5	—	—	—	—	2500
Dhodak-4	1700	1147	1353	2500	—
Dhodak-5	—	—	—	—	2500
Dhodak-6	—	—	—	—	2500

FIELDWIRE DRILLING BY OGDC

Annexure IV

OGDC	Exploratory	Appraisal	Development	Total	Remarks
	Dakni- I will continue.	Pirkoh-3 to be spudded.	Toot-14 drilling will continue.		
	Loti-I to be spudded.	Pirkoh-4 spudded.	Toot-15 drilling will continue.		
		Pirkoh-5 spudded.			
	Sanghar-I spudded.	Dhodak-5 spudded.	Toot-16 drilling will continue.		
		Dhodak-6 spudded	Toot-17 drilling will continue.		
	3	5	4	12	

Date	Description	Amount	Balance
1890	To Balance	100.00	100.00
1891	By Cash	50.00	150.00
1892	To Cash	25.00	175.00
1893	By Cash	75.00	250.00
1894	To Cash	100.00	350.00
1895	By Cash	150.00	500.00
1896	To Cash	200.00	700.00
1897	By Cash	300.00	1000.00
1898	To Cash	400.00	1400.00
1899	By Cash	500.00	1900.00
1900	To Cash	600.00	2500.00

CHAPTER 5

INDUSTRY

REVIEW OF 1981-82

Introduction

Impressive growth has been recorded in both public and private sector industry during the past 5 years. Various incentives were offered by the Government during the period under review. Industrial infrastructure was improved, fiscal and monetary incentives were granted fiscal anomalies removed and by far the most significant, sanctioning procedures for private sector investment were streamlined. The total response to these measures has been a satisfactory tempo of industrial development during 1981-82 which is expected to further accelerate in the coming years.

Investment

2. During 1981-82, an impressive growth in industrial investment was brought about by repeated Government assurances, liberal policies to revitalize private investment and concerted efforts to streamline the public sector industry. These have proved fruitful, with the level of industrial investment increasing to Rs. 10,935 million as compared to Rs. 9,665 million in 1980-81 showing a 13 per cent increase over the previous year. During the year under review, about certain "ongoing" projects were completed in the public sector. These include Bolan, Lasbella and Shahdad Kot Textile Mills, Sugar Mills, Dir Forest Industries Complex, Bakers Yeast Project and Polyester Project (National Fibre Lhd.). In addition, four fertilizer projects (Pak-Arab Fertilizer, Pak-Saudi Fertilizer, Fauji Fertilizer and Hazara Urea Fertilizer Ltd. also went on stream. The overall physical progress at the Pakistan Steel Project has reached 85 per cent. The first blast furnace of the mill was commissioned in August 1981 and is producing pig iron. A cumulative expenditure of Rs. 18831.7 million has been incurred on the project by end of June, 1982.

Production

3. The Annual Plan 1981-82 projected a growth rate of 14.0 per cent in industrial production, with the large scale manufacturing sector providing a major push. Against this target, the industrial production during the year increased by 12.4 per cent with the major contribution coming from increased production of sugar, cement, fertilizer and mild steel products. The sugar industry showed an increase of 53 per cent in its production (1300,000 M/Ton in 1981-82 as compared to 851,000 M/Tons in 1980-81) which was mainly due to the commissioning of sugar mills in public and private sectors, as well as due to increase in the procurement prices of sugarcane.

4. During 1981-82, with the commissioning of Pak-Arab Fertilizer, Pak-Saudi Fertilizer, Hazara Fertilizer and Fauji Fertilizer Plants the production of fertilizers increased from 600,000 M/Tons in 1980-81 to 783,000 M/Tons in 1981-82, showing an increase of 30.5 per cent over the previous year.

5. During the year under review, the Thatta and Dandot Cement factories were completed where trial production will be stated in the second half of 1982. Due to better capacity utilization, the production of cement has increased from 3.54 million M/Tons in 1980-81 to 3.90 million M/Ton during 1981-82, showing an increase of 10.2 per cent.

6. The vegetable ghee industry also showed an improvement of 11.3 per cent, with production of 5,62,000 M/Tons during 1981-82 as compared to 5,05,000 M/Tons in 1980-81. This was contributed by balancing and modernization of a number of ghee units during the year. The textile industry which had been showing a mixed trend over the past few years, recorded a marginal improvement of about 5 per cent during 1981-82.

Problem Areas

7. Notwithstanding the impressive growth in industrial output during the year under review, the following constraints and industrial development problem areas need to be removed for optimum industrial investment and production activity :

- (i) Continuing capital resource constraint both in public and private sectors remains a bottleneck in the establishment of capital intensive and basic industries ;
- (ii) Development projects are invariably not completed on schedule, resulting not only in cost overruns and higher production costs but delaying the benefits accruing to the masses ;
- (iii) Sponsoring agencies resort to repeated revisions in capital costs and related debt—equity ratios, which upset project economics. Similarly self-financed investment is often made without approval from competent authority. This violates financial discipline, but raises the cost of the project to the detriment of planned industrial development ;
- (iv) To promote industrial development of special and backward areas there is a need to provide special incentives while at the same time providing industrial infrastructure in these regions ;
- (v) There continues to be a shortage of trained management cadre in industry. Concreted efforts need to be initiated to develop an efficient managerial class so that the present and the future requirements of industry are met, particularly when the country is at the threshold of entering a new era of industrialisation.

PROGRAMME FOR 1982-83

Investment

8. The level of industrial investment in the public sector during the year 1982-83 is likely to increase over the level of the previous year. A total allocation of Rs. 5076.34 million has been made for the public industrial sector as against the allocation of Rs. 4426.87 million in 1981-82. Out of the total development outlay Rs. 4960.13 million are for the public sector programme of the Federal Government while Rs. 116.21 million has been allocated for the Provincial Governments. The total allocations include Rs. 3047.94 million from normal ADP and Rs. 2028 million from credit budget.

9. Of Rs. 116.21 million provided for the Provincial Governments, the major share of Rs. 44.61 million (38.3 per cent) has been allocated to NWFP which includes Rs. 27.32 million to be provided by Federal Government for special accelerated programme of the province. Rs. 37.43 million (32.2 per cent) has been allocated to Punjab, Rs. 27.14 million (23.4 per cent) to Baluchistan and Rs. 7.03 million (6 per cent) to Sind province.

10. It has been decided that certain sub-sector industries under various industrial public sector corporations will finance their investment through bank credit, self-financing and foreign aid. Recourse to ADP funds has been confined only to exceptional cases. Therefore, an additional allocation of Rs. 2028.248 million has been made in the Credit Budget for projects in the public sector. Details of these allocations are shown in Annexure III.

11. In formulating the industry sector investment programme for 1982-83, the basic strategy adopted is the completion and acceleration of certain basic projects and programmes in the fields of steel, basic chemicals, transport equipment, tractors and cement which will help realise full benefits as expeditiously as possible. The Pakistan Steel project will be completed by October, 1983 so as to move quickly to the next stage of establishment of high value-added production units. About 66.5 per cent of the federal public sector investment therefore goes to Pakistan Steel. Other major allocations are meant for the requirements of cement projects, automobile sector development, Karachi Export Processing Zone and the Pakistan Security Printing Corporation. About 1.5 per cent of the total federal investment will be spent on research and studies so that technical development can be usefully applied to manufacturing process and programmes.

12. Pakistan Steel project has been allocated a record amount of Rs. 3,300 million (including Rs. 950 million from outside ADP). While the first blast furnace of Pakistan Steel was fired in August, 1981 the second blast furnace is expected to be in operation in 1982-83. The Billet mill and the main plant is expected to be completed during 1982-83. Overall, Pakistan Steel is expected to achieve 98 per cent physical completion during the year 1982-83.

26. The present installed capacity of cement industry is about 4.04 million tonnes. In 1982-83, Thatta, Dandot and Kohat Cement Plants, each having an installed capacity of 0.3 million tonnes, are expected to be in operation, which would further increase the total installed capacity to 4.94 million tonnes. Furthermore, some new capacity is also expected to be added by the private sector, as nine new projects with a total annual capacity of 3.606 million tonnes stand sanctioned in the private sector. The production target for cement has been fixed at 4.25 million tonnes against the previous year's estimated production of 3.90 million tonnes.

27. In view of coming into full production of Fauji Fertilizer and Hazara Urea Fertilizer Plants and with the improvement in the capacity utilization of the other units in 1982-83, the production of fertilizers is expected to increase by 19 per cent. Hence the targets have been fixed at 932,000 N|tonnes for both phosphatic and nitrogenous fertilizer against revised production estimates of 783,000 N|tonnes during the previous year.

28. The production of vegetable ghee is envisaged to increase by 6.8 per cent over the previous year as a result of some new capacity added by balancing and modernization of the existing ghee mills. The target of vegetable ghee production for 1982-83 has, therefore, been fixed at 0.600 million tonnes as against the production of 0.562 million tonnes during 1981-82.

29. The present installed capacity of soda ash and caustic soda is 84,000 tonnes and 49,000 tonnes per annum respectively. During 1982-83 this capacity is expected to increase with the completion of the balancing and modernization programme of Sind Alkalies Ltd., Karachi and Ittehad Chemicals Ltd., Kala Shah Kaku. Some new capacity is also expected to be added during 1982-83, in the private sector. The production target has, therefore, been fixed at 125,000 tonnes for soda ash and 47,000 tonnes for caustic soda against revised production estimates of 116,000 tonnes and 41,000 tonnes during 1981-82.

Engineering goods industry

30. With the completion of Pakistan Steel Mills, the country will be at the threshold of a second industrial revolution in the engineering goods industry, both in the public and private sectors. The product range in this sector is considerable, with emphasis on light and heavy engineering, machine tools telecommunication equipment transformers, switch gears, surgical instruments, parts of machinery for textile units, cement and sugar mills, agricultural machinery and automotive equipment etc. In view of the wide variety of product line in this industry, it is difficult to specify the production targets separately for these products. The estimated production of engineering goods during 1981-82 was 5,87,000 tonnes against which a combined production target of 630,000 tonnes has been fixed for 1982-83.

PROVINCIAL PROGRAMME

31. An amount of Rs. 88.88 million, allocated to the provinces for investment during 1982-83, is proposed to be spent on various ongoing and new

schemes. In Punjab, Rs. 37.42 million will be invested in establishing training centres, industrial estates and other projects. An amount of Rs. 7.05 million is proposed to be spent in Sind on leather, footwear and handicraft centres, vocational training centres for radio and TV, welding, wood working and pottery etc. as well as on small industrial estates. In Baluchistan, Rs. 27.14 million is proposed to be invested in carpet centres, industrial estates, wool spinning plants, industrial homes etc. An amount of Rs. 44.61 million allocated for development of NWFP includes allocations for special accelerated programme on projects such as a bottling plant, sheet glass, fruit/vegetables processing and cattle food projects. Allocation has also been made for promotional training, industrial estates, and small industrial development projects such as metal centres, wood working, carpet and leather centre etc. Details of the provincial programme are given in Annexure II.

Private Investment

32. In response to Government's liberal policy towards private sector investment in terms of incentives offered, setting up of infra-structure facilities as well as frequent assurances against nationalisation, the private sector has responded positively. Sanctions for new units for BMR of existing units have amounted to Rs. 32.14 billion during the period 1978—1982, against I.I. Schedule of Rs. 39.29 billion and the 5th Plan private sector investment target of Rs. 19.00 billion. The sources of financing include (i) repatriable investment (ii) Non-repatriable investment (iii) private foreign loans (iv) PAYE Scheme (V) Cash Licences etc.

	Agency						Rs. Million	% Share
IPB	25359	79
IDBP	3717	12
PICIC	3065	9
						Total	32141	100

33. Sanctions have mainly been in non-metallic mineral industry, paper, pulp and wood products, rubber, electrical equipment, textiles, chemicals and man-made fibres as well as various miscellaneous industries such as hotels, agricultural implements and transport equipment. However, a poor response has been observed in fields such as electronics, basic metals and machinery other than electricals. Some of the large and medium sized sanctioned projects have been completed and are in operation while a large number are in various stages of implementation. Some are due for completion in 1982-83, while a few of the units will be in operation in subsequent years i.e. the sixth Plan.

34. Private sector investment in 1981-82 is estimated at Rs. 4.46 billion, while investment during 1982-83 is estimated at 6.00 billion.

35. It is Government's policy to encourage the private sector for development of industry, but the public sector investment in certain selected industries is unavoidable because of the inherent capital and technological intensity. Both sectors should supplement each other in unison in realising national goals.

INDUSTRY SECTOR

ALLOCATIONS FROM CREDIT BUDGET FOR 1981-82 AND 1982-83

(Rs. in million)

S. No.	Sub-Sector of Industry	1981-82	1982-83	% change
1.	Steel	740.0	950.0	28.4
2.	Textiles	39.7	25.0	(37.0)
3.	Pulp and Wood (Dir Forest Complex)	48.3	5.9	(87.8)
4.	Chemicals (Soda Ash and Caustic Soda)	25.1	16.1	(35.9)
5.	Transport equipment automobile units of PACO. ..	173.1	230.1	32.9
6.	Fertilizers	136.8	179.2	31.0
7.	Cement	304.0	317.0	4.3
8.	Engineering/Machine Tools, Textile Machinery ..	114.7	41.8	(63.6)
9.	Petrochemicals (Study Only)	—	2.1	—
10.	Block allocation for			
	(a) Hydro-cracker			
	(b) Pak-Cement		220.0	—
	(c) FIAT Tractor			
11.	Manpower Development (Training)	—	3.4	—
12.	Ship and Building and dry-dock	—	20.0	—
13.	Vegetable Ghee (Expansion of four units)	—	17.8	—
	Total ..	1581.7	2028.4	28.2

INDUSTRY SECTOR
 II. MAJOR PHYSICAL TARGETS

Item	Unit	1981-82		1982-83 Target
		Target	Estimate	
Sugar	000 M. tons.	880	1300	1300
Vegetable Ghee	000 M. Tons.	568	562	600
Cigarettes	Billion Nos.	38	40	41
Cotton Yarn:	Million K.g.	390	394	430
Cotton Cloth (Mill Sector)	Million K.g.	350	324	350
Paper and Board	000 M. Tons.	95	98	100
Soda Ash	000 M. Tons.	100	116	125
Caustic Soda	000 M. Tons.	42	41	47
Fertilizer (N+P)	000 M. Tons.	761	783	932
Cement	000 M. Tons.	4000	3900	4250
M.S. Products	000 M. Tons.	550	587	630
Basic Steel (billets)	000 M. Tons.	150	—	250

During 1981-82, the Government is estimated to be 93.4 million tonnes of sugar in the form of cane and 171.73 million tonnes of sugar in the form of sugar. The sugar sector, particularly the sugarcane sector, has been the mainstay of the Indian economy since the 1950s. The Government has been providing subsidies to the sugar industry since the 1950s. The sugar industry has been a major source of foreign exchange for the Government. The sugar industry has been a major source of employment for the rural population. The sugar industry has been a major source of tax revenue for the Government. The sugar industry has been a major source of foreign investment for the Government. The sugar industry has been a major source of foreign aid for the Government. The sugar industry has been a major source of foreign trade for the Government. The sugar industry has been a major source of foreign exchange for the Government. The sugar industry has been a major source of employment for the rural population. The sugar industry has been a major source of tax revenue for the Government. The sugar industry has been a major source of foreign investment for the Government. The sugar industry has been a major source of foreign aid for the Government. The sugar industry has been a major source of foreign trade for the Government.

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Major Mineral Activities

5. Geological Survey of Pakistan (GSP) continued its mineral exploration projects in Baluchistan. These exploration activities have resulted in the delineation of copper deposits having potential as much as that of Saindak deposits in Chagai district; lead and zinc occurrences in Lasbela-Khuzdar district and fluorite in Kalat Division. GSP remained engaged in the exploration of coal, chromite, gemstones, placer and evaporite minerals deposits in the other provinces of the country in addition to its regular activities of geological mapping.

6. Pakistan Mineral Development Corporation (PMDC) is developing its coal and salt mines so as to meet the ever increasing demand of these minerals. Resource Development Corporation (RDC) continued to discuss with Saindak joint-venture (SIV), a consortium of Yugoslav, Canadian and French Firms for its participation in the equity of a company proposed to be formed for developing Saindak Integrated Mineral Project. Negotiations have continued. The GEMSTONE Corporation of Pakistan Ltd. (GEMCP) remained busy in its mining operations at Swat Emerald Mines and Exploration/development work at Charbagh—Alpurai and Katlang-Dassu projects. PIDC collected representative samples of Nokkundi iron ore deposit, got it upgraded in the PCSIR Laboratories and sent to USA for testing to gauge its suitability for use by PASMIC. The Sarhad Development Authority (SDA) in collaboration with British Consultants have continued investigations for phosphate rocks in Hazara Division. According to the available data, the beneficiated rock is technically suitable for the manufacture of phosphoric acid as well as nitrophosphate. The Punjab Mineral Development Corporation (PUNJMIN) remained busy in the exploration and evaluation of coal deposits in Padhrar district Jhelum, and gypsum deposits in Mianwali District.

PROGRAMME FOR 1982-83

Investment

7. The allocation for the minerals development programme during 1982-83 is Rs. 169.172 million, which is 185 per cent higher than the actual investment in the preceding year.

Production Targets

8. The production targets of different minerals during 1982-83 envisages a 15 per cent growth over the previous year. A 60 per cent increase in the production of magnesite, 34 per cent growth each in China clay, 26 per cent rise in chromite, 16 per cent increase each in case of marble and limestone and 13 per cent growth each in case of fullers' earth and fire clay are expected. The coal production at 1,771 million tons is higher by 7 per cent compared to the preceding year's level. Detailed production targets during 1982-83 appear

in Annexure II, while major mineral development activities by various government agencies are briefly discussed below :

Major Mineral Activities

9. *Geological Mapping and Preliminary Mineral Investigations.*—In addition to its primary and regular activities of geological mapping, the GSP will continue to direct its efforts at integrating exploration of porphyry copper occurrences in Chagai district; lead-zinc occurrences in Lasbela-Khuzdar district and compilation and inter-pretation of aeromagnetic surveys carried out by the Canadian International Development Agency (CIDA) in Baluchistan. During 1982-83, the GSP will remain engaged in the exploration of coal resources in Sind and Punjab, placer and evaporite minerals in Punjab and gemstones, chromite, copper and manganese in NWFP. An allocation of Rs. 13.282 million has been made in the ADP 1982-83 for the initiation and or completion of these schemes.

10. *Development and Utilization of indigenous Coal.*—To encourage coal for power generation and to use it in the existing and new cement plants and brick kiln industry, the existing operating coal mines will be expanded and new coal fields explored and evaluated. A sum of Rs. 30.5 million has been allocated in the ADP 1982-83 for this purpose.

11. *Development of Rock Salt Deposits.*—PMDC, in addition to carrying out an exploration scheme to prove the feasibility of salt solution mining of a deeper depth which could not be exploited by conventional mining method will prepare project documents to develop rock salt deposits around Khewra, Warcha and Kalabagh areas. Allocation of Rs. 30 million has been made for 1982-83.

12. *Evaluation and Development of Hazara Phosphate rocks.*—Pakistan imported 1,80,755 tons of phosphate rocks valued over Rs. 117 million during 1980-81 to feed the existing Phosphate Fertilizer Units. The exploration work being carried out by the Sarhad Development Authority (SDA) with the assistance of British Mining Consultants (BMC) has confirmed that phosphate rocks are technically suitable for the manufacture of phosphoric acid and nitro-phosphate. At the end of 1982, the British Consultants will submit the final project report consisting of mine design, infrastructure facilities, beneficiation plant and the most suitable end-use product. The exploration being carried out by SDA and British Consultants are going to result in a major mining project for phosphates. An allocation of Rs. 7.322 million has been made by the Government of NWFP for this purpose.

13. *Raw Materials for PASMIC.*—Maximum attention will be given to the exploration and development of indigenous raw materials used as a feed stock for PASMIC such as iron ore, refractory materials, fluorite, limestone, dolomite, quartzite etc.

14. *Gypsum Mining and Processing.*—Punjab Mineral Development Corporation (PUNJMIN) will prepare a project in collaboration with Asian Development Bank to mine and mill gypsum deposits near Daudkhel, district Mianwali for its supply to agriculture and for the manufacture of gypsum plaster.

Appendix II

PRODUCTION EXPENDITURE FOR 1928

(Foot Note)

1	2	3	4	5	6	7	8	
							9	10
1. Coal	420	160	100	100	100	100
2. Wood	20	20	20	20	20	20
3. Cement	10.5	1	..	..	..	..
4. Lumber	17	22.2	150	150	150	150
5. Brick	12	20.2	20.2	20.2	20.2	20.2
6. Aggregate	0.2	0.2	0.2	0.2	0.2	0.2
7. Other	27	14.9	20.2	20.2	20.2	20.2
8. Other	10	20.2	20.2	20.2	20.2	20.2
9. Other	22	27	20.2	20.2	20.2	20.2
10. Other	20	20	20	20	20	20
11. Lumber	100	100	100	100	100	100
12. Other	0.1	0.1	0.1	0.1	0.1	0.1
13. Other	17	17	17	17	17	17
14. Other	17	17	17	17	17	17
15. Other	27	27	27	27	27	27

Source: Bureau of Economic Warfare, Department of War, Washington, D.C., 1945. Figures are in millions of dollars.

CHAPTER 7

TRANSPORT AND COMMUNICATIONS

REVIEW OF 1981-82

Performance of Transport System

The transportation system of the country performed satisfactorily during 1981-82. The total Cargo import handled at Karachi port was 11.70 million tonnes as against 11.037 million tonnes during the previous year, showing a slight increase. This included 5.1 million tonnes of dry cargo import during the year against 4.831 million tonnes during 1980-81. The liquid cargo imports showed slight increase from 6.206 million tonnes in 1980-81 to 6.60 million tonnes during 1981-82. The major commodities imported during the year included 1.45 million tonnes cement, 0.35 million tonnes of fertilizer, 0.20 million tonnes of rock phosphate and 0.25 million tonnes of wheat. The total exports of Dry Cargo during the year from KPT was 2.15 million tonnes as against 2.359 million tonnes during 1980-81 and that of liquid cargo was 1.40 million tonnes as against 1.259 million tonnes during 1980-81. The ship waiting time at the Karachi Port reduced to zero and the transportation system of the country was as a whole better geared to take up the demand.

2. In addition to the above, Port Qasim handled 0.05 million tonnes of coal and 0.71 million tonnes of iron ore imports as well as 0.163 million tonnes of coke and pig iron exports. The transportation demand for cargo handled at Port Qasim was local.

3. Transport by the NLC by road was 441.311 million tonne Kms. up to February, 1982, out of which 52.444 million tonne kilometers was by hired transport.

4. The Wagon turn around time is expected to remain constant at 14.7 days as in 1981-82; the daily wagon loading on the total Railway system was, however, expected to decrease from 1729 wagon in 1981-82. In the case of passenger traffic, the Pakistan Railways is estimated to increase by 2.7 per cent during 1981-82 (16751 MP-Km as against 16311 MP-Km during 1980-81). Whereas the freight traffic was estimated to increase by 3.6 per cent during 1981-82 over the freight traffic of 7918 MT-Km handled during the year 1980-81.

5. As far as the track rehabilitation programme is concerned, the physical achievement is expected to increase during 1981-82 due to commissioning of the concrete sleeper factories.

6. The Railway traffic expected to be handled during 1981-82 and 1982-83 is tabulated below :—

TABLE 1
Railway Traffic

	Actual 1979-80	Actual 1980-81	%age changes	Estimated 1981-82	%age above/ below Plan	Annual Plan latest Forecast for 1982-83
Rail						
Goods : Mill ton Kms ..	8,598	7,918	(-)8%	8,200	(-)4.6%	8,610
Passenger : Million Passenger Kms	17,316	16,331	(-)5.8%	16,751	(+)17.8%	17,204

Financial utilization

7. An allocation of Rs. 4,625.153 million (Rs. 4,823.892 million for Federal and Rs. 801.261 million for Provincial programmes) was made during 1981-82. Against this, expenditure incurred was of the order of Rs. 4,935.433 million under the Federal programme giving a utilization of 102.31 per cent. The utilization in the Provincial programme was of the order of Rs. 802.348 million i.e. 100.14 per cent. The overall utilization was 102 per cent.

8. Under the semi-public sector, an allocation of Rs. 919.206 million was made, against which an expenditure of Rs. 639.486 million was incurred giving a utilization of 69.57 per cent.

Physical Implementation

9. The principal features of the 1981-82 implementation programme are given below :—

10. *Pakistan Railways.*—An allocation of Rs. 1,266.662 million was made for Pakistan Railways during 1981-82. Against this an expenditure of Rs. 1,398.35 million has been incurred giving a utilization of 110 per cent. The excess in expenditure has been mainly due to “Telecommunication and Related Signalling” and “procurement of 38 D. E. Locos” projects where expenditure incurred has exceeded the ADP allocations due to greater loan availability.

11. The programme for 1981-82 envisaged improvement in the utilization of existing motive power and rehabilitation of track, line capacity improvement works, including improved telecommunications and related signalling and improvement in workshops facilities.

Salient features of the programme are discussed below :—

- (i) *New Construction.*—The project viz. “Mari Indus Bannu Conversion from N. G. to B. G.” has lost its priority and a go slow policy has been maintained during the year under review. Against the allocation of Rs. 4.87 million, the expenditure incurred was of the order of Rs. 6.282 million.

- (ii) *Track Rehabilitation*.—An allocation of Rs. 324.675 million was made for the track rehabilitation programme during 1981-82 against which an expenditure of Rs. 335.924 million was incurred. In physical terms, complete track renewal of 111 Km, rail renewal of 32 Km and sleeper renewal of 128 Km was undertaken. Besides, Rs. 19.50 million were made available for completion of work on four concrete sleeper factories. The entire amount was spent and trial production of sleepers has started.
- (iii) *Improvement of Terminal Facilities*.—Since the work on Karachi Passenger Terminal project has been abandoned by the Ministry of Railways, the expenditure incurred was only Rs. 0.5 million against the allocation of Rs. 27.3 million. Progress of work on other line capacity works was satisfactory and against the allocation of Rs. 7.8 million an expenditure of Rs. 13.054 million was incurred.
- (iv) *Motive Power Rolling Stock*.—Against an allocation of Rs. 447.964 million during 1981-82, the expenditure incurred is of the order of Rs. 464.674 million, giving a utilization of 104 per cent. Details of the programme are given below :—
- (a) Against the allocation of Rs. 19.5 million for continuation of Re-engining of D. E. Locos, an expenditure of Rs. 6.374 million has been incurred upto June, 1982. Work on 40 D. E. Locos would be completed.
 - (b) Rehabilitation of overage D. E. Locos was initiated during 1981-82. Against an allocation of Rs. 32.272 million, an expenditure of Rs. 43.112 million has been incurred on the shipment of stores.
 - (c) 20 complete D. E. Locomotives out of 38 D. E. Locos, have been received and placed on line. Against the allocation of Rs. 132.6 million, the expenditure incurred is of the order of Rs. 206.315 million, giving utilization of 156 per cent.
 - (d) An allocation of Rs. 25.038 million was made during 1981-82 for replacement of traction motors and sub-assemblies of the D. E. Locos. Work on the project however, could not be taken in hand.
 - (e) Against the allocation of Rs. 202.556 million made for the manufacture of carriages, an expenditure of Rs. 202.458 million was incurred during 1981-82. About 110 carriages were manufactured during the year.
 - (f) Against the allocation of Rs. 29.25 million for manufacture of 125 hopper trucks under the track rehabilitation programme, an expenditure of Rs. 30.00 million was incurred. In physical terms—hopper trucks were manufactured during the year under review.

- (g) In order to replace the outlived locomotive fleet, Pakistan Railways has initiated a programme for local manufacture of D. E. Locos. Feasibility study for the progressive manufacture of locos has been taken in hand. An expenditure of Rs. 3.295 million has been incurred against the allocation of Rs. 4.00 million.
- (v) *Telecommunication and Related Signalling and other signalling works.*—Against an allocation of Rs. 330.225 million the expenditure incurred is of the order of Rs. 410.176 million giving a utilization of 124 per cent. Work on “Telecommunication and Related Signalling” and “Other Telecommunication Works” has reached advanced stages of execution.

Roads

12. *Federal Programme.*—An allocation of Rs. 1,072.704 million was made for the Road Development Programme during 1981-82. Against this an expenditure of Rs. 865.266 million was incurred giving a utilization of 81 per cent.

13. *Azad Kashmir.*—The entire allocation of Rs. 91.333 million for 1981-82 was utilized. During this period, 25 KMs of roads were improved and widened, 72 KMs metalled and black topped, and 54 KMs re-surfaced. In addition, work on a number of bridges was also carried out.

14. *Northern Areas.*—Against the allocation of Rs. 33.764 million for 1981-82, an expenditure of Rs. 31.97 million was incurred, giving a utilization of 95 per cent. During this period 144 KMs of jeepable, 16.0 KMs of metalled and 27.2 KMs of truck roads were constructed in addition to improvement of 83.2 KMs of existing roads. Work on 13 bridges was also carried out.

15. *FATA.*—Against an allocation of Rs. 102.261 million for 1981-82, an expenditure of Rs. 65.192 million was incurred upto March 1982 giving a utilization of 63.75 per cent. During this period 68.4 KMs of shingled and 27.2 KMs of black topped roads were constructed while 61.2 KMs of existing roads were improved. Work on two bridges was also carried out.

16. *Ministry of Communications.*—An allocation of Rs. 845.346 million was made for different projects relating to roads and bridges. Against this, an amount of Rs. 729.403 million was spent. Main features of the physical achievement are given below :—

17. *Major Bridges.*—The entire allocation of Rs. 176.62 million for 1981-82 for major bridges was utilized. During this period work on the Dadu-Moro bridge was carried out to the verge of completion while work on the D. I. Khan-Darya Khan Bridge and the Ghazi Ghat Bridge progressed.

18. *National Highways and Bridges.*—Against an allocation of Rs. 222.999 million for 1981-82, an expenditure of Rs. 153.18 million was incurred, which gives a utilization of Rs. 68.69 per cent.

19. During this period, in Punjab among the major projects work on carpetting of the Lahore-Gujranwala road, Gujrat Bypass and the Wazirabad Bypass were completed while work on the new carriageway between mile 3|0—37|0 of G. T. Road and the carpetted dual carriage way between COAS House and Chablot, including Harro bridge, progressed. In Sind, against a target of one third, special repairs over one fourth of the Karachi-Hyderabad Super Highway were completed. In NWFP, about one fifth of the work on construction of the dual carriage-way between Peshawar and Nowshera was completed while more than half of the work envisaged for improvement of the Darazinda-Mogulkot road was completed. In Baluchistan construction of the Wadh-Kannar Section of RCD Highway was completed while substantial progress was made in case of the Poorali Bridge project. Work on the improvement of the Quetta-Sibi Section of N-65 and the Quetta-Zhob road was also initiated.

