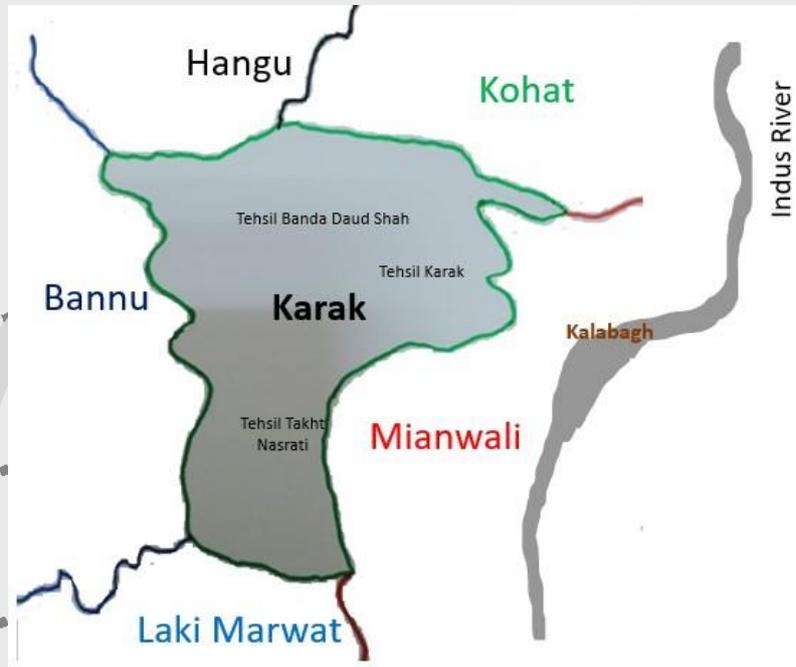


DISTRICT KARAK



Turn Potential into Profit

Small & Medium Enterprise Development Authority
Ministry of Industries, Production,
Government of Pakistan

Lahore

4th Floor, 3rd Building, Aiwan-e-Iqbal Complex, Egerton
Road, Lahore
Tel: 92-42-111-111-456 Fax: 92-42-36304926-27
Website: <http://www.smeda.org.pk>

Karachi

SMEDA, 5th Floor, Bahria Complex II, MT Khan Road, Karachi, Pakistan
Tel. 92-21-111-111-456, helpdesk-khi@smeda.org.pk

Peshawar

SMEDA, Ground Floor, State Life Building, Mall Road, Peshawar, Pakistan
Tel. 92-91-111-111-456, helpdesk-pew@smeda.org.pk

Quetta

SMEDA, Bungalow No.15-A, Chaman Housing Scheme, Airport Road,
Quetta, Pakistan, Tel. 92-81-111-111-456, helpdesk-qta@smeda.org.pk

Table of Contents

1. Introduction and History.....	1
2. Social Environment	1
3. Climate	3
4. Educational Institutions and Literacy Rate.....	5
5. Health Facilities	6
6. Economic Scenario	7
6.1. Apiculture	9
6.2. Aquaculture.....	12
6.3. Horticulture.....	13
6.4. Livestock	15
6.5. Forestry Sector	16
6.6. Processing Industry	17
6.7. Minerals	18
6.8. Tourism.....	18
6.9. Services Sector.....	19
7. Economic potential	21
7.1. Large Scale Investment Initiatives	21
8. Small and Medium Sized Potential Investment Projects	22
8.1. Agro-Processing.....	22
8.2. Aquaculture.....	24
8.3. Health	25
8.4. Horticulture.....	25
8.5. Livestock	28
8.6. Minerals.....	29
8.7. Services.....	30
9. References	32

1. Introduction and History

Karak is a district of the Khyber Pakhtunkhwa Province, Pakistan. It is to the south of Kohat, while touching on the north side with districts Bannu and Laki Marwat. On the south west the district Karak adjoins Hangu whereas in the east it borders with Mianwali district of Punjab. With an area of 1,234 Square Kilometers, the district is strategically located on the main Indus Highway, at a distance of 123 Km from Peshawar and 1,259 Km from Karachi.

Historically known as Lawaghar, the district remained under the influence of Nawab of Teri till the year 1940. It became the part of Kohat District and finally given the status of district under Kohat division. Today, Karak is administratively subdivided into three tehsils which are Banda Daud Shah, Karak and Takht-e-Nasrati.

The district has been famous for its loyalty to the country, and Mr. Khan Quli Khan was the most popular local leader having played significant role in the Pakistan Movement. Afterwards political figures like, Aslam Khattak (Son of Quli Khan), and Master Khan Gul emerged as well-known personalities. The district has also observed famous poets like Pareshan Khattak, Majrooh Kaki, Shams ur Rehman Shams, and Dr. Iqbal Naseem Khattak.

2. Social Environment

On the basis of census 2017, the population of Karak is estimated to be 807,000, of which 92% lives in rural areas. The percentage of female to male population is 51:49 each, whereas that of rural to urban areas is 92:08.

Most dominant tribe of the district has been the Khattak Pushtoons; therefore, Pashto is the main language here. Other ethnic groups like, Syed, Paracha, and Qureshi also exist mainly in the central region and all of them have same accent as that of Khattaks.

Khattaks have migrated from the Lawgar province of Afghanistan and old name of the district "Lawaghar" may have roots to it. Similarly, the accent of the people resembles much to the same province of Afghanistan with mix pronunciation of Pushto and Persian while adopting the general written Pushto. Khattaks loyal to Khushal Khan Baba were dispersed as a result of armed action by Mughal Empire, and a sizeable population of the tribe settled in far flung barren lands of Karak.

The district normally follows larger units of joint family system remaining under subtribe of "Khel". Karak and Waziristan districts still have Attan (the traditional dance of

Afghans). However, the famous Khattak Dance with swords is basically an exercise, that the tribe would do as pre-battle warmup. Pen and Weapon carry equal weightage for Khattaks, making them to be physically and mentally active. On one hand, the barren lands have made them pursue their carrier through education while on the other hand sports became an integral part of the life. Games with high physical exertions have been the favorites. These include, Cricket, Kabaddi, and Wooley Ball.

People of Karak neither practice “Walwar” nor “Dowery/Jahez”. Instead, there is a mix tradition of groom’s family agreeing for bride’s jewelry and some basic necessity items, but all of these are handed over to the bride and so remain property of the couple. The tradition of wedding dinner (Valima) still exists in the form of dinner served in main Hujra.

Participation in each other’s events of joy and sorrow is considered to be an essential part of life. Upon approaching strangers or a gathering, one has to say Salam and receiving a guest of same gender, hugging is must. Guests are served with cold drink or milk tea with biscuits, and in the meals the “Penda (Wheat Bread/Loaf crushed in Desi Chicken Curry). Beef Pulao is the most favorite dish for outing, wedding, and even Khairaat (Charity dinners). These make the rice, beef, and desi chicken to be most demanded commodities for marketing.

Figure 1: Desi Chicken Pinda



The district has been the most peaceful one with almost zero street crimes to exception of some areas having inter families, but with advent of mainly the drugs like Ice, and to some extent the settlement of outsiders, the situation is deteriorating.

