Mountain Population and Employment

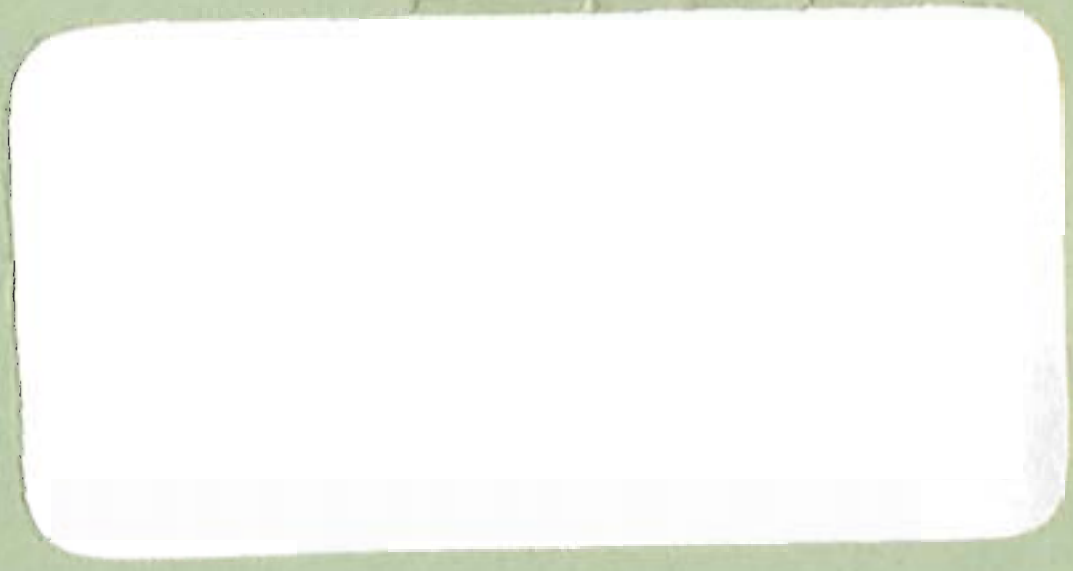
Discussion Paper Series

OFF-FARM EMPLOYMENT IN THE NORTH WEST FRONTIER PROVINCE OF PAKISTAN

Mian M. Nazeer
Saiyeda Zia Al-Jalaly

MPE Series No. 13

International Centre for Integrated Mountain Development



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January 1992

International Centre for Integrated Mountain Development (ICIMOD)
Kathmandu, Nepal

Foreword

The present discussion paper by Mian M. Nazeer and Saiyeda Zia Al-Jalaly, entitled "Off-farm Employment in the North West Frontier Province of Pakistan" constitutes one of the three studies on the current state of off-farm employment in selected mountain regions in the Hindu-Kush Himalayas. The studies were initiated by ICIMOD in conjunction with the Programme on Population and Off-farm Employment. The general objective of the programme is to identify viable off-farm alternatives and promote practical approaches to employment generation, income enhancement, and sustainability of mountain environments.

The programme is based on the premise that the promotion of off-farm employment and income opportunities in mountain communities is imperative in order to counteract the gradual breakdown of stable relationships between population, economy, and environment. In the absence of adequate employment and income opportunities, rural mountain communities are continually faced with increasing poverty which leads to migration from the hills and rapid environmental deterioration. Comparative advantages provided by mountain conditions and resources must therefore be used as the basis for promoting off-farm opportunities. Further, a systemic perspective is essential to analyse the constraints as well as the potentialities of off-farm employment.

A number of diverse off-farm activities are presently undertaken by mountain households in the Hindu Kush-Himalayas. While many such activities can be labelled "distress employment" because they are not remunerative enough, there are also areas where considerable opportunities exist. Further, off-farm employment in the mountains has been a matter of considerable policy concern and a number of programmes have been implemented in recent decades.

In this context the major purpose of the present study is

(i) to apply a comprehensive analytical framework to assess critical issues and options in off-farm employment;

(ii) to determine data and information requirements and identify gaps to facilitate the promotion of off-farm employment;

(iii) to develop qualitative and quantitative criteria of "success" and identify "constraints" in the promotion of prominent and potential off-farm activities, based on the examination of experiences from different countries;

(iv) to synthesise experiences from different mountain regions of the Hindu-Kush Himalayas and develop institutional and organizational guidelines, as well as investment and implementation options, for the promotion of environmentally sound off-farm employment activities.

The present study is basically a review and assessment of the off-farm employment situation in the North West Frontier Province of Pakistan. This study sets the stage for a more in-depth and location-specific analysis of prominent/potential off-farm activities that will be carried out in the second phase of the study and will be published in this series.

This study was made possible by a grant from the International Development Research Centre (IDRC), Canada for which I am extremely grateful. ICIMOD was also fortunate to have working on this study professionals from various national institutions in China, Nepal, and Pakistan. Mutual consultations and a review of on-going and completed work were held at workshops in Chengdu, Sichuan Province, China, and Peshawar, NWFP, Pakistan. The methodological framework and the structure of the studies were mutually agreed upon by participating researchers. From ICIMOD's side the programme was coordinated and executed by Dr. Deepak Bajracharya (now with UNICEF) and Dr. Pitamber Sharma.

Readers might be interested to know that all of the three case studies mentioned above, including the present one, are brought out in the Discussion Paper Series of the Mountain Population and Employment Division. ICIMOD is hopeful that these studies will contribute to a better understanding of the problems and prospects of off-farm employment in the mountains.

E.F. Tacke
Director General

ACKNOWLEDGEMENT

The authors wish to acknowledge their debt and gratitude for the valuable comments and suggestions made by the participants of the two workshops, one held at Chengdu, China, in November-December, 1990, and the other at Peshawar, Pakistan, in May-June, 1991. They are especially grateful to Dr. Deepak Bajracharya and Dr. Pitamber Sharma of the International Centre for Integrated Mountain Development who took particular pains and contributed both at the theme development stage as well as towards the final report. The authors alone are, however, responsible for whatever they have said or left unsaid.

Mian M. Nazeer
S. Zia Al-Jalaly

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INTRODUCTION - THE REGIONAL SETTING

Geographical Setting

As the name suggests, the North West Frontier Province (NWFP) is located in the North West of Pakistan. To the North it is bounded by the Hindu Kush, to the South lies Baluchistan and the Dera Ghaxi Khan District of the Punjab; to the East lies Kashmir and on the West lies Afghanistan.

The NWFP is essentially a mountainous region with vast variations in the terrain as one moves from one part to another. The mountain chain of the Kaghan Region is well wooded but tends to break up the country into isolated areas or glens. The Peshawar and Mardan districts are fertile and surrounded by hills, while as one moves further south to Kohat, Bannu, and Dera Ismail Khan one notices expanses of barren areas enclosed by the Sulaiman Range and the Indus River. Going up to the north, the mountain terrain becomes more rugged and the valleys more inaccessible and narrow. However, Dir, Bajaur, and Swat are fertile and well-wooded areas. The Hazara District is also a mass of mountains with fertile agricultural as well as forest areas. The province thus contains a vast variety of physiographical features - lofty rugged peaks as well as low running hills, fertile basins and barren lands, well-wooded forest areas, as well as treeless regions all in close proximity to each other.

Map. 1.1 shows the location of the NWFP in relation to the other provinces of Pakistan, while Map 1.2 shows the agro-ecological regions of Pakistan. Out of the 10 agro-ecological regions, as marked by the Pakistan Agricultural Research Council, 6 of these are located in the NWFP.

Agro-ecological Regions

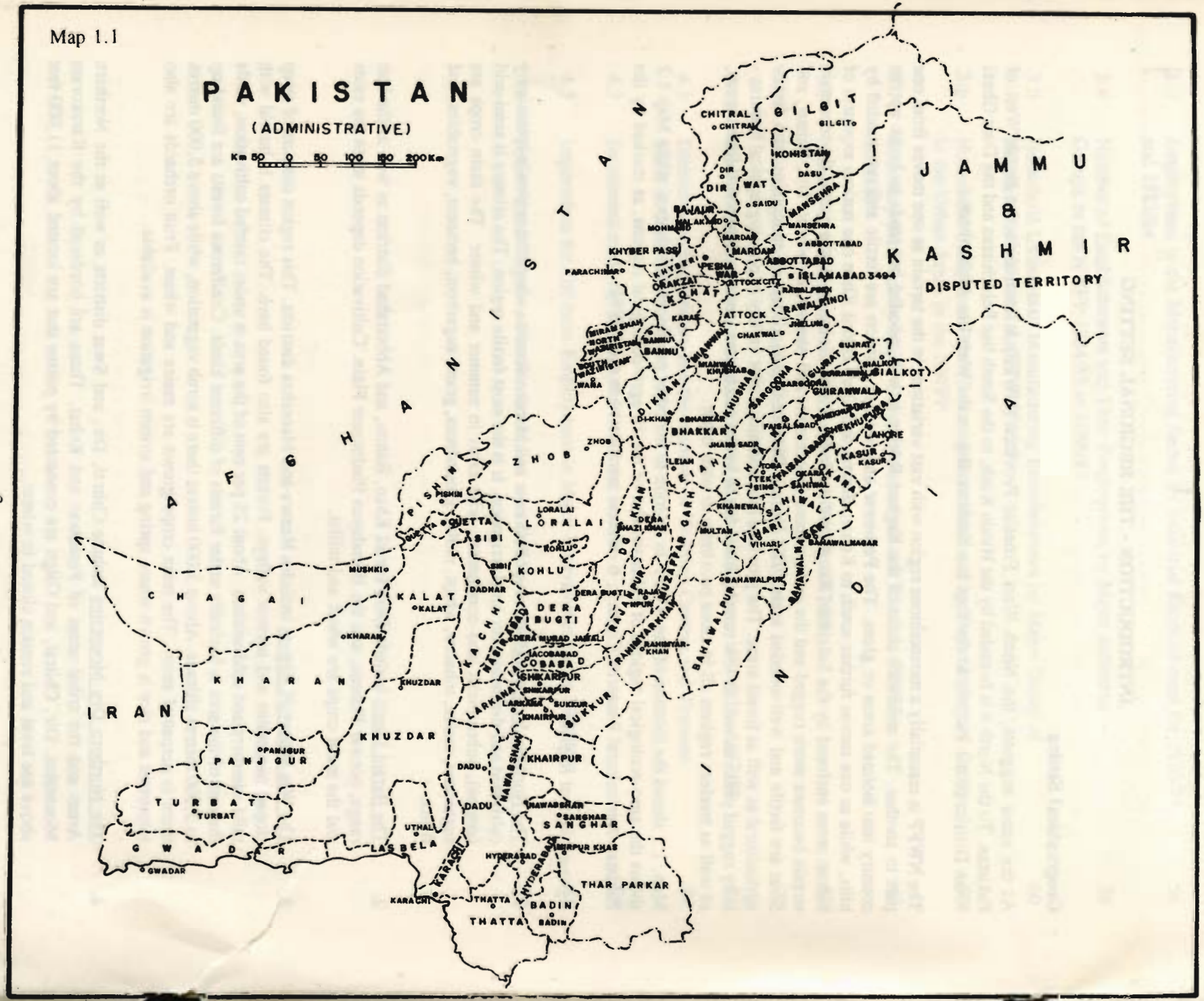
1. The Northern Irrigated Plans cover Peshawar and Mardan districts where the region is intensively cultivated and dependent on canal irrigation. It is the most fertile region. The climate is semi-arid (steppe), subtropical, and continental, with rains in summer and winter. The main crops are sugarcane, maize, tobacco, wheat, millet, groundnuts, gram, sugarbeet, berseem, vegetables, and fruits.

2. The Barani Lands include Dera Ismail Khan, Bannu, and Abbottabad districts as well as the Salt range, potwar Plateau, and the Himalayan Piedmount Plain. Cultivation depends upon the rains and the main crops are wheat and millet.

3. The Wet Mountain Region includes Hazara and Mansehra districts. This region consists of steep sloped mountains and narrow valleys. Forests are also found here. The climate is humid with mild summers and cold winters. About 25 per cent of the area is under rainfed cultivation, while the rest of the area is basically under forests of different kinds. Coniferous forests are found up to 3,000 metres altitude. Above 3,000 metres there is scrub vegetation, while above 5,000 metres there is perpetual snow. The main crops grown are maize and wheat. Fruit orchards are also important and rice is grown where spring and stream irrigation is available.

4. The Northern Dry Mountains include Chitral, Dir, and Swat districts as well as the Northern Areas and the tribal areas of Peshawar and Kohat. These are bordered by the Karakoram Mountains. Dir, Chitral, and Gilgit are connected by passes that are located about 11,000 feet above see level and remain closed in winter.

Map 1.1


PAKISTAN
(ADMINISTRATIVE)
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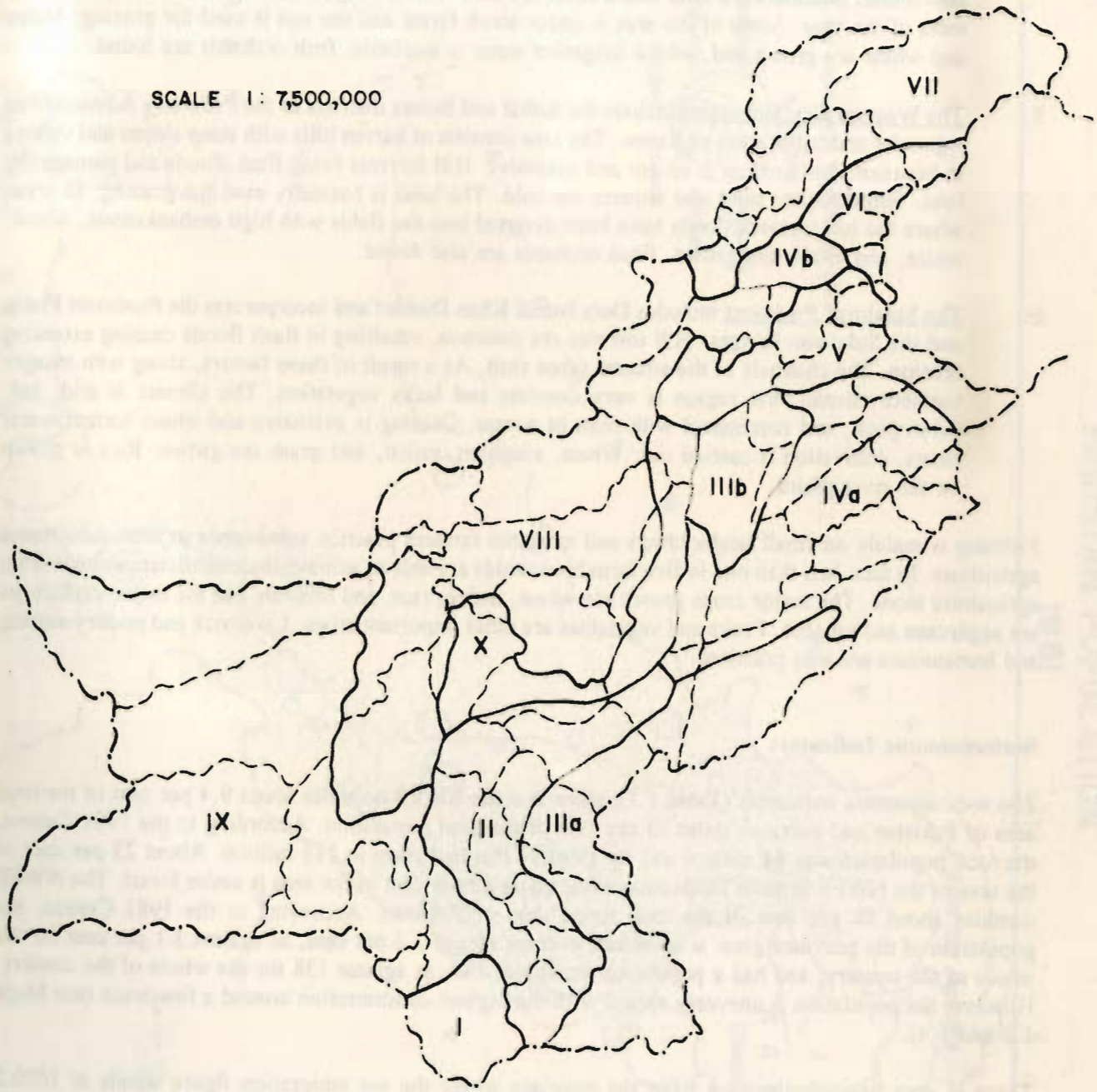
AFGHANISTAN
IRAN
INDIA
CHINA
JAMMU & KASHMIR
DISPUTED TERRITORY
CHITRAL
GILGIT
KONISTAN
DIR
SWAT
MANSEHRA
ABBOTTABAD
ISLAMABAD 3494
KHYBER PASS
PESHAWAR
KOHAT
ATTOCK
RAWALPINDI
JHELUM
CHAKWAL
GUJRAT
SIALKOT
GUJRANWALA
SHEKHUPURA
LAHORE
KASUR
SAHIWAL
OKARA
FAISALABAD
JHANG
BHAKKAR
D.I.KHAN
MIANWALI
BANNU
WAZIRISTAN
WARA
ZHOB
PISHIN
QUETTA
SIBI
LORALAI
KOHLU
DERA GHAZI KHAN
LEIAH
MUZAFFAR GARH
MULTAN
VEHARI
BAHAWALNAGAR
BAHAWALPUR
RAJANPUR
RAHIMYAR KHAN
DERA BUGTI
MUSHKI
KALAT
CHAGAI
KHARAN
NASIRABAD
JACOBABAD
SHIKARPUR
LARKANA
SUKKUR
KHAIRPUR
KHUZDAR
PANJGUR
TURBAT
GWADAR
LAS BELA
UTHAL
DADU
NAWABSHAH
SANGHAR
MIRPUR KHAS
HYDERABAD
KARACHI
THATTA
BADIN
THAR PARKAR

Map 1.2

PAKISTAN AGRO ECOLOGICAL REGIONS



☐ I	Indus Delta	☐ II	Southern Irrigated Plain	☐ III	Sandy Desert (a & b)
☐ IV	Northern Irrigated Plain (a & b)	☐ V	Barani Lands	☐ VI	Wet Mountains
☐ VII	Northern Dry Mountains	☐ VIII	Western Dry Mountains	☐ IX	Dry Western Plateau
☐ X	Sulaiman Piedmont				

VII VI IVb V IVa IIIb VIII X II IIIa I IX

Source: Pakistan Agricultural Research Council, 1980

Some of the areas have extreme aridity while others have abundant water from the large number of glaciers in the area. Agricultural activity is centred around terraced farming. Pine forests are also found. Summers are mild and winters are cold with the high mountains covered by snow for most of the year. Some of the area is under scrub forest and the rest is used for grazing. Maize and wheat are grown and, where irrigation water is available, fruit orchards are found.

5. The Western Dry Mountains include the Kohat and Bannu districts as the Federally Administered Agencies and tribal areas of Bannu. The area consists of barren hills with steep slopes and valleys in between. Soil erosion is severe and extensive. Hill torrents bring flash floods and damage the land. Summers are mild and winters are cold. The land is basically used for grazing. In areas where the hill torrents/floods have been diverted into the fields with high embankments, wheat, maize, and alfalfa are grown. Fruit orchards are also found.

6. The Sulaiman Piedmont includes Dera Ismail Khan District and incorporates the Piedmont Plains and the Sulaiman Ranges. Hill torrents are common, resulting in flash floods causing extensive erosion. The channels of the streams often shift. As a result of these factors, along with meagre variable rainfall, the region is very desolate and lacks vegetation. The climate is arid, hot, subtropical, and continental with frost in winter. Grazing is extensive and where torrent water exists, cultivation is carried out. Wheat, sorghum, millet, and gram are grown. Rice is grown on the river plains.

Farming is mainly on small landholdings and marginal farmers practice subsistence to semi-subsistence agriculture. In fact, less than one in five farm households are able to achieve their subsistence needs from agriculture alone. The major crops grown are wheat, maize, rice, and oilseeds and the major cash crops are sugarcane and tobacco. Fruits and vegetables are other important crops. Livestock and poultry-raising and horticulture are also practised.

Socioeconomic Indicators

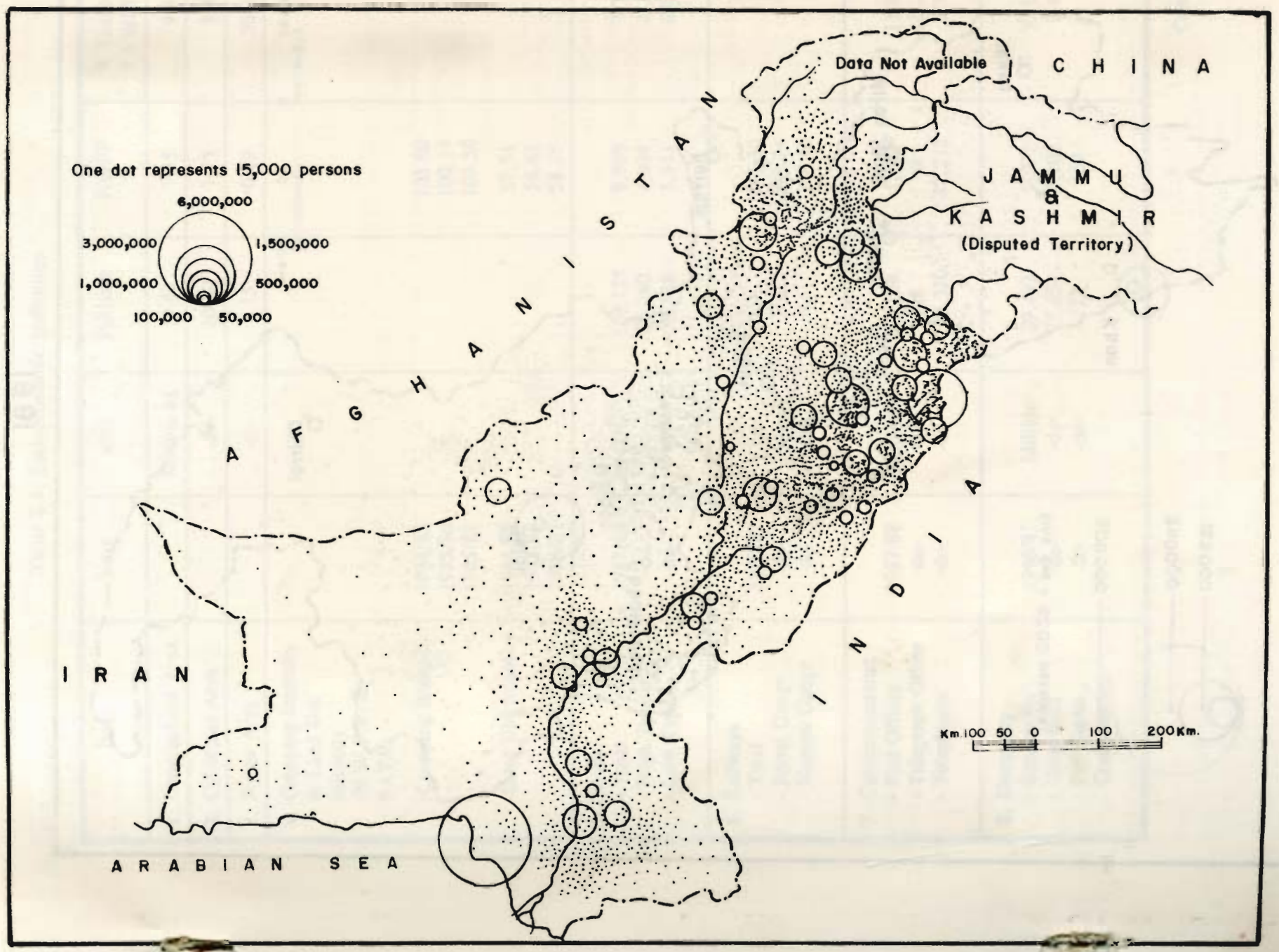
The socioeconomic indicators (Table 1.1), show that the NWFP occupies about 9.4 per cent of the total area of Pakistan and contains about 13 per cent of the total population. According to the 1981 Census, the total population was 84 million and by 1990/91 this had risen to 113 million. About 23 per cent of the area of the NWFP is under cultivation while about 12 per cent of the area is under forest. The NWFP contains about 28 per cent of the total forest area of Pakistan. According to the 1981 Census, the population of the province grew at an annual average rate of 3.3 per cent, as against 3.1 per cent for the whole of the country, and had a population density of 148, as against 138 for the whole of the country. However the population is unevenly spread with the highest concentration around a few areas (see Maps 1.3 and 1.4).

There is very heavy emigration from the province where the net emigration figure stands at 1020.2 thousand for the 9 year period from 1972 to 1981.

The dependency ratio as well as the ratio of males to females is high at 109 males to 100 females (in common with the rest of Pakistan). The rate of urbanisation in the NWFP is one of the lowest in the country and stands at 15 per cent as against nearly 28 per cent for the country as a whole and less than any other province. It possesses the second lowest literacy rate in the country standing at 16.7 per cent.

Map 1.3

PAKISTAN POPULATION
1981



Map 1.4

N. W. F. P. POPULATION
1981

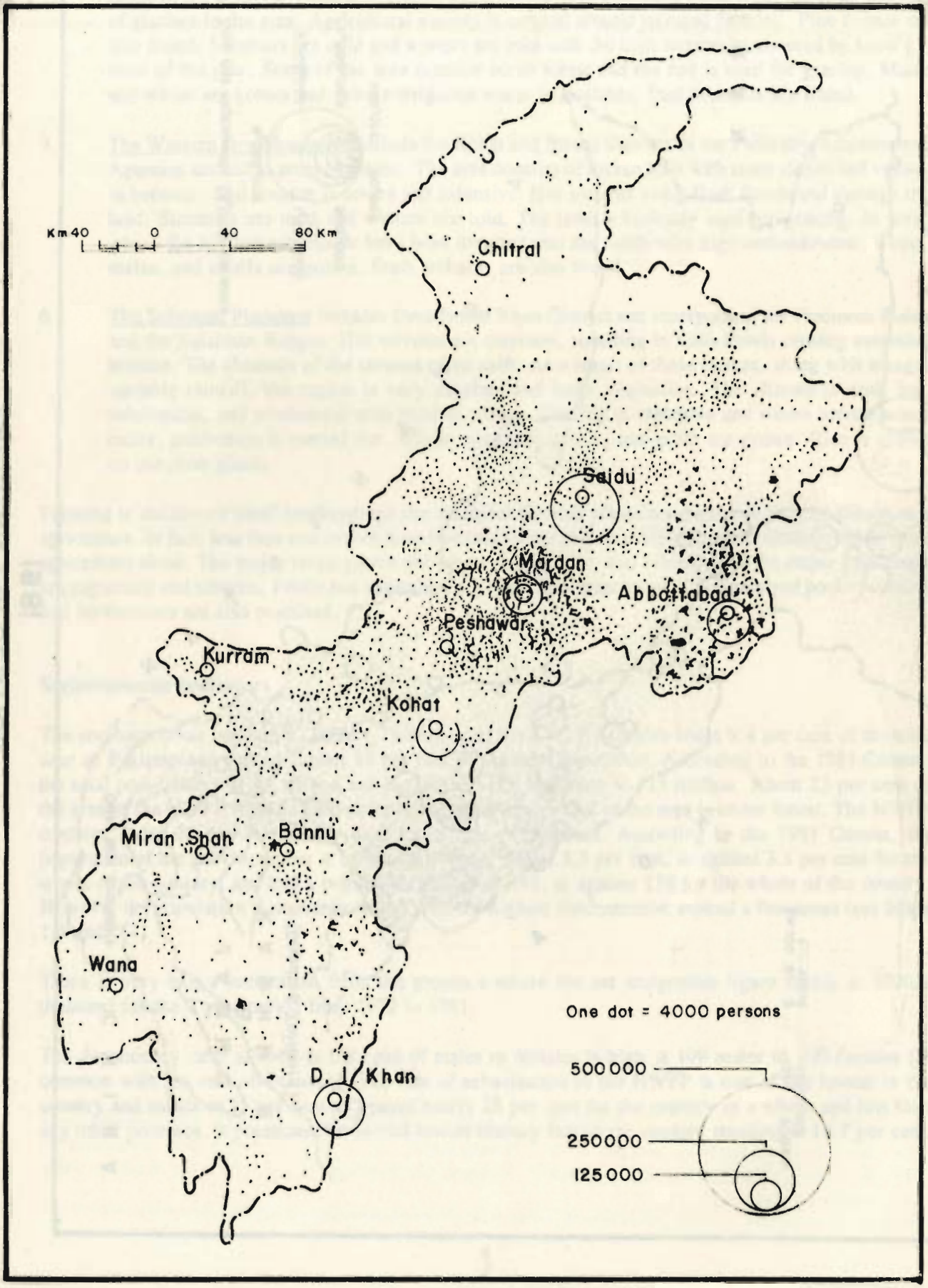


Table 1.1: Socioeconomic Indicators

Item	Year	Unit	Pakistan	NWFP	% Share of NWFP
1. Geographical Area	.....	Million ha	79.61	7.45	9.4
2. Cultivated Area		-do-	20.80	1.75	8.4
3. Forest Area		-do-	3.15	0.89	28.3
4. Cropping Intensity & Land Use Intensity (N.W.F.P. & FATA)					
-Cropping Intensity	1984/85			105.60	
	1985/86			100.14	
	1985/87			103.56	
-Land Use Intensity	1984/85			57.51	
	1985/86			58.43	
	1986/87			58.35	
5. Roads					
- Total	1987/88	km	110,128	8,505	7.7
- High Type	-do-	-do-	56,740	4,994	8.8
- Low Type	-do-	-do-	53,388	3,511	6.6
6. Railways					
- Total	1986/87	km	NA	542.30	
- Broad Gauge	-do-	-do-	NA	283.84	
- Narrow Gauge	-do-	-do-	NA	258.46	
7. Communications					
- Post Offices	1987/88	Numbers	12,226	1,682	13.8
- Telegraph Office	-do-	-do-	428	48	11.2
- Telephones	-do-	-do-	739,370	42,272	5.7
8. Electricity					
- Generation	1986/87	Million	29,493	9,072	30.8
- Units Sold	-do-	-do-	22,454	2,103	9.4
- Per Capita Consumption	-do-	-do-	223	157	

Cont.....

Item	Year	Unit	Pakistan	NWFP	% Share of NWFP
9. Fertilizer Consumption	1987/88	Nutrient Tonnes	1,573,000	92,000	5.2
10. Mineral Production	1987/88	Tonnes			
- Coal	-do-	-do-	2,727,407	35,708	1.3
- Chromite	-do-	-do-	8,628	48	0.5
- Limestone	-do-	-do-	7,610,399	1,243,737	16.3
- Gypsum	-do-	-do-	404,042	60,015	15.0
- Fire Clay	-do-	-do-	133,869	32	0.02
- Silica Sand	-do-	-do-	163,882	16,952	10.3
- Soapstone	-do-	-do-	33,492	33,484	99.9
- China Clay	-do-	-do-	42,548	9,256	69.0
- Rock Salt	-do-	-do-	502,281	83,103	16.5
11. Production of Major Manufacturing Units		000 Tonnes			
- Cement	1987/88	-do-	7,041	1,368	19.4
- Sugar	-do-	-do-	1,770,892	148,085	21.2
- Paper	-do-	-do-	31,660	104	0.3
- Board	-do-	Million	33,797	142	0.4
- Cigarettes	-do-	Nos	40,697	17,083	42.0
12. Population	1981	Thousand			
- Total	(Census)	Persons	84,253	11,061	13.1
- Male	-do-	-do-	44,232	5,761	13.0
- Female	-do-	-do-	40,021	5,300	13.2
- Urban	-do-	-do-	23,841	1,665	7.0
- Annual Growth	-do-	-do-	60,412	9,396	15.6
Rate	-do-	Per cent	3.1	3.32	
- Density	1989/90	Per cent	138	148	

Crude Birth Rate	43.3	Per thousand for Pakistan as a whole
Crude Death Rate	10.5	.. ..
Infant Mortality Rate	103.9	.. ..
Sex Ratio	91.0	.. ..
Dependency Ratio	99.5	.. ..

Share of Population (%)	
Punjab	56.1
NWFP	13.1
Sindh	22.6
Baluchistan	5.1

Urbanisation (%)	
Pakistan	28.3
Punjab	27.6
Sindh	43.3
NWFP	15.1
Baluchistan	15.6

Literacy (%)	
Pakistan	26.2
NWFP	16.7
Sindh	31.4
Punjab	27.4
Baluchistan	10.3

Sources:
1. NWFP 1987
2. Pakistan 1981
3. Surveys of Industrial Production and Employment Report of the Bureau of Statistics, NWFP
4. Pakistan 1988b

In terms of infrastructure, the NWFP possesses 7.7 per cent of the total length of roads and only 542 km of railway, the latter being concentrated mainly in Peshawar, followed by Mardan, while the other areas have narrow gauge only. Even these are insignificant as means of communication since the mountain terrain makes communications very difficult. There are about 14 per cent of the total number of post offices, about 11 per cent of the total number of telegraph offices, and about 6 per cent of the total number of telephone connections in this province.

