

DEVELOPMENT OF HUMAN RESOURCES  
POPULATION, MANPOWER AND EMPLOYMENT POLICIES  
IN PAKISTAN

BY  
DR. ABDUL GHAFOOR



Paper prepared on behalf of the Development Studies Institute Ltd. Lahore Cantt for the Committee on Studies for Cooperation in Development in South Asia (CSCD). The views expressed in the paper are personal.

ISLAMABAD  
June, 1984

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## PREFACE

The Study "Development of Human Resources - Population, manpower and Employment Policies in Pakistan" was initiated by the author in March, 1983 on behalf of the Development Studies Institute (DSI) Lahore under the auspices of the Committee on Study for Cooperation in Development in South Asia (CSCD). CSCD is a non-governmental regional organization of which some research institutions in the countries of the Region are members. It undertakes studies on South Asian Regional Cooperation and the Marga Institute Colombo acts as its secretariat.

The Center for Economic Development and Administration (CEDA), Tribhuvan University Katmandu, organized a joint consultative committee meeting at Katmandu from June 25-27, 1984. The meeting was attended by representatives from India, Nepal, Sri Lanka, Bangladesh, and Pakistan. The author represented Pakistan in the meeting and presented the paper. After attending the joint consultative committee meeting of the CSCD & CEDA, the paper has been revised in the light of discussions and exchange of views. The revised version incorporates population policies, unemployment of the graduates, and the policy on science and technology.

The study is based on secondary sources, mainly government documents. Wherever possible analyses of the data have been undertaken by the author. For instance, the stock figures of graduates have been collected from various census documents. The employment of the graduates has been assessed in light of the estimates provided in the Pakistan Economic Survey; and the figures of the employment exchanges reported in the statistical bulletins. At certain occasions it was not possible to undertake

the analyses and factual position had to be provided. For instance information with regard to science and technology has been extracted from the publications of the Ministry of Science and Technology and the Planning Commission. In order to provide proper perspective to the readers, the extracts have been reproduced with proper recognition. Statistical tables have been provided so that the document could be useful for the researchers. This study will hopefully provide some perspective to the educational economists, manpower planners, policy decision makers, and administrators.

The author is grateful to the Director General of the Academy for encouragement and support in completion of this study. Financial assistance provided by the CSCD for undertaking the study and meeting the travel costs to Katmandu; professional guidance provided by the DGI Lahore in the preparation of the study outline; warm hospitality of CEIDA Katmandu are gratefully acknowledged. The author is grateful to the members of the Consultative Committee as well as the eminent scholars/officers of the Government of Nepal for their valuable suggestions which made it possible for the author to rectify the defects of the earlier draft and improve the study further.

(ABDUL GHAFOR)

ACADEMY OF EDUCATIONAL PLANNING &  
MANAGEMENT, ISLAMABAD  
July 19, 1984.



## INTRODUCTION

Manpower plays a predominantly important role in the socio-economic and technological development of the nations. The level of this development depends on the qualitative improvement of the human beings which is also called human resource development. Human resource development is conceived as a process of augmenting the knowledge, skills, and the capacities of the individuals in the productive process of a nation. Through education and training both knowledge as well as skills of the individuals are developed. Knowledge and skills of the individuals cannot be properly utilized unless they are in good physical condition. For maintenance or development of their physical condition, proper facilities have to be provided for the provision of social services like health, nutrition, safe drinking water, etc. Expenditure on such services could be treated as investment in the formation of Human Capital. In the words of Habison: "the wealth of a nation is at least as dependent upon the development of human capital resources as upon the accumulation of national capital."<sup>1</sup>

1.2 Human resource development require substantial inputs in the form of human as well as physical capital. Most of the developing countries including Pakistan, are confronted with similar set of problems in terms of scarcity of resources. The observations of Adam Curle, though made long ago, are still valid in the contemporary situation when he says: "Countries are under developed because most of their people are under-developed, having had no opportunity of expanding their potential capacities in the service of society."<sup>2</sup> Russel Davis also subscribe to the same phenomenon and the vicious circle of poverty which keeps most of the developing countries backward. According to him when a country's economic and social growth is

planned overtime, resource limitations and manpower strategies interact. In his words." The country's fiscal resources will depend on its products, which will depend on productivity, which in turn is related to development of human resources. The training of human resources will be restricted by financial resources available to meet the costs; and like so many things in development, the process is circular: poor countries have limited fiscal resources because they have untrained human resources because of limited financial resources."<sup>3</sup>

1.3 This presentation is intended to focus on the state of human resource development and human capital formation in Pakistan which will hopefully provide perspective for similar efforts in other countries of the Region. In order to have a systematic presentation, we may have to discuss the demographic characteristics of the population: strategies as well as structures for human resource development: characteristics of the workers by education/employment/occupation structure of unemployment; labour market characteristics and causes of manpower imbalances; Manpower planning instruments and its objectives; special issues of science and Technical education for economic development; health and Nutrition; and a cluster of other issues which may emerge in the course of analysis in the subsequent sections of this study. The presentation and analysis of these issues will hopefully provide a broader perspective within which the scope of collaboration with other countries of the Region could be highlighted.

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## 2. DEMOGRAPHIC CHARACTERISTICS OF POPULATION

### a. SIZE OF TOTAL POPULATION AND ITS DISTRIBUTION BY SEX, AGE, AND GEOGRAPHIC REGIONS

After independence in 1947, four decennial censuses have been carried out in the country during the years 1951, 1961, 1972, and 1981. According to the 1951 census, the total population of the country was reported as 31.9 million.<sup>1</sup> This excluded the population of the North West Frontier Regions; Gowadar (which was not part of Pakistan at that time); and 5 per cent under-enumeration of the urban population. While taking into account these aspects, the total population of the country was adjusted as 33.74 million.<sup>2</sup> The 1961 census reported the total population as 42.88 million.<sup>3</sup> According to the Planning Commission, there had been under-enumeration to the tune of 7.5 per cent and as such the total population was adjusted as 46.20 million.<sup>4</sup> The 1972 census reported the total population as 65.31 million;<sup>5</sup> whereas the Planning Commission estimated it as 64.298 million. According to the 1981 census, the total population of the country was 83.782 million (1st March, 1981).<sup>6</sup> In Census Bulletin No.7, the total population on the basis of scientifically selected sample of 10 per cent was reported as 81.607 million. Since the census document has not so far been released, the distribution of population by 5 year age groups, sex, and geographic region can be seen in Annex I. The adjusted population for various censuses is reproduced below:

<u>CENSUS YEAR</u>	<u>ADJUSTED POPULATION</u>
1951	33.74 million
1961	46.20
1972	64.29
1981	83.78 (unadjusted)

b. GROWTH RATE OF POPULATION

2.2. In an earlier attempt, the author had worked out the growth rates of population for the inter-census periods 1951-1961; 1961-1972; and 1951-1972. While calculating the growth rates on the basis of Pollard's formula, the total population for the years 1951, 1961, 1972 was taken as 33.78; 42.8; and 64.89 million respectively. The growth rate between 1951-1961 was worked out as 2.4 per cent; 1961-1972 as 3.6 per cent. The overall growth rate during the period 1951-1972 was worked out as 3.06 per cent. In these calculations, the population adjustment was not taken into account.<sup>8</sup> There is slight variation in the growth rates worked out by the author and those provided by the Pakistan Economic Survey 1983-84. According to the Pakistan Economic Survey 1983-84, the population growth rate was 2.43; 3.65; and 3.04 during the inter-census period 1951-1961; 1961-1972; and 1972-1981. According to the Survey: "The intercensal population growth rate between 1961, and 1972 is 3.65 per cent if the population is taken without adjustment and 3.0 per cent after adjustment for 7.50 per cent under-enumeration in the 1961 census."<sup>9</sup> Pakistan's growth rate of population during the sixties and seventies at about 3 per cent is among the highest in developing countries and much higher than its other Asian neighbors. During the seventies only Kenya amongst the group of 38 low income countries had a growth rate of population higher than 3 per cent (3.3 per cent); while the corresponding figures for other South Asian countries were India (2.23)<sup>10</sup>, Bangladesh (2.7); and Sri Lanka (1.7).<sup>11</sup>

c. VITAL RATES

2.3. The main factors responsible for the high rate of growth of population in Pakistan has been the fall in the death rate mainly as a result of improved medical facilities, as compared to little decline in the birth rates. Average annual vital rates for the period 1962-1980 are given in Table 1.<sup>12</sup>

TABLE 1  
AVERAGE ANNUAL VITAL RATES 1962-1980

Year	Birth per 1,000	Death per 1,000	Natural growth rate
1962-65 a/	50.0	20.0	3.00
1962-65 b/	42.0	15.0	2.70
1975 c/	40.5	-	-
1979-80 d/	41.0	12.0	2.90

Notes. a/ The Family Planning Scheme for Pakistan during Third Five Year Plan, 1965-70, Ministry of Health, 1965 (based on Population Growth Estimate Chandra Deming Formula 1962-65).

b/ M.Naseem Iqbal Farooqui and Ghazi Muntaz Farooq (eds) Final Report of the Population Growth Estimate Experiment, 1962-65, PIDE Dacca, 1971.

c/ Population Planning Council of Pakistan, World Fertility Survey: Pakistan Fertility Survey, First Report 1976.

d/ Planning and Development Division, Population Division Plan 1980-83.

2.4. From the Table it will be observed that on the one hand there is a decline in the mortality rates; but on the other hand, there is no significant improvement in the aversion of births. Increased birth rates have added to the younger population; and the declining mortality rates have added to the aged population. This phenomenon has increased the number of unproductive human beings which has consequently increased the dependency ratio and reduced the participation rate of the labour force.

#### d. POPULATION PROGRAMMES IN RETROSPECT

2.5. Fertility control efforts commencing in 1950 marked the beginning of the population welfare programme in the country. In financial terms a sum of Rs.5 million was provided for the population activities during the First Five Year Plan (1955-60). These activities, however, were incorporated for the first time as the public sector development

effort during the Second Five Year Plan(1960-65) with an allocation of Rs.30.5 million within the overall health allocation of Rs.350 million. With the commencement of the Third Five Year Plan (1965-70), the Family Planning Programme was allocated an amount of Rs.285 million, it however, utilised Rs.148.2 million only. During the period 1970-75 an allocation of Rs.1017 million was made through the annual plans but the programme utilized only Rs.990.417 million. During the Fifth Plan (1978-83) an amount of Rs.836 million were provided against which Rs.617 million (74%) were utilized. An amount of Rs.2300 million has been provided in the Sixth Five Year Plan (1983-88) for various programmes of population welfare.

2.6. The first approach was marked with elaborate administrative infrastructure at the federal, provincial and the district levels including indigenous midwives as basic field functionaries. The evaluation, however, indicated that while the programme succeeded in disseminating information, family planning practice was only 6 per cent. The second approach covered the various operational units of the country with male-female motivator teams. The central feature of the Continuous Motivation System (CMS) included quarterly visits of the teams to the eligible couples for door-step delivery of supplies as well as for motivational purposes. The team also kept household records for recruiting potential acceptors and making referrals to clinics for IUDS and sterilization. The evaluation of this approach indicated that field activities did not live upto earlier expectations due to casual selection of personnel; inadequate training-cum-ineffective supervision and non-credibility of young and unmarried personnel. The third approach provided contraceptive inundation whereby oral pills and conventional devices were distributed through the network of shopkeepers and local agents as well as hospitals, clinics and

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This section has been extracted from the Sixth Five Year Plan(1983-88) Document, pp.401-418.

field workers for ensuring availability to the population. The Pakistan Fertility Survey, however, reported that only 22 per cent of eligible women know the sources of information and services. During the fourth phase the family planning was integrated with national public health programmes. This arrangement was conceptually sound and hence, supported in principle. In fact a Task Force appointed for this purpose, made specific recommendations, nevertheless, the complexities of integrating two large programmes presented various difficulties and administrative problems. The real understanding of the importance of health and population planning remained lacking among both health and population staff. Population planning continued to be viewed primarily as a means to reduce the average family size and the population growth rate, with little or no emphasis on the interventions to reduce, infant and maternal morbidity and mortality, still births, and abortions while the Health Programme continued to emphasize preventive and curative health service.

2.7. In 1980, realising the need for a coordinated approach, the population planning programme was placed under the umbrella of the Ministry of Planning and Development and multi-sectoral approach commenced through health outlets of a number of governmental and non-governmental agencies as well as family welfare centres of the population welfare programme. Local community participation particularly that of women began to be enlisted for motivation, education and service delivery.

e. POPULATION WELFARE POLICY UNDER THE SIXTH PLAN

2.8. The population policy provides for the interaction of fertility management with other development programmes. This policy states that Population Welfare Planning:

- i. Is a national responsibility;
- ii. Aims at behavioral change favouring the small family norm within an acceptable socio-cultural framework;
- iii. Constructs a programme based on local needs by enlisting community participation and devolving responsibility and authority;
- iv. Solicits involvement of a range of target groups and NGOs for expanded coverage;
- v. Seeks integration of activities with the programme of other departments for diversification;
- vi. Makes women, participants and beneficiaries of the programme; and
- vii. Devises a communication strategy to remove public misgivings, create demand and promote the above approaches.

The Sixth Five Year Plan envisages the realization of demographic objectives: (i) to reduce the CBR from 40.3 per 1,000 population (July 1983) to 36.2 per 1,000 population by the end of the Plan period; (ii) to prevent 2 million births during the Plan period, 1983-88, so as to attain the above mentioned decline in fertility; (iii) Consequentially, to reduce the rate of population growth from an estimated 2.87 per cent (July 1983) to 2.6 per cent by the end of the Plan period; and (iv) to reduce the fertility rate from 5.9 (July 1983) to 5.4 per woman by the end of the Plan period.

f. INSTITUTIONAL FRAMEWORK FOR THE POPULATION WELFARE PLANNING PROGRAMME

2.9. The organizational structure and management of the Population Welfare Planning Programme have been designed to correspond with the fundamental aim of enlisting cooperation and support from all levels of government and the widest involvement of all responsible organizations and target groups in the public and the private sectors. According to the Sixth Five Year Plan, the Population Welfare Programme will be implemented under a three tier structure - Federal, Provincial and local level, i.e. districts and below. At the Federal level, the



Population Welfare Division and its allied units under the Ministry of Planning and Development would be mainly responsible for national policy, planning and coordination, information, training, supplies, statistics, monitoring and evaluation, research, foreign assistance, NGOs infrastructure projects and target groups training, and few other functions more suited to be performed at the federal level.

2.10. The field activities, which are directly related to providing services and some of the support activities, include Family Welfare Centres Project, Reproductive Health Services Project, Population Welfare Programme through other departments and Training of Traditional Birth Attendants. These activities would be carried out by the Directors General in each province through the district offices as well as the project staff, who have so far been working under the administrative control of the Federal Government, and transferred to the Provincial governments. It is anticipated that transfer of field activities to the provinces would draw better community participation and support through local government institutions and ensure effective integration at the field level. It would also meet the requirements of a multi-sectoral approach more readily as the related departments viz Health, Labour, Local Government, Social Welfare, Education, etc., with which coordination is essential, would be under the same government at the provincial level alongwith the Population Welfare Departments.

#### 9. CONSTRAINTS

2.11. The Sixth Five Year Plan has also recognized the constraints in the implementation of the Population Welfare Programmes. According to the Plan, the Population Welfare Plan has from past experience within Pakistan and elsewhere, pieced together interventions which represent the most feasible cost-effective design within the given political and socio-cultural environment. However, the programme is exposed to risks

of continued resistance, changes in administration and in strategy, It is expected these problems will be avoided by evolving well-developed projects and implementing them efficiently with due regard to flexibility of approach.

h. INTRA-NATIONAL AND OUTMIGRATION

2.12. Migration is of three types. From one district to another in the same province; one province to another province; and migration from one country to another. Internal migrant population constituted 11.8 per cent of the total population, one-third of whom moved within their own province; while the remaining from one province to another. The number of migrants in the North-West Frontier Province (NWFP) was 491,365 (i.e. 5 per cent of total migrant population), out of which 36.5 per cent had moved within the province and the remaining came to live in the NWFP from other provinces, i.e. 20.2 per cent from Punjab; and 13.8 per cent from Federally Administered Tribal Areas (FATA). In the Punjab 6,315,775, i.e. 63.4 per cent were found migrants, out of which 42.2 per cent had moved within the province; while 43.6 per cent had come from India, Bangladesh, and other countries. The population of migrants in Sind was 2,774,516 (i.e. 27.9 per cent of total migrant population), 42.3 per cent of which had come from India, Bangladesh and other countries; 22.8 per cent from the Punjab; and 13.3 per cent from the NWFP. Only 14.6 per cent had moved within the province. In Baluchistan 264,451 persons (i.e. 2.7 per cent of total migrant population) had come to live from other places, out of which 44.3 per cent within the province; 21.3 per cent from the Punjab; and 11.2 per cent from the NWFP. These migration figures have been reported in the 1981 census.<sup>13</sup>

2.13. As far as the outmigration of Pakistanis to other countries is concerned, the 1981 census has indicated that there were 1.7 million Pakistanis who had migrated abroad during 1971-1981. Most of them

went from rural areas, the percentage of which was 82.8. Provincewise, the largest number of emigrants were from the Punjab and they accounted for 43.0 per cent of the total out-migrants. The percentage of out-migrants from the NWFP was 34.6 and from Sind 17.6. The percentage of out-migrants to the total population of their respective provinces were 5.3 for the NWFP; 1.8 for Baluchistan; and 1.6 for the provinces of Punjab and Sind. Therefore, proportionately three times as many migrants went from the NWFP as compared to the other provinces. The figures for FATA are not available but FATA's proportionate figures would be even higher than those of the NWFP (for details see Table 2).