Social welfare activities are also gaining popularity and among the social organizations, Master Khan Gul Foundation (also active in Olive campaign), Khattak Zalmi, and Talha Foundation have prominent role in the medical sector.

3. Climate

The climate of Karak varies as per the different regions. The Chautra region is a comparatively cold one with greener loamy soil and good rainfall and sizeable forests. Most of the portion of BD Shah falls in Monsoon zone and therefore thick with vegetation. The Taal region is sandy with hot summers and lower rainfall. (Figures below have been obtained from <https://weatherspark.com>):

Figure 2: Average High and Low Temperature



Figure 3: Daily Precipitation

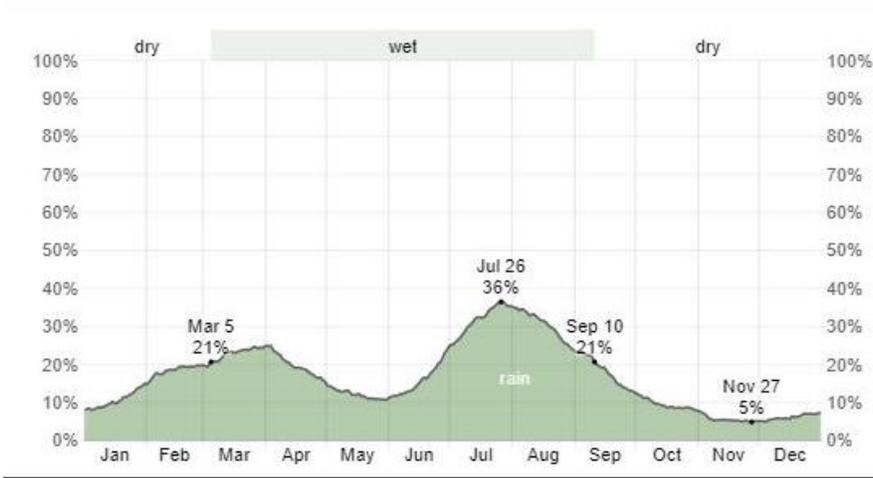


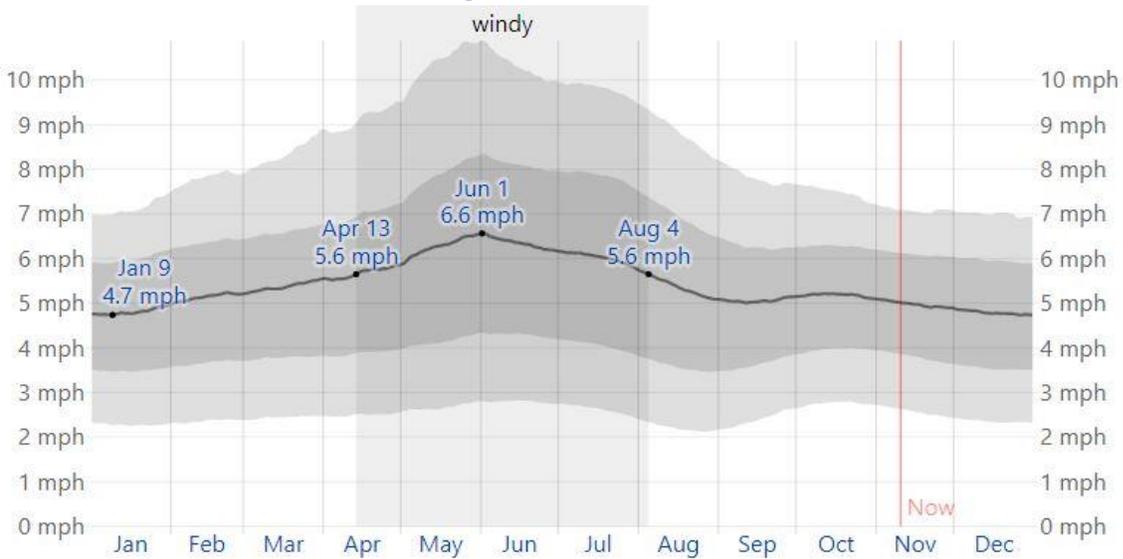
Figure 4: Monthly Average Rainfall



Table 1 Solar Energy

Conditions	Months	Average Daily Incidence Shortwave Per Square Meter
Brighter Period	April 27 to July 30	7.1 kWh
Brighter Month	June	8 kWh
Darker Period	November 8 to February 13	4.1 kWh
Darker Month	December	3.2 kWh

Figure 5: Winds in Karak



Climate change has been adversely affecting the flora and fauna of the district for the last few years. Wild olive flowers are damaged by hailstorms in the month of March,

similarly the honey flora and production are severely affected due to heavy rains in September-October. Habitat of wild life especially migratory Siberian birds has been annihilated.

4. Educational Institutions and Literacy Rate

The district has once been known as the one the highest literacy rate in Pakistan but now it is having a rate of 49% where male and female literacy rates are 68% and 18% respectively. In 1980s a sizable chunk of incompetent people heavily damaged the school level education. Later on, the introduction of Primary Teaching Course (PTC) created awareness and led to trend of higher education (B. Ed, M.Ed.). Now with large pool of MS, M. Phil, and Ph.D. the quality of applicants to professional tests has enhanced.

Table 2: Government Institutions (Year 2021)

Institutions	Number of Institutions		
	Total	Male	Female
All Primary Level Schools	756	421	335
Madrassa/Maktab	04	04	0
Community Model Schools	12	0	12
Middle Schools	83	50	33
High Schools	86	56	30
Higher Secondary	17	13	04
Technical and Vocational Institutes	01	01	0
Graduate Colleges	09	05	04
Commerce College	01	-	-
Post Graduate Colleges	01	-	-
Universities	01	-	-

Students of the district have tendency of B.E., and M.B.B whereas students being unable to secure admission in these, mostly choose the Agriculture Sciences. It has been very common to secure admission in degrees including English, Economics, Law, and Political Science for CSS and PMS. With the advent of public sector university, students have started studying Business, IT, and Journalism.

Finally, the vocational and technical diplomas have been popular alternate of intermediate level education due to higher and quicker employment opportunities.

5. Health Facilities

The total number of patients treated every year is 598,690 people, of which 96% is OPD. To cater to these, 35 government medical establishments exist with 1,330 beds employ 3,833 staff. The situation of the public health sector is as given below:

Table 3: Government Health Facilities (Year 2021)

Hospitals	Dispensaries.
Hospitals	09
Dispensaries	03
Rural Health Centers	04
Basic Health Units	19
TB Centers	01
MCH Centers	02

There are several private hospitals in the district. The trend of private maternity homes run by LHVs also exist whereas. The number of registered private medical practitioners is 42.

All of the government hospitals and BHUs need to be improved with the basic facilities like clean drinking water, sanitation, electricity, and system for coping up with pandemics and epidemics. Absence of high-quality medical labs, especially CT scan machine renders the locals helpless in emergencies. They have to incur high costs and risk the life of victim by taking him/her to Peshawar city in emergency. Even in routine surgery cases, there is shortage of well qualified Anesthesia technicians.