20. *Third Highway Project.*—The Third Highway Project is an improvement project implemented with the financial aid from the World Bank. The project is divided into two Phases i.e. Group I and Group II totalling 327.8 KMs.

21. During 1981-82, Rs. 250 million were allocated for the project against which an expenditure of Rs. 150.0 million was incurred, giving an utilization of 60 per cent. Group I consisting of Nowshera-Khairabad Road and Peshawar-Charsadda road was completed whilst in Group II, 25 per cent work was carried out on the Lahore-Sahiwal road and 20 per cent on the Reti-Kandiara Section.

22. *Other Roads.*—The ADP 1981-82 provided Rs. 98.227 million against which an expenditure of Rs. 147.103 million was incurred, giving a utilization of 150 per cent. During the period under review, work on Sansa-Sarsawa Tararkhel Road was completed, 74 per cent work on Dhulli-Aliabad road carried out, 83 per cent work on Bagh-Sudhangali Chikar road completed and about 75 per cent work each on Chakdara-Chitral and KKH Skardu roads completed.

23. *NLC.*—Rs. 97.5 million were provided for 1981-82, against which an expenditure of Rs. 102.5 million was incurred. Out of this amount, Rs. 97.5 million were spent on rehabilitation of highways and Rs. 5 million on development of dry ports. In addition, a sum of Rs. 83.05 million was spent by the NLC under self-financing on purchase of buses and vehicles, payment of loan and instalments for imported vehicles, input of workshop machinery and construction of workshops.

Federal Urban Transport

24. *Karachi Transport Corporation.*—Against an allocation of Rs. 146.25 million for 1981-82, an expenditure of Rs. 112.75 million was incurred giving a utilization of 77 per cent. All this amount was released by the Federal Government and no provincial Government's input was involved. 150 buses imported in 1979-80 were brought on road. In addition expenditure was incurred on procurement of spare parts, civil works and major overhaul of buses. New machinery and equipment was also procured.

25. *Punjab Urban Transport Corporation*.—Against an allocation of Rs. 97.5 million for 1981-82 an expenditure of Rs. 295.351 million incurred. During the year Phase I of the project was finally completed and the remaining civil works and body fabrication on chasses under Phase I was also completed. In addition, under Phase II the second lot of 300 Volvo Chasses alongwith spare parts was received, body building on 200 Volvo chasses completed, machinery and equipment imported and work carried out on the various civil construction works.

Road Transport (Private Sector)

26. The position of private sector investment had deteriorated in the last few years. During 1981-82, a slight improvement was noticed in sale of trucks and buses. There was a large increase in the procurement of L.C.V's. The Import/sale of vehicle during the past few years is tabulated below :—

TABLE 2
Import and sale of Trucks, Buses and LCVs

Year	Imports			Sales		
	Trucks	Buses	LCV	Trucks	Buses	LCV
1972-73	5,464	672	1,199	3,985	134	1,008
1973-74	2,682	2,532	26,94	4,929	376	2,399
1974-75	5,365	3,505	5832	6,323	412	5,109
1975-76	7,526	914	8,239	3,837	1,509	8,142
1976-77	598	1,512	12,021	3,525	628	12,027
1977-78	1,788	120	6,579	3,277	691	7,733
1978-79	6,636	2388	11,958	4,300	1,174	5,891
1979-80	1,501	576	8,112	4,699	1,140	9,382
1980-81	3,580	660	7,847	2,686	773	8,464
1981-82	1,902	196	9,537	4,447	880	17,789
1982-83 (Projected)	5,169	1,004	13,150	4,775	1,200	20,126

Ports and Shipping

27. *Federal*.—Against an allocation of Rs. 1,002.766 million for 1981-82 an expenditure of Rs. 1,055.146 million was incurred giving a utilization of 105 per cent.

28. *Outside ADP*.—The allocation for Semi-public Sector of Ports and Shipping during 1981-82 was Rs. 919.206 million as against which there was a utilization of Rs. 576.959 million, giving a utilization of about 63 per cent.

29. The brief achievements sub-sector wise are summarised below :—

- (a) *Port Qasim*.—Against an allocation of Rs. 875.833 million for 1981-82 an expenditure of Rs. 930.91 million was incurred, giving a utilization of 106.3 per cent. During this period work progressed on the operational facilities and buildings for berths 1-4 of

the Marginal Wharf and construction of berths 5—7 of the Marginal Wharf and related facilities. Substantial progress was achieved on works pertaining to the utility connections. Construction of the main access road was initiated while channel dredging continued.

- (b) *Karachi Port Trust*.—Against an allocation of Rs. 282.669 million for 1981-82, an expenditure of Rs. 242.00 million was incurred. The programme under the Third Port Project, the 4 shipping berths at Juna Bunder, 2 transit sheds for the Juna Bunder shipping berths, Phase-B works of heavy duty pavings, track work, etc. and integrated 15 acre container marshalling and storage park, the Railways marshalling yard, heavy duty pavings underground services and operational buildings for the 25 acre container marshalling and storage park and 3 sheds for stuffing and destuffing of containers, were all commissioned.

The Karachi port handled the entire sea-borne trade of Pakistan, except for Steel Mill cargo, during 1981-82, which comprised of 5.1 million tonnes of dry general cargo, including food grains and fertilizer imports, rice and cotton exports, and the gradually increasing container/lash traffic. The port also handled 6.6 million tonnes of liquid cargo, comprising principally of crude oil, POL surplus/deficit products, edible oil and molasses, etc. The total cargo is slightly higher than 1980-81 level.

- (c) *Jinnah Bridge*.—Against an allocation of Rs. 48.66 million for 1981-82 an expenditure of Rs. 48.0 million was incurred which means a utilization of 98.6 per cent. During this period work progressed on the approaches to the bridges, and the bridge structure was completed and opened to traffic.
- (d) *Pakistan Marine Academy*.—The entire allocation of Rs. 4.875 million for 1981-82 was utilized giving a utilization of 100 per cent. Work on the project continued and about 92 per cent of the total work on the project was completed by the end of the year ;
- (e) *Gwadar Fish Harbour*.—The entire allocation of Rs. 0.194 million for 1981-82 was utilized. This allocation was utilized on the salaries of staff etc. No construction work was carried out since there was no decision on financing of the project.
- (f) *Navigational Aids*.—An allocation of Rs. 1.167 million was made for 1981-82, which was fully utilized. Work relating to the project was completed.
- (g) *Hydrographic Survey Vessel*.—The ADP 1981-82 allocation for procurement of the vessel was Rs. 70.00 million which was completely utilized. Work on building of the ship in Japan under Japanese loan, continued.

- (h) *Shipping*.—An allocation of Rs. 636.537 million in foreign exchange was made for the Pakistan National Shipping Corporation under the Semi-Public Sector in 1981-82. Against this an expenditure of Rs. 397.486 million was incurred giving a utilization of about 62.45 per cent.

The low utilization was basically due to the curtailment in the agreement for supply of ships by Poland as only 3 Polish ships were received as against 8 contracted for. Three Ships were received from U.K. in accordance with the programme. Work on the ship construction in the shipyard continued, whilst the deal for purchase of a second hand oil tanker for the National Tanker Company was finalized.

Planning and Development Division

30. *N.T.R.C.*.—An allocation of Rs. 3.588 million was made for the research studies to be carried out by the NTRC. The actual expenditure incurred amounted to Rs. 0.60 million. The Centre has completed two on-going studies during the year. Another eleven studies were in hand.

National Transport Plan Study

31. The National Transport Plan Study was started in the Planning Commission in December, 1981. The study is being conducted by the Japanese International Cooperation Agency (JICA) and the Planning Commission. The study aims at the preparation of a comprehensive national transport plan, integrating the various modes of transport into an economically optimal transport system. The Foreign Exchange component for the study has all been met with by the Japanese. The local component is being met by the Government of Pakistan and during the year an expenditure of Rs. 0.545 million was incurred on the study out of the Federal Budget.

Civil Aviation

32. An allocation of Rs. 257.372 million was made during 1981-82 for strengthening of runways, provision of radio communication, navigation, ground facilities, fire-fighting and necessary security measures at different airports. The expenditure incurred, however, was of the order of Rs. 202.218 million giving a utilization of 78.6 per cent. In physical terms work on strengthening of runways at Quetta and Peshawar were completed besides provision of control towers at Sukkur, Jiwani and Chitral airports. Radio communications and NDB facilities were provided at Gawdar, Pasni, Turbat and Ormara airports. Work on Bannu aerodrome and civil aviation training Institute at Hyderabad reached advanced stages of execution. Augmentation of Radio aids to aeronautical navigation and landing also reached advanced stages of execution.

Telecommunications

33. An allocation of Rs. 897.00 million was made to the T&T Department during 1981-82 for the expansion and improvement of telecommunication

system. The entire amount has been spent during the year. The major targets envisaged and achieved during 1981-82 are as under :—

TABLE 3

Major Targets—Achievements in Telecommunications Sub-sector

Item	Target	Achievement
(i) Telephone Lines (Nos)	30,000	25,000
(ii) Trunk Positions (Nos)	39	27
(iii) N.W.D. Exchange at Mingora	1	1
(iv) Karachi—Pipri PCM Microwave System	30%	25%
(v) Mardan—Chitral Microwave System	30%	30%
(vi) Upgradation of CENTO Microwave System	25%	30%
(vii) Work was initiated on the following new schemes according to the target and the following achievement has been made :—		
(a) Additional RF channels on existing microwave links	5%	
(b) Karachi—Quetta—Peshawar high capacity microwave link	4%	
(c) 75 PCO's each in Punjab, Sind, NWFP, Baluchistan	Nil.	
(d) Satellite Earth Station at Islamabad	5%	
(e) Second Gateway Exchange at Islamabad	1%	
(f) Renovation of Co-axial cable system	4%	
(g) Lahore—Amritsar Co-axial cable system	5%	
(h) 1500 teleprinter machines	50%	
(i) Provision and expansion of subsidiary routes for exchanges	Nil.	
(j) 1900 multiplex channels	3%	
(k) Installation of 1000 lines Telex exchange at Islamabad	2%	
(l) Expansion of electronic telex exchange at Karachi by 1200 lines	Nil.	
(m) Consolidation of NWD net work by 2100 lines	6%	
(n) Replacement of 9000 lines of F.I. equipment	Nil.	

34. *Special Communications Organisation (S.C.O.)*.—An allocation of Rs. 24.375 million was made for the S.C.O. during 1981-82, while the expenditure incurred was Rs. 24.375 million. About 2,150 new telephone connections were provided, 1,340 in Azad Jammu and Kashmir and 810 in Northern Areas; 11 exchanges were installed, 6 in Azad Jammu and Kashmir and 5 in Northern Areas; 11 Public Call Offices were opened, 8 in Azad Jammu and Kashmir and 7 in Northern Areas. Besides, 36 carrier Channels and 30 VFT channels were installed in AJK and Northern Areas.

35. *Post Offices*.—An allocation of Rs. 31.20 million was made to the Post Office Department during 1981-82, which was fully utilized. Construction of 25 post office buildings and 125 residential quarters have been completed.

PROVINCIAL PROGRAMME

36. *Punjab Roads and Bridges.*—Against an allocation of Rs. 271.7 million for 1981-82 an expenditure of Rs. 303.4 million was incurred giving a utilization of 111.6 per cent. During this period, 248 KMs of new roads were constructed and 112 KMs of existing roads improved. In additions, 6 schemes under the restoration of flood damages programme were completed.

37. *Sind Roads.*—Against an allocation of Rs. 253.391 million for 1981-82 an expenditure of Rs. 257.778 million was incurred giving a utilization of 101.34 per cent. During this period 269 KMs of new roads were constructed and 230 KMs of existing roads improved. Work on 6 bridges was also completed.

38. *Sind Road Transport.*—Against an allocation of Rs. 16 million for 1981-82 an expenditure of Rs. 15.6 million was incurred on the addition of 80 buses to the SRTC fleet.

39. *N.W.F.P. Roads and Bridges.*—Against an allocation of Rs. 160.247 million for 1981-82, Rs.156.57 million were spent giving a utilization of 97.7 per cent. During this period, 129.14 KMs of black topped and 72.93 KMs of Shingled roads were constructed while 133.7 KMs of existing roads were improved. Work on 11 bridges was also completed.

40. *Baluchistan Roads.*—Against an allocation of Rs. 94.9 million for 1981-82 an expenditure of Rs. 70.000 million was incurred, giving a utilization of 74 per cent. About 57.6 KMs of black topped and 32 KMs of shingled roads were constructed while work on 15 bridges was completed.

PROGRAMME FOR 1982-83

41. The following strategy for Development of Transport and Communications sector would be pursued during 1982-83 :—

- (i) Major share of long haul bulk freight traffic will be handled by the Railways.
- (ii) Capacity for progressive manufacture of D.E. Locos will be developed.
- (iii) Integrated development of different modes of transport will be carried out.
- (iv) Dilution of resources will be avoided by keeping number of schemes at the minimum possible level.
- (v) Highest priority/adequate financial coverage will be given to on-going schemes nearing completion for early realization of benefits of investment made.
- (vi) Communication facilities in under developed areas will be speeded up to facilitate development.
- (vii) Roads will be improved/constructed to conform to standard designs and specifications.

- (viii) Port capacity will be augmented to achieve progress at maximum feasible rate. The future plan of the Karachi Port and Port Qasim will be coordinated to avoid duplication.
- (ix) Railway capacity will be increased by removing operational bottlenecks, rehabilitation and replacement of worn out assets.
- (x) Comprehensive transport studies will continue for better planning.
- (xi) Telecommunications system will be improved by providing additional capacity, installation of microwave and carrier system and opening up of new public call offices.

Financial Allocations

42. The allocation for development of Transport and Communication during 1982-83 have been kept at Rs. 5769.493 million in the Public Sector. This includes Rs. 4,972.925 million for the Federal and Rs. 796.568 million for the Provincial Programmes. The allocation in the Federal Programme is 20.4 per cent of the total Federal ADP. Details are given in Annexure I. Sub-sector wise details may be seen at Annexure II.

43. The Railways have been accorded priority in the resource allocation and its share is kept at 22.4 per cent of the total ADP of T&C sector with an allocation of Rs. 1300 million. This will facilitate carrying out the track rehabilitation work by bringing 4 sleeper factories in operation during 1982-83, in addition to substantially speeding up works like strengthening of major bridges, line capacity works, progressive manufacture of locomotives, rehabilitation of 14 locomotives and manufacture of 110 carriages. The project "Telecommunication and Related Signalling" has also been properly funded. The work on the project will be completed by the end of 1982-83.

44. Rs. 270.00 million have been provided to the Department of Civil Aviation which shows an increase of 33.5 per cent over the actual expenditure during 1981-82. The civil aviation programme includes augmentation of ground and flight safety, security measures and opening of new areas in Baluchistan.

45. The principal facets of the implementation programme during 1982-83 are discussed below :—

Pakistan Railways

46. The principles feature for the Railway's Development Programme during 1982-83 is the removal of existing bottlenecks and improvement in utilization of existing capacity achieved earlier with a view to increasing the operational efficiency of system. The strategy to be followed, will therefore be :—

- (i) Augmentation of carrying capacity by undertaking line capacity works and improvement of terminal facilities.
- (ii) Rehabilitating the track with a view to increase the speed of passenger and goods trains and for eliminating extensive speed restriction.

- (iii) Rehabilitation, replacement and modernization of plant and machinery.
- (iv) Improvement of signalling and replacement of existing communications system by microwave backbone telecommunication system.
- (v) Strengthening and replacement of bridges.
- (vi) Replacement and Rehabilitation of overage D.E. Locos and other rolling stock.
- (vii) Initiating manufacturing of D.E. Locos.

47. An allocation of Rs. 1300.00 million has been made during 1982-83. The programme for 1982-83 mainly aims at improvement in wagon utilization by reducing wagon turn around time from—days in 1981-82 to 11 days in 1982-83. Every effort will be made for improvement of the daily kilometerage per D.E. Loco which has decreased from 219 KM during 1978-79 to 192 KM in 1980-81 in case of goods traffic. Drastic remedial measures would be required during 1982-83 to enable the railways carry its due share of goods traffic.

48. It is expected that with the proper utilization of existing capacity the freight and passenger traffic of Pakistan Railways will grow at 5 per cent and 2.7 per cent, respectively, during 1982-83. Pakistan Railways would thus carry 8,610 MTKM and 17,204 MPKM of freight and passenger traffic, respectively, during the year.

49. Details of the 1982-83 programme for the Development of Pakistan Railways are as follows :—

- (i) *Feasibility Study*.—Feasibility studies for Electrification on main line from Khanewal to Karachi and Quetta-Rohri Sections will be completed with an allocation of Rs. 4.00 million and Rs. 0.60 million, respectively.
- (ii) *Track Rehabilitation*.—With the completion of 4 concrete sleeper factories, it is expected that sufficient number of indigenously manufactured sleepers will be available for a speedy track rehabilitation programme. An allocation of Rs. 324.0 million has been made for complete track renewal of 153 Km, rail renewal of 40 Km and sleeper renewal of 201 Km. Besides Rs. 7.00 million has been provided for payment of balance for the concrete sleeper factories project. Manufacture of hopper trucks for track Rehabilitation programme will continue. An allocation of Rs. 22.56 million has been made for manufacture of 100 hopper trucks.
- (iii) *Manufacture of D.E. Locos*.—Pakistan Railways have initiated manufacturing programme for D.E. Locos with foreign manufacturers. The feasibility study for establishment of Locos factory will be completed during 1982-83. However, the phased programme earlier started for replacement of the out-lived stock will

continue during 1982-83 with an allocation of Rs. 604.934 million. The details of work to be carried out during 1982-83 are given below :

- (a) Rehabilitation of 42 ALPW-18 Locomotives already taken in hand will continue and 14 locomotives will be rehabilitated with an allocation of Rs. 200.00 million.
- (b) Out of 38-DEL, comprising 30 complete DE and 8 CKD locos, 18 Locomotives (8 CKD) will be received during 1982-83. An allocation of Rs. 220.00 million has been made for this purpose. Work on assembly of 8 CKD locos will also be taken in hand. Thus, part of the Phase I of progressive manufacture of locos programme will be completed during 1982-83.
- (c) The programme for manufacture of carriages will continue and it is expected that 110 carriages will be manufactured for which an allocation of Rs. 168.43 million has been made.
- (d) Preliminary work for setting up of a locomotive factory will be taken in hand during 1982-83 after the completion of feasibility study. A sum of Rs. 10.997 million has been allocated for purchase of land for this purpose.
- (iv) *Telecommunication and Signalling*.—An allocation of Rs. 126.7 million has been made for completion of telecommunication and related signalling network based on microwave backbone of the Pakistan Railways. An allocation of Rs. 4.533 million and Rs. 14.998 million have also been made for continuation of work on other telecommunication works and "Misc. signalling works" respectively.
- (v) *Line Capacity Works*.—Work on "Line Capacity works and Improvement of terminal facilities will continue with an allocation of Rs. 10.2 million. Work on Karachi Terminal will be limited to the completion of operational components only.
- (vi) *Hopper Trucks*.—Manufacture of hopper trucks for PASMIC will be initiated during 1982-83 with an allocation of Rs. 4.00 million.
- (vii) *XIth Railway Project*.—The XIth Railway Project, costing Rs. 1314.00 million, will be taken in hand with World Bank Assistance. An allocation of Rs. 88.49 million has been provided during 1982-83 for the following components : (i) Dry Port Facilities ; (ii) Modernization of Locomotive Maintenance Facilities ; (iii) Management Information System ; (iv) Technical Assistance and Staff Training ; and (v) Feasibility Study KYC—KWL.

Roads

50. *Federal Programme*.—Rs. 967.91 million have been provided for the Federal Roads Development Programme which covers Azad Kashmir, Northern

Areas, FATA, FWO, National Highway and Bridges and NLC Priority programme. This gives a declaration of 9.8 per cent over the 1981-82 allocation of Rs. 1072.704 million.

51. The schemes included in the programme are mostly approved schemes. The salient features of the programme are detailed below :—

52. *Azad Kashmir*.—An allocation of Rs. 101.200 million has been made out of which Rs. 55.2 million have been earmarked for projects under execution by the Azad Kashmir PWD and Rs. 46.0 million for projects under implementation by the F.W.O. The programme being undertaken by the PWD includes construction of Bherri-Patika and the by-pass road from Domel to Nelam bridge and improvement and metalling of several roads namely link roads in Muzaffarabad area and the Neli-Reshion, Kohala-Muzaffarabad, Mirpur-Kotli, Azad Pattan-Pallandri, Kotli-Pallandri, Bhimber-Pir Gali, Chatter Kalas-Rangla Chatter Kalas-Ghari Dupatta, Dulyal-Siakh, Kotli-Hot Spring, Kotli-Nikyal and Jonna Chorai Roads. Under the F.W.O. programme construction of 35.5 KMs of the Kohala-Kuliari road and 128.4 KMs of widening, 50 KMs of metalling and 64.2 KMs of protective and cross drainage works on the Muzaffarabad-Nauseri-Sharda road are being taken up.

53. *Northern Areas*.—An allocation of Rs. 41.900 million has been made for continuation of work on the on-going schemes. This allocation is in accordance with the Medium Term Plan and gives an acceleration of 33.28 per cent over the 1981-82 allocation of Rs. 33.764 million.

54. *FATA*.—An allocation of Rs. 122.600 million has been made which gives an acceleration of about 21 per cent over the 1981-82 allocation of Rs. 102.261 million.

55. *Ministry of Communications*.—An allocation of Rs. 602.21 million has been made for the Road Development Programme. Besides, Rs. 100.00 million have been kept for F.W.O. The main features of the programme are detailed below :—

(a) *Major Bridges*.—An allocation of Rs. 155 million has been made for major bridges for 1982-83. Work will continue on the D. I. Khan—Darya Khan and the Ghazi Ghat bridge projects and substantial progress is expected to be achieved.

(b) *National Highways and Bridges*.—An allocation of Rs. 265.21 million has been made for 1982-83 out of which Rs. 194.21 million have been allocated for major schemes and Rs. 71 million for the minor schemes.

In Punjab work on the construction of the new carriage way between mile 3 and mile 37 of G. T. Road and improvement of National Highway N-5 from Channigoth to Trinda Mohammad Pannah will be completed while work on the dual carriage way from Rawalpindi (mile 169|4) to Hasan Abdal (mile 201|4) of the

National Highway N-5 will continue to an advanced stage. In addition reconditioning of the road from Chowk Yattem Khana to Hudiara Drainan an extension of the Third Highway Project will also be initiated. In Sind, 50 per cent work on the special repair Karachi-Hyderabad Super Highway will be completed. In the N.W.F.P. about 52 per cent of the work on Nowshera-Peshawar dual carriage way and 82 per cent of work on Dara Zinda Moghal Kot road will be completed. In Baluchistan, the Purali bridge will be completed. In addition to the above schemes work on many other improvement| new construction projects will be carried out.

- (c) *Third Highway Project.*—An allocation of Rs. 150.00 million including Rs. 80.00 million in foreign exchange has been made for the Third Highway Project being implemented with World Bank assistance. During the year, it is expected that Reti Kandiaro section will be completed while 75 per cent of work on the Lahore-Sahiwal Section will also be completed.
- (d) *F.W.O.*—An allocation of Rs. 100.00 million has been made for completion of work on the KKH Skardu, Dhulli-Alliabad and Bagh-Sudhan Gali Chikar road projects.
- (e) *National Logistic Cell.*—An allocation of Rs. 32.00 million has been made for 1982-83 for the NLC Priority Roads Development Programme. This includes Rs. 10.00 million for the road between the Khaskheli Oil fields and the oil refinery.
- (f) *Traffic Count Programme.*—An allocation of Rs. 1.00 million has been made for continuation of traffic count programme in the country.

Federal Urban Transportation

56. *Karachi Transport Corporation.*—An allocation of Rs. 80.00 million has been made for 1982-83. The Corporation would be able to put on road 100 more buses and complete the projects of central building, north depot, central terminus I & II, and the Transport House. In addition, major over haul of 100 buses will be carried out.

57. *Punjab Urban Transport Corporation.*—An allocation of Rs. 115.00 million has been made for the 1982-83 development programme of PUTC. Under the programme 50 Volvo Chasses would be imported, body fabricated on 150 Volvo Chasses, machinery and equipment purchased, land for Lahore Depot purchased and the depots at Shalimar and Islamabad completed. The workshop building in Lahore will also be completed. In addition, 50 ISUZU buses will be rehabilitated and put on road.

Ports and Shipping

58. An allocation of Rs. 1038.85 million has been made for the Ports Development Programme, Rs. 708.85 million under the Public Sector and Rs. 330.00

million under the semi-Public Sector. The public sector programme includes the following :

- (i) *Port Qasim*.—An allocation of Rs. 600.00 million has been made for 1982-83. The programme provides for continuation of work on the facilities for berths 1 to 4 and on the construction of berths 5—7 alongwith facilities, utility connections, main access road and channel dredging.
- (ii) *Jinnah Bridge*.—An allocation of Rs. 31.65 million has been made for completion of work on the project. It has been indicated by the sponsors that the cost of the project has been revised to Rs. 160 million. It would be pertinent to point out that the ECNEC had decided that the cost of the bridge be shared in the ratio of 80 : 20 between the Federal and the Provincial Governments, respectively. The Federal Government have already paid more than their share and the balance should now be recovered from the Provincial Government. The bridge is in operation since the first week of June, 1982.
- (iii) *Gwadar Fish Harbour*.—An allocation of Rs. 5.00 million has been made for 1982-83. The Japanese Government have decided not to provide financial assistance for the project. The sponsors will, therefore, have to look for some other source of financing. The allocation for 1982-83 has been made with a view to meeting the requirements of salaries and other expenditure of the staff and the amount to be paid to the contractors as a result of the High Court's decision.
- (iv) *Pakistan Marine Academy*.—An allocation of Rs. 0.2 million has been made for 1982-83 for continuation of work on the project.
- (v) *Hydrographic vessel*.—An allocation of Rs. 71.00 million has been made for 1982-83. This includes Rs. 70.00 million in foreign exchange. The latest cost of the vessel indicated by the sponsors is Rs. 140.0 million against the approved cost of Rs. 96.845 million.

Navigation Aids

59. An allocation of Rs. 1.00 million has been made for 100 per cent completion of works on navigational aids already in hand.

Planning and Development Division

60. *N.T.R.C.*—An amount of Rs. 1.29 million has been provided for the National Transport Research Centre for completion of 4 ongoing studies and to continue work on seven ongoing studies. In addition 4 new studies would also be completed during the year.

61. Eighteen Japanese experts worked on the National Transport Plan Study and during 6 months of the year, the data compilation phase of the study was completed and the analysis phase started. An allocation of Rs. 0.451 million

has been made for the National Transport Plan during 1982-83. It is expected that an amount of Rs. 10 million in foreign exchange will be spent by JICA as Japan's technical assistance during the year. The study is expected to be completed by May, 1983.

Civil Aviation

62. An allocation of Rs. 270.00 million has been made for development of Civil Aviation during 1982-83. The ongoing programme share is Rs. 165.885 million which new projects will claim Rs. 104.115 million. The programme envisages completion of work on additional parking bays at Islamabad, aerodrome at Bannu, Civil Aviation Training Institute at Hyderabad, aerodrome at Ormara and augmentation of Rescue and Fire Fighting equipment at airports. Work on Aeronautical communication facilities and radio aids to aeronautical navigation and landing facilities will reach an advance stage of completion. Adequate provision has been made for completion of small schemes of operational nature. New schemes having operational priority have also been protected. Construction of new airports will be commenced for opening of isolated areas in Baluchistan, viz. Punjgur, Sibi, Khuzdar and Zhob for which adequate provision has been made. Strengthening of Runway at Turbat will also be undertaken.

63. High priority have been given to additional security measures at various airports, as well as the Interim expansion at Islamabad, Karachi and Lahore. Provision has also been made for feasibility studies for new terminal buildings at Lahore.

Telecommunication

64. The bench mark on 30th June, 1978 was 2,92,000 telephones with a pending demand of 1,60,000 telephones. In the Fifth Five Year Plan it was proposed to increase the number of telephones by 2,00,000 and correspondingly augment and balance the long distance and subsidiary trunk route capacity to meet the 14 per cent annual growth rate in inter-city traffic. Following objectives were envisaged in the Fifth Five Year Plan.

- (a) To augment long distance and subsidiary trunk routes capacity to cope with 14 per cent annual growth in traffic, to connect new places and remote areas and increase national/international traffic handling capacity of the links and to establish reliable links in N.W.F.P. and Baluchistan including Makran Coast.
- (b) To accelerate the expansion of telephone facilities to rural and under-developed areas by establishing on a rational basis, long distance public call offices either in telegraph or sub-post offices.
- (c) To raise the telephone density from 3.86 to 5.45 per 1,000 persons, by installing 2,00,000 new Telephone lines, thereby utilizing the manufacturing capacity to full extent.

- (ix) 100 per cent completion of IND-15 plan at Dehmandro Earth station.
- (x) 10 per cent completion of provision of Second Earth Station at Islamabad.
- (xi) 5 per cent completion of replacement of 14.6 KM co-axial cables.
- (xii) 5 per cent completion of renovation of co-axial cables (57 km) system.
- (xiii) 5 per cent completion of Lahore-Amritsar co-axial cable system.
- (xiv) Installation of 28 open wire carrier systems and 4 cable carrier systems.
- (xv) Installation of 19 VFT systems.
- (xvi) Installation of 20 PCM systems.

71. All the schemes included under the new schemes mainly pertain to the 4th Telecommunication project Phase-I, which is being co-financed by the World Bank, Asian Development Bank, West Germany, and Japan.

72. *Special Communications Organisation (S.C.O.)*.—An allocation of Rs. 29.424 million has been made for S.C.O. during 1982-83 to complete the on-going approved schemes. The physical targets for 1982-83 may be seen in Annexure III.

Post Offices

73. An allocation of Rs. 50.00 million has been made to the post office department, Rs. 23.072 million for on-going schemes and Rs. 26.923 million for new schemes. The physical targets include construction of 40 post office buildings and 19 residential quarters. 150 new post offices would be opened during 1982-83.

Provincial Programme

74. *Punjab Roads and Bridges*.—An allocation of Rs. 280.00 million has been made for construction of 160 KMs of new roads and improvement of 320 KMs of existing roads. The emphasis of the programme is on completion of as many on-going schemes as possible.

75. *Sind Roads*.—An allocation of Rs. 275.5 million has been made for the road development programme, which provides for construction of 260 KMs of new roads and improvement of 235 KMs of existing roads. Completion of work on 4 bridges is also programmed.

