

## **PART 2**

# **IMPLEMENTATION of THIS STUDY**

### **1- URBANIZATION**

One of the striking features of modern time is that there is great migration of population from rural to urban areas. This rural exodus is precipitated by stagnant economic and cultural life of the villages and vast opportunities of good standard of living in the urban areas. This generates a series of social, political, administrative, environmental & economic problems to the planners, policy makers and the inhabitants of the cities.

Migration from country side to the town adversely affects agricultural output and ultimately leads to economic stagnation in the rural areas. As a result it floods the labour market, increases unemployment and socio-economic problems of varied nature in the cities.

If such situations are not handled carefully and on time they could develop into unhealthy and problem oriented issues as is evident in the big cities like Karachi, Lahore, Multan, Faisalabad & Peshawar.

One particular aspect of Peshawar is that due to influx of Afghan refugees since 1979, population pressure on Peshawar increases manifold as compared to other major cities. The housing need and cheap labour resulted in a booming industry of construction in Peshawar. It also brought pressure on civic agencies and accelerated the deterioration of natural resources.

#### **1-1 Area of Hayatabad**

According to documents of planning cell of PDA, the township is spread over 3299 acres. The first and the last phases are equal size spread over 388 acres each while the rest other phases are smaller or larger than this size. Phase II is spread over 615 acres while phase V is reserved for offices and housing colonies for various Government and non government organization

#### **1-2 Land Use**

From the land use analysis it can be observed that almost half (51%) of the total area is developed for residential plots. The second highest use of land is for roads which comes to 22% while the third and fourth category of land use is for the community services and open space. Details on land use are given in the following table.

**TABLE-7**

**LAND USE ANALYSIS OF HAYATABAD**

Category	Area (acres)	%age
Residential	1682	51
Road	726	22
Open Spaces	297	9
Commercial	132	4
Community Services	429	13
Unassigned	33	1
<b>Total</b>	<b>3299</b>	<b>100</b>

Source: Planning Cell, PDA

The ratio slightly varies from one phase to another phase. Detail information are not available on all phases but one can get a fair idea by going through the documents available for phase II, V, VI stg-1 and Phase VII. A big chunk of land in Phase II and VII is occupied by Khawars or the hill torrents passing through these phases. Roads and streets have occupied around one fourth of the land while residential plots are ranging from 42-64% of land with an overall average of 51%. Details of acreage and percentage of land use available in each phase are given the following tables.

**TABLE-8**

**LAND USE ANALYSIS OF EACH PHASE**

Land Use	Allotted Area in Each Phases (Acres)							
	I	II	III	IV	V	VI Stg-I	VI stg-II	VII
Residential	-	365	NA	NA	95.4	70.2	NA	143.5
Commercial	-	1.05	NA	NA	0.14	4.8	NA	11.9
Public Buildings	7.08	8.50	NA	NA	6.9	16.9	NA	32.2
Road & Street	-	119	NA	NA	34.4	36.6	NA	74
Open Spaces	1.79	32.7	NA	NA	7.8	8.46	NA	32.6
Community Services	9.29	-	NA	NA	-	-	NA	-
Service Industries	-	-	NA	NA	-	-	NA	-
Khawars (Hill Torrents & Nullahs)	-	89.9	NA	NA	2.6	-	NA	43.9
<b>Total</b>	<b>-</b>	<b>615.6</b>	<b>-</b>	<b>-</b>	<b>147</b>	<b>137</b>	<b>-</b>	<b>338</b>

Source: Respective PCs

**TABLE-9**

**PERCENTAGE DISTRIBUTION OF LAND USE ANALYSIS IN EACH PHASE**

Land Use	Allotted Area (%age)							
	I	II	III	IV	V	VI	VI	VII
Residential	NA	59.3	NA	NA	64.8	51	NA	42.4
Commercial	NA	0.17	NA	NA	0.09	4	NA	3.5
Public Buildings	1.8	1.38	NA	NA	4.7	12	NA	9.5
Road & Street	NA	19.30	NA	NA	23.4	27	NA	21.9
Open Spaces	0.5	5.30	NA	NA	5.3	6	NA	9.6
Community Services	2.4	-	NA	NA	-	-	NA	-
Service Industries	NA	-	NA	NA	-	-	NA	-
Khawars (Hill Torrents & Nullahs)	NA	14.6	NA	NA	1.8	-	NA	13
<b>Total</b>	<b>-</b>	<b>100</b>	<b>-</b>	<b>-</b>	<b>100</b>	<b>100</b>	<b>-</b>	<b>100</b>