TABLE -2  
DISTRIBUTION OF MIGRANTS BY REGIONS/PROVINCES  
(in hundreds)

Province	Province of Previous Residence									
	Total/ percent	NWFP	FATA	Punjab	Sind	Baluchis- tan	Islam abad	AK/NA	Other count ries	Not repor ted
A. Province of Usual Residence										
NWFP	4913 (100)	1794 (36.51)	679 (13.82)	991 (20.16)	161 (3.28)	18 (0.36)	9 (0.19)	70 (1.42)	782 (15.93)	409 (8.33)
Punjab	63157 (100)	1968 (3.12)	65 (0.10)	26672 (42.23)	921 (1.46)	543 (0.86)	50 (0.08)	746 (1.18)	27536 (43.60)	4658 (7.37)
Sind	27745 (100)	3697 (13.32)	63 (0.23)	6316 (22.76)	4053 (14.61)	570 (2.05)	21 (0.08)	192 (0.69)	11721 (42.25)	1112 (4.01)
Baluchistan	2645 (100)	295 (11.15)	4 (0.16)	564 (21.34)	106 (4.0)	1173 (44.34)	1 (0.04)	15 (0.55)	267 (10.09)	228 (8.33)
Islamabad	1131 (100)	185 (16.43)	2 (0.16)	620 (54.78)	32 (2.79)	4 (0.36)	- (-)	41 (3.64)	66 (5.79)	181 (16.0)
Total	99592 (100)	7940 (7.97)	813 (0.82)	35162 (35.31)	5272 (5.29)	2307 (2.32)	82 (0.08)	1064 (1.07)	40373 (40.54)	6578 (6.6)
B. Out-migrant population (during last decade)										
	17086	5914	-	7353	3003	771	44	-	-	-
Outmigrant population as percentage of total population										
	(2.03)	(5.3)	-	(1.6)	(1.6)	(1.8)	(1.3)	-	-	-

Note: The actual figures have been converted into hundreds.

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14. Ibid.,

### 3. HUMAN RESOURCE DEVELOPMENT

The present system of education has the characteristics of the pattern of education introduced by the British Government in India. Ever since independence, attempts were made to make the education system compatible with the requirements of an independent State. Some of the milestones in this direction are: All Pakistan Education Conference 1947; National Education Conference 1951; National Commission on Education 1959; Commission on Student Problems and Welfare 1964; National Commission on Manpower and Education 1969; New Education Policy 1970; Education Policy 1972-80; and National Education Policy 1979. By and large, all these reports emphasized on: (1) orientation towards Islamic Ideology and character building; (2) primary education and literacy; (3) orientation towards science and technology; (4) quality improvement; and (5) reduction in inequality in educational facilities.<sup>1</sup> This section is intended to cover: (a) educational system and its institutional arrangement; (b) training; (c) problems of formal education; (d) financing of education; (e) addition of human capital; (f) health and nutrition.

#### a. EDUCATIONAL SYSTEM AND INSTITUTIONAL ARRANGEMENT

3.2. The Formal Education System: Pakistan has a multi-stage structure of education. The first stage is called primary which comprises classes 1 to 5 and enrolls students of age group 5 to 9. The primary stage is followed by three year Middle; two year secondary; and another two year High Secondary stage. The Higher Secondary which is also called Intermediate is considered as a part of college education. The duration of degree stage is four years after ten years of schooling. Students who pass their first degree stage and a baccalaureate degree is awarded in

arts or science are of the age of 19 years. In order to complete an Honours Course, an additional year's study is required.<sup>2</sup>

3.3. Duration of post-secondary education varies in technical and professional fields. The polytechnic diploma is a three year course. A bachelor degree in medicine (MBS) requires five years study after the Intermediate (12 years schooling). Similarly, bachelor degree courses in engineering, veterinary medicines are of four years duration after the Intermediate examination. An additional two years after the bachelor degree are required to complete a master degree. Studies leading to award of Ph.D. degree may require two to three years after the completion of master degree course. A diagram showing the Education System of Pakistan can be seen in Fig.I. Cumulative per pupil cost for each level of education at the price level of 1984 can be seen in Annex II.

3.4. Eversince 1947, there had been quantitative expansion in terms of physical facilities and enrolment; as well as qualitative improvement in terms of curriculum reforms. Enrolment in various streams of formal education as it stood in 1947,1960,1970, and 1980 is given in Table 3.

TABLE - 3  
ENROLMENT AT VARIOUS LEVELS OF EDUCATION

Level of Education	(Thousands)				
	1947	1960	1970	1980	1983
1. Primary	770	2,060	3,960	6,590	7,124
2. Middle	221	449	933	1,450	1,578
3. High or Secondary	58	160	336	560	620
4. Secondary Vocational	4	15	35	37	41
5. Arts & Science Colleges	14	71	199	243	247
6. Professional Colleges	4	13	37	77	84
7. Universities	0.6	5	17	49	47

Source: Pakistan Economic Survey 1982-83. The figures for 1980 & 1983 are estimated figures.

# EDUCATION SYSTEM OF PAKISTAN

-15-

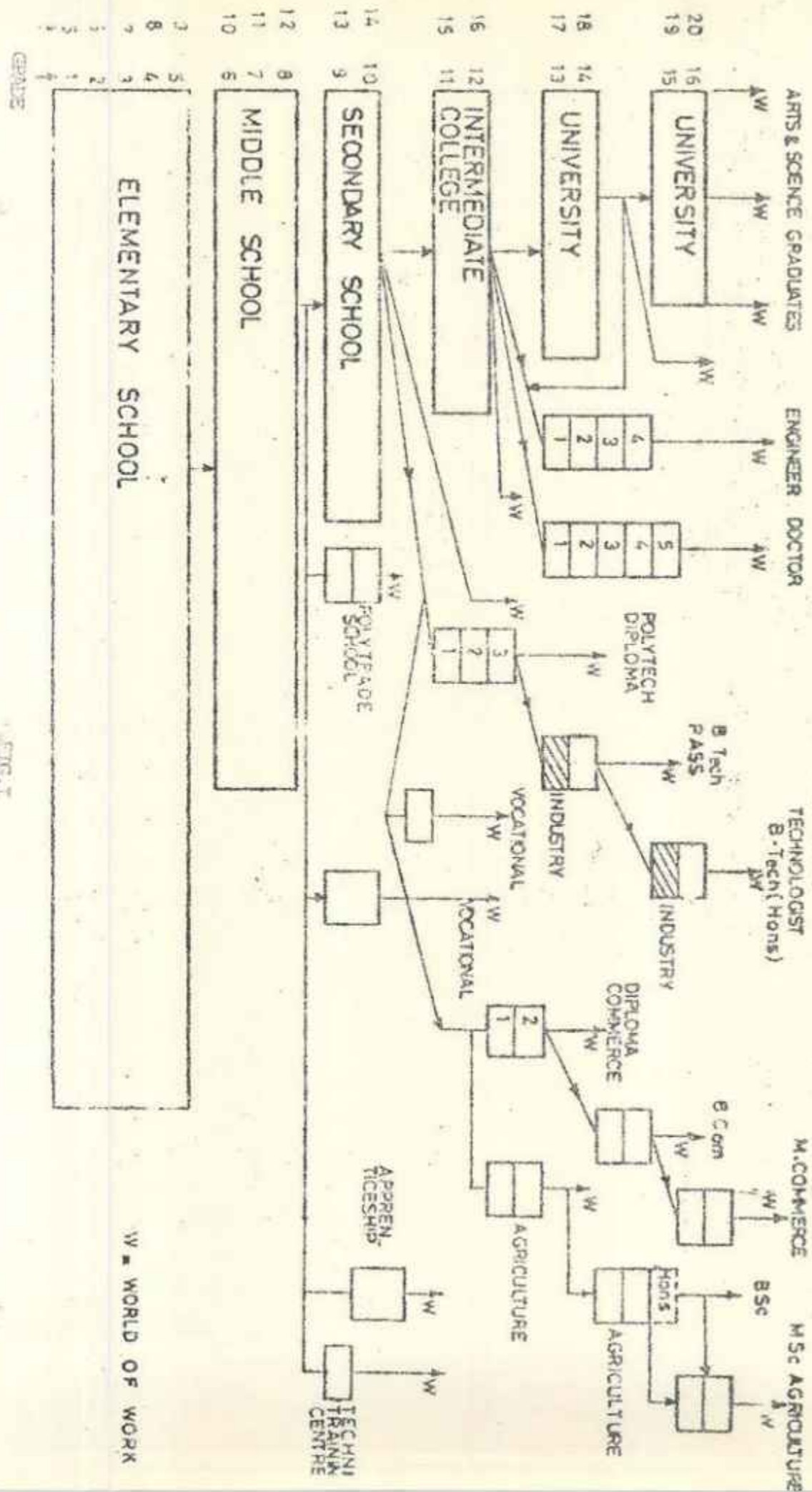


FIG. 1

3.5. Side by side with the modern system of Education introduced during the British period, there is the traditional Madrassah and Darul-uloom system. The Madrassah system being centuries old is providing education in Islamic religion based on Quran (The Holy Book); Hadis the sayings of Prophet Mohanmad; Islamic jurisprudence, logic etc. The Maktab attached with mosque and the Madrassah and Darul-uloom/Halqa Constitute an organizational set up of religious education. An attempt is being made to introduce the modern subjects in the Madrassah system and to provide for an effective integration of religious education system with the formal school system. At present there are about 1200 Madrassahs with total enrolment of 58,000 students. The graduates from these Madrassahs are appointed as religious teachers in Secondary Schools.

3.6. The Non-Formal Education System: The Allama Iqbal Open University was established under the Open University Act of 1974. The main objectives of the University are to:

(a) provide facilities to people who cannot leave their home and jobs in such manner as it may determine; (b) provide facilities to the masses for their educational uplift; (c) provide facilities for the training of teachers; and (d) hold examinations, award and confer degrees, diplomas, certificates and other academic distinctions to and on persons who have been admitted to and have passed its examination under the prescribed conditions.

3.7. The University began functioning in 1973 and was opened to the students in 1975. In the first year of its establishment, 1976 students had enrolled for a certificate level functional course in Arabic and M.A. degree level courses in languages which included French, German and Persian. Since that time the University has considerably expanded its educational programs. As the University statistics show about 45,000 students, both male and female, from all parts of the country, were enrolled during the year 1979-80 in 35 courses of various levels ranging



from the certificate level functional courses to the master level courses in English and Educational Planning and Management (Summary of Enrolment Statistics of AIOU, March, 1981).

b. Training. 3.7. There are pre-service as well as in-service training programmes offered by various government and non-government organizations. It is not possible to list all those institutions here. For instance, in-service training programmes are provided by WAPDA, Steel Mills, Railways, Karachi Shipyard, PIA, Health, Agriculture and Animal Husbandry departments. The Apprenticeship training programmes are carried out in about 500 industrial establishments; and the non-formal training carried out in the organized and unorganized private sectors. These in-service training programmes are intended for the lower level technicians and semi-skilled workers. For the civil servants in the Government, there is an Administrative Staff College which is an apex institution imparting training to senior officials of the government. There are National Institutes of Public Administration at Karachi, Lahore, and Peshawar; Rural Development Academies at Peshawar & Quetta. The junior level officers from grade 17 to 19 are trained in these institutions. The Civil Service Academy at Lahore imparts pre-service training to the civil servants at the time of their entry into the government service. In addition, there are a number of other institutes established by the Federal Ministries for in-service training.

3.8. In addition to the formal pre-service and in-service training programmes, there are Vocational Training Institutes and Technical Training Centres which impart training in certain selected vocations. These institutions are under the administrative control of the provincial labour & manpower departments. The total output from these institutes per annum is estimated as 10,000. With the outmigration of skilled

workers, critical shortages were noticed in the domestic labour market. A National Vocational Training Project was initiated with the assistance of the World Bank at a cost of Rs.426 million in 1979. This project is intended to improve the physical facilities of the existing institutes and to set up 6 additional technical training centres. This arrangement is expected to double the output capacity from existing 10,000 to 20,000. Side by side private sector is being encouraged to set up such institutes for the skill development of the individuals. The Sixth Five Year Plan also lays stress on the setting up of trade schools, mono-technics, polytechnics, evening shifts in the general schools, etc.

#### c. PROBLEMS OF FORMAL EDUCATION

3.9. We have to briefly touch upon the problems with which the planners as well as policy decision makers are confronted with. In this context universalization of primary education is of crucial importance. At present just about 50% of the primary age population (5-9) are enrolled in schools and the literacy rate for the population 10 years and above is merely 23%. These rates are indeed among the lowest in the world and by going through the conventional method, it may not be possible to bring about any dramatic improvement in the situation whether of primary education or of literacy. There are a set of factors responsible for this type of situation. Those are: population growth, vast and often inaccessible areas, thinly scattered rural population, insufficient motivation of parents for their children's education particularly girls, absence of schooling facilities in many areas, inefficiency of the education system particularly poor motivation and absenteeism of teachers, un-imaginative and indifferent administration and

supervision, inadequate allocation of financial resources and above all lack of commitment of all concerned to the cause of education in general and primary education in particular. The Sixth Five Year Plan lays emphasis on promotion of literacy and primary education. The participation rate in the primary education system will be enhanced from the existing level of 50 to 75 per cent. Similarly, the literacy rate of 23.5% will be enhanced to 48% by the end of the Sixth Plan.

3.10. Importance of secondary education cannot be over-emphasized. Firstly, because education of this level alone reaches most of the boys and girls even in advanced and affluent countries where the education systems are adequately developed. Secondly, it is important because it is on completion of education at this level that students are channelized to various educational programmes in general, scientific, technical, and professional fields. This level of education needs to be designed in such a way that it is capable of meeting the requirement of very large number of adolescent boys and girls to suite a variety of talents and interests as well as those who on completion of secondary education find themselves adequately educated to study higher level courses in the field of their choice. There are those who may not like to continue their education further. They should be enabled to participate in useful economic activities and become usefully occupied on gainful and productive work without being required to undergo long training courses.

3.11. The participation rate in the secondary school system in rural areas is low i.e. 15% at class VI-VIII level; and 6% at IX-X level against 52 and 39 percent in urban areas respectively. The Sixth Plan proposes maximum feasible

expansion of secondary education in rural areas and quantitative improvement of teaching programmes with special emphasis on science and Mathematics. By the end of the plan the participation rate in rural secondary schools is expected to go up to 22% and 10%; and in urban areas 59 and 45% respectively.

3.12. Technical education provides that segment of strategic human capital which is needed for accelerating the pace of development. A number of polytechnics, colleges of technology, technical training institutes and vocational training institutes have been set up by the government. The polytechnics and colleges of technology graduates are not fully equipped to be accepted in the labour market. However, the product from the technical training centres under the administrative control of the provincial labour departments have been acceptable as linkages have been established between the technical training centres and the industrial establishments. With the outmigration of skilled workers, the importance of technical education has increased and the government is contemplating to expand the technical/vocational training system by setting up additional trade schools and monotechnics. Availability of qualified teachers for these institute has become a crucial problem. In order to make these institutes attractive, the government has increased their salary level which is not compatible with the wage rates in the private sector.

3.13. Higher education, the apex of the educational pyramid provides the highly trained scientific, professional and managerial manpower which is the most critical factor in the development effort. The quality and relevance of what is

taught in the institutions of higher learning should accordingly be of greatest concern. The quality of education imparted in the colleges and universities is too poor and the number of courses of studies taught at the universities have very little relevance to the needs of the society. There is considerable imbalance in the distribution of enrolment between different streams - arts, science, commerce, agriculture, home economics, education, etc. The education is largely textbook oriented and does not provide opportunities for the development of independent thinking and ability to apply theoretical knowledge to the solution of practical problems. The research activity in the universities is at a very low ebb and the quality of research is disappointing. The Sixth Plan lays emphasis on consolidation of higher education by way of qualitative improvement and much expanded role of the universities in the Research and Development programme for which sizable amount has been provided under the science and Technology.

d. FINANCING OF EDUCATION

3.14. From the foregoing discussion, it is evident, that though there had been tremendous quantitative expansion of the education system, yet a lot more needs to be done in terms of qualitative improvement of the existing system. Whether it is quantitative expansion or qualitative improvement of the existing system, the availability of adequate financial resources seem to be the important factor. The total expenditure on education during the period from 1970-71 to 1977-78 was in the range of 1.3 and 1.8 per cent of the GNP. The situation further deteriorated during the Fifth Plan period when the educational expenditure had been in

the range of 1.3 and 1.5 per cent of the GNP. The yearwise breakdown of the educational expenditure is given in Table 4 below:

TABLE -4  
Annual Total Educational Expenditure, GNP at Current Factor Cost, and Percentage of Educational Expenditure to GNP

Year	Educational expenditure in million rupees			GNP at current factor cost	Educational expendr: as % of GNP
	Development	Non-Development	Total		
1970-71	186	443	629	45,620	1.4
1971-72	126	516	642	49,268	1.3
1972-73	232	623	855	61,258	1.4
1973-74	312	841	1,153	81,058	1.4
1974-75	522	1,253	1,775	105,787	1.7
1975-76	715	1,560	2,275	124,415	1.8
1976-77	573	1,726	2,299	141,166	1.6
1977-78	656	2,310	2,966	169,310	1.7
1978-79	660	2,473	3,133	193,315	1.3
1979-80	693	2,828	3,521	230,658	1.5
1980-81	973	3,258	4,231	275,132	1.5

Source: "The Effects of New Trends in Educational Financing On the Plan Objectives: Equity, Quality and Efficiency - A Case Study on Pakistan" by Abdul Ghafoor. An Occasional Paper, UNESCO, Bangkok, March 1982.

e. ADDITION OF HUMAN CAPITAL

3.15. With the quantitative expansion of the education system from 1947 onward, there has been addition in the human capital. This addition can be observed from the various census reports. So far, there have been four decennial censuses in the country, i.e. 1951, 1961, 1972, and 1981. The human capital as reported in these documents is summarized below for further analyses:

TABLE - 5

HUMAN CAPITAL AS REPORTED IN VARIOUS CENSUS DOCUMENTS

Sl.No.	Levels of Educational Attainment.		1951	1961	1973	1981
1.	Total literates.	T.	5,102,434	5,380,308	11,326,556	15,203,372
		F.	1,797,418	1,119,722	2,560,437	4,297,857
2.	Without Formal Attainments.	T.	3,002,634	574,256	171,697	-
		F.	1,321,741	224,562	76,590	-
3.	Primary	T.	1,254,233	2,533,744	6,036,753	8,148,671
		F.	305,716	556,323	1,404,637	2,514,966
4.	Middle	T.	546,290	1,308,028	2,115,106	3,083,580
		F.	126,117	211,870	447,507	803,180
5.	Matric	T.	239,698	781,487	1,732,089	2,420,847
		F.	37,569	101,487	323,162	591,264
6.	Degree.	T.	44,504	54,000	1,123,430	1,284,412
		F.	4,832	7,055	281,757	327,551
7.	Higher Degree.	T.	14,429	24,324	123,953	134,184
		F.	1,443	2,749	22,689	33,551
8.	Oriental	T.	-	2,099	12,367	-
		F.	-	198	2,443	-
9.	Certificate & Diploma.	T.	-	-	11,161	131,678
		F.	-	-	1,652	27,345

Note: In order to allow comparability of data, the categories of highest grade passed from 1 to 9 have been converted into primary, middle, and matric, for the 1961 data. The figures for 1973 HFD Survey have been reported rather those of the 1971 census.

f. HEALTH AND NUTRITION

3.16. At the time of independence in 1947, the health sector was not better than any other sector. In fact, the outmigration of qualified manpower to India, created shortages of doctors, lawyers, technicians, teachers and personnel with entrepreneurial skills. There were hardly any institute of public health in the country. The Central Institute of Research at Kasauli; the All India Institute of Hygiene and Public Health, Calcutta; the Malaria Institute of India; the Central Drug Laboratory, Calcutta; all remained on the India side of the partition. There were very few medical colleges, nurses training schools, health visitors training schools, and midwifery training centres. Consequently, there was shortage of medical staff, nurses and other paramedical personnel. There were insanitary conditions all around, inadequate nutrition among the masses; insufficient medical facilities and deficient maternal care. Infectious diseases were rampant and there was high mortality/morbidity from such preventible diseases as malaria, cholera, smallpox, typhoid, and other gastro-intestinal diseases. The total number of doctors in 1947 was 700; and the population per physician was 43,000. There were 2,000 beds in the hospitals and as such the population per bed was 15,000.<sup>4</sup>

3.17. Side by side with the expansion and development of other sectors, health sector was also given proper recognition. Efforts were made not only to expand the health facilities on the curative but also on the preventive side. Large scale programmes such as malaria eradication, tuberculosis control, smallpox control, cholera control, family planning, nutrition promotion, rural health, water supply and excreta and sewage disposal schemes were undertaken. In order to provide proper perspective with regard to the improvement of health services, yearwise distribution of hospitals/dispensaries, maternity and child welfare centres, beds and medical personnel is given in Table 6.



