

DISTRICT SWAT



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

Map

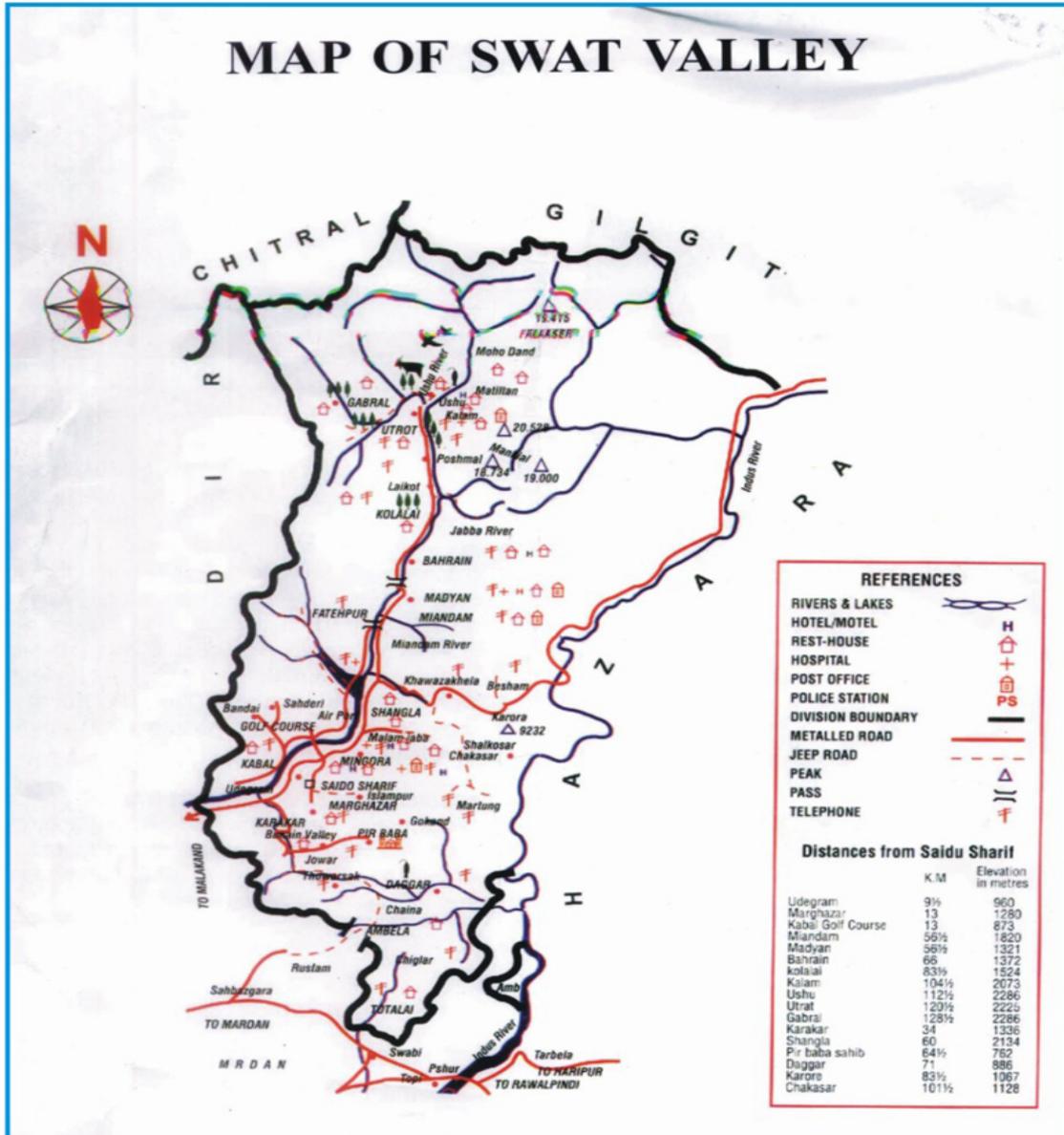


Table of Contents

1. Introduction and History	1
2. Social Environment.....	1
3. Climate.....	2
4. Educational Institutions and Literacy Rate	3
5. Health Facilities.....	4
6. Economic Scenario.....	5
6.1. Agriculture	5
6.2. Forestry Sector	12
6.3. Livestock and Fisheries Sector.....	12
6.4. Processing Sector	16
6.5. Services Sector	16
7. Economic potential.....	18
8. Clusters	21
8.1. Embroidery	21
8.2. Furniture	22
8.3. Gems and Jewellery	22
8.4. Handicrafts	22
8.5. Islampur Wool Weaving	23
8.6. Minerals.....	24
8.7. Silk	24
9. Small and Medium Sized Potential Investment Projects	25
9.1. Gladiolus Floriculture	25
9.2. Olive Farming, and Conversion of Wild Olive into Edible Varieties.....	25
9.3. Tunnel Farming.....	26
9.4. Trout Fish Farming	27
9.5. Fruit Dehydration Units	27
9.6. Gemstones Lapidary.....	28
9.7. Marble and Granite Stocking Yards.....	28
9.8. Marble Waste Utilization Project (Crushing Ball/Roller Mill).....	29
9.9. Other Projects.....	29
10. References.....	29

1. Introduction and History

The district Swat is a lush green valley lying between 34°-40' to 35° N latitude and 72' to 74°-6' E longitude. Administratively it is the part of the Provincially Administrated Tribal Area (PATA) of the Khyber Pakhtunkhwa Province.

Due to its scenic beauty and river the ancient sources mention the names of Udyana and Suvastu respectively. The district was conquered by Alexander the Great in 327 BC, followed by Buddhism laying the foundations of the Buddhist/Gandhara civilization. After this the district also observed the Turki Shahis and the Hindu Shahis. In early tenth century AD, the district came under the Muslims' rule resulting in the settlement of Afghan Pakhtun Tribes. The dominance of the Yusufzai tribe was established in the Swat in the sixteenth century. Then came the era of struggle against the British rule but despite strong resistance the later succeeded in the establishment of garrisons at Malakand and Chakdara and created the Agency of Dir and Swat, commonly called Malakand Agency, in 1895. It was the left-bank lower valley under loose British control. However, the rest of the left-bank valley remained independent until emergence of the Swat State.