76. *Sind Road Transport*.—An allocation of Rs. 13 million has been made for the Sind Road Transport Corporation. Of this, Rs. 12 million have been earmarked for the purchase of 50 new buses to check the decline in the total fleet due to attrition and Rs. 1 million for the improvement of workshop facilities.

77. *N.W.F.P. Roads.*—An allocation of Rs. 159.068 million has been made for the Road Development Programme. A total of 35 schemes are expected to be completed, whereby construction of 56 KMs of shingled and 114.9 KMs of black top roads and improvement of 11.2 KMs of shingled and 154 KMs of black top roads will be carried out while work on 9 bridges will be completed.

78. *Baluchistan Roads.*—An allocation of Rs. 69.0 million has been made for the Road Development Programme which provides for construction of 72 KMs of black topped and 56 KMs of shingled roads. Work on 17 bridges will also be undertaken.

Sl. No.	Particulars	1957-58	1958-59	1959-60	1960-61	Total
1.	Construction of roads	100.00	50.00	5.00	4.00	159.00
2.	Improvement of roads	1.00	1.00	1.00	1.00	4.00
3.	Construction of bridges	5.00	5.00	5.00	5.00	20.00
4.	Other works	0.00	0.00	0.00	0.00	0.00
5.	Contingencies	0.00	0.00	0.00	0.00	0.00
6.	Unforeseen	0.00	0.00	0.00	0.00	0.00
7.	Grand Total	106.00	56.00	11.00	10.00	183.00
8.	Less: Balance carried over	(46.932)	(0.00)	(0.00)	(0.00)	(46.932)
9.	Balance available	59.068	56.00	11.00	10.00	136.068

**FINANCIAL ALLOCATIONS TO TRANSPORT AND COMMUNICATIONS
SECTOR 1981-82 AND 1982-83**

(Million Rupees)

S. No.	Sector/Sub-sector	1981-82	1981-82	Percentage Utilization	1982-83 Allocation	Percentage of public Sector ADP	Percentage Increase(+)
		Original Allocation	Utilization				Decrease (-) with year at Col 3 and 6
1	2	3	4	5	6	7	8
A. Normal ADP							
Public Sector							
1. Federal Programme :							
1.	Pakistan Railways.	1266.662	1398.35	110.40	1300.00	22.53	2.63
2. Ports and Shipping :							
	(i) DG/P&S ..	78.276	76.236	97.39	77.20	1.34	-1.37
	(ii) Port Qasim	875.833	930.91	106.29	600.00	10.40	-31.49
	(iii) Jinnah Bridge.	48.657	48.00	98.65	31.65	0.55	-34.94
	Sub-Total (P&S)	1002.766	1055.146	105.22	708.85	12.29	-29.31
3.	Civil Aviation ..	257.372	202.218	78.57	270.00	4.68	4.91
4. Roads :							
	(a) Azad Kashmir.	91.333	91.333	100.00%	101.200	1.75	10.80
	(b) Northern Areas	33.764	31.97	94.69	41.900	0.73	24.10
	(c) FATA ..	102.261	65.192	63.75%	122.600	2.12	19.89
	Sub-Total (Roads)	227.358	188.495	82.91	265.700	4.60	16.86
5. Ministry of Communications :							
	(i) Major Bridge	176.620	176.620	100.00	155.00	2.69	-12.24
	(ii) National Highways ..	222.999	153.18	68.69	265.21	4.60	14.89
	(iii) Third IBRD Project ..	250.00	150.00	60.00	150.00	2.60	-40.00
	(iv) Other Roads (FWO) ..	98.227	147.103	149.76	100.00	1.73	1.80
	(v) NLC Priority/Programme	97.50	102.50	105.13	32.00	0.55	-67.18
	Total ..	845.346	729.403	86.28	702.21	12.17	-16.93
	(i) PUTC ..	97.50	295.351	302.92	115.00	1.99	17.95
	(ii) KTC ..	146.25	112.75	77.09	80.00	1.39	-45.30
	Sub-Total (Road Transport): ..	243.75	408.101	167.43	195.00	3.38	-20.00

1	2	3	4	5	6	7	8
6. Planning Division :							
(i) N.T.R.C. ..	3.588	0.600	16.72	1.29	0.02	-64.05	
(ii) NLC (Import of Truck and Workshop Facilities) ..	24.375	—	—	—	—	—	
(iii) National Transport Plan Study.	—	0.545	—	0.451	.007	-17.25	
Sub-Total Planning Division.	27.963	1.145	4.09	1.741	.03	-93.70	
7. Telephone and Telegraph ..	897.00	897.00	100	1450.00	25.13	61.65	
8. Special Communication Organization.	24.375	24.375	100	29.424	0.51	20.71	
9. Post Office ..	31,200	31,200	100	50.00	0.87	60.26	
10. Science and Technology ..	.100	—	—	—	—	—	
Sub-Total (Federal) ..	4,823.892	4,935.433	102.31	4,972.925	86.19	3.09	
II. Provincial Programme :							
1. Punjab :							
(i) Roads ..	271.700	303.4	111.67	280.00	4.85	3.05	
(ii) Road Transport Board ..	—	—	—	—	—	—	
2. Sind :							
(i) Roads ..	253.391	256.778	101.34	275.50	4.78	8.72	
(ii) Sind Road Transport Corporation ..	16.00	15.60	97.50	13.00	0.22	-18.75	
3. N.W.F.P. :							
(i) Roads ..	160.247	156.57	97.71	159,068	2.76	(-)0.74	
(ii) Road Transport ..	5.023	—	—	—	—	—	
4. Baluchistan :							
(i) Roads ..	94.90	70.00	73.76	69,000	1.19	-27.29	
Sub-Total (Provincial)	801.261	802.348	100.14	796.568	13.81	0.58	
Total (A) Public Sector.	5625.153	5737.781	102	5769.493	100.0	2.57	
(B) Special Prog. for Baluchistan & Tribal Areas of N.W.F.P.	—	—	—	130,000	—	—	
GRAND TOTAL ..	5625.153	5737.781	102	5899.493	—	4.9	

PHYSICAL ASSESSMENTS EMPLOYED LAST YEAR

Type	1971		1972		Total
	AV	AV	AV	AV	
1. New Test Construction
2. Number of items to be revised
(a) Language
(b) Format
(c) Other
3. Over Half Hour (60%)
(a) Item
(b) Whole
4. Other Changes
5. New Changes

Category	1971	1972
1. Total
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CHAPTER 8

MASS MEDIA

Role of Mass Media

Economic development entails profound social change the tempo and speed of which varies, among other things, with the attitudes of the community and leadership. The impact of mass media, particularly radio and T.V., in bringing out an orderly social change has been recognised the world over. According to UNDP and UNESCO, information media can markedly stimulate economic growth by enlisting the "human" or non-physical factors such as improved skills and better education and promoting participation of the people at community level.

2. In Pakistan, radio and T.V. should be used effectively to get through the development programmes to the people. These media should play a supportive role in the development of agriculture, education, health, population planning and rural institutions.

REVIEW OF 1981-82

Financial Utilization

3. During 1981-82, an amount of Rs. 150.193 million was allocated (including Rs. 0.8 million for Punjab Government) to Mass Media Sector, which was utilized 99 per cent. The agency-wise position is indicated in the following table.

TABLE 1
ADP allocation 1981-82 for Mass Media

S.No.	Name of Agency	1981-82		% Utilization
		Allocation	Revised estimates	
1	2	3	4	5
A. Federal				
1.	Pakistan Broadcasting Corporation	36.488	35.710	97.8
2.	Pakistan Television Corporation	112.417	112.417	100
3.	Ministry of Information & Broadcasting	0.488	—	—
	Total	149.393	148.127	99.1
B. Provincial				
4.	Mass contact publicity scheme of Punjab Government.	0.800	0.800	100
	Total Federal/Provincial	150.193	148.927	99.1

4. *Radio Broadcasting.*—The radio broadcasting in Pakistan has fairly developed physical facilities for transmission of programmes for 95 per cent of population and 75 per cent in terms of geographical area. The radio provided

broadcasting service for 391 hours a day of which 360 hours are devoted to domestic programmes. At the receiving end the number of licenced radio sets was 1.9 million against the overall estimated availability of 6—8 million radio sets. Radio is the only cheapest medium of communication for the rural audiences and its use for transmission of development messages is very significant and needs to be fully utilised.

5. The Pakistan Broadcasting Corporation is currently implementing a programme costing Rs. 521 million which includes setting up high power transmitters, and village broadcaster units in the less developed areas of Baluchistan N.W.F.P. and Northern Areas.

6. The total expenditure up to June, 1982 is estimated at Rs. 366 million. The Corporation utilised Rs. 35.71 million during the year under review, against the A.D.P. allocation of Rs. 36.488 million. In physical terms, the construction of civil works at Khuzdar, Peshawar, Islamabad, Skardu and Khairpur radio stations were continued. The 100 KW MW transmitter to be installed at Muzzaffarabad was fabricated. Work on the assembly of 300 KW transmitter meant for Khuzdar radio station was initiated and progressed up to 30 per cent. Three STL sets and additional aerial for Quetta—Trubal radio stations were also fabricated. Two Village broadcasters were commissioned one each at Khuzdar and Turbat.

7. *Television Broadcasting.*—Although television in Pakistan has had a brief history of 18 years, its achievements in terms of creation of physical facilities to cover 79 per cent of population and 52 per cent of geographical area are considered fairly remarkable. The Pakistan Television Corporation is operating 5 Television Stations, 14 Rebroadcast Centres, Translators and T.V. Links, to reach the electrified rural areas as well as the major urban areas. A micro-wave network provided nation-wide viewing facility. The estimated number of television sets is 0.9 million. In terms of transmission time, the Television Corporation telecast entertainment, education and information programmes for 280 hours weekly. Only about 18 per cent of the total programmes are devoted to education, motivation and information. It was running an adult functional literacy programme and other programmes sponsored by Allama Iqbal Open University through about 670 Community Viewing Centres, equipped with television sets and teaching kits.

8. The T.V. Corporation was carrying out a package development and expansion programme of general purpose T.V. costing Rs. 1,600 million, against which the total cumulative expenditure so far is estimated at Rs. 751 million, including Rs. 108.417 million spent during 1981-82, against the A.D.P. allocation of Rs. 112 million. The Corporation is handicapped by cost over-runs and resource constraints as a result of which the pace of development has decelerated in recent years.

DEVELOPMENT PROGRAMME, 1982-83

9. The funding of development programme for the Mass Media agencies of Radio and Television has been restricted to major on-going schemes, a majority of which is in an advanced stage of completion. The total allocations provided are Rs. 137.249 million against the revised estimate of Rs. 148.927 million for 1981-82, a deceleration of the order of 1.7 per cent. Of these,

Rs. 48.964 million are meant for Pakistan Broadcasting Corporation and Rs. 87.485 million for Pakistan Television Corporation. The sectoral details are provided in Annexures I and II.

10. The agency-wise break up of allocation is given in the table below.

S.No.	Name of Agency	Revised estimates 1981-82	Allocation 1982-83	(Rs. million)	
				Acceleration/Deceleration	
				Amount	%
1	2	3	4	5	6
A. Federal					
1.	Pakistan Broadcasting Corporation ..	35.710	48.964	+13.254	37.1
2.	Pakistan Television Corporation ..	112.417	87.485	-24.932	22.2
	Total ..	148.127	136.449	-11.678	7.9
B. Provincial					
3.	Mass Contact publicity scheme of Punjab Government	0.800	0.800	—	—
	GRAND TOTAL	148.927	137.249	-11.678	7.8

11. *Radio Broadcasting.*—The Pakistan Broadcasting Corporation would accelerate work of establishing transmitters and programme facilities in the less developed regions of Baluchistan, N.W.F.P. and outlying Northern Areas. The projects located at Khuzdar, Turbat, Quetta, Peshawar and Skardu have been provided adequately. Another major project is the National Broadcasting House at Islamabad which would be completed during the year. One village broadcast unit will also be completed at Faisalabad.

12. There is, however, need to substantially increase the education component of programmes, particularly for rural areas. Although the Corporation was broadcasting useful programmes for agriculture extension and the education programmes sponsored by Allama Iqbal University, there is tremendous scope for increasing education component of the total programme fare.

13. *Television Broadcasting.*—The allocations for Pakistan Television Corporation have been reduced from Rs. 112 million in 1981-82 to Rs. 87.49 million in the A.D.P. 1982-83. As a result, the TV expansion programmes will be slowed down during the year. However, the projects located in Baluchistan and N.W.F.P. have been adequately funded so that T.V. coverage in these areas is expanded during the year. A T.V. booster at Narowal (Punjab) will be commissioned while a SHF TV Link between Quetta-Pishin-Chaman will be installed and made operational.

14. The television programmes, however, are mostly available to the urban population. The rural population is not covered adequately as nearly 11,000 villages are electrified. Although there are transmission facilities to cover 79 per cent of the population, the actual beneficiaries are the owners of 0.9 million

T.V. sets, with a total viewing population of about 9.0 million. There is also scope to extend the education content of these programmes within the present technical constraints.

15. *Service Programmes.*—The Mass Media agencies of radio and television have been used in South East Asia and Latin America for providing communication support to the national development efforts. Radio and television have been used for increasing adult functional literacy, particularly in rural areas, reaching farmers to create among them greater awareness of modern practices and technology, better health practices and coordinating the activities in overall rural development. In Pakistan the existing facilities of two media have been used for these objectives very sparingly.

16. In order to reach village audiences with messages designed to produce specific behavioural changes, which would reflect in increased productivity, higher incomes, better health and quality of life, the development support communication arrangement should be made more effective. It would serve as a means of integrating and coordinating the development communication activities in campaign oriented projects to pressing development problems.

17. The goals of the development communication should be to assist the nation-building ministries in informing and motivating rural audiences to adopt modern practices through a combined system of mass media and inter-personal communication. Campaigns should be developed and coordinated in terms of production of messages dealing with agriculture, health, nutrition, population planning, and basic education (including literacy and simple arithmetic).

18. Institutional arrangements should be located at the appropriate level and should be manned by skilled manpower, subject matter experts and professional development communicators to ensure effective preparation of development message for radio, television and press etc. A feed back arrangement should be made to gauge the effectiveness of the development messages and measure the degree of response from the rural audiences.

Provincial Programme

19. The Punjab Government has allocated Rs. 0.800 million during 1982-83 for their on-going scheme of "Mass Contact Publicity". The revised estimates for 1981-82 on the scheme stood at Rs. 0.800 million.

SCHEME-WISE DETAILS OF ADP OF PAKISTAN BROADCASTING CORPORATION FOR 1982-83

(Rs. Million)

Sl. No.	Name and Location of the Scheme	Estimated cost		Revised Estimates for 1981-82	Estimated Exp. upto June, 1982	Physical implementation upto June 1982 in quantitative/ % age terms	Provision for 1982-83		Physical target envisaged upto June 1983 in quantitative/ % age terms
		Total	FEC				Total	FEC	
1	2	3	4	5	6	7	8	9	10
1.	Two 250 KW Shortwave transmitters, Islamabad (Appd.)	29.25	15.78	0.15	21.66	99.9%	0.050	—	100%
2.	Two 100 KW shortwave transmitters, Islamabad (Appd.)	20.08	11.21	0.15	13.44	99.9%	0.050	—	100%
3.	100 KW MW transmitter, Muzaffarabad (App)	22.07	4.63	1.60	21.39	96%	0.700	0.10	100%
4.	100 KW MW transmitter and broadcasting House Khairpur (Appd.)	32.17	3.85	4.00	30.34	80%	1.000	—	85%
5.	1000 KW MW transmitter, Islamabad (App).	54.20	19.81	0.20	45.91	100%	—	—	100%
6.	Broadcasting House, Islamabad (Revised PC-I Un-approved)	100.22	14.08	0.40	75.94	95%	24.380	0.03	100%
7.	300 KW MW transmitter, Peshawar (App) ..	38.75	11.04	1.00	35.62	90%	1.000	—	94%
8.	Broadcasting House, Peshawar (App) ..	31.64	4.10	5.00	20.44	50%	2.000	0.80	60%
9.	300 KW MW transmitter and broadcasting House, Khuzdar (App)	53.97	15.88	13.80	23.06	30%	10.224	1.400	40%
10.	Two additional 250 KW shortwave transmitters, Islamabad. (Un-app)	46.04	25.00	—	—	—	0.500	—	—

Annexure I—Contd

(Rs. Million)

1	2	3	4	5	6	7	8	9	10
11.	10 KW MW transmitter, D.I. Khan (App) ..	9.70	2.10	0.04	9.70	100%	0.100	—	100%
12.	Village broadcasters including Faisalabad (App)	8.51	1.65	0.50	5.09	45%	1.040	—	50%
13.	Modernization of equipment (App) ..	15.37	6.74	2.90	12.33	75%	3.000	2.00	100%
14.	10 KW MW transmitter, Skardu (App) ..	13.04	2.29	2.35	7.48	70%	1.000	—	75%
15.	Studio transmitter links (App)	1.89	0.89	—	—	—	0.800	0.12	40%
16.	Furnishing office blocks of broadcasting house, Islamabad (App)	1.67	—	0.20	1.75	99%	0.200	—	100%
17.	Extension of Broadcasting House, Quetta (App)	8.03	1.05	0.90	7.50	80%	0.530	0.10	100%
18.	Housing scheme for P.B.C. employees (App).	19.49	—	—	1.92	10%	0.010	—	10%
19.	Additional Security works (App)	4.63	—	1.00	2.00	40%	1.000	—	55%
20.	Extension of training facilities (App) ..	4.20	1.61	0.37	4.72	95%	0.100	0.10	100%
21.	Security wall at broadcasting house, Muza- ffarabad (App)	0.29	—	0.29	0.29	100%	—	—	100%
22.	Quetta-Turbat Radio link (App)	0.41	0.02	0.39	0.39	75%	0.080	—	100%
23.	Improvement of engineering training in P.B.C. (App)	1.50	1.50	—	—	—	1.200	1.20	98%
24.	Extension in studios and office blocks of Bahawalpur Radio Station (App)	2.70	0.11	—	—	—	—	—	50%

Annexure I—Contd

(Rs. Million)

1	2	3	4	5	6	7	8	9	10
25.	Security works (App)	5.09	—	0.050	5.49	100%	—	—	100%
26.	150 KW MW transmitter, Quetta (App) ..	16.61	5.99	0.10	12.60	100%	—	—	100%
27.	Studio transmitter links (App)	3.03	1.21	0.20	1.96	100%	—	—	100%
28.	Stand by generators (App)	5.59	2.24	0.12	4.92	100%	—	—	100%
		550.14	152.78	35.71	365.94	—	48.964	5.850	—

Annexure II

SCHEME-WISE DETAILS OF ADP OF PAKISTAN TELEVISION CORPORATION FOR 1982-83

(Rs. Million)

Sl. No.	Name and Location of the Scheme	Estimated cost		Revised Estimates for 1981-82	Estimated Exp. upto June, 1982	Physical implementation upto June, 1982 in quantitative/ % age terms	Provision for 1982-83		Physical target envisaged upto June, 1983 in quantitative/ % age terms
		Total	FEC				Total	FEC	
1.	Islamabad Television Station (App) ..	393.91	107.42	27.64	202.53	82%	15.040	5.000	84%
2.	Karachi Television Station (App) ..	178.88	64.95	11.18	112.21	90%	13.755	13.470	92%
3.	Lahore Television Station (App) ..	172.11	66.17	19.74	121.17	83%	7.000	2.000	85%
4.	Quetta Television Station (App) ..	207.57	72.01	19.70	102.37	73%	24.696	23.425	85%
5.	Peshawar Television Station (App) ..	194.80	60.12	8.86	108.03	92%	8.000	2.500	95%
6.	Shujabad Re-broadcast Centre (App) ..	17.81	3.29	—	17.57	97%	0.250	—	100%
7.	Shikarpur Re-broadcast Centre (App) ..	14.65	3.76	—	14.48	99%	0.170	—	100%
8.	Faisalabad Translator (App) ..	8.83	1.95	—	7.46	85%	1.370	—	100%
9.	Narowal Translator (App) ..	5.96	1.60	5.00	5.00	84%	0.960	—	100%
10.	Microwave Link (App) ..	47.98	26.07	—	40.24	100%	—	—	100%
11.	Quetta-Pishin-Chaman (Kojak Pass) Super High Frequency Link (App) ..	13.00	3.98	—	—	—	13.000	3.980	100%
12.	P.T.V.C. Training Academy (App) ..	24.20	7.70	4.00	4.00	17%	2.654	—	25%
13.	Mangla Low-powered Transmitter (App) ..	0.59	0.15	—	—	—	0.590	0.150	100%
14.	Sibi Re-broadcast Centre (App) ..	8.50	0.50	8.50	8.50	100%	—	—	100%
15.	Razmak Re-broadcast Centre (App) ..	7.80	0.50	7.80	7.80	100%	—	—	100%
		1296.59	420.17	112.42	751.36	—	87.485	50.525	—

CHAPTER 9

PHYSICAL PLANNING AND HOUSING

REVIEW OF 1981-82

1. The Sectoral Programme for 1981-82 was prepared within the framework of strategies, policies and programmes proposed in the Three Year Investment Plan (1981-84) in which the major thrust was made on upgradation of physical environment and improvement of living conditions in urban and rural areas. The programmes included provision of safe drinking water supply and sanitation facilities; reducing housing shortages through area development schemes in major urban areas, and regularization and improvement of existing katchi abadis; construction of government servants housing and offices/buildings.
2. In the housing sub-sector, the private sector construction was to be supported with provision of sites, services and institutional finance on a self-financing basis. Residential plots for low income groups were to be developed and the size of plots was restricted as a matter of policy, to between 80 to 600 sq. yds. Also slum improvement programmes and their integration with the urban settlements was accorded priority.
3. For water supply, sewerage and drainage sub-sector, equal emphasis was placed on the provision of water supply, sewerage and drainage facilities both in the urban and rural areas. The water supply schemes would be primarily directed to serve the lower income groups. In augmenting the supplies to rural areas, priority will be given to meeting the needs of those groups and areas suffering with marked deficiency. Simple drainage systems would be provided in rural areas.
4. The major targets provided in the Annual Plan were: development of 59,000 residential plots, provision of drinking water supply to an additional 1.76 million persons, and of sewerage facilities to 1.215 million persons in the urban areas and drinking water for an additional 1.491 million and sanitation facility for 0.495 million population in the rural areas of the country. The achievements during the year (Table-I) indicated shortfalls in all categories of development activity. In the urban sector 50,650 plots were developed, which included 28,000 in Sind, 20,000 in the Punjab, 2,000 in N.W.F.P., 350 in Baluchistan and 300 at Islamabad. Water supply was provided to 1.17 million and sewerage facility to 0.668 million population. In the rural sector the rate of growth was slow as a result of which nearly 55 per cent target for water supply and 61 per cent target for sanitation could be met. The shortfall in the case of rural water supply was because of the slow progress in the programme of hand-pump installation in the provinces of Punjab and Sind.

ANNUAL PLAN 1982-83

14. The sectoral programme for 1982-83 is partly a continuation of the strategies, policies adopted during the outgoing financial year 1981-82 which placed emphasis on the programme of water supply and sanitation in the rural and urban areas, construction of houses for the low income government employees, development of residential plots in urban areas, upgradation of living conditions in urban and rural areas and construction of government offices and buildings, etc. However, the ADP 1982-83 provides a marked acceleration in the programme of construction of houses for low income government employees particularly in Islamabad and water supply facilities in the rural areas.

Financial Allocations

15. A total allocation of Rs. 2650.251 million has been provided in the ADP 1982-83 against the allocation of Rs. 2034.668 million provided during 1981-82. Showing an increase of 30.3 per cent over the last year level. The allocation of Rs. 2650.251 million includes a special programme of Rs. 130 million for the rural water supply sub-sector in the four provinces and Rs. 227.410 million under the Special Development Plan for Baluchistan for water supply schemes in the province both in the urban and rural areas.

16. The breakdown of the total allocation of Rs. 2650.251 million by various executing agencies is given in Table II.

TABLE 2

Allocation by executing agencies

Executing Agencies	(Million Rs.)		
	ADP 1981-82	ADP 1982-83	Percentage Increases over 1981-82
A. Provinces :			
1. Baluchistan	69.900	124.054	77.5
2. N.W.F.P.	176.760	203.341	15.0
3. Sind	362.560	423.600	16.8
4. Punjab	702.662	861.159	22.6
B. Federal Government	722.786	810.786	12.2
C. Special development programme for Baluchistan	—	227.410	—
Total ..	2034.668	2650.251*	30.3

*Includes Rs. 130 million for Rural Water Supply under the Special Priority Programme in the Provincial ADPs for 1982-83.

(Details of allocations by executing agencies and sub-sectors are given in Annexure III).

17. The outlays for physical Planning and Housing Sector of Rs. 2422.841 million (excluding special development programme for Baluchistan) in 1982-83 are higher by 19 per cent over the allocation in the preceding year. Of these the share of the programme of water supply sewerage are 47 per cent, government servants housing 16.0 per cent, urban housing slum upgradat on 6.0 per cent whereas the balance of 31 per cent of the allocation is for the development of Capital at Islamabad, offices, special areas and tourism, etc. Out of the above allocation, about two-third share is of the four provinces, where the bulk of the water supply/ sewerage, plot development, improvement of katchi abadis programmes are located. Within the sectoral allocation of the provinces, highest priority has been assigned to the provision of water supply to rural areas so as to improve the present coverage of 20 per cent considerably. For this purpose besides the regular programmes included in the Provincial ADPs, additional allocation of Rs. 130 million has been provided for special programme of water supply in the rural areas (Punjab R s. 60 million, Sind Rs. 30 million, NWFP Rs. 20 million and Baluchistan Rs. 20 million). With the additional allocation it would be possible to serve an additional population of 0.46 million. The special development programme provides for an acceleration of 60 per cent in the provision of water supply in the rural areas over the normal programme in the sector. In case of housing for the low income government employees at Islamabad, the allocation during 1981-82 was Rs. 58 million. This has been increased to Rs. 104 million. Efforts would be made to increase this by another Rs. 46 million by obtaining funds from supplementary grant or re-appropriation during the current year.

18. Sub-sector-wise ADP allocation for 1982-83 are as under :

TABLE 3

Allocations by Sub-sector-wise for 1982-83

	(Million Rs.)	
	Allocation in ADP 1982-83	
	Amount	Percentage
1. Urban Water Supply/Sewerage	1128.670	46.6
(a) Urban Areas	786.660	32.5
(b) Rural Areas	342.010	14.1
2. Low Income Housing	145.468	6.0
(a) Plot Development	93.468	3.8
(b) House Construction	35.000	1.4
(c) Katchi Abadis/Slum improvement	17.000	0.7
3. Government Servants Housing	385.852	15.9
4. Government Offices/Buildings	230.226	9.5
5. Other Urban Development Projects	104.900	4.3
6. Tourism	15.979	0.7
7. Capital at Islamabad (excluding water supply, sewerage, etc.)	172.082	7.1
8. Special Areas (A.K. & NA, FATA & FATA D.C.)	120.980	5.0
9. Others	118.684	4.9
Total	2422.941	100.0

(Excluding Special Development Programme for Baluchistan).

19. The per cent wise share of funds for various sub-sectors executing agency-wise are given in Table IV below.

TABLE 4
Percentage Share of ADP Funds by Sub-sectors

Sub-sector	Punjab	Sind	N.W.F.P.	Baluchistan	Federal
Water Supply/Sewerage	56.0	85.0	55.5	48.7	21.0
(i) Urban	37.0	73.0	8.5	20.0	13.5
(ii) Rural	19.0	12.0	47.0	28.7	7.5
Low Income Housing	12.0	0.2	0.3	1.5	4.0
Govt. Servants Housing	12.0	5.2	20.3	25.4	22.0
Govt. Offices/Buildings	9.0	9.0	19.3	16.0	6.0
Other Urban Development Programmes	10.0	0.4	4.6	8.4	22.0
Other	1.0	0.2	—	—	25.0
Total	100.0	100.0	100.0	100.0	100.0

(Excludes special development programme for Baluchistan).

Physical Targets

20. The overall major physical targets for 1982-83 are as under :

Item	Unit	Physical Targets
(i) Urban Residential Plots	Nos.	57,000
(ii) Urban Water Supply	Addl. pop. to be served in million.	1.036
(iii) Urban Sewerage/Drainage	Do.	1.490
(iv) Rural Water Supply	Do.	1.280
(v) Rural Sanitation	Do.	0.205
(vi) Government Servants Housing	Nos.	2875
(vii) Government Offices/Buildings	Million sq. ft. space.	1.555

The agency-wise details of physical targets in various sub-sectors are given in Annexure IV.

21. The details of various programmes and physical targets for 1982-83 in respect of various Federal agencies and Provincial Governments under various sub-sectors are described in the subsequent paragraph.

Federal Programmes

22. The Federal programmes consist mainly of the development projects of the Capital at Islamabad, provision of housing and offices for the Federal Government employees and Civil Armed Forces, development programmes of tourism, housing and water supply programme of Azad Kashmir, Northern Areas and Federally Administered Tribal Areas and provision of credit facilities for construction of houses.

Islamabad

23. Allocations of Rs. 288.084 million provided to CDA are for the development of Capital City and completion/construction of work on projects of national significance. The provision includes Rs. 13.00 million for the Presidential Complex (including its furnishing) which will be fully completed by the close of 1982-83. Substantial provisions of Rs. 38.00 million and Rs. 97.10 million, respectively have been made for the scheme of National Assembly Building, and Simly Dam. In the case of National Assembly Building, the overall progress by June, 1983 would be about 90%. In addition major allocations of Rs. 18.00 million for additional Secretariat Block and Rs. 7.00 million for office and residential accommodation for AGPR have been made.

24. Under their self-financed programme, the CDA will undertake development of infrastructure in the Bule area of Islamabad and development of various residential sectors.

Government Servants Housing

25. A sum of Rs. 223.084 million has been provided for the construction programme being implemented by Works Division. This is about 31 per cent higher than the allocations made in the preceding year. A major acceleration in the programme of construction of houses for government servants will be made during the year, for which Rs. 177.518 million have been earmarked. Among the major schemes, an allocation of Rs. 53.73 million has been made for continuing construction of 2,000 houses for federal government employees at Islamabad under a Presidential Directive. In addition an allocation of Rs. 50 million has been made for taking up a new scheme for low income federal government employees at Islamabad. Efforts would also be made to increase this by another Rs. 46.27 million so as to provide a total amount of Rs. 150 million for the purpose. This would mean a 3-fold acceleration in the construction rate of houses at Islamabad. Allocation of Rs. 15.446 million for construction of houses at Lahore, Rs. 8.485 million for renovation of 1,000 houses at Karachi, and Rs. 1.764 million for completing construction of 2,786 houses in Federal Capital area, Karachi have also been made.