TABLE - 6

## DISTRIBUTION OF HOSPITALS/DISPENSARIES, MATERNITY &amp; CHILD WELFARE CENTRES, BEDS AND MEDICAL PERSONNEL

Year as on 1st Jan	Hospitals (a)	Dispensaries (b)	MCH Centres	Beds in hospits/ dispen.	Regd: docs progressive total	Regd nurses prog: total	Regd LHVs prog: totals
1970	411	1,875	..	28,976	13,011	4,123	1,085
1971	495	1,961	631	30,969	14,109	4,543	1,169
1972	496	2,464	653	32,277	14,862	5,075	1,322
1973	521	2,740	662	32,499	15,789	5,504	1,458
1974	521	2,782	671	33,307	16,897	5,751	1,618
1975	518	2,910	696	36,466	17,625	6,375	1,627
1976	525	3,065	715	38,395	18,785	6,685	1,688
1977	528	3,220	726	40,518	19,863	7,186	1,738
1978	536	3,306	748	52,469	20,931	7,768	1,823
1979 (b)	550	3,367	772	44,367	21,938 (c)	8,382	1,921
1980* (b)	593	3,442	814	...	...	...	..

Note: Data for hospitals, Dispensaries, MCH & Beds in hospitals and dispensaries are as on 1st January of each year and for doctors, nurses & LHV as on 31st December of each year.

- (a) Some hospitals and dispensaries have been converted into rural health centres/basic health units. Data in respect of institutions run by armed forces and private doctors are not included.
- (b) Excludes Federal Government institutions.
- (c) Does not include 829 Dentists.

3.18. Health manpower planning, production and management have been the functions of the Health Ministry of the Federal Government and the Provincial Health Departments since independence. For health manpower planning, there has been a larger involvement of the people, health departments, universities and the Planning Commission. Health manpower has mainly been controlled by the Pakistan Medical and Dental Council and Pakistan Nursing Council. For health manpower production, all the training institutions are under the control of the Federal Health Ministry or Provincial Health Departments. The universities where physicians are trained, are merely the degree awarding bodies. They hold examinations on behalf of Medical and Dental Council and medical education is governed by the rules and regulations laid down by the Council. All teachers, teaching

hospitals and other allied facilities are components of the health system. The basic education, however, is imparted by the institutes under the control of the Education Ministry and Education Departments of the respective provincial governments.<sup>5</sup>

3.19. From the year 1982 onwards, the existing medical colleges produced approximately 4,000 doctors per year with the completion of the extended 7 years (5 years normal) medical education cycle. The production of 4,000 doctors led to lack of job opportunities in the government service during the later part of the Fifth Plan period (1978-83). Employment avenues for doctors outside the country diminished. Expansion in private clinics was also slow as only 500 doctors could find employment in private sector every year.<sup>6</sup> The situation of facilities for training of different categories of manpower compared with the first year of the Fifth Five Year Plan, i.e. 1978 is given in Table 7.<sup>7</sup>

Table 7  
OUTPUT OF THE HEALTH MANPOWER DURING THE  
FIRST AND LAST YEAR OF THE FIFTH PLAN

Category	1978		1983	
	No	Yearly output	No	Yearly output
1. Medical colleges	15	1,200	16	4,000
(a) Dentists	-	100	-	120
2. Nurses Training Schools	28	500	44	1,200
3. Lady Health Visitors Training	8	200	10	600
4. Medical Technicians Training Schools.	-	-	26	650

3.20. It will be observed that the number of health services personnel has considerably increased and tremendous amount of expansion has taken place in the availability of health care facilities. But these facilities as compared to the total size of the population are quite inadequate. According to Panel on Health Planning constituted by the Planning Commission for the Sixth Five Year Plan: "The fundamental problem facing

the public health sector is a low allocation of funds both developmental and operational/recurring. The allocation to the health sector should improve from present 0.6 per cent of the GNP to at least 1.5 per cent of GNP or 6 per cent of the total plan allocation (All ADPs added) at 1983 prices. "8 The demand for constant factor prices has been necessitated because of the inflationary trends which dilutes the strength of allocations at the current factor prices. The yearwise distribution of development and non-development expenditures, as provided in the Fifth Plan can be seen in Table 8. No doubt the figures are for the period from 1970-71 to 1977-78, but they show the trends of increase in the allocation of resources to the health sector. It appears that allocations for health sector improved from 1975-76 onward except 1976-77 where there was a fall in the allocation of resources. During 1977-78 there was significant improvement as one per cent of the GNP was provided for the health sector contrary to what has been said by the Panel on Health Planning. The Panel may be justified in its statement because the allocations are never fully utilized because of the cuts imposed immediately after the finalization of the Annual Development Programmes and low level of utilization by the executing agencies.

Table 8  
DEVELOPMENT AND NON-DEVELOPMENT EXPENDITURE ON HEALTH  
(EXCLUDING POPULATION PLANNING)

Year	Development (Million Rs)	Non-Develop ment (Recg) (Million Rs)	Total (Million rupees)	Per cent of GNP	Per capita expendi (Rupees)
1970-71	61.700	151.700	213.40	0.47	3.52
1971-72	57.620	141.00	198.72	0.40	3.13
1972-73	95.550	171.900	267.45	0.44	4.10
1973-74	157.670	210.100	367.77	0.46	5.47
1974-75	309.000	278.0000	587.00	0.59	8.48
1975-76	629.099	360.640	989.74	0.92	14.08
1976-77	539.800	439.200	979.00	0.65	13.23
1977-78	684.340	558.600	1242.94	1.00	16.18

Source: The Fifth Five Year Plan (1978-83), p.360

3.21, There has been a continuous increase in terms of allocation of resources (development) during the Fifth Plan period as well. The yearwise distribution of development funds allocated for the health sector can be seen in Table 9.

Table 9  
FUNDS ALLOCATED DURING FIFTH PLAN  
(Million Rs)

1978-79 .....	761.297
1979-80 .....	716.984
1980-81 .....	942.458
1981-82 .....	1076.301
1982-83 .....	1189.835

3.22. In order to improve the quality of life, the Sixth Plan (1983-86) proposes the establishment of a nationwide integrated system of health care involving a nationwide consolidation and expansion in terms of physical infrastructure properly equipped and staffed by adequately trained and motivated persons. The Sixth Plan proposes enhanced allocations for the realization of this objective, and as such proposes capital outlay of Rs: 14.6 billion as against Rs. 4.98 billion spent during the Fifth Plan period.

3.23. Turning to the problem of malnutrition, it has been observed that amongst infants and young children, it is still a major health problem. Over 7 per cent of the infants and young children are suffering from severe and about 10 per cent from moderately severe malnutrition. Some 80 per cent children under 5 suffer from diarrhoea and respiratory infections. Acute dehydration caused by diarrhoea kills 30 per cent malnourished as against 2 per cent of well nourished babies. The high incidence of infective and parasitic diseases, dysenteries, malaria and Tuberculosis which together account for 72.5 per cent of infant deaths, is aggravated by nutritionally detrimental weaning and child feeding practices. While severe malnutrition is rare, protein caloric malnutrition is estimated to affect one third of the infant population.

3.24. The Working Group constituted by the Planning Commission for the Sixth Five Year Plan on Nutrition observed: "Although the food production in the country has increased substantially, the average per capita availability remained almost the same and no visible improvement occurred in the average nutrient intake. This has primarily been off set by an increase in population.<sup>10</sup> In the Group Report, it has further been observed that "Health has been traditionally involved more with the treatment of malnutrition and much less with its promotional or preventive aspects. These efforts have achieved only a restricted success because of the curative approach and limited coverage of the health services.<sup>11</sup> The Sixth Plan envisages protection of 8 million children against complications and mortality of diarrhoeal diseases through oral rehydration salts; protection of 1.25 million children suffering from third degree malnutrition; and availability of primary health care to all and referral cure where needed.<sup>12</sup>

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4. SIZE OF LABOUR FORCE, PARTICIPATION RATE, AND LEVEL OF EMPLOYMENT BY SECTORS OF THE ECONOMY AND OCCUPATIONAL GROUPS

a. LABOUR FORCE

Of the factors that influence the size and growth of the potential labour force, the growth rate of population and its demographic composition are the most important. The actual size of labour force is a function both of demand factors as well as a range of socio-economic influences from the supply side. Among the latter the most crucial are those affecting the female participation rate. Spread of education, decreasing social acceptability of child labour, rural-urban migration, improvement in health facilities, growth of real income, the extent and accessibility of work opportunities, and the nature of prevailing incentives to work have important bearing on the actual size of labour force.<sup>1</sup> The 1978-79 Labour Force Survey (LFS) defines civilian labour force "as non-institutional civilian population of 10 years age and above who are found employed or unemployed during the reference period, i.e. last one week preceding the date of enumeration."<sup>2</sup> This definition is applied in Pakistan whereas by international standards the population above 15 years is counted in the labour force.

4.2. According to the Pakistan Economic Survey 1982-83, the labour force of Pakistan for the year 1982-83 was estimated as 26.06 million out of the total population of 88.22 million (as in January, 1983). The size of civilian labour force has progressively increased from 10.4 million in 1951 to 13.9 million in 1961 and 20.8 million in 1972. Current rate of labour force growth is close to population growth rate. The increase in the labour force during the year 1982-83 was estimated as 0.82 million persons. It is estimated that 3.71 million additional persons will enter the labour force during the Sixth Five Year Plan (1983-88). Table 1 gives the yearwise distribution of labour force, employment and productivity.<sup>3</sup>

TABLE 10  
DISTRIBUTION OF LABOUR FORCE, EMPLOYMENT & PRODUCTIVITY

	Unit	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
Labour Force	Million	22.22	22.93	23.68	24.45	25.24	26.06
L.F.Growth	Per cent	2.9	3.2	3.3	3.2	3.3	3.2
Employment	Million	21.84	22.54	23.13	23.81	24.50	25.21
Productivity	Rupees per worker	600	609	637	657	681	..

Source: Pakistan Economic Survey 1982-83, p.171.

b. PARTICIPATION RATE

4.3. According to the 1974-75 LFS, the participation rate was reported as 29.5 per cent; whereas it has gone up to 31.02 per cent in the 1978-79 LFS. Though there is improvement in the LF participation rate, yet this improved rate as compared to other countries with the same level of development, is quite low. For instance Malaysia has 36.6 per cent; Indonesia 37.7; Thailand 48.8 per cent.<sup>4</sup> This low level of participation is attributable partly to definitional and conceptual problems; and partly because a high proportion of the population is below the working age; and the majority of the women are not allowed to work due to social customs and taboos.<sup>5</sup> The participation rate in rural areas was reported as 32.55 & in urban areas 27.06 per cent. The male participation rate was 27.23; and that of female 3.79 per cent.<sup>6</sup>

c. EMPLOYMENT SITUATION

4.4. In order to provide comparative perspective, the IFS 1978-79 has reported the situation of employment and unemployment for the previous four IF surveys. The percentage distribution of the employed/unemployed labour force is reproduced in Table 11 below:

TABLE 11

PERCENTAGE DISTRIBUTION OF EMPLOYED/UNEMPLOYED  
LABOUR FORCE

Year	EMPLOYED			UNEMPLOYED		
	Total	Male	Female	Total	Male	Female
1978-79	29.92	26.42	3.50	1.10	0.82	0.29
1974-75	29.00	27.00	2.00	0.50	0.49	0.01
1971-72	29.29	26.80	2.49	0.61	0.55	0.06
1970-71	29.88	27.36	2.52	0.53	0.46	0.07
1969-70	29.74	27.51	2.23	0.60	0.51	0.09

Source: IFS 1978-79, p.XX.

From the Table it will be observed that there has been marginal increase in the level of employment of 1978-79 over the year 1970-71 when the overall employment level was 29.88 per cent. There is striking decline in male employment and conspicuous increase in female employment. But if we look at the other side of the picture, it becomes quite clear that the level of unemployment has also increased. The problem of unemployment did not take a serious turn because of the outmigration of skilled and professional workers to OPEC countries of the Middle East.



d. SECTORAL EMPLOYMENT

4.5. The pattern of labour distribution between the agricultural and non-agricultural sectors over the period indicates relatively greater increase in the latter than in the former, showing that non-agricultural sector is growing faster than the agricultural. The percentage distribution of employed persons by sectors of the economy from 1951 to 1978 can be seen in Annex III. It will be observed that the employment in agriculture sector declined from 66.4% in 1951 to 52.65% in 1978. The level and type of labour demanded in agriculture is crucially affected by the farm size, degree of mechanization, cropping patterns and intensities, crop yield per hectare and the intensity of fertilizer and pesticide use. While small farms use family labour with a little of mechnization, the large farms use hired labour with an increasing tendency towards mechanization. As a result of gradual and favourable change in the determining factors, the demand for agricultural labour is increasing at a rate lower than that of other sectors. On the other hand there has been a rising trend of employment in the manufacturing, construction, commerce, transport, storage and communication sectors of the economy. There has been no significant improvement in the services sector which perhaps could be attributed to low level of employment for household and domestic purposes due to increase in wages.

e. EMPLOYMENT BY EDUCATIONAL LEVELS AND MAJOR OCCUPATIONAL GROUPS

4.6. The Labour Force Survey 1978-79 provides percentage distribution of employed persons of 10 years age and above by literacy and level of education and major occupation groups. An extract of the Table can be seen at Annex IV. It will be observed that illiterate

constitute as 68.87 per cent of the employed labour force; whereas the literates are 31.12 per cent. About 21% are those who have less than matric education; matric and less than degree constitute 7.85%; and those with degrees and post-graduate education 1.82 per cent.

4.7. The Manpower Division had estimated the supply and demand for educated manpower in the overall framework of the Fifth Five Year Plan. These estimates were defective or deficient in certain respects because they were based on the LFS 1974-75; whereas the participation rates of LFS 1978-79 were quite different. The LFS 1978-79 was made available only when the Fifth Five Year Plan was in the last year of its implementation. Any how these estimates have been heavily relied upon by the Pakistan Economic Survey. According to the Economic Survey, employment was projected as 25.211 million during 1982-83. Its classification by the major occupational groups and level of education is reproduced in Table 12 below:

TABLE 12  
EMPLOYMENT DISTRIBUTION BY MAJOR OCCUPATIONAL GROUPS  
AND LEVEL OF EDUCATION 1982-83

Major Occupational Groups	Total	Less than primary including illiterates	Primary and less than matric	Matric and less than degree	Degree (Gen: Edcn)	Degrees and post-graduate diploma other than gen:edcn.
Professional and related workers	769	91	146	282	121	129
Administrative and managerial workers	181	13	25	63	50	30
Clerical & Related	734	58	118	464	79	15
Sales Workers	2,549	1,334	812	358	38	7
Service Workers	1,160	804	280	71	5	-
Agr:An:Husb; Forestry, Fishermen and hunters	13,276	11,148	1,760	338	10	20
Production & related workers, transport equipment operators and labourers.	6,542	4,684	1,432	403	15	8
Total	25,211	18,132	4,573	1,979	318	209

Source: Pakistan Economic Survey 1982-83, p.175.

It will be observed that whereas employment in all occupational groups is on the increase at almost every educational level, there has been no increase in clerical workers, sales workers and agricultural workers at post-graduate and diploma levels. Similarly, the number of workers at graduate level in services, agriculture, and production occupation remained static. This clearly underlines the increasing unemployment in youth with education at degree and higher levels.

f. EMPLOYMENT BY STATUS AND AREA

4.8. We have provided the findings of the Labour Force Survey with regard to sectoral employment and employment by levels of education. Since employment is of various categories, i.e. employer, self-employed, family helpers, and employees, we have to see what was their percentage in the employed labour force by rural/urban areas. The employment by status and area for the three survey years, i.e. 1971-72, 1974-75, and 1978-79 is given below in Table 13.