The earlier title of rulers was officially changed to "Waali" in 1926 when Swat became a princely state of the British Raaj. After the independence of the Pakistan's in 1947, Swat remained an autonomous princely state of the then West Pakistan and the Waali continued to function as a political entity. In 1969, the post became defunct as the princely state of Swat was dissolved and incorporated into the North-West Frontier Province of Pakistan (now Khyber Pakhtunkhwa).

Today's Swat is stretched over the total area of 5,337 Square Kilometers. The district is famous for its tourist spots, attracting about 05 Million tourists in peace times. Some of the worth mentioning tourist places are the Bashigram Lake (Danda), Daral Lake (Danda), Saidgai Lake (Danda), Kundal Lake (Danda), Izmis Lake , Danda), Mahodand (Fish Lake), Pari/Khapiro (Fairy) Lake-1, Pari/Khapiro (Fairy) Lake-2, Spin Khwar (White Stream) Lake. Worth visiting areas include, Bahrain, Kalam, Marghazar, Malam Jaba, Matletan, Swat Museum, Miandam, Madyan, and Utror.

2. Social Environment

Total population of the district is estimated to be 2,137,251 for the year 2014 on the basis of the population during 1998 Census (1,257,602) with annual growth rate of 3.37 %. Rural Characteristics of preference for living in joint family system exist. With the urbanization, the importance of Hujra as a place of social gatherings and spending leisure time has been gradually replaced with Bhetak system. The difference between the two is that, the Hujra System used to

be a combined place for the people of different families and the guests, whereas in the Bhetak is a drawing room for meeting visitors at your own house as an individual family.

Table 01: Demographics of Swat¹

Description	In Numbers
Total Population (Estimated for 2014)	2,137,251
Percentage of Female Population	50%
Percentage of Rural Population	89%
Average Percentage of Children (Less than 5 Year's Age)	14%
Average Active Population (Aged between 15 to 64 Years)	54%

Table 02: Sources of Income Reported By Households (2010)²

Source of Income	Number of Households		
	All Households	Non Agriculture Households	Agriculture Households
Service or Pension	288,00	19,300	9,500
Business/Self Employed	287,00	17,600	11,100
Commercial Livestock	2,200	400	1,800
Foreign Remittance	14,400	7,200	7,200
Agricultural Labor	38,200	6,500	31,700
Non Agricultural Labor	70,200	40,100	30,100
Land/Machine Rent	2,000	900	1,100
Poultry Farming	300	200	100
Other Sources	36,300	21,200	15,100