Except for chromite, fire-clay, and coal the NWFP's share in other types of mineral production stood at between 10-17 per cent, and for china clay and soapstone it stood at 69 and 99.9 per cent respectively of the total production in the country.

This province generates about 31 per cent of the total electricity, whereas its per capita consumption stands at 157 against 223 units for Pakistan as a whole.

In terms of the production of manufactured goods, about 20 per cent of the cement, 21 per cent of the sugar, and 42 per cent of the cigarettes are produced here.

Resources

The NWFP is rich in mineral resources which include rock phosphate, building stone, marble, onyx, graphite, serpentine, crystalline limestone, magnesite, china clay, nephyline cyanite, emerald, aquamarine, and ruby. The NWFP also has a larger area of forest compared to the rest of Pakistan. Rivers flowing swiftly through the mountains make it an ideal area for generating hydro-electricity and thus the largest dam of the country is located here and it provides the rest of the country with electricity.

Industrially, it is one of the backward provinces of the country where, because of distances from ports, the nature of the terrain, and the non-availability of skilled manpower, the province has been unable to attract investments. Map 1.5 shows the location of the industries. Concentration of the industries is seen to be in areas where the mineral resources and agricultural products exist, e.g., sugarmills where sugarcane is grown, as in Mardan, cement where limestone exists, as in Daud Khel. However, the most significant aspect is the concentration of the industries in Peshawar, Nowshera, and Charsadda where, along with the resources, other infrastructural facilities are also available.

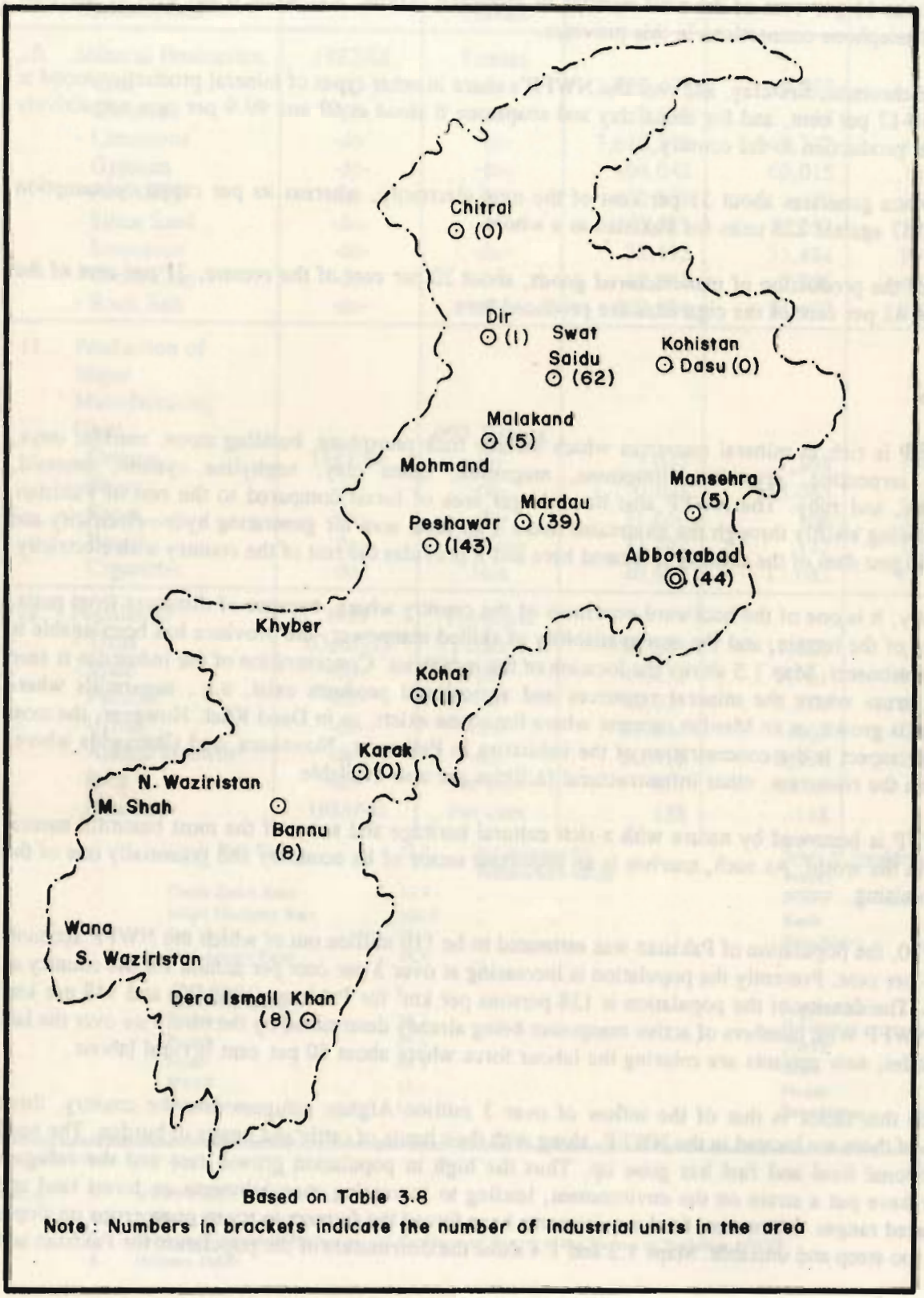
The NWFP is bestowed by nature with a rich cultural heritage and some of the most beautiful natural scenery in the world. As such, tourism is an important sector of its economy and potentially one of the most promising.

In 1989/90, the population of Pakistan was estimated to be 110 million out of which the NWFP accounts for 13.1 per cent. Presently the population is increasing at over 3 per cent per annum for the country as a whole. The density of the population is 138 persons per km^2 for Pakistan (1989/90) and 148 per km^2 for the NWFP With numbers of active manpower being already determined by the birth rate over the last two decades, new entrants are entering the labour force where about 80 per cent is rural labour.

Added to this factor is that of the inflow of over 3 million Afghan refugees into the country, three quarters of them are located in the NWFP, along with their herds of cattle and beasts of burden. The need for additional food and fuel has gone up. Thus the high in population growth rate and the refugees together have put a strain on the environment, leading to increasing encroachments on forest land and over-grazed ranges. Moreover, food requirements have forced the farmers to try to grow crops on slopes that are too steep and unstable. Maps 1.3 and 1.4 show the distribution of the population for Pakistan and

Map 1.5

SPATIAL SPREAD OF FORMAL INDUSTRIES IN N. W. F. PROVINCE



Based on Table 3.8

Note : Numbers in brackets indicate the number of industrial units in the area

for the NWFP, where in the latter case there is uneven distribution of the population between the different parts of the province with the highest concentration being around Peshawar, followed by Mardan, Saidu, Dera Ismail Khan, Abbottabad, and Kohat in descending order respectively. The northern and sourthern regions of the province seem to be sparsely populated.

According to the National Conservation Strategy Fact Sheet on Forests (1989) the annual net deforestation as a per cent of the total forest cover is one per cent for the country. The rapid growth of population in the NWFP has led to rapid deforestation with adverse effects such as flash floods, land erosion, desertification, and reduction in biomas diversity.

Another result of the increase in the size of population and pressure on the economy is migration which we shall deal with in the later chapters. The need to sustain the local population in their own habitat and the resultant focus on the need to manage the economy and ecology of the mountains are an integral part of the development process and programmes for the region.

Need for Off-farm Employment

According to the FAO (1988) there is an inverse relationship between off-farm employment of the rural labour force and farm size. Moreover, off-farm employment is especially resorted to by the rural poor during the slack season. In the case of the NWFP, small farm sizes predominate in an agricultural economy that is less productive and profitable than that or Sindh or the Punjab. This can be deducted from Table 1.2, where it is seen that there is a total of over 725 thousand farms of which about 90 per cent are under 12.5 acres, placing them in the small category of farm size. The size/output relationship puts them at a disadvantage in terms of benefitting from the scale factor and mechanisation. The yield per hectare of wheat and sugarcane (Table 1.3) shows that, for wheat, the NWFP has the lowest yield per hectare, while for sugarcane, in 1987/88, it had the second lowest yield. Thus at the national level the province is not competitive in terms of yield per hectare. The yield per hectare for tobacco is competitive but then more than 90 per cent of all Virginia Tobacco in the country is anyway grown here, and this renders the comparison meaningless.

According to Khattak (1982), in a survey of Hazara it was seen that the income from crops comes to only Rs 400 per month for the farmer and, as such, has to be supplemented by other sources of income. The agriculture thus practiced in the NWFP makes it imperative for most farmers to have some other sources of income, especially small-scale farmers and hence the need and importance of off-farm employment for the people of this area.

Another very important factor that must be considered in any analysis of agricultural or non-agricultural activities is the female section of the population (48 % in Pakistan as a whole) whose contributions, though not acknowledged, are quite significant. According to the Population Census of 1981, the FLFPR was 3.5 per cent, including urban, rural, formal, and informal, while the Labour Force Survey 1986/87 shows it to be 11.9 per cent. The HED Survey reveals this figure to be 70 per cent in agriculture. The overall FLFPR is closer to 20 Per cent. Although there is no agreement on the exact rate, it has been acknowledged that they are an active part of the production process. In dealing with off-farm employment, they have to be kept in mind, especially when we see (as for example reported by the Inter-American Development Bank) that poverty affects rural women and children more than men, and it is the work of the rural women which pulls families out of the "poverty category".

Table 1.2: Agricultural Farms by Farm Size

Items	Year/ Period	Unit	Pakistan	NWFP	% Share of NWFP
1. Agricultural Farms					
A. Number of Farms					
Total	1980	Thousand	4,400.11	725.45	16.48
Government Farms	do	do	0.20	0.03	15.00
Private Farms	do	do	4,399.91	725.42	16.49
B. Landholding Pattern	do	do	243.42	99.09	40.71
- 1.0 to under 2.5 Acres	do	do	634.95	216.56	34.11
- 2.5 to under 5.0 Acres	do	do	758.98	168.19	22.16
- 5.0 to under 7.5 Acres	do	do	721.15	92.07	12.77
- 7.5 to under 12.5 Acres	do	do	946.02	74.34	7.86
- 12.5 to under 25.0 Acres	do	do	716.89	46.06	6.42
- 25.0 to under 50.0 Acres	do	do	266.82	19.95	7.48
- 50.0 to under 150.0 Acres	do	do	97.43	9.37	9.62
- 150.0 and above	do	do	14.25	1.54	10.81
C. Farmed Area					
Total	do	Thousand Acres	48,584.67	4,783.71	9.85
Government Farms	do	do	123.65	8.59	6.95
Private Farms	do	do	48,461.02	4,775.12	9.85

Note: Pakistan includes:
(a) Malakand Division
(b) F.A.T.A.
(c) Frontier Regions

Source:
1. Pakistan Census of Agriculture 1980, All Pakistan Report
2. Pakistan Census of Agriculture 1980, Special Report Malakand Division and Tribal Areas

Table 1.3: Yield Per Hectare of Major Crops in the Provinces of Pakistan

Name of Province	Year		
	1985/86	1986/87	1987/88
PUNJAB			
Wheat	1,952	1,495	1,722
Sugarcane	32,814	37,926	36,253
Tobacco	1,330	1,443	1,298
NWFP			
Wheat	1,159	1,194	1,189
Sugarcane	38,856	38,948	40,579
Tobacco	1,980	2,005	1,952
SINDH			
Wheat	2,107	2,135	2,128
Sugarcane	42,488	42,274	46,233
Tobacco	1,376	1,500	1,333
BALUCHISTAN			
Wheat	1,667	1,739	2,137
Sugarcane	37,250	47,000	54,600
Tabacco	2,036	2,000	1,625

Source: NWFP, 1988.

Prevalent Types of Off-farm Employment

Being rich in forests, a number of activities in the NWFP centres around wood, wood-processing, and timber. Along with this is the metal industry, which is also an important activity of this region, followed by mining and quarrying which is obviously because of the substantial mineral wealth in the area. Employment centering around and emanating from hydro-electricity generation is also noticed.

- Certain resource-based industries such as marble, cement, and sugar also provide off-farm employment.
- Leather product manufacturing is another important activity. Because of the abundant availability of fruits and nuts, food-processing has emerged as a distinct activity of the area.
- Service activities in transportation and hotels/restaurants generate substantial off-farm employment.
- Carpet-making and other forms of cottage industries in the informal sector engaged considerable number of men and women, especially with the advent of the Afghan carpet weavers in the refugee camps.
- The informal sector in production, marketing, and services is also substantial.

Amongst the factors that impede off-farm occupation as a regular and lucrative alternative are the following:-

- Paucity of investment, lack of initiative and dynamic enterprise, and almost complete lack of concerted efforts at area and community development; and

- the segregation of the sexes, lack of vocational training to enhance skills, and lack of organisation in the form of association of interest groups with common platforms.

Specificity of the Mountain Paradigm

Just as there are typical problems in mountain regions, there are also unique opportunities. These are amongst some of the most exquisite areas in the world where the beauty of the natural environment, the abundance of scenic spots, and a host of recreational outlets attract an ever-increasing number of tourists. This tourist inflow is creating a large number of opportunities for off-farm employment together with a host of hazards to the environment. The quip that sight-seeing does not exhaust the sight seen is true only to a certain extent. Again, there are a large number of attractive and colorful traditional handicrafts based on local raw materials, but their marketing needs to be organised so that the producers receive their just rewards. This becomes important because of the terrain which makes it difficult for rural producers to reach markets in urban areas. Add to the terrain, the factors of widespread illiteracy and lack of market information.

The indicators of the NWFP have already revealed the socioeconomic marginalisation of the area where even the impact of the green revolution though felt is not of the same magnitude as that in Sindh or Punjab. The negative effects on the quality and fertility of the soil of dam irrigation and use of fertilizers and pesticides, are, however, noticeable. As a result, the ability to create and maintain off-farm employment takes on an added dimension and becomes necessary in order to absorb the surplus labour which cannot be profitably maintained by the agricultural sector. The interesting fact is that a lot of off-farm employment is of autonomous origin in the isolated glens, for example, bee-keeping, embroidery, and handicrafts, while others are the off-shoot of external factors, such as the Pak-German furniture industry that led to the establishment of a large number of good quality wooden furniture industries in the informal and formal sector.

Migration is another distinct feature of this area. It is largely due to the inaccessible terrain, backwardness of the region, large inflow of refugees, low level of industrialisation, and the inability of the economy to absorb the labour force. The people are thus literally squeezed out by the poverty and peripheral character of the area to look elsewhere for a living.

Thus, the issues that emerge are the marginalisation of agriculture, in the context of sustaining the labour force, and the fragility of the environment; the importance of human resource development, especially in the absence of urbanisation (the NWFP is only about 15 % urbanised with very low literacy levels); the backward state of the economy as revealed by the socioeconomic indicators of the province; along with the absence of infrastructure and the concentration of population and industries in a few cities. The scene is further characterised by the existence of minerals that can be exploited through the setting up of industries and by providing off-farm employment; the inaccessibility of certain areas and thus the need for specific development and employment creation programmes for these areas; the linkages that follow as a result of the activities and interventions pursued in terms of backward (resource-based) and forward effects generating additional employment in service sectors; and the types of off-farm employment prevalent as a result of the unique characteristics of the area. Marketing of output and availability of credit also play a key role in sustaining the prevalent types of off-farm employment.

An important feature is the perception of the people in terms of the profitability of the cottage industries that have grown autonomously where, despite the obstacles in terms of marketing, credit availability, and returns that are lower than the normal market, the activities still survive and the tourist trade provides the necessary support.

An Overview of the Literature

Issues relating to the generation of employment and effective absorption of the labour force have for long been occupying the minds of researchers and government organisations in Pakistan. There is, therefore, no dearth of analytical studies on employment. Unfortunately, however, this does not hold true in the case of the NWFP. Research studies that have so far been undertaken have a Pakistan-wide scope and are addressed to specific issues of the labour market. For example, Falcon (1970), Gotsch (1973), Khan (1978), and Chaudhry (1982) discuss the implications of the green revolution technology for employment in the farm and off-farm rural sector. The off-farm rural sector on an all Pakistan rural scale has been the subject of discussion in Chaudhry (1981 and 1985). Ali et al. (1981) and Ghayur (1987) dealt with farm and off-farm rural employment in the respective Barani areas of Azad Kashmir and parts of the Punjab and NWFP. ILO/ARTEP (1984) and ILO (1977), have also made significant contributions to the literature on employment in Pakistan. The studies by Lewis (1970), Lewis and Soligo (1965), Hamid (1983), Chaudhry and Khan (1987), and Irfan (1981) have concentrated on employment in the manufacturing sector of Pakistan only. The demographic aspects of the population and labour force in Pakistan with some disaggregation to the provinces are dealt with in the recent work of Rukanuddin and Farooqui (1988).

It should be noted that the above studies have only a partial relevance to the topic under consideration. They neither relate entirely or even principally to the NWFP nor do they effectively bring out the issues involved in off-farm employment in peripheral and marginalised mountain areas like those of the NWFP. They certainly do not discuss the options nor for that matter indicate guidelines for any policy or action. A brief review of some of the selected studies is presented in the following paragraphs.

ILO (1971) found that although Pakistan experienced a significant rate of economic growth between 1954/55 and 1967/68, the effects of such growth in terms of employment generation were not as impressive. Particularly, the bulk of the agricultural labour force and persons engaged in very low productivity work in non-agricultural sectors were virtually untouched by the development of the economy and their incomes either remained stagnant or declined in relation to those who directly benefitted from economic growth. Moreover, the Government did not emphasise employment.

Beg (1973) examines the labour force in Pakistan with respect to its participation in agriculture and non-agricultural activity throughout the period 1961 to 1971. Dealing with two major data sources, the study reveals that the agricultural labour force as a percentage of the population has remained more or less constant during the decade from 1961 to 1971 while the proportionate increase in the labour force during this period is accounted by the non-agricultural off-farm labour force. During this period, Pakistan's total population increased by 47.78 per cent, the civilian labour force increased by 55.01 per cent, the non agricultural labour force increased by 62.82 per cent, and the agricultural labour force by 49.65 per cent. The study concludes, *inter alia*, that the increase in labour force participation rates is attributed to modernisation factors as well as change in the general level of economic activity, and that the incremental labour force participation is due to an increase in male participation.

Chaudhry (1981) takes note of the fact that the development policy of Pakistan has been more heavily oriented towards growth maximisation through urban industrialisation rather than towards employment

in general and rural employment in particular. Considering all aspects of the rural economy, the author has listed agricultural production, seasonality in agriculture, social and cultural factors, population growth, government policies and programmes, and resource inflows from abroad as factors in employment generation. Regarding the adoption of green revolution technology, the study finds that these technologies have no substitution effect and add to current jobs by creating new jobs. Regarding the employment constraint of a low land-man ratio, the study concludes that the adoption of mechanisation will expand the cropland base, requiring more labour. Similarly, changes in cropping patterns and land use would also necessitate the use of more labour. Finally, the study concludes that no effect on labour demand could be expected if the increase in wage rates equals the increase in labour productivity, and, further, that green revolution technology in Pakistan represents an output augmenting, employment-creating, and poverty-alleviating phenomenon.

Irfan (1981) considers the nature of association between various demographic and socioeconomic variables (quality) and the size of labour force (quantity). According to him, labour supply in Pakistan is measured by inappropriate concepts. The changing definitions in the different sources of data, in addition to changing sample sizes, miss-reporting, and other errors, have compounded problems for research and effected its ability to offer any conclusions. This study found that a rise in the crude labour force participation rate during the first intercensal period (1951-1961) was mostly due to changes in the definition of female labour participation. The female crude activity rate reported in the 1961 Census was therefore, three times that of 1951. The study reveals that the very young (10-14 years of age), both male and female, displayed a higher propensity in economic activity in 1973 than in 1961, showing a change in behaviour caused by the spread of education which led to a decline in the labour-force participation of the younger population.

Hamid (1983) finds small-scale industries to be extremely labour intensive. As such, its growth can help in absorbing the rapidly increasing non-agricultural labour force. Small-scale industry is also an efficient user of capital, makes use of domestically produced machinery, and generates feedback effects. This strengthens the capability of the country's capital goods' manufacturing which has only low requirements for foreign exchange. He recommends that because of its employment-generation capability, the expansion of small-scale industries would be highly desirable.

Nazeer and Al-Jalaly (1983a) bring out the types of job undertaken by women, for example, fruit-processing, knitting and embroidery, tailoring, weaving, and manufacturing of leather goods. The study shows that men are not hostile to women's participation as long as they do not compete for the same jobs. However, women's participation was more obvious in cottage industries as compared to small-scale industries. The low female participation rate is, however, not quantified as it was not the objective of the study, but subjective views and discussions revealed the socioeconomic constraints faced by women. The study further shows that there were more female aspirants than jobs available. During interviews, women expressed the feeling that government policies were male biased and that the planners respond to the situation by talking about "priorities" that essentially lead to job creation for men. The report recommends the establishment of inter-industry linkages, improved marketing, enlarging the market, helping secure inputs, and selling outputs to help improve the employment levels for women.

Nazeer and Al-Jalaly (1983b) discuss women's participation in agricultural activities such as seed planting, vegetable picking, looking after livestock and poultry, milking, and carrying field and fodder, as well as participating in other activities such as nursing, teaching, washing, weaving, knitting, and small business. They regard social customs and taboos reinforced by high levels of illiteracy as factors militating against female participation. They further noted that women's contribution is substantial in terms of physical output.

Chaudhry (1985) makes a case for rural industrialisation, arguing that urban industralisation has little direct effect on rural life in general and on the well being of the rural landless masses in particular. At this phase in economic development, the establishment of small-scale industries in the rural areas is essential and desirable. This study shows that the small-scale industrial sector, both in urban and rural areas of Pakistan, witnessed a consistent rise in the pre-British era but a consistent fall during and after British rule. The post-independence period, apart from the 70s decade, showed a shift in government policy in favour of the large-scale industrial sector. Among the constraints and hindrances in the development of small-scale industries, lack of demand for its products, competition from the large-scale sector, and financial constraints played important roles.

Chaudhry and Khan (1987) discuss the magnitude and trend of the participation rates of rural females. The study concludes that female participation rates were low and falling with the passage of time in Pakistan. The main factors responsible for low participation rates are: custom and tradition, inhibition to work, and level of education. Based on a variety of data sources, the study explains that the falling participation rates of rural females were attributed to : (a) growing emphasis on formal education in rural areas, (b) an increase in rural incomes, and (c) the increased mechanisation of agriculture.

Afzal and Nasir (1987) observe that the female work participation in rural areas has risen substantially. On the basis of available evidence from alternative data sources, particularly from Pakistan's agricultural censuses, the paper concludes that there is an improvement in female's work participation rates in Pakistan.

Ghayur (1987) showed that 35 per cent of the population was in the labour force. Participation rates were higher for emigrant households than for non-emigrant households. The proportion of unemployment in the NWFP was twice in the Punjab (10%). The agricultural sector and casual/annual work were the main sources of employment.

Klennert (1988) in his survey based on a study of two villages of the Punjab comes to the following conclusions.

(1) At least one-third of all farm households in Pakistan cultivated only marginal farmlands in 1972.

(2) In at least one-third of the marginal farm households, male household members have non-agricultural occupations.

(3) The main reason for taking up off-farm employment is the poverty of marginal farm households.

(4) The main obstacle to taking up off-farm employment is found in the household structure. In most cases, a non-agricultural occupation can only be assumed if the household consists of, at least, two men, one of whom manages the marginal farm, while the other takes up an occupation outside the farm.

(5) The income, employment, and socioeconomic status of marginal farm households increase considerably because of off-farm employment.

(6) Because of off-farm employment in marginal farm households, capital is transferred, not only from the urban centres to the rural areas but also from the non-agricultural to the agricultural sector, thus causing a significant increase in the output per unit of area and in labour productivity on the marginal farms.

(7) Off-farm employment opportunities are a prerequisite for the development of the rural poor.

The World Bank (1989) study, entitled Women in Pakistan, has discussed the position of women in Pakistan in terms of the absence of opportunities to improve their economic performance and turn them into a dynamic labour force. The report further brings out the close interrelationship between human resource development, productivity, and the need to control population growth. There are detailed discussions regarding the controversies that exist concerning women's participation in the labour force, the constraints faced by women, and the study recommends different approaches to increase women's participation through improved access to credit, extension, technology, markets, inputs, and employment in the formal sector. However, this is a country study and does not go into the position of women's participation at the provincial level where the situation varies from province to province.

The major points discussed in an important government document, The Pakistan (1989) Report of the National Manpower Commission, may be summarised as follows.

(1) During the 1990s, the expected growth in the labour force is 3.3 per cent per annum. Accordingly, 1.25 million new jobs will be required annually. Looking at the trends, however, the labour absorptive capacity has been declining.

(2) Women are the most neglected human resource in Pakistan.

(3) Labour market information is not collected in a consistent and systematic manner.

The strategy for employment generation outlined in the report includes:

(1) emphasis on employment generation through development of physical and social infrastructure and rural industries to help overcome under-employment and to slow down rural-urban migration,

(2) increasing productivity in the small-scale and informal sector to generate employment in the less-developed areas,

(3) improvement in female participation in income-generating activities,

(4) help to Pakistanis seeking jobs abroad and also to the returnees to be re-absorbed,

(5) help towards the creation of self-employment through provision of credit, and

(6) improvements through overall eco-management and structural adjustment.

The report gives a comprehensive picture of the present situation of employment, the need for improvement, and the manner to go about it.

Organisation of the Report

This introduction is followed by a discussion in Chapter 2 of the Structure and Transformation of the Labour Force. Chapter 3 deals with the Current State of Off-farm Employment, while Chapter 4 contains a Policy Review. An Analysis of the Major Types/Categories of Off-farm Employment is covered in Chapter 5, followed by Activity Level Analysis of Some Enterprises in Chapter 6. Chapter 7 contains the Summary and Conclusions of the Critical Issues and Options in Off-farm Employment.

2

STRUCTURE AND TRANSFORMATION OF THE LABOUR FORCE

The labour force refers to the economically-active population of a country and represents the main group of the society responsible for the production of goods and services to satisfy the needs of resident inhabitants and citizens. As defined in Pakistan (and for that matter, aslo in the NWFP), the labour force consists of employed or unemployed individuals older than 10 or 12 years but younger than 65 years. Employed individuals consist of the self-employed, employers, and employees who work for wages, pay, or profit in cash or kind along with unpaid family helpers working in income-producing enterprises. However, persons engaged in domestic work, although producing goods and services, are normally excluded from the civilian labour force. Likewise, students and landlords are also excluded from the civilian labour force. The unemployed are generally defined as those persons who, during the reference period, are either looking for work, or are temporarily laid off, or are assured of a job but have not started work and those who are not looking for work, believing that jobs are not available.

Despite the above definition of the labour force, changes in the enumeration procedure, variations in the reference period, and biases and errors resulting from the inability of the respondents to recall and report the facts accurately tend to limit the quality of census or survey data. The questionable accuracy of census or survey data may also disallow meaningful comparisons of the labour force over time. In order to visualize the extent of some of those problems, it is important to throw some light on these changes inherent in various censuses and surveys.

While considering the "labour force," the 1951 Population Census was directed at all persons of 12 years of age and above who were self-supporting, partly self-supporting, or who were seeking jobs. The reference period in the census was one month prior to enumeration date. In the 1961 Census, the reference period was reduced to one week and the age limit to 10 years for inclusion in the labour force. The same difinition of the labour force was retained in the 1972 Census, but unpaid family workers were considered employed only if they worked more than 15 hours per day. The 1981 Census used no referece period and asked a question concerning whether the person usually did some work, without reference to any time period.

Notwithstanding the limitations of the data, as pointed out above, the following analysis deals with structural shifts in the labour force with the passage of time under the assumption that these limitations would not infringe too heavily on the quality of the data. To put things in perspective, we begin our analysis with the historical trends in the size, structure, and growth of population.

Size, Structure, and Growth of Population

In the absence of migration, changes in the labour force depend directly upon and are a function of the size, structure, and growth of population. Since the civilian labour force includes only certain age groups and male-female participation rates vary considerably, age and sex composition of the population is of crucial significance in this respect. To a lesser degree, urban-rural distribution of the population remains a variable in estimation of the labour force because of variations in job opportunities in the two areas. To study the changing pattern of population in the NWFP, Tables 2.1 and 2.2 provide details on various aspects of population and its growth rates from time to time.

Table 2.1: Size, Growth, and Structure of the NWFP Population

(Unit: million)

Description	1951	1961	1972	1981
Total Population	4.6	5.7	8.4	11.1
Urban Population	0.5	0.7	1.2	1.7
Rural Population	4.1	5.0	7.2	9.4
Growth Rate (in %)		2.34	3.32	3.32

Table 2.2: Age Distribution and Male-Female Ratio

	1951	1961	1972	1982
Males per 100 females	112	109	108	109
Age distribution (per cent)				
Under 14 years	43.1	42.5	43.8	44.5
16 - 64 years	52.9	52.7	52.1	51.2
65 plus years	4.0	4.8	4.1	4.3

Source: Census Atlas of Pakistan 1980-81, Pakistan (1990), and Rukanuddin and Farooqui (1988)

The population of the province was 4.6 million in 1951 and rose to 5.7 million in 1961, 8.4 million in 1972, and 11.1 million in 1981. The NWFP accounted for about 13 per cent of the population of Pakistan. The annual compound growth rate of the population was about 2.34 per cent during the intercensal period of 1951-61, accelerated to about 3.32 per cent during 1961-72, and maintained the tempo during 1972-81. It thus shows an accelerating and exploding population growth rates over the period under consideration, where the growth rate for 1972-81 is higher than that of Pakistan where the population growth rate stands at 3.1 per cent. The spatial distribution of the population reveals the concentration of the population in certain regions only. According to Table 2.3, the highest density is around Peshawar District, followed by Mardan and Abbottabad where the density ranges above 300 persons km^2 while Malakand Agency, Mansehra, Kohat, Bannu, Swat, and Dir have greater than 150 persons km^2 . The rest have less than 100 persons km^2 and in the case of Chitral, only 14 persons km^2. Although the annual average growth rate is in the range of above 3 per cent (except for Kohistan which shows over 10 per cent and the Abbottabad, Manesehra, and Mardan districts which show less than a 3 per cent annual growth rate), the distribution is very uneven with clusters of heavy density and areas of sparse population (see Map 1.5 in Chapter1).

Socondly, while rural areas continue to bear the main burden of the population and accounted for nearly 85-89 per cent of the total population of the province, the proportion of urban popualtion has been on the increase with the passage of time. Although only 11.0 per cent of the population lived in urban areas in 1951, the proportion rose progressively to 15.1 per cent by 1981. This rising proportion indicates that the growth rates of the urban population have tended to be higher than those of the rural population. However, the rate of urbanisation is still one of the lowest in the country. This obvious fact emerges from Table 2.3. Except for Peshawar, Mardan, Abbottabad, Kohat, and Dera Ismail Khan districts which show some levels of urban population, the rest of the districts show insignificant numbers of urban population. Four of the districts have no urban population. In no district does the urban population come up to one million.

Table 2.3: Urban/Rural Population, Density, and Growth Rates by Districts in NWFP (1981)

District	Rural (000)	Urban (000)	Population Density per km^2	Annual Growth
Peshawar	1,433	849	570	3.31
Mardan	1,282	225	480	2.68
Kohat	387	122	167	3.19
Karak	236	14	63	3.20
Dera Ismail Khan	519	117	71	3.53
Bannu	649	62	162	2.70
Abbottabad	1,017	152	328	2.14
Kohistan	465	-	61	10.18
Mansehra	1,029	37	179	2.19
Swat	1,145	88	140	3.94
Dir	767	-	145	4.50
Chitral	209	-	14	3.25
Malakand Agency	258	-	271	3.94

Source: NWFP 1987

Thirdly, the province seems to be a male-dominated society. As the sex ratios indicate, there were nearly 110 males per 100 females. Although the sex ratio fell from 112 in 1951 to 109 in 1981, the fall could be regarded to be relatively insignificant given the long time period of 30 years.