TABLE 13  
EMPLOYMENT BY STATUS AND AREA

Status	R U R A L			U R B A N		
	1971-72	74-75	78-79	1971-72	1974-75	1978-79
Employer	0.6	0.9	2.1	1.1	2.2	2.4
Self-employed	52.3	51.5	42.7	46.6	41.2	36.6
Unpaid family helpers	35.0	33.7	28.3	11.9	10.1	10.1
Employees	12.1	13.9	19.3	40.4	46.5	51.0

Source: The figures for 1971-72 & 1974-75 have been extracted from Employment Strategy, ILO, Geneva, 1977, p.6. The figures of 1978-79 have been given from the LFS 1978-79, p.97.

It will be observed that there is a gradual decline in the number of self-employed and unpaid family helpers. Cohen has used the term wage earners for employers and employees; and non-wage earners for self-employed and

unpaid family helpers. There is a steady increase in the number of wage earners. This increase is attributable to the expansion of the organized sector of the economy which gradually reduced the burden of the traditional sector where a large number of people had been unemployed and underemployed. Glenson has developed a logical sequence in shifts from agriculture to industrial and from industrial to services sectors of the economy. According to him, there is always a shift from agricultural to industrial employment with commensurate increase of employment in the services sector. According to him, this had been the process of development through which the developed countries have passed. Referring to the developed countries, he says that in the developed countries these shifts first from agriculture to industry and then from industry to services, were induced largely by demand. When economists first began to examine the problems of the developing countries, it was generally assumed that the pattern of development there would follow historical trends, at least in broad outline.<sup>7</sup>

#### g. OVERSEAS EMPLOYMENT

4.9. Prior to 1970 there has been outmigration of Pakistani workers mainly to the European countries and North America. After 1970, the developmental activities in the OPEC countries of the Middle East created a major source of overseas employment for the Pakistani workers. Now this outmigration had been through legal or illegal channels. The legal channels were those of the Bureau of Emigration; and the illegal channels were those when the migrants proceeded abroad without seeking permission of the Government or clearance about the terms of service abroad. In addition, there was another channel and that was when the Pakistani workers proceeded abroad on direct individuals visa basis secured by their relatives or friends. The Bureau of Emigration and Overseas Employment has the data related to the outmigration of those Pakistani workers (countrywise

as well as occupationwise) who proceeded abroad through proper legal channels. The yearwise data compiled by the Bureau of Emigration and reported in the Pakistan Economic Survey is reproduced in Table 14 below:

TABLE 14

OVERSEAS EMPLOYMENT OF PAKISTANI WORKERS

<u>Year</u>	<u>No. of workers</u>
1971	3,534
1972	4,530
1973	12,300
1974	16,328
1975	23,077
1976	41,690
1977	140,522
1978	130,525
1979	125,507
1980	144,347
1981	168,403
1982	142,945
1983	128,206

Source: Pakistan Economic Survey 1982-83 & 1983-84

4.10. It will be observed that there has been a continuous and gradual increase in the outmigration of Pakistani workers which included professional, technical, managerial, skilled and semi-skilled workers; and unskilled workers. The outmigration of skilled and semi-skilled workers has created critical shortage within the domestic labour market especially in the construction sector of the economy. These shortages have distorted the domestic wage structure

as a result of which it has become difficult to find instructional staff for the vocational training centers and technical training institutes. Despite all these difficulties, outmigration has eased pressure of employment in the domestic labour market. It has created an additional avenue for earning of foreign exchange to meet the requirement of balance of payment. Though there is pinch of outmigration, yet it may not be possible to discontinue this process through enactment of laws or adoption of such policies which may discourage overseas migration. The ILO Report cited earlier has undertaken a comprehensive analysis of outmigration and made projections for the Sixth Five Year Plan. These projections are based on two assumptions:

1. The first assumption is that in 1980 the total stock of migrant workers was 4,597,930. While accepting the World Bank estimates of growth in demand till 1985; and in between 1985-88 a decline in the growth rate by 8.0, 7.5 and 7 percent respectively; and assuming that Pakistan's share in gross demand (stock) remains at 30 percent till 1982 but declines by 1 percent in each subsequent year; and that five percent of Pakistani migrants return each year.
2. In the second assumption, the total stock figures have been taken as 612,324 in 1981 and further assumptions have been made that growth rate of demand is the same as in alternative 1; and that Pakistan's share in net demand remains at 25 percent between 1980-82, but reduces to 20 percent in 1983 and 1984 and further to 15 percent between 1985-1988.

The projections made on the basis of the aforementioned alternatives and assumptions can be seen in Annex V. On the basis of these tentative projections, the two alternative estimates of total demand for migrant labour from Pakistan to the Middle East during the Sixth Plan period comes to 735 and 779 thousand. However, the net demand depends critically on the number of returnees and the assumption that 5 percent come back each year, the net demand is reduced to almost

a half. Now when we have covered the aspects of both domestic and external employment, and the projected employment during the Sixth Plan, we turn our attention to the problem of unemployment which we touched upon earlier but could not offer elaborate explanation.

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### 5. STRUCTURE OF UNEMPLOYMENT

Unemployment is a crucial problem faced by the developed as well as developing countries of the world. This problem assumes serious dimension especially for the labour surplus developing countries. The extent and magnitude of the problem cannot be quantitatively determined because of the conceptual and definitional problems. For instance the terms open unemployment, disguised unemployment, and under-employment are commonly used. We cannot afford to define each and every term and offer explanations for their use or disuse. We have to content ourselves with the definition of unemployment as provided in the IFS 1978-79 which is as follows:

Unemployed include all persons who, during the reference week, were either looking for work, or not looking for work because of illness, or not looking for work believing job not available, or temporarily or indefinitely laid off, or waiting to report to new job, or willing to work if job is provided, or apprentice with no guaranteed job, or have some usual occupation but are doing nothing during the reference period.

5.2. In the light of this definition, the IFS 1978-79 has provided the historical perspective of employment and un-employment during the period 1969-70 to 1978-79. The percentage distribution have been given in Section 4 earlier. In fact the percentages given in Table 2 of Section 4 are in the context of the total population on the basis of participation rate of 31.02 per cent (29.92 per cent employed and 1.10 per cent unemployed). Now we have to see as to what percentage of the labour force had been or is unemployed under the IFS 1978-79. On the basis of information provided by the IFS 1978-79, the following Table has been constructed to provide specific information of the civilian labour force of 10 years age and above, (especially unemployed), by age groups, sex, and area (rural/urban).



Table 15

PERCENTAGE DISTRIBUTION OF UNEMPLOYED LABOUR FORCE OF 10 YEARS  
AGE AND ABOVE BY AGE GROUPS, SEX, AND AREA (RURAL/URBAN)

Age Groups.	UNEMPLOYED			RURAL			URBAN		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total (10 Yrs & above)	3.55	2.63	0.92	3.01	2.10	0.92	5.23	4.29	0.94
10-11 Years	.20	.18	.02	0.15	.12	.03	.36	.35	.02
12-14	.55	.43	.12	.45	.33	.12	.87	.76	.11
15-19	.91	.72	.19	.69	.54	.16	1.58	1.30	.29
20-24	.56	.40	.16	.44	.29	.15	.95	.75	.19
25-29	.25	.19	.06	.20	.14	.06	.38	.32	.05
30-34	.20	.10	.09	.21	.11	.10	.17	.10	.08
35-39	.19	.12	.08	.19	.12	.08	.19	.12	.07
40-44	.15	.09	.06	.15	.08	.07	.17	.14	.03
45-49	.17	.11	.06	.17	.10	.07	.19	.16	.03
50-54	.13	.11	.02	.12	.11	.01	.16	.13	.03
55-59	.09	.07	.02	.09	.06	.03	.09	.08	.02
60-64	.06	.03	.02	.07	.03	.03	.03	.03	-
65 & above	.09	.07	.02	.09	.06	.02	.09	.07	.02

5.3. From the Table it will be observed that the level of unemployment is high in the age groups 12-14; 15-19; and 20-24. Unemployment is higher in the age group 15-19, both in rural as well as urban areas. The problem of unemployment in urban areas takes a serious turn when the young high school graduates enter the labour market for seeking employment. In the rural areas, though they may have similar problems, but still dependence on the agriculture reduces the intensity of the problem. The LFS 78-79 indicates that 45.12 per cent were having previous

experience; whereas 54.87 per cent were without previous experience. As far as the rural/urban distribution of unemployed is concerned, it has been observed that 52.23 per cent were with experience; and 47.76 per cent without experience in rural areas. In urban areas, those with experience were 32.35 per cent; and without experience 67.64 per cent.

5.4. The IFS also indicates the reasons due to which unemployed in the labour force did not work. The percentage distribution of unemployed persons of 10 years age and above by reasons of their unemployment can be seen in Table 16 below:

Table 16  
PERCENTAGE DISTRIBUTION OF UNEMPLOYED PERSONS OF TEN YEARS  
AGE AND ABOVE BY REASONS OF THEIR UNEMPLOYMENT

Reason of unemployment	Total	Rural	Urban
1. Looking for work	21.74	21.16	22.77
2. Not looking for work because of illness	7.04	7.90	5.49
3. Not looking for work because believing job not available	3.25	3.64	2.57
4. Temporary or indefinite lay off	3.74	4.01	3.24
5. Waiting to Report to new job	2.05	2.28	1.62
6. Willing to work if provided with a job.	33.90	33.20	35.15
7. Apprentice	14.41	10.31	21.78
8. Having some usual occupation but doing nothing during reference period.	13.88	17.50	7.38
Total	100.00	100.00	100.00

Source: IFS 1978-79, p.163.

5.5. The Pakistan Economic Survey 1982-83 describes various forms of unemployment. According to the PES unemployment is of two kinds: open unemployment and underemployment, which have mounted in the past few years. Underemployment is prevalent in agriculture, cottage industries and informal sectors. We have mentioned earlier that open unemployment has gone up from 1.7 per cent in 1974-75 to 3.5 per cent in 1978-79. This increase has been explained in the PES.

The relevant extract is reproduced here:

The increase in open unemployment is explained in two ways. First: rural-urban migration makes open previously disguised unemployment; Second: High school and college graduates are increasingly adding to the bulk of educated unemployed as educational facilities expand faster than employment opportunities. There are indications that the incidence of open unemployment falls more heavily under this latter category and is likely to accentuate further. Unless restrictive measures to make higher education selective and positive steps for greater emphasis on technical education are taken, the situation is unlikely to ease even in the longer run. Unemployment represents a waste of productive power which adversely affects the whole complexion of human life and outlook and creates a sense of frustration. In the context of our socio-economic milieu, only full employment can provide social security as well as reconcile growth with social justice. Government plans to remove forms of unemployment as early as possible by evolving an effective and comprehensive manpower policy.

6. OUTPUT OF HIGHER EDUCATION SYSTEM AND REQUIREMENTS OF THE ECONOMY

a. OBJECTIVES AND STATUS OF HIGHER EDUCATION

In textbooks as well as in government policy statements one finds elaborate list of educational objectives formulated in different ways. They vary both in content and emphasis. But there are three main aims of education which are invariably listed in one form or another. They are: (a) the mental, emotional, spiritual, and physical development of the individual and his adjustment to society; (b) the economic viability of the individual, and (c) the maintenance of the cultural identity of the society to which the individual belongs. These objectives can be classified into political, social, economic, and pedagogical objectives.<sup>1</sup> Our main concern here is the economic objectives of higher education which include both college and university education.

6.2. According to the National Education Policy (1979), the aims of education are to impart quality education; to develop fully according to the capacity, each individual's potentialities, through training and re-training; and to develop the creative and innovative faculties of the people with a view to building their capability to affectively manage social, natural, and productive forces, consistent with the value system of Islam. It further provides that the objective of education is to promote and strengthen scientific, vocational, and technological education, training and research in the country and to use this knowledge for socio-economic growth and development thereby ensuring a self-reliant and secure future for the nation.<sup>2</sup> There are a number of other objectives listed in the Policy, but for the sake of this presentation, we restrict ourselves to these specific objectives.

6.3. In the context of higher education, the National Education Commission appointed in 1958, observed that "The education system in the country, specifically at the university level should pursue quality as an essential objective, and its end-products in arts and science should be comparable in competence and achievement with those trained in advanced education systems of the world.<sup>3</sup> The reason for such an emphasis was the leading role of colleges and universities in the development of leaders in all fields of national endeavour. Quality of education has been the constant source of concern for the policy decision makers and planners ever since the inception of Pakistan. Deterioration in the quality of education was quite obvious keeping in view the quantitative expansion of the education system.

6.4. As far as quantitative expansion of higher education is concerned, there were 40 arts and science colleges in the country with total enrolment of 14,000 students during the year 1947-48. The number of such colleges has gone up to 514 during 1983-84 including 161 female colleges. There were two universities in the country at the time of independence in 1947, which have been increased to 20 during 1983-84.<sup>4</sup> Though the number of colleges and universities has increased, yet the distribution of courses have remained static. The observations of Jozefowicz made long ago seems to be valid in the contemporary situation. According to him: "The professionally oriented component of the present educational output is far too weak to bring about radical change in the occupational structure of working manpower. The present system helps to duplicate the existing educational pattern, adds to already overcrowded trades and fails to satisfy demand for scarce skills."<sup>5</sup> This situation has been further confirmed by the Fifth Five Year Plan (1978-83) which

states: "The number and pattern of educated unemployed coupled with shortage of skilled workers is a manifestation of the imbalance in our education system. The major source of this malady is the preponderance of students studying art subjects."<sup>6</sup> The Plan further spells out the percentages of students in the arts streams. According to the Plan, the percentage of students in the arts stream were 53,60, and 27 at intermediate, degree, and post-graduate levels respectively. The Plan has also expressed concern over the high percentage of failures in the public examinations and the deteriorating standards of education.<sup>7</sup>

6.5. In order to strike a balance between various streams of education, the Plan proposed following percentages of additional enrolments at Intermediate and College levels:<sup>8</sup>

TABLE 17  
PERCENTAGES OF ENROLMENT FOR VARIOUS STREAMS OF  
EDUCATION RECOMMENDED BY THE P.F.Y. PLAN

Faculties	Intermediate	Degree
Arts	22%	23%
Science	49%	36%
Commerce	11%	10%
Agriculture	3%	-
Home Economics	3%	3%
Education	12%	28%

From the above it will be observed that the Plan provided certain guidelines for the educational institutions for restrictive admissions by various faculties of higher education. We are not quite sure as to what extent the educational institutions were taken into confidence to implement such decisions. Formulation of Plans and their implementation are two distinct aspects and as

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such the Plans could be meaningful only when they are properly implemented. We do not have time series data of the Fifth Five Year Plan regarding enrolment in various faculties. However, the University Grants Commission (UGC) has provided data for two years, i.e. 1980-81 and 1981-82 of the Fifth Five Year Plan. On the basis of enrolment data provided by the UGC, the following table has been constructed so as to show the percentages of enrolment in various faculties:

TABLE 18  
PERCENTAGE OF ENROLMENT IN VARIOUS FACULTIES AT THE  
POSTGRADUATE LEVEL

Faculties	1980-81	1981-82
Art	28.6	31.7
Business Administration	6.0	1.9
Commerce	6.1	6.9
Education	4.8	5.3
Law	12.2	13.2
Science	28.9	29.2
Pharmacy	3.3	4.4
Languages	1.0	-
Others	8.8	7.1

From the above it appears that the proportion of enrolment in the faculty of arts instead of declining has gone up. In the field of Business Administration, the declining enrolment percentage cannot be accepted as the figures seem to have been reported under some other faculties. There is a slight increase in the percentage enrolment in science faculties. This is the situation which is prevalent in the general universities. As regards degree colleges, upto-date data is not available. However, the data for the year 1977-78 reveals that enrolment in arts and science faculties was 81 and 19% respectively. We are not quite sure about the shift



from arts to science subjects which had been the emphasis of the Fifth Five Year Plan.

b. ENROLMENT AND OUTPUT OF THE HIGHER EDUCATION SYSTEM

6.6. The Fifth Five Year Plan compares the enrolment ratio of higher education with countries like Iran, India, Indonesia, England, and Democratic Republic of Germany. The Plan admits that in absolute terms enrolment in higher education per 1,000 population in the country is still far from satisfactory. It says that there are proportionately more students at the third level than in many developing; and even some developed countries. Of the total enrolment in the entire education system, 4.2% are enrolled in colleges and universities as against 1.3 % in Indonesia; 1.7 % in Iran; 1.8% in India; 4% in England; and 4.1 % in Democratic Republic of Germany.<sup>10</sup> We cannot afford to challenge the figures reported in the Fifth Five Year Plan. However, if we analyse the structure of our education system and its enrolment in various streams of education, we may find that the percentage of enrolment against the specific school-age population is very low. In this connection Hafiz Pasha and his associates have provided comparative perspective of enrolment during the years 1951, 1961, and 1972. The percentage of enrolment as compared to school-age population are reproduced below:<sup>11</sup>

TABLE 19  
PERCENTAGE OF ENROLMENT AS COMPARED TO SCHOOL-AGE  
POPULATION

Year	Primary	Secondary	College	Universities
1951	25.0	6.8	0.8	0.2
1961	31.8	16.4	2.0	0.6
1972	39.4	16.8	3.4	1.1

These percentages indicate that though there had been increase of enrolment ratio in the primary education, college and university education, there had been no significant increase in the stream of secondary education during the period 1961 to 1978.

6.7. It is difficult to establish the degree of consistency between the figures of enrolment of various universities provided by UGC and those of the Pakistan Economic Survey. The only faculty for which these figures can be compared is the faculty of law for which the enrolment figures for the years 1980-81 and 1981-82 are available in the statistics compiled by the University Grants Commission. It has been observed that the total enrolment in faculty of law during the years 1980-81 and 1981-82 is of the order of 4134 and 3922 respectively. The figures given in Table 19 seems to be inflated.