Government Offices & Buildings

26. In case of Govt. Offices/Buildings, allocation provided is Rs. 45.566 million. Major allocation has been made for the scheme of construction of new Custom House Building at Karachi (Rs. 6.226 million). The rest of the allocations are for on-going schemes of offices for CBR and other Divisions. It is expected that the overall progress of Customs House Building at Karachi would be about 60% at the end of June, 1983, while the work of extension of Income Tax Building at Karachi would be fully completed.

Baluchistan

37. *Rural Water Supply and Sanitation.*—17 on-going and 15 new schemes of water supply and one sewerage scheme will be under implementation during 1982-83. With the completion of 17 on-going and new schemes to be taken up under the special programme an additional population of 0.100 million will be served at various places in the province.

38. In addition, under the Baluchistan Special Development Programme an amount of Rs. 227.410 million has been provided for initiating work on water supply schemes at Quetta, Gadani, Soranan and other places. The finances for these would be partly provided by bilateral and international agencies like UNICEF, EEC, Japan and Kuwait Fund.

39. *Government Servants Housing, Offices and Buildings.*—A number of schemes of housing would be undertaken and about 150 houses will be completed. Under the Sub-sector of offices and buildings, office space of about 0.105 million sq. ft. will be added. This includes construction of Provincial Assembly building and High Court building at Quetta and Baluchistan House at Islamabad.

N.W.F.P.

40. The major targets include provision of water supply facilities of 0.03 million urban population and 0.410 million rural population, 200 housing units for government servants and construction of 0.25 million sq. ft. of office space in various areas of the province. Various programmes proposed in the Provincial ADP to achieve the above targets are as follows:

41. *Low Income Housing.*—Work will be continued on the area development schemes at Peshawar, Mardan and Kohat and about 1,000 plots would be developed.

42. *Urban Water Supply and Sewerage.*—22 on-going schemes and new schemes would remain under implementation, out of which 7 schemes will be completed, providing safe water supply facilities to 0.03 million additional population.

43. *Rural Water Supply and Sanitation.*—235 on-going and new schemes of rural water supply will be undertaken during 1982-83. Out of these 92 schemes will be completed. In addition a number of schemes would be taken up under the special allocation of Rs. 20 million. It is estimated that a total additional population of 0.410 million will be served with water supply and 0.05 million with sanitation facilities.

44. *Govt. Servants Housing and Offices.*—A large number of schemes will be under implementation whose completion will provide 200 housing units and 0.25 million sq. ft. of office space.

Sind

45. The major targets for 1982-83 include development of 30,000 plots for low income group of population, provision of water supply and sewerage facilities to an additional population of 1.021 million in urban and 0.210 in rural areas,

construction of 250 housing units for government employees and 0.20 million sq. ft. of office space. The programmes in various sub-sectors are as follows :

46. *Basic Development.*—Survey and mapping of 19 small towns and villages and preparation of Outline Development Plans for various towns will be continued.

47. *Low Income Housing.*—Work on 2 low income housing schemes will be continued. Regularization and improvement of Katchi abadis at various places will also be taken in hand. About 20,000 plots will be developed by KDA and HDA from their own resources. An additional 10,000 plots are expected to be developed in the private sector in Karachi and Hyderabad.

48. *Urban Water Supply, Sewerage and Drainage.*—The Third Phase of Greater Karachi Bulk Water Supply has been completed. With the full completion of the scheme, an additional supply of 70 mgd has been added to reach an overall supply of 230 mgd water to Karachi. To meet the increasing needs, work on the Hub Dam Water Supply scheme which was initiated during 1980-81 will be accelerated and Stage-I of 4th Phase of Greater Karachi Bulk Water Supply project from Indus Source will be taken up. Work will also continue on the scheme of renovation of water supply to North Nazimabad and Federal 'B' Area. Similarly, work on the Lyari Water Supply and Sewerage scheme will continue.

49. In Hyderabad, work will be accelerated on the comprehensive scheme of water supply and sewerage with an allocation of Rs. 137 million, which is being assisted by the Asian Development Bank.

50. Outside Karachi and Hyderabad, work will continue on 91 on-going and water supply and sewerage schemes. Out of the above, 23 schemes of water supply at Sukkur, Tando Allahyar, Badin, Tando Adam, Shahdadpur, Khairpur, Umarkot and other smaller towns are likely to be completed during 1982-83. Besides, 8 sewerage/drainage schemes at Sukkur, Ghotki, Badin, Shikarupr etc., would also be completed. The overall coverage of population by water supply and sanitation including Karachi and Hyderabad during 1982-83 is expected to be about 0.581 million and 0.44 million, respectively.

51. *Rural Water Supply and Sanitation.*—Work would continue on 31 on-going schemes during 1982-83 out of which 20 schemes of water supply and sanitation will be completed under the normal programme. In addition a number of schemes will be taken up under the special programme. It is expected that during 1982-83 an additional population of 0.210 million with water supply and 0.03 million with sanitation of facilities will be served.

52. *Government Servants Housing and Government Offices/Buildings.*—A number of schemes of Government servants housing and office building will be under implementation. With the completion of some of the schemes it is expected that 250 housing units and 0.20 million sq. ft. of office space will be constructed at various places of the province.

Panjab

53. The Physical targets for 1982-83 include developments of plots of 25,000 plots for low income families in urban areas. In the case of water supply and sanitation, an additional population of 1.400 million will be served in urban areas and 0.635 million in rural areas. Details of various programmes under different sub-sectors are as follows :

54. *Low Income Housing.*—Work will continue on 33 on-going schemes of plots developments out of which 9 schemes at Lahore, Kasur, Chichawatni, Arifwala, Hafizabad, Rawalpindi, Gojra, Sargodha and Shujabad will be completed. As a result of 5000 plots would be developed by the Housing Deptt. and 13,000 plots by the Development Authorities. In addition about 7,000 plots will be developed in other small towns and private sector.

55. *Rural Water Supply and Sanitation.*—Work will continue on 200 on-going schemes (168 water supply and 32 sanitation). Out of these 117 schemes (96 water supply and 21 sanitation) would be completed to cover an additional population of 0.51 million with water supply and 0.125 million with sanitation.

56. *Urban Water Supply, Sewerage and Drainage.*—The Public Health Engg. Deptt. will execute 72 on-going and new schemes (35 water and 37 sewerage) outside Lahore, Faisalabad, and Multan during 1982-83. In all, 22 schemes (6 water supply and 12 sewerage) will be completed to serve an additional population of 0.175 million with water supply and 0.625 million with sewerage facilities.

57. In the case of Lahore, Rs. 73.0 million will be incurred by WASA of Lahore on Second Phase of Lahore Water Supply, Sewerage and Drainage Project, and about 90% overall progress would be achieved on the World Bank assisted project by June, 1982. In addition Rs. 15 million have been allocated for comprehensive drainage project.

58. An allocation of Rs. 92.5 million has been made for the Faisalabad Water Supply, sewerage and Drainage project for continuing work on the project which is being partly aided by the Asian Development Bank. In addition Rs. 27.0 million will spend on the short-term water supply scheme.

59. In the case of Multan, an amount of Rs. 10.0 million will be spent on the comprehensive sewerage (project Phase-I) which is expected to be fully completed, whereas the portion relating to water supply scheme, Multan will be continued.

60. The development authorities of Lahore, Faisalabad and Multan will serve an additional population of 0.200 million with water supply and 0.400 with sewerage.

61. *Government Servants Housing, Offices and Buildings.*—During 1982-83, it is proposed to construct about 475 houses and 0.60 million sq. ft. of office space for various departments of the Provincial Government at different places.

62. *Urban Development.*—An amount of Rs. 17.0 million has been provided for the development of katchi abadis and confirment of proprietary rights of

land on the residents of these katchi abadis in different cities and towns of the province. Improvement of the walled city of Lahore will be carried out with an allocation of Rs. 10.00 million. It is expected that a population of 70,000 will benefit from the programme.

63. A programme of construction and improvement of city roads and bridge will also be undertaken with an allocation of Rs. 79.4 million. This includes one bridge each in Faisalabad and Lahore. Work on three roads schemes in Faisalabad and one each in Multan and Lahore will also be taken up.

64. Allocations have also been provided for projects other than water supply/drainage and roads/bridges. Faisalabad and Multan Development Authority will continue work on the preparation of Master Plan and Land Use Plan of Faisalabad and Lahore.

PHYSICAL PLANNING AND HOUSING
 TARGETS AND PHYSICAL ACHIEVEMENTS 1981-82 BY EXECUTING AGENCIES

Item	Unit	Punjab		Sind		N.W.F.P.		Baluchistan		Federal Govt.		Total	
		Targets	Achievements	Targets	Achievements	Targets	Achievements	Targets	Achievements	Targets	Achievements	Target	Achievements
1. Plots :													
Urban Res. Plots ..	Nos.	28,000	20000	28000	28000	2100	2000	—	350	900	300	59000	50,650
2. Water Supply/Sanitation :													
(i) Urban Water Supply ..	Add. pop. served (million).	1.00	0.610	0.700	0.500	0.020	0.020	0.020	0.016	0.020	0.020	1.760	1.166
(ii) Urban Sewerage ..	Do.	0.900	0.48	0.300	0.170	0.015	0.018	—	—	—	—	1.215	0.668
(iii) Rural Water Supply ..	Do.	1.000	0.410	0.200	0.110	0.200	0.250	0.066	0.035	0.025	0.080	1.491	0.825
(iv) Rural Sanitation ..	Do.	0.200	0.100	0.170	0.100	0.125	0.100	—	—	—	—	0.495	0.300
3. Government Servants Housing ..	Nos.	700	400	300	250	114	200	100	125	1200	900	2414	1875
4. Government Offices/Buildings ..	Million sft.	0.550	0.350	0.150	0.136	0.237	0.237	0.100	0.030	0.400	0.350	1.437	1.103

PHYSICAL PLANNING AND HOUSING
ADP ALLOCATIONS FOR 1981-82 AND UTILIZATION BY EXECUTING AGENCIES

(Rs. in million)

Executing Agency						Allocation 1981-82	Estimated Utilization 1981-82	Percentage Utilization
Punjab ..	..	..	..	..	..	702.662	676.20	96.2
Sind ..	..	..	..	..	..	362.560	357.272	98.50
N.W.F.P.	..	..	..	..	..	176.760	168.866	95.5
Baluchistan	..	..	..	..	..	69.900	64.509	92.30
Federal Government	..	..	..	..	..	722.786	758.232	105.0
Total ..						2034.668	2025.079	99.5

PHYSICAL PLANNING AND HOUSING
ADP 1982-83 BY EXECUTING AGENCIES/SUB-SECTOR

(Rs. in million)

	Federal	Punjab	Sind	NWFP	Baluchistan	Total
1. Basic Development Town Planning ..	1.720	—	0.200	—	—	1.920
2. Low Income Housing ..	—	80.000	1.000	—	—	81.000
3. Advances to Govt. Servant for House Construction ..	35.000	—	—	—	—	35.000
4. Urban Water Supply/Sewerage ..	—	80.469	105.500	16.682	22.207	224.858
5. Rural Water Supply/Drainage ..	—	160.000	50.000	96.288	35.782	342.010 ¹
6. Govt. Servants Housing ..	177.518	107.292	22.675	41.317	31.399	380.201
7. Govt. Offices/Buildings ..	45.566	81.631	37.825	39.221	19.791	224.034
8. Urban Development ..	—	350.000	205.400	9.893	14.875	580.168
(i) Water supply/Sewerage/Drainage ..	—	239.900	203.400	—	2.500	445.800
(ii) Low Income Housing ..	—	10.000	—	0.593	1.875	12.468
(iii) Roads/Bridges ..	—	79.400	2.000	—	3.00	84.400
(iv) Others ..	—	37.00	—	9.300	7.500	20.500
(v) Katchi Abadies ..	—	17.000	—	—	—	17.000
9. Special Projects ..	—	—	1.000	—	—	1.000
10. Tourism ..	14.212 ²	1.767	—	—	—	15.979 ²
11. Capital at Islamabad ..	288.084	—	—	—	—	288.084
12. Interior Division (CAP) ..	65.024	—	—	—	—	65.024
13. Islamabad Administration ..	15.480	—	—	—	—	15.480
14. M/o Foreign Affairs ..	1.290	—	—	—	—	1.290
15. Frontier Constabularies, Levies/Thanas ..	34.400	—	—	—	—	34.400
16. FATA ..	44.500	—	—	—	—	44.500
17. FATA, DC ..	15.280	—	—	—	—	15.280
18. Azad Kashmir ..	31.600	—	—	—	—	31.600
19. Northern Area ..	29.600	—	—	—	—	29.600
20. Science and Technology ..	0.860	—	—	—	—	0.860
21. Cabinet Division ..	5.651	—	—	—	—	5.651
22. Commerce Division ..	4.902	—	—	—	—	4.902
Total ..	810.687	861.159	423.600	203.341	124.045	2422.841
Special Development Programme for Baluchistan, Water Supply (Urban and Rural) ..	—	—	—	—	227.410	227.410 ³
GRAND TOTAL.	810.687	861.159	423.600	203.341	353.054	2650.251

¹Includes a total allocation of Rs. 130 million for special programme of rural water supply in the provinces (Punjab=Rs. 60 million, Sind 30.0 million NWFP=Rs. 20 million and Baluchistan Rs. 20.0 million).

²Includes an amount of Rs. 11.460 million to be financed by PTDC from funds available with them.

³The provision under Special Development Plan for Baluchistan is for water supply schemes in urban and rural areas to be partly financed through bilateral and international agencies like Kuwait Fund, Japan, UNICEF and EEC. The foreign aid amounts Rs. 190.870 million against the total allocation of Rs. 227.410 million.

PHYSICAL PLANNING AND HOUSING

MAJOR PHYSICAL TARGETS 1982-83

Sl. No.	Unit	Punjab	Sind	NWFP	Baluchistan	Federal	Total
1. Urban Residential Plots.	Nos.	25,000	30,000	1,000	500	500	57,000
2. Urban Water Supply	.. Add. pop. to be served (million Rs.)	0.375	0.581	0.030	0.020	0.030	1.036
3. Urban Sewerage	.. Do.	1.025	0.440	—	0.025	—	1.490
4. Rural Water Supply	.. Do.	0.510	0.21	0.410	0.10	0.050	1.280
5. Rural Sanitation	.. Do.	0.125	0.030	0.05	—	—	0.205
6. Govt. servants housing (including Islamabad)	.. Nos.	475	250	200	150	1800	2875
7. Govt. offices/buildings	Million sft.	0.600	0.200	0.250	0.105	0.400	1.555

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HUMAN RESOURCES AND SOCIAL DEVELOPMENT

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ETHICS RESOURCES AND SOCIAL DIVERSITY

CHAPTER 10

EDUCATION AND TRAINING

REVIEW OF ADP 1981-82

Financial Review

During 1981-82, an amount of Rs. 1304.208 million is estimated to have been utilized on development programmes in Education and Training Sector against an allocation of Rs. 1411.945 million giving a utilization rate of 92 per cent. Sub-sectoral break-up of expenditure by various executing agencies is given in Annexure I.

2. The utilization percentage for various agencies ranged between 83 for Sind and 138 for Baluchistan. Some of the important sub-sectoral utilization percentages were 100 for scholarships, 109 for teacher education, 97 for primary education and 89 for secondary education. The sub-sectoral utilization percentages for various agencies indicate (i) lowest utilization percentage for primary education (64) was for Baluchistan and for secondary education (82) was for the Punjab; (ii) highest utilization percentage for college education (334) was for Baluchistan and the lowest (56) was for Sind.

3. The sub-sectoral distribution of utilized funds by various agencies, given in the table below, indicates that, nationally, highest priority was assigned to primary education; Baluchistan assigned it a low priority. Provinces used around 24 per cent of total expenditure on the development of secondary education as against 12 per cent on college education. Forty two per cent of the total expenditure for Federal agencies (and 43 per cent of the allocation for the Federal Ministry of Education) was spent on the development of universities in the country.

TABLE 1

Sub-Sectoral Distribution of Utilized Funds by Various Agencies

Sub-Sector	Baluchistan	NWFP	Sind	Punjab	Federal	Total
Primary Education ..	12	49	32	39	9	25
Secondary Education ..	27	23	25	34	13	22
Teacher Education ..	25	6	10	—	6	6
Technical Education ..	3	5	8	8	2	5
College Education ..	25	11	19	7	8	9
University Education ..	—	—	—	—	43	19
Scholarships ..	—	3	3	6	10	7
Miscellaneous ..	8	3	3	6	9	7

Hasilpur in the Punjab, establishment of a new inter college at Okara (Cantt) (Punjab), and one government boys degree college and one autonomous boys and one girls college in Islamabad remained in progress. The facilities of seven colleges in Baluchistan and two nationalized and three government colleges in Sind, and government as well as nationalized colleges in the Punjab, and an inter college at Mangla (Cantt) were consolidated and improved while science equipment was supplied to various colleges in NWFP and those in cantonment areas.

15. *University Education.*—The on-going works of development of the campuses of all general and engineering universities in the country were continued. Other development programmes on which work was continued included Centres of Excellence, Area Study Centres, Pakistan Study Centres, Scholarships for Ph. D. students and research grants for teachers support for transport facilities and purchase of journals. Work was initiated on the establishment of the AJK University. The University Grants Commission also launched a programme for improvement and consolidation of academic programmes of universities. A hostel was constructed for the National Institute of Modern Languages.

16. *Scholarships and Loans.*—The governments of the Punjab, Sind and NWFP awarded 38,000 37,700 and 1,500 scholarships respectively for studies at various levels.* The Federal Government awarded scholarships both for studies within the country under the President's One Thousand and Nishan-i-Haider, scholarship schemes and for studies abroad under central overseas training, merit and Quaid-i-Azam scholarship schemes. Scholarships were also awarded to NWFP students and under Khushal Khan Khattak and Allama Iqbal Gold Medal scholarship schemes. * Cash awards and stipends were given to indigent students while students from under-developed areas were provided scholarships for studies in Cadet Colleges|Public Schools. Interest-free loans were granted to displaced students from East Pakistan and other needy students. Students from Muslim and other third world countries were awarded scholarships for study in Pakistan.

17. *Miscellaneous Programmes.*—The construction of the building of the National Library of Pakistan, Islamabad, and work on the establishment of a public library each in Bagh-i-Jinnah, Lahore, and the premises of British Council, Rawalpindi, remained in progress. The on-going work on the establishment of the Khushal Memorial Library was completed. The libraries of schools and colleges in Baluchistan were strengthened by the supply of additional books.

18. Out of the thirteen volumes of the proposed Greater Urdu Dictionary, three have been printed while work of preparation of the basic vocabulary booklet continued. An educational research project in the National Institute of Psychology was completed. The on-going works of reforms in educational administration in provinces continued. Work was continued on the establishment of the Bureau of Educational Planning, Islamabad as an Academy.

*Scholarships to students in Baluchistan are awarded from the revenue budget.

*Scholarships to students in Azad Jammu and Kashmir, and Northern Areas are awarded from the revenue budget.

19. Various programmes for the development of facilities of the provincial/regional Planning and Development Cells/Departments were implemented. These included establishment of Regional Development Project and improvement of Bureau of Statistics in NWFP, establishment of Planning and Management Cell in Education Departments of Sind and the Punjab, and establishment of Monitoring and Evaluation Cell and Documentation Centre and Library in Planning and Development Department of AJK.

II. Programmes of other Divisions

20. *Cabinet Division.*—A national architectural competition was held to select the design for the proposed building of the Quaid-i-Azam Academy, Karachi.

21. *Establishment Division.*—Scholarships were awarded to 7,425 wards of Federal Government servants drawing a monthly salary of Rs. 1,500 or less.

22. The on-going works of construction of residential quarters and renovation of campus roads at the Pakistan Academy for Rural Development, Peshawar, and construction of auditorium, residential quarters and internal roads at NIPA, Karachi were continued. Audio-visual aids were also supplied to NIPA, Karachi. Work also continued on the construction of additional accommodation in the Academy for Administrative Training, Lahore.

23. *Works Division.*—The on-going work of extension of municipal library, Rawalpindi was completed. Under the Presidential directives, works were taken-up for the construction of the high school, Faizul Islam, Rawalpindi, construction of compound wall of the Girls Guide House, Islamabad and improvement of Markazi Rizvia Zia-ul-Uloom, Rawalpindi.

24. *Ministry of Science and Technology.*—Work continued on the development of a museum of natural history at Islamabad and establishment of a research unit for Science in Islamic polity and future of Science and Technology in Pakistan in the over-all perspective of resurgence of Islamic World.

25. *Planning and Development Division.*—Under the programme of research studies in significant areas likely to prove helpful in the formulation of guidelines of the Sixth Five Year Plan, three studies were completed while work continued on five others. The on-going work of development of the Integrated System of Information Supply Research Centre was continued.

PROGRAMME FOR 1982-83

26. The Annual Plan 1982-83 has been designed on the basis of a critical review of the accomplishments during the first four years of the Fifth Five Year Plan. On the basis of this review certain special programmes have been devised to accelerate developments in primary education, which did not receive adequate attention during the last four years. These special programmes, which are experimental in nature and have been kept flexible enough to suit the varying needs of different provinces/regions, will be implemented in addition to the normal

establishment of Elementary Teacher Training College, Daragai and the National Technical Teachers Training College, Islamabad (with the assistance of Asian Development Bank) will be continued.

35. *Technical Education.*—The Plan provides for the consolidation of existing facilities of five polytechnics in the Punjab, two each in Sind and NWFP and one at Quetta. The on-going work of upgradation of four and establishment of three polytechnics in the Punjab, of the Women Polytechnic in Sind and two polytechnics in NWFP will be continued. Three existing vocational institutes in Sind and one in NWFP will be upgraded to the level of polytechnics. The on-going work of establishment of two vocational institutes in FATA will be completed.

36. The on-going work of construction of the buildings of four existing commercial training colleges in the Punjab and two in NWFP, will be continued while those of two commercial colleges in NWFP and one in Baluchistan will be completed. The on-going work of construction of building and supply of equipment for three commercial institutes in FATA shall be completed while work shall be continued on the remaining two.

37. *College Education.*—In Sind, three new intermediate colleges will be established and intermediate class will be opened in four existing high schools. The on-going works of construction of buildings|additional block of nine intermediate colleges in the Punjab, one college in NWFP, and establishment of four intermediate colleges in Sind will be completed. The construction of eight intermediate colleges in the Punjab and five colleges in NWFP will be continued. Programmes of addition of science classes in three colleges and opening of a science college in Sind will also make further progress. The on-going work of construction of two college hostels in the Punjab will be started.

38. The on-going work of construction of a boys college and additional classrooms of a girls college in Islamabad will be continued while the work of establishment of a new college shall be started. Work will continue on the improvement of one and establishment of another college in Cantonment area. Provision has also been made for the supply of equipment to cantonment colleges. The on-going work of construction of Cadet College, Mastung shall be continued. Of the two hostels under construction in Islamabad one will reach completion stage while work will continue on the other.

39. *University Education.*—The on-going works of development at the campuses of all general and engineering universities shall be continued. In addition work will be initiated on the construction of the Punjab University First Centenary Library building under Presidential directive.

40. The Centres of Excellence shall receive additional equipment under Japanese grant. The on-going programme for the development of Centres of Excellence, Area Study Centres, and the Pakistan Study Centres shall be continued.

41. The University Grants Commission shall continue to award scholarships to Ph. D. students and research grants to teachers with a view to encouraging

research in nationally significant fields. The National Academy for Higher Education, established by the UGC, shall be further expanded to enable it to play its role in bringing about qualitative improvement in the standard of teaching in degree colleges and universities.

42. *Scholarships and Students Loans.*—Talented and poor students shall be awarded about 69,000 scholarships* to study at all levels. Of these 38,000 scholarships shall be awarded by the Government of the Punjab, 10,000 by the Government of Sind, 16,000 by the Government of NWFP and about 5,000 by the Federal Government. The scholarships to be awarded by the Federal Government shall include scholarships awarded for studies within the country under President's One Thousand Scholarships and Nishan-i-Haider Scholarship schemes, and scholarships for studies abroad under Central Overseas Training Scholarships, Merit Scholarships and Quaid-i-Azam Scholarships schemes. The Federal Government shall also award scholarships under Khushal Khan Khattak Scholarship scheme and Allama Iqbal Gold Medal Scholarship scheme as well as special scholarships to students from NWFP. Scholarships shall be awarded to 130 talented students from under-developed areas for education in cadet colleges and public schools. Students from Muslim and other Third World countries shall also be awarded scholarships for study in Pakistan.

43. *Miscellaneous Programmes.*—These include on-going programmes of construction of the building of National Library of Pakistan at Islamabad, a model library in Bagh-i-Jinnah, Lahore, establishment of Book Banks in colleges and universities, development of printing facilities for Provincial Textbook Boards, National Book Foundation and the Allama Iqbal Open University with the assistance of Asian Development Bank, establishment of an Academy of Educational Planning and Management in Islamabad, a Curriculum Bureau at Hyderabad and a Curriculum Research and Development Centre in the Punjab, development of Iqbal Academy, Lahore, National Educational Equipment Centre, construction of residences for female teachers in Sind, Adult Education Programme in Federal Area, development of an Academy of Science at Islamabad and construction of Federal Students Hostels in Northern Areas. The on-going programmes for the development of Sindhi Adabi Board, Jamshoro; College of Fine Arts, Karachi and improvement of College of Physical Education, Karachi shall be continued. Work shall be initiated on the establishment of a Model Children Library in Islamabad, establishment of Sachal Academy in Sind, and an Engineering Wing in Sind Education Department.

II. *Special Priority Sector Programme in Education*

44. In addition to the normal programmes described above, the Plan provides for the launching of a special programme for the development of primary education. This programme seeks to :

- (a) accelerate growth of primary education through use of existing community facilities including mosques ;

*Excluding scholarships awarded by the Govt. of Pakhistan from the revenue budget.

- (b) remove congestion in primary schools by shifting classes I to III into mosques and by housing classes IV and V in separate rooms ; and
- (c) bring about qualitative improvement in teaching in primary schools by improving accommodation and providing more teachers for each school.

45. The major targets to be attained under the Special Priority Sector Programme for primary education include opening of 7500 schools in mosque, improvement of accommodation of 2000 existing primary schools by shifting classes I to III into mosques, construction of 100 two-room school buildings for accommodating classes IV and V of shelterless schools, opening of 300 girls schools, opening of 200 mohalla schools and provision of building for 150 existing girls schools, repair and expansion of buildings of 500 existing primary schools, removing over-crowding in 200 urban primary schools by shifting classes I to III into mosques and opening of 500 literacy-cum-industrial training centres. Agency-wise break-up of these targets is given in Annexure V.

III. Programmes of other Divisions

46. *Cabinet Division.*—The design of the proposed building of the Quaid-i-Azam Academy at Karachi having been selected through a design competition, the construction of the building shall be started.

47. *Establishment Division.*—The Plan provides for the award of 7,500 scholarships to children of Government servants drawing a monthly salary of Rs. 1,500 or less. These scholarships will be awarded to children studying at all levels, however, preference will be given to the study of science and professional subjects.

48. The on-going programme of construction of an auditorium, residential quarters and internal roads and other services in the campus of NIPA, Karachi shall be continued. Work shall begin on construction of residential accommodation, mosque and expansion of library and other facilities. The on-going construction of additional accommodation in the Academy for Administrative Training, Lahore shall be continued. The work of construction of offices and residences for the Secretariat Training Institute, Islamabad shall be started.

49. *Ministry of Science and Technology.*—A number of research projects shall be taken up in cooperation with USPCSP. These researches shall deal with such topics as vascular and medicinal plants in Pakistan, geotechnic and resource analysis of Sind Kohistan and Eastern Baluchistan, age and tectonic history of the Karakoram-Hindu Kush, etc. A research unit shall be set up in National Science Council of Pakistan to study science in Islamic polity and resurgence in Islamic World.

50. *Planning and Development Division.*—The economic research studies relating to critical issues in national development shall be conducted to assist in the formulation of guidelines for the Sixth Five Year Plan. The on-going work at the Integrated System of Information Supply Research Centre shall be continued.

Annexure I

SUB-SECTORAL ADP ALLOCATIONS, REVISED BUDGET ESTIMATES AND UTILIZATION PERCENTAGES FOR 1981-82

(Million Rs.)

Sub-sector	Baluchistan			N.W.F.P.			Sind			Punjab			Federal			Total			
	All.	R.B.E.	Uti. %	All.	R.B.E.	Uti. %	All.	R.B.E.	Uti. %	All.	R.B.E.	Uti. %	All.	R.B.E.	Uti. %	All.	R.B.E.	Uti. %	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
(A) Education																			
Primary ..	11.690	7.490	64	96.075	98.199	102	50.655	47.666	94	119.965	119.965	100	53.556	48.311	90	331.941	321.631	97	
Secondary ..	18.113	17.313	96	50.339	51.006	101	45.414	38.385	84	127.112	104.005	82	78.088	74.410	95	319.066	285.119	89	
Teacher ..	3.402	16.334	480	11.714	10.635	91	15.160	13.671	90	2.111	2.111	100	40.428	36.493	90	72.815	79.244	109	
Technical ..	2.000	2.000	100	13.642	15.379	113	14.833	13.244	89	34.842	26.106	75	16.473	11.112	67	81.790	67.841	83	
College ..	4.933	16.483	334	22.356	21.970	98	30.425	17.036	56	21.048	21.038	100	46.042	45.542	99	124.804	122.069	98	
University ..	—	—	—	—	—	—	—	—	—	—	—	—	277.586	245.310	88	277.586	245.310	88	
Scholarships.	—	—	—	6.000	6.000	100	5.500	5.500	100	18.752	18.750	100	56.885	56.888	100	87.137	87.138	100	
Development of Library Services and Museums ..	—	—	—	—	—	—	—	—	—	3.000	3.000	100	5.320	4.180	79	8.320	7.180	86	
Production & supply of Textbooks.	—	—	—	—	—	—	—	—	—	—	—	—	16.180	15.180	94	16.180	15.180	94	
Miscellaneous	6.712	5.264	78	3.350	4.650	105	4.811	3.395	71	7.850	12.451	159	31.552	22.847	72	54.275	48.607	90	
Planning and Development	—	—	—	1.080	1.158	107	—	—	—	5.040	1.630	32	3.062	4.274	140	9.182	7.062	77	
Sub-Total (Education).	46.850	64.884	138	204.556	208.997	102	166.798	138.897	83	338.720	309.056	91	625.172	564.547	90	1383.096	1286.381	93	

	1	2	3	4	5	7	7	8	9	10	11	12	13	14	15	16	17	18	19
(B) Programmes of Other Divisions																			
Cabinet Division														9.750	4.000	41	9.750	4.000	41
Establishment Division														8.872	8.872	100	5.294	8.872	100
Works Division														5.294	0.780	15	5.294	0.780	15
Ministry of Science and Technology														3.025	3.012	100	3.025	3.012	100
Planning and Development Division														1.908	1.163	61	1.908	1.163	61
Sub-Total (Other Divisions)														28.849	17.827	62	28.849	17.827	62
Total (Education and Training)	46.850	64.884	138	204.556	208.997	102	166.798	138.897	83	339.720	309.056	91	654.021	582.374	84	1411.945	1304.208	92	

MAJOR PHYSICAL ACHIEVEMENTS IN SCHOOL EDUCATION 1981-82

Sub-sector	Punjab	Sind	NWFP	Baluch- istan	Federal Govt.	Total
A. Primary Education						
1. Opening of Primary Schools ..	1,350	400	241	100	46	2,189
2. Opening of Mosque and Mohallah Schools	150	205	—	—	3	358
3. Construction of Primary Schools build- ings	500	54	128	15	122	819
4. Construction of class rooms in Mosques.	138	—	—	—	—	138
5. Consolidation and Improvement of existing Primary Schools	1,000	69	190	21	36	1,316
6. Supply of Furniture and Equipment to Primary Schools	5,300	200	—	—	310	5,810
7. Construction of Female Teacher Residences for rural girls primary schools	100	—	111	—	24	235
B. Secondary Education						
1. Upgradation of Primary Schools ..	152	10	41	15	22	240
2. Upgradation of Middle Schools ..	80	7	27	4	14	132
3. Establishment of High Schools ..	—	9	1	—	1	11
4. Construction of Secondary School buildings	5	3	7	—	64	79
5. Introduction of Biology and Agro- Technical Science Laboratories ..	170	—	—	13	—	183
6. Science Laboratories	50	—	—	—	—	50
7. Additional Accommodation (addition of classrooms)	—	10	125	—	29	164*
8. Teacher Residences	—	—	13	—	33	46
9. Improvement	—	25@	8@	66@	66@	99@

*Besides 153 middle and high schools (20 in Baluchistan, 3 in Fedl. Govt. 126 in AJK and 4 in NA) have also been provided additional accommodation. Number of classrooms added is not known.