Despite the fact that sizeable number of people from the district are expert technicians and doctors but due to absence of basic social needs (good educational institutions, well equipped hospitals etc.) they never think of settling in their native district. Most sever shortcoming of the district health sector is the unavailability of Anesthesia specialists and CT Scan facilities.

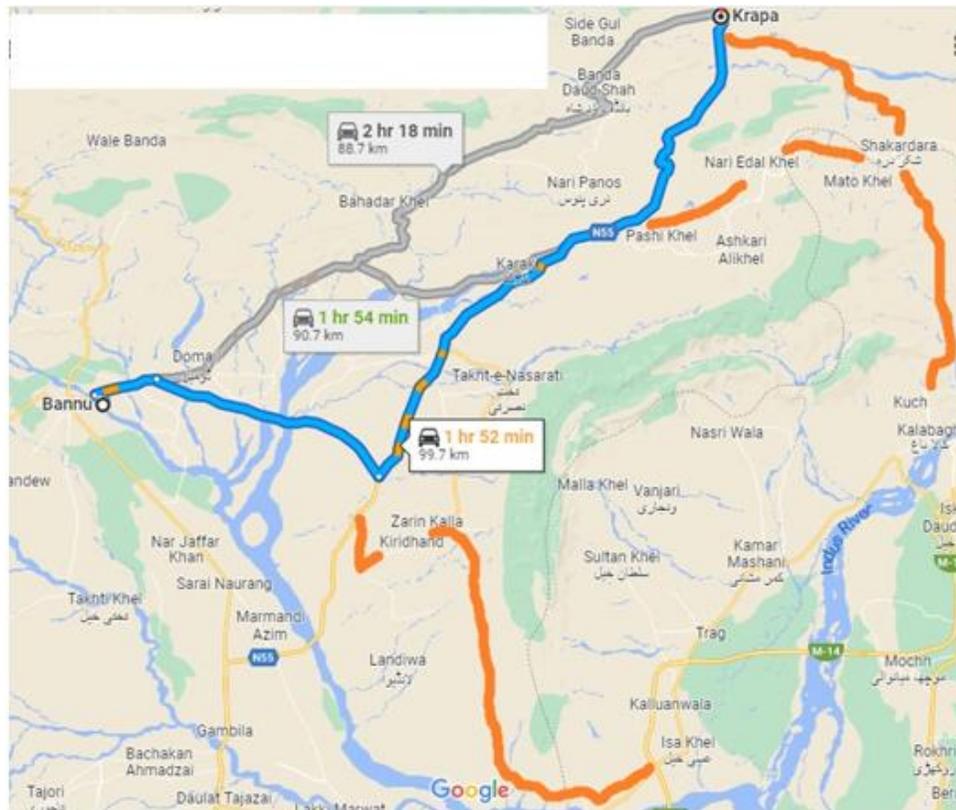
6. Economic Scenario

As of the year 2021-21, the basic infrastructure of the district includes 471 Km of black top roads, 28 water ponds, 15 check dams, and 25 water reservoirs. In addition to these, the initiatives under KDDP till the December 2022 are as:

Table 4: Karak Area Development Plan

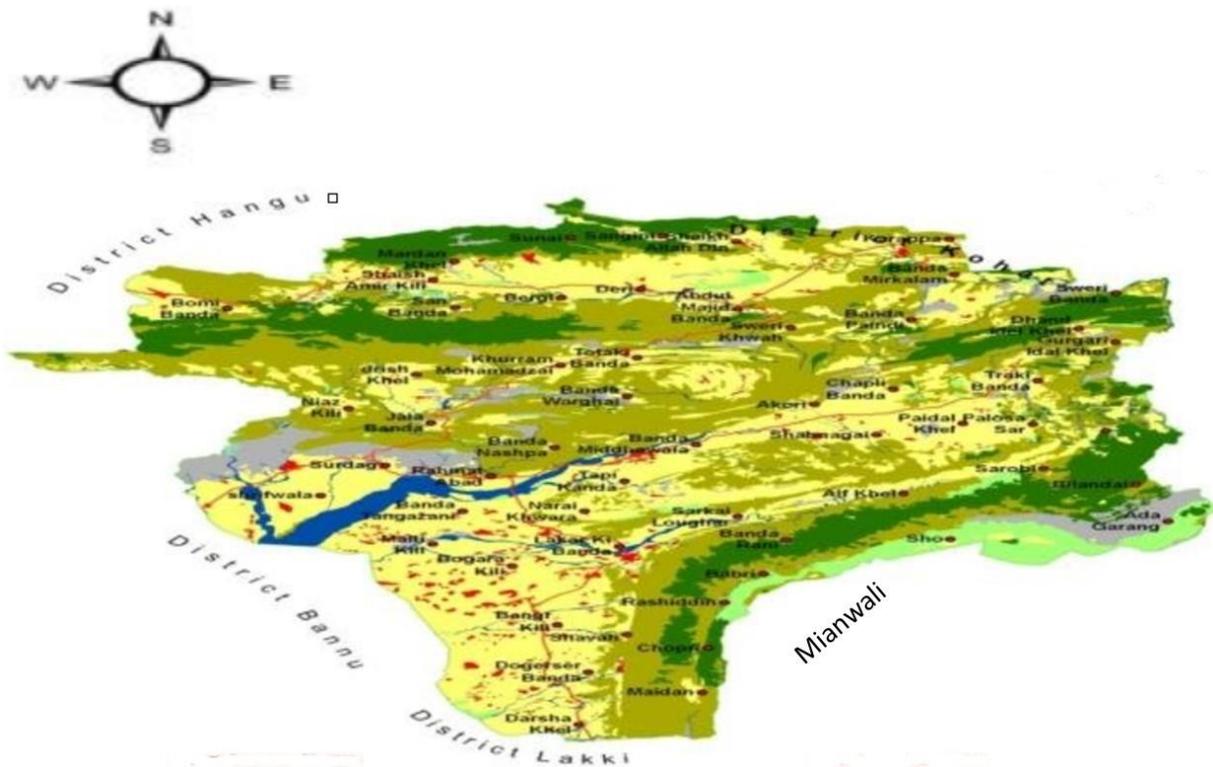
Description	Number of Projects Completed	Number of Projects Ongoing
Roads	07	42
Dams/Water Reservoirs	02	05
Drinking Water Supply Schemes	445	158
CPI	55	15
Health	13	01
Agriculture	11	17
Irrigation	10	50
WAPDA	0	04

Figure 6: Map Showing Access Roads to Bannu and Mianwali



Main sources of livelihood are agriculture, livestock, minerals, processing industries, and services sector.