6.8. No authentic data with regard to the output of the education system for the Fifth Plan period is available. However, the estimated figures of output at the secondary and post-secondary level have been provided in the Pakistan Economic Survey 1981-82. These estimates for the post-secondary levels of education are reproduced below:

TABLE 20  
OUTPUT OF COLLEGES AND UNIVERSITIES (1977-82)

Year	Inter (000)	Degree all subjects	MBBS	Master all subjects	LLB	Total
77-78	48.4	41,669	1,940	7,332	3,302	102,643
78-79	50.4	45,589	2,000	8,015	3,916	117,920
79-80	72.0	49,509	2,060	8,698	4,530	136,797
80-81	78.1	53,429	2,120	9,381	5,144	148,174
81-82	84.2	57,349	2,189	10,064	5,758	159,560

We are not quite sure as to what percentage of graduates from Intermediate colleges continue their education to degree level; or what percentage having passed bachelor continue to master degree level. At the same time we are not sure as to how many intermediate, bachelor and master level graduates join the labour market for seeking employment.

c. STOCK OF DEGREE HOLDERS

6.9. Earlier we have presented the figures of population on the basis of level of education (TABLE 5) which were derived from various census documents. The stock figures from Table 5 regarding graduates with degrees and higher degrees are reproduced below in Table 21.

TABLE 21  
STOCK FIGURES OF GRADUATES WITH DEGREES &  
HIGHER DEGREES

CENSUS YEAR	GRADUATES WITH DEGREES			GRADUATES WITH HIGHER DEGREES		
	Male	Female	Total	Male	Female	Total
1951	39,672	4,832	44,504	12,986	1,443	14,429
%	89	11	100	90	10	100
1961	46,945	7,055	54,000	21,575	2,749	24,324
%	87	13	100	89	11	100
1973	841,673	281,757	11,23,430	101,264	22,689	123,953
%	75	25	100	82	18	100
1981	1956,861	327,551	12,84,412	100,633	33,551	134,184
%	75	25	100	75	25	100

It will be observed that male graduates were 89% of the total graduates during 1951. This percentage came down to 87 in 1961; 75 in 1973 and 1981. On the other hand, the females were 11% in 1951; 13 in 1961; and 25 in 1973 & 1981. Similar is the trend of graduates with higher degrees. This perhaps could be attributed to increasing employment opportunities for males and decreasing opportunities for females.

d. EMPLOYMENT OF GRADUATES

6.10. There are no separate figures for male and female employment by sex. The estimates of employment as given in the Pakistan Economic Survey 1980-81 indicate employment of 371 thousand graduates with degrees in general education; and 201 thousand with degrees and post-graduate diplomas in the fields other than general education.<sup>12</sup> The combined employment of both the categories comes out to be 572 thousand. On the other hand, there were 1418 thousand graduates with degrees and higher degrees during the year 1981. By subtracting the figures of employed from the stock, we get the estimated figures of those graduates who are either unemployed or self-employed. The unemployed are estimated as 846 thousand, i.e. about 60%. Assuming that female employment is zero and only the stock of male graduates is taken into account, the total male graduates with degrees and higher degrees comes out to be 1057 thousand. By subtracting 572 thousand employed, we get 485 thousand un-employed, i.e. 46% unemployed male graduates. These un-employed graduates may also include self-employed graduates but their number does not seem to be significant enough. We can safely say 40% of the graduates are un-employed. It seems to be a considerable loss as the investments in higher education of such graduates turns out to be disinvestments. Now the question arises as to what are the causes of such un-employment.

6.11. Sanyal has made quite valid observations regarding the constraints within which educational and manpower planners are operating. According to him: "The authors of higher education have been handicapped by the problems of the operation of the employment market and its very changing nature. It has been difficult for them to assess the absorptive capacity of the economy, due to difficulties in forecasting manpower needs. There are data constraints like (a) the resource potential

of the country; (b) the changing technology and labour productivity; (c) educational needs for different kind of jobs; (d) occupational mobility; (e) attitudes and expectations of the potential employees and employers; and (f) the recruitment and promotion practices of the employers. Even if such information were available, economic uncertainties would still prevail.<sup>13</sup>

e. LABOUR MARKET CONSTRAINTS

6.12. The depressed demand for educated manpower inherent in the organizational structure of Pakistan's economy is the most important cause of unemployment among the educated youth. Some of the salient features of this feeble demand have been listed by Jozefowicz which are reproduced below:<sup>14</sup>

- (a) Pakistan's economy is dominated by a large 'traditional sector' characterized by small establishments and self-employed category of personnel, and generating negligible demand for educated and skilled manpower.
- (b) Demand for educated manpower is confined to the small modern sector which has been defined as those establishments employing 20 or more workers. Even in this sector the number of large establishments is very small which affects adversely the already depressed demand for educated manpower.
- (c) Leading sectors of the economy, i.e. industry and agriculture, reveal a very low proportion of skilled and educated manpower. Manufacturing industries are becoming capital intensive minimizing demand for employment of the educated manpower.
- (d) Economic growth has not generated a proportionate demand for educated manpower and the supply of educated manpower has outpaced the growth of employment opportunities.

6.13. The causes of unemployment among educated youth are deeply rooted in the economic and social conditions of an early stage of economic development, and deterioration of the present situation is inevitable unless serious and lasting efforts are made towards moving ahead from this early stage of economic development. Educational reforms will only improve quality but quantitatively the situation will not improve. The solution of the problem will need a higher

rate of economic growth, and a rapid pace of industrialization alongwith educational reforms. Future expansion of the educational facilities should therefore be made within limits of effective employment demand and as such changed procedure of planning adopted whereby economic planning is coordinated with social planning.<sup>15</sup>

6.14. The unemployment of educated youth is not only faced by Pakistan but also by numerous other countries of the world including the most advanced ones. In free societies it is the right of each individual to pursue the vocations of his/her own interest. The decision with regard to restricting admissions may not be the right choice as it is pregnant with students unrest leading to anemic disturbances. Even if such decisions are made they may not be properly implemented due to social and political pressures on the educationists and administrators. Commenting on a paper presented by Hafiz Pasha in a National Conference on Employment Planning and Basic Needs in Pakistan, Bagai made some valid observations. According to him: ".....the restriction of higher education in the name of quality, would seem to freeze the scarcity rents. Artificial barriers are already created through differentiation between urban-rural, English-Vernacular, Private-Government institutions which hinder competitive entry into the job market - especially in its more prized sections."<sup>16</sup>

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## 7. INSTITUTIONAL SET UP OF LABOUR MARKET\*

Pakistan is basically an agricultural country where more than 70 per cent of its population is living in rural areas. Ever since independence Pakistan has resorted to industrialization as a result of which industrial employment has been increasing. With the increase of employment in the manufacturing and services sectors, there has been expansion in the organized labour market. In this section we are going to discuss the institutional set up of the organized labour market.

### a) EMPLOYMENT EXCHANGES

7.2. The age old public sector institutions are Employment Exchanges. There are about 34 employment exchanges in the country: 21 in Punjab; 5 in Sindh; 7 in NWFP; and one in Baluchistan. The employment exchange service originated under the British rule in India in 1944-45. Originally it was intended to assist the ex-servicemen in their re-settlement. In 1962, the employment exchange service became the direct responsibility of the provincial Labour Departments instead of the Central Government. The employment service has a three fold responsibility: to the employer; the worker; and the nation. Every employer has the right to have the vacancies he notifies brought to the attention of suitable registrants. Similarly, every person registering for employment has the right to have brought to his notice all available vacancies, for which he is suitably qualified. Unless workers and employers feel that this is so; they will not have confidence in the service. According to the Third Five Year Plan: "the employment exchange have remained weak mainly due to their inability to integrate their activities closely with the changing economic life of the country, and their failure to win the confidence of employers and workers."

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\* Extracted from the author's article "The Institutional Set Up of the Labour Market in Pakistan", in Pakistan Labour Gazette - A Journal of Labour Affairs, Vol.LI, October-December, 1980.



7.3. Most of the employment exchanges are located at the district headquarters. Though the Third Five Year Plan has admitted the weaknesses of such institutions, yet no steps seems to have been taken to reactivate and reinforce them. Even recruitment in the public sector has been done by the respective government departments directly by inviting applications for certain specific jobs. When the Government departments by-pass such institutions: it is inconceivable to expect greater patronage from the private sector. In fact, the private sector has greatly patronized this institution. If this institution is fully patronized, reinforced and developed, perhaps, they could be in a better position to provide a sound framework for manpower planning in the country.

b. PUBLIC SERVICE COMMISSIONS

7.4. There is a Federal Public Service Commission responsible for recruitment of supervisory/ managerial personnel with requisite level of qualifications and experience for certain positions in the administrative Divisions/Organizations of the Federal Government. Likewise, each province has its own public service commission for recruitment of certain categories or personnel for the administrative departments of the provincial governments. The Administrative Divisions of the Federal Government and provincial departments have been delegated certain powers for recruitment of personnel below grade 16 either by inviting applications directly or notifying the vacancies to the employment exchanges which recommend suitable candidates for final selection by the employer concerned. The main purpose of these intermediaries is to maintain proper standards by resorting to objective criteria of selection. The statistics of the number of applicants and their placement are not readily available. Therefore, we are not quite sure as to what per cent of the qualified people in the

labour market have secured employment through these institutions. It is not necessary that the applicants to these bodies are active participants of the labour force. In fact there could be those applicants who are enrolled in the educational institutions for post-graduate studies. There could be those applicants as well who are already employed but would like to move upward in senior positions. On the one hand there are technical problems to assess the supply into the labour market; but on the other hand, the demand situation also create perplexing problems of technical nature.

c. ARMED SERVICES BOARDS AND OTHER INSTITUTIONS

7.5. In order to re-settle the retired personnel of the armed forces in the civilian life, the Armed Services Boards operating at the district level, facilitate the employment of such personnel. We have mentioned earlier that the retired personnel do not fall under the labour force. Usually, there are very few persons of the armed forces who needs re-employment. Majority of the armed forces personnel prefer to fall under the category of self-employed by resorting to private business. In addition to these institutional arrangements, there is "jaurisar" system in Baluchistan where the contractors supply labour for working in the mines. Under this system, the contractors hire the workers at low wages but get maximum financial returns from the employers. This is the traditional set up which has been left undisturbed due to peculiar set of circumstances in that particular province. All these institutional arrangements are meant for facilitating the transactions in the labour market within the country.

d. BUREAU OF EMIGRATION

7.6. Prior to 1972, the recruitment of Pakistanis for overseas employment was handled by the National Employment Bureau in the

Ministry of Labour. This organization had to recruit Pakistani manpower in the public sector when the transaction was on government to government level. Another agency was Protectorate of Emigrants under the Manpower Division responsible to supervise the work of recruiting agents in the private sector. In addition, there had been a Directorate of Seaman's Welfare. All these agencies had been functioning separately quite independent from each other, though their functions were inter-dependent and inter-linked. The demand for overseas employment of Pakistanis was increasing day by day. In order to overcome this problem and to streamline the functioning of all these separate agencies, the Bureau of Emigration was established by the end of 1971 by amalgamating and merging all these separate organizations. This Bureau was assigned the responsibility of making transactions for securing overseas employment at government to government level. However, this responsibility was later on transferred to the Overseas Employment Corporation. The Bureau has only the functions of protectorate which give it sufficient power to supervise and regulate the work of not only Overseas Employment Promoters but also that of Overseas Employment Corporation.

e. OVERSEAS EMPLOYMENT CORPORATION

7.7. The increased outflow of Pakistanis seeking overseas employment through private recruiting agents led to serious malpractices in the private sector. Individuals seeking employment abroad were put into embarrassing situation and lot of inconveniences. Not only the individuals suffered from such corrupt practices of the private recruiting agents, but the image of the country was also tarnished. In order to remove such malpractices and to ensure proper implementation of the Emigration Act, the Cabinet Committee in its meeting held on 19th January, 1976 decided that a Corporation may be set up which may start functioning side by side

with licensed recurring agents and gradually to take over work from them. In pursuance of the decision of the Cabinet Committee, the Overseas Employment Corporation was set up as a private limited company solely and wholly owned by the Federal Government. The Corporation has recovered the amount invested by the Government on its creation and seems to be in good financial condition.

f. RECRUITING AGENTS/ OVERSEAS EMPLOYMENT PROMOTERS

7.8. Rules were framed under the Emigration Act 1922 which are called Emigration Rules 1959 under which the recruiting agents were introduced for the promotion of overseas migration. On March 23, 1978 another Ordinance was promulgated under which the nomenclature of Recruiting Agents was changed to that of Overseas Employment Promoters. These agents, under the Ordinance, are expected to deposit certain amount of fee and security and the Director General of the Bureau of Emigration is supposed to maintain a register of all persons to whom licenses have been granted. Their licenses can be cancelled by the Bureau of Emigration if the Overseas Employment Promoters deviate from the provisions of the Ordinance or the rules framed under this Ordinance. Though certain malpractices were noticed in the transactions carried out by these agents, their contribution in terms of securing maximum employment in the private sector cannot be under-estimated.

## 8. INSTITUTIONAL SET UP FOR EMPLOYMENT PROMOTION

### a. INFRASTRUCTURAL ARRANGEMENT

Pakistan did not inherit a well structured institutional and organizational set up for the promotion of employment. There had been age old institutions of employment exchanges in each District of each Province which were originally intended to assist in the resettlement of ex-servicemen. Though their sphere of activities was enlarged over a period of time, yet they have not been able to enjoy the confidence of employers and workers. These institutions are funded and administered by the Provincial government, yet the public sector recruitments have been made direct through inviting applications from the job seekers.<sup>1</sup>

8.2 With the introduction of national planning in 1953, a Manpower Section was established in the Central Planning Organization which remained quite ineffective for a number of years. As we have mentioned earlier, the Second Five Year Plan recommended the setting up of a National Manpower Council which was established in 1962. This Council was made responsible for (i) Formulation of National Policy for the conservation, training, development, and effective utilization of Manpower; (ii) Devising of overall programs for meeting the requirements of high level personnel: the training of Artisans and Skilled workmen; the productive employment of surplus labour; (iii) Drawing up of schemes for improved utilization of labour through better management; the coordination of defence and civilian uses of manpower; and the development of basic data and analysis for Manpower Planning, etc.<sup>2</sup> With the International assistance, the National Manpower Council had been able to lay the foundation of Manpower Planning in the Country. However, the Council could not prove to be effective due to financial constraints, administrative inadequacies, and technical difficulties and as such was dissolved in 1969.<sup>3</sup>

8.3 The aggravating problem of unemployment led to the appointment of a Sub-Committee by the Cabinet in 1970 for studying the unemployment problem and recommending remedial measures. This Sub-Committee was called the Study group on Manpower and Employment which recommended the setting up of an adequate machinery for programme development and planning in the field of manpower. In pursuance of a Cabinet decision taken in September 1972, a Manpower Division was set up in the Ministry of Labour and Works in May, 1973.<sup>4</sup> This Division was assigned the following responsibilities:<sup>5</sup>

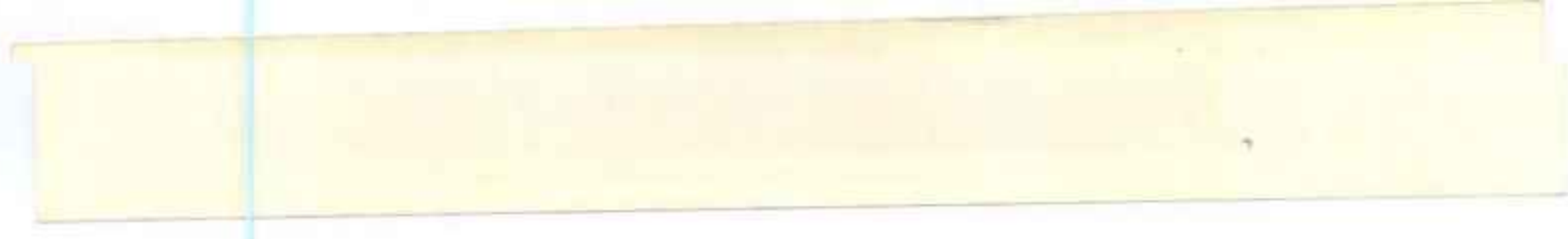
- (i) To evolve and determine manpower policies concerned with recruitment, training, use and conservation of manpower resources in cooperation with manpower agencies concerned with production and utilization of manpower;
- (ii) To produce short term and long range operational programmes for the development and utilization of manpower;
- (iii) To prepare manpower plans at the National and Provincial levels for incorporation in Annual, Five Year and Perspective Plans;
- (iv) To undertake continuous review of manpower situation in various sectors of the economy, identify the imbalances in manpower supply and demand relationships and recommend adjustments and remedial actions by concerned agencies;
- (v) To develop basic data and statistics for sound manpower planning on a continuous basis and to promote comprehensive research studies.

There are attached Departments of the Manpower Division like National Training Bureau responsible for undertaking Crash Training of Skilled and Semi-Skilled Workers; National Talent Pool responsible for compilation of National register of the available manpower like Scientists, Doctors, Engineers, Agricultural experts, and other supervisory Personnel; National Bureau of Emigration and Overseas Employment responsible for regulating the outflow of manpower and performing protectorate functions. Besides these attached Departments there are autonomous organizations like overseas Employment Corporation responsible for securing overseas employment in both public and private sectors; and Overseas Workers Foundation meant for the Welfare of Overseas Pakistanis; and Pakistan Manpower Institute responsible for training and research in the field of manpower.<sup>6</sup>

b. DEFICIENCIES IN EMPLOYMENT PROMOTION EFFORTS

8.4 As stated in the Third Plan, it is felt that "the expansion of employment is the best way of providing social security and a wider and more equitable distribution of national income." However, no priority ranking of the objectives of the Plans has ever been established, so no declared guidelines exist for resolving the inevitable conflicts that have developed between the numerous objectives. Implicitly, however, income maximization serves as the main objective of Pakistani development planning, with employment creation treated only as a by-product of the expansion in national output. Consequently, the employment "targets" of Pakistani Plans have in effect really been only forecasts of expected developments in employment deriving from the implementation of a strategy in which the employment aspects have only been of minor importance.<sup>7</sup>

8.5 What has been missing in our efforts so far appears to be a lack of serious and deliberate strategy for development. According to Huda: "The manpower and employment objectives and targets included in the Plans neither been backed by the will and determination to attain them, nor





## 9. MANPOWER PLANNING INSTRUMENTS

In Pakistan, the following documents are used as instruments for manpower planning:-

- a) Census of Population and Agriculture;
- b) Vital Registration Statistics;
- c) Labour Force Surveys;
- d) Establishment Surveys including Census of Manufacturing Industries;
- e) Employment Service Statistics;
- f) Education and Training Statistics;
- g) Administrative Statistics including Emigration Statistics.