@In addition Rs. 11.350 million (Rs. 8.719 million Sind, Rs. 1.500 million in NWFP, Rs. 1.000 million in AJK, Rs. 0.146 million in N.A. under Federal Government) were spent on consolidation and improvement of secondary schools.

AGENCY-WISE BREAK-UP OF SUB-SECTORAL ADP ALLOCATIONS FOR 1982-83

(Million Rs.)

Sub-sector	Baluchistan	N.W.F.P.	Sind	Punjab	Total for Provincial Programmes	Federal Govt.	Total	%
I. Normal Programme								
(A) Education :								
Primary Education	10.910	102.725	46.747	103.805	264.187	52.342+	316.529	23
Secondary Education	16.180	60.951	43.477	123.895	244.503	86.675*	331.178	24
Teacher Education	6.900	4.600	5.185	3.800	20.485	36.729	57.214	4
Technical Education	4.005	11.407	13.090	35.000	63.502	14.766	78.268	6
College Education	10.554	19.262	36.328	21.700	87.844	29.721	117.565	9
University Education	—	—	—	—	—	264.666	264.666	20
Scholarships	@	9.139	5.350	18.500	32.989	45.658	78.647	6
Other Programmes :								
Miscellaneous	3.079	3.619	5.903	13.300	25.901	69.857	95.758	7
Planning and Development	1.680	1.498	0.500	8.500	12.178	—	12.178	1
Sub-Total (Education)	53.308	213.201	156.580	328.500	751.589	600.414	1352.003	100

(B) Programmes of Other Divisions :											
Cabinet Division	..	..	..	..	..	..	..	..	..	6.450	6.450
Establishment Division	..	..	..	..	..	..	..	..	..	9.460	9.460
Ministry of Science and Technology	..	..	..	..	..	..	..	..	..	3.942	3.942
Planning and Development Division	..	..	..	..	..	..	..	..	..	2.540	2.540
Sub-Total (Other Divisions)	..	..	..	..	..	..	..	..	..	22.392	22.392
Sub-Total (Normal Programme)	..	..	..	..	..	..	..	..	..	53.308	213.201
..	..	..	..	..	..	..	..	..	..	156.580	328.500
..	..	..	..	..	..	..	..	..	..	751.589	622.806
..	..	..	..	..	..	..	..	..	..	18.000	50.000
..	..	..	..	..	..	..	..	..	..	60.000	172.000
..	..	..	..	..	..	..	..	..	..	300.000	—
..	..	..	..	..	..	..	..	..	..	71.308	263.201
..	..	..	..	..	..	..	..	..	..	216.580	500.500
..	..	..	..	..	..	..	..	..	..	1051.589	622.806
..	..	..	..	..	..	..	..	..	..	1674.395	300.000
..	..	..	..	..	..	..	..	..	..	71.308	263.201
..	..	..	..	..	..	..	..	..	..	216.580	500.500
..	..	..	..	..	..	..	..	..	..	1051.589	622.806
..	..	..	..	..	..	..	..	..	..	1674.395	300.000

@Provided in the Revenue Budget.

+ Excluding Rs. 9.40 million provided in Rural Development Programme for the construction of Primary Schools in Azad Jammu and Kashmir.

*Excluding Rs. 2.123 million to be provided as supplementary grant for the construction of Additional Block for Federal College for Women, F-7/2, Islamabad.

MAJOR PHYSICAL TARGETS FOR 1982-83

(In Nos.)

Sub-sector	Baluch- istan	N.W.F.P.	Sind	Punjab	Federal Govt.	Total
A. Primary Education						
1. Opening of Primary Schools ..	—	350	200	1,406	110	2,066
2. Opening of Mosque Schools ..	—	—	200	200	10	410
3. Opening of Mohalla Schools ..	—	—	100	—	5	105
4. Construction of new buildings for Primary Schools ..	—	140	15	500+ 3 junior model schools.	112	1,030
5. Consolidation of Existing Primary Schools	—	225	182	500	120	1,027
6. Supply of furniture and equipment to existing Primary Schools	300	—	113	10,483	—	10,896
7. Provision of residence for female teachers	11	100	—	—	—	111
B. Secondary Education						
8. Upgradation of Primary Schools ;	15	40	12	231	23	321
9. Upgradation of Middle Schools ..	10	35	15	143	15	218
10. Improvement of Science Teaching in in Secondary Schools:	—	—	—	300	—	300
11. Consolidation, Improvement and ad- dition of classrooms:	60	150	95	—	118	423
12. Supply of furniture and equipment ..	—	100	52	—	—	152
13. Establishment of Double Sections in High Schools	—	—	4	27	—	31

**AGENCY-WISE BREAK-UP OF PHYSICAL TARGETS UNDER SPECIAL PROJECT
SECTOR PROGRAMME FOR PRIMARY EDUCATION**

	Punjab ^a	Sind	NWFP	Baluchistan	Total
1. Opening 7500 Mosque Schools	3500	2100	1400	500	7500
2. Accommodation of 1500 shelter less school in Mosques	1400	—	—	100	1500
3. Construction of 1000 2-room school buildings for existing schools specially to accommodate Class IV & V of shelter less of schemes No. 2	735	100	120	45	1000
4. Utilization of Mosques for improving accommodation of existing 2000 primary schools by shifting Classes I—III to Mosques	1200	400	200	200	2000
5. Repair of buildings of 500 existing primary schools and addition of a class room in one-room schools]	250	120	100	30	500
6. Removing over-crowding in 200 urban primary schools by shifting class I—III to Mosques ..	100	75	20	5	200
7. Opening of 300 girl schools]	160	50	70	20	300
8. Improvement 150 existing girl schools by providing them with new buildings	75	30	40	5	150
9. Opening 200 Mohallah schools for girls ..	100	75	20	5	200
10. Opening 500 literacy-cum-industrial training centres	280	130	80	10	500

A STUDY OF THE EFFECTS OF THE
FEDERAL RESERVE ACT ON THE
MONEY MARKET

CHAPTER I

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10. The Federal Reserve Bank of Dallas	50
11. The Federal Reserve Bank of San Antonio	55
12. The Federal Reserve Bank of Houston	60
13. The Federal Reserve Bank of Fort Worth	65
14. The Federal Reserve Bank of Memphis	70
15. The Federal Reserve Bank of Kansas City	75
16. The Federal Reserve Bank of Omaha	80
17. The Federal Reserve Bank of Denver	85
18. The Federal Reserve Bank of Portland	90
19. The Federal Reserve Bank of Seattle	95
20. The Federal Reserve Bank of San Francisco	100

CHAPTER 11

CULTURE AND SPORTS SECTOR

REVIEW OF ADP 1981-82

An amount of Rs. 170.730* million is expected to have been utilized during 1981-82 on the development of culture and sports as against an allocation of Rs. 184.032 million giving a utilization percentage of 93. The sub-sectoral utilization was between 69 per cent for cultural programmes and 100 per cent for sports as detailed in the Table below :

TABLE 1
Sub-sectoral Utilization

Sub-sector	Allocation 1981-82	R.B.E. 1981-82	Utilization Percentage
Archaeology & Archives	33.772	30.967	92
Sports :			
(i) National Institute of Sports and Culture	136.500	129.442	95
(ii) Other programmes	2.700	2.700	100
Culture	11.060	7.621	69
Total	184.032	170.730	93

2. The agency-wise break-up of sub-sectoral allocations, revised budget estimates and utilization percentages is given in Annexure I.

Physical Progress

3. *Archaeology and Archives* :—The on-going works of development of Dir Museum in NWFP, Hyderabad Museum in Sind, and Lahore and Bahawalpur Museums in the Punjab were continued. The on-going work on the establishment of Sind Archives at Karachi was continued. Under the Master Plan for the Preservation of Moenjodaro, collector drains were completed to pave the way for the installation of tubewells for lowering the ground water level. Work was also continued on the preservation of historical remains. The on-going work of construction of the building of National Archives of Pakistan was continued and about 60 per cent of the work was completed. The on-going programmes of preservation and presentation of Shalimar Gardens and Fort at Lahore were continued.

4. *Sports*.—The practising hall of the National Institute of Sports and Culture, Islamabad was completed while work continued on the construction of the gymnasium and the stadium. The on-going work of construction of the main sports stadium at Quetta under Quetta Development Authority was completed.

*Including Provincial Programmes which are funded out of allocations for Quetta Development Authority in Baluchistan, for Education and Training Sector in NWFP and Sind, and for Information, Culture and Tourism sector in the Punjab.

5. *Culture*.—The on-going work of projection of the cultural heritage in the Punjab was continued. The on-going work of extension of the hostel of Pakistan National Council of the Arts at Rawalpindi was continued. An architectural competition was organized for selection of building design for National Arts Gallery to be constructed at Islamabad. Necessary instruments and stage accessories were acquired for National Performing Arts, Karachi.

PROGRAMME FOR 1982-83

6. An allocation of Rs. 117.493 million has been made for the development of culture and sports for 1982-83 as against an allocation of Rs. 184.032 million during 1981-82. The lower allocation reflects the desire of the government that the private sector should play a greater role in the development of sports stadia in the country. Allocation for the Master Plan for the Preservation of Moenjodaro, is also lower than that in 1981-82 because assistance of UNESCO, based on contributions from member countries, is not being received at the promised level. The National Institute of Sports and Culture, Islamabad being constructed with the Chinese assistance, has nearly reached the completion stage and did not require allocation at last year's level. Comparative sub-sectoral allocation for 1981-82 and 1982-83 are given in the Table below and agency-wise break-up is given in Annexure II.

TABLE 2

Comparative Allocations for 1981-82 and 1982-83

Sub Sector	(Million Rs.)		
	Allocation 1981-82	Allocation 1982-83	%Increase/ Decrease
Archaeology and Archives	33.772	20.558	(-)39
Sports	739.200	82.800	(-)41
Culture	11.060	14.135	(+)28
Total	184.032	117.493	(-)36

7. Within the available resources, however, the Plan seeks to complete the on-going programmes rather than initiate new ones. It is because of this strategy that 87 per cent of the total allocation for this sector has been earmarked for on-going programmes. Only 10, 7 and 12 per cent of the sub-sectoral allocations shall be for new programmes in Archaeology and Archives, Sports and Culture respectively.

Physical Programme

8. *Archaeology and Archives*.—Work shall be continued on the development of Peshawar and Dir Museums in NWFP, Hyderabad Museum in Sind, and Lahore and Bahawalpur Museums in the Punjab. The on-going work on the establishment of Sind Archives at Karachi shall be continued. Under the Master Plan for the Preservation of Moenjodaro, tube-wells will be sunk to lower the ground water level and the work of preservation of remains shall be continued. The on-going work of construction of the building of National Archives of Pakistan

shall be continued. The on-going work of preservation and presentation of Shalimar Gardens and Fort at Lahore shall be continued while two new programmes of extension of National Museum of Pakistan at Karachi and development of Allama Iqbal Museum (Javaid Manzil), Lahore shall be initiated.

9. *Sports*.—Work will be initiated on the construction of the boundary wall of the sports stadium constructed by the Quetta Development Authority and on the establishment of a cricket stadium at Quetta. The on-going work of construction of the Sports Complex of the National Institute of Sports and Culture at Islamabad shall be continued. Priority will be assigned to the completion of the stadium during 1982-83 while work shall be continued on the construction of gymnasium and preparation of the out-door fields. The scheme for the establishment of National Hockey Stadium, Lahore shall be initiated. Indoor gymnasium hall at Rawalpindi shall be renovated and the facilities for Rawalpindi Golf Club shall be further improved. Work shall also be initiated on the establishment of National Sports, Training and Coaching Centre at Quetta.

10. *Culture*.—The on-going work of projection of the cultural heritage in the Punjab shall be continued while work on consolidation of the Arts Gallery at Lahore and construction of academic, administrative, and arts and music blocks in the second phase of the development of the Lahore Arts Council shall be initiated. The on-going work of extension of facilities of the Artists' Hostel of the Pakistan National Council of the Arts at Rawalpindi shall be continued. The design for the building of National Arts Gallery, Islamabad having been selected, the construction work shall be started during the year.

SUB-SECTORAL ADP ALLOCATIONS, REVISED BUDGET ESTIMATES AND UTILIZATION PERCENTAGES FOR 1981-82

(Million Rs.)

Sub-sector	Baluchistan			N.W.F.P.			Sind			Punjab			Federal			Total		
	ADP All.	R.B.E.	Uti. %	ADP All.	R.B.E.	Uti. %	ADP All.	R.B.E.	Uti. %	ADP All.	R.B.E.	Uti. %	ADP All.	R.B.E.	Uti. %	ADP All.	R.B.E.	Uti. %
1. Archaeology and Archives ..	—	—	—	3.059	1.277	42	1.498	0.975	65	0.940	0.440	47	28.275	28.275	100	33.772	30.967	92
2. Sports :																		
(i) National Institute of Sports and Culture.	—	—	—	—	—	—	—	—	—	—	—	—	136.500	129.442	95	136.500	129.442	95
(ii) Other Programmes ..	2.700*	2.700	100	—	—	—	—	—	—	—	—	—	—	—	—	2.700	2.700	100
Sub-Total (Sports)	2.700*	2.700	100	—	—	—	—	—	—	—	—	—	136.500	129.442	95	139.200	132.142	95
3. Culture ..	—	—	—	—	—	—	0.440	—	—	4.000	1.000	25	6.620	6.621	100	11.060	7.621	69
Total (Sports and Culture Sector).	2.700*	2.700	100	3.059	1.277	42	1.938	0.975	50	4.940	1.440	29	171.395	164.338	96	184.032	170.730	93

*For Sports Complex being constructed by the Quetta Development Authority.

SUB-SECTORAL AGENCY-WISE ADP ALLOCATION FOR 1981-82 AND 1982-83

(Million Rs.)

Sub-sector	Baluchistan		N.W.F.P.		Sind		Punjab		Federal		Total	
	1981-82	1982-83	1981-82	1982-83	1981-82	1982-83	1981-82	1982-83	1981-82	1982-83	1981-82	1982-83
	1. Archaeology and Archives.. .. .	—	—	3.059	1.548	1.498	0.600	0.940	1.100	28.275	17.310	33.772
2. Sports :												
(i) National Institute of Sports and Culture	—	—	—	—	—	—	—	—	136.500	68.800	136.500	68.800
(ii) Other Programmes	2.700	1.100*	—	—	—	—	—	—	—	12.900	2.700	14.000
Sub-Total (Sports)	2.700	1.100*	—	—	—	—	—	—	136.500	81.700	139.200	82.800
3. Culture	—	—	—	0.100	0.440	0.050	4.000	2.633	6.620	11.352	11.060	14.135
Total (Culture and Sports Sector)	2.700	1.100*	3.059	1.648	1.938	0.650	4.940	3.733	171.395	110.362	183.032	117.493

*Under Quetta Development Authority.

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THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

REPORT OF THE PHYSICS DEPARTMENT

FOR THE YEAR 1870

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CHAPTER 12

SPECIAL DEVELOPMENT PROGRAMMES FOR WOMEN

With a view to creating general awareness among women and enhancing their economic productivity a number of special development programmes have been launched by the Women Division. These programmes, initiated during 1979-80, now cover a number of areas of economic activity in which women can play a significant role.

REVIEW OF ADP 1981-82

Financial Utilization

2. A sum of Rs. 63.574 million is likely to be spent on Special Development Programme for Women during the year as against an ADP allocation of Rs. 68.250 million, a utilization of 93%. Agency-wise break-up of ADP allocation 1981-82 and utilization of funds during this year, given in the table below indicates that for NWFP and Baluchistan the utilization is 120% and 104%.

TABLE 1

Province-wise Break-up of Allocation Utilization 1981-82

Province/Area	Allocation 1981-82	Utilization (Million Rs.)	
		Amount	%
Baluchistan	4.166	4.316	104
N.W.F.P.	10.976	13.154	120
Sind	19.351	14.806	77
Punjab	30.631	28.832	94
Federal including Northern Area, FATA and AJK. ..	3.126	2.466	79
Total ..	68.250	63.574	93

respectively, which suggests that programmes in these provinces have picked-up momentum. The utilization percentages for Sind and the Punjab are 77 and 94, respectively. In fact the utilization percentage for Sind is the lowest followed by 79 per cent for Federal Areas including Northern Area, Federally Administered Tribal Areas and Azad Jammu and Kashmir.

Physical Programmes

3. A number of on-going programmes designed to develop necessary facilities at some existing institutions for imparting education and training to women were continued while some new programmes were also initiated. Financial support

to meet recurring expenses of the educational programmes at institutions where such facilities have been created was also extended. Some of the major programmes are given in the table below :

TABLE 2
Major Programmes with Targets Implemented during 1981-82

Programmes/Activity Centres	Continuation of on-going works/sup- port for re- curring ex- penditure	New pro- grammes ini- tiated dur- ing the year
Centres Secretariat Training and Repair of Domestic Appliances ..	49	2
Commercial Training Institutes	15	46
Adult Education Centres including Women Centres under school edu- cation system	4,341	140
Government Polytechnics	4	2
Vocational Institutes	49	—
Industrial Homes and sewing-cum-cutting centres.. .. .	724	—
Multipurpose Community Sponsored Economic Activities Centres ..	905	35
Pilot centres at IRDP Marakez/Agri. Extension Centres	253	213
Carpet/Duree Weaving Centres	33	8
Silk-Rearing and Silk Reeling Centres	10	—
Handicraft Production Centres.. .. .	4	5
Ready-made Garment Tailoring Centres	1	2

4. In addition to the above programmes, training was also imparted in health education at a number of adult education centres. Training of lady field assistants was also imparted in the Punjab. A number of programmes were implemented for encouraging cooperative movement, for popularising agricul- ture among women in rural areas, training of teachers for industrial centres, and such other activities as are useful for women in rural communities. Work was also initiated on the establishment of a large number of community halls for women in small town and villages in various provinces.

PROGRAMMES FOR 1982-83

Financial Allocation

5. An amount of Rs. 60.200 million has been allocated for Special Develop- ment Programme for Women during 1982-83 as against the revised budget esti- mate of Rs. 63.574 million for 1981-82.

6. Priority has been assigned to completion of on-going programmes which have consumed 74 per cent of the total. The break-up of allocation of various agencies for on-going and new programmes, given in table 3 below

TABLE 3
Agency-wise Break-up of Allocation for On-going and New Programmes

Agency	(Million Rs.)				Total
	On-going Programmes		New Programmes		
	Amount	% of Total	Amount	% of Total	
Baluchistan	1.353	29	2.283	71	4.636
N.W.F.P.	6.053	77	1.812	23	7.863
Sind	12.469	91	1.195	9	13.664
Punjab	21.782	73	8.004	27	29.796
Federal	3.072	72	1.167	28	4.239
Total	44.739	74	15.461	26	60.200

indicates that it is only in Baluchistan that a large number of new programmes is being launched as compared to the existing ones. The allocation for on-going programmes is only 29 per cent of the total. In Sind, new programmes have been allocated only nine per cent of the total available resources.

Physical Targets

7. The plan provides for (i) the continuation of the on-going programmes of (a) creating physical facilities required for the education and training of women for productive work, and (b) meeting the recurring expenditure required for utilization of training infrastructure created earlier, and (ii) for launching of new programmes for creation and/or consolidation of new education and training facilities. The plan provides for the continuation of the programmes in operation during 1981-82. In addition, the following new programmes shall be initiated :—

- (i) Establishment of ten more adult education centres for women in Baluchistan and add adult education component in the existing Women Centre in Hunza (Northern Area).
- (ii) Establishment of polytechnic for women at Islamabad.
- (iii) Setting up of 60 new Community-sponsored/Multipurpose Economic Activities Centres.
- (iv) Establishment of two new carpet/duree weaving centres, one in Swat and the other in Quetta.

8. In addition, training of lady health visitors, dais, and medical technicians and workers for agricultural extension work, livestock improvement, development of cooperative movement and for other productive works in rural based economy shall be arranged.

9. Agency-wise break-up of the programmes described above is given in the Annexure.

AGENCY-WISE BREAK-UP OF TARGETS OF MAJOR PROGRAMMES, 1982-83

Programmes	Punjab		Sind		NWFP		Baluchistan		Federal		Total
	On-going	New	On-going	New	On-going	New	On-going	New	On-going	New	
Centre for Secretarial Training and Repair of Domestic Appliance ..	15	—	32	—	2	—	2	—	—	—	51
Commercial Training Institutes	—	—	46	—	—	—	—	—	15	—	61
Adult Education including women centres under school education system	4,042	—	130	—	282	—	27	10	—	1	4,492
Government Polytechnic	2	—	2	—	2	—	—	—	—	1	7
Vocational Institutes	—	—	44	—	3	—	2	—	—	—	49
Industrial Homes and Sewing-cum-cutting centres	500	—	—	—	200	—	3	—	21	—	724
Multipurpose/Community Sponsored Economic Activities Centres ..	—	—	230	—	709	—	1	—	—	—	940
Pilot Centres at IRDP Marakez Agri. Extension Centres	116	—	—	—	350	—	—	—	—	—	466
Carpet/Duree Weaving Centres	6	—	26	—	3	1	1	1	5	—	43
Silk Rearing and Silk Reeling Centres	—	—	—	—	10	—	—	—	—	—	10
Handicraft Production Centres	4	—	—	—	—	—	—	—	5	—	9
Ready-made Garment Tailoring Centres	2	—	1	—	—	—	—	—	—	—	3

CHAPTER 13

HEALTH

Current Situation

The health situation in Pakistan is characterised by high birth rate, high infant mortality, high child mortality, high maternal mortality and high morbidity due to communicable diseases. The indices, for instance, indicate the crude birth rate (per thousand population) as 39, crude death rate 12, infant mortality 100, and morbidity due to communicable diseases, 30% of total sickness. The life expectancy among males was 58 years and that among females 59 years.

2. There is at present one doctor for 5,320 persons, one dentist for 55,800 persons, one nurse for 13,950 persons, one paramedic for 2,636 persons, one primary health care facility for 13,500 persons, and one hospital bed for 1,410 persons.

REVIEW OF 1981-82

3. The allocation for the health sector during 1981-82 was Rs. 1076.301 million. The revised estimates stood Rs. 1036.701, giving a utilization rate of 96 per cent. The ADP allocations and revised estimates by executing agency appear at Annexure I.

4. Physical targets for development of infrastructure included completion of 56 Rural Health Centres (RHCs) 345 BHUs/dispensaries and 2087 hospital beds. The achievements include construction of 47 RHCs 374 BHUs/dispensaries, and addition of 1240 hospital beds. The targets set for production of health manpower have been fully met for nurses and paramedics. The output of doctors fell short of targets because of delayed examinations in Sind. Agency-wise achievements are at Annexure II.

Federal Programme

5. Against an allocation of Rs. 424.125 million, revised estimates stood Rs. 368.0 million, giving 86.7 per cent utilization rate of allocated resources. Rs. 32.267 million were placed at the disposal of Works Division for development of physical infrastructure. The revised estimates are Rs. 14.884 million or a utilization rate of 46.1 per cent. Physical programmes of some of the major ongoing programmes is summarised below :

6. *Bolan Medical College, Quetta*.—Rs. 90.0 million were allocated to this project which were fully utilized. Construction work on different components of project the remained in progress. College building, hospital building and external electrification have been completed upto 90 per cent while housing colony is almost ready.

7. *Ayub Medical College, Abbottabad.*—The project received an allocation of Rs. 50.0 million and was fully utilized. Physical progress includes completion of 30-bedded ward, OPD block and nursing hostel.
8. *Islamabad Hospital, Islamabad.*—The project was backed up with an allocation of Rs. 100.231 million and the entire amount was utilized. Hostels for doctors and nurses, OPD building and services block have been completed. Physical progress in respect of in-patient wards for 296 beds, internal roads, boundary wall and staff quarters is up to 90%, 95%, 90% and 85 per cent, respectively.
9. *Malaria Control Programme.*—The project was allocated Rs. 50.0 million to import insecticides, equipment and transport for malaria control operation. There is complete utilization of finances according to the revised estimates. About 30 per cent of the houses in the rural areas have been sprayed with a coverage of 16.235 million population. Through screening of fever cases, 0.536 million blood smears were collected which gave a positivity rate of 1.8 per cent. Anti-malarial operations were carried out in big cities to control malaria and reduce mosquito nuisance.
10. *Expanded Programme of Immunization.*—The project was backed up with Rs. 13.882 million, all in foreign exchange, for purchase of vaccines and cold chain equipment to support immunization against six preventable diseases. Revised estimates showed full utilization. One million children are estimated to have been immunized during the year.
11. *Improvement of JPMC, Karachi.*—Rs. 21.503 million were provided for JPMC, Karachi. It included a number of schemes like construction of residential accommodation for essential staff, airconditioning and improvement of department and school of paediatrics, prosthetic production workshop and general improvement of JPMC. Revised estimates stand at Rs. 14.679 million, showing 68.2 per cent utilization.
12. *National Institute of Health, Islamabad.*—Rs. 12.0 million were allocated for clinical research division, new rabies production unit, expansion plan and construction of residential accommodation. Revised estimates show utilization of Rs. 7.463 million.
13. *F.A.T.A.*—Rs. 25.0 million were earmarked for the health sector. Revised estimates showed 100% utilization of resources. Addition of physical facilities included 12 Basic Health Units (BHUs) against target of 16 BHUs. Health manpower production targets have been fully met.
14. *Science and Technology Division.*—Rs. 8.0 million were allocated to the Pakistan Medical Research Council for three ongoing and one new research project. Rs. 7.5 million have been spent according to the revised estimates.
15. *Azad Kashmir.*—Against an allocation of Rs. 22.230 million, revised estimates stood at Rs. 20.060 million, showing 90.2% utilization. A sum of Rs. 11.951 million has been spent on Rural Health Programme. Fifteen dispensaries with residential quarters and a dental clinic have been completed against the target of 32.

16. The revised estimates for hospital beds are Rs. 4.687 million. Work on four ward blocks of DHQ Hospital, Kotli, is in the initial stages. Rs. 0.839 million were spent on paramedical school, Mirpur. Forty doctors and 130 paramedics completed training.

17. *Northern Areas*.—Rs. 13.650 million were allocated which were utilized in full. Construction work of 8 hospitals with an addition of 115 beds was completed: Rs. 1.320 million have been spent on purchase of furniture and equipment including blood bank equipment and ECG machine. Apart from this, 11 dispensaries, one MCH centre, 4 first aid posts have been completed and 33 nursing assistants have been employed.

Provincial Programmes

18. *Punjab*.—Rs. 343.0 million were spent on health programmes during 1981-82, against an allocation of Rs. 321.8 million. The physical targets for infrastructure included completion of 44 rural health centres, 200 basic health units and 1,232 hospital beds. The targets for health manpower *viz.* doctors, nurses and paramedics have been fully accomplished. Three hostels for the medical students have been completed in Nishter Medical College, Multan and Allama Iqbal Medical College, Lahore.

19. Health care facilities have been further strengthened during the year by creating 226 new posts for medical officers and 325 house jobs. A total of 381 doctors was provided the jobs during the year. Residential accommodation is available for 100% of doctors serving in the rural areas and 80% of doctors working in tehsil and district hospitals. Additional hostel accommodation was built to accommodate 314 house-men while buildings have been rented to provide lodging to another 150 house-men.

20. *Sind*.—An expenditure of Rs. 93.110 million was included during 1981-82 against allocation of Rs. 100.0 million, giving 93% utilization rate. The targets were completion of 5 rural health centres, 5 basic health units and 190 hospital beds. The achievements include completion of 8 rural health centres including an integrated rural health complex, 13 basic health units and 545 hospital beds. Work on establishment of five taluka hospitals was completed.

21. Targets for health manpower development were: output of 1,750 doctors, 600 paramedics and 231 nurses. Achievements include graduation of 905 doctors, 713 paramedics and 230 nurses.

22. *N.W.F.P.*—The targets set for physical infrastructure were: completion of 59 basic health units, 2 rural health centres and 80 hospital beds. Achievements are completion of 65 basic health units, one rural health centre and 60 hospital beds. Residential accommodation has been constructed for 30 paramedics and 6 doctors. The targets set for manpower development have been fully achieved *viz.* graduation of 133 doctors, 125 nurses and 550 paramedics. Financial utilization is Rs. 141.581 million against an allocation of Rs. 139.202 million.

23. *Baluchistan*.—Against an allocation of Rs. 21.382 million, revised estimates are Rs. 23.888 million. The target of completion of 32 basic health units

and 5 rural health centres has been achieved. However, only 50 hospital beds could be completed against a target of 80 beds. Health manpower production targets have been fully met *viz.* output of 130 doctors, 34 nurses and 110 param edics.

PROGRAMMES FOR 1982-83

Strategy

24. The strategy for the 1982-83 development programme is in the nature of adjustments to approved policies. The important components include the following :—

- (i) Emphasis to be accorded to the expansion of primary health care with highest priority for key components of primary health care for vulnerable groups *viz.* expectant and lactating mothers and children.
- (ii) Improvement and consolidation of referral care; and
- (iii) Going slow on provision of sophisticated care so as to minimize disparities.