Figure 7: Land Cover Map of Karak¹



	Landcover	Area (Hectors)	Area (%)
	Forest	39,263	14.85
	Range Land	90,135	34.1
	Shrubs and Bushes	8,950	3.39
	Agriculture Land	99,063	37.46
	River Beds	8,841	3.34
	Water Bodies	214	0.08
	Settlements	4,384	1.66
	Barren Land	13,478	5.1
	Total	264,331	100

¹ Source: <https://www.researchgate.net/>

6.1. Apiculture

Millions of wild Jujube (Bair) trees across the district, has helped it become famous for the world's best mono-floral jujube honey.



Commercial production of this honey started with the advent of seasonal migratory



Apiaries in the year 1992. Every year, more than 500 apiaries visit the district in October. Formally they used to extract 3 cuts (harvests) but now they leave after 2nd cut on account of lesser honey flora. When they arrive in the end of September, they bring along colonies fed upon sugar, so, the sugar based inferior quality honey is present in combs. Majority of the bee keepers don't remove these combs and as a result the first harvest has a mix honey. Then in the second harvest, there is only Bair flora available and the quality is therefore excellent. Still the quality of product depends upon production practices of honey bee keepers.

The size of wild Bair is very small as compared to the farmed Soha Bair (Bada Bair), making it less attractive to trade the fruit. The flip side is the fact that honey bees work on wild Bair flora and hence the conversion of wild trees to farmed one through grafting must be avoided.



Parallel to migratory bee keepers, the wild honey harvesters start bringing honey combs of Apes Florea (Small Bee) and Apes Dorsata (Mountainous Bee). About 01 Ton of these honey combs are sold to specific



local shop keepers at main markets. As it is mostly in the unprotected forests, so harvesters regardless of the honey being fully ready or not, harvest it. This adversely affects the quality of the

honey within comb. Still the rate of these combs has soared above Rs. 6,000 per Kg. Hives (combs) of small bee remain intact over the wooden shoots and packed in plastic packets or trays whereas the hive of the big bee breaks upon harvesting and kept in plastic buckets.

Till the year 2010, annual honey production remained well above 1,500 tons, but due to the severe climatic changes and deforestation, the flora season has decreased. Previously, bee keepers would arrive Karak in August and leave in October and now their visit remains between end of September to Mid of October.

In addition to Bair, there also exist other honey flora like, Acacia Modesta (Palosa/Pulai), Bhekar, and Mustard (Rapeseed), but due to better flora cycles of the same down the country, the bee keepers seldom stay in Karak during the season of these.

Honey trading has become a significant business for local people. Honey trading clusters include, Rahmatabad, Karak City, and Takht Nasrati Bazar. This has attracted traders of wild Bair honey combs from Punjab to stock their produce at Karak during the season. Owing to the bulk trading of quality honey, the SMEDA KP conducted a detailed cluster study and developed PC1 which was shared with the KP government. As a result of continuous projection by the Honey Association, SMEDA, NARC, and other departments, the processing of this precious honey gained attention. Recently Agriculture Cooperative Society-KP, has established 2.5 tons honey processing unit at Machaki, Takht Nasrati in collaboration with local traders led by Haji Yaqoob Khattak.

Most burning marketing issue is the fact that few of the exporters purchase the best quality Bair honey along with inferior quality and export both to middle east. Problem is that the superior quality honey is packed and branded as to be of origin of a country other than Pakistan, while the inferior quality is labelled as Pakistani honey. This exploitation is because of the weakness of bee keepers being unable to supply uniform quality honey required for bulk exports. The fact that despite being superior quality and having ability to outperform entire world in the competition, the export of Bair honey is limited to Middle East only. The use of antibiotics by bee keepers for bees treatment is a great concern for developed countries market for having traces of these medicines. Above all, the alarming level of nickel presence in the honey samples is being reported by Dr Fazal Akbar in research paper "Metals Contents in Honey, Beeswax and Bees and Human Health Risk Assessment Due to Consumption of Honey: A Case Study from Selected Districts in Khyber Pakhtunkhwa, Pakistan, Rahatullah et al"²

² Archives of Environmental Contamination and Toxicology

An opportunity for the cluster of district Karak, is the establishment of Honey Testing Lab at Taranab.

Table 5: Machinery Proposed in SMEDA PC1 for Honey Development Center, Karak

S. No.	Description	Rs./Unit	Qty	Total Rs.
A. Processing Machinery				
1	Small electrically heated warming cabinet	1,320,000	1	1,320,000
2	Small Honey liquifer warming cabinet	990,000	1	990,000
3	Honey Thickening Machine (01Ton Per Day)	5,000,000	1	5,000,000
4	Storage Tank (Food Grade SS)	1,050,000	1	1,050,000
5	Filling Machine	2,700,000	1	2,700,000
6	Coding Machine	220,000	1	220,000
7	Sealing Machine	250,000	1	250,000
8	Weigh Bridge	450,000	1	450,000
9	Miscellaneous			300,000
A. Processing Machine			8	12,280,000
B. Laboratory Equipment				
1	Electronic Balance	350,000	1	350,000
2	Hot steering plates (Set)	500,000	1	500,000
3	Shakers (Set)	300,000	1	300,000
4	Mini centrifuge	150,000	1	150,000
5	Honey Refractometer	120,000	2	240,000
6	PH meter	80,000	2	160,000
7	Honey color meter	150,000	2	300,000
8	Conductivity Meter	90,000	2	180,000
9	Hand Pallet Jack Truck	400,000	1	400,000
10	Small Items	Miscellaneous		200,000
B. Laboratory Equipments			13	2,780,000
C. Electric Transformer (With Material, Installation and Commissioning		Lump Sum		3,000,000
D. Elevator		Lump Sum		3,000,000
E. Safety and Security Equipments		Lump Sum		1,900,000
Sub Total of Machinery Costs (A+B+C+D+E)				22,960,000
Consultancy (8%)				1,836,800
Sub Total Including Consultancy				24,796,800
Contingency (2%)				495,936
Total Cost of Plant Machinery				25,292,736

6.2. Aquaculture

Aquaculture of the district comprises of annual 9.4 tons fish from 08 small scale fish farms and lease of 07 small dams (Changoz dam has been washed away). The production of dams has been estimated to be 0.3 to 0.5 ton per acre. Conventional species of China Carp, Grass Carp, Rohu, and Silver Carp are stocked.