3. Climate

The Swat is located in the Temperate Zone, and the climate is controlled by various factors including latitude, altitude, the Summer Monsoon in the summer and the Cyclonic Current, coming in from the Mediterranean Sea, in the winter. **Swat lies in the temperate Zone.** The summer in lower Swat valley is short and moderate while it is cool and refreshing in the upper northern part. The average annual rainfall is from 1,000 mm to 1,200 mm with three rain bearing seasons.³

¹ Source: PPEF

² Source: Agriculture Census 2010, Govt. of KP

³ Source: www.cppr.edu.pk

Table 03: Weather of the District Swat

Weather	Intensity	Max/Min Temperature
Summer	Moderate	34 Degree Celsius
Winter	December to March	. -2 Degree Celsius

Table 04: Rain and Snow Fall in the District Swat

Description	Duration	Condition
Rainfall		
Winter Season	December to End of February	1 -2 Week-Long Spurts of Continuous Rainfall- Smaller Rain Drops
Spring Season	March to May	Lengthened Showers Accompanied by Thunder Storm- Larger Rain Drops
Summer Season	July to End of September	Intermittent Rainfall- Sometimes Accompanied by Thunder Storm and Hail Storm- Larger Rain Drops
Snowfall		
On Plains	Mid January to the End of February	Observes a sort of alternate fall. May be a snowfall in one year but the other year may be without.
On Mountains	December to End of March	Due to the Climate change the duration is shrinking with start from January

4. Educational Institutions and Literacy Rate

The literacy rate of Swat reported in 1998 is 28.75%, with the males' literacy rate of 43.16% and that of females is 13.45%. As per the following breakup the total literacy dropped to 11.83%.

Table 05: The Literacy Ratio (Year 2012-13)

Description	%		
	Total	Male	Female
Total	11.83	16.2	19.64
Urban	53.13	52	51.02
Rural	15.09	18.99	22.21

Table 06: No. of Government's Educational Institutions (Year 2012-13)⁴

Institutions	Number of Institutions		
	Total	Male	Female
All Primary Level Schools	1,318	858	460
Middle Schools	136	83	53
High Schools	107	78	29
Higher Secondary	18	13	5
Degree Colleges	7	3	4
Post Graduate Colleges	3	2	1
Poly Technical Colleges	1	1	0
Colleges of Management Sciences	1	1	0
Technical and Vocational Institutes	3	2	1

5. Health Facilities

For an idea about the health facilities in the district, the information of the D.G. Health services of Khyber Pakhtunkhwa, Peshawar, is reproduced herewith. This covers, the number of government health institutions, the patients treated in government hospitals, the private practitioners, and the medical/paramedic staff is reproduced here.

Table 07: Number of Health Facilities-Government (Year 2013)

Hospitals	Dispensaries.	Rural Health Clinic	T.B Clinics	MCH Centers	Sub Health Centers	Basic Health Unit	Leprosy Clinics
10	18	3	1	3	0	41	3

Table 08: Number of Patients Treated in Govt. Hospitals (Year 2013)

Total	Indoor	Outdoor
1,687,360	76,501	1,610,859

Table 09: Number of Registered Pvt. Medical Practitioners (Year 2012-13)

Registered Private Medical Practitioners		
Total	Male	Female
192	180	12

⁴ Source: www.kpbos.gov.pk

Table 10: Number of Medical/Para Medic Staff in Govt. Health Institution (2013)

Doctors	Radiologist	Dental Surgeons	Nurses	Dai Nurses	Dais	Primary Health Technicians	Other Para Medic Staff
578	3	14	228	72	72	98	605

6. Economic Scenario

The tourism in the district flourished due to the scenic beauty, peaceful people, pleasant weather, and the development during the Wali Swat era. Due to the ever increasing tourist's inflow, and the income of expatriates, the district became more of a commercial centre. The hotels, restaurants, guest houses, transport, processing units, and retail shops grew and therefore the values of property inflated. It was during the period of insurgency, when entire economic activity came to halt, but after the successful military operation everything restored to its best. Today, the land of main centers, like, Mingora has a value of Rs. 5,000/Sq.Ft. The custom duties exemption on new vehicles resulted in the trend of buying brand new high quality cars and jeeps. This in turn lead to the establishment of above 30 large car bargain centers throughout the district.