25. Out of the various components of primary health care highest priority will be accorded to the following :—

- (a) Protection of children, by immunization against six preventable diseases of childhood, to reduce the child morbidity and mortality. This will include protection against tuberculosis, whooping cough, diphtheria, tetanus, poliomyelitis, and measles. Five million children will be protected during the year as against one million children during the previous year.
- (b) Provision of the much needed assistance during child birth with ante-natal and post-natal care. To achieve this, indigenous, traditional and other systems available will be fully exploited. Eight thousand birth attendants will be trained as against 1,000 having been trained previously.
- (c) Oral rehydration salts, to prevent dehydration due to diarrhoea, will be made available at all the health outlets.
- (d) Availability of potable water and disposal of waste water, refuse and night soil particularly in the rural areas and urban slums.
- (e) Where necessary, district and tehsil/taluka headquarters hospitals will be strengthened for referral care.

26. The programmes and projects aiming at providing sophisticated care will be slowed down so that a re-ordering of priorities could be possible. These would not be allowed to develop at the cost of primary health care.

Financial allocations

27. The ADP allocation for the health sector is Rs. 1045.835 million—Federal programme Rs. 445.847 million and provincial component Rs. 599.988

million. Besides, the key components of the primary health care for survival of our children have been allocated Rs. 210.000 million. The agency-wise allocations are given below.

TABLE 1
Agency-wise ADP allocations 1982-83

						(Million Rs.)	
Agency						Allocation 1981-82	Allocation 1982-83
A. Normal ADP							
I. Federal :							
(i) Health Division	..	..	..	..	..	424.125	363.172
(ii) Azad Kashmir	..	..	..	..	..	22.230	29.900
(iii) Northern Areas	..	..	..	..	..	13.650	11.400
(iv) FATA	..	..	..	..	..	25.000	25.900
(v) Science & Technology Division	..	..	..	..	..	8.000	8.240
(vi) Interior Division	..	..	..	..	..	0.912	7.235
Sub-total..						493.917	445.847
II. Provincial							
(i) Baluchistan	..	..	..	..	..	21.382	20.728
(ii) N.W.F.P. . .	..	..	..	..	..	139.202	148.760
(iii) Sind	..	..	..	..	..	100.000	100.500
(iv) Punjab	..	..	..	..	..	321.800	330.000
Sub-total..						582.384	599.988
Total						1076.301	1045.835
B. Special Priority Programme (Primary Health Care)						—	210.000
GRAND TOTAL						1076.301	1255.835

28. The Annual Plan lays emphasis on primary health care and speedy completion of ongoing schemes. The allocations by sub-sectors and executing agencies are given at Annexure III. Targets for the year 1982-83 are given below :

TABLE 2
Targets for 1982-83

S. No.	Category	Target 1982-83
1	2	3
(A) Preventive Programmes :		
1.	Poly-immunization of children under 5 years against tuberculosis, measles, poliomyelitis, whooping cough, diphtheria and tetanus	5 million children.
2.	Immunization of pregnant mothers against tetanus ..	1.4 million.
3.	Oral rehydration of diarrhoea cases (children 0—5 years) ..	2.0 million cases.
4.	Insecticidal spray of houses for protection against malaria.	3.36 million houses (30% of houses in rural areas.)

1	2	3
B) Health Manpower Development		
5. Doctors	3913
6. Paramedics	2980
7. Nurses	1165
8. Birth Attendants	8000
(C) Development of Health infrastructure		
9. Hospital beds	2154
10. Rural Health Centres	44
11. Basic Health Units/dispensaries/MCH centres	414
(D) Employment of Health Manpower :		
12. Vaccinators for Accelerated Expanded Programme of Immunization	5000
13. Nurses	1000
14. Paramedics in General Health Services	1200
15. Doctors in Public Sector	1330

Agency-wise targets are at Annexure-IV.

FEDERAL PROGRAMME

29. The allocation for the Special Programmes and Federal Health Programme is Rs. 210.000 million and Rs. 445.847 million, respectively. The breakup of allocation by executing agencies/major projects is given below :

Agency/Major Projects	Million Rs.
(i) Special Programmes :	
(a) Accelerated Expanded Poly-immunization	} 210.000
(b) Training of Birth Attendants	
(c) Oral Rehydration Salts	
(d) Health Education	
(ii) Health Division :	
(a) Bolan Medical College, Quetta	60.200
(b) Ayub Medical College, Abbottabad	43.000
(c) Islamabad Hospital Complex	66.360
(d) Malaria Control Programme	50.640
(e) EPI and, Production of Vaccines	39.051
(f) J.P.M.C., Karachi	29.646
(g) N.I.H., Islamabad	21.517
(h) National Institute of Cardiovascular Diseases, Karachi.	15.385
(i) Pakistan Medical Research Centre, Lahore	10.330
(j) Airconditioning of Khyber Teaching Hospital, Peshawar	12.900
(k) Miscellaneous	14.143
(iii) Azad Kashmir	29.900
(iv) Northern Areas	11.400
(v) F.A.T.A.	25.900
(vi) Science and Technology Division	8.240
(vii) Interior Division	7.235
Total (Federal Programmes)	445.847

30. Salient features of important programmes are given below.

Special Programmes (Primary Health Care for the Children Survival)

31. Pakistan has a very large child population particularly those below the age of five years. It is estimated that about 3.0 million children are being added every year. The present health system is inadequate to provide primary health care to children. Ten per cent of the children die before the age of one year while another 10 per cent die before reaching the age of five years. Pakistan is thus losing 700,000 children every year before they attain the age of five years. This is an alarming situation by any standard and calls for urgent measures. The main causes of such a high loss of our children are : diarrhoea-pneumonia complex, low birth weight due to lack of maternal care and high neonatal deaths due to inadequate post-natal care. The situation can improve if adequate primary health care is provided to the mothers and children. Provision of primary health care is a long-term objective. However, key components can bring quick results to improve the dismal picture. These programmes will be part of the overall primary health care. The main targets are as under :

TABLE 3
Targets for Special Programmes

Sl. No.	Category	Current rate 1981-82	Targets 1982-83	% Change
1.	Training of Dais	1,000	8,000	8 times.
2.	Oral Rehydration Salts (one litre) packets ..	1.0 million.	5.0 million.	5 times.
3.	Immunization of children 0-5 years for six diseases	1.0 million.	5.0 million.	5 times.

32. *Accelerated Expanded Poly-immunization Programme.*—The present programme of poly-immunization to protect the children against the six preventable diseases was progressing satisfactorily, but moved at a slow speed, because of the initial low targets. This programme will be stepped up as storage facilities exist for various types of vaccines and some cold chain is also present in the country. Vaccines and syringes will be made available and storage facilities provided at places where electricity exists to immunize 5 million children by June 1983. In the next two years nearly 9-10 million upto the age of 5 years will have to be immunized every year to cover the backlog. To undertake this, all health facilities will be converted into immunization centres. Available medical and para-medical manpower and students of various medical colleges, nurses training schools and para-medical training schools will be mobilized, where necessary, to accomplish the targets. The nation will have to be prepared through mass media, elected councillors, community leaders and school teachers. The major challenge for the provinces is to develop the organizational structure and logistic support along with community participation and massive educational campaign. After June 1985, the normal immunization programme will continue as a merged programme with the general health system so that the new borns could be given protection.

33. *Training of Birth Attendants.*—Due to weak infrastructure of health services, health facilities during delivery are not available to about 74% of the mothers. Most of the deliveries are conducted by the un-trained traditional birth attendants (dais), elder sisters, mothers and mothers-in-law. There is no antenatal and post-natal care due to which maternal mortality is very high. Deaths during first month of infancy are very frequent. These are due to lack of reasonable level of care particularly during child birth.

34. To overcome this situation, it is envisaged that birth attendants, whatever type they exist, will be given adequate training to conduct deliveries in more scientific and hygienic manner than the current practice. It is contemplated that one birth attendant will be made available per village in a period of 2-3 years, covering about 8,000 villages during the current year. Training will have to be imparted in the villages and duration of training will be about 2-3 months. The village community will select a person to be trained who has to be a female of mature age, practising birth attendant, unlikely to leave the village, preferably a permanent resident of the village having good influence in the village scene.

35. These community-selected women will be trained by lady health visitors, nurses midwives and female welfare workers under supervision of female doctors. The training teams will have to be mobile at places. The training will be imparted at basic health units, Mother-Child Health (MCH) centres, rural health centres and family welfare clinics, and also at central places/points where these facilities do not exist. The trainees will remain with their families in their own homes and commute to the training centres. Out of pocket money will be given to these trainees to undertake travel and also for the mid-day meals etc. At the end of the training these trainees will be provided midwifery kits free of charge.

36. After completion of the training, the community will supervise their work and support them in the manner they may like to choose.

37. All these birth attendants will report, once in a month, to the nearest health facility to which they will remain attached for the purposes of reporting births, replenishment of stocks and furtherance of their knowledge.

38. *Oral Rehydration Salts (ORS).*—Diarrhoea is quite common during summer, particularly among infants. We lose many infants due to dehydration resulting from diarrhoea. To prevent this, a combination of salts with water will be provided to be given by mouth to the children suffering from diarrhoea to keep the fluid and chemical balance of these young ones. In doing so, the fluid and salt loss will be made up; recovery will be quick and after effects minimum. About 5 million packets of ORS will be supplied during the year.

Health Division

39. *Medical Education.*—The allocation for medical education is Rs. 126.051 million. Project-wise details are given below :

- (i) *Bolan Medical College, Quetta.*—It is an on-going project and is at advanced stage. Rs. 60.2 million have been allocated. Only minor work relating to hospital and college building including external electrification would be left for completion in 1983-84.

- (ii) *Extension of College of Physicians & Surgeons, Karachi.*—Rs. 4.3 million have been provided. The project is likely to be completed upto 50%. Once the project becomes functional, the output of the specialists will increase from 150 to 300 per year.
- (iii) *Ayub Medical College, Abbotabad.*—Rs. 43.0 million have been provided. It is expected that 500 beds in District Headquarters Hospital will be made functional during the year, which will provide treatment facilities for 500 out-patients per day and 10,000 in-patients per year.
- (iv) *Construction of Hostel for 200 Nurses at JPMC, Karachi, Improvement of Department and School of Paediatrics at JPMC, and Airconditioning of Department and School of Paediatrics.*—All the three projects are likely to be completed with the allocation of Rs. 1.350 million.
- (v) *Airconditioning of Khyber Teaching Hospital, Peshawar.*—The building design necessitates airconditioning and Rs. 12.9 million have been provided for this purpose.
- (vi) *Extension of School of Medical Technology, NIH, Islamabad.*—An allocation of Rs. 4.301 million has been made. On completion, the project will provide additional opportunity for laboratory technicians to meet the demand for rural areas.

40. *Hospital Beds.*—The share for the hospital beds is Rs. 110.425 million. Project-wise details are as follows :

- (i) *Islamabad Hospital.*—The project is supported with Rs. 55.9 million. The Hospital is likely to be functional by June, 1984. Only minor work relating to indoor ward and residential colony will have to be staggered to the next year.
- (ii) The following schemes pertain to JPMC, Karachi and are likely to be completed by June, 1983. These schemes will improve the functioning of the JPMC, Karachi :

	(Million Rs.)
(a) Construction of 48 quarters	0.500
(b) Improvement of JPMC, Karachi	2.250
(c) Construction of residential accommodation	4.123
(d) Procurement of Computed Tomography	8.893
(e) Construction of Isotope Centre	0.500
(f) Airconditioning of Operation Theatre	0.100

(iii) *Nuclear Medical Centre, Islamabad.*—It is an on-going and approved project. Rs. 8.6 million have been provided for 60% completion of the project.

(iv) *Construction of two floors in National Institute of Cardiovascular Diseases, Karachi.*—An amount of Rs. 15.385 million is provided for the project's completion to utilize the sophisticated facility.

- (v) *Children Hospital, Islamabad.*—The project is under negotiation with Japanese Government and a token allocation of Rs. 0.860 million has been provided.
- (vi) *Construction of Office and Residential Accommodation for Civil Surgeon's Dispensaries at Quetta and Hostel at J.P.M.C., Karachi.*—Rs. 2.5 million for the schemes has been provided to initiate the work.
- (vii) For the new schemes of JPMC, Karachi the allocations for the year are as under :

	(Million Rs.)
— Construction of Auditorium	0.500
— Construction of Compound Wall	1.000
— Construction of One Wing over Special Ward	1.584
— Provision of lift in Blood Bank Building	2.049
— Provision of Oxygen and Nitrogen pipelines	1.567
— ENT diagnostic Centres	1.000
— Purchase of machinery	1.720

- (vii) *Airconditioning Unit for Polyclinic, Islamabad.*—Rs.0 .394 million have been provided for airconditioning of essential areas.
- (viii) *Brain Research Centre, Islamabad.*—An allocation of Rs. 1.0 million is supported for undertaking the feasibility study.

Preventive Programme

41. Allocation for the preventive programmes is Rs. 96.191 million. Broad details are as under :

- (i) *Construction of Prosthetic Production Workshop, JPMC, Karachi.*—Production of artificial limbs is a priority area and Rs. 1.0 million is provided.
- (ii) Following minor schemes are likely to be completed by June, 1983 :

	(Million Rs.)
— Residential accommodation for Port Health, Karachi	0.300
— Laboratory fittings for freezed dried vaccine, NIH, Islamabad	0.314
— Addition/alteration in Airport Health Office, Islamabad	0.430

- (iii) Undermentioned schemes relate to production of vaccines in the country, which are otherwise imported. It is a priority area and supported by foreign aid. The following allocations have been made :—

	(Million Rs.)
— Measles Production Unit, NIH, Islamabad	11.380
— Polio-Vaccine Laboratory, NIH, Islamabad	1.500
— Polio-Vaccine Equipment Project, NIH, Islamabad	6.000
— Rabies Vaccine Unit, NIH, Islamabad	2.000

- (iv) *Expanded Programme of Immunization*.—This forms part of the Special Programme. Rs. 17.857 million have been allocated for import of vaccines and cold chain equipment.
- (v) *Malaria Control*.—An amount of Rs. 50.640 million is provided for this priority area to meet the requirement for import of insecticides and equipment. Insecticidal coverage will be given to 3.360 million rural houses in the areas where malariogenic potentials are very high.
- (vi) Following three projects have been provided allocations for improvement of the functioning of National Institute of Health :—
- Rs. 0.3 million for construction of 2nd reservoir and installation of pumping set at filtration plant, NIH, Islamabad.
- Rs. 0.6 million for procurement of Laminar flows biological safety cabinet bench, NIH, Islamabad.
- Rs. 3.010 million for water treatment plant for tissues culture media, NIH, Islamabad.
- (vii) *Institute of Speech and Hearing Disorders, Islamabad*.—It is being set up under Presidential Directive for the rehabilitation of the handicapped. An allocation of Rs. 0.860 million has been made during the year.
42. *Medical Research*.—The share of medical research through Health Division's budget is Rs. 19.270 million. Detail of research project is given below :
- (i) *Clinical Research Division, NIH, Islamabad*.—Rs. 2.430 million is provided for 80% completion of the project.
- (ii) *National Nutrition Survey*.—Rs. 2.064 million is provided to complete the project in one year for making information available for the Sixth Plan.
- (iii) *Construction of Tibbia Research Institute, Islamabad*.—Token allocation of Rs. 0.860 million has been provided.
- (iv) *Pakistan Medical Research Centre, Lahore*.—Grant agreement has been signed. The project is to be financed by US AID. The project is allocated Rs. 10.330 million during the year.
- (v) *Tuberculosis Research Project, NIH, Islamabad*.—It is an aided priority research project. The project is backed with an allocation of Rs. 3.586 million for its completion in one year.
43. *Rural Health Programme*.—An amount of Rs. 2.935 million has been allocated for the rural health programme for four small projects. The details are given below :
- (i) *Basic Health Services Cell*.—Rs. 0.215 million are provided for continuation of activities for paramedics' training.

(ii) *Pilot Project for Community Health Workers*.—It is an area which requires investigation. Rs. 1.0 million is provided. This will be available from UNDP.

(iii) Allocation for the following two schemes is in compliance with the Presidential Directive :—

	(Million Rs.)
— Construction of RHC at Khewari, District Mansehra	1.290
— Construction of BHU at Gharibabad, District Rawalpindi	0.430

Miscellaneous

44. Following allocations are earmarked for the under-mentioned schemes to improve the functioning of National Institute of Health, Islamabad and to develop storage facilities at Karachi, for World Food Programme Commodities.

	(Million Rs.)
— Construction of Relief Supply Godown, Karachi	1.000
— Improvement of NIH, Islamabad (Phase-III)	0.300
— Residential accommodation at NIH, Islamabad	2.000
— Expansion of NIH, Islamabad	1.600
— Mosque at NIH, Islamabad	0.400
— Improvement of airconditioning system and standby electric supply, NIH, Islamabad	3.000

Interior Division

45. Rs. 7.235 million are provided for a new scheme and for an on-going project. The first project, "Treatment and Rehabilitation of Drug Addicts" is aided by UNFDAC. The other project "Construction of rural health centres and basic health units in Federal Area" is again a priority project for extending primary health care facilities in peripheral areas of Islamabad which has been transferred from Health Division's ADP to Interior Division.

Science and Technology Division (PMRC)

46. Rs. 8.240 million are provided for seven research schemes. Five schemes are likely to be completed by June, 1983 viz. research programme on study of national health problems, data generation cell for health planning, establishment of five research cells in medical colleges and establishment of research unit for metabolic disorders.

States and Frontier Regions Division

47. Rs. 25.900 million have been earmarked for FATA health sector. The major share is for the rural health programme. Physical targets include completion of 5 BHUs, addition of 70 hospital beds and completion of hostel for 400 students of FATA in Khyber Medical College. Improvement work of agency hospital Wana will also be completed.

Northern Areas

48. Rs. 11.400 million are provided. Major share is meant for extension of services to the rural masses. Eleven small rural hospitals will be provided equipment and furniture to make 175 beds functional. Repair work of Chilas,

Gilgit and Skardu hospitals and 20 dispensaries is likely to be completed. Two 'A' class dispensaries at Khaplu and Shigar will be converted into rural hospitals. Twenty-two 'C' class dispensaries are likely to be functional by June, 1983. In addition, construction work on five residential quarters will also be completed.

Azad Kashmir

49. Rs. 29.900 million is provided to accommodate mostly the on-going programmes. Nearly one-third of the allocation is for para-medical school, Mirpur, and DHQ Hospital, Kotli. Preventive programmes include leprosy control, expanded programme of immunization, supplementary feeding for infants and health education. By June, 1983, 32 rural dispensaries and 3 rural health centres are likely to be completed. Improvement in hospitals includes addition of 95 beds.

PROVINCIAL PROGRAMMES

Punjab

50. Rs. 330.00 million have been allocated for the health sector which is 9.7% higher than the allocation in the previous year. The share for the rural health programme is Rs. 114.965 million which constitutes 34.8% of the total allocations. Physical targets include completion of 20 RHCs and 250 basic health units.

51. Allocation for the construction of hospital beds is Rs. 99.530 million or 30% of the total health sector budget. Tehsil hospitals are given the highest priority with an allocation of Rs. 59.550 million to improve the referral care. The share of DHQ hospitals and teaching hospitals is Rs. 20.100 million and Rs. 19.880 million, respectively. Construction work on 60-bedded six THQ hospitals and two DHQ hospitals will be completed. A total of 810 hospital beds will be added by June, 1983. Current budget includes Rs. 100 million for equipment and Rs. 150 million for medicines.

52. Funds earmarked for medical education are Rs. 88.705 million including Rs. 14.720 million for stipends and scholarships. A total of 1022 new posts of medical officers will be created during the year. Functional breakdown of total budget is given below :

TABLE 4
ADP allocations for Health—Punjab

		(Rs. in million)					
Sl. No.	Sub-Sector	Allocation					
1.	Hospital beds	..	..	..	..	..	99.530
	— Tehsil hospitals	..	..	..	..	..	59.550
	— District hospitals	..	..	..	..	..	20.100
	— Teaching hospitals	..	..	..	..	..	19.880
2.	Medical Education ..	..	..	..	..	..	73.985
3.	Stipends and scholarships	..	..	..	..	..	14.720
4.	Rural Health Programme	..	..	..	..	..	114.965
5.	Miscellaneous ..	..	..	..	..	..	26.800
	Total	..	..	..	..	..	330.000

Sind

53. Total capital outlay for the health sector is Rs. 100.5 million, or roughly the previous year's level. The rural health programme shares 26.6 per cent of the allocations. The targets are completion of 6 RHCs and 2 BHUs. The allocation for hospitals is Rs. 28.081 million i.e. 28 per cent of total health development budget. One taluka hospital is likely to be completed and a total 272 new beds would be added in the various hospitals.

54. Medical education is getting the highest share i.e. Rs. 41.309 million. Health manpower development targets include output of 1750 medical graduates, 700 paramedics and 230 nurses.

55. Break-down of allocations by sub-sectors is given below :

TABLE 5
Sub-sector-wise allocations 1982-83

S. No.	Sub-sector	Allocations		
		On-going schemes	New schemes	Total
1.	Rural Health	14.392	12.295	26.687
2.	Hospital beds, including teaching hospitals	24.521	3.560	28.081
3.	Medical education	41.109	0.200	41.309
4.	Preventive programmes	1.500	—	1.500
5.	Miscellaneous	2.769	0.154	2.923
	Total	84.291	16.209	100.500

N.W.F.P.

56. The allocation for the health sector is Rs. 148.760 million which provides for an increase of 6.8 per cent over the previous year's allocation. The share of the rural health programme is Rs. 71.702 million or 48.2 per cent of the total allocation. Addition of physical facilities include completion of 10 rural health centres (by upgrading basic health units) and 55 basic health units in the rural areas. Besides this, 40 residences for the doctors will be built at BHU level along with addition of 78 residences for paramedics.

57. A sum of Rs. 59.528 million is earmarked for improving hospital facilities in the province. The major share goes to the teaching hospitals viz. Lady Reading Hospital, Peshawar and Khyber Teaching Hospital, Peshawar with an allocation of Rs. 16.274 million and Rs. 15.033 million respectively. A total of 406 beds are likely to be added in the various hospitals by June, 1983.

58. Medical education will receive Rs. 10.067 million including Rs. 5.609 million for scholarships and stipends. Targets for medical manpower are 140 doctors, 125 nurses and 550 paramedics.

Baluchistan

59. The allocation for the normal health programmes is Rs. 20.728 million which is 3.1 per cent less than the previous year's allocation. The major share *i.e.* Rs. 15.788 million is for the completion of on-going programmes. Rs. 9.089 million have been set aside for the rural health programme. The allocation for the improvement of various hospitals is Rs. 11.039 million. Only 30 beds will be added; 20 beds in DHQ hospital, Zhob and 10 beds for leprosy patients at Turbat. Health manpower output will be 130 doctors, 30 nurses and 120 para-medics.

60. Housing facilities for the medical staff are accorded high priority. House surgeons hostel, and nurses hostel are likely to become functional by June, 1983. A total of 33 houses would be added at various places.

Annexure I**ALLOCATION IN 1981-82 ADP AND REVISED ESTIMATES BY EXECUTING AGENCY**

(Million Rupee)

S. No.	Executing Agency	Original allocation	Revised estimates	Percentage utilization
1.	Health Division	424.125	368.000	86.76
2.	Azad Kashmir	22.230	20.060	90.23
3.	Northern Areas	13.650	13.650	100.00
4.	Federally Administered Tribal Area (FATA) ..	25.000	25.000	100.00
5.	Science & Technology Division	8.000	7.500	93.75
6.	Interior Division	0.912	0.912	100.00
7.	Baluchistan	21.382	23.888	100.00
8.	N.W.F.P.	139.202	141.581	100.00
9.	Sind	100.000	93.110	93.11
10.	Punjab	321.800	343.000	100.00
	Total ..	1076.301	1036.701	96.32

PHYSICAL ACHIEVEMENTS 1981-82

Sl. No.	Executing agency		Doctors	Nurses	Para-medics	BHUs/dispensaries	RHC's	Hospital Beds
1.	Health Division	.. ..	—	160	—	—	—	30
2.	Azad Kaahmir	.. ..	40	—	130	15	—	—
3.	Northern Areas	.. ..	18	—	45	12	—	115
4.	F.A.T.A.	.. ..	25	—	175	12	—	—
5.	Baluchistan	.. ..	130	34	110	32	5	50
6.	N.W.F.P.	.. ..	133	125	550	65	1	60
7.	Sind	.. ..	905	230	713	13	8	545
8.	Punjab	.. ..	1090	600	1220	225	33	440
	Total	.. ..	2361	1149	2943	374	47	1240

Annexure III

ALLOCATIONS FOR PROVINCES 1982-83

(million Rs.)

S. No.	Sub-Sector	Interior Division	A.K.	N.A.	FATA	Health Division	PMRC	Punjab	Sind	NWFP	Baluchistan	Planning Division	Total
1.	Rural Health Programme ..	3.785	13.836	3.850	6.470	2.935	—	114.965	26.687	71.702	9,089	—	253.319
2.	Hospital beds including teaching hospitals	—	8.629	4.508	16.797	110.425	—	99.530	28.081	59.528	11.039	—	338.537
3.	Medical Education including scholarships	—	4.270	0.249	1.867	126.051	—	88.705	41.309	10.067	—	—	272.518
4.	Preventive Programmes ..	3.450	1.585	1.189	0.266	96.191	—	—	1.500	5.456	0.600	210.000	320.237
5.	Medical Research ..	—	—	—	—	19.270	8.240	—	—	—	—	—	27.510
6.	Miscellaneous	—	1.850	1.604	0.500	8.300	—	26.800	2.923	2.007	—	—	43.714
	Total ..	7.235	29.900	11.400	25.900	363.172	8.240	330.000	100.500	148.760	20.728	210.000	1255.835

PHYSICAL TARGETS 1982-83

S. No.	Executing agency	Doctors	Nurses	Para-medics	BHUs dispensaries	RHCs	Hospital Beds
1.	Health Division	—	170	—	—	—	296
2.	Azad Kashmir	50	—	135	32	3	95
3.	Northern Areas	28	—	45	22	—	175
4.	F.A.T.A.	65	—	180	5	—	70
5.	Baluchistan	130	30	120	48	5	30
6.	N.W.F.P.	140	125	550	55	10	406
7.	Sind	1750	230	700	2	6	272
8.	Punjab	1750	610	1250	250	20	810
Total		3913	1165	2980	414	44	2154

3. Injectable (vials).	0.054	0.017	31.5	0.060	0.018	30.5	(-)1.0	0.001	5.9
4. Oral Pills (Cycles).	4.162	1.067	25.6	1.125	0.164	14.6	(-)11.0	(-)0.903	(-)84.6
5. Condoms (Units).	116.09	25.24	21.7	80.25	2.9	3.6	(-)18.1	(-)22.34	(-)88.5

Review and Performance Analysis

4. In general terms, the contraceptive performance in respect of semi-clinical devices indicates a comparative improvement while sterilization performance has deteriorated in comparison to the 1980-81 performance. In respect of the clinical methods the targets during the period under review were 62 per cent higher compare to those during 1980-81 Table-I Columns 3 & 6. This shows a marked shift in contraceptive strategy. In case the recently revised contraceptive mix receives a favourable client response then a redirection in the programme investments will be necessitated. Regarding achievements the position however, is not as definite in so far as the sterilization performance was lower than that of the previous year while IUDs and Injectables showed some improvement in per cent achievement and per cent change over base period which may be due to more realistic targets.

5. The performance of non-clinical methods also shows a significant deterioration. This is most pronounced in case of oral pills as the targets for these had dropped from 4.12 million cycles (1980-81) to 1.12 million cycles thus reducing the performance in absolute terms from 1.07 to 0.16 million. In respect to Conventionals, targets had been reduced from 116.09 (1980-81) to 80.25 million units (1981-82) nevertheless both absolute and percentage achievement fell un-precedently. Such a situation shows that Programme targets had been set unrealistically.

Sterilization

6. On account of its generally irreversible nature the method is considered more as an effective measure of fertility termination rather than that of child spacing. Potentially it can be administered for both male and female clientele though male oriented service is available only on a rather limited scale in general hospitals of the health departments. During the year under reference the targets of this particular device have somewhat increased in comparison to those of 1980-81, but its achievement fell by 43.3 per cent. Besides, in the absence of the knowledge of age structure and the family size of the clients served, it is not possible to determine the cumulative birth averted effect of the method. Furthermore, the possibility of replicability of such a service is also not very positive due to the requirements of both a high degree of motivation as well as the investments required in the specialized skill development. This being a highly technical as well as an expensive method with low return due to acceptance in advance ages the targets therefore, have to be determined rather carefully.

Injectables

7. Use of both Norigest and Depo-Provera is of recent origin and is still in experimental stage of drug administration. Nevertheless, it has continued to gain popularity over last three years probably due to relatively higher protection rate as well as non-cumbersome administration. Though the achievement during 1981-82 has shown some improvement in absolute terms over the past year's performance yet it is far from the desired level. In the absence of availability

of client record details it is not possible to comment upon the continuation rate which is an important factor for target setting and expansion of the service. Realistic target setting is important as the method is costly, requires close follow-up and professional handling.

IUDs

8. The reported performance percentage of this semi-clinical device shows an appreciable improvement, however, in absolute terms the position is not as encouraging. This is so due to low retention rate as well as the requirement of new insertion every three years. This particular device is locally manufactured and hence is easily available at a nominal price. The reasons for improvement in per cent achievement or otherwise should be carefully studied and further supported for replication in geographical areas hitherto uncovered. Close field supervision will be necessary for both level of service performance as well as realism in reporting recording procedure.

Orall Pills

9. Both the targets and achievements for Oral Pills dropped during 1981-82 in comparison to the previous year. The targets fell from 4.16 million cycles to 1.12 million cycles, while the reported achievement dropped by 11 per cent. This in absolute terms, reduced the clientele by 0.903 million in spite of easy availability and self-administration, of the drug. This method is ranked as the second least popular and better only to the male-oriented conventional method. In future the performance trend of this particular device has to be keenly observed by programme management for realistic revision of the targets. Medical care for side effects and regularity in use requires considerable improvement irrespective of the level of drug distribution as well as the number of acceptors. Besides, through the client record system the age of the users should be carefully considered for determining the target groups, programme direction, expansions and its ultimate impact on fertility as well as safety of the clients.

Conventionals

10. This is the single most common method catering to the male target groups and was reported as a popular device in the past. However, during the past few years it has shown downward trend and has touched the lowest ebb of 3.6 per cent achievement which is 22.34 per cent less than the corresponding period during 1980-81. Incidentally the achievement during 1980-81 was the lowest compared to the past several years and the targets were further reduced from 116.09 (1980-81) to 80.25 million units (1981-82) yet the absolute as well as percentage achievement instead of improving fell unprecedentedly. In the light of this situation it has to be determined whether there is an actual decline in the performance or it has begun to show a more realistic trend. Such an analysis would enable the programme to fix a realistic price of the commodity, future service targets as well as its impact on the demographic targets.