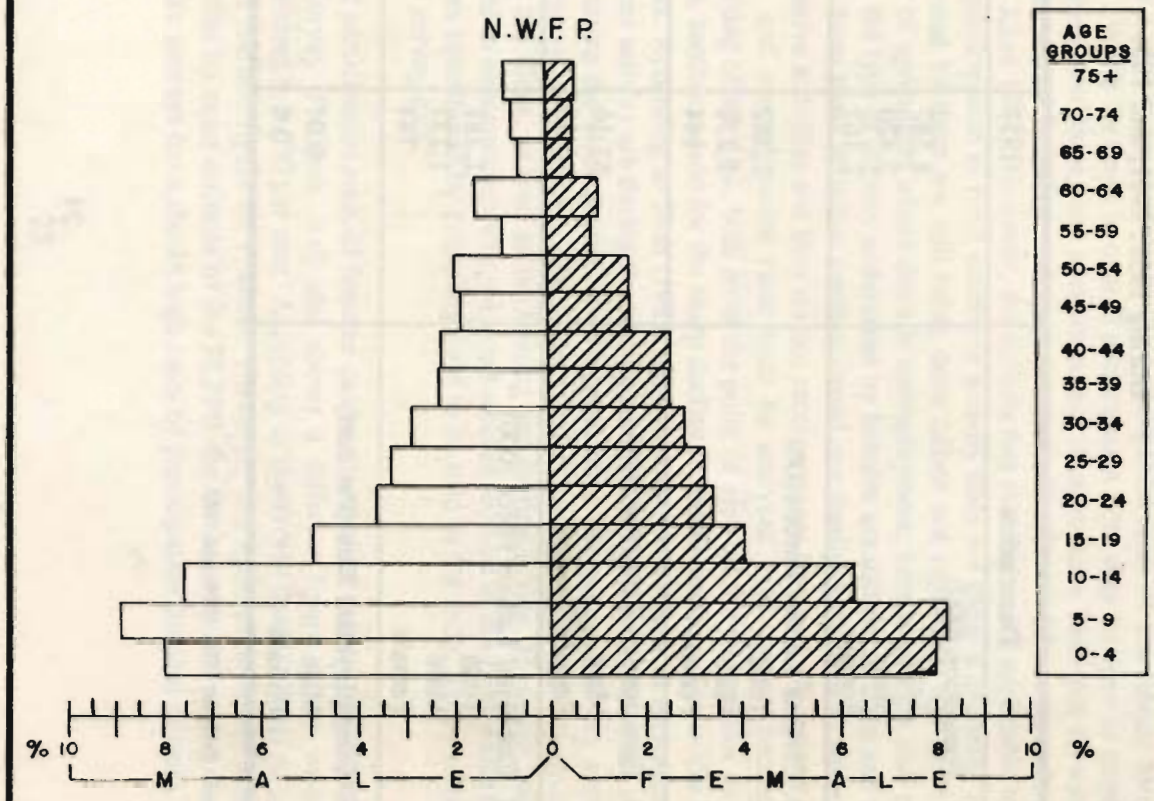
Fourthly, the age composition of the population shows a considerable dependency ratio even though the rise in the trend of this ratio is slight. Looking at the proportion of economically productive popualtion, an average adult had to work harder to support his dependents. Table 2.4 shows the population pyramid for 1981 which clearly brings out this high dependency ratio and the sex structure.

Finally, this population figure excludes the Afghan refugee population where the registered population stands at about 2.5 million and an additional unregistered popualtion of anything up to a million. This aspect further adds to the already exploding population of the province. This will be dealt with in a later section of this chapter.

Table: 2.4

AGE AND SEX STRUCTURE

1981



AGE GROUP	N.W.F.P. POTH SEIES	MALE	FEMALE
TOTAL	100	52.09	47.91
0-4	15.89	7.85	8.03
5-9	17.11	8.88	8.23
10-14	13.82	7.55	6.28
15-19	9.01	4.96	4.05
20-24	6.96	3.63	3.33
25-29	6.57	3.34	3.23
30-34	5.67	2.88	2.79
35-39	4.73	2.27	2.45
40-44	4.77	2.28	2.45
45-49	3.48	1.77	1.71
50-54	3.75	1.99	1.75
55-59	1.83	0.96	0.86
60-64	2.69	1.54	1.15
65-69	1.04	0.58	0.46
70-74	1.29	0.76	0.54
75+	1.40	0.84	0.56

While population growth rates and structural changes therein are a potential source of labour supply, the actual growth and composition of the labour force would largely depend upon the activity rates of the population and employment conditions in the national economy. It is because of these two variables that the growth and composition of the labour force could differ substantially from the growth and composition of the population and needs separate treatment.

Size, Structure, and Employment of the Labour Force

The size, structure, and employment of the labour force in the NWFP may be examined by reference to population censuses and labour force surveys. While the latter are an occasional activity, population censuses are a regular feature and are undertaken at an interval of 10 years usually in the last fiscal year of each of the decade. As the labour force surveys, however, deal with percentage distribution of population and labour force, they are unsuited for study of size and growth rates in labour force and employment. The population census of 1972 also followed the pattern of labour force surveys in data reporting. As such, it is also unsuited for the purpose of studying labour force magnitudes. Accordingly, the following analysis of the labour force and its employment has been based completely on the data from the popualtion censuses of 1951, 1961, and 1981 (Table 2.5).

Table 2.5: Size, Structure, and Employment of the Labour Force in the NWFP by Sex During 1951, 1961, and 1981

Description	1951	1961	1981
1. Population (000)			
Total	4,587	5,752	11,061
Male	2,420	3,005	5,761
Female	2,167	2,747	5,300
2. Civilian Labour Force (000)			
Total	1,382	1,745	2,905
Male	1,238	1,581	2,811
Female	144	164	94
3. Participation Rate (Per cent)			
Male	51.16	52.61	48.79
Female	6.65	5.97	1.77
4. Employed Labour Force (000)			
Total	1,381	1,698	2,840
Male	1,237	1,535	2,752
Female	144	193	88
5. Unemployment Rate (Per cent)			
Male	0.01	2.9	2.1
Female	0.0	0.6	6.4

Source: Pakistan 1956, 1964, and 1982

It is clear from Table 2.5 that, in 1951, out of the total population of nearly 4.6 million only about 1.4 million was in the labour force. While the total population increased to 5.8 million in 1961, the civilian labour force rose to 1.7 million. By 1981, the total population exceeded 11 million and the civilian labour force stood at 2.9 million. Comparing the size of the labour force with the corresponding population, these figures indicate that labour force participation rates were rising between 1951 and 1961 but have been on the decline since 1961. This trend in participation rates was largely shaped by male participation rates which rose from 51.16 per cent in 1951 to 52.61 per cent in 1961 but fell to less than 48.79 per cent in 1981. By contrast female participation rates fell consistently over the 30 year period and were abysmally low compared to the male participation rates. From the already low level of 6.65 per cent in 1951, they further declined to 1.77 per cent in 1981.

Table 2.5 also reveals that almost the entire population in the civilian labour force was productively employed in 1951 irrespective of sex. The unemployment rate however stood at 2.9 per cent in 1961 and was confined almost entirely to the male civilian labour force. The situation was reversed in 1981. Not only did the level of employment improve, but the unemployment rate of 2.1 per cent was considerably lower than the female unemployment rate of nearly 6.4 per cent.

As to whether the declining labour force participation rates are real; it is a debatable question. It has been argued by Rukanuddin and Farooqui (1988) that the trend may be the result of changes in the definitions of labour force adopted from time to time. But they also say that the trend seems to be consistent with historical census data that show a significant decline in the participation rates of the labour force in Pakistan between 1901 and 1951. While the trend in overall participation rates may be open to question, other arguments, based on customs, traditions, and socioeconomic changes have been put forward to support the empirical evidence that shows declining participation rates for the female labour force in rural areas of Pakistan (Chaudhry and Khan 1987). However, the authors feel that this is not applicable to the mountain regions where female participation in rural economic activity does not show a declining trend since the jobs previously performed by them are still being done (albeit not reported), and there is a tendency for labour to move out of agriculture where there is unemployment; here migration also plays a very important role. Secondly, the type of activity undertaken by females are distinct to them and male labour does not displace females from these activities (neither casual nor family male labour) since they are time-consuming, labour intensive activities and they do not receive wages for them. Moreover, any mention of female employment and unemployment rates must be analysed with caution because of conceptual problems in the reporting of the data, both from the point of view of the enumerator as well as the respondents. Besides these, another reason for the sharp decline in female participation in the 1981 Census is the timing of the census. According to Shah (1985) most women are engaged in agriculture in Pakistan and the periods of greatest activity are during the sowing and harvesting season. The time of the agricultural census (1981) was during the slack season when women were not engaged in any activity; hence the very low figure. In a survey of Mansehra, the *Gujar* (a tribe) women were actively involved in working at home, working in the fileds, as well as in cleaning and storing grains. However, women in all the survey areas participated in economic activity. Married women worked in the field while those whose husbands were shopkeepers contributed by preparing food to be sold in the shop. These activities tend to be omitted from national survey data.

The discrepancies in the reported participation rates of females can be assessed by glancing at Table 2.6. Besides these data, the HLD Survey (Pakistan, n.d) also shows a different figure where women's participation in agriculture is estimated to be 70 per cent. According to the World Bank (1989a) an urban FLFPR of 25 per cent would be a realistic figure for Pakistan. However, this again excludes the females in the informal sector. There is thus no exact estimate of the FLFPR for the country and neither for the NWFP but observations and micro surveys have shown high rates of participation (unpaid labour).

Table 2.6: Labour Force Participation Rates in Pakistan by Sex (Urban and Rural) 1951-1986/87 (Selected Years)

(Percentage)

Year/Data Source	Crude Participation a/ Rates		Refined Participation Rates	
	Male	Female	Male	Female
Population Censuses				
1951	55.1	2.1	79.4	8.1
1961	55.0	6.1	80.8	9.3
1972	55.4	6.2	77.6	9.0
1981	50.5	2.1	72.5	3.5
Labour Force Surveys				
1966/67	57.6	6.7	86.7	10.5
1967/78	57.8	6.4	86.7	10.5
1968/69	52.4	4.4	79.0	6.6
1969/70	53.3	4.9	79.8	7.3
1970/71	53.1	5.4	80.0	8.1
1971/72	51.9	5.4	78.6	8.0
1974/75	52.1	4.3	76.6	6.0
1978/79	52.3	7.9	77.3	11.8
1982/83	51.5	7.2	75.2	10.7
1984/85	51.7	5.8	77.1	8.7
1985/86	50.0	6.0	74.8	9.1
1986/87	49.5	7.9	73.5	11.9
Women-specific Surveys b/			Urban/Rural FLFPR	Urban as % of Rural FLFPR
(1) 1968/69 (NIS)	-	-	9.0/22.3	40.4
(2) 1975 (PFS)	-	-	15.6/18.1	86.2
(3) 1984/85 (PCPS)	-	-	7.9/24.6	32.1
Agricultural Census (1980)				
Average of (1), (2), (3)			-/73.2	(52.9)
Average of (1) & (3)				(36.3)

a/. Crude participation rates are expressed as the ratio of the labour force to total population, and refined participation rates as the ratio of the labour force to the economically active population.

b/. From the National Impact Survey (NIS) 1968/69, the Pakistan Fertility Survey (PFS) 1975, and the Pakistan Contraceptive Prevalence Survey (PCPS) 1984/85. Participation rates are for married women aged 15-49.

Sources: 1. Pakistan: Employment Issues and Prospects, Table II. 3, World Bank, 1989 (with urban/rural ratios and agricultural census data added)

2. World Bank, Women in Pakistan, 1989b

Labour Force and Employment

In 1989/90, the labour force in the country consisted of 30.82 million of which 23.23 million was urban and 8.59 million rural. Between 1987/88 and 1988/89, about 0.95 million workers entered the labour force. Nearly 15.77 million (51.2 % of the total employed labour force) were employed in the agricultural sector in Pakistan. This was followed by 12.7 per cent in manufacturing, 11.9 per cent in trade, 5.4 per cent in construction, 4.9 per cent in transport, and about 13 per cent in other sectors. This, however, excludes the bulk of the female labour force witch is not reported although the participation rate is high.

An estimated one million of the labour force was unemployed in 1989/90. The rate of open employment was 3.13 per cent (cf. Table 2.7). However, disguised unemployment aslo exists where many work less than 35 hours during the reference week. When this is included, the unemployment rate according to the Economic Survey of 1989/90 works out at 13.45 per cent (i.e., approximately 4.3 million persons).

Table 2.8 shows the open unemployment and under-employment for selected years. The under-employment figures show the magnitude of the labour force that needs employment and hence the need to generate off-farm employment. The table also clearly shows how deceptive the unemployment figures are in providing insights about the employment needs of the country in reality, since all these persons will be competing for the same jobs. There are varying figures given to show the level of unemployment. It is generally the open unemployment figures that are reported and only in some cases are disguised unemployment rates estimated. Problems in estimation also arise as the labour may be unemployed only for a short period of time. Another reason for inaccurate estimates is the fact that unemployment data are not provided by the workers. This is mainly for two reasons; on the one hand, there are no unemployment benefits to report for and, on the other, the dignity of the reporting workers in their own locality is affected by acknowledging this fact. Finally, women are shown only as housekeepers and no mention is made of their level of employment. Therefore data on the level of prevalent unemployment need to be analysed with care as the data conceal more than they reveal.

In the case of the NWFP, employment and unemployment figures have not been published after 1981. However the percentage of males and females in the employed and unemployed category is shown for urban and rural areas (Table 2.9).

However, in common with those for the rest of the country the unemployment data must be handled with care. Moreover in the agricultural sector there are casual (daily labour), family (unpaid labour), and obligation labour. In the case of casual labour, the seasonal nature of agriculture must be kept in mind and hence the employment/unemployment rates shown would not capture the entire time period of employment/unemployment. Family labour has certain problems of its own. Firstly, for unpaid labour, employment cannot be assessed as there is always some work in the field or around the house even though the time worked may be much below the 35 hour criterion. Secondly, women's (unpaid) labour is not reported since they perform various activities and when questioned housekeeping takes precedence and thus they are omitted from the labour force.

For obligation labour force, where payment for labour is made by reciprocating with labour, problems of estimating the unemployment rate again arise with reference to the time criterion.

Table 2.7: Labour Force and Employment in Pakistan

(Unit: million)

	1987/88	1988/89	1989/90
Population	103.82	107.04	110.36
Working Age Population	69.25	71.40	73.61
Labour Force	29.93	30.87	31.82
Employed Labour Force	28.99	29.00	30.82
Unemployment Rate (%)	3.31	3.13	3.13
Labour Force Participation Rate (%)	28.83	28.83	28.83

Source: Pakistan Economic Survey 1989/90

Table 2.8: Open Un-employment and Under-employment During Selected Years in Pakistan

(Unit: Percentage of Labour Force)

Year	Unemployment			Working Less than 35 Hours/Week		
	All Areas	Rural	Urban	All Areas	Rural	Urban
1963/64	0.98	0.82	1.59	N.A.	N.A.	N.A.
1969/70	1.98	1.75	2.90	8.3	9.5	4.13
1974/75	1.69	1.3	2.7	4.8	5.5	2.8
1978/79	3.55	3.0	5.2	13.0	5.6	4.6
1982/83	3.90	3.3	5.8	14.0	16.2	7.0
1984/85	3.72	3.0	5.8	9.6	11.6	4.0
1986/87	3.05	2.50	4.5	10.4	12.7	4.4
1987/88	3.13	2.60	4.60	11.0	13.3	4.8

Source: Labour Force Survey (Various Years)

Table 2.9: Percentage Distribution of Civilian Labour Force by Nature of Activity and Sex in NWFP (1987/88)

1.	Civilian Total Labour Force	100
	Male	89.83
	Female	10.17
2.	Employed Total	95.45
	Male	85.31
	Female	10.13
3.	Unemployed Total	4.55
	Male	4.52
	Female	0.03
4.	Urban Employed	95.54
	Male	90.82
	Female	4.72
5.	Unemployed	4.46
	Male	4.25
	Female	0.21
6.	Rural Employed	95.43
	Male	84.25
	Female	11.17
7.	Unemployed	4.57
	Male	4.57
	Female	-

Source: NWFP 1987

Transformation of the Labour Force

As development proceeds, many concomitant changes occur in the labour market. The rising specialisation of the production process places rising demands on skill development and forces occupational shifts in the labour market. Although the absolute magnitude of the labour force in agriculture and in rural areas may still be rising, its relative share begins to decline in response to more rapid production increases in the secondary and tertiary sectors and the consequent rise in labour demand there. Along with this is the pressure on the land and the inability of agriculture to absorb the growing population and fulfil its needs. Add to this the influx of over 3 million Afghan refugees with their herds of animals all competing for the same resources! How far this transformation has occurred in the NWFP economy is considered in the following pages in the light of the census and labour force survey data reported in Table 2.10.

Table 2.10: Distribution of Employed Persons by Agricultural and Non-agricultural Activities in the NWFP

Date Source/Year	Total Employed	Employed in Agriculture	Off-farm Employment
Population Censuses			
1951	100.00	69.24	
1961	100.00	67.36	
1972	100.00	60.17	
1981	100.00	61.14	
Labour Force Surveys			
1982-83	100.00	52.63	47.37
1984-85	100.00	56.74	43.26
1985-86	100.00	59.24	40.76
1986-87	100.00	52.21	47.79
1987-88	100.00	51.21	48.49

Source: Pakistan 1956, 1964, n.d, 1982c, 1982d, 1984c, 1984d, 1986, 1987a, 1987b, and 1989a

It is clear from Table 2.10 that off-farm activities have been on the increase in the NWFP. According to census data, the share of off-farm employment went up from nearly 31 per cent in 1951 to nearly 40 per cent in 1973 but fell slightly in 1981 to about 38 per cent. Correspondingly, the agricultural sector employed only declining proportions of the employed labour force with the passage of time. By contrast, the labour force survey data show no consistent trend. Taking 1982/83 as the base period, employment in off-farm activities seems to have declined over 1984/85 and 1985/86 but rose in the subsequent two years with opposite changes in the farm sector. Compared to the first falf of the eighties, however, a rising trend in off-farm employment is noticeable from the table.

It may be noted, however, that neither the census data nor the labour force survey data are consistent with individual research studies. Ghayut (1987) in a study of the Barani rural households has indicated that only one-third of the rural labour force was engaged in agricultural pursuits in the NWFP. Similarly, a study by Ali (1981) in the mountainous areas of Azad Kashmir points to the very low proportions of the labour force employed in agriculture. Assuming that off-farm incomes are double of those in the farm sector, a proportion of 10-14 per cent of income generated in agriculture implies that the labour force employed in agriculture did not exceed 20-28 per cent.

While the estimates of off-farm labour vary significantly from source to source, it is difficult to ascertain the accurancy of either one without a comprehensive survey. As many of the households, or even the individuals, may be engaged in both farm and off-farm activities. Time spent in each of the activities should be used as a criterion for classifying the labour force.

As far as the occupational structure of the labour force is concerned, the data in Table 2.11 are self-explanatory and point to many conclusions.

Table 2.11: Distribution of Working Labour Force by Occupations for Selected Years

Major Occupations	Per cent Distribution of Workers During:					
	1981	1982	1984	1985	1986	1987
1. Professional, Technical & Related Workers	3.67	3.28	3.04	2.97	4.98	3.59
2. Administrative & Managerial Workers	0.55	0.62	0.63	0.60	0.65	0.30
3. Clerical & Related Workers	2.80	5.24	3.87	4.34	4.22	4.34
4. Sales' Workers	6.37	9.79	8.24	8.99	10.00	10.31
5. Service workers	4.04	6.08	4.33	4.71	4.26	5.22
6. Agricultural, Animal Husbandry, Forestry, Fishery, & Hunting Workers	60.14	53.10	56.44	58.83	51.97	51.10
7. Production & Related Workers, Transport Equipment Operators & Labourers	18.40	21.90	22.99	19.94	23.01	24.90
8. Unclassified Workers	3.44	-	0.45	0.02	0.10	0.24

Source: Pakistan 1984a, 1984b, 1984c, 1986, 1987a, 1987b, and 1989

Agriculture, as shown earlier, is the dominant profession of a large number of workers, accommodating as many as 60 per cent and 51 per cent of the total workers in 1981 and 1987/88 respectively. Professional, technical and related workers, and those in administrative, managerial jobs represented a fixed proportion of total workers throughout the period. Between 1981 and 1987/88, clerks, sales workers, service workers, and production workers witnessed expanding job opportunities as is reflected in the rising proportions of these occupational groups. A very important group is the informal sector which has grown rapidly, especially in the urban areas or close to the urban areas, engaging both men and women. These include petty traders, domestic servants, the private transport sector, tailors, shopkeepers vendors - eggs, milk, and poultry suppliers etc, and casual labour.

If the same data is analysed by sex, there are significant differences, as reflected by data in Table 2.12, in the occupational structure of males and females. However when analysing data by sex it must be kept in mind that the base of the reported female labour force is very samll, therefore a large increase in any group only reveals a direction.

Table 2.12: Occupational Structure of Labour Force by Sex for Selected Years

Sex/Occupational Group	1981	1984/85	1985/86	1986/87	1987/88
A. Male	100.00	100.00	100.00	100.00	100.00
1	3.32	2.97	2.70	4.62	
2	0.56	0.67	0.64	0.71	
3	2.70	4.19	4.65	4.50	
4	6.48	8.89	9.49	11.70	
5	3.84	4.32	4.77	4.20	
6	61.33	54.14	57.36	49.84	
7	18.32	24.33	20.38	24.33	
8	3.36	0.49	0.21	0.10	
B. Female	100.00	100.00	100.00	100.00	100.00
1	14.24	3.84	6.86	8.71	
2	0.31	0.13	0.00	0.00	
3	3.10	0.00	0.00	1.36	
4	3.10	0.26	2.04	1.47	
5	9.91	4.64	3.94	4.98	
6	42.72	84.50	78.98	73.98	
7	20.74	6.62	8.18	9.39	
8	5.88	-	-	0.11	

Source: Pakistan 1984a, 1984b, 1984c, 1986, 1987a, 1987b and 1989

Although agriculture was the major occupation of men and women, a smaller proportion of working women than men were in agricultural occupations in 1981. However, an increasing proportion of females were employed in agriculture relative to men in subsequent years. Relatively higher proportions of the female work force than the male work force were specialising in almost all occupations with the exception of administrative and clerical work and salesmanship in 1981. In subsequent years, apart from agricultural, professional, technical, and related work showed relatively higher female participation than male.

Much like the differences in the occupational structure by sex, the pattern of distribution of occupations varied significantly between urban and rural areas as should be clear from the data in Table 2.13.

In the rural areas, occupations were heavily concentrated in agriculture, animal husbandry, forestry, fishing, and hunting. By contrast urban areas were overwhelmingly dominated by production and related workers. While production and related workers ranked second and sales' workers third in importance as rural occupations after agriculture, each of the categories of sales' workers, service workers, and clerical and related workers had higher priority than the agricultural workers in the urban areas.

The professional, technical and related workers, and administrative and managerial workers were more heavily represented in the urban occupational structure compared to the rural areas. Table 2.14 gives the distribution of employed persons by major industries.

Table 2.13: Occupational Structure of Labour Force by Urban-Rural Areas for Selected Year

Urban-Rural Areas	1981	1982/ 1983	1984/ 1985	1985/ 1986	1986/ 1987	1987/ 1988
A. Urban Areas	100.00	100.00	100.00	100.00	100.00	100.00
1	7.22	9.92	6.99	6.33	8.08	7.01
2	1.61	1.87	2.38	3.27	2.60	1.05
3	7.66	11.25	8.94	10.45	9.59	9.93
4	18.03	22.56	26.46	22.74	22.95	22.70
5	11.12	10.78	9.22	9.45	7.15	8.50
6	7.51	9.90	8.81	12.30	7.67	9.55
7	38.87	33.72	36.97	35.25	41.85	41.00
8	7.98	0.00	0.21	0.21	0.21	0.25
B. Rural Areas	100.00	100.00	100.0	100.0	100.00	100.00
1	3.08	2.04	2.39	2.42	4.45	2.93
2	0.38	0.39	0.34	0.16	0.32	0.16
3	2.00	4.12	3.02	3.34	3.30	3.27
4	4.44	7.40	5.19	6.74	8.72	7.94
5	2.86	5.20	3.51	3.93	3.77	4.59
6	69.52	61.17	64.39	66.44	59.56	59.08
7	15.02	19.69	20.66	16.97	19.79	21.80
8	2.68	0.00	0.50	0.00	0.09	0.23

Source: Pakistan 1984a, 1984b, 1984c, 1986, 1987a, 1987b, and 1989

In the absence of data regarding provincial GDP, the contribution of sectors, and employment generated therefrom, other indicators are being used to discuss transformation of the labour force.

Table 2.14, besides showing the percentage employment of the labour force by major industry also reveals certain characteristics of the NWFP. Urbanisation accounting for 15 per cent leaves 85 per cent in the rural divide in the NWFP while about 59 per cent of agriculture is rural and about 9 per cent is urban compared to the Punjab where the figure stands at about 65 per cent and 6 percent respectively, whereas for Sindh it is about 80 per cent rural and 5 per cent urban. The first implication that follows is that there is a move away from rural agriculture in the NWFP where this sector absorbs less labour compared to other provinces.

Secondly, urban agriculture, which is not basically just crop production but may include livestock, poultry, etc, employs more labour in the NWFP than in the other provinces.

Thirdly, the construction sector, the transport and communication sector, and the community, social, and personal service sectors in the NWFP absorb more labour than in the Punjab and Sindh (both rural as well as urban), while the hotel, restaurant, wholesale, and retail sector employ more rural labour in the NWFP than the Punjab and Sindh.

Table 2.14: Percentage Distribution of Employment Persons of 10 Years Age and Above by Major Industries : 1987/88

Major Industry	Pakistan			Baluchistan			N.W.F.P.			Punjab			Sindh		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Agriculture, Forestry, Hunting, & Fishing	51.15	67.49	6.02	66.51	75.16	11.74	51.21	59.37	8.72	51.50	65.45	5.97	47.41	79.97	5.24
Mining & Quarrying	0.15	0.18	0.06	1.68	1.80	0.90	0.10	0.09	0.15	0.11	0.13	0.05	0.02	0.04	0.00
Manufacturing	12.69	8.34	24.72	2.70	2.27	5.42	8.02	6.77	14.52	13.68	10.06	25.53	14.19	4.60	26.63
Electricity, Gas, & Water	0.59	0.39	1.40	0.53	0.16	2.89	1.39	1.21	2.33	0.49	0.31	1.06	0.45	0.07	0.93
Construction	6.38	6.08	7.20	4.30	3.86	7.14	10.11	10.24	9.43	6.47	6.21	7.33	4.42	2.78	6.55
Wholesale, and Retail Trade, Restaurant & Hotels	11.93	6.85	25.94	9.36	6.36	28.36	11.37	8.72	25.10	11.29	6.80	25.95	14.50	5.66	25.95
Transport, Storage, & Communication	4.89	3.45	8.86	3.37	2.76	7.23	5.49	4.42	11.67	4.83	3.66	8.63	4.96	2.04	8.73
Financing, Insurance, Real Estate, & Business Service	0.71	0.20	2.13	0.28	0.04	1.81	0.38	0.30	0.81	0.56	0.21	1.67	1.40	0.07	3.12
Community, Social, & Personnel Services	11.39	6.91	23.77	11.01	7.60	32.61	11.44	8.43	27.14	11.00	7.10	23.74	12.55	4.76	22.64
Activities Not Adequately Defined	0.12	0.10	0.26	0.00	1.90	0.39	0.44	0.12	0.07	0.07	0.07	0.07	0.10	0.00	0.22

Note: Provisional Data
Source: Pakistan 1989a

Fourthly, the manufacturing sector in the NWFP stands out, when compared to the Punjab and Sindh, in the context of employing less labour. In fact the total employment of this sector for the NWFP stands at 8 per cent as against about 14 per cent of the Punjab and Sindh. When disaggregated into urban and rural groups, the urban shows only 14 per cent employment for the NWFP against about 26 per cent for both the Punjab and Sindh.

This clearly brings out the backwardness and inadequacy of the manufacturing sector to provide off-farm employment for the agricultural labour which is already moving out of agriculture.

The transformation of labour is also reflected in the productivity of labour which is normally reflected through the wage rate. In the NWFP the daily wages of construction labour, as shown in Table 2.15, underline two important implications. Firstly, construction workers command lower rates in Peshawar than in the other provincial capitals for 1989. However, in this instance, it is not just productivity but over-supply that tends to depress the wage rate. It is the only province that is releasing agricultural labour from the agricultural sector and where the manufacturing sector is not robust enough to absorb all the labour as already shown in Table 2.14. Secondly, although the construction sector in the NWFP employs more labour than the other provinces, it is quite obvious that there is over-supply here also, since the wages of masons, carpenters, and unskilled workers are lower in this province. There is thus a need to improve the skills and productivity of labour, on the one hand (NWFP) has one of the lowest literacy rates), and increase the tempo of industrialisation, on the other, to help in the transformation of the labour force.

Table 2.16 shows the employment status of the civilian labour force in 1987/88 where the 4 categories of employers, self-employed, unpaid family helper, and employees are shown for the major industries by urban and rural divisions. This brings out the importance of the self-employed category in all the categories as against the employer category and it also shows those sectors which use more labour (employees). In the urban area, these are the social/personal service sectors, followed by transport/communication, and manufacturing and construction, while in the rural area social/personal service is followed by agriculture and construction. Another important aspect of the agricultural sector is that, for both urban and rural, the bulk of the workers are self-employed and unpaid family helpers leaving lettle scope for increasing use of casual labour.

Economic Development and Migration

The type and level of off-farm employment is directly related to the level of economic development. According to Mellor (1991), the faster the agricultural sector grows, the faster the decrease in its relative size in the economy. This is because agricultural growth stimulates an expansion of those activities that can be linked to the increase in agricultural growth. The Green Revolution helped create the services' sector and related industries in the Punjab and Sindh but how successful these sources of off-farm employment will be depends upon the availability of certain other prerequisites such as electricity, roads, vehicles, and other infrastructure. In the NWFP, the Green Revolution has helped increase productivity but has not been conducive to the establishment of the linkages, as in the Punjab and Sindh, and its impact on the transformation of the labour force has not been very significant. The inability of an economy to generate growth and alternate forms of employment is one of the reasons for migration out of a region.

Table 2.15: Daily Wages of Construction Workers in Different Cities

Category of Workers and Cities	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Carpenter														
- Islamabad	39.00	40.00	47.50	55.00	60.00	65.00	65.00	65.00	75.00	80.00	75.00	79.37	93.12	96.25
- Karachi	40.00	50.00	55.00	65.00	65.00	75.00	78.33	79.50	79.41	80.00	90.00	99.64	112.30	116.15
- Lahore	32.50	36.67	40.83	50.00	55.83	62.50	56.67	60.00	65.00	70.00	75.00	78.03	87.14	99.64
- Peshawar	29.38	37.50	42.50	47.50	52.50	72.50	72.50	80.00	76.25	77.50	75.00	84.37	90.00	90.00
- Queta	35.00	35.00	40.00	60.00	65.00	70.00	70.00	70.00	80.00	80.00	90.00	92.50	102.50	110.00
Mason(Raj)														
- Islamabad	39.00	40.00	47.50	55.00	60.00	65.00	65.00	65.00	75.00	80.00	75.00	79.37	87.50	96.25
- Karachi	40.00	50.00	55.00	65.00	65.00	75.00	78.33	79.50	79.23	80.00	90.00	01.93	117.69	119.62
- Lahore	32.50	48.83	43.33	50.00	55.83	62.50	60.83	66.67	70.00	75.00	75.00	78.21	85.71	100.00
- Peshawar	30.62	37.50	42.50	47.50	60.00	67.50	73.13	80.00	75.00	77.50	75.00	78.12	78.75	90.00
- Quetta	37.50	35.00	40.00	60.00	65.00	70.00	70.00	70.00	80.00	80.00	90.00	92.50	102	110.00
Labourer (Unskilled)														
- Islamabad	14.25	14.50	19.00	25.00	25.00	25.00	30.00	32.50	32.50	37.50	37.50	38.12	40.00	47.50
- Karachi	18.00	25.00	27.50	27.50	27.50	27.50	29.72	29.50	30.59	39.50	40.00	49.73	53.80	56.52
- Lahore	18.00	18.00	18.00	20.00	25.00	30.00	30.00	33.33	35.00	40.00	39.16	41.42	46.07	51.42
- Peshawar	10.00	13.75	14.63	18.00	21.50	21.88	25.00	25.00	25.00	25.00	30.00	27.50	32.50	37.50
- Quetta	15.00	15.00	15.00	20.00	22.50	25.00	27.50	27.50	32.50	35.00	35.00	35.00	33.75	37.50

Data pertains to month of November each year

Source: Federal Bureau of Statistics (Monthly Statistical Bulletin)

Table 2.16: Percentage Distribution of Employed Persons of 10 Years Age and Above by Major Industries Employment Status and Area in N.W.F. Province (1987-88)

Major Industry	TOTAL					RURAL					URBAN				
	Total	Employer	Self-employed	Unpaid Family Helper	Employee	Total	Employer	Self-employed	Unpaid Family Helper	Employee	Total	Employer	Self Employed	Unpaid	Employee
Total	100.00	0.84	43.37	26.05	29.74	100.00	0.55	44.52	28.71	25.91	100.00	0.79	37.41	12.16	49.64
Agriculture, Forestry, Hunting, and Fishing	51.21	0.57	23.59	21.90	5.15	59.37	0.67	27.31	25.50	5.89	8.72	0.05	4.20	3.17	1.30
Mining and Quarrying	0.10	0.00	0.01	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.15	0.02	0.05	0.00	0.07
Manufacturing	8.02	0.01	2.88	1.59	3.54	6.77	0.00	2.40	1.55	2.81	14.52	0.05	5.33	1.79	7.34
Electricity, Gas, and Water	1.39	0.00	0.07	0.06	1.26	1.21	0.00	0.05	0.08	1.09	2.33	0.00	0.20	0.00	2.14
Construction	10.11	0.06	4.36	0.29	5.40	10.24	0.04	4.55	0.31	5.34	9.43	0.15	3.39	0.17	5.72
Wholesale and Retail Trade, Restaurants and Hotels	11.37	0.18	8.21	1.53	1.45	8.72	0.15	6.53	0.88	1.17	25.10	0.37	16.90	4.94	2.90
Transport, Storage, and Communication	5.59	0.02	1.79	0.05	3.73	4.42	0.00	1.56	0.03	2.83	11.67	0.12	2.97	0.17	8.40
Financing, Insurance, Real Estate, and Business Services	0.38	0.00	0.11	0.00	0.28	0.30	0.00	0.08	0.00	0.22	0.81	0.00	0.25	0.00	0.56
Community, Social, and Personal Services	11.44	0.00	2.14	0.62	8.68	8.43	0.00	1.78	0.37	6.27	27.14	0.02	4.00	1.92	21.20
Activities not Adequately Defined	0.39	0.00	0.23	0.00	0.17	0.44	0.00	0.25	0.00	0.20	0.12	0.00	0.12	0.00	0.00

Source: Labour Force Survey 1987/88, Federal Bureau of Statistics, Statistics Division, Government of Pakistan

Patterns of Migration

Migration involves the physical movement of labour in response to available opportunities in and around the vicinity of inhabited localities. While the movement of labour has been an incessant phenomenon over the past, its study in Pakistan has been of recent origin, especially at provincial level. The NWFP being no exception, migration data have become available only in the eighties. While we intend to analyse these data, its limitations must be noted. In the first place, the available data pertain to inter-district migration and exclude the intra-district movement of labour. Secondly, there is no way of knowing the nature of migration as regards seasonality, being permanent, semi-permanent, or temporary. Finally, in certain cases, the former residence of a migrant may not be known, certainly causing difficulties in classifying him as an internal or external migrant.