The infrastructure is 590.11 Km of the total 922.4 Km (excluding national highway) is Black Topped road comprising and 331.13 Km roads are Shingle. The total number of telephone connection during the year 2013 was 25,150 and the post offices were 72. Electricity situation is about 1,593 villages electrified with 260.08 Million KWHs consumption of electricity. The total number of 211,720 electric connections includes 209,065 domestic/commercial, 1,520 industrial, 1,087 Bulk, 7 Irrigation, and 41 other connections.

6.1. Agriculture

Cultivated land is mainly found in the south-lying regions of Mingora, Barikot, Matta, Kabal and Khwazakhela, as the northern part of the district is mostly mountainous terrain.

Irrigation

The main source of irrigation is the tube well and boring whereas the river is mainly used for the small scale hydel power generation.

Table No. 11: Land Irrigation Status of Private Farms⁵

Description	Area (Acres)
Total Area	161,641
Cultivated Area with Irrigation Facilities	93,872
Canal Only	4,457
Canal and Tube Well	2,067
Tube Well Only	692
Tank/ Bandat Only	61,490
Spring/Rodkahi Only	20,855
Unspecified Sources	4,310
Not Irrigated	175
Cultivated Area without Irrigation Facilities (Sailaba)	818
Cultivated Area without Irrigation Facilities (Barani)	66,776

The total number of 54,323 farms reporting the irrigated area, 872 report the irrigated area to be under 51%, 956 with 51% to 76% area irrigated, 902 farms having between 76% to under 100% irrigated, and 51,593 farms report the cultivated area to be 100% irrigated.

The un-irrigated area is reported with 37,163 farmers possessing 63,026 acres cultivated either through Sailaba or Barani.

Land Holding or Renting

The total number of private farms in the district is 94,542, of which 98% of the farmers possess less than 7.5 acres. Detailed analysis further reveals that with respect to land holding, they are dominated by 41% farmers having a land size from 1 acre to 2.5 acres, followed by those having less than 1 acre (39%). The percentage share of farmers by type of possession is given as under:

⁵ Source: www.kpbos.gov.pk (Important Socio Economic Indicators of KP-2014), agriculture census 2010-KP

Table No. 12: Farms by Land Size and Possession (% Share)⁶

Description	Owner %	Owner Cum Tenant %	Tenant %
Under 1.0 Acres	42	8	12
1.0 to Under 2.5 Acres	41	22	47
2.5 to Under 5.0 Acres	12	20	24
5.0 to Under 7.5 Acres	4	22	9
7.5 to Under 12.5 Acres	1	19	4
12.5 to Under 25.0 Acres	0.4	5.5	2.1
25.0 to Under 50.0 Acres	0.03	2.6	0
50.0 to Under 100.0 Acres	0	0	1
100.0 to Under 150.0 Acres	0.005	0	0
150.0 and above	0.01	0	0

The reasons for renting out the land include non availability of family members (5%), area very small (7%), area located faraway (1%), area very large (7%), engaged in other occupation (19%), financial inability (1%), and cultivation unprofitable (1%), and 63% to some other reasons.

Table No. 13: Detail of Private Farms⁷

Description	Total Farms and Area		Owner		Owner Cum Tenant		Tenant	
	Number	Area (Acres)	Number	Area (Acres)	Number	Area (Acres)	Number	Area (Acres)
	94,542	177,519	84,674	136,471	3,411	19,664	6,457	21,384
Under 1.0 Acres	36,495	16,623	35,408	16,061	287	149	800	411
1.0 to Under 2.5 Acres	38,661	56,535	34,873	50,442	764	1,253	3,023	4,841
2.5 to Under 5.0 Acres	12,037	39,620	9,774	32,109	684	2,191	1,579	5,320
5.0 to Under 7.5 Acres	4,354	25,421	3,003	17,483	750	4,581	601	3,357
7.5 to Under 12.5 Acres	2,189	20,527	1,270	11,899	648	5,944	271	2,684
12.5 to Under 25.0 Acres	632	10,565	306	5,045	189	3,022	137	2,497
25.0 to Under 50.0 Acres	115	3,481	24	957	90	2,524	0	0
50.0 to Under 100.0 Acres	45	2,273	0	0	0	0	45	2,273
100.0 to Under 150.0 Acres	4	354	4	354	0	0	0	0
150.0 and above	10	2,122	10	2,122	0	0	0	0

Agricultural Produce

⁶ Source: Agricultural Census 2010, Government of KP

⁷ Source: Agricultural Census 2010, Government of KP

The total number of farms reporting orchards during the year 2010 is 12,016 with the cropped area to be 45,669 acres and the orchard area of around 10,890 acres. In terms of tenure, the number of farms Owned, Owned Cum Tenant, and Tenant are 11,372, 335, and 309 respectively. The number of reported orchard nurseries is 28 with a total area of 28 acres.