Source: Respective PCs

**TABLE-10**

**LAND USE ANALYSIS OF HAYATABAD TOWNSHIP (5-PHASES)**

Category	%age
Residential	56.059
Commercial	1.009
Public Buildings	6.458
Roads & Streets	20.769
Open Spaces/ Mosques	5.245
Khawars (Hill Torrents and Nullahs)	10.46
<b>Total</b>	<b>100</b>

Source: PC-I Phase-IV

### 1-3 Residential Area of Hayatabad

The residential area is divided into plots of different sizes. The biggest plot size is 2 kanals (10800 sq.ft) and the smallest one is the 3 Marlas (710 sq ft). The highest number of plots (7394) are of 5 Marlas (1350 sq.ft) category followed by 10 Marlas (2700 sq ft) category. The 14 Marlas scheme is introduced only in the last phase (phase VII). Detail about the residential area of Hayatabad is given in the following tables:

**TABLE-11**

#### DISTRIBUTION AND TOTAL NO. OF RESIDENTIAL PLOTS

Sr. N.	Plot Size		No. of Plots
	Kanal/Marla	Square feet (sq.ft)	
1.	2 Kanal	10800	1189
2.	1 Kanal	5400	5128
3.	14 Marla	3780	352
4.	10 Marla	2700	5480
5.	7 Marla	1890	1203
6.	5 Marla	1350	7394
7.	3 Marla	710	1750
<b>Total</b>			<b>22496</b>

*Source: Map of Hayatabad*

**Existing No. of Residential Plots of various sizes** **22503**  
**About 50% of the plots are developed and occupied by the people.**

*Source: Planning Cell*

**TABLE-12**

**DETAILS OF RESIDENTIAL PLOTS DISTRIBUTION IN  
HAYATABAD**

Sr. N.	Plot Size	2 Kanal	1 Kanal	14 Marla	10 Marla	7 Marla	5 Marla	3 Marla	Total
1.	Phase-I	425	545	-	1201	-	1556	-	3727
2.	Phase-II	698	1228	-	386	-	400	-	2712
3.	Phase-III	-	751	-	969	-	1264	552	3536
4.	Phase-IV	-	519	-	562	-	793	193	2067
5.	Phase-V Stage-I	32	197	-	468	-	835	-	1532
6.	Phase-VI	-	574	-	947	1113	1777	737	5148
7.	Phase-VI Stage-I	-	413	-	159	78	136	52	838
8.	Phase-VII	-	408	324	499	-	835	364	2430
<b>Total</b>		<b>1155</b>	<b>4635</b>	<b>324</b>	<b>5191</b>	<b>1191</b>	<b>7596</b>	<b>1898</b>	<b>21990</b>

*Source: PC-I Phase-VII*

**1-4 Green Area (Park area)/Open Space**

According to original Master Plan, the green areas/ open spaces phase-wise were as under:

**TABLE-13**

**PHASE WISE DISTRIBUTION OF GREEN AREA /OPEN SPACE**

Sr. N.	Phase	No. of Green Areas/ Open Spaces	Area (Acres)
1.	Phase-I	17	11.50
2.	Phase-II	8	8.228
3.	Phase-III	14	10
4.	Phase-IV	12	17.37
5.	Phase-V	3	3.95
6.	Phase-VI	5	14.40
7.	Phase-VII	NA	NA
<b>Total</b>		<b>59</b>	<b>65.448</b>

*NA: Not Available*

*Source: Planning Cell, PDA*

Although some of the green spaces have been converted for other land use, still a lot of green spaces are available such as Baghe Naran, Tatar Park, Khyber Park and Shalman Park, some of the famous recreational parks of Peshawar.