Depending upon the movement of labour, three major types of migration may be recognised, that is migration within the province, migration into the province from other neighbouring areas, and migration out of the province into domestic and international markets. Within each of these categories, the migration may be between the rural areas and between the rural and urban areas. Depending upon net outflows of labour, an area may lose or gain in labour supply and it is, therefore, important to look at net migration. To get an idea of migration we first look at the total number of migrants in the province and then disaggregate these data by urban and rural areas for each class of migrants.

As reflected by the data in Table 2.17, nearly 106 million persons changed their residence over the last 9 years. Compared with the population of the province in 1981, almost every seventh person moved from his former residence to a new place of residence. Most migrants come predominantly from local areas and these represent over 80 per cent of the total migrants. Since the rural population is nearly 85 per cent of the total population in the NWFP the migration rates of urban and rural areas seem to be proportional to their respective population sizes. Map 2.1 depicts the internal migration pattern of the province.

Out of the total migrants, roughly 11 per cent are migrants within the province. About 12 per cent are in-migrants and the rest are out-migrants. Among the out-migrants, migration to other countries and to other areas of Pakistan was more or less equally divided. Comparison of immigrants and emigrants suggests that the province lost over a million persons over the last 9 years to the other provinces of Pakistan and to international labour markets.

It is apparent from Table 2.17 that there is considerable outflow or exodus of labour from rural to urban areas. The pattern of migration varies with the type of migrants. The rural to rural migration is significant for migrants within the province. When in-migrants are considered, rural to rural, rural to urban, urban to rural, and urban to urban migrants are almost equally divided. Among the out-migrants, both domestic and international, a very high proportion of migrants originates from rural area for final settlement in urban areas. The same holds for urban to urban migration of domestic out-migrants. Thus it seems that for migration within the province the rural population tends to go to the rural areas and only a small fraction into the urban area, while the urban population tends to go to the rural areas. While the in-migrants are equally divided between the urban and rural areas, out-migrants tend to take up residence in the urban areas. This is one reason why there is a low level of urbanisation in the province.

With the exodus of rural labour there should be a slowing down of growth in the rural labour force and improvement in the market and employment conditions of rural labour. But even for this to occur there must be a slowing down in the rate of increase in the rural labour force or, alternatively, improvement in the productivity of agriculture and its ability to absorb more labour.

Table 2.17: Migration of Population by Rural/Urban Areas by Type of Migrants Between 1972 and 1981

Type of Migrants with Place of Previous Residence	Number of Migrants (000) with Ultimate Residence		
	Total	Rural	Urban
Migrants within Province			
Total	179.4	174.0	5.4
Rural	112.2	109.8	2.4
Urban	67.2	64.2	3.0
In-migrants			
Total	185.8	93.7	92.1
Rural	175.2	87.0	88.2
Urban	10.7	6.7	4.0
Out-migrants Domestic			
Total	614.6	107.1	507.5
Rural	568.6	96.4	472.1
Urban	46.0	10.7	35.3
International Migrants			
Total	591.4	0.0	591.4
Rural	555.6	0.0	555.6
Urban	35.8	0.0	35.8

Source: Pakistan 1984a

Although urbanisation is low in the NWFP, the 2.5 million Afghan refugees are mostly involved in the urban labour market. They thus tend to displace the local labour force and compete with them for the same jobs/services.

Migration out of the NWFP has a complex background (see Table 2.18). There is a greater magnitude of out-migration from the NWFP to all the provinces compared to the in-migration (FATA being the only exception). The net migration (out-migration) figure stands at about 429 thousand.

Moreover, out-migration is normally resorted to by the younger and working age groups while in-migration usually applies to those who are returning home to settle down. The level of out-migration from the province to other provinces in Pakistan is high for the NWFP for the following reasons.

(1) The level of agricultural activity is unable to maintain the rising labour supply and the industrial base is not developed enough to employ all the surplus.

(2) The influx of about 2.5 million Afghan refugees has led to an increase in the population with no change in resource base. The poorer sections of the local population are therefore under tremendous pressure; they have little option but to move out. In fact, the transport system in the informal sector is in the hands of the refugees who come with their own vehicles and could ply without even registering the vehicle. Finally, lack of urbanisation and educational facilities have forced some to move out.

Map 2.1

INTERNAL MIGRATION-1981

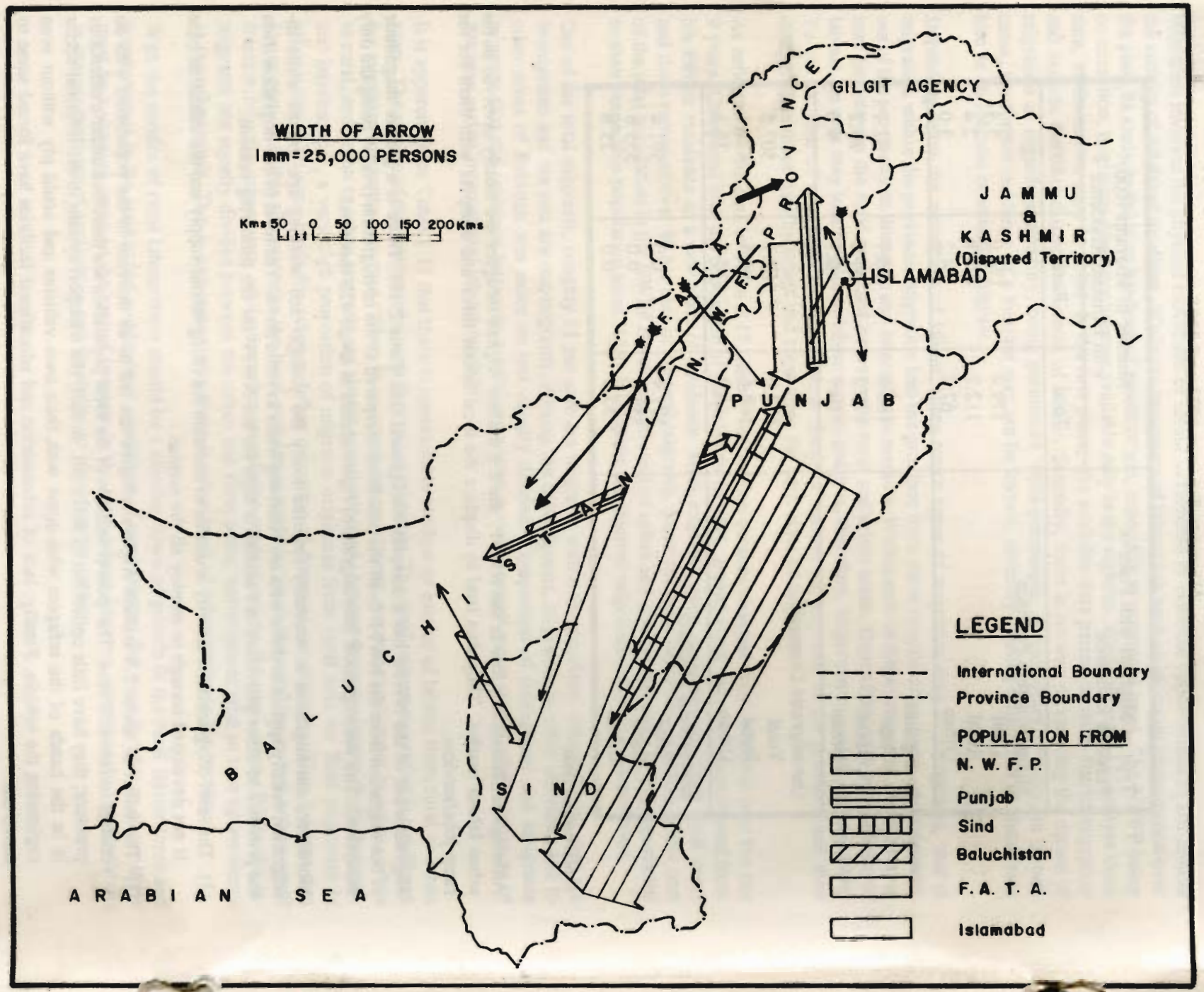


Table 2.18: Migration within the Country

Place of Origin	CURRENT RESIDENCE					
	NWFP	Punjab	Sindh	Baluchistan	FATA	Islamabad
NWFP	0	196,850	369,676	29,490	0	18,588
Punjab	99,058	0	631,578	56,424	0	61,983
Sindh	16,135	92,067	0	10,579	0	3,161
Baluchistan	1,780	54,298	56,988	0	0	409
FATA	67,965	7,759	6,998	452	0	188
Islamabad	955	4,997	2,157	102	0	0

Note: Migration has been recorded for the last 10 years

(3) At the international migration level, the NWFP has the second largest supply after the Punjab (cf. Table 2.19), with the figure standing at over 591 thousand persons. The reasons here are twofold: firstly, the desire to earn higher incomes and secondly, the government policy of providing employment where international emigration helps fulfil government employment objectives. The emigration pattern for 1981 is depicted in Map 2.2.

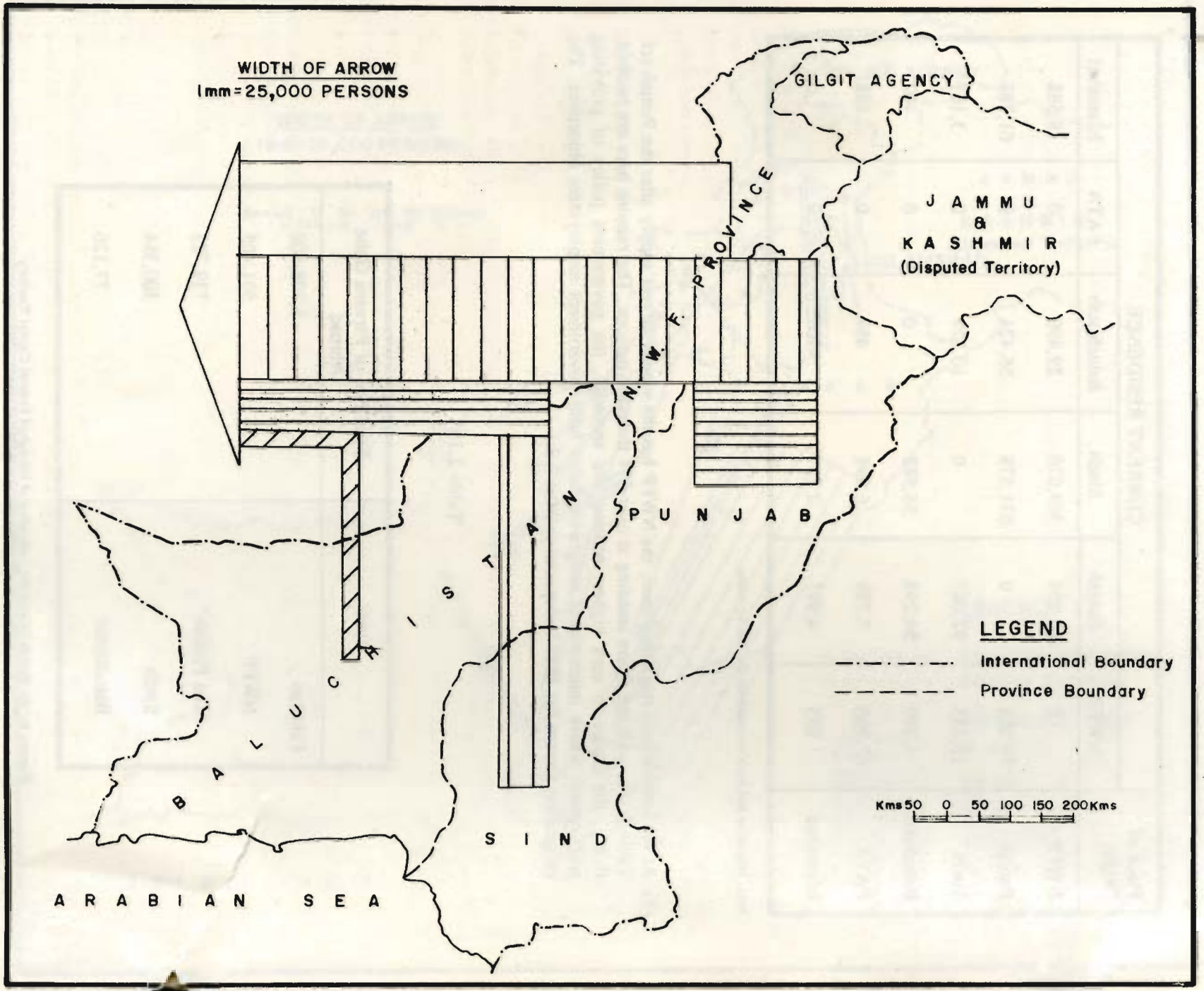
Table 2.19

Area	Total No. of Persons Gone Abroad
Pakistan	1,708,608
NWFP	591,405
The Punjab	739,723
Sindh	300,354
Baluchistan	77,126

Figures for the Punjab include the population of Islamabad Federal Capital Territory

Map 2.2

EMIGRATION PATTERN-1981



Seasonal Migration

Seasonal migration within the procince or as between this and other provinces is a common feature of the NWFP but this is not accounted for in any government data since the migrants return to their old residence at the end of the season. But this has implications for off-farm employment as it is the absence of opportunities that forces them to move out at the end of harvesting time or during severe winters (in the cold rugged mountain regions when communication is disrupted). There is a vicious circle in which lack of industrialisation and economic activities encourage them to move out and, by moving out, the backwardness is reinforced since investment does not come forward as there is not only absence of infrastructure but also the absence of enterprising human resources.

Impact of Migration

An important aspect of this out-migration is that the province loses the working age population who go in search of jobs or go out to obtain education. The latter category are those who shift from rural to urban areas. The in-migrants are of 2 major categories. Firstly, there are those who are returning to settle back in their villages or cities. These are normally those who are in the older or retired age group, or those who have returned from abroad because of the expiry of their contracts, and who may be in the process of looking for lucrative jobs elsewhere and migrating again, either to other provinces or to some other country. There is no information available regarding the migration of returnees the second time around. All out-migrants are educated as if for the first time. Secondly, there are those who come to the NWFP on a job with their firm and are there only for a short period until they are transferred elsewhere. They are normally located in the urban areas and are already employed.

The remittances that are sent home by international migrants are much higher than anything they could have earned within the country and this tends to distort the development of the area. From the national point of view they are a valuable source of foreign exchange but for the locality/village, it does not help either in economic development or in creating off-farm employment. The money is neither invested in the agricultural sector nor in industry (of any sort). There are two main reasons for this outcome. In the first place, most of the workers are unskilled or semi-skilled with little knowledge about the advantages of investing their newly-acquired resources and with little advice available to them. The immediate result is an increase in home consumption and use of luxury goods to make an impression on the neighbours. Secondly, with the rapid increase in wealth and fortune of these people in a very short span of time, there is a tendency to want quick results and a desire to own property. The former accounts for the mushrooming of finance companies offering quick and high returns on money lent to them instead of investing for economic development. The Government had eventually to step in to regulate these finance companies. Their desire to invest money in property has given rise to brisk activities in real estate where the prices of land and property have increased manifold in Pakistan. Another result of this is the growth of Cooperative Housing Societies and other property of holding companies which are chanelling the remittances into their activities. Thus, with the return of the migrants, despite the wealth and income earned and owned, there is little to show in the development of the area except the return of the population to their original place of residence.

The Afghan Refugees

The impact of the inflow of Afghan regugees has a negative effect on the environment and available off-farm employment position, as well as on the population of the province. According to Table 2.20 there are over 2.5 million Afghan refugees living in the NWFP.

Table: 2.20: Province-wise Breakdown of Afghan Refugees (March 1990)

Province	No. of Camps	Registered Population	Unregistered Population	Total
NWFP	125	2,242,127	300,000	2,542,127
Baluchistan	74	850,636	100,000	950,636
Panjab	16	179,527	3,883	183,410
Sindh	1	20,067	55,000	75,067
Islamabad Capital Territory	0	0	2,117	2,177
Azad Kashmir	0	0	3,065	3,065
Total	0	3,292,357	464,065	3,756,422

Source: SAFRON

They have added to the already exploding levels of population growth and the need for food supplies has also increased manifold. This has put more pressure on the agricultural sector which is already less competitive than that of Sindh and of the Punjab, resulting in uneconomic use of land and higher levels of deforestation to meet the food and fuel needs of the refugee population.

Along with this, there is an increase in the dependency rate where the bulk of the population consists of women and children in the camps who are not economically active and who are basically living in the camps. The refugees were expected to return home after the Soviet withdrawal but it has not happened and, in fact, there is still a continuing inflow of refugees. Since the completion of the Soviet withdrawal, an additional 80,000 refugees have come to Pakistan.

Besides the pressure on the land, resources, and environment there is another dimension to the refugee problems. The Afghan refugees are also in the labour force (although this is not shown in the government data) and competing for the same off-farm jobs as the local population. They have the added advantage that they can enter the informal transport sector without even registering their vehicles. Moreover, a certain basic minimum of their daily requirements is already met by the international agencies and the Government of Pakistan. As a result, they can afford to be more competitive. Besides, a lot of the service industries in hotels, transport, tailoring, etc are oriented towards their own refugee population but also expanded to include the local population. This again works by the rule of Pareto's optimality and deprives the local population of those same off-farm jobs, as the cake has to be divided between both the refugees as well as the local population.

Regional Resource-specific Variation of Labour Force

No data exist for the study of regional and resource-specific variations in labour force structure in the NWFP. All that we have is the distribution of population by districts along with the distribution of key variables determining the effective absorption of labour force in these districts. Some of these variables are listed in Table 2.21.

Table 2.21: Percentage Distribution of Population, Fertiliser, Large-scale Industries, Motor Vehicles, Mineral and Electricity in Various Districts of the NWFP During 1985/86

Districts	Per cent of Total of NWFP					
	Population	Fertiliser	Industries	Minerals	Vehicles	Electric Connections
Peshawar	20.6	22.8	44.8	48.2	47.8	35.0
Mardan	13.6	32.3	10.8	4.0	12.8	17.5
Kohat	4.6	4.2	3.7	42.1	7.6	7.8
Karak	2.3	0.0	0.0	0.0	0.0	0.6
Abbottabad	10.6	5.1	11.2	0.0	6.1	9.0
Mansehra	9.6	5.5	0.7	0.0	3.1	4.3
Kohistan	4.3	0.0	0.0	0.0	0.0	0.0
Bannu	6.4	5.8	3.0	0.0	4.6	7.0
D.I. Khan	5.7	4.7	3.0	1.1	7.3	5.6
Malakand	2.3	2.0	1.3	0.0	0.3	2.6
Dir	6.9	3.5	0.0	0.0	1.6	2.8
Swat	11.2	12.2	21.4	4.6	8.8	7.0
Chitral	1.9	1.9	0.0	0.0	0.0	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: NWFP 1987

Given the predominantly self-contained nature of most of the NWFP, it is natural that the production system will be geared to meet the needs of the local population, and farm and off-farm activities will be distributed in all areas in proportion to their population size. This will specifically be true of small and household off farm activities. As far as commercial activities are concerned they will follow the pattern of distribution of fertilisers, large-scale manufacturing industries, mineral resources, mode of transportation, and access to electricity. As Table 2.21 shows, the province seems to suffer from gross inequalities in commercial farm and off-farm activities relative to population size.

It may be seen from the table that the distribution of fertilisers, industries, minerals, vehicles, and electricity connections relative to the population were heavily concentrated in the districts of Peshawar, Swat, Abbottabad, and, to a certain degree, in Kohat and Mardan.

A necessary concomitant of this concentration will be the concentration of farm and off-farm commercial activities in these districts. The other districts, by contrast, seem to be poorly placed in this respect. It must be noted that the districts of Karak, Kohistan, Dir, and Chitral were conspicuous by lack of fertiliser use, industries, minerals, and transport means with only few possibilities of employment in these sectors. The concentration of farm and off-farm activities in the former regions because of the presence of minerals, large-scale industries, electricity, motor vehicles, railways, roads, and their relatively better positions in terms of the presence of infrastructure and skills follows as a result of the population distribution and higher levels of urbanisation together with the facilities that follow urbanisation.

The areas of high concentration of economic activities (farm and off-farm employment), such as Peshawar, Mardan, Swat, and Abbottabad, are also those areas where, according to the PARC agro-ecological zones (cf. Chapter I, Map 1.2), lie the areas with fertile soils and better climates. These areas lie in the Northern Irrigated Plain (Peshawar and Mardan) and wet mountains (Hazara, Abbottabad). Swat, which lies in the northern dry mountains, is better off than the other districts in the same zone.

As regards concentration of industries and the resultant off-farm employment generated therefrom, the resource-specific variation is shown in Maps 1.6 and 1.7 which reveal the main areas of concentration to be Peshawar, Nowshera (Peshawar Division), Charsadda, Mardan, and to a lesser extent, in the Swat Region. All these industries are closely related to the available resources on the one hand and to infrastructure on the other. Thus the Peshawar and Mardan regions have cotton and woollen industries, ceramics, iron and steel engineering, leather tanneries, paper and paper board, sugar, and vegetable ghee. This is the result of the fertile agricultural region as well as available infrastructure, available skills, and a higher level of urbanisation. The Swat Region, in its turn, shows a predominance of silk and rayon and ceramics manufacturing because of the presence of raw materials and the fact that its favourable climate is conducive to silk production. Similarly, Daud Khel has a cement factory because limestone is available there. Chapter 3 will show in details the types and numbers of industries located in the various regions. From this analysis, it is possible to indicate the types and estimate the off-farm employment generated in the different regions of the province.

Need for Off-farm Employment and Labour Demand Profile

The importance of off-farm employment to the structural transformation of mountainous areas or for that matter to that of less-developed countries can not be overemphasised for a number of reasons. Firstly, as development proceeds, large surpluses of labour are released from agriculture which have to be absorbed in the off-farm sector. Second, mountain agriculture consists of small and fragmented farms and is incapable of effective absorption of a rapidly increasing labour force, and creation of sufficient off-farm jobs seems to be the only avenue of productive employment. Thirdly, agriculture in the Hindu-Kush Region can generate only small incomes for the farm population as holdings are small and are vulnerable to the vagaries of nature. Dry spells cause brushfire and excessive rains result in hill torrents with serious damage to standing crops and soil. Under these conditions, off-farm activities seem to be the only means of poverty alleviation. Finally, the region, because of the lack of infrastructure in the form of roads and a steep topography, remains inaccessible to modern biochemical and mechanical technology. It, therefore, follows that the stimulation of the off-farm sector is essential to raise the standard of living of the mountain people. This is all the more important as off-farm activities are doubly rewarding relative to farm activities. Off-farm activities in the NWFP cannot be called distress employment, because the jobs performed enter the formal as well as the informal sector and are performed out of the desire to better one's situation, apart from the jobs performed by the female population who work basically as domestic servants and enter the job market out of compulsion. Moreover, the off-farm jobs have emerged out of needs of the area in relation to the resources and normally follow certain patterns which differ between the sub-regions. For example, wood-processing is more important in areas where forests exist, while food and fruit-processing is more important in other areas. Also, manufacturing is more important where industries exist, while tourism is more important in the northern areas of the province.

The demand for agricultural labour varies over the year. During peak seasons, i.e., harvesting of crops and fruit-picking, there is a high demand, while during slack seasons the demand for labour falls, since farm families can manage with their own family labour. As a result, agricultural casual labour often take part in other activities during the slack season. In fact some may even work in other provinces and return during the pek seasons.

Labour Demand Profile

The labour demand includes casual labour for cash payment, as well as family labour and obligation labour, since the aim is to determine the time periods when there is high demand and, hence, employment

of labour; as well as slack seasons when there is additional need for off-farm employment for those who are engaged in agriculture also. The latter is also the period for seasonal out-migration from the rural areas.

For the agricultural sector, certain crops and certain times of the year need more labour. Tobacco, sugarcane, vegetables, and fruit-picking are more labour intensive than the others. The period of peak demand for labour is October-November when the Rabi crop is being planted and th Kharif crop harvested. Thus, it is the harvest time for maize and sugarcane. The next peak demand season is around April-May and June-July during the harvesting of wheat and tobacco. These are the periods of highest demand for labour.

Apart from these 6 months, there is a varying demand for labour on a smaller scale and it is mostly family labour that is used. Thus, for the other six months of the year, there is a surplus supply of labour looking for alternative employment. The cold winter months are also the time when there is seasonal migration from the arid mountain regions to find work before the mountain passes close and make communication impossible, adding to the supply of labour. The demand for labour for tobacco cleaning and processing luckily starts in August-September during the slack season for crop production. Similarly, in the collection, cleaning, storing, marketing, and processing of fruits the demand for labour starts after the exhaustion of the demand for labour in crop production.

There is also an increase in the activities related to transportation and wholesale and retail trade in these products leading to the employment of labour. Off-farm employment here is thus interdependent and interrelated to the agricultural sector. Morever, off-farm employment also involves people in the agricultural sector who may be without work at the end of the peak season. The wages of agricultural labour are the lowest in the NWFP and there is pressure to look for some other sources of employment to compensate for the lack of income from employment in the agricultural sector.

The transportation sector, which is an important source of off-farm employment, also has peak seasons when the demand for transportation is higher than at other times (the other times may not be referred to as the slack seasons since activities do not come to an end). In this sector, the high demands in the plains are at the end of the harvest period, especially for fruits and vegetables, when there is a lot of inter- and intra-provincial trade. In the mountain areas the peak times are during the summer months. In the winter months, activities in the mountains slow down and, if roads/passes are closed, they may cease to function. However, this only happens in a few such as, Chitral, Kaghan, and Kohistan. In spite of these, there is a high demand for transportation during the Eid (Religious) festival.

The peak demand for labour in the hotel, restaurant, and service sectors is between the spring and autumn months, i.e., March to November. The conclusions that follow is that off-farm employment becomes necessary in order to employ the increasing labour force and provide them with a source of income as well as to absorb the labour released by the agricultural sector during the slack season.

Demographic Prognosis

Given the limited ability of agriculture to absorb the growing labour force, the situation is expected to deteriorate in future. Table 2.22 shows the population and labour force projections. Under the high growth scenario, the population growth is projected at 3.15 per cent between 1990-2000, declining to 3.8 per cent between 2000-2010. While the low growth scenario shows a population growth between 1990-2000 at 2.5 per cent and between 2000-2010 at 2.4 per cent.

Table 2.22: Population and Labour Force Pojections

(Unit:million)

Description	1985	1990	1995	2000	2010
A. Population					
High[1]	12.6	14.6	17.0	19.8	26.6
Low[2]	12.6	14.4	16.3	18.3	22.9
B. Labour Force[3]					
High	3.7	4.3	5.1	6.0	8.4
Low	3.7	4.3	5.1	5.9	7.8
C. Growth Rate (Per Cent Per Annum)					
High Labour Force		3.0	3.3	3.3	3.4
Low Labour Force		3.0	3.3	3.1	2.7

Source: Derived from Table 1.2 of the Report of the Commission on Manpower, 1988, on the assumption that 13.1 per cent of the total population is the NWFP's Population

Notes:

1. These projections are based on a decline in the total fertility rate from 6.5 in 1985 to 5.1 in the year 2010, in birth rate from 44.7 to 36.7, and in death rate from 13.8 to 7.7 in the same years [as predicted by the World Bank (1989)].

2. Based on a decline of TFR from 6.5 in 1985 to 3.6 in 2010, of birth rate from 44.7 to 29.4, and of death rate from 13.8 to 7.8.

3. (i) Labour force participation for 85 is derived from the Labour Force Survey 1984/85 and that for 1990 is assumed to be the same as in the Labour Force Survey 1986/87. Subsequent years' calculations are based on labour force participation rates and age structure of the population as given in the World Bank's "Pakistan: Employment Issues and Prospects", April 1989.

   (ii) Net return due to migration is assumed at 50,000 per annum between 1985-95 and 20,000 per annum between 1985 and 2010.

The situation is more critical when seen in terms of the impact on the land, resources, and infrastructure. Table 2.23 shows the man-land ratios. According to the report of the National Manpower Commission, any impact in the slowing down of population growth will be felt only after 2000 as the new entrants to the labour force in the next decade have already been born. Table 2.23 shows the man-land ratio as a direct consequence of the projected populations. The following must, however, be kept in mind when analysing Tables 2.22 and 2.23.

1. Currently, the NWFP population growth rate is higher than that of Pakistan by 0.2 per cent. The implication is that the real population will tend to be higher than shown by the projections.

2. The Afghan refugees are not shown in the population or the labour force since they are expected to go back, but a part of this refugee population which is being assimilated into the local population will be an additive factor and will be entering the labour force.

3. The migrants who have already started to return will be picking up the pace and will be entering the employment markets.

Table 2.23: Projected Availability of Local Land and Cultivated Land Per Person

(Unit: hectares/person)

	1985	2000	2010
		Total Land Area Per Person	
High	0.44	0.38	0.28
Low	0.46	0.41	0.33
		Cultivated Land Per Person	
High	0.10	0.09	0.07
Low	0.11	0.10	0.08

In spite of their tentative nature, several observations can be made from the two tables.

(1) By the year 2000 the population is expected to increase to close to 20 million in accordance with the high scenario and about 18 million according to the low estimates. Both of these are conservative estimates as already discussed. The labour force will go up to 6 million. In this set-up, the total land per person according to the high and low scenarios will be 0.38 and 0.41 hectares per person respectively, while the per capita cultivated land area will be 0.09 and 0.10 hectares per person* respectively. Immense pressure will be brought to bear on the land, and in the NWFP this is already apparent. As it stands, the land in the NWFP is not as productive as in the Punjab and Sindh. It is likely, therefore, that the rate of deforestation will increase not only because of the need for fuel and fodder but also to provide land for cultivation.

(2) Added to this is the increase in the demand for food, due to which land may have to be diverted from cash crops and fruits. This will dampen the off-farm employment opportunities ansing from these activities. At the same time, the need for off-farm employment will be increasing tremendously.

(3) This increase in population will aslo put pressure on socioeconomic sectors such as health and education. More infrastructural facilities and higher investments will be needed just to maintain the present standard of living (when the actual need is to improve the present standard of living).

(4) The need for off-farm employment will increase manifold while the present agricultural sector will be pumping more surplus labour into the economy. Thus new avenues along with the current potentials as seen in the various sectors will have to be explored.

These figures do not take into account any change in this period in the amount of cultivated land consequent upon the water distribution accord.

3

CURRENT STATE OF OFF-FARM EMPLOYMENT

Introduction

The significance of raising off-farm employment to create productive job opportunities needs to be highlighted in view of the prevailing low levels of productivity and the poor absorptive capacity of the agricultural sector. Even in the 1970s, according to Singh (1990), 48 per cent of the farm families in Pakistan obtained their income from off-farm activities which constituted 23 per cent of their total income. These estimates were for Pakistan as a whole. For the NWFP, however, the need for off-farm employment is even more critical because of the small and fragmented nature of landholdings and the still lower productivity and poor labour absorptive capacity of the sector. In this context, there are two aspects that need to be considered. Firstly, the structural transformation of the labour market is an integral part of the general process of the structural transformation of the economy, and the growing absorption of the labour force into the off-farm sector is an essential pre-condition of the successful transformation of a traditional society into a modern and dynamic one. An improvement in the productivity of labour must go hand in hand with the productivity and absorptive capacity of the off-farm sectors of the province. Currently, the magnitude and rate of growth in the structural transformation of the labour market that was envisioned has not taken place in the province. As a result, there is a greater magnitude of release of the labour force from the agricultural sector than its absorption into the formal sector. The out-migration of labour was supposed to fill the gap in the short term, but the inflow of Afghan refugees has more than balanced the out-migration from the province and thus brought in its wake additional pressures on its economy.