The total number of farms reporting orchards during the year 2010 is 12,016 with the cropped area to be 45,669 acres and the orchard area of around 10,890 acres. In terms of tenure, the number of farms Owned, Owned Cum Tenant, and Tenant are 11,372, 335, and 309 respectively. The number of reported orchard nurseries is 28 with a total area of 28 acres.

Table No. 14: Production of Fruits and Vegetable (Year 2014)⁸

Description	Reported Area (Acres)	Production (Tons)
Fruits		
Kharif Season	29,183	77,065
Rabi Season	1,285	3,590
Total	30,468	80,655
Vegetable		
Kharif	12,195	49,415
Rabi	8,500	38,750
Total	20,695	88,165

Table No. 15: Production of Crops (Year 2012-13)⁹

Crop	Area (Acres)	Production (Tons)
Wheat	147,893	106,690
Maize	149,425	100,870

⁸ Source: Department: Agriculture Extension Services-KP

⁹ Source: www.kpbos.gov.pk (Important Socio Economic Indicators of KP-2014)

Table No. 16: Production of Vegetable (Year 2014)¹⁰

Description	Area (Acres)	Production (Tons)	% Share of Production with KP	Approximate Number of Farmers
Kharif (Summer)				
Apple Gourd (Tinda)	86.5	520	4.12	N/A
Arum	37	130	1.12	N/A
Bitter Gourd	74	130	1.86	N/A
Brinjal	123.6	530	5.74	N/A
Bottle Gourd	24.7	25	0.60	N/A
Pumpkin	247	880	14.38	N/A
Tomato	10,823	44,500	48.73	3,000-4,000
Others	778	2,700	6.61	N/A
Rabi (Winter)				
Cauliflower	346	1,660	10.61	N/A
Cabbage	271.8	810	15.8	N/A
Peas	3,163	10,200	76	1,500-2,000
Radish	494	2,560	20.13	2,000-2,500
Spinach	791	4,040	21.87	N/A
Tomato	1,755	7,930	17.87	N/A
Turnip	1,112	8,600	18.21	1,000-2,000
Others	568	2,950	9	N/A

During the year 2007-08, the vegetable were reported to be grown at an area of 10,240 Hectare with a production of 111,450 tones¹¹. As compared to this the total area and production for the year 2012 and 2013 are as follows:

Table No. 17: Comparison of Area and Production (Vegetable)- Year 2013 to 2014

2012-13		2013-14	
Area (Acres)	Production (Tons)	Area (Acres)	Production (Tons)
20,710	88,155	20,695	88,165
Remarks	Though the area under production decreased but the production increased nominally. This slight increase in production may be due to the climatic conditions or the adoption of the better seeds or adaptation of hybrid vegetable by the farmers.		

¹⁰ Source: Department Agriculture Extension Services-KP

¹¹ Source: www.cppr.edu.pk

Table No. 18: Production of Fruits (Year 2014)¹²

Description	Area (Acres)	Production (Tons)	% Share of Production with KP	Approximate Number of Farmers
Fresh Fruit				
Apple	9,266.5	28,660	31.06	500
Apricot	988	2,070	15.30	300
Cherry	N/A	500 to 1,000	N/A	1,000
Citrus	865	2,660	8.40	N/A
Grapes	49.4	85	8.23	N/A
Loquat	99	240	5.11	N/A
Mulberry	271.8	530	39.43	N/A
Peach	11,367	25,550	61.75	1,000-1,500
Pear	815.5	2,425	13.39	16-17
Persimmon	4,547	12,560	51.09	N/A
Plum	1,483	3,580	13.38	300
Walnut	963.7	2,105	20.85	N/A
Dehydrated Fruits				
Apple	N/A	N/A	N/A	5-10
Black Persimmon	N/A	N/A	N/A	15-20
Peach	N/A	N/A	N/A	2-3
Pear	N/A	N/A	N/A	2-3
Plum	N/A	N/A	N/A	2-3
Red Persimmon	N/A	N/A	N/A	15-20

The EU distributed fruit dehydration units in 5 UCs of the Swat, which paved the way for fruit dehydration and thus a new source of income for the farmers. Though the solar dehydrators are said to be having problems but the idea can be tried with captive power in shape of mini hydro power plants from riverside.