### 1-5 Population and Household

The population of Hayatabad township according to 1998 census is 45,000 with yearly growth of 3 %, while the estimated population according to Planning Cell of PDA is approximately 0.1 million. The main reason for this difference that more than 50% of the total houses in Hayatabad are occupied by Afghan refugees and therefore the estimated figure of the planning Cell of Peshawar Development Authority seem to be more realistic.

The average household size is estimated to be 8.5 but the actual may be slightly on higher side because it is very common that 2 to 3 families of Refugees share a single house. This was realized during the solid waste survey of the township where in 2 Kanal house the number of residents was 14 (Afghan refugees).

**TABLE-14**

### POPULATION AND HOUSEHOLD SIZE

<b>No. of Households</b>	<b>11250</b>
<b>Average household size</b>	<b>8.5</b>
<b>Present population of Hayatabad</b>	<b>11250 x 8.5 = 95625 persons</b>

*(Source: Planning Cell, PDA)*

**Population of Hayatabad:** 0.1 Million *(Source: Micro Municipal Services Proposal)*

**Constructed Houses:** 12000 Approx. *(Source: Micro Municipal Services Proposal)*

### 1-6 Percentage/Coverage of Flush Toilet

Hayatabad is well Planned Township in Peshawar. So underground sewage pipelines are laid down for flush toilets and for the discharge of domestic and commercial used water. Therefore the coverage of flush toilets in township is 100%.

### **1-7 Water Supply Population/Coverage**

<b>No. of Installed Tube Wells</b>	<b>53</b>
<b>Discharge rate of each tube well</b>	<b>1 cusec.</b>

Since January 2004, 53 tube wells are operating for water supply purpose in Hayatabad. The City and Municipal Development Department is responsible for the installation of new tube wells while the existing tube wells are operating by the Water Supply Section of the Town-III. No dug wells are operating in Hayatabad Township but there are many dug wells in the surrounding unplanned settlement all under the jurisdiction of town –III.

On average the tube well has capacity for the withdrawal of water ranging from 102-153 m<sup>3</sup>/hr. Approximately 13 hours/day operational time for a tube well.

These 53 tube wells were planned to cater water supply demand of the entire Hayatabad. As only 50 % of the residential area is occupied, therefore only 50 % of the tube wells are in operation and are fulfilling water supply demands of the consumers.

Water supply to all population in the Hayatabad township is being met by the Municipal water supply but in bigger homes (2 Kanals or 1 Kanals) with greater number of inhabitants required more water for usage.

So there are number of private bore holes in some homes. Exact numbers are not known because there is no such figure available with Municipal Department. Separate surveys are required for this purpose.

### **1-8 Hayatabad Industrial Estate**

Hayatabad Industrial Estate is situated near Hayatabad Township. The infrastructure facilities like power supply and line communication are available. Besides all these other facilities like internal roads, drainage, and water supply network available. Some basic information are given below:

<b>Total No. of Plots</b>	<b>230</b>
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In industrial estate Hayatabad, majority of the units are of very small size, which normally works on order basis from the local market of Peshawar. These are few industries, which can be called medium industries otherwise all of them fall into category of light industries.

Most of the industrial units do not use the water in their regular process or do not keep record of the water use except some major units.

The following Tables give the detail of sector wise industrial units and individual industries situated in Hayatabad industrial area