Table 6: Production from Fish Farms

S. No	Name of Farmer	Location	Production (Tons)
1	Abdur Rahman	Maman	1.2
2	Awal Gul	Chughtu	1.2
3	Dil Nawaz	Nari Panos	1.2
4	Malak Maqbool	Bahadur Khel	1.2
5	Sajjad Noor	Kon Ghara	1
6	M. Luqman	Karak City	1.2
7	Mustahab Alam	Teri	1.2
8	Mujahid Islam	Gurgury	1.2

Table 7: Fish Production from Dams

S. No	Dam	Catchment Area (Sq Miles)	Live Storage (Acre. Ft)
1	Zaibi	11.3	1,670
2	Sharki	2,918	9,996
3	Lawaghar	22	3,061
4	Mardan Khel	11.30	6,365
5	Karak	--	--
6	Ghole	30.5	5,323

As with arid and sub arid environment water availability, pond seepage and water surface evaporation are the principle constraints. The availability of water can be mitigated through innovative water conservation technologies such as use of Solar panels and pumps to provide the water replenishment due to seepage and surface evaporation.³

³ Source: Mr. Umer Hayat (Ex-Director Fisheries Department-KP)

6.3. Horticulture

Out of total 265,000 hectare the cultivated area is 75,646 hectares whereas 16,700 hectares is culturable waste land. About 57% of the cultivated area is irrigated. As per the agriculture census 2010, the total number of private farms in Karak is 34,318 with following composition:

Table 8: Status of Private Farms

Size of Farms	Number of Farms
Under 1 Acre	705
1 to 2.5 Acre	16,688
2.5 to 5 Acre	7,473
5 to 7.5 Acre	4,138
7.5 to 12.5 Acre	4,558
12.5 to 25 Acre	580
25 to 50 Acre	176
50 to 100 Acre	0
100 to 150 Acre	0
150 Acre and above	0

Table 9: Horticultural Produce

Commodity	Area (Hectares)	Production (Tons)
Vegetable (Kharif)	2,021	13
Pulses		
Gram	6,208	2,071
Fodder		
Shaftal	13	146
Wheat/Barley	203	1,205
Others	181	1,051
Cereals		
Barley	127	52
Bajra	215	97
Jowar	251	99
Wheat	15,393	4,800

As a whole, the district is an Arid zone. Still horticulture of the district exhibits different behavior across three Tehsils of the district. Lands of Tehsil Takht Nasrati are somewhat irrigated through underground water. Farmers here with Tube-wells or Ephemerals proximity cultivate Millet/Bajra, Maize, and vegetable in summer, and

Mustard or Wheat in Winter. Tehsil Karak, can be subdivided into two types, namely the Karak City with underground saline water having negligible horticulture, and Chauitra Region with Groundnuts in summer and wheat in Winter. BD Shah Tehsil has immense potential of horticulture with rainwater flowing downwards to it, but lands remain underutilized.⁴

The sector has been facing problems, like:

- The demand of wheat in the district is about 80,000 tons (estimated on basis of 125 Kg per capita and the population) whereas the production remains around 4,800 tons per year. First, farmers used to prefer cultivation Groundnuts and Gram (Chickpea) as cash crops. Second, the region being a dominantly arid zone, has witnessed drastic decline in the area under wheat cultivation due to change of rainfall in highly unfavorable pattern.
- Chickpeas production of 15,000 tons is now declining due to climate changes like rains shortage and the frost damaging crops.
- Groundnut production declined from 5,500 tons to 1,900 tons. Reasons include unavailability of rains in season and local people abandoning labor intensive farming without replacing it with mechanization.
- Problem of open grazing animals is common factor discouraging farmers of entire district during summer.

Keeping in view the suitability of olive to the water scarce lands of Karak, the government started initiated efforts on Olive farming and grafting in early first decade of the 22nd century. For several years, local communities remained noncooperative. In the year 2013, SMEDA and PODB, jointly started capacity building of local farmers on Olive value chain, through training programs, workshops, exposure visits, and experts' meetings with the people. Later Khushal Khan Khattak University joined, and the KP Agriculture Department spurred its work. In this regard, the writer of this document having best working relationship with stakeholders, appreciate the role of Dr. Azmat Awan (PODB), Mr. Ibrar, Mr. Yawas Khan (late) and Mr. Shah Swar of ARI Tarnab, Mr. Anwar Ishfaq Ahmad (Agriculture Research Karak), and Dr. Zuabair Khattak and Anwar Marwat of KKUK.

As a result of synergetic efforts, the olive farming became successful and communities started top-work in wild olives. Today, there are two major olive orchards, namely, Dr. Israr Farm, Ahmadabad (3,500 Olive plants having started fruiting), and Dr Iqbal Farm, Topi Kala (750 Olive Plants).

⁴ Shah Sawar Khan (Agriculture Expert, GoKP)

6.4. Livestock

Commercial livestock farming is in shape of few local breed animals per each household. These are raised on open grazing and thus totally organic and unique in milk and meat taste.

Table 10: Livestock Population Reported

Description	Number of Animals
Buffaloes	5,374
Camels	3,102
Cattle	342,191
Donkeys	14,205
Goat	594,679
Horses	278
Sheep	100,347
Poultry	784,745

Locally the dairy sector is very weak with only two commercial dairy farms and subsistence farming. Due to being water scarce area, the Buffalo is not found and hence cow is the only option along with negligibly small yield of goat milk. Average milk production per cow is as low as only 2 Liter per day because of breeds and feed issue.

The cultivation of proper fodder is limited to only few villages having underground water. Maize, peanuts and grams fodder once used to be a good source but the sowing and production has declined drastically mainly due to climate change and lack of interest in farming by new generation.

Now the traders from other parts of country have started visiting the region on Eid ul Adha occasions. This has increased the demand and prices of ruminants to a great extent.

The livestock department is active in district, and people are now seeking consultancy of DVM experts but in sudden outbreaks of diseases, sometimes animal owners incur huge losses.

6.5. Forestry Sector

Forests of the district Karak are full of Non-Timber Forest Products (NTFPs). Forestry sector of the district exhibits two patterns of plantation:

- ✚ Bhekar, False Acacia (Palosa in local language), Herbs, Shrubs, and Wild Olive exist in shape of groves spread over ridges.
- ✚ World's best honey nectar flora bearing wild jujube (Bair) is found in clusters of plains throughout the district. Apart from these, the existence of Bakain and Mulberry is also observed almost in each house courtyard for the purpose of shad for summer.



Wild olive groves with millions of trees are stretched over ridges of Terri, Gurguri, Spina, Palosa, Ali Khel, Mathor, Turki Khel, and Badin Khel. These are normally guarded (except Ali Khel) by a community volunteer called Kaashi. Apart from being a habitat to indigenous birds, these are a source of goat feed. Every August, the wild fruits ripening provide livelihood to owner communities. These fruits are sold for Rs. 150 per Kg and the total estimated revenue of

entire district is about 30 million. However due to lesser fruit pulp and bigger seed within, these are sold only locally.

Wild Bair trees are found in plains everywhere through-out the district. These are naturally grown and exist almost in courtyard of every house. In summer the tree shed work shelter against sunlight, and goats climb the trunk to feed upon the leaves. With advent of Autumn season, the trees are pruned for firewood, leaves for goat feed, and thorny branches as fencing for crops etc. Nectar of it while being a best source of Honey, the fruit collected during March is collected for eating purpose.



Mazri (Dwarf Palm) has also been a great source of livelihood for local women where they used to spend entire day, making



different products of it. Traders on camel would collect and bring it from mountainous areas and sell it to the women. Similarly, another trader along with a camel would visit the area and buy finished goods of it. Now this natural source has been replaced by the synthetic one but the skill still exists with same products now being transported on trucks.

Aloe Vera plant can be seen in graveyards, perhaps due to the use of gravel and sand-based soil on graves. Despite its high demand and value in major cities, people of Karak remain totally unaware of its commercial and medicinal benefits.