11. On the whole, the level of contraceptive performance indicates an insignificant contribution towards birth aversion, hence, no appreciable decline in fertility level can be expected. There is however, a positive trend towards safer methods and this tendency can be further developed through suitable programme approach.

12. The programme projects continued to be implemented through block allocations and project-wise financial utilization as well as performance assessment is not possible.

PROGRAMME FOR 1982-83

Strategy

13. The programme will operate within the overall framework of the Population Welfare Plan and will pursue revised strategy by acknowledging that comprehensive integrated programmes have a better client response and community participation than the lateral, exclusive single purpose fertility control efforts. It is therefore, based on the acceptance of interlinkage of Population and Development. It emphasises that better results can be achieved when Population Planning Programme is offered as a part of the development package which is based on the perceived needs of the people such as health, education, agriculture extension, labour welfare, and opportunities for women development. However, in constructing this approach the focus on population planning priorities has been maintained. As the programme is primarily an effort at behavioural change, therefore, it involves a wide range of target groups. The programme's field implementation will be provincialized by January, 1983. Besides, recognizing the value of decentralization involvement of local communities, integration with line departments, and collaboration with public sector agencies and the voluntary organizations has been envisaged.

ADP Allocation

14. Population Programme being preventive in nature requires public investment for attempting behavioural change though in the long run an overall improvement in the socio-economic conditions may serve as a catalyst. The ADP allocation during 1982-83 is Rs. 190 million (FEC 53.893 million) for meeting both infrastructure and development costs. This reflects a higher level government commitment through greater reliance on GOP resources and a reduction in the budgeted foreign assistance component from 42.13 (1981-82) to 28.4 per cent (1982-83).

15. The programme is unusual in so far as the entire administrative cost of the organization during the years under reference will be met from the ADP. This has been necessitated due to the fact that the institutions responsible for programme implementation have been recently reorganized, appropriately trimmed and the services of the personnel have been governmentalized. Under the new arrangements a substantial portion of the ADP allocation will become available for implementing development activity.

Administrative cost

16. The administrative set-up at the federal, provincial and district levels alongwith common services (training, research, evaluation, communication, publication and logistical facilities) will facilitate effective implementation of the programme. The ADP provision does not include the project infrastructure costs as these have been accounted as a part of the development activities. The cost break-up of a provision of Rs. 43.89 million is; Federal Organizations Rs. 15.87.

million, Punjab set-up Rs. 10.45, Sind Rs. 8.22, NWFP Rs. 5.63 and Baluchistan Rs. 3.72 million. Provincialization of the programme will become effective from 1st January 1983, however, the financial resources will continue to be provided through Federal allocations.

Core Programme

17. The Core Programme focuses integrated service delivery with health, educational and other social activities. It has been allocated Rs. 101.85 million (Rs. 29.12 million FEC) which is 53.60 per cent of the total sectoral allocation. It includes the following three basic projects. Family Health Manpower Development Project, Pakistan Reproductive Health Services and Family Welfare Centres :

(i) *Family Health Manpower Development Project*.—This is a feeder project to the latter two and will meet personnel training needs for operating various activities in both Core Programme and Complementary Projects. An allocation of Rs. 9.36 (4.46 FEC million) has been made for on-going training activities. The project will include unified and expanded facilities for para-medical staff of the Health and Population Departments. This will enable undertaking polyvalent work and for meeting comprehensive family health care requirements. Twelve Regional Training Institutes (Punjab 5, Sind 4, NWFP 3, and Baluchistan 1) as well as public Health Schools will be strengthened.

(ii) *Pakistan Reproductive Health Services Project*.—The project is designed to reduce maternal morbidity and mortality rates through improved maternal care and has been provided a sum of Rs. 17.49 million (Rs. 15.66 million FEC). The project includes five components *i.e.* (a) service outlets, component will include 25 teaching hospitals, with staff support and equipment from Population Welfare Division, and will train physicians and nurses in laparoscopy. Besides, contraceptive surgery and gynaecological consultative services and obstetric care will be provided. A sum of Rs. 13.50 million will be available for this purpose. (b) Training of 275 physicians and nurses each will be undertaken in the medical schools and teaching hospitals with an allocation of Rs. 2.46 million. The physician and nurse teams will provide voluntary contraceptive services to the couples who have completed their desired family size. (c) The two model clinics of FPAP (Lahore and Karachi) will continue to offer comprehensive population planning services including contraceptive surgery. During this year, mobile services will be extended to rural areas through 9 district and tehsil hospitals with a provision of Rs. 0.700 million. The provision will cover only the fee for surgical service outside the two regular clinics. (d) Reproductive Health and Contraceptive Surgical Outreach service will be offered in the four tehsils of Larkana district through Sheikh Zahid Hospital. A provision of Rs. 0.232 million has been made for this purpose. Family health will be provided through satellite clinics, profile of two villages will serve as baseline data for providing service delivery. Besides, MCH, Obst. and Gyn. services will be provided by the medical students and house officers. (e) The Lady Dufferin Hospital

will accelerate hospital based contraceptive surgery and will also include immunization and IEC components. In addition, mobile medical teams will perform contraceptive surgery as part of the Obst. Gyn. in far-flung areas of Thatta, Tharparker and Sanghar districts. A provision of Rs. 0.586 million has been made for this service.

- (iii) *Family Welfare Centres Project.*—Eleven hundred family welfare centres will function in urban, pari-urban and rural areas, and provide a hub for community based welfare activities with special inputs for women and children under five years. Each centre will cover a population of 25 to 30 thousands and make referrals to such units as will be provided under the infrastructure of Reproductive Health Services Project. At the grass-root level, the project will operate through non-salaried community volunteers under the supervision of trained family welfare visitors. The District Population Officer will be the overall incharge and will be assisted by the local advisory management committees for each centre. ADP provision of Rs. 75 million (Rs 9.0 million FEC) has been made.

Complementary Projects

18. The Populations Welfare Planning Plan, is built around projects which will contribute to an efficient operation of the Core Programme as well as help in the achievement of the Plan objectives and targets. An amount of Rs. 13.03 million (Rs 8.92 million FEC) has been provided in the ADP for following six projects :—

- (i) *Provincial Multi-sectoral Programmes.*—The project will be implemented by involving relevant nation-building departments in all the provinces. The service departments will incorporate population welfare planning component in their on-going programmes thereby providing a large number of outlets with nominal financial inputs. Baluchistan has been given special attention for improving family health and welfare status and creating awareness of small family norm. An allocation of Rs. 0.67 million has been provided (Punjab 0.223, Sind 0.149, NWFP 0.149 and Baluchistan 0.149).
- (ii) *National Population Education Project.*—Taking into account the importance of inter-relationship of education with family health and size, the project provides population education inputs both in formal and non-formal education system with an allocation of Rs. 3.11 million (FEC 2.21).
- (iii) *Communication Strategy.*—During the past years, the programme suffered from ineffective Information Education and Communication (IEC) component, resulting in a pronounced discrepancy between knowledge and practice. To narrow down this gap, a 'communication strategy' has been developed with local and ESCAP consultants. The project will undertake to promote concept of planned parenthood for effective practice. An allocation of Rs. 6.75 million (FEC 4.75) has been made.

- (iv) *Target Group Institution's Project*.—A number of public sector organizations with health service outlets will be involved for incorporating population planning component. These includes Armed Forces, Fauji Foundation, Kohistan Development Board, Pakistan International Airlines (PIA) Pakistan Railways, Pakistan Steel Mills and Water and Power Development Authority (WAPDA). An allocation of Rs. 0.088 million has been provided.
- (v) *Azad Kashmir and Northern Areas Population Welfare Project*.—Population activities will be extended to Azad Kashmir and Northern Areas. The Projects have been concurred by the relevant governments and ADP allocation of Rs. 0.25 million and Rs. 0.20 million has been provided for these areas respectively.
- (vi) *Infrastructure Institutions (Involvement of Hakims)*.—This is continuation of an on-going project which involves the locally accepted professional groups for motivating the local eligible population as well as service delivery. An allocation of Rs. 1.96 million FEC will be provided by the UNFPA.

Support Activities

19. Five major activities will be organized for developing effective implementation capabilities and furthering programme expansion. Three of these include research ventures and their infrastructure, two are directed at non-clinical training and one is in the area of field service experiment. A sum of Rs. 15.91 million (FEC 5.38) which is 8.37 per cent of the total allocation has been provided. Details of the five activities are given below :

- (i) *Research*.—Bio-medical research activities will be undertaken by National Institute of Fertility Control (NRIFC) as well as other similar programme units. The results will be utilized for effective implementation of the programme. Considering due importance of research, a suitable accommodation for NRIFC will be provided. An allocation of Rs. 1.66 million (FEC Rs. 1.20 million US AID) has been made for research. While premises construction is subject to U.S. AID's support of Rs. 3.00 million (FEC).
- (ii) *Population Development Centre*.—It will be responsible for macro-level evaluation of the programme. Performance evaluation will be undertaken on the basis of project data ; attitudinal and behavioural response evaluation focusing on the gap between knowledge and practice and impact evaluation concentrating upon possible births averted on account of outreach services. A provision of Rs. 3.96 million (FEC) has been made, and is expected to be provided by USAID.
- (iii) *Non-clinical Training*.—Broad-based multi-disciplinary approach involves incorporation of the population component in the on-going programmes of various nation building departments hence, personnel training in population planning programme and motivation acquires significance. The project caters to these needs for effective plan implementation. An allocation of Rs. 3.13 million (FEC 1.05) has been made for both formal and non-formal programmes. The FEC will be provided by UNICEF and OPEC Fund.

(iv) *Training of Traditional Birth Attendants (TBAs).*—The project aims at training of 5,000 TBAs in geographical areas served by the Family Welfare Centres. The training of TBAs will be conducted by the Family Welfare Workers. An allocation of Rs. 3.96 million (FEC 3.18) has been provided. The FEC requirement will be met by UNICEF and OPEC Fund.

(v) *Family Health Care Project.*—The project aims at promotion of population planning activities in collaboration with Department of Paediatrics of Central Government Polyclinic Islamabad. It will provide poly-immunization and material care in addition to family planning services. An allocation of Rs. 0.203 million has been provided.

Logistics and Supplies

20. Continuous and uninterrupted flow of clinical and conventional methods to all distribution points in the country is important for effective implementation of the programme. This project includes four components and has been provided an amount of Rs. 15.32 (FEC) million. This includes Rs. 13.82 million to be provided by donor agencies (US AID Rs. 3.32 for contraceptives, Rs. 5.50 for warehouse construction and Rs. 5.0 for transport and a sum of Rs. 1.50 by UNFPA for support to NGO).

NGO and Population Development

21. The constituent project makes full use of the NGOs' acknowledged capabilities for working in difficult and sensitive areas, for handling innovative pilot schemes and for winning public acceptance for the small-family norm. The mechanism of government involvement would primarily be through financial assistance. ADP allocation of Rs. 1.50 (FEC) million has been made which is subject to UNFPA support.

Population Related Work by Various Ministries

22. Various Ministries will continue to undertake population related work with UNFPA assistance. This includes 'Beyond Family Planning Approach' and covers projects like Labour Division's 'Workers Population Education'; 'Demographic and Social Implications of Temporary Migration of Pakistanis to South Asia' Planning Division's 'Studies on Population Labour Force and Migration'; Statistics Division's 'Population and Housing Census'; Programme Oriented Research and "Demand Creation and Promotional Activities" by relevant agencies. ADP allocations for these have been reflected in the respective sectors.

Programme Targets

23. In view of a clear distinction between the programme's primary objective (behavioural change and contraceptives use) and its demographic objectives, the programme targets have been reflected as (a) Primary and (b) Demographic.

Primary targets

24. The numerous projects individually and collectively aim at changing the attitude and behaviour of individuals and groups in the manner that will favour

adoption of small-family norm. These include raising the level of effective knowledge from 33 bench mark in 1979-80 to 47 per cent ; effective motivation to 33 per cent; practice from 12.5 to 21.1 percent; current practice from 9.2 to 16 per cent and continuous practice from 6.4 to 11.6 percent. Thus the programme estimates to avert 0.380 million births by serving 19.4 percent acceptors as per cent of married couples with wives between 15—44 years and an enrolment of 1.85 million acceptors. The physical targets will be achieved through the contraceptive mix in the following table :—

TABLE 2
Targets for Method Delivery during 1982-83

							(In million)
							Targets 1982-83
1. Contraceptive Surgery (Operations)	..	..	..	..	..	..	0.05
2. IUDs (Insertions)	..	..	..	..	..	..	0.20
3. Injectables (vials)	..	..	..	..	..	..	0.10
4. Oral Pills (Cycles)	..	..	..	..	..	..	1.70
5. Condoms (Units)	..	..	..	..	..	..	140.90
6. Other Conventionals (applications)	..	..	..	..	..	..	3.60

Demographic Targets

25. The programme envisages to reduce CBR to 39 per thousand and population growth to 2.8 percent.

Programme Challenges and Safeguards

26. Taking cognizance of the fact that while integration offers a promise of programme effectiveness, yet in practice its accomplishment may prove difficult. The programme should accept various problems as key challenge and may undertake to solve them. It needs to recognise that initiating and maintaining significant measure of inter-sectoral collaboration may not be easy because functionally it may entail several managerial and administrative problems including programme priorities; criteria for evaluation ; allocation of financial resources; recruitment, training and deployment of personnel by the collaborating agencies. It, therefore, should envisage a strong reporting, recording system, programme monitoring and evaluation. The programme should also consider the use of improved, more effective, and safer devices being successfully used by other Asian Countries.

Annexure I

CONTRACEPTIVE PERFORMANCE 1970-71 TO 1981-82

(In Thousands)

Year	IUD (cases)	Steriliza- tion (cases)	Condoms/ Liquid Foam	Oral pills (units)	Injectables (vials)
1	2	3	4	5	6
1970-71	236.6	4.8	68.4	5	—
1971-72	124.4	3.3	25.2	60	—
1972-73	106.9	3.2	28.0	163	—
1973-74	91.9	4.1	48.2	2541	—
1974-75	137.5	7.7	82.8	5131	—
1975-76	227.2	14.7	148.9	4090	—
1976-77	168.8	14.6	94.5	1412	—
1977-78	70.8	7.1	49.5	1882	—
1978-79	77.7	13.9	66.9	3485	—
1979-80	99.5	24.9	85.2	1485	1.2
1980-81	92.1	24.8	26.2	1211	24.0
1981-82 (Projected)	78.6	23.9	3.8	218	23.9

Summary Analysis of Contraceptive Performance

IUS's ..

The method indicates a declining popularity depicting a lack of effective out reach/follow up services. The rapid decline is a matter of serious concern particularly in view of expansion in field outlets as well as ever-increasing number of eligible couples.

Sterilization ..

One of the safest method has shown tremendous growth however during the past three years appears to be stagnating around. 023 million cases annually. Over 95% clients are females. High level of inputs pose limitation in the way of replication.

Condoms ..

It was a popular method, however, recent decline points towards more realistic level of achievements thus avoiding waste and commercial use due to price adjustment. Reporting system does not distinguish between regular and occasional users.

Oral Pills ..

A popular female method which has however, indicated a downward trend due to reported side effects and lack of follow-up services. The reporting system suffers from the same handicaps as in the case of condoms.

Injectable ..

Introduced only recently (1979-80) and has indicated significant growth. It has the obvious advantages of a long-term protection however, requires medical handling therefore, has limitations for wider coverage.

Annexure II

ANNUAL DEVELOPMENT PROGRAMME 1982-83

						(Million Rupees)	
Sl. No.	Name of Projects					Total	Fec
1.	Administrative Organization Federal					15.87	0.60
2.	Administrative Organization Punjab					10.45	—
3.	Administrative Organization Sind					8.22	—
4.	Administrative Organization N.W.F.P.					5.63	—
5.	Administrative Organization Baluchistan					3.72	—
	Sub-Total ..					43.89	0.60
Core Programme							
6.	Family Welfare Centres					75.00	9.00
7.	Reproductive Health Services Project					17.49	16.66
8.	Family Health Manpower Development Project					9.56	4.46
	Sub-Total ..					101.85	29.12
Complementary Projects							
9.	Programme through other Departments					0.67	—
10.	National Population Education					3.11	2.21
11.	Infrastructure—Involvement of Hakims					1.96	1.96
12.	Communication Strategy					6.75	4.75
13.	Target Group Institutions					6.09	—
14.	Azad Kashmir Project					0.25	—
15.	Northern Areas					0.20	—
	Sub-Total ..					13.03	8.92
16.	Research :						
	(a) CUPS and PDC,					3.96	—
	(b) Construction of NRIFC Building*					3.00	—
	(c) Bio-Medical Research					1.66	1.20
17.	Non-Clinical Training					3.13	1.04
18.	Training of TBA					3.96	3.18
19.	Family Health Care Project					0.20	—
	Sub-Total ..					15.91	5.42
20.	Logistics and Supplies :						
	(a) Contraceptives					3.32	3.32
	(b) Construction of Warehouse*					5.50	—
	(c) Transport					5.00	5.00
21.	NGOs Involvement					1.50	1.50
	Sub-Total ..					15.32	9.82
	GRAND TOTAL ..					190.00	53.89

*Implementation of these projects is subject to availability of suitable FEC.

CHAPTER 15

SOCIAL WELFARE

The social services are reflected in various development programmes of Social Sector. The Social Welfare Sector represents some of the total welfare activities to be carried out during 1982-83.

Review of 1981-82

The Social Welfare Sector was allocated Rs. 46.443 million during 1981-82, against which the revised estimates stood at Rs. 51.638 million. The excess expenditure was needed to support the Rehabilitation Services for the Disabled, consequent upon transfer of the subject of Special Education and Vocational Training from the Education Division to the Health and Social Welfare Division. The physical achievements during 1981-82 included establishment, organization and expansion of 228 social service units/centres for the special groups of the physically, economically and socially disabled persons, particularly children and women. The other programmes consisted of disbursement of grants-in-aid for promotion of 1889 voluntary agencies/self-help/community development projects, and 1142 lady industrial homes.

Strategy for 1982-83

The main strategy during 1982-83 will be to concentrate on the development of flexible programmes for promotion and delivery of social services for the needy children, women, and disabled. Private investments, community resources and initiatives will be mobilized as far as possible for voluntary social work, self-help and community development projects.

Allocation for 1982-83

The normal development programmes for 1982-83 stands at Rs. 57.359 million, which shows an increase of 11 per cent over the revised estimates of 1981-82. Details of allocation by executing agencies are given in the following table :—

ADP Allocation (1982-83) by Federal and Provincial Executing Agencies

		(Rs. in million)			
S. No.	Name of Agency	Allocation (1981-82,	Revised Estimates 1981-82	Allocation 1982-83	Percentage increase over Re- vised Es- timate 1981-82
1	2	3	4	5	6
A. Normal ADP					
Federal Agencies					
1. Health & Social Welfare Division :					
	(a) Social Welfare Wing	5.295	11.128	14.872	33.6%
	(b) National Council of Social Welfare ..	6.317	6.317	6.139	-(2.8%)
	Total Health & Social Welfare Division ..	11.612	17.445	21.011	20%

1	2	8	4	5	6
2. Establishment Division :					
(Staff Welfare Organization)		3,013	3,013	2,935	—(2.6%)
Total (Federal Agencies)		14,625	20,458	23,946	17.0%
Provincial Agencies					
1. Punjab Social Welfare Directorate		22,000	22,000	22,500	2%
2. Sind Social Welfare Directorate		3,000	2,435	4,000	64%
3. NWFP Social Welfare Directorate		5,500	6,245	5,450	—(13%)
4. Baluchistan Social Welfare Directorate		1,318	0,500	1,463	193%
Total (Provinces)		31,818	31,180	33,413	7%
(A) Total Social Welfare Sector		46,443	51,638	57,359	11%
(B) Special Prog. for Baluchistan & Tribal Areas of N.W.F.P.		—	—	28,000	—
GRAND TOTAL		46,443	51,638	85,359	65%

Agency-wise Targets for 1982-83 Federal Agencies

1. The Health and Social Welfare Division (the Social Welfare Wing/National Council of Social Welfare) will implement the following programmes :

- (i) Establishment and expansion of 29 service units for assessment, specialised education, vocational training, and rehabilitation of the disabled.
- (ii) Continuation of 3 Community Development Projects, 1 each at Gilgit, Skardu and Islamabad.
- (iii) Disbursement of financial assistance to 866 welfare agencies in the private sector for standardization of voluntary social work and grants-in-aid to 27 colleges and 5 universities for field social work training of the students.
- (iv) Organization of 3 units, one each for training, rehabilitation and research programmes; and
- (v) Purchase of land for construction of Rehabilitation Complex.

2. The Staff Welfare Organization of the Establishment Division envisages carrying over the construction of 3 buildings to house staff welfare centres.

Provincial Agencies

1. The Punjab Social Welfare Directorate aims at development of 1680 Women Centres for the training of Women in industrial crafts, expansion of 133 multi-purpose community development projects, strengthening of 40 medical social work units for convalescence and after-care services to the poor patients, improvement of 12 child welfare institutions, promotion of 125 voluntary social welfare agencies, and establishment of 3 rehabilitation service units : one for the mentally sick children and two for the aged and infirm.

2. The Sind Social Welfare Directorate will concentrate only on the on-going projects of 2 Rehabilitation Centres for the physically disabled, 7 women welfare units including one Darul Aman and 6 socio-economic centres, 5 medical social work units at district hospitals, 1 youth welfare centre, 1 planning and research cell and construction of 2 buildings to house child and women welfare centres. It will disburse grants-in-aid to 65 voluntary welfare agencies and will promote 15 self-help projects in rural areas at Karachi, Hyderabad and Sukkur Divisions.
3. The Social Welfare Directorate of the NWFP will establish 5 rehabilitation centres for the disabled (one each for the blind, the deaf-mute, the physically disabled, the mentally sick and the drug-addicts); will expand 44 women welfare centres and 8 multi-purpose community development projects; will promote 70 voluntary welfare agencies through financial and technical assistance and will construct 2 buildings to house social service centres.
4. The development programmes of the Baluchistan Social Welfare Directorate envisages to construct a school for the mentally sick children and promote 40 voluntary welfare agencies with financial and technical assistance.
5. The Annexure-I shows agency and programme-wise physical targets and No. of beneficiaries during 1982-83

Government Support to Private Sector

The private sector has played a pioneering and major role in the development and provision of social services in Pakistan. The Voluntary Social Welfare Agencies are mostly active in the fields of child welfare, women welfare, vocational rehabilitation of the physically disabled, recreation and youth welfare, social education, adult literacy/library facilities, nutrition and charitable dispensaries. The number of registered voluntary welfare agencies stands at 4,000. It has been the established policy of the Government to provide financial support to such agencies. Annexure-II shows the proposed programme of grants-in-aid during 1982-83 to voluntary welfare agencies by their fields of activities. The grants-in-aid programme aims at mobilization of at least Rs. 40 million only in cash, as private investments in voluntary social services, during 1982-83. If the time, labour, skill, and the other facilities which are voluntarily provided are monetised, the investment will be higher than the cash contributions.

AGENCY AND FIELD-WISE PHYSICAL TARGETS DURING 1982-83

S. No.	Sub-Sectoral Programmes	Target Unit	Physical Targets 1982-83					Total	Beneficiaries during 1982-83
			Federal	Punjab	Sind	NWFP	Baluchistan		
1.	Rehabilitation Service Centres	Centres.	29	3	2	5	—	39	500 Disabled persons.
2.	Women Welfare Centres	Centres.	—	1680	7	44	—	1731	40,000 Destitute Women.
3.	Child Welfare Centres	Centres.	—	12	—	—	—	12	350 Destitute Children/orphans.
4.	Promotion of Voluntary Social Agencies/ Self-help Projects.	Agencies/ Projects.	866	125	80	70	40	1166	1166 Voluntary Agencies/Self-help projects.
5.	Community Development Programmes ..	Projects.	3	133	—	8	—	144	144 Local Communities.
6.	Medical Social Work Units	Units.	—	40	5	—	—	45	2000 poor patients.
7.	Youth Welfare Unit	Unit.	—	—	1	—	—	1	50 youths.
8.	Training/Research/Organization Units ..	Unit.	41	—	1	—	—	42	200 Trainees.
9.	Construction of Building to house Social Service Units/Centres.	Building.	7	—	2	2	1	12	210 low paid Govt. employees.
Total ..			946	1993	98	129	41	3207	

PROPOSED NO. OF FIELD-WISE VOLUNTARY AGENCIES TO RECEIVE GRANTS-IN-AID FROM NATIONAL AND PROVINCIAL COUNCILS OF SOCIAL WELFARE

S. No.	By Area Jurisdiction	By fields of Activities							Total
		Multi-purpose Self-help Projects	Rehabilitation Services for the handicapped	Child Welfare including Orphanages	Youth Welfare including recreation	Women Welfare	Patients Welfare		
1. National	—	2	1	2	1	1	7	
2. Punjab	502	31	25	27	47	46	678	
3. Sind	139	35	10	12	26	18	240	
4. NWFP	103	12	6	11	5	12	149	
5. Baluchistan	49	6	2	4	4	2	67	
6. Azad Kashmir, FANA, FATA	25	—	—	—	—	—	25	
	Total ..	818	86	44	56	83	79	1166	

Case No.	Year	Age	Sex	Profession	Religion	Marital Status	Education	Income	Assets	Liabilities	Net Worth
1	1913	35	M	Teacher	Hindu	Married	High School	1000	500	500	
2	1914	42	F	Homemaker	Muslim	Single	Primary	800	200	600	
3	1915	28	M	Farmer	Hindu	Married	Illiterate	1200	300	900	
4	1916	55	F	Merchant	Sikh	Widowed	College	1500	1000	500	
5	1917	30	M	Government Employee	Hindu	Married	High School	900	100	800	
6	1918	40	F	Teacher	Muslim	Married	High School	1100	200	900	
7	1919	25	M	Student	Hindu	Single	College	700	0	700	
8	1920	60	F	Homemaker	Sikh	Widowed	Primary	600	100	500	
9	1921	38	M	Businessman	Hindu	Married	College	1300	400	900	
10	1922	50	F	Teacher	Muslim	Married	High School	1000	100	900	

No. 1234 / 1923
 THE REGISTRAR OF LANDS, DISTRICT OF ...
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CHAPTER 16

MANPOWER AND EMPLOYMENT

Review of 1981-82

According to the population projections of the Fifth-Five Year Plan, the total population of the country was 84.79 million. With a participation rate of about 30 per cent, the total size of the labour force was estimated as 25.24 million. Internal employment was estimated as 24.51 million with an unemployment rate of 1.7 per cent. The overseas employment exceeded 100,000 against the plan target of 80,000 per annum. The GDP rose to 6.5 per cent which consequently increased productivity from Rs. 478 in 1980-81 to Rs. 502 in 1981-82.

2. During the year under review, the overall allocation was Rs. 109.25 million (Rs. 64.98 million Federal and Rs. 44.27 million provincial programmes). Under the federal programmes the utilization at Rs. 25.63 million is as low as 39.4 per cent. This is attributed to procedural bottlenecks in the implementation of National Vocational Training Project which were partially resolved by setting up a National and Provincial Training Boards. There had been delay in the finalization of the list of equipment and their procurement procedure with ILO. The provincial programmes fared much as the estimated expenditure was Rs. 45.737 million against the allocation of Rs. 44.27 million. Excess expenditure was incurred in Punjab under the Skill Development Programme.

3. The Federal Programmes in the manpower and employment sector mainly concentrate on skill development and data generation and research. The Federal Programme for Skill Development costing Rs. 30.117 million has been completed, whereas the Crash Training Programme has been brought under the umbrella of National Vocational Training Project launched with the assistance of World Bank/ILO/UNDP. The National Talent Pool has completed first phase of its work *i.e.* compilation of data with regard to Engineers, Doctors, Scientists and Agricultural experts. The Employment, Income and Basic Needs Project, funded by the Netherlands government was completed during the year under review. As far as the Provincial programmes are concerned, the main thrust had been on Skill Development, Safety and Security.

Programmes for 1982-83

4. The population of the country is expected to go up to 86.90 million; and the labour force to 26.06 million with internal employment of 25.22 million. Productivity per employee per month is expected to be Rs. 519 at the price level of 1974-75. The bulk of employment *i.e.* 13.98 million is expected to be in agriculture; followed by Manufacturing sector 3.47 million; wholesale and retail trade 2.78 million; services 2.59 million; Transport and Communica-

tion 1.21 million. Overseas employment is expected to be 187 thousands in 1982-83 as compared to 133 thousands in 1981-82. The sectoral allocation has been enhanced from Rs. 109.25 million in 1981-82 to Rs. 185.71 million. The 70 per cent in 1982-83 increase is attributed to the financing of National Vocational Training Project for which an amount of Rs. 128.998 million has been provided with Rs. 100 million committed by the IDA in foreign exchange. The Agency-wise and programme-wise allocation is as under :

Distribution of ADP allocations 1982-83 Agency-wise and Programme-wise
(Rs. in million)

Agency	Skill development	Employment services	Safety and Security	Industrial Relation	Research and others	Total
A. Federal	128.998	—	—	—	4.188	133.186
B. Provinces:	33.125	4.872	7.100	0.300	7.127	52.524
Punjab	28.993	4.872	4.600	0.250	—	38.715
Sind	0.650	—	1.100	0.050	2.200	4.000
N.W.F.P.	3.482	—	—	—	1.318	4.800
Baluchistan	—	—	1.400	—	3.609	5.009
Total	162.123	4.872	7.100	0.300	11.315	185.710

5. Under the Federal programme, the allocations are.—(i) National Vocational Training Project, Rs. 128.998 million ; (ii) National Talent Pool, Rs. 0.860 million ; and (iii) Social Security Pension Scheme Rs. 3.328 million. Under the National Vocational Training Project, the output of the Training System is expected to increase by 41 per cent from 5,857 in 1981-82 to 8,288 in 1982-83. In the case of National Talent Pool the Phase-II of the Project *i.e.* data with regard to supervisory personnel will be completed. The social security schemes is expected to enable the government to improve the national social security pension scheme.

6. In the provincial ADPs a sum of Rs. 52.524 million has been provided. The Punjab will spend Rs. 38.715 million (Rs. 27.493 million for 10 on-going and 2 new schemes of skill development). These include reinforcement of the existing Technical Training Centres Gulberg, Sahiwal, Sargodha, Kasur, Bahwalnagar, Mianwali, Depalpur, Expansion of Dehi Mazdoor Training and Credit programme, up-gradation of Skills in Barani Tracks, and extension of TTP for up-gradation of skills in Barani tracks. An amount of Rs. 4.6 million has been provided for 4 on-going and two new schemes for Mines Safety and Security. Under the Labour Market Information system Rs. 3.872 million have been provided for one on-going and two new schemes. An amount of Rs. 0.25 million have been provided for on-going schemes of Industrial Relations Institute Research and Production Centre, Lahore. Under Research and other programmes an amount of Rs. 2.5 million has been provided for construction of office accommodation of Manpower Directorate ; and establishment of Staff Training Institute, Lahore.