**TABLE-15**

**SECTOR WISE DISTRIBUTION OF INDUSTRIES IN HAYATABAD  
INDUSTRIAL ESTATE PESHAWAR**

S. No	Name of Sector	No. of Industries	No. of Workers	Production Capacity
1.	Pharmaceutical Industries	19	NA	69000 Bottles, 14756000 tabs, 9000 bags, 40000 I/V sets, 4-5 tons Sod. Silicate/ day
2.	Iron Steel Industries	14	152 <sup>1</sup>	35885 Kg steel/day, 27 ton cables & conductors /year, 250 sqft Tube well /day, 37155 kg home appliances /day
3.	Food Industries	9	264	750 ctn/day, 8100 bakery Kg/day, 40 bag food/day, 40000 Brand cock/day, 10 b/s spices /day
4.	Furniture Industries	12	269	40432 boards/year, 1430 sheet/day, 500 screws <sup>2</sup>
5.	Package Industries	3	56	3000 ctn/day (2 factories)
6.	Printing Industries	2	76	30000 sheet/day (1 factories)
7.	Paper & Board Industries	1	110	25 ctn/day
8.	Match Industries	11	1188	5707 ctn/day
9.	Marble Industries	14	131	13400 sqft
10.	Textile Industries	5	761	2000 Kg/day (2 factories)
11.	Ghee Industries	3	80	170 ton/day
12.	Ceramic Industries	2	425	50 pieces & 1800 sqft tiles/day
13.	Plastic Industries	3	61	To be verified
14.	Rubber Industries (Two tyre Ind.)	2	checked in IIDP	700 tyre/day
15.	Adhesive Tape Industries (2 adhesive Ind.)	2	checked in IIDP	1500 Kg adhesive tape/day
16.	Plastic Shopping Bag Industries (Twin Star & Shafi Ind)	2	checked in IIDP	3100 Kg shopping bags/day
17.	Other Plastic and PVC Pipe Industries (Royal PVC, MKB Ind., Prime Star, Aryan petro, Ropeman Ind. Pvt, Shershah Engg.)	6	checked in IIDP	2600 Kg PVC /day, 500 ton plastic/day, 500 kg plastic ropes/day.
18.	Concrete Industries	1	-	100 units/day
19.	Fiber Glass Industries	1	7	5 tubs/day
<b>Individual Industries</b>				
20.	Chemical Industries	1	10	-
21.	Roofcool Ind. Pvt. Ltd.	1	13	1-20 lak sqft
22.	Frontier Foundry Pvt. Ltd.	1	100	-
23.	Abaseen Pvt. Ltd.	1	4	-
24.	Shamshad Flour Mills Pvt. Ltd.	1	13	-

<sup>1</sup> No. of Workers for 5 industries only

<sup>2</sup> Production data for 5 industries only

Total Sector wise Industrial Units	=	110
Total Individual Industrial Units	=	5
Total Units	=	115



## **1-9 Urban Planning (Control of Urbanization)**

Government is taking number of measures for Urban Planning. Different problems are confronting the Government due to rapid population growth and urbanization, especially in the mega cities of Pakistan. Although there is neither a coherent urban development policy nor an efficient and responsive mechanism for the delivery of municipal services. NWFP is the least urbanized province in Pakistan, where only 16.9 percent population lives in cities. The most populated city of NWFP is Peshawar, where rapid urbanization is taking place as compared to the other cities of the province.

Ministries of Housing/Environment and Urban Affairs Division of the Federal Government have prepared the three policy documents related to urban sector development. These documents are as follow:

- 1- National Human Settlement Policy Study (1990)
- 2- Management of Cities Policy (1990) and
- 3- National Housing Policy of Pakistan (1992)

Brief description about these government policies on urban planning are given below:

- **National Human Settlement Policy**

This study advocates a re-orientation towards professionalism in urban management, formulation of an urban land policy forming public-private partnership. Dismantling Housing and Physical Planning (H & PP) Departments and devolving all their functions to local governments.

A major finding of the study is that, “all the large cities of the country have high urban absorption costs compared to selected medium sized towns, which out perform them on efficiency-cost criteria.” However, conceding that the large cities will have to absorb a “substantial proportion of the forthcoming urbanization”, the study puts forward the following, efficiency based recommendations; (a) developing low-cost cities; (b) investing in selected large cities like Karachi, Hyderabad, Faisalabad, Sialkot and Peshawar while controlling growth of cities like Lahore, Quetta, Multan, and Gujranwala; (d) encouraging concentration in growth corridors of Peshawar, Nowshera-Mardan-Jahangira-Taxila-Haripur and Jhelum-Sialkot-Gujrat; and (e) developing rural service towns.

- **Management of Cities Policy**

The policy emphasizes the following strategic initiatives:

- Strengthening urban local governments as an institution by introducing planning as a key innovation; changing laws and rules to allow city-wide perspective, greater local initiative and an improved decision making structure; introducing plan-oriented accounting and facilitating availability of trained manpower.
- Devolving those functions to local governments which would increase administrative efficiency, equity and citizen welfare, commensurate with national and provincial systems integrity.