Nature of Off-farm Employment

The term off-farm employment refers to employment in the off-farm sector. The farm sector here refers to the crop production sector excluding the livestock, horticulture, forestry, and fishery sub-sectors. Although the term off-farm employment was originally used to connote work performed by farm families outside the agricultural sector, it has increasingly become synonymous with the above terms in the recent literature on the subject.

In dealing with any type of off-farm employment, the following aspects must be considered. Firstly, the magnitude of the employment generated and the linkages influencing these activities; secondly, the resource base of the province with respect to regional variation, its ability to generate off-farm employment, and the importance of the different sectors in this context; thirdly, the urban-rural base of the population and employment available, along with the in and out-migration and their impact on off-farm employment; fourthly, the geophysical structure of the province and the concepts of marginality, fragility, and sustainability in the context of the province and the off-farm employment that is available; and fifthly, the constraints faced (for example, the absence of infrastructure, skill, and investments) along with the scope for future development. These are all interrelated aspects of the off-farm employment market and tend to act as either centrifugal or centripetal forces.

Being essentially an agricultural country, the bulk of the people are either directly or indirectly involved in this sector. However, a farmer (especially a small-scale farmer) normally undertakes and needs to undertake a multiplicity of jobs/services along with crop production over the year, depending upon the

availability of jobs. By its very nature, the agriculture practiced in Pakistan also includes the raising of cattle and livestock and the keeping of poultry. There are peak seasons in the crop production sector when employment is readily available followed by slack seasons when farmers may need to supplement their income by some form of off-farm activity. This may include the marketing of crops, especially cash crops and fruits/vegetables, or working in the transport sector, service sector, agro-based industries, manufacturing, etc. These jobs my be available within the vicinity of the rural areas or may involve the movement of labour to the urban centres.

Permanent and Seasonal Off-farm Employment

The above account thus brings out two kinds of off-farm employment (OFE): permanent and seasonal. Permanent OFE is normally found in the formal sector (especially in the manufacturing sectors where the firms are registered and the labour and other laws are applicable), while seasonal OFE is sought during the slack season. This latter type of OFE is more pronounced in the off-farm employment market of the NWFP. Yet another type of OFE is that of the farmers who may need to undertake some form of job together with agricultural practice in order to compensate for the poor returns from the agricultural sector and make up for his inability to eke out a living from it. Another discernible section in the off-farm employment market is where the workers may be living in rural areas but are commuting to the urban areas daily for employment. They are basically a rural population working in urban areas. Also classified in the category are the agro-pastoral groups who own large herds of cattle and who move down during the winter season in search of pastures for their cattle.

Contribution of Off-farm Employment

Although part-time work in the farming sector is difficult to quantify in the absence of relevant data, the rising output and employment in the relatively more productive off-farm sector sufficiently warrants attracting greater participation of the farm sector in off-farm activities. Time series data on the sectoral output contribution in the NWFP is lacking with the exception of data from 1982/83 to 1985/86. According to this set of data, the off-farm sector accounted for almost 73.5 per cent of the provincial output of Rs. 66.9 billion in 1982/83 and for about 75.5 per cent of Rs. 80.4 billion in 1985-86 (NWFP 1987). Being of direct relevance a detailed picture of employment in the off-farm sector is given below.

Categories of Off-farm Employment

The types of off-farm employment prevalent in the formal sector, as shown by the Population Censuses and the Labour Force Surveys, are presented in Table 3.1. An analysis of this table reveals the relative trends in the various types of off-farm employment over time where the employment shares of the various sub-sectors present a mixed picture. Both the Census and the Labour Force Survey data sources indicate that manufacturing, transport and communications, services, trade, and construction were the most important sub-sectors in terms of off-farm employment. However, the significance of each of these sub-sectors varies with the source and time period under consideration. According to census data, services was the most important sub-sector, followed by transport and communications. The labour force surveys would attach equal importance to both these sub-sectors.

According to census data, services, transport, storage, and communication, and to a certain extent electricity, gas, and water, were the only sub-sectors that employed a rising proportion of the labour force with the passage of time. Other sub-sectors showed no consistent trend over time. According to labour

Table 3.1: Percentage Distribution of Employed Persons in the Off-farm Sector of the NWFP

Source and Years	All Off-farm Activities	Mining and Quarrying	Manufac-turing	Electricity, Gas, and Water	Construc-tion	Trade and Hotels	Transport, Storage, and Communica tions	Banking Insurance and Real Estate	Services	Others
Population Cesuses										
1951	100.00	0.35	19.04	N.A.	0.82	15.28	2.75	N.A.	24.0	37.72
1961	100.00	N O T	A V A I L A B L E							
1972	100.00	2.76	13.81	0.30	13.40	24.46	9.13	3.31	29.03	3.8
1981	100.00	0.66	7.92	2.22	10.25	19.94	9.93	1.43	36.90	10.75
Labour Force Surveys										
1978/79	100.00	0.13	20.63	1.54	12.85	27.60	8.53	1.56	26.55	0.63
1982/83	100.00	0.44	17.31	4.45	13.76	25.35	10.41	1.33	26.43	0.55
1984/85	100.00	0.44	17.96	1.23	16.92	22.47	11.49	1.11	25.73	2.64
1985/86	100.00	0.17	17.10	2.04	16.78	25.27	11.83	1.20	25.52	1.23
1986/87	100.00	0.17	16.53	2.64	17.01	24.61	10.48	0.73	27.33	0.52
1987/88	100.00	0.20	16.44	2.85	20.72	23.30	11.27	0.78	23.45	0.74

Source: Pakistan 1956, 1964, n.d., 1982a, 1982c, 1984c, 1984d, 1986, 1987a, 1987b and 1989a.

force surveys, transport, storage, communications, construction, electricity, gas, and water, were on the rise and manufacturing, wholesale/retail trade, hotels/restaurants, banking, and services were on the decrease among the sub-sectors in terms of relative shares of employment. Mining and quarrying, however, again showed no change in trend.

This table, however, only lays down the types and trends in off-farm employment in the formal sector. For a better appreciation of the situation, one needs to go into detail about the physical magnitude of employment provided, the number of industries in the different sectors and in the different regions, the value added, and the value of production. These will be covered in the subsequent sections.

Magnitude and Growth of Off-farm Employment

In order to determine the rate of growth of employment in the off-farm sector, it is necessary to know the magnitude of employment in each of the sub-sectors. The first source of data in this regard is the Housing, Economic, and Demographic (HED) Survey of 1973 followed by the Population Census of 1981, while the Census of Manufacturing Industries provides data for manufacturing sub-sectors only. Table 3.2 presents a comparative position of employment between 1973 and 1981 in the various sub-sectors of the NWFP economy.

According to this table, with the exception of the mining and quarrying sub-sector, employment has been on the increase in all the other sub-sectors. However, the growth of employment in manufacturing, wholesale/retail trade, hotels/restaurants, construction, finance, insurance, real estate, and business services has been lower than the average growth rate of employment and these may be regarded as the sub-sectors that are experiencing a decrease in terms of relative employment shares. On the other hand, electricity, gas and water, transport, storage and communications, services, and some undefined activities qualify as sub-sectors which are on the increase since their growth rates exceeded that of the overall off-farm sector. In fact, electricity, gas, and water was the fastest growing sub-sector in the economy as far as employment is concerned. What is more important is the fact that the sectors that are decreasing in their employment shares may contain sub-sectors on the rise and the rising off-farm sectors may here and there have a sub-sector on the decrease. "Other" mining, paper manufacturing, basic metal and non-metal industries, handicrafts, construction of roads, streets, bridges, and highways, as well as financial institutions and insurance are among the sub-sectors where employment expanded rapidly among the otherwise decreasing sectors. Although lack of data precludes further disaggregation, except in the case of mining, the rapid growth of "other" mining was the result of steep increases in the production of marble and limestone. Marble production between 1977/78 and 1986/87 rose at the rate of 16.8 per cent per year and limestone production at 48.6 per cent (NWFP 1989). Similarly, public administration, recreation and cultural services, and international services are examples of sub-sectors on the decline in the otherwise rising services' sector.

The tourism sector is a very important off-farm employment sector. However, there are two aspects to this. Firstly, it is difficult to directly quantify the off-farm employment generated through tourism. Secondly, the impact is felt in the transportation sector where increased activity is caused by an increase in the number of tourists. Its other proxy variables are the services, hotels, and restaurant sectors which also record increases with an increase in tourism. Finally, tourism gives a boost to local cottage industries because of an increase in the demand and a market on the doorstep of these areas. In fact, tourism has a multiplier effect on all the sectors of the province, on some more directly than on others.

Taking the off-farm sector as a whole, total employment in the sector was in the neighbourhood of 0.58 million in 1973. According to the 1981 Population Census, the magnitude had risen to close to one

Table 3.2: Physical Magnitude and Growth of Off-farm Employment in the NWFP between 1973 and 1981

Sub-sectors and Occupations	Number Employed According to		Employment 1973 = 100
	HED Survey	1981 Population Census	
1. Mining and Quarrying	16,016	7,146	44.62
Coal mining	13,123	1,595	12.15
Petroleum and gas	198	314	158.59
Metalore	517	398	96.98
Others	2,178	4,839	222.18
2. Manufacturing	81,851	85,083	103.95
Food, beverages and tobacco	14,311	19,172	133.97
Textile, apparel, and leather	35,739	16,057	44.93
Wood and wood products	8,448	6,268	74.20
Paper, paper products, printing and publishing	1,628	4,391	269.72
Chemicals, and products of chemicals, petroleum, coal, rubber and plastic	1,584	2,513	158.65
Non-metalic mineral products	6,336	12,065	190.42
Basic metal industries	418	1,463	350.00
Fabricated metal products, machinery and equipment	5,159	4,142	80.29
Other industries and handicraft	8,228	19,012	231.06
3. Electricity, Gas and Water	1,738	23,799	1,369.33
Electricity, steam and gas	1,397	21,845	1563.71
Water works and supplies	341	1,954	573.03
4. Construction (of)	77,594	110,104	141.90
Buildings, and related activities	75,130	101,428	135.00
Roads, streets, highways and bridges	110	2,326	2,114.55
Irrigation and hydroelectric projects	429	646	150.58
Docks and communications projects	-	-	-
Other construction works	1,925	2,195	114.03
5. Wholesale/Retail Trade and Hotel/Restaurants	141,834	214,519	151.25
Wholesale trade	17,270	15,632	90.52
Retail trade	113,861	181,809	159.68
Restaurants and hotels	10,703	17,077	159.55
6. Transport, Storage, and Communications	52,943	106,876	201.87
Transport and storage	50,567	97,803	193.41
Communications	2,376	9,073	381.86
7. Finance, Insurance, Real Estate & Business Services	18,513	15,270	82.48
Financial institutions	2,937	11,386	387.68
Insurance	286	605	211.54
Real estate and business services	15,290	3,297	21.45
8. Community, Social and Personal Services	184,502	396,652	214.99
Public administration	81,895	116,133	141.81
Sanitary and similar services	374	2,047	547.33
Social and community services	37,763	90,187	238.82
Recreation and cultural services	2,705	2,845	105.18
Personal and household services	61,116	184,779	302.34
International and others	649	661	101.85
9. Activities not Adequately Defined	6,061	11,557	190.68
10. All Off-farm Activities	581,052	971,006	167.11

Source: Pakistan n.d. and 1984c

million. These figures reflect a growth of nearly 67 per cent over the period of an annual growth rate of about 6.7 per cent in employment in the off-farm sector.

Formal and Informal Sectors

Assessment of the distribution of off-farm employment by formal and informal sectors is marred by limited data. However the Census of Manufacturing Industries (CMI) does permit division of employment in the registered and unregistered industrial establishments where the concept of registered and unregistered is synonymous with the formal and informal manufacturing sectors. Table 3.3 provides information about employment in the manufacturing sector by industrial establishment for the 1976/77 and 1983/84 time period. This table concentrates on the physical magnitude of employment only. In the later tables we shall go into details about the other variables such as value-added, value of production, value of fixed assets, etc.

If we look at Table 3.3, several conclusions follow. Although the small-scale industrial sector was considerably smaller than the large-scale sector, in 1976/77, in terms of employment, it provided nearly three times as much employment as the large-scale sector during 1983/84. During 1976/77, the informal sector accounted for only 40 per cent of the total employment in the industrial sector but by 1983/84 its contribution had risen to 75 per cent. These trends point to the very rapid growth of employment in the small-scale sector at a rate of 24.6 per cent against 14.0 per cent for the total industrial sector and 1.0 per cent in the large-scale sector. Among the large-scale industries, textiles, food, other chemicals, basic metal industries, and electrical machinery witnessed a fall in employment against a rise in most of the other large-scale industries. The rise was especially steep in the case of wearing apparel, leather, wood and wood products, tobacco-manufacturing, industrial chemicals, non-metallic minerals, and transport equipment. In the case of small-scale industries, tobacco-manufacturing was the only industry that employed fewer workers in 1983/84 than in 1976/77. In the overall analysis, although the manufacturing of textiles was the largest industry in 1976/77 in the province, food-manufacturing, especially in the informal sector, emerged as the leading employer of manpower in 1983/84 followed by textile and tobacco-manufacturing.

It thus follows that, even in the manufaturing category most of the industries are those based on food, metals, wood-processing, furniture, tobacco, leather, transport equipment, non-metallic minerals, etc which depend on the existing resources of the region. Besides these, there are some large-scale industries producing electrical goods, machinery, chemicals, and textiles.

It would be interesting to look a little more closely at the formal and informal sectors in terms of off-farm employment. So far we have been dealing with the registered and unregistered industries and the large-scale and small-scale industries. Registered units are those which pay tax, obey the industrial and labour laws, and are under the government purview in terms of incentives, subsidies, and policies, while the unregistered industries are outside the government sphere of activity and self-dependent in terms of their success of failure. However, with an increase in the size of fixed investment, every industry may need to register. Currently industries employing more than 15 workers and with a fixed asset of rupees 100.00 need to register.

The definitions of large-scale and small-scale also change with government policies. Currently a small-scale industry is one with a fixed asset of less than Rs. 5 million.

The unregistered, small-scale industries may take various forms, namely: (a) household units sharing the same kitchen with all family non cash labour, (b) cottage industries using wage labour either at regular

Table 3.3: Employment in the Manufacturing Sector by Industrial Establishment for 1976/77 and 1983/84

	1976/77			1983/84		
	Registered	Unregistered	Total	Registered	Unregistered	Total
All Industries	36937	24142	61079	39517	113192	152739
Manufacture of Food	7632	1219	6861	7672	45280	56952
Manufacture of Beverages	-	16	16	-	16	16
Manufacture of Tobacco	2665	10575	13240	4757	9712	14469
Manufacture of Textile	13546	1456	15002	10949	8220	19169
Manufacture of Wear Apparel	-	368	368	166	1477	1643
Manufacture of Leather and its Product	44	144	199	127	371	498
Manufacture of Leather Foot Wear	-	3295	3295	-	9738	9738
Ginning, Pressing and Balling of Fibre	-	3	3	-	491	491
Wood and Wood Products	-	1163	1163	1173	4736	5931
Wooden Furniture	139	1447	1588	-	8499	8499
Paper and Paper Products	-	17	17	3199	51	3250
Printing and Publishing	424	154	578	454	388	742
Drugs and Medicines	71	36	107	311	59	370
Industrial Chemicals	632	15	647	1341	-	1341
Other Chemicals & Products	889	136	1025	808	188	996
Rubber Products	-	33	33	-	291	291
Plastic Products	-	7	7	-	86	86
Pottery, China, & Earthenware	-	109	109	71	1167	1878
Non-metalic Mineral Products	1286	249	1535	3273	1418	4691
Basic Metal Industries	818	54	872	176	4482	4658
Fabricated Metal Industries	95	1105	1200	82	3236	3268
Non-electrical Machinery	67	464	533	184	1013	1197
Electrical Machinery and Appliances	5074	26	5100	4190	160	4350
Transport Equipment	155	580	735	352	874	1226
Scientific & Precision Instruments	-	9	9	-	128	128
Handicrafts	-	68	68	-	89	89
Sports & Athletic Equipment	-	6	6	-	-	-
Other Manufacturing Industries	3400	1440	4840	-	9442	9442

Source: Pakistan (1982b, 1982d, 1987c, 1987d and 1988a

wage or piece rates (c) household units, operating their own capital/machinery, which are called self-employed, and (d) working for other employers as wage earners.

According to a study conducted by the University of Tilburg, the Netherlands, small-scale industries provide 75 per cent of the total employment of the manufacturing sector. An economic evaluation of unregistered industries gives the following picture.

	Value-added for fixed Investment (y/C = Capital Productivity)	Value-added Per Worker in Current Rupees (Y/L = Labour Productivity)
1. Household Industry (Urban N= 60,666	1.9	7,950
2. Cottage Industries (Urban) N= 172,852	2.3	13,910
3. Other Small Industries (Urban) N=8,378	0.9	49,160
4. Large Industries (Urban) N=586	1.0	81,650

Source: Merendonk K.H. and R. Picavet, Interim Report on the Significance of the Handknotted Carpet Industry for the Development Process in Developing Countries, p. 10.

These refer however to the small-scale (urban) industries' sector. The informal sector stretches far beyond these industries. In fact, the concept of the informal sector is a reflection of a dualistic system of production. According to the ILO-UNDP Employment Mission to Kenya (1972) the informal sector has the following characteristics.

1. Ease of entry.
2. Reliance on indigenous resources.
3. Family ownership of enterprise.
4. Small scale of operation.
5. Labour-intensive adapted technology.
6. Skills acquired outside the formal school system.
7. Unregulated and competitive markets.

The informal sector in the context of off-farm employment in the NWFP would thus include a multifaceted body of activities. Besides the unregistered small-scale urban enterprises, skill/craft-based rural cottage industries located in the homes, carpet industries, and, in fact, the entire gamut of cottage industries/handicrafts reflecting the skills of the different areas are all included.

The informal sector also includes domestic servants, petty traders, street vendors, car cleaners, restaurant attendants, etc who are all people employed in the informal sector. Female participation in the informal sector is also significant in terms of their contribution to the family income. Women are basically in the agricultural sector, and this will be discussed under that heading. In the informal sector, they also work as maids, cooks, seamstresses (operating from the home base), marketing of milk and poultry, producting embroidery, knitted wear, and other handicrafts. In the urban areas women are also involved in skill related activities where vocational institutes and other handicraft training centres impart training to this section of the population.

Number of Establishment and Employment Levels

Table 3.4 shows the increase/decrease in the number of establishments and their employment by major industrial groups in the period from 1984/85 to 1986/87. This table shows the trends in the development of the different sectors and thus the increase or decrease in employment provided over the time period. The highest increase is seen in the community, social, and personal services' categories where there has been more than a 12 per cent increase in the number of establishments and about a 14 per cent increase in employment (an additional 18,431 jobs) while the manufacturing sector generated about 4,000 additional jobs. Electricity and gas have also generated about 3,500 new jobs. Agriculture, hunting, forestry, and fishing generated 3,000 new jobs. On the other hand, the construction sector and the trade/insurance/and hotel sectors show a fall in the employment level from 1984/85 to 1986/87. Incidentally, these are the two sectors that provide employment to a large number of persons (formal and informal) and employ unskilled labour also (the NWFP's literacy level shows this to be an important variable). Besides, these are the sectors that normally generate economic activities and tend to create income for the lower classes.

Table 3.5 shows the summary statistics for the (rural) household/small manufacturing establishments by major groups and industries. As is obvious from the total there are over 26,000 household units employing over 76,000 people, where the value of the product/byproduct generated stands at about Rs. 523 million and the value-added at about Rs. 354 million. In the sub-sectors the highest employment is generated by food (about 43,000 persons) followed by textiles, tobacco, wood and furniture, furniture and fixtures, metal products, footwear, minerals, etc. While in terms of the value of the product, the highest value is that of the food industry at about Rs. 287 million; followed by textile and leather (including carpets) at about Rs. 50 million; other manufacturing (including jewelry, etc.) at about Rs. 46 million; wood and furniture and minerals at about Rs. 45 million and Rs. 44 million respectively; followed by other minerals (cement, bricks, etc), furniture and fixtures, etc. As a magnitude of value added the highest goes to food-manufacturing which stands at over Rs. 180 million followed by wood and furniture at about Rs. 54 million followed by textiles, metal production, furniture and fixtures, wood and wood products, and mineral products.

Thus in the rural sector, food-processing, textiles and leather, tobacco, and wood and furniture show the highest employment potentials while in terms of the value of the product, the top four are again food, textiles/leather, other manufactured products, and wood and furniture. The value-added also follows the same pattern. Table 3.6 shows the urban picture. It shows the following groups to be substantial employers of labour in descending order. They are, other manufacturing industries and handicrafts (over 8,000 persons and also high value of production and value-added); manufacturing of footwear (about 7,600 persons); manufacturing of metal products machinery and equipment (about 5,300 persons); food manufacturing (about 3,300 persons); wood and cork (over 2,200 persons), textiles and tobacco (1,600 persons each), and furniture and fixtures (about 1,400 persons). The total employment generated by these units was about 36,130 persons with a rupees one billion production value and Rs. 473 million of value-added in 1984/85.

Table 3.7 depicts the trend in the establishment of industries in the different districts, and the percentages show a clear picture of the position of the region in terms of the total industries of the NWFP. In absolute terms, there has been an increase in the number of industries in Peshawar, Mardan, Mansehra, Malakand, and Abbottabad, no change in Kohat and Dir, and a fall in the numbers in Bannu, Dera Ismail Khan, and Koshistan, while Chitral and Karak do not possess any industries. As a percentage of the total industries of the province, Abbottabad, Mardan, Mansehra, and Malakand show increases in descending order while the rest all show decreases in terms of total concentration. In the latter case, the result is not due to any deliberate policy of diversification in the regional base for industries but due to the closing down of some sick industrial units from whence they cease to exist.

Table 3.4: Number of Establishments and Their Employment by Major Industrial Groups in the NWFP 1984/85 to 1986/87

(in Number)

Industrial Title	1984/85		1985/86		1986/87	
	No. of Establishments	Employment Level	No. of Establishments	Employment Level	No. of Establishments	Employment Level
Agriculture, Forestry, Hunting and Fishing	127	13,185	134	15,500	143	16,488
Mining and Quarrying	6	353	7	463	-	457
Manufacturing	301	37,542	339	38,363	353	41,501
Electricity, Gas, & Water	78	11,988	77	12,911	102	15,545
Construction	72	17,786	70	17,674	71	13,845
Wholesale and Retail Trade, Restaurants and Hotels	25	1,427	27	954	31	1,044
Transport, Storage, and Communications	30	5,441	34	16,891	39	17,402
Financing Insurance, Real Estate, and Business Services	64	7,115	67	7,606	68	7,939
Community, Social, and Personal Services	831	127,862	861	134,922	933	146,293
Total	1,534	22,199	1,616	245,788	1,747	260,514

Source:

1. Survey Report of Annual Establishment Enquiry, 1986/87

2. Directorate of Manpower and Training, Government of NWFP, Peshawar

Table 3.5: Household Units/Small Manufacturing Establishments by Major Group of Industries in the Rural Areas of NWFP

(Value in '000 Rs)

Major Industrial Group	No. of Household Units & Manufacturing Establishments	Total No. of Persons Engaged	Employment Cost	Industrial Cost	Value of Proudcts & Byproducts	Value-added
All Industries	26,260	76,360	42,303	332,101	522,947	354,306
Food Manufacturing	10,270	43,070	28,239	187,246	286,544	182,758
Tobacco Industry	1,490	8,160	4,079	19,552	34,621	12,736
Textile & Leather (including carpets)	4,690	9,530	803	27,315	50,499	34,204
Footwear & Leather Footwear	1,370	2,090	167	21,038	34,978	16,911
Wood and Furniture	5,100	7,950	4,068	27,570	45,563	54,097
Wool & Wool Prouduction	1,380	2,510	2,659	7,952	9,977	26,080
Furniture and Fixture	3,720	5,440	1,409	19,618	35,586	28,017
Mineral Products	880	2,080	3,604	20,856	44,115	20,259
Pottery, China, etc	680	1,120	-	2,358	5,137	3,540
Other Mineral (including cement, etc)	200	960	3,604	18,498	38,978	16,719
Metal Products	3,020	4,280	662	11,136	15,085	32,905
Non-metal Products	120	180	36	65	73	1,141
Other Manufacturing	630	1,110	812	38,361	46,447	16,206

Source: Survey of Small and Household Manufacturing Industries, 1983/84 (Rural)

Table 3.6: Household Units/Small Manufacturing Establishments by Major Industrial Group in the Urban Areas in the NWFP

(Value in 000 Rs.)

	No. of Household Units & Manufacturing Establishments	Total No. of Persons Engaged	Employment Costs	Industrial Costs	Value of Proudcts & Byproudcts	Value-added
Food Manufacturing	1,563	3,310	7,113	113,195	153,649	61,659
Beverage Industries	5	16	32	61	183	121
Tobacco Manufacturing	429	1,552	1,362	13,917	21,613	7,766
Manufacturing of Textile	582	1,640	7,992	98,673	130,133	36,054
Manufacture of Pottery, China & Earthenware	23	47	49	102	391	379
Manufacture of Other Non-metallic Mineral Products	104	456	1,528	11,864	25,295	11,981
Basic Metal Industries	4	22	18	442	619	177
Manufacture of Fabricated Metal Products, Machinery & Equipment	2,288	5,291	14,207	65,051	99,432	72,752
Other Manufacturing Industries and Handicrafts	4,437	8,421	7,031	186,787	231,287	101,273
Manufacturing of Wearing Apparel Except Footwear	354	697	464	8,734	13,721	7,134
Manufacturing of Leather & Leather Products, Leather Substitutes Except Footwear & Wearing Apparel	170	371	415	6,415	10,323	5,046
Manufacturing of Footwear Except Vulcanised of Moulded Rubber or Plastic	4,290	7,648	8,006	114,142	193,098	83,596
Ginning, Pressing, and Balling of Fibres	273	411	228	1,528	2,039	2,969
Manufacturing of Wood & Cork Products Except Furniture	1,258	2,226	4,415	25,540	36,027	27,409
Manufacturing of Furniture & Fixture Primarily of Metal	1,363	3,059	7,719	35,310	69,330	40,920
Manufacture of Paper & Paper Products, Printing Publishing	154	339	1,044	2,750	4,538	4,397
Manufacture of Chemicals & Chemicals Petrolieum, Coal, Rubber & Plastic	304	624	1,265	15,578	24,665	10,090
Manufacture of Drugs & Pharmaceutical	20	59	175	1,483	2,488	1,039
Manufacture of Rubber Products	203	291	168	2,458	5,201	3,383
Manufacture of Plastic Products N.E.C	26	86	208	1,676	2,552	1,082
Manufacture of Non-metalic Mineral Products Except Petroleum & Coal	129	505	1,577	11,974	25,708	12,379

Source: Survey of Small and Household Manufacturing Industries, 1983/84 (Urban)

Table 3.7: Summary Statistics by Major Group of Industries and Districts (NWFP), 1984/85

District	No. of reporting establishments	Value of fixed assests at the end of the year	Average daily employment during the year	Employment cost during the year	Industrial cost during the year	Value of proudction during the year	Census value-added during the year
1. All Industries	223	4,194,428	39,160	690,862	6,319,952	11,160,394	3,431,895
Peshawar	93	1,080,578	15,763	273,572	2,616,794	5,130,184	251,339
Mardan	19	464,321	5,122	75,462	645,076	1,603,797	958,721
Kohat	10	609,865	3,711	59,858	4-6,589	671,909	265,320
Abbottabad	22	1,298,971	9,559	214,366	1,593,926	2,421,796	827,172
Mansehra	3	7,527	100	1,517	49,483	54,733	5,250
Swat	55	37,450	1,234	16,089	178,751	209,634	30,883
Bannu	8	183,657	1,820	25,005	200,153	294,110	93,957
Malakand	4	83	512	6,944	277,620	327,834	50,416
D.I. Khan (8)	9	428.643	1,339	18,049	351,560	446,397	948,837
Dir (1)							
2. Food Manufacturing	53	894,720	7,913	132,003	2,692,689	2,176,525	725,924
Peshawar	21	262,151	3,087	63,530	1,123,331	138,009	256,766
Mardan	8	385,566	2,455	33,760	380,246	636,949	256,703
Kohat	3	5,714	131	1,608	121,936	125,754	3,818
Abbottabad	6	36,719	432	7,899	382,761	430,927	48,166
Other Mansehra (2)	15	204,570	1,808	25,206	684,415	844,886	160,471
Malakand (3) D.I. Khan (5) Bannu (5)							
3. Tobacco Manufacturing	6	156,667	4,359	83,939	723,065	3,075,502	23,524
Peshawar (2)	6	156,667	4,359	83,939	723,065	3,075,502	23,524
Mardan (4)							

Continued...

Summary Statistics by Major Group of Industries and Districts (NWFP) 1984/85

District	No. of reporting establishments	Value of fixed assests at the end of the year	Average daily employment during the year	Employment cost during the year	Industrial cost during the year	Value of proudction during the year	Census value added during the year
4. Manufacture of Textile	71	684,477	11,066	135,668	858,490	961,139	430,384
Peshawar	5	171,847	3,094	31,840	182,354	272,033	89,681
Mardan (2) Mansehra (1)							
Malakand (1)	4	21,741	803	12,194	61,665	89,415	27,750
Swat	52	21,332	1,039	13,823	166,840	185,216	183,761
Abbottabad	3	215,349	2,336	28,297	171,470	24,705	15,583
Kohat	3	104,773	2,541	35,494	155,862	228,651	72,789
D.I. Khan (2)	4	149,435	1,193	14,020	120,299	161,119	40,820
Bannu (2)							
5. Manufacture of Leather & Leather Products, Leather Substitute Except Footwear and Wearing Apparel	5	3,432	78	652	4,168	6,209	2,041
Peshawar	5	3,432	78	652	4,168	6,209	2,041
6. Manufacture of Furniture & Fixture Except Primarily Metel	13	317,776	124	18,671	90,645	144,917	54,272
Peshawar	9	13,237	95	6,674	17,953	29,308	11,355
Mardan (1)	4	304,339	29	11,997	72,692	115,609	42,917
Abbottabad (1)							
D.I. Khan (1)							
Dir (1)							

Continued...

Summary Statistics by Major Group of Industries and Districts (NWFP) 1984/85

District	No. of reporting establishments	Value of fixed assests at the end of the year	Average daily employment during the year	Employment cost during the year	Industrial cost during the year	Value of production during the year	Census value-added during the year
7. Manufacture of Paper and Paper Products	6	165,330	3,205	57,222	441,800	597,159	155,359
Peshawar (5)	6	165,330	3,205	57,222	441,800	597,159	155,359
Abbottabad (1)							
8. Printing, Publishing & Allied Industries	6	14,608	449	5,727	9,408	22,736	13,328
Peshawar	6	14,608	449	5,727	9,408	22,318	27,428
9. Manufacture of Drugs & Pharmaceutical Products	6	22,705	288	3,773	41,890	69,318	27,428
Peshawar (4)	6	22,705	288	3,773	41,890	69,318	27,428
Swat (2)							
10.Manufacture of the Chemical Products	6	39,999	432	9,299	103,626	156,041	52,415
Peshawar	3	24,163	238	6,589	32,931	57,312	24,381
Other Mardan (1)							
Abbottabad (2)	3	15,836	194	2,710	70,695	98,729	28,034
11. Manufacture of Non-metalic Mineral Products	19	1,078,691	3,339	87,458	467,917	1,199,560	731,637
Peshawar	11	174,577	1,227	23,697	76,829	189,958	112,129
Kohat (3)	3	455,938	904	21,796	107,566	292,588	185,016
Other Mardan (2)	5	448,176	1,208	41,965	283,522	717,014	433,492
Abbottabad (2)							
Swat (1)							

Continued...