### a. POPULATION CENSUS:

9.2 The 1951 as well as the 1961 Censuses, besides demographic characteristics of the population, provided data on the economic activities of the population including labour force participation rate, employment and unemployment. In the 1971 Census the big count (carried out in 1972) did not cover the economic characteristics. These were covered in the Housing, Economic, and Demographic (HED) Survey conducted in 1973. The most recent is the Post-Census Survey 1981, interim results of which have been provided recently. The decennial Population Censuses and the Housing, Economic and Demographic Surveys among others provide a profile of the population and labour force for the smallest administrative geographical units. Due to its recency it is too early to make an assessment of the 1981 census data. However, statistics derived from earlier Population Censuses have not been accurate. In the 1961 census substantial under enumeration (to the extent of 6 to 8%) was reported while the 1972 Census was considered to be an overcount. There were also differences in definitions used, coverage and methodology of the censuses due to which

comparability of information becomes difficult. There is also an element of time lag in the collection of data and publication of results. The utility of Census data for the Manpower Information Programme, therefore, becomes limited.

AGRICULTURAL CENSUSES:

9.3 Bulk of the Population and Labour Force in Pakistan is in the agricultural sector. Three Agricultural Censuses viz. 1960, 1972 and 1981 have been conducted so far in Pakistan. Severe time lags in the collection and publication of Agricultural Census data have existed in the past. Besides there is lack of reliable information about the pattern of labour use and working conditions in agricultural sector. In addition to this, very little information is provided on the extent and activities of the landless labour and the employment impact of mechanization. The Agricultural Censuses, as such, do not generate much usable data for the Manpower Information Programme.

b. VITAL REGISTRATION STATISTICS:

9.4 Trends in fertility and mortality have a significant effect on the composition of the population in Pakistan. High fertility rate combined with decreasing mortality rate implies a younger age population composition which in turn effects the labour force activity rate and increases the burden of dependency in the form of children. Reliable statistics on births and deaths are not available in Pakistan. These data are compiled mainly on the basis of information collected from hospitals, dispensaries and M.C.H. Centres. Information on vital events is also not available at a central place for hospitals and dispensaries under Provincial Governments, local authorities and the private sector. Available information, therefore, is quite incomplete in coverage which effects its reliability and utility.

updated yearly. The results of the survey are provided in percentages, and unemployment percentage is provided as a percentage of population and not labour force. Occupational and industrial distributions of the Labour Force and employed are provided at the 1 digit (Major group) level. Due to this its use together with the HED Survey is limited. Data on employment and unemployment due to conceptual difficulties is not very meaningful. Data emanating from this source although of great significance is unfortunately of limited utility for the purpose of the Manpower Information Programme.

d. ESTABLISHMENT SURVEYS:

9.6 Establishments engaged in non-agricultural activities in the organized sector provide employment to most wage earners in Pakistan. Although relatively small it is a dynamic sector since employment

c. LABOUR FORCE SURVEYS:

9.5 Labour Force Surveys which are conducted by the Statistics Division provide information on population and Labour Force by age, sex, marital status, literacy, migration and level of education by rural and urban areas, employment status and position, employment by major occupation and industry groups, hours worked and unemployment during the intercensal periods. The surveys have been conducted since 1963 but suffer from serious gaps, as for some years data has not been collected and provided. There are also undue time lags in publication of results. In addition there also appear some inherent inconsistencies in data. The surveys are carried out on a quarterly basis covering a sub-universe each quarter but data is published on an annual basis. Although sample size of urban areas is understood to have been increased, yet larger coverage of the urban areas is required to provide separate data for different strata of urban areas. The extent of sampling and non-sampling errors also reduce the reliability of Labour Force survey data. The frame of the sample also needs to be updated yearly. The results of the survey are provided in percentages, and unemployment percentage is provided as a percentage of population and not labour force. Occupational and industrial distributions of the Labour Force and employed are provided at the 1 digit (Major group) level. Due to this its use together with the HED Survey is limited. Data on employment and unemployment due to conceptual difficulties is not very meaningful. Data emanating from this source although of great significance is unfortunately of limited utility for the purpose of the Manpower Information Programme.

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trends in these establishments can measure changes in the economic structure of the country and indicate the general direction of industry and regional developments. The main sources of establishment data are the following:-

- i) Annual Establishment Enquiries of the Provincial Manpower Directorates;
- ii) Annual Welfare Enquiry of the Provincial Governments and Statistics Division;
- iii) Annual Census of Manufacturing Industries of the Provincial Governments and Statistics Division;
- iv) Other enquiries including monthly surveys of Industrial Production and Employment by the Bureau of Statistics, Punjab.

9.7 The Annual Establishment Enquiry and the Census of Manufacturing Industries are more relevant for the Manpower Information Programme. The Annual Establishment Enquiries were started in 1954 and have been conducted since, but they have not been conducted regularly for all the years due to which a time series cannot be established. The scope, coverage, reference period concepts used and tabulation plans of the enquiry differ from one province to the other and from year to year. A lot of effort, time and resource is spent on surveying small sized establishments which constitute majority of the total establishments, but a small proportion of total employment. The publication of results are invariably delayed by two to three years by which time the data becomes outdated. The enquiries, therefore, have not been of much use as a source of manpower information.

9.8 The Census of Manufacturing Industries which is conducted by the Statistics Division provides information on size of employment, employment cost, value added by industry group and Provinces. No information is provided by occupational distribution of the employed. The collection of information and publication of results suffer from time lags. Meaningful information on productivity is lacking. Due to these reasons its utility is also limited.

e. EMPLOYMENT SERVICE STATISTICS:

9.9 Statistics on number of job seekers registered, vacancies notified and placements made classified by age, sex, occupations, industries, and wage levels are compiled on the basis of the operational statistics of Employment Exchanges. Also included are statistics on persons registered under essential personnel Registration Ordinance. Since Employment Exchanges are located in urban areas, and are not too many in number they cover only a small proportion of the total labour force. Their use by the high level skilled and qualified categories is also limited. Besides, as registration and notification of vacancies is not obligatory, and due to absence of unemployment insurance employment seekers usually do not register themselves with the Employment Exchanges. Employment service statistics therefore cannot provide an accurate picture of the employment situation in their areas. They can as best serve as indicators.

f. EDUCATION AND TRAINING STATISTICS:

9.10 For assessing the supply of educated and trained manpower as against its demand and to assess the capacity of the education and training system to produce the required manpower it is necessary to have accurate and timely education and training statistics. Data is required on the size and characteristics of school age population, enrolments, admissions, dropouts by age, sex, years, courses, grades/levels, number of teachers by levels and qualifications, teacher student ratio, curricula, capital and recurring cost, No. and type of courses, name of courses, minimum entrance qualifications, annual admission capacity, etc. Data relating to school age population and the labour force by broad details are available from the Population Censuses, the Labour Force Surveys, Annual Surveys of Technical, and Vocational Training Facilities of the Provincial Manpower Directorates, statistics published by the Federal Ministry of Education (Education Division), Provincial Education Departments, Provincial Technical

Boards of Education and the National Training Board.

9.11 The information available from these various sources suffers from duplication gaps and time lags. Besides there are differences in curricula, duration of courses, standards of testing among various provinces. On the other hand statistics on on-the-job training, in-service training and apprenticeship training programmes are either not available or are highly inadequate. This important aspect of manpower as is obvious suffers from deficiencies. However, in the absence of other information it is commonly utilized to the extent possible for Manpower Development Programmes and working out the current and future supply of manpower.

g. ADMINISTRATIVE STATISTICS/EMIGRATION STATISTICS:

9.12 Ever since the acceleration of employment of Pakistanis abroad information on the outflow of Pakistani manpower has assumed considerable importance. Statistics on the recruitment of Pakistani manpower by years, occupations and countries are provided by the Bureau of Emigration and Overseas Employment. These also include statistics of the Overseas Employment Corporation. Some statistics on the total stock of Pakistanis abroad and their countrywise distribution and return migrants are provided by the Overseas Pakistanis Wing. There are also a few research agencies who have published data on the subject. There are wide variations on the estimates of numbers of Pakistani expatriates and workers abroad. Statistics provided by the Bureau cover those officially proceeding abroad since 1971 and those proceeding abroad under direct Visas since 1977. Those who have proceeded abroad illegally and taken up employment there are not included. There is hardly any data available on future requirements of Pakistani manpower abroad. Some projections have been made, but their accuracy needs to be weighed. On the whole data on official emigration is fairly

adequate and provides a good picture on the profile of emigrants, their occupations country of destination, origin etc. The data however, needs further classification in case of the unclassified categories of emigrants, stock of emigrants abroad and foreign demand for Pakistani Manpower. Due to the important role played by our expatriates in the country's economy information on their characteristics and foreign demand is a vital component of the Manpower Information Programme. The Overseas Pakistanis Foundation also provides some data on Pakistani expatriates registered under Overseas Pakistanis Foundation and number of trainees coming out of training programmes sponsored by them. The Women's Division, since the recent past have also been generating data particularly through adhoc surveys and empirical studies on Women in general and Women Workers in Particular.

9.13 In addition to emigration statistics there are other important administrative statistics like Censuses of Government employees, Pakistanization of foreign owned firms in Pakistan, students going abroad for higher education and training, Health Division statistics, National Talent Pool statistics foreign experts working in Pakistan, etc. Which form an important input for the Manpower Information Programme and need to be developed.

9.14 Besides there are statistics which emanate from professional and scientific organizations which can also be a significant component of the Manpower Information Programme.

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Courtesy of Mrs. Zulekha Zar, Deputy Chief Manpower Division, Islamabad.



## 10. MANPOWER PLANNING THROUGH FIVE YEAR PLANS

Eversince independence, Pakistan has been confronted with the problems of the employment and low income levels. A largely rural economy with a small industrial sector, its rapidly growing population has been exerting increasing pressure on limited land resources both in irrigated areas and in the northern Regions where rainfall can support dry cultivation. Traditional methods produced low yields and low income levels.<sup>1</sup> An increase in the number of productive work opportunities has been one of the declared objectives of Pakistani development planning eversince the introduction of the First Five Year Plan (1955-60). To put the things in proper perspective, it would be desirable to briefly discuss the manpower planning aspects of all the Plans so far introduced in the country.

### (a) FIRST FIVE YEAR PLAN (1955-60).

10.2 The First Five year Plan contained estimates of total labour force, unemployment and underemployment as well as the composition of the labour force by economic sectors. These figures are reproduced in Table 22.<sup>2</sup>

TABLE 22.

#### DISTRIBUTION OF THE LABOUR FORCE BY ECONOMIC GROUPS

Economic Group	1951 Census	1955 Survey
Agriculture	66.0	54.5
Mining	0.1	0.2
Manufacturing	9.5	15.1
Construction	0.7	4.3
Public Utilities	0.1	0.2
Trade and Commerce	6.7	8.3
Transport	1.2	2.3
Services	8.4	13.9
Unclassified	7.3	11.2
Total:	100.0	100.0

The Plan recognised the problems emanating from inadequacy of statistical data and the authors of the plan had been cautious in making estimates. For instance it was observed: "It is not possible to estimate precisely how many employment opportunities will be created by the development programme, but it is very roughly estimated that the total number of employment opportunities created during the Plan period will be about as large as the number of extra people seeking work.<sup>3</sup> Obviously this was a guarded statement on the part of the planners. In this context the observations of Mr. Huda seems to be quite valid when he says: "Although one of the fundamental objectives of the Plan was to increase opportunities for useful employment in the country, but there was no comprehensive and coordinated approach to the assessment and analysis of manpower requirements and supply and no cohesive policy was evolved to deal with various aspects of the manpower and employment problems of the country"<sup>4</sup>. This observation, though, seems to be sound, yet one must appreciate the circumstances under which the Plan was formulated especially when manpower Planning did not find any recognition in the academic disciplines at that particular period of time. Moreover, there had been so many other constraints like non-availability of reliable and authentic data as well as the lack of expertise in the Planning Board.

10.3 The planners had been conscious of the fact that majority of the people were living in rural areas who were either unemployed or underemployed. One of the strategies of employment promotion was to create job opportunities for such people under such programmes as building of schools and community building; construction of drains, bunds, wells, and compost pits; planting trees and cleaning fish ponds; development of village roads and streets. This was the period when the Village AID programme had been launched by the Government in collaboration with the U.S. Government. The planners themselves were not quite sure about the magnitude of employment to be generated due to these activities. However, there are strong reasons to believe that

ample employment opportunities were created under this programme. The Basic Democracies programme was created on the edifice of the Village AID programme which was disbanded with the withdrawal of support from the American Government.

(b) SECOND FIVE YEAR PLAN (1960-65)

10.4 According to the Second Five Year Plan the broad objectives of a well conceived programme for manpower and employment should be to produce workers with the needed skills at the right time and place for successive stages of development; to prevent wastage of skill, experience, and education; to develop means of channeling surplus manpower into useful work; to raise the level of employment; to conserve and develop the efficiency of the labour force by vigorous enforcement of standards of safety and working conditions; and to build the foundation for sound and constructive labour relations.<sup>5</sup> Keeping this in view the important goal of the Plan was creating employment opportunities for the new entrants of the labour force and at the same time to reduce the backlog of unemployment.<sup>6</sup> No mechanism whatsoever seems to have been proposed for the accomplishment of the stated objectives. However, there seems to be stress on the creation of necessary infrastructure for coping with the problems of manpower planning. The Plan specifically recommended the creation of a National Manpower Council for defining and coordinating the national manpower policies; reorientation of the employment exchange programme which had been operating within the country during the pre-independence era; nationwide provision for coordination of industrial training; and measures to attain full utilization of scientific and professional manpower.<sup>7</sup> In order to promote employment the guiding principle of the Second Plan was conservation of capital and substitution of labour wherever possible in the execution of development projects.<sup>8</sup> A Rural Works Programme was initiated specifically to meet the employment requirements of the rural people.<sup>9</sup>

(c) THIRD FIVE YEAR PLAN (1965-70)

10.5 In the Third Five Year Plan it was admitted that the increase in employment opportunities did not keep pace with the increase in the labour force. Though the Second Five Year Plan suggested the provision of employment opportunities not only to the fresh entrants of the labour force, but also for the backlog. It was noticed by the planners that during the 1950's, less than 70 percent of the increasing labour force was being absorbed by the pace of development programmes resulting into unemployment which rose from 5.6 million in 1951 to 7.6 million in 1961. In order to overcome such a situation the Third Plan aimed at not only absorbing the additional labour force but also to cut the backlog of unemployment by 17 percent.

10.6 For the realization of the stated objective, the Second Five Year Plan emphasized on labour intensive programmes and building up a competent organization for the use of the abundant manpower resources of the Country. In addition, stress was laid on Technical Training facilities to produce the required number of Skilled Workers needed for the execution of the Development programmes. Rural Works programme also attracted the attention of the Planners and it was recommended that the tempo of this programme be stepped up so that additional job opportunities are created in rural areas where the problem of underemployment was acute.<sup>10</sup>

10.7 The Plan recognized the fact that the previous "plans were not formulated on the basis of specific targets for the use of available manpower". It was stated that the employment effects of the economic growth generated through the successive plans were more a by-product than a target. The planners have admitted that the same applies to a degree to the Third Five Year Plan. In all these cases, they have said, employment effects were assessed after the plan was made. For the first time in the second plan, this estimate was compared



- ii) **Industry:** Employment creation would continue to be an important by-product of industrial expansion. Fuller utilization of the installed capacity and the balancing and modernization would be given preference. Greater efforts would be made to establish and expand agro-based industries and also small scale industries, in order to reduce congestion in agriculture and absorb the surplus or underemployed rural labour force;
- iii) **Rural Development and urban works Programme:** Emphasis would be laid on a rapid increase in the expenditure on the rural development and urban works programmes in view of their contribution to reducing unemployment and underemployment;
- iv) **Education and Training:** It was emphasized that efforts would be made to make the education system more functional by adopting the following:
  - a) By teaching more vocational subjects.
  - b) By shifting emphasis from Arts to Science.
  - c) By developing specialized education in conformity with manpower requirements.

(e) FIFTH FIVE YEAR PLAN (1978-83)

10.10 The Fifth Five Year Plan has reviewed the achievements of the past and provided perspective for overcoming the problem of unemployment. According to the Plan, "the unemployment problem will be tackled with the following objectives in view during the Plan period:<sup>14</sup>

- i) Creation of jobs to cater for additional entrants to the labour force;
- ii) Reduction in Seasonal unemployment;
- iii) Relief from low productivity employment;
- iv) Removal of shortages of Skilled and Semi-Skilled workers; and
- v) Programmes for specific target groups such as educated unemployed and women.

Like the Fourth Five Year Plan, the Fifth Five Year Plan has dealt with sectoral development which will consequently improve the conditions for employment. The emphasis on the removal of poverty, the development of rural areas, the expansion in social sectors and especially providing basic amenities to rural population, and increase in agricultural income and their impact on the overall economic conditions were aimed at promoting employment in the country. The Plan incorporated a number of programmes and policies aimed at reducing the unemployment problem in the country. According to the Plan "These specific programmes will be conducted alongwith the general increase in investment and economic activity which will provide jobs to the additional labour force. The Fifth Plan provides for a GDP growth of 7 percent (factor cost) per annum and 7.5 percent (market prices) per annum with a faster pace of investment growth. The achievement of these targets will allow for absorption of new entrants to the labour force which are increasing at a rate of 3.2 percent per annum and leave a substantial margin for improvement in income and productivity of the existing Labour Force.<sup>15</sup>

F. Sixth Five Year Plan

10.11 The Sixth Plan will provide new employment opportunities for nearly four million additional labour force through the following steps:<sup>16</sup>

- Greater stress on small farm production through much larger provision of agricultural credit raising it to 50 per cent of the total through the introduction of small tractors and small farm technology, and through the rapid spread of economic infrastructure in the rural areas.
- Incentives for rapid expansion of small scale units, particularly in agro and engineering industries, through liberalization of economic controls, larger availability of steel at reasonable prices, spread of rural electrification, and a favourable fiscal system.