- Increasing inter-governmental coordination by, inter alia, creating an umbrella institution for local governments, enabling inter-agency and inter-departmental coordination by evolving effective partnerships, inculcating good conventions and clear systems for case processing responsibilities.

- **National Housing Policy**

The policy aims at; (a) Accelerating housing production in urban and rural areas; (b) Making available suitability, located land and at affordable price; (c) Developing effective strategies for preventing formation of slums and katchi abadies; (d) Mobilizing resources for housing through personal savings; and (e) Developing new strategies and undertaking revision of policies from time to time.

Based on the policy objective outlined above the following initiative are recommended; (i) Housing to be a “highest priority sector” in the national development plans; (ii) Government to confine its role to providing sites and services, ensuring availability of building materials and to promote housing finance institutions, whereas actual construction of houses shall generally be left to the private sector; (iii) Greater emphasis on affordability, personal savings, self-help and cost recovery; (iv) No more katchi abadies recognition; (v) Ensuring wider application of low cost technology and optimum use of resources at the individual and national levels; and (vi) Coordinating the National Housing Policy with other development policies e.g. population, employment, social welfare, fiscal and monetary.

- **National Conservation Strategy, (NCS)**

Approved by the Pakistan Government in March, 1992, the document advocating; (a) greater public partnership in development and management; (b) merging environment and economics in decision and making; and focusing on long term improvements in the quality of life in Pakistan. For this purpose, it puts forward recommendations in 14 core areas, two of which are most relevant to Urban Environmental Sanitation Service (UES). They include

- (a) Preventing and abating pollution and
- (b) Managing Urban Wastes

The next important step following approval of the NCS, was the formulation in 1993 of the National Environmental Quality Standards, (NEQS). The NEQS, inter alia relate to municipal and industrial liquid effluents.

- **Role of provincial Department/Agencies**

At the provincial level there is a host of line departments and specifically established agencies for the management of urban environment. Planning and Development (P&D) Department is the prime coordinating and monitoring agency in NWFP. The Department of local Government is overseeing the affairs of district, city and union councils. Department of Housing & Physical Planning and Public Health Engineering are responsible for developing and executing schemes related to site and

services as well as those related to water supply, sewage and drainage. Department of Excise and Taxation involves in the collection of urban immovable property tax.

- **NWFP-Building Regulations, 1985**

Provincial Urban Development Board-NWFP has notified NWFP-building Regulations on 7<sup>th</sup> April,1985. This is a complete document comprising twelve chapters. Chapter wise headings of these regulations are given below:-

- Chapter 1: Preliminary
- Chapter 2: Submission of Plans for Approval
- Chapter 3: Space requirement in and around building
- Chapter 4: Internal Lighting and Ventilation including mechanical ventilation
- Chapter 5: Building structure-constructional requirements
- Chapter 6: Drainage and Sanitation
- Chapter 7: Fire resistance and fire precautions
- Chapter 8: The Activities of Builders and Developers
- Chapter 9: Demolition
- Chapter 10: Relaxation
- Chapter 11: Penalties and Appeals
- Chapter 12: Licensing of Professional Architects/Civil Engineers/Structural Engineer and Town Planners

Further Amendments were made in these regulations by Provincial Urban Development Board-NWFP through notification on 20<sup>th</sup> February, 1989.

- **Urban Planning and Development –Management System**

Government of NWFP has approved a project “Urban Planning and Development Management System” for Peshawar in 1999. Study on this project has already been completed and now Government is planning to utilize this project.

- **Land Use and Land Development Ordinance 2002**

NWFP-EPA has drafted an ordinance for Land use and Land Development in the light growing human population and urbanization. This ordinance is still under process and has not been notified yet.

- **Design Land Use Planning Process and its Legal Status in NWFP**

NWFP-EPA has prepared a project proposal on “Design Land Use Planning Process and its Legal Status in NWFP”, the purpose of this project is to develop digital base maps for the entire NWFP at an appropriate scale by using remote sensing and GIS technologies. Also to assess the existing land use situation in NWFP and to prepare a provincial land use policy/Act.