Summary Statiscis by Major Group of Industries and Districts (NWFP) 1984/85

District	No. of reporting establishments	Value of fixed assests at the end of the year	Average daily employment during the year	Employment cost during the year	Industrial cost during the year	Value of production during the year	Census value-added during the year
12. Manufacture of Fabricated Metalic Products Except Machinery and Equipments	3	861	87	798	6,775	9,822	3,047
Peshawar (2)	3	861	87	798	6,775	9,822	3,047
Mardan (1)	3	861	87	798	6,775	9,822	3,047
13. Manufacture of Machinery Except Electrical	7	3,414	186	2,609	3,486	11,773	8,287
Peshawar (6)	7	3,414	186	2,609	3,486	11,773	9,287
Mardan (1)							
14. Manufacture of Electrical Machinery, Apparatus, Appliances, and Supplies	5	195,784	4,223	105,574	511,670	670,276	158,606
Peshawar (3)	5	195,784	4,223	105,574	511,670	670,276	158,606
Abbottabad (2)							
15. Manufacture of Transport Equipment	5	117,163	513	6,884	111,514	166,098	54,584
Peshawar (3)	5	117,163	513	6,884	111,514	166,098	54,584
Abbottabad (2)							
16. All Other Industries	12	454,001	5,163	40,635	252,807	428,889	176,080
Peshawar (12)	12	454,001,	5,163	40,635	252,807	428,889	176,080
Mardan (3)							
Mansehra (1)							
Abbottabad (3)							
Swat (2)							
Bannu (2)							
Dir (1)							

Source: C.M.I, 1984/85, Federal Bureau of Statistics, Karachi

Table 3.7 provides sufficient information to allow us to strengthen the analysis for 1984/85 by looking at the data disaggregated by industries, regions, along with number of establishments, average daily employment during the year, industrial cost, value of production, and value-added during the year 1984/85. In this year, the manufacturing sector provided average daily employment to about 39,000 persons and the value of production was about Rs. 11 billion, the value-added generated was over 3 billion, and fixed assets were about Rs. 4 billion. The employment cost was only about 10 per cent of the total cost, with 90 per cent industrial cost. The largest concentration of industries was again in Peshawar for all types of industries except for textile-manufacturing which it shares with Swat. Incidentally, the silk and rayon industries are also located there and hence the location of textile-manufacturing industries. The industries located at Peshawar are also those that generate high employment (average about 16 thousand), high value of production (about Rs. 5 billion), and the highest census value-added (about Rs. 2 billion), followed by Abbottabad (with over 9 thousand persons employed daily with the value of products being about 2 billion) followed by Mardan and Kohat. However, Swat, with 55 industrial units (which are mainly textile-manufacturing units), does not generate the level of either employment or value of production and value-added that is generated by Abbottabad with 22 industrial units only, or Mardan with 19, and Kohat with 10 industrial units. Thus it is not just the number of industrial units that guarantee high employment levels but the type of industry, since some industries are more labour-intensive than others. Industries such as the manufacturing of electrical machinery, textiles, and tobacco are employing large numbers of people as well as generating value-added. Infact, the number of people employed by the tobacco industry increases immediately after harvest season where labour is employed for cleaning and sorting, packing, etc. Hence, the large number of unregistered employees in this industry also.

The aforegoing analysis also explains the higher concentration of population in these areas and the better provision of infrastructure. The better development status of these areas thus attracts more investment, especially with the provision of industrial estates, infrastructure, schools, hospitals, and other facilities. As a result there is a move of resources and population towards these areas in search of employment, schools, and other facilities at the cost of the less-developed areas.

Micro-Studies for small Scale and Information Sectors

Relevant data on the informal sector are not readily available in the official records. Therefore, certain micro-studies will be used to help obtain information on the pattern of employment in some areas of this sector. However, it must be kept in mind that this sector is very wide and encompasses almost every kind of economic activity that does not fall within the purview of government rules and regulations.

In a study of the Participation of Women in Cottage and Small-scale Industries in the NWFP (Nazeer & Al-Jalaly 1983a), it was found that the concentration of the small-scale industries was in knitting and embroidery, weaving and spinning, and canning. About 75 per cent of the industries were sole proprietorship and the rest were either in the partnership category or those run by the APWA (all Pakistan Women's Association), or Fauji Foundation. All these were located in Peshawar, Nowshera, and Swat. The annual value of output stood at between Rs. 3,000 - 15,000 for weaving and spinning; between Rs. 2,000 - 8,000 for knitting and embroidery; and between Rs. 100,000 - 300,000 for the canning industries.

The sample of a 100 industrial units employed 3,051 workers of which about 76 per cent were females. Only the canning industry reported an inability to employ the required supply of female workers. There was no shortage reported in any of the other industries. It was further seen that tailoring and leather works were also important activities which generate value-added and employment for women in the informal sector.

In another micro-study by the same authors on the Participation of Women in Rural Economic Activities (1983) it was found that there is a large number of activities undertaken by women. This study was however confined to the Peshawar District. The activities reported are poultry, sewing, nursing, knitting/embroidery, teaching, farming/labour, and weaving. It covered a sample of 168 women. More than 89 per cent of the women were paid in cash and the rest in cash and kind. It was not possible to quantify the output produced by all the different categories of women workers, but it is still substantial in physical terms. More than 50 per cent of these women were literate and hence had greater participation in areas other than the unskilled category. Both these studies reveal an increasing rate of participation by women in economic activities in the NWFP.

In a study entitled "The Feasibility of Forestry and Forest Industries in Hazara Division" (Khattak 1982) one of the off-farm activities identified was livestock related, including the sale of milk and meat. Livestock is also reared for sale in the open markets which are held weekly.

The "Guzara" forest provides wood for use as fuel for the owners. Several forestry schemes have been started in the NWFP to improve the socioeconomic condition of the people. However, with the establishment of the reforestation programme, there will be a need to shift from grazing to stall-feeding. Livestock, as is generally known, are an essential part of the rural economy and engage a large section of the rural population. The shift from grazing to stall-feeding will engage additional numbers, although the exact number involved is not determined by the study.

In the study on "The Key Industries of NWFP (Nazeer et al. 1981) the following facts were brought out.

- **Textile** industry in the formal sector in terms of creating job opportunities. Twenty three per cent of the total labour force is employed by this industry.

- The **sugar** industry is unique as it produces sugar from cane as well as beet. It uses locally available raw materials. After textiles it is the second largest job provider. Its share of the total employed labour force was 17.4 per cent, considerable value-added is generated, and the capital-labour ratio is satisfactory.

- The **tobacco/cigarette** industry is a fast growing one which is dependent upon local raw materials. The NWFP produces more than 90 per cent of all the Virginia tobacco in the country. The share of direct labour employed was 10.2 per cent. Besides direct labour, the industry provides job opportunities in the allied industries/activities such as leaf packing, leaf selection, and leaf drying. The net value-added provided by this industry wa Rs. 26.11 million.

- **Match factories** in the NWFP were located close to the sources of raw material (poplar wood). Total production was estimated to be 2.9 million gross boxes in 1980. The industry was extremely capital-intensive and employed only 800 labourers.

- **Paper**: There are two projects for paper and paper board in the province, all located in the Mardan-Peshawar Region. The industry provided employment to about 3,000 persons. The value-added is high and stood at Rs. 26.13 million and Rs. 49.7 million for the Adamjee Paper Board and Pakistan Paper Corporation respectively.

- **Vegetable Oil and Ghee**: There were three units employing about 750 persons and six more under installation with were expected to employ an additional 800 persons.

- **Cement**: The presence of abundant limestone meant that the cement industry could flourish in the NWFP but it has not been able to attract the necessary investment due to the absence of infrastructure. There was only one unit which employed 2,000 persons.

- **Fertilizer**: There was one project which was under implementation and was to employ 500 people in various categories.

Thus, the employment created through the expansion of these industries was estimated to be 18,036 persons by 1990 with the sugar industry claiming the major portion, followed by cement, cigarettes, vegetable ghee, paper and paper board, and matches.

Regional Variations in Industries and Employment

Table 3.8 gives a breakdown of these industries by category for the different regions. It is interesting to note that Peshawar has the largest concentration of flour mills, furniture, and tobacco whereas Mardan has tobacco, sugar, and flour mills. This is because Peshawar and Mardan both grow tobacco and sugarcane. Swat shows a complete concentration of all the silk industries. This is because sericulture is widely practised in Swat due to its climate and natural greenery. Cement industries are also located where limestone is available. These are the regional and resource-specific activities. Flour mills are found throughout the province, since wheat is a major crop in this region and is the staple diet. As regards the other industries, which are not resource-based, they tend to be located in the main cities like Peshawar, Mardan, and Abbottabad wicth have good infrastructural facilities, industrial estates, good communication systems, available markets for outputs and inputs (and thus less transportation costs), and a pool of skilled and unskilled labour. Swat, which has about 19 per cent of the total industries, is an exception since the bulk of the industries (almost 86 per cent of all industries within Swat) relate to silk. Thus, although Swat shows a large number of units, the industrial base is not wide enough.

The available employment data do not show resource-specific variations in employment. However, regional data over time are available for studying the distribution of employment in the various district of the NWFP (Table 3.9).

It is clear from Table 3.9 that off-farm employment is heavily concentrated in Peshawar among the 12 districts of the province. The Peshawar District also accounted for a rising proportion of employment between 1983/84 and 1987/88. Further, the five administrative districts, including Peshawar, Abbottabad, Mardan, Kohat, and Dera Ismail Khan had an employment share of more than 76 per cent in 1983/84 and of 77.5 per cent in 1987/88. The rest of the seven districts have a correspondingly falling share in total employment in the province. As the districts contain rugged mountain ranges, they are relatively inaccessible for the location of industrial establishments and account for only a small proportion of the employment in the province. Furthermore, the lack of a transportation infrastructure is also a hindrance in the physical movement of raw materials and finished products with adverse implications for the effective production of goods.

However, regional variation in employment follows a pattern of the establishment of industries by number and types in the different areas. If we now put Tables 3.8 and 3.10 together, we shall see the concentration as well as the industry-wise composition of the various districts. Map 3.2 gives the location of these industries while Map 3.1 gives the physical features of the area which provide a comparative advantage to certain industries. Thus silk industries concentrate in Swat for the reasons already given. Cement industries are found where raw materials are available.

Table 3.8: Number of Industries in the Districts of the NWFP 1987/88

Nature of Industry	Peshawar	Mardan	Swat	Malakand	Abbottabad	Mansehra	Kohat	Bannu	D.I. Khan	Dir	Total
Sugar	2	2	-	-	-	-	-	1	-	-	5
Paper and Board	2	-	-	-	-	-	-	-	-	-	2
Ghee	2	1	-	2	1	-	-	1	2	-	9
Flour	11	2	2	1	5	3	3	2	2	1	32
Tobacco	7	15	1	-	-	-	-	-	-	-	23
Printing Press	6	-	-	-	-	-	-	-	-	-	6
Matches	2	1	-	-	2	-	-	-	-	-	5
Leather and Footwear	6	-	-	-	-	-	-	-	-	-	6
Chemicals	7	-	-	-	2	-	-	-	-	-	9
Pharmaceuticals	5	-	2	-	-	-	-	-	-	-	7
Soap	1	-	-	-	1	-	-	-	-	-	2
Paints	1	-	-	-	1	-	-	-	-	-	2
Arms	5	1	-	-	-	-	-	-	-	-	6
Furniture	14	1	-	-	1	-	-	-	1	-	17
Marble and chips	6	2	-	-	1	-	-	-	-	-	9
Cement	1	-	-	-	1	-	1	-	-	-	3
Cement-based	6	-	-	-	1	-	3	-	-	-	10
Mining	-	-	-	-	-	-	-	-	-	-	-
Petroleum	-	-	-	-	1	-	-	-	-	-	1
Engineering	8	1	-	-	3	-	-	-	-	-	12
Workshop	6	-	-	-	3	-	1	-	1	-	11
Metal Works	3	-	-	-	-	-	-	-	-	-	3
Electric Goods	4	-	-	-	3	-	-	-	-	-	7
Appliance	-	-	-	-	-	-	-	-	-	-	-
Silk	-	-	53	-	-	-	-	-	-	-	53
Textile	3	1	-	-	2	-	3	1	1	-	11
Ceramics	2	-	-	-	2	-	3	1	-	-	2
Woollen	1	-	-	-	2	-	-	1	1	-	5
Hosiery	2	1	-	-	2	-	-	1	-	-	3
Ice & Cold Storage	4	1	-	-	-	-	-	2	-	-	7
Baverages	4	-	-	-	-	-	-	-	-	-	4
Handicraft	1	-	-	-	2	-	-	-	-	-	3
Glass	2	-	-	-	-	-	-	-	-	-	2
Food	7	2	-	-	2	1	-	-	-	-	12
Plastic & Rubbers	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous	3	6	-	-	8	2	-	-	-	-	19

Table 3.9: Percentage Shares of Employment of In Various Districts

	Per cent Shares of Employment During				
Districts	1983/84	1984/85	1985/86	1986/87	1987-88
Peshawar	33.2	33.1	37.7	38.4	37.8
Abbottabad	12.9	13.0	12.0	11.1	11.2
Mansehra	3.9	3.9	3.7	3.6	3.4
Kohistan	0.8	0.8	0.8	0.8	3.8
Mardan	11.1	11.3	10.4	10.6	11.1
Swat	5.8	6.0	5.4	5.2	5.8
Dir	2.4	2.3	2.3	2.2	2.1
Chitral	1.5	1.5	1.4	1.4	1.4
Kohat	8.7	8.3	7.6	7.4	7.2
Karak	1.1	1.4	1.2	1.3	1.5
Bannu	8.4	8.3	8.0	7.9	7.7
Dera Ismail Khan	10.2	10.0	9.6	10.3	10.2

Source: Pakistan and Erasmus University, 1990

The concentration of tobacco, paper, and sugar in Peshawar and Mardan is explained by the fact that tobacco and sugarcane are widely grown in this fertile eco-agricultural region, and this has already been discussed in Chapter 1.

Furniture should have been located in the forest-producing areas but its location in Peshawar is due to the facilities available there in terms of markets, transport facilities, and skilled labour. In fact the concentration (and hence employment generated) of industries in Peshawar, Mardan, and Abbottabad is due to the existence of infrastructure and markets, the availability of skilled labour and transport facilities, and the existence of the industrial estates.

Tourism plays a major role in tourist spots like Swat, Chitral, and the Northern Areas although no data are available to reveal its importance.

The concentration of industries further leads to migration into these areas in search of employment, leading to higher population levels. Moreover, the Afghan Refugee camps are also located mostly in these areas; the largest camp being at Mardan, while Peshawar and Hazara also have quite a large number of refugees. The location of these camps has led to the economic activities of the aid-giving agencies which, in turn, has led to the generation of employment in the wholesale and retail trades along with the transportation of goods, etc, but there has been a negative impact in the context of surplus labour (Afghan refugees) competing with the locals in the urban informal sector, especially in transportation, restaurants, and the small trade sectors.

Table 3.10: District-wise Number of Industrial Units in the NWFP from 1985/86 to 1987/88

District	1985/86		1986/87		1987/88	
	Units	% of Total	Units	% of Total	Units	% of Total
Peshawar	132	44.75	134	43.51	143	43.87
Mardan	31	10.51	37	12.01	39	11.96
Swat	63	21.36	58	18.83	62	19.02
Mansehra	2	0.68	6	1.95	5	1.53
Kohat	11	3.73	11	3.57	11	3.37
Bannu	9	3.05	8	2.60	8	2.45
D.I. Khan	9	3.05	8	2.60	8	2.45
Dir	1	0.34	1	0.32	1	0.31
Malakand	4	1.36	3	0.97	5	1.53
Karak	0	0.00	0	0.00	0	0.00
Abbottabad	32	10.85	42	13.64	44	13.50
Chitral	0	0.00	0	0.00	0	0.00
Kohistan	1	0.34 0	0.00	0	0.00	0.00
Total NWFP	295	100.00	308	100.00	326	100.00

Source: Directorate of Labour, Government of NWFP, Peshawar

Investment

Investment plays a major role in the establishment of industries as well as in the generation of employment and economic activities. However, there are two problems here.

Firstly, entrepreneurs tend to locate their industries with a profit motive and according to the availability of infrastructure. The NWFP, being a backward industrial region, is already at a disadvantage in terms of being able to attract investment from outside the province. Those that are there tend to be located in the few urban centres. Moreover, the active smugglers' market (where almost everything is available at cheaper rates) renders locally-produced goods non-competitive price-wise and thus acts as a further disincentive for additional investments. These are perhaps also the reasons why the inflow of remittances is not used for productive investment by overseas workers.

Secondly segregation of the sexes is more rigid in the NWFP compared to the Punjab and Sindh (the developed provinces). As a result, almost half of the population is not given the opportunity to share and contribute in the economic development of the area. Moreover, the socioeconomic indicators for females show their disadvantaged position in terms of literacy, health, mortality, and morbidity, and these are reinforced by the practice of segregation.

Off-farm Employment in Agriculture

It has been pointed out earlier that the farm sector is a joint enterprise of crop production, livestock-raising, and poultry keeping, and that separate employment estimates for the various sub-sectors of agriculture are not available. If incomes generated in various sub-sectors could be used as a proxy for their employment contribution, forestry accounted for only 0.5 per cent of the income generated in agriculture during 1985-86. Another 3 per cent was contributed by the fisheries' sub-sector. Livestock and poultry were responsible for an income share of nearly 30 per cent. The livestock sub-sector is composed of cattle mainly, along with buffaloes, sheep, and goats - a sub-sector that is used for providing home consumption as well as sale of milk, meat, hides, skins, and wool to earn income. In addition to these, they also provide draft power for farming and transportation as well as farm manure, which can be used as fertilizer for crops and fuel for the farm household. Thus every step of the process uses labour and provides employment either directly or in related industries or activities. In fact the importance of livestock can be gauged from the fact that in Pakistan 0.3 million households are classified as "livestock households", and they own 20 per cent of the country's milk, cattle, and buffaloes. Thus relative to crop production, other sectors contributed over 33 per cent of the value-added by agriculture and must have accounted for no less than 33 per cent of the employment in agriculture.

The above analysis, however, would be too simplistic to reflect reality on the ground. Most of the off-farm employment within agriculture is far more labour-intensive than crop production. For example, horticultural activities require many times the labour input than is needed in crop production. This would especially be true here as the region specializes in the production of a variety of fruits and nuts. Thus, horticulture is another very important source of employment. Presently the Fruit and Vegetable Development Board and the AKRSP Project are both concentrating on imparting skills to women to help them protect, preserve, process, and market surplus fruits and vegetables thus providing them with employment and income.

Similarly, the NWFP, and more particularly its northern areas, are known for the production of mats, blankets, carpets, and wearing apparel of all kinds, including caps, jackets, coats, scarfs, and shawls from animal hair and furs. The climate of the northern areas is most suited to sericulture and this employs sizeable numbers of workers in various stages of silk production and manufacture. Within the agricultural sector, off-farm employment exists in related areas such as livestock, dairy, and poultry. Although the maintenance work is done by family labour, especially women, these sectors provide employment, especially when livestock is raised to provide meat and dairy products and poultry is used for eggs, meat, etc for the market. On a small scale, the marketing is done by women, but, when the activities undertaken have a commercial orientation, men are involved. Beekeeping for commercial honey production is another important activitiy.

Employment Linkages

Although it is difficult to quantify the effect of linkages on employment, certain enterprises and establishments may generate more indirect employment than others, especially if they are based on local

raw materials. For example, the food and sugar industries are typically characterised by both forward and backward linkages in agriculture and the rest of the economy. Similarly, an expansion in the marble and cement industries will normally be accompanied by expansion in employment in the extraction of the two minerals and their supply and processing systems. The establishment of certain key industries may result in a transfer of technology that would encourage propagation of other industries and result in considerable expansion in investment and employment elsewhere in the economy. Such linkages are touched upon in the discussion in this chapter, and the rapid expansion in some of the industrial enterprises was the direct result of these linkages and the availability of raw materials in the local market.

With the introduction of agricultural mechanization and the use of machinery and implements, there has been a demand for repair/workshops and services. This has led to the establishment of service industries creating a forward linkage as well as creating employment. Suppliers and services for other agricultural inputs such as fertilizers, seeds, pesticides, etc have all contributed to employment creation and forward linkages. Another important point is the creation of a tractor/thresher-hire market which, on the one hand, has given a boost to the spread of modern technology in agriculture, and, on the other, has helped create a repair/service sector for these machines. The sugar industry, paper industry, and tobacco industry all provide forward and backward linkages.

Backward linkages have been provided by the extractive and mineral sectors where limestone, emeralds, etc provide raw materials and use labour. Hydro-electricity generation is a major provider of backward as well as forward linkages. The livestock sector also provides forward and backward linkages - the former through traction power and the latter through the woollen and leather and leather-based industries. Tourism has linkages with the transport sector, hotels/restaurants, and the trade sectors, while the construction sector has important linkages with the cement, bricks, glass, steel, and transportation and related sectors. Linkages will be discussed in greater detail in the succeeding chapters.

Identification of Potential Off-Farm Activities

In spite of the data limitation, the analysis of this chapter points to many potential activities that could be promoted further both within and outside agriculture. It must be recognized that these activities must, in general, spring from the resource endowment of the region. They include mining and the processing of marble, gypsum, and limestone; manufacture of phosphatic fertilizers; manufacture of paper and hard-board based on cane and forest products; fruit and silk processing on a commercial scale; and the production of carpets, mats, and rugs of animal hair. Map 3.1 shows the number of ongoing industries located in different regions. Based on these, an attempt is made to identify where greater potentials for off-farm employment are imminent within the province.

- Mining and quarrying, mineral-based industries, cement and other resource-based industries flourish where resources are located and can be exploited further to provide output and employ labour.

- Food, furniture, wood and wood-based industries, leather and footwear, and wearing apparel all provide employment and are located in urban centres like Peshawar where there is a market for output as well as an infrastructure; leather, footwear, and furniture are more prominent in the small-scale sector and are normally unregistered but are active in employing labour.

- The tobacco and sugar industries are labour-absorptive industries, and they use a lot of seasonal labour also, besides the normal number of production workers.

- Tourism is an important industry in such areas as Swat, Chitral, Hazara, and the Northern Areas. However, there are large data gaps and thus it is not possible to quantify the importance of this industry. Qualitatively, however, it may be safely said that there is great potential in this industry. In addition, a robust tourist industry gives a boost to the service industries in transport, restaurant, hotel, trade, business, and other related sectors, as well as to the handicraft industries.

- Construction and public works are important labour absorptive activities and they also provide backward linkages to the cement, steel, bricks, and other related industries and forward linkages to the transportation sector. This is an important activity even though census figures show this to be declining (Table 3.1) but there is considerable activity here due to investments from the remittances of overseas workers and shows potential for generating employment.

- Road transportation employs labour and is important to the economy of the NWFP because of the lack of a railway network, geographic terrain, and the need for communications. Road transport is also important for that section of the population who live on the outskirts of the urban areas and commute to work. The agricultural sector, especially fruits, vegetables, and grains, uses this extensively and thus there is brisk activity and employment here. This also provides linkages between the agricultural and the agro-based industrial sectors. The potential of this sector is greatly exploited by the Afghan refugees.

- Off-farm employment in the agriculture-related sectors is also visible, especially in livestock, poultry, horticulture, sericulture, and bee-keeping. All these generate value-added and show promise in being able to employ labour.

- In the informal sector, the manufacturing industries (as already discussed) along with skill-related activities such as embroidery, weaving, carpet-making, and leather works, are all important and contribute to employment and value-added showing potential for further expansion.

- The service sector (maids, domestic servants, petty traders, and street vendors) contributes to prominent off-farm activities. The use of the female work force here is a major contributor to the family income as well as to economic development. Organised production and marketing outlets for the output of informal sector activities (by women) would greatly enhance ongoing off-farm activities.

4

POLICIES TOWARDS OFF-FARM EMPLOYMENT: A REVIEW

Government policies and private initiatives are critical in the healthy development of off-farm activities. The growth of off-farm employment is preconditioned by access to raw materials, machinery, marketing, infrastructure, and technological and managerial knowhow (UNIDO 1960). These are the factors which must be considered when government policies are formulated to induce rapid growth of employment-creating public works' programmes. While the major task of government policies would be to redirect private investment through appropriate incentives for various commodity-producing sectors, it is also directly involved in the use of public funds through various organisations and institutional agencies. We assess here the effectiveness of such policies for creating employment, in general, and off-farm employment, in particular. Our discussion is divided into three sections dealing with (a) the evolution of development strategies as well as implicit and explicit policies related to these, (b) direct involvement of the government participation in employment-creating projects, and (c) responsiveness of private enterprises to incentives provided by government policies.

Development Strategy and Government Policies

The growth of off-farm employment depends largely on the strategy of economic development in vogue which in turn is shaped by the existing resource constraints and priorities assigned to various sectors in the economy. The development strategy followed in Pakistan, since independence in 1947, has stressed the need for growth maximisation with heavy reliance on the development of the large-scale manufacturing sector. Apart from the need for growth, the virtual lack of any industrial capacity in Pakistan, as a result of partition, rapid curtailment of trade between India and Pakistan, and the growing scarcity of foreign exchange earnings as a result of imports of manufactured goods, industrial raw materials, and machinery led Pakistan to emphasise the rapid development of import-substituting large-scale industries (Lewis and Soligo 1965). The policy has continued until today with only minor changes in the underlying policies to accomplish the task.

Beginning with the early fifties, the propagation of large-scale industries was largely accomplished by moving the terms of trade in favour of the large-scale manufacturing sector at the cost of the sectors producing primary commodities or the traditional goods in the case of the small-scale industrial sector (Lewis and Hussain n.d). By the mid-fifties, it was becoming apparent that the adverse terms of trade for agriculture were responsible for falling agricultural output and increasing dependence on wheat imports, resulting in more severe foreign exchange problems. To improve this situation, prices for agricultural commodities were allowed to rise above the prices of industrial goods with direct controls on the use of foreign exchange by the manipulation of import and export policies. The commercial policy that emerged during the late fifties, and continued throughout the sixties, was an amalgamation of foreign exchange control policy, import-licensing policy, and tariff and export promotion policies (Naqvu 1966). At the same time, the large-scale industrial sector, especially in the sixties, was provided with an increasing number of incentives. The important ones included income tax rebate for a part of export earning, investment tax credit, tax holidays, low interest rates on industrial credit, and subsidies on the industrial use of gas, electricity, diesel oil, and industrial raw materials. In the wake of the 1969 industrial unrest, the 1970 civil strife and war, and the consequent withdrawal of foreign aid, Pakistan was confronted with one of the most severe resource constraints. As a result, beginning in the early seventies, a large majority of the concessions and subsidies resulting from commercial, fiscal, and monetary policies, apart from the

low interest rates for industrial credit, input subsidies, and investment tax credit, were withdrawn. At the same time, however, the Government undertook to nationalise a major portion of the large-scale industrial sector, restored to the massive devaluation of the Pakistani Rupee by as much as 231 per cent, and followed a policy of import liberalisation (Hamid 1983). In the more recent years, beginning with the eighties, Pakistan seems to be returning to the policies of the late sixties, especially with respect to its fiscal and monetary policies, and denationalisation of key industries for boosting industrial output (Pakistan Economic Survey 1983).

It has been pointed out that Pakistan's industrial policy throughout the post-independence period, except for a short period during the seventies, was heavily biased in favour of the large-scale manufacturing sector (Lewis 1969 and Naqvi 1966). The small-scale industrial sector, despite its low capital intensity and high labour intensity, until the early seventies was largely ignored by the industrial policies of the Government. As a consequence, the small-scale industrial sector was always placed at a disadvantage in relation to the large-scale. It received no licenses to import raw materials, nor did it enjoy any other concessions such as those enjoyed by the large-scale manufacturing sector. Moreover, bank credit has either been unavailable to the sector, or, if given, it has been paying excessively high rates of interest (PIDE 1980). In a survey of 400 small-scale firms manufacturing agricultural implements and tubewell equipment, Child and Kaneda (1975) found no evidence that any of these industries were issued licenses to import raw materials or machinery, forcing them to purchase needed inputs from the local market at higher than market prices. Although many of these effects have been reiterated in the industrial policy of the eighties, the policy followed in the seventies treated the large and small-scale industrial sector on a more or less equal footing. It has been indicated that while the institution of the import liberalisation policy replacing the commercial policy, withdrawal of fiscal concessions, and implementation of devaluation were sufficiently guarded to remove the ambiguity of favoured treatment to the large-scale industrial sector, the nationalisation of many large-scale industries opened up new vistas for investment in the small-scale industrial sector by private investors.

While the favourable government policy was instrumental in creating off-farm employment in Pakistan, the impact has been less spectacular as small-scale labour intensive industries received less attention until 1970. Even after the 1970s, the export promotion of primary commodities remained a neglected field. As the NWFP is governed by the rules and policies of the Central Government, it experienced the same effects. Four variants of government policy could be of significance. First, the location of industry in the backward regions of Pakistan entitles industrialists to special privileges and concessions. The NWFP being underdeveloped has qualified it for all these benefits since the inception of the programme. According to Pakistan (1990), industries located anywhere in the NWFP were exempt from income tax and sales tax for 8 years. Machinery imported from abroad (but not manufactured locally), for manufacturing of basic chemicals, electronics, mining, and pharmaceutical raw materials is totally exempt from customs' duty. In addition, loans for industrial development in the NWFP were to charge only a 6 per cent rate of interest.

Second, the devaluation of the Pakistani Rupee in 1972 and the subsequent move of the Government to follow a flexible exchange rate policy have been instrumental in lowering the prices of Pakistani products and raising their demand internationally. As foreign goods became costlier, a shift to domestic goods also occurred simultaneously. While devaluation called for the expansion of the industrial sector, such an expansion could not be undertaken in the large-scale manufacturing sector, because it needed costly machinery and raw material imports. This, however, became a plus factor for the expansion of small and household manufacturing industries that utilised local capital and raw materials for production (Hamid 1983). It is for this reason that the rapid growth of employment in the case of unregistered firms has been noticed.

A third policy variable that had similar effects on large-scale and small-scale industries was the nationalisation of certain industries in 1973. Since only large-scale industries were subjected to nationalisation, private investment in the sector declined sharply. In fact, a part of this capital was diverted to small-scale industry. The situation was further aggravated by the free reign of the labour union movement. Despite government assurances of no further nationalisation, the confidence of the investors in private investment continued to suffer until today, with the implications of a poor revival of large-scale industrial production.

Finally, the Government has encouraged the export of labour to the Middle East and other labour deficit countries. The rising trend of remittances from abroad raised the demand for consumer goods' industries, housing, and consumer durables. As a result, industrial expansion, especially in the small-scale industrial sector, was doubly affected as remittances were used to finance investment to meet the rise in consumer demand.

It follows from the above that the government policy towards the large-scale manufacturing sector since the seventies has been a blessing in disguise for the rapid growth of small-scale industries in the region. Many traits of the small-scale industries are consistent with the aspirations of economic development. The capital labour ration of the small and household manufacturing units are only one-sixth of that in the large-scale manufacturing sector and have large potentials for employment. This employment potential increases considerably as the sector has important and significant backward and forward linkages. As the small household industries are based on domestic capital and local raw materials, the scarce foreign exchange is saved and expansion of the sector leads to expansion in capital goods and raw material markets with corresponding positive changes in employment. As employment of labour becomes universal, it generates the demand for consumer goods with consequent economic expansion. The repetition of the process results in a multiplicative process of linkages and sustainable growth of the economy (Hamid 1983). The process of linkages becomes all the more important as the output of the sector has lower costs than the large-scale sector. A further advantage of the emphasis on small-scale units is the fact the it ensures equitable distribution of incomes and that the industry could be located in the rural areas, checking the exodus of rural labour and the rapid growth of urbanisation along with its attendant problems.

However, a major obstacle in the NWFP is the existence of an underground economy which is very competitive price-wise with the locally-produced goods, and, unless stringent measures are implemented to control and eradicate this supply point, most industries in the NWFP will be unable to market their produce and divert the consumer away from this cheaper underground market.

Population Policy and Human Resources Development

Pakistan is the ninth most populous country in the world with 110 million persons, and it also has one of the highest growth rates (it is increasing at 3.1 per cent per annum). Without population control there cannot be any meaningful growth as the increasing population puts pressure on all the facilities and infrastructure, especially in the agricultural and social sectors such as health, education, housing, and public utilities. These cannot keep pace with the increase in population. A study of the South-East Asian Region (Economic Survey 1989/90) suggests certain factors that influence fertility reduction. These include political support at different levels, sustained government commitment, adequate provision of funds, and professional handling of programme planning and implementation.

The Government has been undertaking different programmes to control population but they have been ineffective because of the lack of political motivation and funds. Recently, the population welfare

programme has become functional and the communication media are being used. In 1989/90, Rs. 455.5 million was allocated to this sector and during 1988/89, the birth rate was supposed to have declined by 0.289 million through the contraceptive delivery services. However, the population problem calls for drastic measures with a motivated and dedicated delivery system if results are to be achieved. Another aspect of the population explosion that has implications for off-farm employment is the increase and additions to the labour force every year, without a corresponding increase in employment opportunities, along with the lack of facilities for the development of skills and overall human resource development.

The NWFP already has the second lowest literacy rate with a higher growth rate of population (3.3. %) Health, sanitation, safe drinking water, housing, and other facilities are scarce due to which the productivity of labour cannot be raised. The population policy thus has direct implications on the increase in the labour force and the position of off-farm employment.

Sectoral Policies

Agriculture

The main thrust of the policy towards the agricultural sector is to improve production and productivity. This is done in a number of ways: the major ones being through modern agricultural practices, i.e., through the use of better inputs such as improved seeds, fertilisers, pesticides, irrigation, and use of modern machinery, e.g., tractors, threshers, etc.