- Proposals for undertaking rural works programmes based on Pakistan's own emerging agricultural surpluses.
- Accelerated vocational training for Pakistan's labour force, both to cater to domestic needs and for net migration abroad.
- Development of appropriate technology, using Pakistan's own raw materials and labour, through a four-fold increase in expenditure on science and technology and through the decentralized establishment of technological institutes near industrial sites.
- An income policy aimed at increased wages in line with increases in real productivity and partial indexation of the salaries of the fixed income groups.

10.12 The Sixth Five Year Plan has estimated domestic labour force on the basis of 2.64 per cent projected growth rate of population and 4.3 per cent growth rate of urban population. The estimates of labour force on the basis of sex and geographic area are reproduced in the following Table.

TABLE- 23

ESTIMATES OF LABOUR FORCE FOR THE YEARS 1983 & 1988

	July 1983			July 1988		
	Total	Rural	Urban	Total	Rural	Urban
Total	27.64	20.56	7.08	31.35	22.60	8.75
Male	24.30	17.67	6.63	27.61	19.42	8.19
Female	3.34	2.89	0.45	3.74	3.18	0.56

Source: Sixth Five Year Plan, p.500.



10.13 According to the Sixth Five Year Plan "The expected increase in domestic labour force during the Sixth Plan will also critically depend on the expected net migration. Given the generally uncertain economic conditions in the Middle East and lack of data on returnees, it is exceedingly difficult to come up with any precise estimates. A net migration of 550,000 has been projected during the Plan period, but to the extent that this target is not met, it will further increase pressure on the domestic employment situation." Estimates of the domestic employed labour force for the years 1983-88 is reproduced below:

TABLE- 24

ESTIMATES OF DOMESTIC EMPLOYED LABOUR FORCE 1983 & 1988		
	July 1983	July 1988
Total Labour Force	27.64	31.35
Less: Net Migration	0.18	0.55
Unemployed	0.98	1.00
Net Domestic Employed	26.48	29.80

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15. \_\_\_\_\_, op.cit, pp.21-23.
16. \_\_\_\_\_, Sixth Five Year Plan 1983-88, p.17.

11. SPECIAL ISSUES OF SCIENCE EDUCATION AND  
SCIENTIFIC MANPOWER FOR ECONOMIC DEVELOPMENT

11.1 At independence, Pakistan received a very meagre inheritance in terms of scientific and technological institution and manpower. However, the problems and issues connected with the development of science and technology have been considered and deliberated upon from time to time. The Quaid-i-Azam himself inaugurated a meeting at the end of 1947 for developing an educational policy which included scientific research as well. This was followed by the setting up of a number of important scientific organizations viz. the Food and Agriculture Council re-named later as the Pakistan Agricultural Research Council (PARC), the Pakistan Scientific and Industrial Research Council (PSIR), the Pakistan Atomic Energy Commission (PAEC) and the Pakistan Medical Research Council (PMRC) in the fifties. Later, as a consequence of the recommendations of the Scientific organizations were established e.g. the National Science Council of Pakistan (1962), the Defence Science Organization (1963), the Irrigation Research Council (1964), re-named later as the Irrigation, Drainage and Flood Control Research Council, and the Council for Works and Housing Research (1964). A separate Division, the Scientific and Technological Research Division, was created in the Federal Government in 1964 to promote and co-ordinate scientific research activity in the country, and the Pakistan Science Foundation was established in 1973 as a source of alternate funding for the support of basic and fundamental research applied to the socio-economic needs of the country. It will thus be seen that there has been a gradual build-up of S & T infrastructure in the country during the last 34 years.

11.2 In spite of the progress made so far, the national S & T System has continued to face numerous problems, such as: (i) paucity of resources in terms of scientific manpower, funds and facilities for research and

development; (ii) lack of well-defined priorities for scientific research and imbalances in the S & T effort; (iii) isolation of the S & T system from the national economic planning process as well as from the users of technology i.e. the productive sectors (industries, agriculture etc.); (iv) inadequacy of university programmes and facilities for post-graduate research degree work; (v) lack of effective S & T institutions at the grass-roots level (e.g. field experiment stations) for creating site specific technologies; (vi) undue reliance on foreign sources of technology instead of conscious utilization and promotion of indigenous technology; (vii) lack of effective co-ordination between scientific establishments leading to fragmentation of national research effort; (viii) isolation of Pakistani scientists from active centres of learning in the world; (ix) poor financial resources of non-governmental scientific societies/learned bodies and their consequent ineffectiveness in creating science awareness in the nation and involving the people at large in the process of technology development; (x) system of education which prepares persons for special jobs but does not inculcate curiosity for research and spirit of enquiry.

a. INSTITUTIONAL ARRANGEMENT

11.3. The principal body concerned with the formulation of national policies in the S&T sector as well as the overall promotion and coordination of scientific research and development activities in the country is the Ministry of Science and Technology. Linked to this Ministry are two important autonomous organizations viz the National Science Council and the Pakistan Science Foundation. The major functions of the National Science Council are to advise the Government on Science Policy and matters relating to the promotion of national scientific effort, to review the work of Research Councils, and to ensure linkage of science with national development plans. The Pakistan Science Foundation is primarily a financing

agency whose main function is to promote basic and fundamental research having a bearing on the socio-economic needs of the country.

11.4. S&T research work is largely carried out in autonomous or semi-autonomous organizations administratively linked with the Federal Ministries or the President's Secretariat. These include universities which fall under the Ministry of Education; Pakistan Council of Scientific and Industrial Research, Pakistan Medical Research Council, Irrigation, Drainage and Flood Control Research Council, Council for Works and Housing Research, Appropriate Technology Development Organization, and National Institute of Electronics which fall under the administrative control of the Ministry of Science and Technology; Pakistan Agricultural Research Council under the Ministry of Food and Agriculture; Defence Science and Technology Organization under the Ministry of Defence; Pakistan Atomic Energy Commission under the President's Secretariat; and SUPARCO under the Cabinet Division.

#### b. INFRASTRUCTURAL AND RESEARCH DEFICIENCIES

11.5. The number of councils, institutes and laboratories that are in existence may give an impression that there is a well developed S&T infrastructure and considerable research activity in the country. This appearance is rather misleading because the effectiveness of the entire S&T sector is greatly impaired due to many serious weaknesses some of which are listed below:

- i. Sub-critical level and excessive fragmentation of the scientific R&D effort measured in terms of personnel, equipment, funding etc.
- ii. Want of conducive environment for creative research work resulting from factors such as inappropriate organizational structure, cumbersome financial and administrative procedures, lack of professional freedom etc.
- iii. Absence of effective mechanism for linkage of science and technology effort with the country's economic planning process.
- iv. Isolation of the scientific research community from the production sector of the economy: their research effort thus lacks the sustained momentum that can come only from

basic sciences. More lucrative careers, such as medical and engineering, are attracting the brighter students. Generally it is only the ones who are left out that turn to post-graduate studies in the basic sciences. This trend of moving away from the study of basic sciences can be checked only by making careers in research as attractive as in any other professional field. It must be realized that research is a function of superior intellect and that filling up research positions by second rate persons is counter-productive. Urgent steps are needed to make careers in scientific research as attractive as in other professional fields.

11.7. The nation has over sixty research institutions and nearly 200 experiment stations. Their research is mainly in the hands of persons without research degrees; for example, in the 34 provincial government research institutions, the percentage of Ph.D's amongst their researchers is only 2.5%. The total number of Ph.D's in all the governmental research institutions in the nation is less than 400. One well staffed research institute in a major field should have this number of Ph.D's. Research, it must be recognized, is a function of trained minds and it is unproductive to maintain at heavy cost research establishments without adequately qualified researchers. There are two major weaknesses in the education and training of R&D scientists and technologists: (i) poor foundations in the subject of science and mathematics at the school level, and (ii) lack of significant research degree programmes at the university level. We have referred to both these aspects earlier by emphasizing science education at the secondary level; and consolidation of higher education by way of qualitative improvement.

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Paras 11.1 to 11.7 have been extracted from "Proposals for National Science and Technology Policy" prepared by the Ministry of Science and Technology, Government of Pakistan, Islamabad, July 1983.

d) DEVELOPMENT OF SCIENCE & TECHNOLOGY UNDER THE SIXTH PLAN

11.8. The Science and Technology system of a country comprises, broadly speaking, the following key elements which share a complex interdependence:

- a. Quality Manpower
- b. Conducive Environment for Creative Work
- c. Institutional Infrastructure
- d. Adequate Financing

The measures proposed under each of the above mentioned components are listed in the Sixth Five Year Plan (1983-86) which are reproduced below:

a. QUALITY MANPOWER

- i. providing necessary assistance to the universities to help them fulfill their traditional role as centres of higher learning and research at doctoral/post-doctoral level;
- ii. creation of a Scholarship Foundation to generate substantial funds to supplement and vastly enhance programme of scholarship/fellowships for advanced training of scientific personnel;
- iii. utilization of services of senior scientists of outstanding merit who are still physically and intellectually active but have had to retire at a relatively early age due to normal civil service regulations;
- iv. attracting back eminent Pakistani scientists working abroad by providing them necessary facilities for easy relocation and making available to them appropriate professional openings with realistic emoluments and good working conditions.

b. CONDUCTIVE ENVIRONMENT FOR CREATIVE WORK

- i. Career structure, basic pay scales and fringe benefits etc for professionals in science and technology will be considerably improved and made commensurate with the high level of qualifications and ability required.
- ii. A separate service cadre for scientists will be created to substantially enlarge their career advancement opportunities through horizontal as well as vertical mobility.

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Para 11.8 onward is extracted from the Sixth Five Year Plan document.

- iii. Promotion to higher basic pay scale will be delinked from availability of posts and linked instead with research merit and achievement. In the case of highly competent research scientists it would be possible to allow promotion right upto without shifting them from their research positions to higher administrative posts.
- iv. Research Councils and institutes will be allowed considerable administrative flexibility in order to enable them to make adhoc appointments whenever a needed highly qualified research worker becomes available.
- v. Scientific professionals will be given ample opportunities to participate in important seminars and conferences held within the country and abroad without having to go through the trying procedure of obtaining No Objection Certificate from various Government agencies.
- vi. Exchange of scientists/technologists between research institutions, universities and industry will be encouraged. They will help in the development of strong organizational linkages and professional interaction which are absolutely vital for improving the effectiveness of the system and upgrading the quality of research and teaching in the nation.
- vii. Para-scientific facilities such as libraries, instrument repair workshops etc will be greatly improved.
- viii. Research scientists/technologists will be allowed relatively free movement from one organization to another so that persons with similar training but working in different organizations can join hands to form active research groups for collaboration on important projects.
- ix. A system of well paid contract appointments will be introduced in research institutions for carrying out specific research tasks for which requisite highly qualified manpower is not available within the institution.
- x. Opportunities for pre-service and in-service training in subjects like Research Policy Planning, Programming and Administration of Scientific Institutions etc will be made available for scientific personnel by arranging such courses at national training establishments (e.g. Administrative Staff College, NIPA etc) and the universities. This would help equip scientific personnel for leadership and managerial roles for which they would be called upon in future.
- xi. Study leave for improving qualifications would be allowed liberally to scientific personnel who have put in a specified minimum length of service and have been able to produce good work.
- xii. Well defined accountability procedures which would permit evaluation, on a continuing basis, of the performance of individual scientists, research groups as well as institutions, would be introduced to ensure that merit is adequately rewarded and inefficient research managers and unproductive workers are weeded out without undue delay.

c. INSTITUTIONAL INFRASTRUCTURE

- i. A high powered National Commission for Science and Technology (NCST) headed by the Chief Executive of the country will be set up as the apex decision making and coordinating agency so that the overall effort for promotion of Science and Technology in the nation and its application to the development is linked with the requisite political will and authority.
- ii. A Committee comprising representatives of Planning Commission, Ministries of Science and Technology, Commerce, Industry and Production will be created on permanent basis for identifying the growth points of applied sciences and bringing together investors, industrialists, scientists and technologists for planning future technological developments in the country.
- iii. Strengthening of the existing research institutions would be given the highest priority so as to ensure the desired high level of their performance.
- iv. New institutions will be created to fill critical gaps in the existing system i.e. where no such institutions already exist in subject areas of crucial importance to the nation.
- v. Research potential of the universities will be greatly improved by upgrading existing laboratory facilities, enhancing allocations for operational research, providing advanced training facilities to existing research staff and inducting high calibre research personnel, if necessary on contract basis, as well as establishment of close linkages with universities/research institutes of repute in advanced countries.
- vi. All federal/provincial research institutes shall be linked with one or more universities in the country. Research work done at these institutes would be recognized for award of degrees by the universities.
- vii. Strong circular linkages will be established among research institutes, universities, industry and other user agencies.
- viii. All research institutes shall enjoy complete administrative and professional autonomy.
- ix. In order that benefit of scientific progress may reach the common man, suitable institutional arrangements will be made at grass-roots level to provide ample opportunities for direct participation by people at large in the application of Science and Technology to fields which have a direct impact on their socio economic uplift and quality of life. To achieve the objective, research institutions, as far as possible, will be decentralized to provide adequate geographical coverage and bring them in close proximity to the intended beneficiaries of their research.



- x. The highest priority, in order to avoid obsolescence and maintain competitiveness of our industry, will be given to establishment of effective Research and Development Units in all nationalized industries and large private industrial organizations. Small sized enterprises, which cannot afford to set up individual Research and Development Units of their own, will be encouraged to organize Research and Development associations for mutual benefit.
- xi. Highly qualified and experienced professionals in the private sector will be encouraged to set up consultancy services in engineering and other technical fields including standardization and quality control of manufactured goods, maintenance and calibration of physical standards and general Research and Development work, etc. Necessary fiscal incentives will be provided to assist such professionals in setting up whatever laboratory facilities are needed for the purpose.
- xii. In order to minimize waste of scarce foreign exchange expended in importing relatively unsophisticated scientific equipment, special attention will be paid to the creation of a strong indigenous base for design, manufacture and maintenance of scientific equipment in the country. Some rudimentary facilities for equipment manufacture and maintenance do exist within the country both in the public and private sectors. These are far from adequate and require to be greatly strengthened. Necessary incentives will be provided to the private sector to upgrade their capabilities to international standards and expand these facilities so as to meet a major portion of the country's requirements.
- xiii. A modern Science and Technology information network with requisite computer facilities and teleprinter linkages with major international scientific data bases will be set up to provide latest information in respect of Science and Technology not only to the scientists but also to planners and decision makers.

d. ADEQUATE FINANCING

Our national investment in science and technology has, unlike that of some progressive developing countries, remained static for many years at well below 0.2 per cent of GNP, which is less than one-fifth of the minimum recommended (viz 1 per cent of GNP) for poor developing countries under the UN World Plan of Action (1971) for the Application of Science and Technology to Development. On the other hand, the corresponding figure for developed countries is as high as 3 to 5 per cent of their incomparably larger GNP. Apart from the gross inadequacy of our overall Research and Development investment, the sectoral distribution of research funds is badly skewed and, as a consequence, some vital development sectors have remained deprived of the much needed research support. To rectify this situation, it is proposed to effect a quantum jump in Science and Technology allocation during the Sixth Plan and ensure a proper sectoral balance in the distribution of available resources.

The allocation earmarked for Science and Technology activities in the Sixth Plan is Rs.5,809 million (Rs.4,809 million under various sectors and Rs.1,000 million block allocation for new programmes and projects not covered under sectoral allocations) which is about four times the outlays during the Fifth Plan period; furthermore, unlike in the past, the development effort in each sector will provide for a matching input of Research and Development. Even with this steep rise in allocations, the level of Science and Technology investment by the end of the Sixth Plan will be less than 0.5 per cent of GNP.

11.9. As far as science education at the secondary and higher secondary level is concerned, the Action Plan (Action Plan is a document prepared by the Ministry of Education to facilitate the implementation of the Sixth Five Year Plan of the Education and Training Sector) has made following observations:

Our analysis of the present situation indicates that inspite of some progress made in the preceding decades, major deficiencies in the areas of science curricula, science textbooks, including supplementary reading materials, teacher training, laboratory space, laboratory equipment, and programmes for popularization of science, continue to weaken the fabric of our science education at the secondary and higher secondary levels.

The Action Plan has come up with a modified programme for the development of science education and the following strategy has been proposed for improving the quality of science education.

- a. initiating a second cycle of science curriculum development;
- b. preparation of new science textbooks in accordance with the curricula proposed;
- c. undertake rapid inservice training programmes for 100% science teachers over a five year period;
- d. provide one laboratory room to at least 3000 middle schools in the first phase (plan period) and if possible to all the middle schools;

- e. supply curriculum related equipment to all middle schools;
- f. supply better laboratory equipment for teaching science subjects in classes ix-xii, and to meet the needs for newer developments in sciences, including awareness of the computer technology;
- g. strengthen the capability of the National Education Equipment Centre, Lahore, to develop and mass produce curriculum related laboratory apparatus, for classes vi-viii, and to develop the prototypes of core equipment for classes ix-xii, for mass production in the private sector;
- h. improve the existing Museum of Science and Technology, and set up a net work of such museums, one each in the provincial capital, and the State of A.P.K;
- i. introduce President's Talent Farming Scheme, for attracting highly talented students towards the study of basic sciences;
- j. opening of science clubs in all the high schools of the country, and dissemination of useful information on science subjects to teachers and students;
- k. setting up an institute for the promotion of science education which will be linked up with a net work of science centre, one each in the institute of education and research in each province, and which will undertake research in science education, among other functions;
- l. improve or develop afresh the laboratory facilities in all teacher training institutions, for the training of science education;
- m. consider the whole process of science education development from classes vi-xvi as a single organic continuum (curriculum development, textbook development, teacher training programmes, and programmes for popularization of science therefore will find linkages through the whole range of various educational levels).

11.10. The proposals for the National Science and Technology Policy were initiated in July, 1983 by the Ministry of Science and Technology. These proposals were submitted for consideration of the Cabinet and as such a National Science and Technology Policy was approved and promulgated in March 1984. It is quite a comprehensive document which has analysed various problems and suggested alternative strategies. Some of the salient features of the National Science and Technology Policy are reproduced here.