6.6. Processing Industry

Currently the processing industry depicts two types of clusters. About 17 number of small industries within SIDB's estate are located in a defined area of 30 acres on main Indus Highway near Karak City. These mainly include light engineering, PVC pipes, and snacks processing factories. Other type of cluster is that of unorganized mineral processing units (operational) spread along:

- a. Old Bannu Road (66 Plaster of Paris units)
- b. Nari Panos, Karak, and Old Bannu Road (15 Gypsum Crush units)
- c. Indus Highway and Old Bannu Road (12 Gypsum Powder units)
- d. Rural secondary roads (42 Salt Processing units)

The agricultural processing is limited to only two factories with in Takht Nasrati Tehsil, namely, RSK Guar Powder unit, and Shinghar Daal Mill.

As a part of recommendations of Planning Commission's "Kohat Division Gypsum Cluster Feasibility" and the initiatives of KP government, the KPEZDMC took lead of the activity and after cumbersome efforts commenced "Gypsum and Salt City over 297 acres" at Karak. On local horizon, the contributions of Mr. Zeeshan Khattak and Abdul Qayyum Khattak are commendable.

Honey processing unit provided by GoKP to Insaaf honey at Mianki, Karak will soon start working.

6.7. Minerals

The mountainous terrain of the district is a part of Hindukush and contains reserves of energy minerals. Presently, the OGDCL and MOL have been drilling oil and gas with in the district and provide direct employment to thousands of people. Industrial minerals are as under:

Table 11: Mineral Production in Karak 2022

S. No	Minerals Name	Tones per year
1	Coal	75,595
2	Gypsum	3,500,000 ⁵
3	Limestone	38,691
2	Salt	212,577
3	Silica	11,101

Gypsum mining is done in open pit method and Salt mining is done in tunnels. Both of these minerals come in colors of white and gray. Impurities associated with salt, makes the mining to be a highly hazardous activity and prone to collapse. Unlike the pink salt of Kheora (Punjab), lamps can't be manufactured out of this salt. Impurities also make the salt of ephemeral beds to be a costly option for medicinal salts.

6.8. Tourism

At present, tourism is limited to summer and Eid holidays picnics by local and Wazir people visiting various Dams. The district with its diversified landscape and terrain, offers a best option to the adventure tourists. Different types of rock formations can be utilized as rock climbing. Similarly, the forest bearing mountains are a best summer spot to be visited for trekking or hiking. Palosa Sir, is one of such places, where activities like Zip line and Paragliding can be commenced on commercial level. Mr. Shaukat Khattak hailing from Palosa Sir, Karak is an internationally recognized paraglider. He has been organizing Paragliding shows frequently and has gained popularity among the local people as a prominent social activist.



Chakhtoo Game Reserve declared under Notification no. SOFT. I(FAD)VIII-8/76 Dated 30 November, 1985, The Government of North West Frontier Province declared the area Game Reserve. Due to good habitat and rich Flora and Fauna Chakhtoo was specified for Chief Minister & VVIP Game Reserve on total area of 11,379 hectares located at Northern East of district Karak & Kohat boundary. It has been divided into three units, I,

⁵ Gypsum Cluster Report by SMEDA for Planning Commission

II, and III, of which the Unit-II is situated in district Karak. Mr. Javed Iqbal Khanzada has been working on the conservation of wild life natural habitat in this region.

6.9. Services Sector

Due to the dominance of agriculture, allied services are also in demand. These include, fertilizer and pesticides supply, and farm machinery rental services. Out of 57,768 farms, a total of 53,751 report of using rented tractors, 56,449 use threshers, 5,649 use Sheller, 89 combined harvesters, 221 drill, and 15,235 use spray machines on rent.

Main Karak city bazar hosts over 3,000 shops where wholesale is observed in medicine and vegetable whereas retail is that of different items, like, chicken, cosmetics, Cell phone and accessories, clothing, domestic appliances, easy paisa, electronics grocery, garments, and Jeweler shops etc. In addition to this, the markets of Amberi Kala, Saidabad, Takht Nasrati, and Terri have retail shops. The total number of retail shops within the district is estimated to be about 10,000. The trend of local one day markets (Mela) has long been a great source of trading activity for marginalized businesses and their customers.

Cooked food items businesses flourished with the advent of entrepreneurs selling red Beans (Kurkhay), Chola, and Beef Pulao (Spicy Rice) in late 1980s. Today there are above 1,000 hotels and restaurants providing rich menu. Especially, in winter (November to February), the monthly sales of Fish are around 216 tons. Silver fish accounts for about 85%, and remaining 15% are Mali and Rohu.

As mentioned earlier, the honey trading has flourished greatly. Shops with in cluster and on main Indus highway are increasing. These hire services of experts (commission agents) having good linkages with beekeepers, local traders, and wholesalers of Tarnab market.

Everyday 7,000 liters of fresh milk coming from Layyah (Punjab) is reported to decant at Amberi Kala market and then distributed throughout the district in Suzuki pickups.

Within the last 03 years, roadside salt stalls have increased up-to 80 units. The piece of main Indus highway adjacent to Peanut producing region, you may see about 20 Kiosks selling Peanuts along-with rapeseed oil and honey.

Poultry sector is still underdeveloped with domestic desi chicken rearing and Aseel Roosters business. Conventional poultry farms closing in first 05 years of

commencement. Recently, people have tried Astro lop breed and sustainability can be judged after 03 years to come.

Figure 8: Roadside Groundnut and Salt Kiosks



Export services are based upon Gypsum to India and Salt to Afghanistan. On account of closure of trade with India, the gypsum export is on halt, and that of salt export to India is about 14,400 tons per year.

Transport sector of the district has been very poor on commercial grounds. During the last two decades, the trend of personal motorcycles and cars has discouraged investment in the local commuter bound transport business. There are few pickups commuting intra-district. Private schools' students mostly use Suzuki pickup shifts. For usual intercity journey people either rely upon 200 locally stationed HiAce or passing by vehicles of Bannu, DI Khan, Laki Marwat, and Karachi. This proved to be an opportunity for taxi/cab business and the number of well-maintained cars increased as a comfortable means of transport. With ever increasing number of vehicles sales of CNG and Petrol increased. Auto parts shops, mechanics and service stations also registered growth. In the past, people of Karak used to take patients to Peshawar and stay there for a night. The reduction of travelling time to Peshawar has made it possible to complete a round trip in same day.

7. Economic potential

Natural endowments are the utmost source of promising economic activity and abundant in the district. Millions of wild olive trees, and Acacia Modesta are lying unutilized in terms of their value addition potential. 16,700 hectares of culturable waste land can ensure billions of revenues and source of livelihood to thousands of people provided that, well organized corporate farming, forest plots, and horticulture orchards are developed.

Two mega projects of Oil and Gas, and hundreds of mineral processing units need huge quantity, for which current sources is the underground water. Uncontrolled use of already scarce underground water will deplete the water table to a dangerous level. The potential of ephemerals within monsoon belts can be utilized for rainwater catchments under CSR component of the businesses.