In this context the thrust of the policies has been towards making these inputs available; secondly, the setting up of research institutes to continue research in seeds, etc; thirdly, setting up of agricultural education and extension organisations to carry the message of development through the use of better inputs made available to the farmers; fourthly, better marketing, so that during the peak harvest season bulk supplies do not depress market prices. Agencies such as the Agricultural Marketing Storage Limited (AMSL) and Pakistan Agricultural Storage and Services Corporation (PASSCO) procure agricultural commodities at government-regulated prices. While such a marketing mechanism ensures minimum prices to the growers, it also helps in price stabilisation during lean periods. Fifthly, a price support policy is provided, covering the prices of wheat, cotton, rice, sugarcane, gram, potatoes, onions, soyabean, sunflower, and safflower crops. This helps disadvantaged farmers who are unable to store their produce. Finally, agricultural credit is provided to farmers (institutional credit) through the Agricultural Development Bank of Pakistan (ADBP), Nationalised Commercial Banks, and the Federal Bank of Cooperatives.

Besides the crop production sector, the livestock, fisheries, and forestry sectors are also reviewed. The livestock sector is a major sector and accounts for about 8 per cent of the GDP and 29.4 per cent of the agricultural value-added. The emphasis has been on improvement and upgradation of animal breeds through artificial insemination and embryo transfer technology. A large number of veterinary diagnostic laboratories, hospitals, dispensaries, and mobile units are planned for establishment througout the Province.

However, despite all these policy measures the agricultural sector in the NWFP is not able to benefit fully and lacks vibrancy. This is because of certain drawbacks, emanating essentially from the small size and fragmented nature of holdings. The farmer, being small and mostly marginal, is too poor to make use of the machinery or avail of other policy measures. Moreover, some areas are inaccessible and modern agriculture cannot be practised because of the terrain, climate, and lack of water. The impact of policies directed towards the agricultural sector are thus only visible sporadically.

Industrial Policy

The industrial policy of the Government is aimed at increasing industrial production, value-added, and employment generated, as well as at conserving foreign exchange through decreasing imports. The Industrial Policy Package (1989/90) had 4 main objectives:

- to create employment by encouraging labour-intensive projects,
- to balance regional growth through dispersal of industries to less developed areas,
- to give importance to small-scale industries, and
- to develop key industries.

To achieve these objectives, the incentives offered include:

- an income tax holiday for 8 years for industries located in the NWFP, Baluchistan, FATA, the Northern Areas, and the relatively less developed areas of the Punjab and Sindh;
- exemption from customs' duty for the industries located in the above-mentioned areas (they are thus exempted from the levy of import surcharge on imported machinery not locally produced); and
- exemption from sales tax in the above-mentioned areas for 8 years.

Industrial Estates/Infrastructure

In order to help with infrastructure, essential services, and training and skills' development, various large and medium/small industrial estates have been set up. In the NWFP, the need for industrial estates is more acutely felt because of the lack of market demands, infrastructure, financial institutions, entreprenuirial knowhow, and skilled manpower.

The Sarhad Small Industries' Development Board (SSIDB) is engaged in developing and promoting small and cottage industries by providing overhead facilities, access to bank loans, development of industrial plots/estates, and guidance to potential/intending entrepreneurs. There are about 9 industrial estates in the NWFP. The number of training centres run by the Small Industries' Development Board in the NWFP more than doubled from 14 in 1972/73 to 35 in 1985/86. Above all, government organisation such as the Industrial Development Bank of Pakistan (IDBP), the Small Industrial Development Board (SIDB), and the Pakistan Industrial Credit and Investment Corporation (PICIC) were increasingly helpful in extending loans for industrial development. Entreprenurial training courses are being conducted with the help of NGOs to help in employment creation. For example, IDBP increased its disbursement of loans from Rs 14 million in 1971/72 to Rs 49 million in 1985/86. The loans sanctioned by PICIC for the two periods rose from Rs 21.4 million to Rs 37.0 million. The SIDB, being the financier of small businesses, funded investments to the tune of Rs 2.6 million in 1975/76 and Rs 6.0 million in 1983/84 (NWFP 1987).

The Government has also been investing in non-formal education through adult education centres, vocational institutes, and other skill development centres to make the people employment-worthy and also help them start their own businesses. The Overseas Foundation is active in the welfare and resettlement of the returnees, while most government policies are aimed at helping to keep people in their own areas. Thus, the growing emphais on education has resulted in a growing number of educational institutions and

increased employment in the region. The total number of educational institutions went up from 6,350 in 1975/76 to 11,330 in 1985/86. These institutions employed nearly 25,000 teachers in 1975/76 and the number exceeded 47,000 in 1985/86.

Despite these incentives and policy decisions, the pace of industralisation in the NWFP has not picked up, nor is spatial diversification of industries visible as most of the industries are concentrated in a few urban areas (as already discussed in Chapter 3).

Rural Development

The Integrated Rural Development Programme (IRDP) was established in Pakistan with the the following main objectives: increasing agricultural production, diversifying the village economy, creating employment opportunities, and improving rural living conditions. The IRDP at Daudzai in the NWFP was established for similar reasons. Creation of income and employent was one of the implicit functions of the IRDP.

The People's Work Programme was also initiated in the 1970s with the aim of enhancing employment opportunities and improving rural infrastructure.

The main problem with the rural development and anti-poverty programmes in Pakistan has been the inconsistency in the policies over time. Most of the policies have been changed with a change of government, leading to a failure in the attainment of the stated objectives of the programmes. Another major problem has been the absence of an implementation mechanism to carry out the policies/programmes; the most important being the absence of any institutional mechanism.

Government Programmes for Off-farm Employment

Apart from its role through the institutionalisation of appropriate economic policies, the Government affects off-farm employment by its direct investment in various sectors. It would, however, be well-nigh impossible for the Government to perform its functions in the absence of viable and appropriate government agencies and departments deep inside rural areas. As a part of its rural development strategy, the Government's direct involvement in rural areas started in the mid-fifties with the establishment of a Small Industries' Corporation and the Village Agricultural and Industrial Development Programme (Village-AID). The former organisation was responsible for loans, supply of raw materials, technical advice, and marketing of the products from small-scale industries both in urban and rural areas. The latter provided technical and material assistance to small businesses and industries in rural areas. The available evidence indicates that both of these organisations were ineffective, because of the scarcity of funds and lack of expertise, until the mid-sixties when the Village-AID Programme was discontinued (Hamid 1976). While the Small Industries' Corporation continued to operate, it was given lower priority than the Rural Development Programme in the sixties and than the Integrated Rural Development Programme in the seventies. The inconsequential results of these two programmes also to generate employment led to their stoppage in the mid-seventies (ILO 1977). In the wake of this development, Small Industries' Development Boards at provincial levels were reactivated once again with the function of directing investment into production, training policies, and establishment of sales and service shops. Alongside this development, the Industrial Development Bank of Pakistan (IDBP), the Small Industries' Development Board (SIDB), and the Pakistan Industrial Credit and Investment Corporation (PICIC) were also empowered to extend loans to small-scale industries at low rates of interest.

Direct Government involvement in the off-farm sector of the NWFP has taken the form of investment in establishing physical and educational infrastructure, direct investment in industrial undertakings, and the provision of low-cost institutional credits to private industries. Starting from scratch in the fifties and sixties, the most prominent role of the Government was to connect the major cities of the region by an elaborate system of roads. Although the region was largely inaccessible by road in the fifties, more than 6.5 thousand kilometres of all-weather roads were in service during 1970/71. This rose to 8.3 thousand kilometres in 19875/86 (NWFP 1987). The rapid growth of road infrastructure motivated a rapid growth of employment in the transport sector.

The region contains the world's largest, earth-filled hydro-electric dam and the soil conservation department has been responsible for the construction of hundreds of small irrigation dams and structures resulting in the creation of off-farm jobs of an unknown magnitude. The construction of the hydro-electric dam has been a source of energy for a large number of industrial plants and has had multiplier effect on off-farm employment.

The Government, with assistance from various donors, also undertook reclamation projects and the installation of tubewells (for example, in Mardan District) and Area Development Projects such as the one in Gilgit under the supervision of the Aga Khan Foundation. The Government's direct investment in telephone industries and in the phosphatic fertiliser plant in Hazara, cement plants, and other facilities at various places in the province have been instrumental in creating a large number of off-farm activities.

Tourism

Besides these measures, the Government has been encouraging the tourism sector in the region to help increase employment as well as to earn foreign exchange. The Pakistan Tourism Development Corporation (PTDC) has been established to boost the Tourim Industry. In recent years, tourism in Pakistan has emerged with a sharper profile. In 1990, some 280,000 tourists visited the country. The Government has formulated a National Tourism Policy with measures to increase tourism. Offices are to be opened abroad for marketing tourism. Concessional loans are also to be provided for tourism-related projects. The main attractions of the country are "adventure and cultured tourism". The former includes trekking, mountaineering, etc. The NWFP has most of the tourist spots and thus the government's investment is expected to give a boost to the sector as well as to employment prospects. However the objective conditions need to be improved for the tourism industry to reach a take-off stage. This includes the provision of better communication networks, better hotels and accomodation facilities in the province, and greater investment. On the other hand, in the 1990/91 budget, the allocation to tourism has already been cut from last years' figure.

Migration and Overseas Employment

In order to ease the unemployment situation, the Government is helping to send workers abroad to the Middle East and other labour-deficit countries. On the positive side, this policy helps to absorb labour in the short term and to provide income and foreign exchange. But the negative impact is that the working age groups move out leaving behind the dependent age groups, and this adversely affects the development process through the absence of skilled labour and investment. Secondly, these are temporary measures and the labour will return in future and will need to be reabsorbed. The unemployment level will rise further as their return will add to the already increasing labour force, further exacerbating the unemployment situation. Finally, in the absence of investment guidance, the remittances sent home are not being put to productive use.

Thus, the primary emphases of government policies are through investmetn and establishment of projects in the different sectors to provide development as well as off-farm employment, on the one hand, and, on the other, to provide the infrastructure, public utility services, credit facilities, and markets, along with education and skill development.

Typology of Off-farm Related Projects

The picture that emerges from government policies depicts a concentration on three basic strategies for the creation of off-farm employment production, and value-added, namely,

- through provision of inputs, training, and extension of agriculture,
- through infrastructural development; and trade, fiscal, and industrial policies for boosting industries, and
- through provision/accessibility of credit programmes for agriculture and industry.

Agricultural Development Bank of Pakistan (ADBP)

This is the premier bank for providing credit to the agricultural sector. It was established in 1961 and in 1970 a Technical Advisory Unit was created to provide technical information to borrowers, especially about farm machinery. Subsequently, in 1972, a "Field Officers' scheme was introduced to provide production loans. In 1975, the "Model Village Scheme" was introduced to provide on-the-spot loans to farmers. In 1979, the Agricultural Technology Division was set up to provide innovative agricultural technology suited to local conditions and, in 1984, facilities were provided for opening letters of credit to import machinery. In 1985, the ADBP changed the loaning system from agricultural credit to rural credit, in order to focus on the development of the rural sector as a whole with agriculture as one of the activities.

The ADBP provides supervised credit and project loans. The former is a capital and management package provided to the farmer. This also involves provision for marketing and ancillary services. This includes the following elements:

1. supply of credit services for inputs and outputs and knowledge of modern technology;
2. provision and recovery of loans on time;
3. a production-based rather than as asset-based approach;
4. individual liability with group responsibility;
5. customer-Banker relationship; and
6. the motivation of the farmer to depend exclusively on the Bank for production credit needs.

Project Loans. These were introducted in 1979 and were meant to promote agri-business activities. The Bank advances loans against securities of personal properties both movable and immovable. The aim of this programme was to :

- o spread new technology in the field of agri-business;
- o provide loans to agro-industrial projects that meet national priority conditions;
- o provide preferential lending to projects in underdeveloped areas; and
- o link potential entrepreneurs with existing opportunities in agri-business.

During 1981/82 Rs 85.33 million was dibursed to the NWFP which is 5.50 per cent of the total, and in 1985/86 it went up to Rs 469.89 million, which was about 8.80 per cent of the total. When determining the loans to be provided, the ADBP considers the following criteria:

- o geographic area of the province;
- o number of farms located therein; and
- o land suitable for cultivation.

However, it gives more weight to the land suitable for cultivation and hence the NWFP has the lowest area and hence the lowest share.

Impact of the Programmes and Mountain Specificities. An analysis of the time period up to 1985/86 reveals that the NWFP did not even receive its full share of loans. In fact the ADBP, despite the increase in its activities over time, has been overtaken by the commercial banks in providing agricultural loans to the NWFP. Moreover, the farmers draw more working loans compared to development loans to meet their day to day needs at the expense of agricultural innovation.

The policy that is followed is for the whole of the country and does not take into consideration the specificities of the province in terms of the inaccessibility of the regions and marginalised farmers operating on small fragmented farms, while there is evidence to show that there is a positive relationshop between the size of the farms and agricultural credit provided. Furthermore, in the absence of a robust agricultural sector, the concentration of the ADBP loans is biased towards development purposes and towards farmers using modern equipment. This approach is not very helfpul to the bulk of small farmers who are unable to modernise because of inherent land size and their low income levels. Moreover, there does not seem to be any direct relationship between the agricultural credit available and the total agricultural production in the NWFP.

Small Insdustries' Development Board, Peshawar

The Small Industries' Development Board (SIDB) came into existence in 1972 to help in the industralisation of the province through provision of infrastructure, essential services, training, access to loans, and other facilities to develop industrial estates and provide investment counselling and guidance to prospective entrepreneurs. The importance of SIDB is more due to the fact that the small and cottage industries are the employers of a large number of labourers, amounting to 81 per cent of the total industrial employment, and provide high value-added. According to the Economic Survey, 1989-90, the small-scale sector grew at 8.4 per cent (while the large-scale grew at 7.7 %) and contributed 4.86 per cent of the GDP.

Currently, the Board is handling various training/manufacturing centres/units, including 15 carpet centres, 10 textile/patti centres, 6 embroidery and knitting centres, 5 wood working centres, one sports' goods, one leather goods' service centre and one ceramic development centre, along with various other projects which are in the process of completion for higher engineering programmes, metal, etc.

The Board has established 9 small industrial estates with 1,641 industrial plots. Table 4.1 shows the number of training centres, expenditure, and the number of persons trained in the NWFP district-wise. According to this table, in 1987/88, Peshawar, Abbottabad, and Mardan utilised about 58 per cent of the total expenditure and about 65 per cent of the total number of trainees were located in these 3 areas. This again shows the concentration of the SIDB in these 3 areas at the expense of the rest of the province.

Table 4.1: District-Wise Expenditure and the Number of Training Centres and Trainees SIDB in the NWFP

	1985/86			1986/87			1987/88		
	E	N.T.C.	N.T.	E	N.T.C.	N.T	E	N.T.C.	N.T.
Peshawar	8.0	7	150	.7	8	833	8.4	8	515
Abbottabad	2.0	3	53	0.3	3	52	0.6	3	60
Mardan	2.0	3	33	2.7	3	70	2.7	3	190
Kohat	2.0	2	27	0.2	2	30	0.3	2	40
Bannu	3.0	3	50	1.0	3	51	2.2	4	80
D.I. Khan	1.0	2	50	1.5	2	23	2.1	2	60
Chitral	4.0	2	33	0.4	2	32	0.5	2	40
Dir	3.0	2	24	0.3	2	35	0.1	2	40
Swat	7.0	3	55	0.6	3	56	0.8	3	60
Malakand Agency	1.0	2	17	0.1	1	15	1.2	2	20
Kohistan	1.0	1	17	0.0	0	0	0.0	0	0
Karak	0.9	1	6	0.0	0	-	0.0	0	0
Mansehra	10.0	4	57	0.9	4	72	1.3	4	80
Charsadd	0.0	0	0	0.0	0	0	0.0	0	0
Swabi	0.0	0	0	0.0	0	0	0.0	0	0
	44.9	35	572	15.7	33	1,269	20.2	35	1,185

Notes: E.: Expenditure in million Rs.
N.T.C.: No. of Training Centres
N.T.: No. of Tainees

Source: Small Industrial Development Board, Government of NWFP, Peshawar

The investment of the SIDB in the industrial estates is shown in Table 4.2 where it ranges from Rs 2.2 million (D.I. Khan) to Rs 6.2 million (Mardan). Net employment generted up to 1990/91 stands at 6,150 persons and the total number of industrial units located up to 1990/91 is 388.

Impact of the Programmes and Regional Specificities. It has helped in increasing the pace of industrilisation by setting up small-scale and cottage industries, especially with the provision of training facilities, advisory services, and the establishment of industrial estates. The registered companies and firms located in the industrial estates are provided with tax holidays and other facilities (as already discussed in the Industrial and Fiscal Policy), but the bulk of small-scale industries are owner-operated or unregistered partnerships which cannot avail of these incentives.

The SIDB needs to take the responsibility for helping in the marketing of goods which is a major problem in the NWFP because of inaccessibility, high transport costs, and lack of markets. In fact, although there is a separate directorate for marketing, its marketing policies are not visible in terms of its impact on further production and employment.

Table 4.2: Investment made by SIDB in the Industrial Estates

	(in Million Rs)
Peshawar	2.4
Abbottabad	2.6
Khalabat	3.0
Mardan I	4.6
Mardan II	6.2
Bannu	4.6
D.I. Khan	2.2
Kohat	8.1
Maneshra	7.2

Source : SIDB, Peshawar

Moreover, despite the announced policy objectives, there does not seem to be any widespread dispersion of industries as yet within the province. The spatial aspect needs to be kept in mind (which the SIDB does not seem to do) in order to identify "growth points" for the development of industries and to then establish industrial estates on this basis. Thus the SIDB needs to emphaise overcoming the problems relating to the specificity of the NWFP in terms of the terrain, marginalised producers, and diversity and focussing on less-developed, isolated areas of the province where the policy has not been as effective as in Peshawar, Mardan, and Hazara areas. Moreover the growing industries of the developed areas have tended to attract workers, thus drawing away the working age groups and entrepreneurial classes from the less-developed areas. If given the opportunity they would prefer to invest in their own areas.

Private Initiatives and Objective Mountain Conditions

One of the main criterion for evaluating a government policy is the manner in which it can ensure private incentives for investment in the various sectors of the economy. A policy can be appropriate only if it is formed with the objective conditions of a region in mind. If this is not done, a policy which has proved most appropriate and successful in one regin may prove to be a total failure in another region. Similary, a large investment in a region may be completely unsuccesful in achieving its objectives but may be assured of success elsewhere.

For example, a large-scale industrial enterprise may run smoothly in an urban centre but would have only dim and limited prospects if located in the far-flung rural areas. Since mountain regions are characterised by a special set of objective conditions, mainstream policies may not have the prospects of succeeding in a mountain environment. It is the purpose of this section to throw some light in some of these conditions in the mountain areas of the NWFP.

Inaccessibility and the Scattered Population

Most of the mountain areas are inaccessible. Additional problems arise due to the difficulties of reaching the scattered population. Under such conditions, the population cannot be integrated with the rest of the country. It is difficult to move large quantities of goods, raw materials, and services to establish industries in these regions and mount a frontal attack on the unemployment problem. As a result, the major emphasis of the industralisation policy has to be on small-scale and cottage industries. The problem

is further accentuated by the lack of access of the mountain population to social infrastructure and limitations in the context of required skills. As a result the output produced emobodies traditional rather than modern technology.

The inaccessibility of mountain regions, absence of commercial economies, and continued dependence on traditional modes of production make mountain regions vulnerable to unfair competition from the modern manufacturing sector. Consequently, the growth of off-farm activities is limited by the slow growth in demand for the products of the small-scale, tradition-bound production units. Unless concerted efforts are made, only a few items find their way into the export markets.

Fragility of the Environment

The mountain regions are areas of limited means. Incomes are low and resources are fragile. Any large-scale attempt to exploit the resources of the region are bound to result in the rapid degradation of the environment. For example, although mountain areas are generally rich in forests, widespread deforestation has occurred in the region because of rising demands and intense competition for fuel, fodder, and food. Execessive deforestation causes soil erosion and thereby depletes soil fertility. The constant rise in food demand initiates the vicious circle leading to further deforestation and the ongoing process of soil depletion.

Added to this is the careless use of fertilisers and other chemicals which, in the name of development, destroy the micro-bacteria in the soil (e.g., some areas of Mardan) and ultimately lead to a decrease in soil fertility. It is also an environmental hazard. Water-logging and salinity have also contributed to the loss of soil fertility in the region, and the inability to effectively use cultivable wastelands has also led to the loss of available agricultural land.

Another dimension to the fragility of the environment is the presence of refugees from Afghanistan who not only over-graze the fields and compete for the same resources but also add to further deforestation. Meeting the needs of the additional number of people adversely affects the already fragile environment. Without environmental protection sustainable development is not possible.

Moreover, too much concentration on the wood-based industries also contributes to deforestation in the absence of new plantation. Over-mining and quarrying lead to the depletion of non-renewable mineral resources in the long run; while too many earth-filled dams for irrigation lead to the displacement of people who have to be resettled elsewhere as well as to water-logging and salinity through seepage.

Marginality of Conditions

Most of the households in the mountain regions are self-contained and continue to subsist on low incomes. It is especially true in view of the conditions that prevail in the mountain areas. Agricultural holdings are small and fragmented and enterprises generally cater to the small needs of the subsistent population.

Moreover, with the increase of population and pressure on the land, and the inability of agriculture in the region to fulfil the needs of the farm families, in particular, and the province, in general, the tendency to move out and look for off-farm employment is more compelling. The absence of large-scale commercial farming in this region means there is a pool of casual agricultural labour who in some cases are marginalised farmers. Moreover, the NWFP is a land-constrained province where agricultural output soon reaches a point of diminishing returns and the cropping pattern reflects the high opportunity cost of land, on the one hand, and the profitability of crops grown, on the other hand. In this scenario very

small farmers need to work harder to survive and there is an urgent need for some form of off-farm employment to earn sufficient income and to make it possible to continue practising agriculture.

Moreover, their inaccessibility, fragility, and underdeveloped status makes them marginal in relation to the body politic. Their options are also limited and conditioned by their environment. Any major thrust that does not keep their socioeconomic system in mind may destablise their distinct lifestyle and value system.

Diversity of the Region

The region is faced with diverse economic, physical, and climatic conditions. Mountains are generally interspersed with small and large valleys. Climatic conditions vary from snow-covered mountain peaks in the north to highly arid desert conditions in the south. As a consequence, no single policy for the sub-region can be characterised by uniform responses from all the regions of the area. It is but natural to modify each policy in the light of the objective conditions of each of the climatic zones for guaranteed success.

Analyses of Major Programmes from the Mountain Perspective

In Table 4.3, four major programmes that have particular relevance in the NWFP are analysed in light of specific mountain conditions. The imperatives in light of the objective conditions are stated and the corresponding government action (or lack of it is also shown). This provides a glimpse of challenges that lie ahead concerning off-farm employment.

Table 4.3: Imperatives for Off-farm Employment in Major Programmes in the NWFP

Relevant Mountain Conditions	Imperatives for Off-farm Employment	Government Response and Implications
1. **MOUNTAIN AGRICULTURE / LIVESTOCK POULTRY** - Inaccessibility - Fragility, and - Marginality	- Reduce the transport cost of inputs and outputs - Education and Extension Workers to reach these areas and work through demonstration plots keeping in mind the specificity of the area and the agricultural possibilities - Evolve local markets for outputs and production to be geared to local needs to create income, demand, and employment - Input use to be well controlled so as not to damage the environment, e.g over-use of chemical fertilisers, irrigation, pesticides, etc - Marginal poor farmers' fragmented holding to be kept in mind in policy formulation	- Govt. Agricultural Policy too general and not geared to mountain - Specificities in terms of agricultural possibilities - Extension and Research concentrated in the fertile valleys only - More investment needed to link inaccessible regions of the Province - Preventive measures to overcome/control salinity and water-logging not adequately considered (more attention to solving the problem after it has emerged) - Mechanisation does not work, no policy towards consolidation of holdings, farmers do not respond to agricultural policy incentives
2. **MINING & QUARRYING** - Inaccessibility and - Fragility	- Scientific exploitation of resources for employment creation but without rapid deterioration of resources - Location of resource-based industries to cut cost of transport and bulk movement - Environmental problems overcome through proper location	- Exploitation undertaken but not much emphasis on methods used - Industries located in the NWFP not always close to the resources - Govt. more concerned with value-added without environmental considerations
3. **MIGRATION AND EMPLOYMENT** - Marginality	- Working age group moves out; underdeveloped areas suffer - Urbanisation of areas for industrial and socioeconomic development and employment creation - Remittances to be invested in industries for employment creation in the area	- No long-term plan for resettlement of returnees. - Incentives and work of Overseas Foundation not active in the inaccessible areas (main concentration is in the cities) - No investment guidance available and hence no investment in industralisation
4. **INDUSTRIALISATION THROUGH SIDB** - Inaccessibility - Lack of skills - Diversity in region	- Concentration on employment and marketing needed - Transport cost lessened - Dispersion of industries to provide employment in all possible areas - Skills/training to be provided - Industrial estates with all facilities to be located at the growth points of development	- Employment generation considered but marketing not given due importance, communication and bulk movement not possible - Transport cost not handled - Dispersion of industries unless deliberately does not occur through stated policies - Skill and training provision needs to be more widespread especially for the backward areas (most centres are located close to the developed areas) - Despite the increase in the number of industrial estates, more than 80 per cent are located in the Peshawar, Mardan, Hazara areas, growth points for generating employment and industries are not identified before setting up the Industrial Estates.

5

ANALYSIS OF MAJOR TYPES OF OFF-FARM EMPLOYMENT

The growth of off-farm employment is dependent on various factors that directly and indirectly contribute towards this objective, the major ones being; a well-trained, healthy labour force; existence of infrastructure and institutions; techniques of production; patterns of investment; and finally, the linkage between the different sectors and activities that reinforce the process of development and absorption of the labour force. Specific characteristics such as the geography of the area, the economy, the resource endowment, the labour force, and the sectoral linkages have brought into existence certain types of off-farm employment. The major ones are discussed below along with all the implications that follow from them.

Food-processing (Including Fruits and Nuts)

Food-processing is a major agro-based industry that is located in the small-scale and cottage industries group. It exists in the rural as well as the urban areas and may be in the form of registered or unregistered firms.

The food-processing industry includes processing of food (flour, sugar), fruits, vegetables, and nuts. The NWFP produces abundant fruits and nuts, with an area of nearly 140 thousand acres under groundnuts and over half a million areas under fruits (both winter and summer). The topography and the climate provides the NWFP with a comparative advantage in the production of these crops. Fruits are marketed mainly in the Punjab and the NWFP itself. Being perishable, they need to be preserved through processing. Nuts also gain in value when sold in processed forms.

Food-processing is a labour-intensive activity with favourable capital-ouput ratios in the small-scale/cottage industry sector. These activities are most prevalent in the informal sector at the household levels. In many cases, they are not all shown in the official data, especially when undertaken at the household level employing unpaid female labour.

Food-processing employs different categories of labour at different stages of the production process. The activities connected with cleaning, drying, and sorting are mainly undertaken by women (especially at the household level). These are time-consuming activities and use unpaid female labour; hence the employment generated at this stage (except for the registered industries) is not reflected in the official data. The positive and negative factors associated with food-processing are summarised in Table 5.1.

Employment Generated

The food-processing establishments provide employment to a large number of persons. According to the survey of small and household manufacturing units (1983/84), the rural sector employed 43,070 persons generating a value-added to Rs 183 million while the urban sector employed 3,310 and generated a value added worth Rs 63 million. This excludes the food-processing undertaken by women in agricultural households.

Table 5.1: Positive and Negative Factors Associated with Food-processing

	Positive Factors	Negative Factors
Environment/ Resource Base	o Interrelationship with sugarcane, sugar beet, wheat crops, which are some of the major crops in the province o Abundance of fruits, vegetables and nuts	o Some cases of over-use of chemical fertilisers in sugarcane growing regions which kills the micro-bacteria in the soil o Over-exploitation of resource base through the prevalent agricultural practices has led to problems of water-logging and salinity
Regional Distribution	o Well spread over the province especially at the household production level o Located close to raw materials such as sugarcane, wheat, etc	
Employment Generation	o Large numbers of employees generated at all levels - at the household level as well as informal and formal sectors o Show favourable capital - output ratios and are labour-intensive o Some are seasonal, but the variety of outputs provides some employment/jobs all year round	
Gender Issue	o Women are active participants, although this is not shown officially except in the formal sector o Currently, efforts are being made to increase their participation and contribution and make them income-worthy	o Women's participation not acknowledged where they work as unpaid labour
Linkage with Farming	o Provides backward linkages to farming through use of raw materials and forward linkages to transport, retail trade, services, etc and thus creates employment in all these sub-sectors o With the inflow of remittances the consumption of off-farm goods has gone up in some rural and urban areas	o Employment linkage as a result of out migration is not obvious. There is already surplus labour and no labour shortage with out-migration Also, the impact of some 3 million Afghan refugees on the labour market is not shown in official data

The Fruit and Vegetable Development Board (NWFP) has also started a project to reach women in the agricultural sector and to impart training in protecting, preserving, and processing fruits and vegetables which in the later stages will be marketed by these households. Creation of employment and income for these women is also one of the objectives of the programme. Currently, 150 girls are employed by the Board but the employment generated through extension work is closer to 1,500 per annum. The Aga Khan Rural Support Programme (AKRSP) runs similar programmes for processing food and also helps in marketing it.

There is still scope for further expansion in employment and production with an increase in agricultural production and demand. Since there are a variety of products aimed at different income groups (also produced by different types of establishment) there is always demand. In summer, fruit juices, squashes, cordials, icecreams, jams, jellies, etc and in winter nuts, dry fruits, ketchup, etc are commonly produced. Besides these, pickles, chutneys, tinned fruits, vegetables, along with processed fruits and vegetables, are in great demand. However, it would be better to organise this industry on a small scale using more labour rather than with sophisticated technology.

Location

Besides the household establishments, there are about 53 food-manufacturing establishments spread throughout the Province. These are located at Peshawar, Mardan, Kohat, Abbottabad, Mansehra, Malakand, Dera Ismail Khan, and Bannu.

Seasonality

All agricultural crops are seasonal but there are a variety of summer and winter foods, fruits, vegetables, and nuts. As a result some kind of activity is always going on.

Linkage with the Farming System

The food-processing industry is directly related to and dependent on the crop production sector. The success and development of this sub-sector depends upon the agricultural sector in a number of ways, some directly and some indirectly. Directly, the sector provides backward linkages with the agricultural sector as it depends on the latter for the raw materials. As such, increased activity here gives a boost to agricultural production through the generation of demand which ultimately is implicit in the type of production undertaken by the food-manufacturing sector, which has a low capital input and labour-intensive nature. However, increased activity in this sector may influence the cropping pattern of a region where, given land constraints, farmers may reallocate the land between different crops giving more emphasis to those crops that can be consumed by the food manufacturing industries against those that are sold in unprocessed form.

These industries provide forward linkages to the transport sector, retail trade, and services' sector where additional employment is generated. With a large amount of out-migration, the transfer of labour between different sectors does not show up as expected, and this is because of the inflow of Afghan refugees who have closed the vacuum. Consumption linkages with increase in rural incomes caused by the inflow of remittances is noticed.

Spatial Distribution and Infrastructure

The food-processing sector is widespread throughout the province, in the household, as well as in unregistered and registered establishments. All areas in the region specialise in the processing of food,

fruits, and vegetables as well as dry fruits and nuts. Nevertheless, the larger establishments are most concentric in their location, and this is mainly in the urban areas of the Peshawar-Mardan-Hazara districts. This is because of the availability of sugarcane, sugar beet, wheat, infrastructure, public utility services, and a ready market. Investments are thus attracted into these regions. The second cluster seems to be the arid southern districts of Kohat, Bannu, and Dera Ismail Khan. Aside from food-manufacturing establishments, these areas are less developed with respect to other industries. These areas are not easily accessible since there are no all-weather roads connecting them as in Peshawar. Malakand in the north is another area that has these establishments since fruits and nuts are plentiful in this area. It also acts as an assembly point for the outlet of products that are to be processed for the northern region as a whole.

Forest-related Activities

The NWFP has a larger forest cover than any other province of Pakistan. The forest area here is 1.3 million hectares (1988/89) which is about 23 per cent of the reported area. For Pakistan as a whole, the figure stands at 3.15 million hectares which is about 6 per cent of the reported area. The forests provide a variety of products such as fuelwood, housing inputs, and packing materials and the wood industry is centred around forest resources. There are different types of coniferous forest up to an altitude of 3,000 metres and scrub vegetation Juniper forests above 3,000 metres. Social forestry is practised to provide fuelwood and to meet the needs of forest-based activities and industries.

Currently, because of excessive grazing and the growing need for fuel and housing, deforestation has been taking place in some area. Most of the forest areas have been depleted of mature forests. The major factors responsible for this situation are the rapid increase in population, poverty of the population most of whom are unable to meet their needs for housing and fuelwood, over-grazing by livestock belonging to the locals, and the influx of about 3.0 million Afghan refugees into the province.

Almost every farmer owns some cattle and livestock in the forest area and uses the forage for cattle. The livestock sector thus depends on the forest resources directly.