- i. the S&T System will be so restructured as to fill in the existing gaps to facilitate the formulation, implementation and evaluation of co-ordinated action plans based on S&T policy;
- ii. greater autonomy and intellectual freedom will be allowed to S&T organizations and workers to provide full scope for the creative faculties of the best minds in science;
- iii. R&D centres will be created in industry for achieving increased productivity and improved quality of products;
- iv. requisite S&T structures will be set up at the provincial and local government levels in order to ensure maximum participation and direct involvement of the people at large in the evolution and application of site-specific technologies;
- v. working conditions of scientists will be improved and they will be provided a career structure commensurate with their intellectual attainments;
- vi. international cooperation in S&T fields will be promoted in order to break the isolation of Pakistani scientists for acquisition of technology from active centres of research in the world ;
- vii. steps will be taken to achieve greater self-reliance in development of technological capability as an integral part of the national strategy for self-reliant growth;
- viii. an effective process of accountability at all levels will be evolved in order to ensure that the nation gets a satisfactory return on its S & T investment in terms of greater insight into national problems and improved technologies for their solution.

## 12. PROBLEMS AND ISSUES

### a. POPULATION EXPLOSION

From the preceding discussion it will be observed that population of the country has been increasing and its growth rate has been high as compared to other countries of the Region. The high growth rate of population has given birth to numerous socio-economic problems. Whatever gains are achieved in the field of socio-economic development are diluted by unproportionate growth of population. Though the population planning programmes have been launched in the country, they seem to have insignificant impact on the growth rate of population. There are numerous factors for the failure of the population planning programmes, but the most outstanding seems to be the low level of literacy, especially among the females; and the socio-cultural setting of the target population.

### b. HEALTH COVERAGE

12.2. In order to safeguard and protect the population of what is called human resource from various diseases, the country has developed network of hospitals and dispensaries/rural health centres. The existence of such facilities has definitely made a positive contribution to prolong the life span of the people. With increased curative and preventive steps, it has been possible to overcome the problem of epidemics like small pox. As a consequence of such steps, the aged population has been increasing. On the other hand, with all the curative and preventive facilities, we have not been in a position to control the birth rates. Various strategies and innovative techniques could not come to our rescue to resolve this problem. With increase in the stock of aged and infant population, the dependency ratio has been increasing.

12.3. For providing proper health coverage to the population, trained manpower was needed like doctors and para medical staff. For the production of such trained manpower, a number of professional colleges/institutes

have been established in the country. The setting up of medical colleges seems to have been based on the expected outmigration of doctors to the Middle East or providing training facilities to the nationals of various countries of the Middle East. There had been some outmigration, but not to the extent as it was expected. The yearly output of the medical colleges has reached the optimum level, i.e. 4,000. It has now become difficult to provide them gainful employment in the public sector. The private sector has not developed to that extent to offer employment opportunities. Consequently, the Government has decided to restrict admissions into the medical colleges. If the health coverage is extended to the total population of the country including those living in rural areas, then perhaps these imbalances may be overcome. But it entirely depends on the resource capability of the national government as to how far it can go towards making health facilities available to the rest of the population both in rural as well as in urban areas.

c. UNIVERSALIZATION OF PRIMARY EDUCATION

12.4. With increased birth rates, there is increase in the number of school age children. Despite continued and persistent efforts to universalize primary education and promote literacy in the country, by successive governments, there seems to be no significant improvement. So far less than 50% of the primary age children are enrolled in the primary schools. This is the overall national percentage. The participation rate in rural areas seems to be extremely low and that of females even worst. This low level of participation, among other factors, could be attributed to lack of physical facilities. The resource constraints do not permit the construction of a network of schools throughout the country for realizing the objectives to universalize primary education. In order to overcome this problem, the Government has decided to establish mosque schools so as to enroll maximum number of school age children. Resorting to the traditional mosque school seems to be a welcome step, but it entirely depends on the communities as to how far they can lend their support to such strategies and make them workable and successful.

d. RELEVANCE OF SECONDARY EDUCATION

12.5. Side by side with the expansion of primary education, there has been stress on the expansion of secondary education. This stage is of crucial importance as it is the terminal stage for those who cannot go for college education and enter into the labour market for seeking gainful employment. The quality of education and its relevance to the job market has been under severe criticism from various sources. It could not provide a sound base for scientific and technological developments. Whatever attempts have been made in the past, have been rendered ineffective. For instance, attempts were made to introduce agro-technical education at the secondary level. But this experiment was rendered ineffective due to inadequate logistic support, lack of integration in the curriculum and performance evaluation, as well as non-availability of trained teachers. Prior to the introduction of agro-technical stream, comprehensive schools were set up and they also could not come up to the expectations. Their product was no better than other secondary schools. What is essentially required is the vocationalization of secondary education so that its product may enter into the labour market with the needed skill for gainful employment. At the same time, there is need for more emphasis on science and technology education.

e. INADQUACIES OF TECHNICAL/VOCATIONAL TRAINING

12.6. Technical and vocational education through which the drop-outs from the school system have to be re-channelized for productive purposes has remained quite unattractive. With the exodus of skilled and semi-skilled manpower to the OPEC countries of the Middle East, critical shortages have been noticed within the domestic labour market. The consequent wage differential has made it attractive and as such efforts are being made to expand the vocational training system. The existing Vocational Training Project launched in collaboration with the World Bank/ILO/UNDP is expected to increase the output from the existing level of 10,000 to 20,000 per annum. In addition, the Government is contemplating to expand the vocational training system by setting up 200 trade schools and 15 montechinics. Again it depends on the resource capacity of the

Government as to how much money will be made available for such programmes. In addition to the financial aspect, the problem of trained manpower especially the instructional staff is likely to create problems in the realization of this objective..

f. CONSOLIDATION OF HIGHER EDUCATION

12.7. In the field of higher education considerable expansion has taken place. The number of colleges and universities has substantially increased so much so that the Working Group on Higher Education for the Sixth Plan recommended complete ban on quantitative expansion of higher education. The Group recommended consolidation of higher education by way of enhanced allocations for the improvement of libraries, laboratories, and other physical facilities. The Group did not recommend restricted admissions due to the reasons already given in the section of education and training. It has been a general feeling to strike a balance between the arts and science graduates.

g. UNEMPLOYMENT OF GRADUATES

12.8. The problem of unemployment of the educated youth has been discussed in the context of the overall employment strategy. According to the Labour Force Survey 1978-79, there is an open unemployment of 3.55%. If the graduates and post-graduates are treated separately, then their unemployment percentage may be much higher. It has been observed that from among 15,023 graduates registered with the employment exchanges in the country during 1981-82, only 1,820 graduates could seek employment through the employment exchanges. The cumulative percentage of those having secured employment through the employment exchange was 12.1 per cent. Similarly, 1,595 post-graduates registered for employment with the employment exchanges out of whom 123 could secure employment and as such the percentage of employment was 7.7 per cent. On the basis of census stock data and employment estimates for the year 1980-81, the unemployment percentage of both male and female graduates has been worked out as 50% which falls down to 40% for the male graduates. This type of situation warrants in-depth analysis of the problem which may provide new perspective to economists and manpower planners. Such an analysis may falsify the established rate of return theories relating to education; and that of human capital especially in the context of labour surplus countries.



h) INADEQUATE INFORMATION SYSTEM

12.9. Inadequate information system also renders manpower planning ineffective. Although there are a number of documents but one way or another they are deficient in one respect or another. In order to formulate comprehensive manpower plans, it is necessary that the required information about the present situation should be available for making projections for the future. Another issue which comes to our mind is the pace of development in the country which may clearly indicate the level of employment and unemployment. As long as manpower planning is not fully integrated with the economic planning of the country, the situation is not likely to improve.

i) IN-SERVICE TRAINING

12.10. Training is one of the essential elements of human resource development. It is through this process that the productive capacities of the individuals are enhanced. We have noticed that Pakistan has established fairly an elaborate network of pre-service and in-service training institutions. The pre-service training provide the basic skills to accept future responsibilities. Since the trainees have to undergo an evaluation process, the training comparatively is effective. On the other hand, there are in-service training institutions intended to impart training not only for enhancing the productive capacities and skills, but also for transformation of their attitudes. Despite of elaborate training programmes of the in-service training institutions, like Administrative Staff College, NIPAS, Academy of Educational Planning and Management, and host of other institutes, it is still doubtful whether any change can be brought about in the attitude of the trainees. This particular aspect needs to be carefully examined and alternative suggested for bringing about the desired changes in the individuals to be trained.

### 13. AREAS OF COLLABORATION

The countries of the Region can benefit from each other's experiences by way of developing necessary infrastructure for the exchange of information on vital areas of human resource development. Some of the vital areas for instance are: population planning, planning for health and nutrition, quantitative expansion and qualitative improvement of the education system, relevance of education to the job market, employment of the educated youth, strategies for employment promotion, etc. These are some of the areas and some more could be included. The flow of information can take place in an organized fashion when there is institutional arrangement. Institutional arrangement will require the setting up of a central institute to be located in one of the countries of the Region. Such an institute should have a representative character like that of Colombo Plan Staff College for Technician Education Singapore. Side by side with the setting up of a Central Institute, there will be need for the counterpart national institutes. The national institutes could be selected from among those already available and are enjoying good reputation in the professional field. The fundamental requirement for pooling and sharing of information is the development of such infrastructure in collaboration with ILO or any other agency agreed upon by the delegates to the Conference.

13.2. We have proposed some mechanism for the flow of information on human resource development. With the development of infrastructure for the collection, storage, and retrieval of data, there has to be some arrangement for the analysis of data and the issuing of analytical reports which may help the policy decision makers in manpower planning of the respective countries. In fact manpower planning itself is the weakest aspect which needs to be further developed and the countries of the region can help, assist each other in the formulation of manpower plans.

We have mentioned the deficiencies both in terms of institutional arrangements as well as data requirements. Perhaps, there may be such countries in the Region who may have already resolved such problems. Pakistan can learn from the experiences of such countries who have been able to overcome some of the manpower planning problems.

13.3. Earlier we have proposed an information system and a system by which the information is carefully studied and analysed for the purposes of decision making and planning. Obviously, such a mechanism could be in the form of a Central INSTITUTE. Definitely such an infrastructure will require funding support by the countries of the region. Most of the countries are reluctant to enter into such kind of arrangement which may have financial implications abroad. Even if such institutes are established with the concurrence of a few countries, then such institute may have to face problems in the future because with the change of government there is change in the policies and international commitments.

13.4. Another possibility could be that the institutes already in operation in various countries of the Region should establish voluntary links for exchange of information and collaboration in undertaking research studies. Such association of institutes may convene seminars, conferences, workshops, etc by rotation in all the countries of the Region. Key policy decision makers have to be invited to such forums so that the deliberations of such conferences/seminars/workshops do not go waste and find practical manifestation in resolving the problems of human resource development.

13.5. It is extremely difficult to devise any institutional mechanism for future collaboration among the countries of the Region. Perhaps, this particular issue may require sufficient time of the conference to resolve this knotty problem. Now we come to the specific areas of collaboration and those are:

- i. Exchange of information on various strategies evolved by countries of the Region in resolving the problem of population planning;
- ii. Strategies for the promotion of literacy and enhancing the participation rate at the primary school level;
- iii. Mechanism for purposeful and meaningful secondary school education related to the world of work;
- iv. Mechanism for the development of linkages between the vocational technical institutions and the industry;
- v. Exchange of students among the countries of the Region for receiving training in those institutes which are professionally and technically developed;
- vi. Exchange of teachers/researchers/scientists interested in pursuit of certain specific academic problem requiring investigation/research in some recognized institute in other country of the Region.
- vii. Arresting the problem of unemployment, especially among the educated youth;
- iii. Exchange visits of in-service training personnel.

ANNEX - I

POPULATION BY 5 YEARS AGE GROUPS, SEX AND URBAN/RURAL DISTRIBUTION - PAKISTAN

AGE	Males			Females			Total	Total	
	1978	1981	1984	1978	1981	1984		Urban	Rural
1	2	3	4	5	6	7	8	9	10
ALL AGES	81,697,075	82,823,598	84,703,479	73,841,532	82,401,287	87,029,783	57,805,543	48,361,879	27,383,646
0-4 YEARS	13,097,470	6,488,487	6,624,403	3,035,419	1,434,223	1,801,386	9,544,250	4,493,250	3,722,899
5-9 YEARS	13,177,964	6,863,198	6,873,858	3,572,492	1,811,053	1,760,937	9,281,272	5,044,243	4,526,729
10-14 YEARS	10,575,826	5,747,527	5,853,362	3,224,344	1,666,018	1,458,526	7,471,274	4,028,584	3,554,890
15-19 YEARS	7,721,126	4,178,079	3,572,027	2,529,232	1,261,504	1,125,459	5,371,994	2,755,296	2,346,558
20-24 YEARS	6,339,542	3,300,071	3,035,011	2,158,855	1,175,535	871,041	4,176,183	2,127,534	2,194,237
25-29 YEARS	5,531,523	2,854,401	2,672,432	1,822,407	933,882	793,529	3,789,244	1,939,549	1,822,412
30-34 YEARS	4,577,264	2,331,413	2,137,351	1,378,391	718,553	611,444	3,156,543	1,576,545	1,579,542
35-39 YEARS	4,042,555	2,060,335	1,967,150	1,273,206	651,305	542,514	2,771,786	1,377,548	1,399,406
40-44 YEARS	3,623,117	1,891,360	1,771,557	1,062,823	546,151	454,259	2,500,424	1,201,537	1,292,257
45-49 YEARS	3,015,991	1,507,531	1,422,452	863,331	442,412	371,874	2,155,648	1,113,127	1,115,839
50-54 YEARS	2,843,426	1,215,210	1,170,196	768,826	400,181	325,491	1,871,187	1,175,748	563,721
55-59 YEARS	2,591,957	846,447	747,115	517,980	237,379	181,527	1,771,212	105,863	363,304
60-64 YEARS	2,091,312	1,214,261	877,654	510,812	297,404	215,026	1,234,570	501,373	463,451
65-69 YEARS	967,790	536,970	428,526	216,442	131,565	84,277	741,150	400,405	311,743
70-74 YEARS	1,106,214	631,557	469,622	213,024	111,424	73,506	851,490	416,163	361,782
75 YEARS AND ABOVE	1,305,741	712,247	532,015	249,145	115,311	68,714	1,040,519	521,536	437,071

ANNEX II

CUMULATIVE PER PUPIL COST FOR EACH LEVEL OF EDUCATION  
AT THE PRICE LEVEL OF 1984 (Rupees)

Education Level	Recurring Social Costs	Capital Costs	Total Social Costs
Primary (1-5)	5,916	2,091	8,007
Middle (6-8)	7,237	2,924	10,116
High (9-10)	7,735	6,290	14,025
Lower College (11-12)	13,896	14,484	28,380
Upper College (13-14)	18,361	18,241	36,602
University(15-16)	38,899	59,500	98,399
Engineering (13-16)	77,799	59,500	137,299
Medical (13-17)	97,248	59,500	156,748

Source: Abdul Ghafoor, "Unit Cost of Higher Education",  
January, 1984 (Mimeo). Paper prepared for the  
IIEP sponsored study on Higher Education and  
Employment Opportunities undertaken by the  
Ministry of Education, Islamabad.

## ANNEX III

## PERCENTAGE OF EMPLOYED PERSONS BY SECTORS OF THE ECONOMY DURING THE PERIOD FROM 1951 TO 1978

Sectors of Economy	1951	1961	1965	1967	1968	1969	1970	1971	1974	1978
Retail employed	100	100	100	100	100	100	100	100	100	100
Agriculture	66.4	60.8	53.37	54.88	55.79	57.03	57.58	57.32	54.80	52.65
Mining & quarrying	0.1	0.2	0.15	0.11	0.03	0.12	0.26	0.45	0.15	0.14
Manufacturing	9.9	13.6	16.27	15.69	15.63	15.45	14.99	12.47	13.63	14.52
Construction	-	2.1	3.84	3.51	3.70	3.93	3.60	3.61	4.20	4.92
Electricity, Gas, water and sanitary services.	1.8	0.2	0.40	0.31	0.36	0.41	0.25	0.37	0.49	0.74
Commerce	7.0	7.1	11.28	11.00	10.33	9.89	10.88	9.89	11.09	11.00
Transport, storage and Communication.	1.7	2.9	5.10	5.28	4.84	4.73	4.86	4.84	4.87	4.73
Services	11.3	12.4	9.39	8.95	9.13	8.20	7.38	8.13	10.45	10.96
Activities not adequately defined.	1.8	0.7	0.20	0.20	0.19	0.24	0.18	3.12	0.33	0.27

Source: Pakistan Statistical Yearbook 1979, pf. 16-17 & IFS 1978-79, p. 82.

N.B. X Wholesale and Retail Trade, Restaurants and Hotels.

# Financing, Insurance, Real Estate Business, Community and Personal Services have been merged.





## ANNEX - V

## PROJECTED DEMAND FOR PAKISTAN'S MIGRANTS IN THE MIDDLE EAST 1980-81

Year	Gross demand for Expatriate Labour in M.E. Countries (Stock)	Total number of Pakistani migrants in M.E. Countries (Stock)	Alternative I		Alternative II	
			Total demand (i.e. excluding returns)	Net demand (i.e. excluding returns)	Total demand (i.e. excluding returns)	Total demand from Pakistan
1980	4,598	1,379	171	102	612	153
1981	4,938	1,481	171	96	578	144
1982	5,259	1,578	129	50	634	127
1983	5,612	1,627	154	73	828	166
1984	6,071	1,700	169	84	962	144
1985	6,606	1,784	161	71	951	143
1986	7,135	1,855	155	62	963	144
1987	7,670	1,917	148	52	966	145
1988	8,207	1,970				

Source: ILO EMPLOYMENT AND STRUCTURAL CHANGE IN PAKISTAN - ISSUES FOR THE EIGHTIES, THE ASIAN EMPLOYMENT PROGRAMME (ILO-ARPEP), JANUARY, 1983, PP277-278.

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