7. The Government of Sind has provided Rs. 4.0 million for 5 on-going and 2 new schemes, with respective share of Rs. 3.73 million and Rs. 0.27 million. The on-going schemes are : (1) Technical Training Centre for Women Karachi ; (2) Construction of building for the Directorate of Manpower Training ; (3) Rescue Research Station Lakhra ; (4) Establishment of Technical Training Centre Sukkar ; and (5) International Weights and Measure Laboratories, Karachi. New schemes for which provision has been made are : (1) Construction of building for Women's T.T.C. at Karachi ; and (2) Mobile Training Unit, Hyderabad.

8. The Government of NWFP has provided Rs. 4.8 million for three on-going scheme *i.e.* T.T.C. Mingora ; Replacement of defective roofs of hostel and Administration Block of T.T.C. Peshawar ; and Construction of building for the Labour Welfare Directorate. The Government of Baluchistan has provided Rs. 5.009 million which will be spent on the construction of labour colonies at Quetta, Dalbandin, Naukundi, Gaddani and Muslim Bagh etc. and the setting up of a health centre at Quetta.

The Government of India has approved the 10 million rupee loan and a new scheme for the period 1953-54 to 1955-56. The 10 million rupee loan is for the period 1953-54 to 1955-56. The new scheme is for the period 1953-54 to 1955-56. The Government of India has approved the 10 million rupee loan and a new scheme for the period 1953-54 to 1955-56. The 10 million rupee loan is for the period 1953-54 to 1955-56. The new scheme is for the period 1953-54 to 1955-56.

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CHAPTER 17

RURAL DEVELOPMENT

In the Fifth Five Year Plan, the objective of rural development was, to principally improve the quality of rural life by providing basic amenities and productive socio-economic environment to be realized through an institutional framework governed by the representatives of the people at the grass root level.

2. Improvements in rural life are being brought about primarily through the planning and operation of number of major organizations in the country. Rural Development Organization, so far, has been playing a limited role in the handling of total resources for the development of rural areas. With the advent of the local bodies, it is expected that its share of operations would progressively increase.

3. The local bodies have been made responsible for coordinating/undertaking the following programmes with the participation of local councils:—

- (a) Farm to Market Roads;
- (b) Drinking Water Supply;
- (c) Primary Education;
- (d) Basic Health; and
- (e) Village Sanitation.

4. A network of 76 District Councils with 2,489 elected representatives, 222 Tehsils/Taluka/Markaz Councils with 42,797 elected representatives have been inducted into office primarily with the object of ensuring people's participation in rural development programmes. With greater cooperation from the link departments the local participation will become more effective with the passage of time.

5. Keeping in view the priority accorded to rural welfare in the current Five Year Plan and the Three Year Investment programme (1981—84), concrete programmes for rural development were chalked out by all the four provinces, Azad Kashmir Northern Areas, FATA and Federal Capital Areas. The Markaz which is the centre of the planning and executing activities for development projects continued to operate during 1981-82. Progress on development of certain components is presented below:

ACCELERATED SPECIAL PROGRAMMES

6. The infrastructure facilities and services in the rural areas are still very inadequate, due to which the Government of Pakistan has planned to implement

15. An allocation of Rs. 55.700 million (includes Rs. 20.000 million under special priority sector programme) has been made during 1982-83. The physical targets envisage completion of on-going projects and initiation of 3 new programmes during the year.

Federal Programme

16. In the Annual Development Programme, 1981-82, Rs. 76.941 million were allocated to Federal Rural Development Programme, including the Ministry of Local Government and Rural Development (Rs. 15.398 million), Ministry of Interior (Rs. 6.035 million), Azad Kashmir (Rs. 29.250 million), Northern Areas (Rs. 12.285 million), FATA (Rs. 13.973 million).

17. *Ministry of Local Government and Rural Development.*—In 1981-82, an allocation of Rs. 15.398 million was made to the Ministry of Local Government and Rural Development against which an expenditure of Rs. 13.403 million was incurred by the end of June 1981. The amount was utilized on the strengthening of training institutions like National Centre for Rural Development and Vocational Guidance and Rural Entrepreneurship Centre; Data Centre; Establishment of Federal Rural Roads Engineering Cell; Construction of hostel for elected local councillors; construction of municipal training and research Institute, Karachi and IRD research studies project.

18. The allocation for 1982-83 amounts to Rs. 7.868 million. It has been provided for the continuation of 8 on-going projects and undertaking three new projects. Ministry of Local Government and Rural Development organized the second All-Pakistan Local Bodies Convention in May, 1982. In pursuance of the recommendation of this convention a High powered "Local Bodies Commission" has been created in the Ministry of Local Government to recommend measures for active participation of local representatives in rural development activities.

19. *Federal Capital Area.*—During 1981-82, an amount of Rs. 6.035 million was allocated to Interior Division for implementation of 4 on-going development projects in the District of Islamabad. An amount of Rs. 5.080 million were utilized for undertaking rural roads, construction of infiltration gallery, electrification of villages, digging of shallow wells, construction of IRD Markaz building at Bharakau, and residential buildings at Tarlai and Sihala and pavement of streets in the Federal Capital Area.

20. For the year 1982-83, Rs. 68.381 million have been allocated to Rural Development programmes. The Rural Development Division will spend Rs. 7.868 million, Interior Division Rs. 6.913 million, Azad Kashmir Rs. 27.600 million, Northern Areas Rs. 11.200 million and FATA Rs. 14.800 million.

The Financial Allocation and utilization Agency-wise, appears in Annexure I.

Annexure I

UTILIZATION DURING 1981-82 AND A.D.P. 1982-83 ALLOCATION

Sl. No.	Agency	(Million Rupees)				
		1981-82 Allocation	1981-82 Revised Estimates	1981-82 Percentage Utilization	ADP 1982-83	Percentage increase/ decrease over ADP 1981-82
(A) Federal						
1.	Local Government and Rural Development	15.398	13.403	87	7.868	(-) 49
2.	Interior Division (Islamabad Administration)	6.035	5.080	84	6.913	(+) 15
3.	Kashmir Affairs and Northern Areas Affairs Division	41.535	41.915	101	38.800	(-) 7
	(i) Azad Kashmir	29.250	31.190	107	27.600	(-) 6
	(ii) Northern Areas	12.285	10.725	87	11.200	(-) 9
4.	State and Frontier Regions Division.					
	FATA	13.973	12.000	86	14.800	(+) 6
	Total (Federal):	76.941	72.398	94	68.381	(-) 11
(B) Provincial						
	Punjab	594.900	589.625	99	748.500 ¹	(+) 26
	Rural Development Programme	294.900	285.50	97	310.500	(+) 5
	Farm to Market Roads	300.000	304.125	101	438.000 ¹	(+) 46
	Sind	24.080	24.080	100	69.000 ¹	(+) 187
	Rural Development	24.080	24.080	100	39.000	(+) 62
	Rural Roads	—	—		30.000 ¹	
	N.W.F.P.	45.000	45.000	100	100.000 ¹	(+) 122
	Rural Development	21.850	21.850	100	30.000	(+) 37
	Rural Roads:	23.150	23.150	100	70.000 ¹	(+) 202
	Baluchistan	22.000	22.000	100	55.700 ¹	(+) 153
	Rural Development	22.000	*22.000	100	35.700	(+) 62
	(i) Rural Water Supply				20.000 ¹	
	(ii) Accelerated Development Programme					
	Total Provincial (B)	685.980			973.200 ¹	(+) 42
	(i) Rural Development:	362.830			415.200	(+) 14
	(ii) Accelerated Programme (Rural Roads & Rural Water supply)	323.150			558.000 ¹	(+) 73
	GRAND TOTAL (A+B)	762.921			1041.581 ¹	(+) 37

*Revised estimates are not given for 1981-82 in the ADP for 1982-83. It is presumed that entire amount allocated during 1981-82 has been utilised.

¹ It includes Rs. 160.000 million (Rs. 70.00 million in Punjab Rs. 30.00 million in Sind Rs. 40.00 million in NWFP and Rs. 20.00 million in Baluchistan) for special priority sector programme being financed by the Federal Government.

STATE OF CALIFORNIA
 DEPARTMENT OF AGRICULTURE
 DIVISION OF STATISTICS

ANNUAL REPORT OF THE DIVISION OF STATISTICS
 FOR THE YEAR 1911

Year	Value	Quantity	Value	Quantity	Value	Quantity
1907	1,000,000	100,000	1,000,000	100,000	1,000,000	100,000
1908	1,200,000	120,000	1,200,000	120,000	1,200,000	120,000
1909	1,400,000	140,000	1,400,000	140,000	1,400,000	140,000
1910	1,600,000	160,000	1,600,000	160,000	1,600,000	160,000
1911	1,800,000	180,000	1,800,000	180,000	1,800,000	180,000

Prepared and published by the Division of Statistics, Department of Agriculture, State of California.

San Francisco, California, 1912.

CHAPTER 18

SPECIAL AREAS PROGRAMME

The term "Special Areas" is used for the region comprising Azad Kashmir, Northern Areas and the Federally Administered Tribal Areas (FATA), FATA Development Corporation FATA-DC of NWFP. The Government is determined to accelerate the development of these areas to bring them at par with comparatively developed parts of Pakistan as soon as possible. For this reason, these areas are given a special treatment in the Annual Development Programmes as well as in the Fifth Five-Year Plan.

2. These areas, which are mainly hilly, are spread over 110,686 Sq. Km. Azad Kashmir 13,300 Sq. Km. Northern Areas 70,416 Sq. Km. and Federally Administered Tribal Areas 26,970 Sq. Km. The total population (1981 Census) is 4.729 million: 1.980 million in Azad Kashmir, 0.574 million in Northern Areas and 2.175 million in Federally Administered Tribal Areas. In view of the hilly terrain and difficult communications and scattered population, special attention is accorded to evolve such development strategy as may result in quick and visible impact on the life of the local people.

3. During 1981-82, ADP provision of Rs. 806.957 million was made for the development of these special areas and the estimated utilization for the year stood at Rs. 796.109 million. The agency-wise allocation and estimated utilization are given in the following table :

TABLE 1

ADP Allocations and Estimated Utilization for 1981-82

Agency	Provision for 1981-82	Estimated Utilization for 1981-82	% imple- mentation
1. Azad Kashmir	278.533	278.377	100
2. Northern Areas	152.561	153.254	100
3. FATA (Provincial)	292.500	286.649	98
4. FATA-DC	83.363	77.829	93
Total ..	806.957	796.109	99

procured/distributed. For the development of horticulture, about 290,000 fruit plants and 6,000 Kg. of vegetable seeds were distributed to the farmers. Twenty new extension centres were opened and 100 demonstration blocks were laid. A codling moth control campaign was launched besides usual plant protection coverage.

33. In the animal husbandry sub-sector, the major achievements included treatment of 700,000 animals/poultry birds and 4 million cases were vaccinated, showing an implementation of about 100 per cent. As many as 51 veterinary hospitals/dispensaries, 90 veterinary first aid centres and 121 poultry extension vaccination centres were maintained. A feed mill at Mirpur and hatchery buildings at Mirpur, Kotli and Rawalakot have been completed.

34. Under the forestry sub-sector, 4765 hectares gross area was closed and 4860 hectares were reforested against the targets of 4219 and 3240 hectares respectively. An area of 486 hectares was treated for scientific range management practices under Neelum Valley range land project. Moreover, 90 hectares of nurseries were raised/maintained and about 4 million plants were extracted.

35. Under IDA Hill Farming Technical Development Project, as many as 10 pilot projects currently under execution for technical advancement in agriculture, forestry and animal husbandry registered some progress. Original work on these projects was to be completed by June, 1982 but due to slow progress of work completion schedule has been extended up to June, 1983.

36. *Industry.*—The major achievements included completion of roads and administrative buildings for the industrial estate, Bhimber, completion of training of 66 persons at Industrial Training Centres, training of 200 women at Women's Industrial Schools besides completion of 3 rearing halls at Leepa, Athmuqum and Sammani for the development of sericulture industry.

37. *Mineral.*—Studies and chemical analysis of samples collected from different locations in the districts of Poonch and Kotli were carried out. Similarly, trenching, pitting and drilling to varying depths were done besides preparation of geological maps of Tarli Domel at 1 : 8,000 scale. Over 7,000 samples were chemically analysed and reserves estimation conducted for different minerals of economic importance at different locations.

38. *Water.*—The major irrigation scheme currently in hand is Kheri irrigation project which envisages provision of irrigation facilities to 3919 hectares of land in Kheri and Panjeri area of Mirpur District lying on the left bank of Upper Jhelum Canal.

39. *Power.*—Under the programme of power development and distribution facilities, the achievements included laying of the targeted 300 Km. transmission lines (145 Km. HT and 155 Km. LT). As many as 193 transformers have been installed, about 13,772 service connections provided and 160 villages electrified. Work progressed on preliminary survey of 6 and final survey of 3 Nullahs for investigation of small hydel stations.

40. *Transport and Communications*.—Major achievements, included improvement/widening of 29 Km. of roads, metalling/black topping of 51 Km. of roads and resurfacing of existing 75 Km. metalled roads. Besides, work in respect of 5 suspension bridges was completed in all respects while that of 3 more was at an advanced stage of completion. Work relating to 3 main bridges at Domel, Azad Pattan and Garhi Dupatta was completed to an extent of 30 per cent, 31 per cent and 35 per cent respectively.

41. *Physical Planning and Housing*.—Allied works relating to Assembly building and MLA's hostel have been completed. Work progressed on 4 housing schemes at Muzaffarabad, Rawalakot, Kotli and Chota Gala besides the Secretariat Complex. As regards public health engineering, 20 per cent work has been completed on the greater water supply scheme at Muzaffarabad. The Mirpur Development Authority (MDA) have installed 4 tubewells at Mirpur. Work relating to water supply schemes at Pind Khurd and Pind Kalan has also been completed. Augmentation of water supply scheme at Dhudyal has been completed to an extent of 88 per cent.

42. *Education*.—Work on most of the on-going schemes remained in progress. Work on PTC hostel at Rawalakot, the main building as well as hostel with National Agro-technical teachers training centre, Muzaffarabad was completed. At the secondary level, work remained in progress on 36 middle school buildings while 212 rooms have been added to 52 high school buildings. The construction of college buildings at different places of Azad Kashmir also progressed. The Azad Kashmir University has been established recently and 6 colleges (4 men and 2 women) have been affiliated to it.

43. *Health*.—Work progressed on the establishment of a para-medical institute near Mirpur, the District Headquarters Hospital at Kotli and Central Medical store at Islamabad. Work relating to construction of 10 rural health centres, improvement/up-gradation of existing hospitals/dispensaries and construction of staff quarters remained in progress. A programme of supplementary feeding for infants and pregnant mothers continued with the assistance of WFP. An expanded programme of immunization of children and a health education programme was also taken in hand.

44. *Rural Development*.—In this sector, the major physical achievements in different sectors of economy included construction/completion of 195 Km. link roads, 15 suspension and 51 foot bridges and 365 primary school buildings. In addition, work remained in progress on as many as 505 rural water supply schemes to provide drinking water to a population of 45,000 persons. UNICEF have provided 650,000 feet G. I. Pipes for these projects. About 106 irrigation schemes to provide irrigation water to about 2430 hectares were also completed.

PROGRAMME FOR 1982-83

45. During 1982-83, an allocation of Rs. 369.700 million has been made for the development programme of Azad Kashmir compared to Rs. 278.533 million during 1981-82, an increase by 33 per cent. Highest priority has been

accorded to transport and communications sector followed by power, agriculture, physical planning and housing, health and rural development. Sufficient allocation has also been made for other segments of the economy. The sector-wise break-up is given at Annexure IV. The major physical targets proposed to be achieved, during the year, are briefly discussed below :

46. *Agriculture*.—In this sector, the major programmes relate to improvement in per acre yield of foodgrains, development of horticulture, promotion of livestock, development of rural poultry and continuation of reforestation programme. The physical targets set for 1982-83 cover distribution of 7,000 metric tons of fertilizer and 448 metric tons of improved seeds, distribution of about 300,000 plants, and construction of 7 input godowns. It is also envisaged that 20 new extension centres will be opened. In the field of animal husbandry sub-sector, 5 veterinary dispensaries and 6 new artificial insemination centres will be opened. Twenty-three students will be awarded scholarships. In the forestry sub-sector, 8141 hectares will be closed and 3645 hectares reforested. Nurseries over an area of 107 hectares will be raised/maintained. The ten pilot projects currently in execution under the IDA Hill Farming Technical Development Project will be completed and preparation of follow-up projects for lining-up further IDA assistance will continue.

47. *Industry*.—In this sector, feasibility studies on forests and mineral based industries will be carried out. Work will be initiated on cold storage plants with a capacity of 500 tons each at Muzaffarabad and Rawalakot. In addition, 50 per cent work in respect of a graphite processing plant (5 ton/day capacity) will be completed and a feasibility study on the setting up of a mini cement plant at Muzaffarabad will be undertaken. Work on 10 women industrial school buildings will be started. Mini industrial estates at Bagh, Kotli, Rawalakot, Pallandri and improvement of existing industrial estate at Mirpur has also been planned.

48. *Minerals*.—In the mineral sector, exploration of graphite deposits of Mohriwali, and precious stones and sulphide minerals in pegmatites and associated rocks in Neelum Valley will continue during 1982-83. Detailed survey and mineral investigation work at Kotli and Poonch districts will be taken-up. In addition, exploration of feldspar deposits at Kundalshai and geo-chemical prospecting of Reshian Shah-Khari belt will be initiated.

49. *Water*.—In the water resources sector, work will continue on : (i) Jari Bhimber Irrigation scheme, Mirpur, and (ii) Reclamation of eroded and water-logged land in Bhimber area.

50. *Power*.—During 1982-83, work in respect of electrification of rural areas, Azad Kashmir (Phase-I) will be completed while work will be initiated on Phase-II of the project. The programme embodies laying of 145 Km. HT lines, 367 Km. LT lines, installation of 300 transformers, electrification of 251 villages and provision for 21,200 service connections. In addition, 25 Km. 11 KV double circuit lines will be constructed so as to supply power to industrial growth points to Jatti.

51. *Transport and Communications*.—Priority would be accorded for early completion of 3 major projects viz. : (i) Neelum Valley road, (ii) Kohala-Kuliari road, and (iii) Kotli-Sattian-Kuliari road. The physical targets include construction of 11 Km. of new roads, metalling of 137 Km of roads, widening|re-surfacing of 90 Km. of roads. Major portion of work relating to construction of RCC bridges at Muzaffarabad, Garhi Dupatta and Azad Pattan will be completed. Besides, 5 suspension bridges will also be completed in all respects.

52. *Physical Planning and Housing*.—Work will be continued on residential units with a total built-up area of 10,500 sft. and on non-residential buildings with a built-up area of 15,000 sft. Some portion of work of High Court building at Muzaffarabad and Azad Kashmir House at Islamabad will also be done. Fifty per cent work on greater water supply scheme at Muzaffarabad and 100 per cent on augmentation of Dudhyal water supply project will be completed. Besides, clean drinking water supply to an estimated population of 80,000 will also be provided.

53. *Education*.—The targets include completion of first floor with PTC hostel at Muzaffarabad, provision of furniture, books and other teaching aids to 250 primary school buildings, completion of work on additional rooms at 20 old middle schools, commencement of work on 58 more old middle schools, provision for additional rooms|halls to 65 different high schools, construction|completion of buildings for 17 newly raised high schools besides supply of equipment, construction of buildings for inter/degree colleges and preliminary work on the setting up of 2 polytechnic institutes. In addition, workshops in 4 high schools will be completed and work will be started on 8 more workshops besides purchase of equipment for introduction of agro-technical subjects in classes VI to VIII.

54. *Health*.—Work will be continued on the establishment of para-medical institute at Mirpur and District Headquarters hospital at Kotli. Hundred per cent work will be completed on the opening of 70 dispensaries, leprosy sub-centre, and central medical store building. Work in respect of 12 rural health centres, improvement|up-gradation of existing hospitals and the expanded programme of immunization will be continued. Moreover, work will also be taken-up on 11 maternity child welfare centres and extension of T.B. control in rural area.

55. *Rural Development*.—In this sector, as many as 1,407 small schemes (605 rural water supply schemes, 354 education, 222 rural roads etc.) will be undertaken.

NORTHERN AREAS

Review of 1981-82

56. An allocation of Rs. 152.561 million has been made for Northern Areas in 1981-82. The highest priority was given to transport and communications followed by physical planning and housing, power, education, agriculture and health sectors. The estimated utilization, during the year under review, was 100 per cent. The sector-wise break-up of allocation and estimated utilization are given at Annexure V. The physical progress in various sectors is given below :

57. *Agriculture*.—Work continued on 25 schemes pertaining to distribution of fertilizer, procurement of improved seeds, and plant protection coverage. As many as 20,000 bags of fertilizer besides 37 m/tons improved seeds of cereals and 34 m/tons potato seeds were procured/distributed among the farmers. About 2025 hectares of crops/vegetables were sprayed against pests/diseases prevailing in the area. About 50,000 fruit plants were chemically sprayed against codling moths. About 60,000 improved fruit plants were issued to the growers and 100,000 fruit plants were raised through stock seed/suckers. In the animal husbandry sub-sector, major achievements included 70 per cent construction/completion of a veterinary hospital and 11 veterinary dispensaries. About 200,000 animals/poultry birds were treated. Work on poultry farm at Skardu was at an advanced stage of completion while that at Gilgit was functioning smoothly. In the forestry sub-sector, about 418,000 plants were planted. Four forest nurseries—one each at Tangir, Saling, Khandas and Gorikot were established besides maintenance, protection and irrigation of 33 nurseries and 36 plantations in various parts of Northern Areas.

58. *Industry*.—The dehydration plant at Gilgit and five vocational schools started functioning smoothly during 1981-82.

59. *Water*.—No tangible progress has been reported in this sector, during the period under review, except construction of 10 km of Barjingle water channel scheme.

60. *Power*.—Work remained in progress on as many as 42 schemes, of which four relating to the establishment of hydro electric power stations have been completed. Eleven schemes were at an advanced stage of completion while the remaining schemes progressed to an extent of 10 per cent. Major achievements included installation of about 109 km transmission lines besides construction of 34,450 ft. power channel.

61. *Transport and Communications*.—The progress accomplished during 1981-82 included construction of 17.26 km. of metalled roads in Baltistan, 167.25 km. of Jeepable road, 35 km. of truckable road, besides completion of 16 (5,884 ft.) suspension and 330 ft. other bridges.

62. *Physical Planning and Housing*.—Work remained in progress on as many as 93 schemes, while work on 15 schemes was completed fully. The remaining schemes were at different stages of completion. In all, 52,000 sft. residential and 60,000 sft. non-residential accommodation has been constructed against the revised targets of 71,619 sft. and 130,966 sft. respectively. Under the drinking water supply programme, 262,363 rft. pipes have been laid while construction work on storage tanks has been completed.

63. *Education*.—Major achievements included completion of work on 5 and 50 per cent work on 8 primary school buildings, up-gradation of 6 primary schools to middle schools, construction of 2 middle school buildings, upgradation of 4 middle schools to high school status, construction of two college buildings at Gilgit and Skardu and 8 'F' type quarters.

64. *Health*.—Work remained in progress on 41 schemes. Progress achieved included completion of work on two (25 bedded), one (15 bedded), and ten (10 bedded) hospitals besides 45 bedded T.B. ward, 24 bedded female ward and 10 bedded ITC ward, 68 per cent work on dispensary buildings, 60 per cent work on accommodation|offices|storage, 35 per cent on first aid posts and 10 per cent on training of staff|purchase of equipment.

65. *Rural Development*.—Under this sector, the physical achievement included construction of 237 small irrigation channels, 95 protection bunds, 83 water tanks, 51 bridges|culverts. Besides, work on 103 schemes relating to construction of rural link roads and pony tracks also progressed.

Programme for 1982-83

66. During 1982-83, an allocation of Rs. 181.400 million has been made for the Northern Areas Development Programme compared to Rs. 152.561 million in the preceding year showing an improvement of about 19 per cent. The first priority has been given to transport and communications followed by power, physical planning and housing and education sectors. The sector-wise break-up of allocation is given at Annexure VI. The major physical targets proposed for various sectors are indicated below :

67. *Agriculture*.—Work on 26 schemes pertaining to distribution of fertilizer, procurement of improved seeds, plant protection measures, construction of two agricultural buildings and distribution of plants will continue. About 25,000 bags of fertilizer besides 75 metric tons of improved seeds of wheat, maize, potato will be procured and distributed. About 2250 hectares of various crops|vegetables and 50,000 fruit plants will be sprayed. About 3,000 litres of pesticides|fungicides and 25 spray machines will be purchased to carry out plant protection activities. About 10 new fruit nurseries will be established and about 100,000 fruit plants will be raised. In the animal husbandry sub-sector major works include 100 per cent completion of a veterinary hospital and 11 veterinary dispensaries, 40 per cent completion of 5 new veterinary dispensaries and veterinary coverage to about 400,000 animals|poultry birds. The UNDP assisted poultry breeding centre at Gilgit will be completed by 40 per cent during the year. Under the forestry sub-sector, 400,000 plants will be planted. Five forest nurseries will be established. In the fisheries sub-sector, work on 3 projects will be completed by 100 per cent, while that of another 3 to an extent of 70 per cent. About 120,000 brown and rainbow trout fry shall be produced at the hatcheries through artificial breeding.

68. *Industry*.—During 1982-83, 100 per cent achievements on the establishment of fruit dehydration plant at Gilgit and 95 per cent work on 5 vocational schools will be made. Work on 5 more schemes concerning establishment of Pattu weaving centres, a match unit at Chilas, furniture making factory at Chilas, training of artisans and credit facilities to industry in Northern Areas will be continued.

69. *Water*.—As many as 24 on-going and 9 new schemes for construction of water channels and lift irrigation will be executed during 1982-83. The

ANNUAL DEVELOPMENT PROGRAMME 1982-83
(FATA)

(Rs. million)

S. No.	Sector	Allocation	Percentage
A. FATA/NWFP			
1.	Agriculture (including Irrigation)	22.200	6.40
2.	Power	46.300	13.35
3.	Transport & Communications	122.600	35.35
4.	Physical Planning & Housing	44.500	12.83
5.	Education	70.500	20.33
6.	Health	25.900	7.47
7.	Rural Development	14.800	4.27
	Total (A)	346.800	100.00
B. FATA-DC			
1.	Water	72.500	78.04
2.	Industry	2.000	2.15
3.	Mineral	2.700	2.91
4.	Miscellaneous	15.700	16.90
	Total (B)	92.900	100.00
	GRAND TOTAL (A&B)	439.700	

FINANCIAL ALLOCATION AND ESTIMATED UTILIZATION 1981-82
(AZAD KASHMIR)

		(Million Rs.)		
S. No.	Sector	Allocation	Estimated Utilization	%Implementation
1.	Agriculture	29,250	29,092	99.46
2.	Water	1,950	0,400	20.51
3.	Power	48,750	48,750	100.00
4.	Industry and Minerals (including AKMIDC)	11,700	10,162	86.85
5.	Transport and Communications	91,333	91,333	100.00
6.	Physical Planning and Housing	24,375	29,535	120.18
7.	Education (including P&D Department)	19,695	19,695	100.00
8.	Health	22,230	20,060	90.24
9.	Rural Development	29,250	29,350	100.34
	Total ..	278,533	278,377	99.94

**ANNUAL DEVELOPMENT PROGRAMME 1982-83
(AZAD KASHMIR)**

		(Rs. million)	
S. No.	Sector	Allocation	Percentage
1.	Agriculture	49,000	13.25
2.	Water	2,300	0.62
3.	Power	82,800	22.40
4.	Industry and Minerals (Including AKMIDC)	21,100	5.71
5.	Transport & Communications	101,200	27.37
6.	Physical Planning and Housing	31,600	8.54
7.	Education (including P&D Department)	24,200	6.55
8.	Health	29,900	8.09
9.	Rural Development	27,600	7.47
	Total ..	369,700	100.00

FINANCIAL ALLOCATION AND ESTIMATED UTILIZATION 1981-82
(NORTHERN AREAS)

S. No.	Sector	Allocation	Estimated Utilization	% Imple- mentation
1.	Agriculture	14.114	14.114	100
2.	Water	6.825	6.825	100
3.	Power	24.375	24.375	100
4.	Industry	1.492	1.492	100
5.	Transport & Communications	33.764	33.424	99
6.	Physical Planning & Housing	28.116	28.826	103
7.	Education	19.500	20.548	105
8.	Health	13.650	13.650	100
9.	Rural Development	10.725	10.000	93
	Total	152.561	153.254	93

ANNUAL DEVELOPMENT PROGRAMME 1982-83
(NORTHERN AREAS)

(Rs. million)

S.No.	Sector	Allocation	Percentage
1.	Agriculture	16.000	8.82
2.	Water	7.900	4.36
3.	Power	35.600	19.63
4.	Industry	1.400	0.77
5.	Transport & Communications	41.900	23.10
6.	Physical Planning & Housing	29.600	16.32
7.	Education	26.400	14.55
8.	Health	11.400	6.28
9.	Rural Development	11.200	6.17
	Total ..	181.400	100.00

GLOSSARY

1 Metre	=	1.09361	Yds.	1 Kilogram	=	2.20462	Pounds
1 Kilometre	=	0.62137	Mile		=	1.07169	Seers
1 Yard	=	0.9144	Metre	1 Metric Tonne	=	0.98421	Ton
1 Mile	=	1.609344	Kilometres		=	26.7922	Maunds
1 Litre	=	1.75980	Pints	1 Ton	=	1.01605	Metric Tonne
1 Litre	=	0.87990	Quart	1 Sq. Metre	=	1.19599	Sq. Yds.
1 Litre	=	0.219976	Gallon (Imp)	1 Hectare	=	2.47105	Acres
1 Pint	=	0.56824	Litre	1 Sq. Kilometre	=	0.386101	Sq. Mile.
1 Quart	=	1.13649	Litres	1 Sq. Ft.	=	929.03	Sq. Centi metre
1 Gallon (Imp)	=	4.54596	Litres	1 Sq. Yd.	=	0.83613	Sq. Metre.
1 Gallon (U.S.)	=	0.83268	Gallons (Imp)	1 Acre	=	0.404686	Hectares.
	=	3.78533	Litre	1 Sq. Mile	=	2.58999	Square Kilometre

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