According to Khattak (1982), the annual timber requirement of the people of the Guzara (Hazara) forest area is about 1.5 million cu. ft. while the annual fuelwood requirement is about 45 million cu. ft. According to the same study, the major sources of domestic fuel are dead and dry wood, harvesting and timber-processing waste, trees grown on farmlands, and illicit lopping and cutting of trees in the forest. About 1.2 million cu. ft. of timber are harvested annually. Even if the timber requirement can be met through reforestation, fuel needs cannot be met from the forest, especially with the rapid increase in population and stagnation in the return of Afghan refugees back to their homeland.

The paper industry, the furniture industry, the fruit-crating activities, and the housing and fuel needs are all centred around the forests. The paper industries are all in the formal sector while wood product manufacturing and the making of furniture and fixtures are found in the rural as well as the urban household establishments.

Employment Generated

In the rural sector in 1984/85, a total of 15,900 persons were employed, while in the urban sector, 5,624 persons were employed (Tables 3.5 and 3.6). The paper and paper product enterprises employed about 3,205 persons daily.

Besides these, crating activities and other wood-based activities are prevalent in the informal sector, the former being influenced by the needs of the fruit trade and the latter due to the local demands for household items such as stools, cots, etc. Data do not exist that would permit us to quantify the employment provided by these activities but they are a significant source of income for some households.

Employment is also provided by activities centred around the timber and fuelwood trade in the informal and formal sector. Collection of firewood and forest residue by members of the household is a good source of off-farm employment.

Regional Distribution

The paper and paper product industries are located mainly around Peshawar and Abbottabad which are urban areas with all the necessary facilities. The furniture and fixture industries are located at Peshawar, Mardan, Abbottabad, Dera Ismail Khan, and Dir. Dera Ismail Khan produces furniture that is of a distinct style and colour. The other wood and wood-based industries are spread everwhere at the household level.

Linkages with Other Sources

Wood and wood-based products whether it is in the form of timber, fuelwood, or processed wood such as furniture, fixture, paper, etc trace their backward linkage to the forest areas for their raw materials. The forward linkages can be traced to the transport sector, housing, services' sector, and food and food-processing sectors (for which forest areas provide the raw material for corks and crates). However, the serious point that needs to be noted is that forest cover is essential to maintain the eco-balance and that the rate of utilisation of this resource should not lead to depletion to such an extent that it cannot be off-set through reforestation. This becomes important on account of the gestation period needed before new trees can replace the depleted stock, and the additional factor of grazing by livestock. Unless these resources are protected and regenerated, the entire range of forest-based industries and activities may cease to exist with the depletion of forest resources. Social forestry has thus attained prominence and is practiced along with the plantation of Chir Pines and Poplars. These are expected to meet the rising demand for forest resources for those who depend on the forests for off-farm employment.

Value-added

The census value-added attributed to forest-based activities that enter the formal and informal sectors are shown in Table 3.7. This amounts to about Rs 2 billion in the furniture as well as paper and paper product sub-sectors, Rs 73 million in the urban household establishments, and Rs 108 million in the rural household manufacturing establishment.

Infrastructure

Apart from those activities that are related to crating, for example, fuelwood, housing, and trade in timber, most of the other wood and wood-based activities, for example, furniture and fixture as well as paper and paper products all need basic facilities such as trained and skilled labour, good markets, roads (since the outputs are bulky and heavy), electricity, and other allied facilities. Thus, they tend to be located close to the urban areas. Moreover, investment tends also to be concentrated in the urban areas where the benefit-cost ratios are usually favorable. Skilled Workers being an essential input, the furniture industry in Peshawar has emerged as an off-shoot of the Pak-German Wood Working Centre in Peshawar, The Centre has trained many workers who have set up their own furniture industries.

Indicators of Success/Failure

	Positive	Negative
Environmental Resource Base	o Forests provide the resource base for forest-related and wood-based industries to provide off-farm employment. o Social forestry introduced to help forest-based industry without depleting the forest resources.	o Over-grazing, and deforestation leads to depletion of forest resources.
Regional Distribution	o Industries located in the urban centres where facilities are available and investments are attractive. o Emphasis on skill development where industries are located.	o Leads to lack of employment opportunities in the rural areas even when resources are available. o Out-migration caused by the absence of opportunities.
Employment Generation	o Employment generated in all areas: households as well as informal and formal sectors. The entire gamut of employment generated not quantified but significant.	
Linkages with Other Sectors	o Industry has backward linkages with forest resources, and forward linkages with services, transport, trade, food-processing, and construction sectors especially with the inflow of remittance.	

Cottage and Small-Scale Industries

The cottage amd small-scale industries' sector is the most responsive and robust sector in terms of employment generation. It is labour intensive, has favourable capital-output ratios and depends upon indigenous raw materials. In 1989/90, the small-scale sector grew at 8.4 per cent compared to the large-scale sector which grew at 4.7 per cent. According to the 1990/91 Survey for Pakistan as a whole the small-scale industries accounted for 28.5 per cent of the value-added in manufacturing and 5.02 per cent of the GDP. These industries are mainly in the private sector and absorb about 81 per cent of the industrial labour force.

In common with the rest of the country, the cottage and small-scale industries' sector in the NWFP is active and fast growing. In 1984/85, the small-scale industries were responsible for 27 per cent of the total output of the industrial sector. The Small Industries' Development Board (SIDB) was set up by the Government to help in the development of this sector through provision of industrial estates, training facilities, infrastructure, loans, and market outlets.

Cottage industry is also prominent in the formal sector. This includes the leather industry, the traditional handicraft industries, and the carpet industry. The traditional handicraft industry is based on traditional activities in sewing, embroidery, spinning, weaving, and knitting along with the making of caps, furs, mats, dairy, etc. The leather industry includes the processing of leather and the making of leather goods (footwear and bags, etc). The carpet industry is centred around hand-knotted carpets (mainly woollen).

Most of these activities are centred around the available raw materials, either from the agricultural or livestock sectors. The leather industry, for example, depends on the hides and skins from the livestock sub-sector, whereas the carpet industry uses cotton, wool, or silk, and the traditional handicrafts all depend upon one or the other sub-sector in the agricultural sector.

A lot of activities in the handicraft sub-sector emerged on their own without any external help or intervention even when they did not receive good prices. These establishments normally receive a boost from tourism as it increases the demand for these goods.

It is not easy to get an accurate estimate of the entire sector since official data do not exist except for a few activities using leather and some of the handicrafts. But it is generally acknowledged that the employment generated is substantial. According to the survey of rural household units and small manufacturing establishments, 12,730 persons were employed in 1983/84. In the urban household units, there were 16,440 persons employed in similar activities in 1984/85, about 5,241 persons were employed daily in 17 industrial units in this sector.

Besides these official figures, there is a large number of persons employed (especially women who work either for piece rates, or on orders, or without any indication from the market). These are basically in the handicrafts' sub-group where every region has its distinct style and type. The potential for increased employment generation is great in this sector in all the sub-groups. Considering the low investment so far, the employment generation in these industries is already noteworthy.

Spatial Distribution

The leather industries are mostly located in Peshawar District. There is also one such industry at Bannu. Carpets and handicrafts are spread throughout the Province. The concentration of the production units depends upon the past history of the areas. Presently the SIDB has set up training centres to disseminate use of the latest techniques but these unfortunately tend to be located closer to the urban centres (as discussed in Chapter 4 above). The leather and carpet industries normally need a market for inputs and outputs and are thus located closer the urban areas. In contrast, the handicraft industries seem to blossom autonomously without any incentives or external training.

Investment and Value-added

Most of these establishments are run with relatively low investments, using indigenous raw materials and technology. The value-added as reported for 1983/84 stood at about Rs 67 million in the rural household establishments, while in the urban household establishments it was about Rs 189 million. In 1984/85, for the 17 units reported, it was about Rs 178 million. The data on value-added, in common with all the other data on this sector, are an under estimation as they only stand for the reported units, while there is a lot more activity in the informal sector that has not been captured by the official data.

Gender Issue

Women are equally as active as men in these activities. In fact, their participation ratio is higher, especially for handicrafts and carpet establishments. Carpets employ women and children because of their

nimble fingers and the delicate work involved. Handicrafts, especially embroidery, weaving, and spinning are undertaken by women. Their participation is not, however, readily visible as they are either unpaid family workers or hired low paid workers who are involved only in the production stages and remain largely anonymous. The marketing of outputs and inputs is done by men.

Infrastructure

Except for these industries located in the small industrial estates or in the formal sector, infrastructural facilities in the form of roads, electricity, machinery, training facilities, and organised markets are usually deficient. With the exception of the districts of Peshawar, Mardan, Bannu, and Kohat, all other districts are without rail connections and the rail route density for 1984/85 stood at 0.78 kilometres per 100 square kilometres. At the same time, the average density of the road infrastructure was 5.6 kilometres per 100 square kilometers of area. Carpet producers use rough wooden frames to produce their intricate designs, while handicrafts and others all use traditional technology. The leather industry is the only one that has been touched by new technology but that is only at the periphery. Moreover, this industry does not employ a large number of workers. Training for these establishments has all been internalised and handed down from one generation to another. They do not depend on any extension or training from outside but undertake innovations in the colours and designs according to the signals from the market.

Organised markets do not exist for these products and rural producers are most vulnerable to exploitation by middlemen. Moreover, because of the geographic constraints and the absence of a good communication system, they are unable to reach the markets in urban areas or other cities and are not even aware of the prices of their goods.

Linkages with Agriculture

The small-scale cottage industries are closely linked to the agricultural sector as they depend upon indigenous raw materials. The carpet industry uses wool, cotton, and silk as basic raw materials and thus shows backward linkages with crop production, livestock, and sericulture sub-sectors. The leather industry depends upon hides and skins from the tannery. Handicrafts all use local resources either agriculture-based or livestock-based or based on some other local industry such as silk, cloth, cotton cloth, home spun cotton, and thread. Forward linkages are seen with the service sector, retail trade sector, and transportation sector. The middlemen play a major role in the marketing of handicrafts.

INDICATORS OF SUCCESS/FAILURE

	Positive	Negative
Resource Base	o All these establishments are based on indigenous resources and utilise their skills with the available resources to generate income/employment and output. o Leather has to bought from the tannery or alternatively the tannery may be owned and thus leather goods produced.	
Location	o Normally located in households for handicrafts and carpets thus saving on over-head costs and less investment needed.	
Environment		o Leather tannery needs to be located near the water and pollutes the water where it is located. The Now-shera River provides an example of such pollution. o Carpet industries and establishments use wool and cotton and the fluff from these is harmful to the health of the workers. It causes skin allergies, eye problems, and chest problems.
Technology	o Uses traditional technology that is available and is labour intensive and employment generating and does not need high levels of skills, especially helpful in a situation where the literacy level is abysmally low in the province (especially in the rural areas).	o Goods are not standardised and this lowers the price in the market.
Spatial Distribution	o Handicraft and carpet establishments found all over the province at the household level. reflecting the handicrafts of the area. o Leather establishments located where tanneries exist or where transportation facilities exist to transport the raw materials. o The industrial estates located in the different areas give inputs to certain types of small scale/cottage industries in certain areas where infrastructure is available.	
Infrastructure	o The industries have been producing the goods and economic activities exist even without the basic infrastructure. o There is scope for improvement in the productivity and industrialisation of the province with the availability of infrastructure.	o Except for where small industrial estates exist there is lack of infrastructure, e.g., electricity, roads, railways, markets, and training and extension services. o Lack of markets is a major drawback and lack of connecting roads hampers the movement and affects the price of the goods. o Training, if made available, would improve the productivity of labour along with improving the quality of the goods.
Employment Generation and Gender Implications	o This is a labour-intensive sub-sector of the industrial sector and employment generated is of a larger magnitude compared to the investment made. o Carpets and traditional handicrafts employ both men and women but for different types of work. Men bring the raw materials and market the goods and in some cases are involved in the production process while women produce the goods. There is significant employment generated by this sector for both the sexes.	o being unpaid employees, women are "invisible workers". o In the leather industry women's employment is not that visible.
Linkage with other Sectors	o Backward linkages with the agriculture/livestock sector, sericulture, and cotton-manufacturing sector and forward linkages with retail trade, services, and the transportation sector. o Closely dependent on the tourism trade which furnishes an increasing demand and ready market.	

6

ACTIVITY-LEVEL ANALYSIS OF SOME ENTERPRISES

Pak-German Wood Working Centre

The Pak-German Wood and Furniture Industry was established in 1970/71 in the public sector in collaboration with the Germans. The aim of this was to improve the quality of wood products/furniture produced and more importantly provide training and skill development.

Type and Scale

At the time of establishment, the cost of the project was about Rs 26.4 million (which was increased manifold at the present value) and thus is placed in the small-scale sector. It is located at Peshawar in the Small Industrial Estate.

Its line of products include household and office furniture made of wood. The scale of production is adjusted to the demand in the market, which is mainly derived from official and semi-official establishments but also from individuals and private organisations and establishments.

Organisation and Management

Being a public sector project, the organisation and management hierarchy follows the system of the Government where the management includes government servants who draw salary and benefits at official scales. The firm employs 105 regular employees and 97 persons on daily wage or on contract. With an increase in the demand the project increases the employment of daily wage workers to meet the needs of the market. First preference is given to those already trained by the industry. About 20 per cent of the workers are in the helper category and are unskilled.

Raw Materials Used, Linkages, and Technical Innovation

Being a wood-based industry the major raw materials used are shisham wood, mulberry, soft wood, chip-board, laminated wood, plywood, melamine-board, formica, foam, tapestry cloth, rexine, square piping, cane polish, and lacquer and thinner. In fact, about 500-600 items of hardware are used. Consumption linkages are also noticed as there is an increase in the demand for these products with increase in income as well as a visible demonstration effect both in households as well as establishments.

The backward linkages with the forests and other sectors become visible when we look at the sources of raw materials. Shisham wood is obtained from the Forest Department or from the local dealers when the forest logs lack in veneer, while mulberry wood is bought from local dealers. The Forest Department logs are not of the same quality for veneer as wood from Changa Manga (a place in the Punjab). Soft-wood, which is locally produced, is mainly used for training purposes. The rest of the items besides wood are also locally purchased or bought from the manufactures but not from the NWFP as there is little production of these yet except for a few items among which is formica obtained from the Premier Formica.

A forward linkage is also provided in the process when the wood bought by the firm is then sliced by "Khyber", another firm in the NWFP, in order to produce veneer from the wood.

There has not been much technical innovation since the introduction of the original wood technology. Production has been following the same lines and has become standardised into its distinct type and quality. However, they have currently started using melamine which is of a higher density and even stronger than wood.

Marketing

The average annual production stands at about Rs 30 - 40 million but production normally depends upon the demand in the market. Most of the production is undertaken on contract and not for the open market. In fact, about 90 per cent of the production is oriented towards and absorbed by the government and semi-government organisations and only about 10 per cent is picked up by the public on contract/demand (already placed). Currently, the demand is more than supply and there is scope for expansion of production and employment.

Extenstion/Support Services/Training

Being located on the Industrial Estate and in the urban area, infrastructure, support services, and market are readily available. Training of workers in wood technology is given as much importance as the production of the finished commodity. Normally 20 trainees are trained per annum but they normally take more than this number as some of the trainees drop out before completion of the course. The trainees are given Rs 200 per month as stipend.

The impact of training and technology transfer through hands-on training has resulted in the multiplication of a large number of good quality furniture and wood-works producing private sector firms in Peshawar. Even though they do not possess the same facilities as the firms on the Industrial Estate, they are nonetheless doing brisk business to meet the market demand. These industries are usually initiated by those persons who either worked for the Pak-German Wood Works or who were trained by them and are familiar with wood technology. However, these firms are not in direct competition with the Pak-German firms. This is because the Pak-German Firm is oriented towards fulfilling the needs of government departments and, secondly, the urban market is large enough to sustain even more industries of this kind.

The Pak-Holland Metals

The Pak-Holland Metals was established in 1986 with the collaboration of the Government of the Netherlands. The main aim of this project was to upgrade the infrastructural base of the metal industries in the NWFP. Being a project oriented towards the development of infrastructure it has the following aspects in view:

- Training
- Extension service
- Credit facilities
- Technical innovation and development of prototype machines as well as transfer of technology.

Investment and Scale

The project was established in 1986 but over time the PC-I (Planning Commission Proforma I) has been revised and the present cost estimate is Rs 260.364 million with a staff strength of 96 persons. Most of these people are trained and qualified mechanical engineers with some support staff.

Training

Training is provided in metal trade, mechanical engineering, automotive welding, sheet metals, and light engineering. The training programmes are basically for skill upgrading in the area of metals.

	Positive Effects	Negative Effects
Resource Base	o Use of forest and forest-related inputs to produce the output.	
Employment Generation and Linkages	o Besides the direct employment provided, the indirect employment generated through the emergence of other industries in furniture gives a boost to off-farm employment. o Forward linkages with other industries and backward linkages with the forest and forest-based activities. o Multiplier effect on the economy as a whole due to inducement of consumption and demand.	
Gender Issues		o Women are not visible in these firms.
Training and Extension	o Dissemination of wood technology and improvement in the quality of products.	
Mountain Context	o The importance of these activities in the mountain context emerges from the utilisation of forest resources, quality products that have attracted demand from other areas. Former employees/trainees are involved in income and employment generation in the private sector and hence boost development in the area.	

The duration of the programme is 2 weeks, and it is given at the doorstep of the participants as against the formal classroom approach. In order to do this two mobile units are used. Each of them can accommodate 6-8 persons per shift. Up-to-date, 2,516 persons have been trained.

Extension Services

Extension services are given importance because of the low literacy rate in the area and also because training alone is not sufficient to guarantee the successful utilisation of skills by the trainees. Furthermore, extension services become an essential prerequisite to overcome the bottlenecks and problems that emerge in the use of the technology that has been transferred through the training programme. The extension services take 3 major forms, viz.,

1. advisory services,
2. solution of managerial/technical problems, and
3. those related to technology.

Credit Facilities

Under credit facilities, 2 types of loan are provided, e.g., long-term and short-term loans. Short-term loans are up to Rs. 10,000, while long-term loans are up to Rs. 200,000. But the loans are not provided in cash form. They are in the form of equipment and machinery. As a first step, the entrepreneurs' need assessment is carried out to ensure that the machinery asked for or desired is nearly that which is needed. This is followed by a market survey to identify the machines in the market. Finally, an assessment of the credit worthiness of the interested party is carried out. Up-to-date, the credit disbursed is Rs 4.2 million and the repayment ratio is about 91 per cent. The machinery is installed by the extension officer who then keeps in touch to build up a relationship of trust.

Innovations

This is a major contribution of the Pak-Holland Metals and the technology they innovate and transfer is appropriate to the region. A prototype development programme has been initiated. This includes the use of reverse engineering. Machines that are not locally available are taken apart and with the use of locally available parts and the use of reverse engineering an appropriate machine is manufacutred. Technology is thus transferred prior to the manufacturing of the machine, a market study is undertaken to ensure the availability of the locally manufactured parts and, subsequently, people in the metal trade are encouraged to innovate and use these machines. A case in point is the carbine generator which was previously used in the NWFP. The form in which it was used was very dangerous and liable to explode. A carbine generator was imported from Europe and after the completion of the process of reverse technology it was made safe. Another innovation is that both cutting and welding can now be done with this machine.

The innovation of the machine and transfer of technology are carried further to local companies who are provided with the necessary drawings for manufacturing the machinery, thus ensuring backward and forward linkages along with consumption and production linkages. Thirty-four such prototypes have been undertaken.

Marketing

Marketing of technology is undertaken through demonstration in different areas. A complete data base of the metal industry in the small sector is maintained and is then used to determine the location of the demonstrations. Orders are also received from the entrepreneurs who want certain changes in the present technology.

INDICATORS OF SUCCESS/FAILURE

	Positive	Negative
Resource Base	o The activities centre around metals and technology that are indigenous.	
Training	o Skill upgrading provided on the doorstep and relevance of innovation explained to the users to facilitate the transfer of technology.	
Extension	o Provide advice and help in running the new machinery and preventing the emergence of bottlenecks that may stop its operations.	
Linkages	o Prototypes are manufactured by local industries and technology is transferred together with skill development. o Use of these technologies by entrepreneurs and workers and demand is thus generated.	
Human Resource Development	o A very effective mechanism for human resource development, skill improvement, innovation, and transfer of technology. The lack of skilled workers in the province has been alleviated to a certain extent with the functioning of this project.	
Mountain Context	o The importance of training, technology transfer and promotional activities gain added importance due to the backwardness of the areas served and their inaccessibility. In these areas, there is not only an acute shortage of skills but also a total lack of exposure to modern technology. The skill development programme of this project is tailored to specific production workers and conveyed to them directly on their doorstep. The technology is transferred on site and skills to the metal workers imparted on the job itself. This has encouraged the entrepreneurs to innovate. All these factors help in the development of human resources, appropriate technology, and in utilising the resource base.	

7

CRITICAL ISSUES AND POLICY OPTIONS

In the analysis of off-farm employment the most important variable is the magnitude and growth of employment which must be matched with the resource base and its utilisation. The magnitude and employment depends upon a multitude of factors, important among them being the growth of the population, trends in the growth of the labour force and its transformation, and the productivity of the different sectors and their ability to absorb labour by providing productive employment opportunities.

1. The first critical issue that emerges is the rapid growth of the population in the NWFP (at 3.3 % per annum) which put the number at about 11 million in the 1981 Census compounded by the influx of another 3 million Afghan refugees. More than 85 per cent of the population is rural-based. In this set up, the bulk of the population (over 50 %) depends upon the agricultural sector for their livelihood and employment. At the same time the agricultural sector is not productive enough to sustain this large population. It consists of small-sized holdings, which form 98.5 per cent of the total, where mechanisation cannot be practiced. The terrain of the province is mountainous and semi-arid with only about 23 per cent of the area cultivated. Thus mountain specificity marginalises the farmers and the agricultural sector releases surplus labour which needs to be employed elsewhere.

   The corresponding policy option is to create off-farm employment either in the livestock and poultry sub-sectors or through the utilisation of the national resources that exist in the province such as forests, minerals, tourist spots, cottage and small-scale industries, and food-processing. The livestock and poultry sector provides 29.4 per cent of the agricultural value-added. According to the report of the National Commission on Agriculture, there is great demand for meat and milk. Investment in the livestock and poultry sector, along with improvement in the collection and marketing of the outputs, would help absorb labour through increased employment opportunities.

   The second option is to improve productivity in the agricultural sector itself. Even with existing constraints in terms of farm size and water availability, there is still scope for improvement through increase in productivity and yield of some of the major crops of the province such as sugarcane, maize, fruits and vegetables, and oilseeds. This can be undertaken through research and development for better seeds and others. So far these crops have not received as much attention as wheat, rice, and tobacco. While a greater production of these commodities will itself engage a greater number of farm workers, a larger output will make the surpluses available for distribution and processing which will further engage workers. With a favourable capital-output ratio, this sector holds promise for returns on investment and greater employment.

   Corollaries to the first critical issue are the demand and supply side variables which must be considered when examining any policy option. On the demand side the related critical issue is the transformation of the labour force which has unfortunately been a very slow process. The labour force is characterised by high dependency ratio, high male-female ratio (109 males to 100 females), low level of urbanisation (15 %), high dependence on the agricultural sector, and low levels of employment in the manufacturing sector (8 % overall). The productivity of labour is reflected through the wage rate whereby the construction labour and other semi-skilled labour in the NWFP command the lowest wages of all the provinces. The option here is to improve the productivity of labour through investment in skill development, in upgrading rural areas, and in urban development which will widen the base of employment opportunities.

On the supply side, the rapid growth of the labour force is a function of accelerating and exploding growth rates of the population. This is borne out of the demographic prognosis which shows that even with measures of population control, additional labour will keep on entering the present ranks until the year 2000.

The option here is to decelerate the growth rate of the population through effective family planning but this will need motivation, political and social commitment, investment funds, and an implementing mechanism. In 1989/90, the population welfare programme became functional with a high profile in the communication media with an allocation of Rs 455.5 million. If the programme is carried out as a policy measure resources will be released from heavy investment in social infrastructure to more productive investment and creation of off-farm opportunities elsewhere.

2. The second critical issue is that of migration. In the last 9 years, nearly 1.6 million persons have changed their residence. There is also considerable outflow or exodus of labour from rural to urban areas as well as high levels of out-migration, in which those who go out are the working age group, leaving behind the dependents; and those returning (in-migration) belong to the older age group who return to settle down. Under normal conditions there would have been a relaxation of pressure in the labour market but for the 3 million Afghan refugees who have entered the labour market and who are competing with the locals. Moreover, the remittances sent home are not used for economic and area development that can generate employment.

   As a Policy Option, there is the need to provide employment to keep people in their own habitat and slow down the out-migration of young working groups from the population. Increasing the level of urbanisation through investment would help. In view of the current financial constraints, the remittances sent home by overseas workers can be invested usefully through proper guidance and direction to create industrialisation, urbanisation, and employment. Currently, because of the lack of investment guidance, the money is spent for consumption and on real estate, at the cost of area development. Moreover, the Afghan refugee problem needs to be settled so that many more workers can be absorbed in off-farm employment.

3. The third critical issue centres around the exploitation of the natural resources and comparative advantage in the mountain paradigm. The NWFP has about 28 per cent of the total forest cover in the country, and is rich in mineral resources such as soapstone, silica, china clay, marble, gypsum and precious stones. These resources can be exploited to create off-farm employment.

   The Policy Option in this case is to exploit the comparative advantage by locating industries close to the natural resources. This will help hold to keep the labour force in its own area, cut transportation costs for bulky commodities in mountains terrain where communication is difficult, and help in the development, employment creation, and urbanisation of the area by generating growth and development.

   However, over-exploitation should be avoided as in the case of forest resources where deforestation is taking place at a rapid pace, not only to provide related industries such as furniture and other wood-based product manufacturing but also to sustain the high population levels with extra food and fuel. The policy option here is to undertake a reforestation scheme and implement the forest policy which includes propagation on a large-scale with several fast-growing tree species (such as those of poplar and eucalyptus), give incentives to private individuals to grow trees, introduce the scientific management and harvesting of forests, and conserve wildlife. These become necessary if forest-related industries are to be sustained. However, for the success of this programme there must be adequate financial allocation and a sustained effort. Since the animals also depend on rangeland, there is an

urgent need to control over-grazing, undertake reseeding, plantation of fodder, and establishment of shelter belts.

The position of off-farm employment in the province in 1987/88 shows major concentrations as follows: hotel, restaurant, retail and wholesale trade, 11 per cent; community and personal services, 11 per cent; construction, 10 per cent; manufacturing, 8 per cent; and transport and communication 6 per cent. Agriculture provides about 51 per cent of the employment.

Employment in the hotel and restaurant category is the offspring of the tourism industry. The NWFP has some of the most beautiful tourist spots in the country and the inflow of tourists gives a boost to this sub-sector. The government policy regarding tourism and the law and order situation in the country influence employment in this sector. The transport and service sector is also influenced by the tourism sector. The policy option would be to follow a high profile, marketing for tourism policy with investments in hotels/services/transport to cater to the needs. However, in the 1990/91 budget, there has been a cut in the allocation to the tourism sector at the national level.

Increase in employment in the construction sector is the result of income from remittances from abroad. This sub-sector has always had a positive role in generating demand and employment in the other sub-sectors through backward linkages (e.g., cement, brick, steel, wood, etc). The policy option would be to continue investment in infrastructure and related activities like schools, hospitals, etc to keep up employment generation.

The transport sector shows good employment potentials because of the communication needs of a large and wide-spread population. However, the potential of this sector will increase after the return home of the Afghan refugees, since the bulk of the employment generation of this activity in the informal sector is claimed by them. Investment in roads and tourism, along with production in agriculture and industry, will give a boost to this sub-sector in terms of increasing traffic and employment.

The policy option would centre around increasing the output of these activities through better productivity of all factors of production, better marketing, and proper guidance. The industrial/trade policies and the functioning of the SIDB should be targetted at these high growth, high labour-absorptive industries which will increase the off-farm employment potential of the region.

4. The fourth critical issue that arises is the role of the manufacturing sector in providing off-farm employment. The sector provides the direct industrial base. It only employs 8 per cent of the labour force and even in this cohort the bulk of the activity and employment generation is in the unregistered category of industries (about 152,000 jobs were thus provided as against 61,000 in the registered category in 1983/84). Besides these, the household establishments in the urban and rural areas are engaged in informal production as well as in providing services. This sector also uses a large number of women workers. The main activities are centred around food-processing, forest-related activities, leather and leather products, etc. All these have comparative advantages, being based on available resources and thus providing forward and backward as well as consumption and production linkages. The low level of off-farm employment is the result of insufficient infrastructure such as roads, railways, electricity connections, telephones, and post offices and the inadequacy of skilled labour. Up to 1987/88, there were only 8,505 kilometres of road and 542 kilometres of railway in the province and even these are concentrated in a few areas like Peshawar, Mardan, etc. The per capita electricity used in the NWFP in 1986/87 was only 157 kWh, as against an average of 223 kWh for Pakistan as a whole, with only 5.7 per cent of the total telephones and 13.8 per cent of the total post offices.

The situation becomes more critical in the light of the rugged terrain, inaccessibility of some parts of the region, and marginalisation of the region compared to other parts of the country.

One of the drawbacks in the industrial sector is the meagre investment level, either locally or from other regions. The remittances available tend to be diverted into real estate and the agricultural sector which employs more than 50 per cent of the labour force does not generate investable surplus. The response of the Government may be deduced from the industrial package that offers incentive to entrepreneurs for setting up industries in the NWFP. These include exemption from income tax and customs duty on imported machinery and lower rate of interest (6 %) on industrial loans.

Besides this, the Small Industrial Development Board was established to help the cottage and small-scale industries' sector. This organisation has set up about 9 industrial estates with the necessary infrastructure, provides advisory services, helps in technology transfer (as is being done by Pak-Holland Metals), provides training in carpet weaving, readymade garments, wood technology, etc, and provides access to loans.

Despite the Government's efforts, the results have not been encouraging in upgrading the level of industrialisation or employment or in diversifying the types. Furthermore the industrial, commercial, and trade policies do not really affect unregistered industries. It is necessary therefore to target industrial development by concentrating on regional specificities and the socioeconomic structure of the province. Helping in marketing and reducing transport costs by promoting "growth points" in all the different districts would be helpful. Substantial investment in infrastructural development in all the diverse areas of the province are also crucial. These micro-policies could give better results than the macro-policies that are made for all the provinces without taking into consideration the specific characteristics and problems of the regions covered.

The second policy option is to provide advisory services and guidance to overseas workers and channel their money towards productive investment. This would also ease the financial constraints of the Government to meet all the needs of development. The private sector can thus play an important role but only with direct help and guidance. Current Incentives are clearly not sufficient to achieve the expected results. With reference to credit policies, the IDBP, PICIC, RDFC, and the SBFC are all oriented towards the credit worthiness of the entrepreneurs for involvement in the formal sector. The small businesses in the NWFP need liberal credit but are unable to meet the conditions required for institutional credit.

Another option is to increase productivity in the agricultural sector through dissemination of information about the proper use of modern technology in agriculture (e.g., artificial fertiliser, pesticides, water, etc). Such an increase will create more raw materials for industries such as food-processing, tobacco, sugar, flour mills, etc and also more employment in all the related sectors.

5. The fifth critical issue is concerned with the concentration of industries and employment in a few regions like Peshawar, Nowshera, Mardan, and Hazara. This has tended to distort the development process by attracting investment, skilled labour, and all facilities towards these areas at the expense of the other regions. These are areas where the terrain is less rugged and urbanisation levels are greater. The desirable option is to spread out the industries. This is possible only if the Government implements programmes to improve the necessary infrastructure, emphasises training of the workers in their own areas without moving them to the few developed areas in the province, and helps towards area development. This would also help prevent out-migration of the young working age population in search of better prospects. The government's direct investment in industries and other sectors are therefore critical in these backward areas.

This is however possible only if parameters of evaluation are different from the strictly commercial perspectives.

6. The sixth critical issue is the issue of environmental protection. Currently excessive exploitation of mineral resources, agricultural practices, deforestation, and industrial loan are all creating environmental problems and hazards within the fragile resource base. The policy option is to control the activities that harm the environment. Exploitation of minerals should be done on the basis of scientific methods. Cement factories and brick kilns should not be located in such a manner as to harm the environment. The Environmental Protection Agencies that have already been set up need to be made functional and active.

7. The seventh critical issue is with reference to human resource development (HRD) and the gender issue. The development of human resources plays a major role in the transformation of the labour force. In the NWFP, the summary statistics indicate that the HRD is at a very low level in terms of education, health, availability of safe drinking water, sanitation, and participation of females in the formal labour market. The low wage rate in all the sectors is a reflection of this dismal situation. Improvement in the HRD through better education (the literacy rate is 16 % only) and the enhancement of other socioeconomic indicators will help in bringing about structural changes in the economy. According to Sabot (1990) the "*multiplier increases in agricultural productivity and productivity in non-agricultural activities may be a function of the human capital endowment of the rural labour force*". The policy option is to increase education facilities, make primary education compulsory for all sexes, establish more vocational and training centres for skill development and open workshops all over the province and not just in a few urban locations. Moreover, women who make up about half of the population must be targetted for development and any development package must include components for the development of this section of the population and encourage their participation for economic development.

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