7.1. Large Scale Investment Initiatives

Salt mining from upper hilly areas of the districts has been carrying along the salt waste into food water streams. The accumulation of this water for a long period, has turned the underground water of central Karak to be saline.

Figure 9: Salt Waste in Ephemeral Bed



This waste can be utilized into Soda Ash, Caustic Soda, and HCL plants (Rs. 1 to 2 Billion cost). As these plants require huge quantity of water, so the low depth saline water of the same area can be used positively.

Increased plantation in easy to grow wild Bair trees will boost the Bair honey cluster. The region is also suitable for having medicinal plants like Bhekar, and new ones, for example, castor etc.

8. Small and Medium Sized Potential Investment Projects

In line with the resources and the existing sources of livelihood for the people of the district, the projects in agriculture and livestock farming, and marble processing are suggested.

8.1. Agro-Processing

The processing of local agricultural produce is limited to only rapeseed oil and Daal. Other indigenous products may even fetch far better revenues.

Peanut Oil Processing

Peanut oil with its enormous health benefits is marketed in small packings of 30 ml to 50 ml with a price of Rs. 10,000 per liter. Such a project may be started with Rs. 2 million costs. Pomace cake will be a byproduct as an additional source of income.

Olive Oil Processing

Existing olive orchards having about 4,200 olive plants, will start producing about 126 Tons of fruit within 03 years. For this, the farmers will need a small olive oil plant of 100 Kg per hour crushing capacity.

For a long time, the wild olive was considered to be unviable olive oil business option due to its smaller size. However, the successful trials by SMEs from Baluchistan have proven it to be another hope for the district Karak as well. This fruit can be processed by a very small local made machine worth Rs. 250,000.

Honey Branding

Owing to the ever-increased competition, products need to be unique with proper branding. Honey combs and chunks packing and branding is the need of the day.

Online platforms have provided an excellent market place for the small honey bee combs. This is the time for Apiarists (Honey Bee Farmers) to start producing and branding Bair honey chunks. For this, they will need a comb (frame) without wire.

Figure 10: Honey Combs and Chunks



Owing to the ever-increased competition, products need to be unique with proper branding. Honey combs and chunks packing and branding is the need of the day. Online platforms have provided an excellent market place for the small honey bee.

Name of Expert	Area of Specialty	Belongs to
Dr. Noor Islam Khattak, NARC,	Apiculture	Karak
Dr. Hussain Ali Tarnab Farm, GoKP	Honey Value Chain	Peshawar
Dr. Nauman Tarnab Farm, GoKP	Honey Testing	Peshawar

Image of Pakistani Bair honey can be built in the international market through serious branding and value chain improvement. For this, it is very essential to work aggressively on Product diversification and Market diversification. This will result in bringing up the price in existing markets of Dubai and Saudi Arabia. Highly rewarding quality conscious markets of EU, US, and UK will be accessed.

For all these, the honey traceability down the value chain from Market to Apiary is required. SMEDA has successfully introduced vacuum technology at processing side of Tarnab, so that to add to shelf life, and established linkages of international well reputed domestic players to the bee keepers and honey traders for quality assurance on international standards. Now a modern processing line of 20 tons per day (including can warming, de-moisturization and homogenization is required.

8.2. Aquaculture

Development of inland fisheries in Karak is a very challenging task, and need efforts of the line department and development organizations for introduction of best practices. The issue of small farms due to shortage of water can be solved by little intervention. The fish stocking capacity of existing small extensive farms can be increased 1,200 live fish to 3,000 pieces by upgradation to intensive technique. For this, three factors need to be addressed by introducing:

- Fish species of Tilapia and Pangasius
- Pellet Feeds
- Aeration; people of Karak already rear ducks, which is an encouraging sign. The swimming of these creates aeration effect in water, clean the upper layer, and can prove to be source of additional income from eggs being sold to local bakeries. However, there may be a tradeoff between the choice of above-mentioned breeds requiring pellet feed and that of the ducks. The investor should consult Tilapia and Pangasius fish experts of FDB and Punjab for the possible negative impact of ducks dropping which otherwise prove to be beneficial for conventional surface feeding species.

Cage culture proves to be a profitable venture in dams with stagnant water (Minimum 10 feet depth). To start with, the cage having 1 Ton fish stocking capacity, should be of size “10’ Length x 10’ Width x 10’ Height). The cost may vary between the range of Rs. 100,000 to 1 million, depending upon the quality of material.

Name of Expert	Field of Specialty	Belongs to
Mr. Moazzam Khan, Former, DG, Marine Fisheries Department	Fish Value Chain	Karachi
Mr. Umar Hayat, Former Director, Fisheries, GoKP	Inland Fish Farming	Peshawar
Mr. Junaid Watoo, Director, Fisheries Development Board	Inland Fisheries	Lahore
Chaudhry Nabeel, Ayfa Protein Farm and Feed	Inland Fisheries and Fish Feed`	Patoki
Mr. Faisal Iftikhar Former CEO, Fisheries Development Board	Exports	Karachi

8.3. Health

Collection Points

Collection points of well reputed laboratories may be established as profitable business, including, Aga Khan, Shaukat Khanam etc.

Drug Rehab Centers and Psychiatric Hospitals

Such types of hospitals may find patients from Karak as well as adjacent districts of KP. The religious nature of local people demands a fusion of Islamic and Scientific approach for such treatments.

Name of Expert	Area of Specialty	Belongs to
Mr. Zabihullah Khalil, Cure Door, Peshawar	Psychology and Drug Rehab	Peshawar
Dr. Subhanullah Al-Azhari, Professor, Islamic Studies, GPGC, Karak	Islamic Studies	Karak

8.4. Horticulture

Garlic Production

G1 garlic has gained utmost popularity among farmers for being highly profitable. Idle house yards of about 1 kanal can be utilized for safe commencement of the business.

Hydroponic Fodder or Vegetable

For areas with water scarcity, the concept of controlled environment soilless farming proves to be the most efficient business. Both, the fodder and vegetable are equally viable option.

A “Fodder” project with an average cost of Rs. 01 million will be a greenhouse of 300 sq. ft. producing 365 Ton fresh green fodder per year, which is equivalent of 25 acres of grass field. In this only 2 to 3 liters of water are required to produce 1 kg of green fodder as compared to the conventional methods requiring an average of 80 liters water to produce the same quantity.

Similarly, a hydroponic controlled environment vegetable farm over 01 kanal produces about 192 tons per year as compared to that of 12 tons per year of a conventional farming over 01 Kanal.

Name of Expert	Area of Specialty	Belongs to
Major (Rtd.) Arif	Controlled Environment Sheds	Bannu
Mr. Zarak Khan	Hydroponic Farms	Bannu

Olive Orchards

Establishment of olive orchards with intercropping is the most sustainable initiative of arid lands subject to proper management practices. An olive orchard can generate revenues of around Rs. 01 million per acre in shape of olive fruits and leaves sales.

Name of Expert	Field of Specialty	Belongs to
Dr. Azmat Ali Awan Deputy Director, PO DB/PARC	Olive Value Chain	Peshawar
Mr. Ibrar Marwat Olive Project, Agriculture Department, GoKP	Olive Farming and Top Work	Lakky Marwat
Mr. Ishfaq Ahmad, Research Officer, Agriculture Department, GoKP	Horticulture	Karak
Mr. Shahswar Khan Former Focal Person Olive, Agriculture Department, GoKP	Olive Orchards and Top Work	Bannu

Corporate Groundnut Farming

The local variety has very unique crispy taste but carries over 60% wastage, thus making it unfeasible for processing. Varieties with larger and healthy peanuts need to be introduced in corporate farming.

Name of Expert	Field of Specialty	Belongs to
Mr. Abbas Khattak, Dab, Karak, Groundnuts Association	Farming	Karak
Mr. Ejaz Khattak, Dab, Karak, Groundnuts Association	Farming	Karak
Mr. Zaheerullah Khattak, Former DG-Extension, Agriculture	Horticulture	Karak

Aloe Vera Farming

This plant can't tolerate water logging. Soil with quick drainage (Sandy soil of Taal region) can best be used for such projects.

Dates and Jujube Orchards

⁶Water logged saline areas of the district can be rehabilitated by establishment of Dates (subject to temperature suitability) and Jujube Orchards in normal plans.

Name of Expert	Field of Specialty	Belongs to
Dr. Amanullah Jan, Former Director, Agriculture University Peshawar	Agronomy	Karak
Dr. Jamal Khattak, Former Chairman, Environmental Sciences Department, Agriculture University Peshawar, Advisor, Agriculture University Swat	Environmental/Soil Sciences	Karak
Dr. Jamal Khattak Former Chairman, Water Management Department, Agriculture University Peshawar,	Water Management	Karak

Kitchen Gardening

Houses of district Karak are built over a large area and dominant portion of the courtyard remains unutilized. Kitchen gardening is the ultimate option to save land from wastage and control budget.

Name of Expert	Field of Specialty	Belongs to
Pir Asmatullah Shah, Pakistan Academy for Rural Development	Kitchen Gardening	Peshawar

⁶ Based upon the expert opinion of Dr. Jamal Khattak (Ex- Chairman Environmental Sc, Agriculture University Peshawar. Advisor, Swat Agriculture University)

8.5. Livestock

Dairy Farms

Introduction of maize silage has made the dairy farming possible everywhere. The milk demand and supply gap indicate potential of 500 cross breed cows.

Goat and Sheep Rearing

Formal goat and sheep rearing farms (100 animal) on open grazing may be a profitable business in hilly zones.

Feedlot Fattening

Open grazing ruminants ensure promising supply of calves and goats for feedlot fattening projects. In fattening business, animals are raised on nutritionally balanced feed to get targeted weight gain in a specified time. Calves and goat fattening require 120 days for each batch. Such projects may be started with Rs. 5 million.

Name of Expert	Field of Specialty	Belongs to
Dr. Kamran Khan, Khan/Royal Dairies	Dairy Value Chain	Peshawar
Dr. Muqarrab Ali Khattak, Former Director, Breed Improvement (KP Livestock Department)	Goat and Cattle Farming/Breeds	Kohat
Dr. Qazi Ziaur Rehman, Director Projects (KP Livestock Department)	Dairy Farming	Bannu

Organic Birds Farming

Keeping Desi Chicken, Ducks, Turkeys and Rabbits on small scale within households is very common. All that is needed, is to streamline this industry into organic farming.

8.6. Minerals

Gypsum Boards Production

Cluster value chain study of SMEDA conducted for Planning Commission of Pakistan, proposes establishment of Gypsum Board Processing unit with investment of Rs. 1.2 Billion.

Name of Expert	Field of Specialty	Belongs to
Mr. Abdul Qayyum Khattak, CEO, Allied Mining and Haris Minerals	Coal, Gypsum, Salt	Karak
Mr. Aamir Yousufzai, Director Exploration, Mines and Minerals Department, KP	Minerals Exploration	Peshawar
Mr. Asif Nawaz Khattak, Karak	Geologist	Karak
Mr. Bakhtiar Khan Former CEO, PGJDC	Geologist	Swabi
Mr. Humayun Khan, Former Manager/Geologist FDA	Geologist	Peshawar
Mr. Ismail Suttar, CEO, Hub Pak Salt Refinery, President, Pakistan Salt Manufacturers Association	Entrepreneur/ Processor/Exporter	Karachi

8.7. Services

Information Technology

Its well-established fact that the future of business depends upon Information Technology. This is extremely essential to educate and train youth in this particular field.

Name of Expert	Area of Expertise	Belongs to
Mr. Adnan Khan, Mind setters Enterprises (Pvt. Ltd.)	Information Technology And Tourism Business	Peshawar
Mr. Arif ul Haq Khattak Lecturer, Islamia University, Peshawar	Entrepreneurship	Karak
Dr. Inamullah Khan, IT Department, KKUK	Information Technology Study	Bannu
Dr. Latif Khattak Management Sciences, KKUK	Management Sciences	Karak
Dr. Zubair Khattak IT Department	Information Technology	Karak

Intercity Airconditioned Coaches

Majority of people settled in Kohat, Peshawar, and Rawalpindi have to travel frequently to-from Karak. Situation of the transport in terms of number and condition of vehicles is very poor and hectic for the passengers.

The completion of Expressway will pave the way for Professionally well-equipped transport service with a minimum fleet of 10 vehicles.

Name of Expert	Area of Expertise	Belongs to
Mr. Shafiq Afridi, CEO, Toyota Frontier Motors, Peshawar	Transport	Khyber
Mr. Tariq Khattak, South Consulting, Karak	Consultant	Karak

Motorbike Society

Alarming number of youths is becoming engaged in reckless motorbike riding. Adjacent district Bannu, has become a source of entertainment for motorbike racing and one

wheeling lovers of Karak. Keeping in view the passion of youth, this dangerous activity needs to be streamlined into safer sports within hilly areas of old Bannu Road, Karak.

Name of Expert	Area of Expertise
Mr. M. Umar Bikers Society, Islamabad	Bike Rally Organizing

Sports Shooting Club

People of Karak love to mark targets with firing, and once it was common to gather and participate in firing competition. With the passage of time, this is now fading and needs to be revitalized as a healthy activity for people and profitable business for investors.

Jet Skiing

Limited number of Jet Skis in the dams, will be an attractive water sports business.

Sports Academy

An academy with few sports in line with the nature of the local people will be a sustainable option while including:

- Cricket
- Gymnastics
- Martial Arts
- Paragliding
- Sword Spinning

Name of Expert	Area of Specialty
Shaukat Khattak, Aviation Industry Professional	Paragliding

9. References

Agriculture Extension Services, Govt. of KP

Bureau of Statistics, Benevolent Fund Building. Peshawar, KP

Board of Investment, Govt of KP

DC Office, Karak, Govt of KP

Industries, Commerce, and Technical Education Department, Govt. of KP

Livestock Department, Govt. of KP

Pakistan Oilseed Development Board, KP