Of the fruit farms, the apple, peach, plum, sweet lemon, and lemon are dominated by tree concentration in compact orchard. The persimmon is planted both in compact as well as scattered pattern. For these types of fruits, the farms accessibility by new entrants traders from other provinces. In case of the scattered plantation like, for example the walnut, the approach to farms is very difficult, therefore, only the traders with readily established linkages can access them.

¹² Source: Department Agriculture Extension Services: KP

Table No. 19: Detail of Private Farms¹³

Fruit	Number of Reporting Farms	Number of Trees				
		Total	Fruit Bearing	Non Bearing	Compact Plantation	Scattered
Almond	21	21	21	0	21	0
Apple	10,803	500,160	487,020	13,141	463,649	36,511
Apricot	2,871	34,843	333,61	1,482	12,655	22,189
Cherry	21	103	103	0	0	103
Date	21	21	21	0	0	21
Guava	124	316	316	0	180	136
Jaman	26	131	131	0	131	0
Leechi	22	22	22	0	0	22
Lemon	138	2,045	2,045	0	2,045	0
Loquat	418	2,448	2,448	0	2,167	281
Mango	21	308	308	0	0	308
Mulberry	1,917	13,880	13,880	0	170	13,710
Orange	68	1,191	1,191	0	1,021	170
Pear	1,815	14,364	9,235	5,130	6,091	8,274
Persimmon	3,585	123,413	114,113	9,300	68,429	54,983
Peach	4,384	629,155	600,295	28,859	589,309	39,845
Plum	2,666	93,401	82,032	11,370	66,983	26,419
Sweet Lemon	39	16,706	0	16,706	16,685	21
Walnut	3,335	15,241	15,241	0	1,710	13,532
Others	3,287	137,214	3,927	133,287	84,004	53,210

Financing of Agricultural Households

The total number of agricultural households under agricultural debt is 25,321 (out of 111, 910). In terms of number of borrowers the informal source is a major source for which 18,978 households reported to have borrowed against. This is followed by 6,008 households borrowing from Zarai Taraqyati Bank of Pakistan. The commission agents (Aarhti) also extended credit to 2,455 households. Other sources of credit include the financial institutions, N.G.O., and commercial banks.

Technical Status

The use of technology by private farms is reflected by the fact that out of 94,542 farms, 863 report of having own tractor, 292 possessing threshers, and 1,005 with own spray machines.

¹³ Source: Agricultural Census 2010, Government of KP

Majority of this total number rely upon rented machinery. The number of farms using rented Tractors, Tube well, Thresher, Sheller, Combined Harvester, Reaper/Harvester, Drill, and Spray Machine is 88217, 1483, 64536, 2190, 56, 41, 34, and 6,006 respectively.

The total number of farms reporting use of important farm inputs other than seed is 42,287, with the following breakup:

Table No. 20: Detail of Private Farms' Utilizing Farm Inputs

Description	Number of Farms
Fertilizers and Manures	32,910
Fertilizers Only	3,185
Manures Only	2,541
Pesticides	109
Herbicides	84

6.2. Forestry Sector

The Forestry sector of the district Swat is dominated by the protected area comprising 68% of the total forest area, followed by the private plantation accounting for 32% of the total forest area. Wild olives existence is proven but unavailability of proper estimate about the number of trees makes it difficult to initiate grafting and conversion into edible varieties.

Table No. 21: Forestry (Year 2007-08)

Description	Area (Acres)
Total	497,969
Protected Forest	338,544
Private Plantation	159,081
Miscellaneous	344

6.3. Livestock and Fisheries Sector

Fisheries Sector

Fisheries sector of Swat is inland fresh cold water with the only specie of Trout. The production is dependent upon the number and size of raceways and the quantum of water flow in the raceways. There are two Trout hatcheries, namely the Madyan (capacity of 500,000 fingerlings) and Aquaculture (100,000 fingerlings capacity). The production is not only sold within the

country but also exported to Afghanistan. There are 10 private fish farms in the district with the production statistics as given:

Table No. 22: Fish Production (2012-13)¹⁴

Total (Tons)	Trout (Tons)	Non-Trout (Tons)
1,133	459	674

Apart from the fish farms, the river of Swat is another source of trout fish catch. The fish catch licenses are issued during the season (April to October)

Table No. 23: Revenues of Fisheries Department (2012-13)¹⁵

Total (Rs)	License Fees Trout (Rs.)	License Fees Non-Trout (Rs.)	Sale of Gold Fish (Rs.)	Compensation Fees (Rs.)	Misc.
1,394,301	35,400	61,500	1,281,560	5,400	10,441

The common problems faced by the trout fish farmers include the technical and financial problems. The technical aspect is especially related to the deficiencies of design whereas the paucity of funds hinders their ability to supply even basic necessities, especially fish feed. The availability and use of quality feed has also been an issue but with the advent of few reliable feed suppliers from Punjab seem to be a solution now.

¹⁴ Source; PPEF

¹⁵ Source: Directorate of Fisheries Department

Livestock**Table No. 24: Dairy and Livestock Population (2010)¹⁶**

Description	Total Number
Small Ruminants Reported by Households	
Herds of Sheep and Goat	25,893
Sheep	
Farm Households	7,610
Non Farm Households	16,917
Total Sheep	24,527
Goats	
Farm Households	69,684
Non Farm Households	45,526
Total Goats	115,210
Large Ruminants Reported by Households	
Herds of Buffalo and Cattle	52,942
Buffalo	
Farm Households	66,621
Non Farm Households	20,797
Total Buffalo	87,418
Cattle	
Farm Households	82,377
Non Farm Households	29,880
Total Cattle	112,257

Honey Bee Apiaries

There are a total of Stationery Honey Bee Keepers are Approx 1,100, whereas the number of migratory type of bee keepers in not confirmed. Their main source of honey is the nectar of wild zeera during the months of August and September. The honey bees are kept in small places called "Duds". The number of these wild bees varies as per the size of the colony ranging from 20,000 bees to 60,000 bees. The annual production of honey is around 1,600 tons. The honey of Wild Zeera/Ajwain fetches prices of Rs. 1,800 to Rs. 2,400 per Kg. Other sources of nectar include the Apricot, Peach, and Plum, Shaftal.

¹⁶ Source: Livestock Census 2010- Directorate of Livestock and Dairy Development Department



The problems faced by the bee keepers are the use of traditional mud hive, century old bee keeping practices, low level of knowledge regarding diseases and pests and absence of advance bee keeping techniques, lack of knowledge about swarm control results in loss of bee colony & lower price due to poor product quality as a result of adulteration & impurities due to bees & particles are the main problem for low production of honey. The bees are not fed during the off season, due to which they desert the Combs and majority of them return to their places during next season.

Keeping in view the potential of the cluster, the SMEDA is under process of establishment of Rs. 38.17 Million worth Honey Common Facility Centre. The centre will contribute towards the socio economic conditions' improvement of the district's people. It will provide modern honey extraction facility, processing, and packaging of the honey to the honey bee farmers, traders, and exporters. The intervention will help the cluster with the increased productivity and profitability through processing, packaging, and market linkages establishment.

6.4. Processing Sector

Table No. 25: Detail of SMEs Units in Swat¹⁷

S. No.	Type of Units	Number of Units	Clusters' Location
1	Adhesive Tapes	2	Rahim abad
2	Chemical	1	Rahim abad
3	Cement (Blocks)	8	➤ Chakdarrah ➤ Qambar
4	Cold Storages	1	Kabal
5	Furniture	250	➤ Rahimabad ➤ Mingora
6	Gemstones(Processing/Trade)	15/125	Swat
7	Handicraft(Shakor/Panray)	3	➤ Khwazakhela ➤ Mingora ➤ Matta ➤ Puran ➤ Chagharzai
10	Marble and Chips	28	➤ Qambar ➤ Barikot ➤ Mingora
11	Rice Husking	7	Barikot
12	Rubber and Plastic Goods	28	Mingora
13	Silk	75	Swat
14	Wool Spinning	2,000	Islampur

6.5. Services Sector

The district due to its scenic beauty has been the most important Summer Tourist place and 33% of the economy is dependent upon the tourism. Therefore the hotel industry flourished well in the region. There are 350 hotels and 400 restaurants in the district. Though there is routine intercity

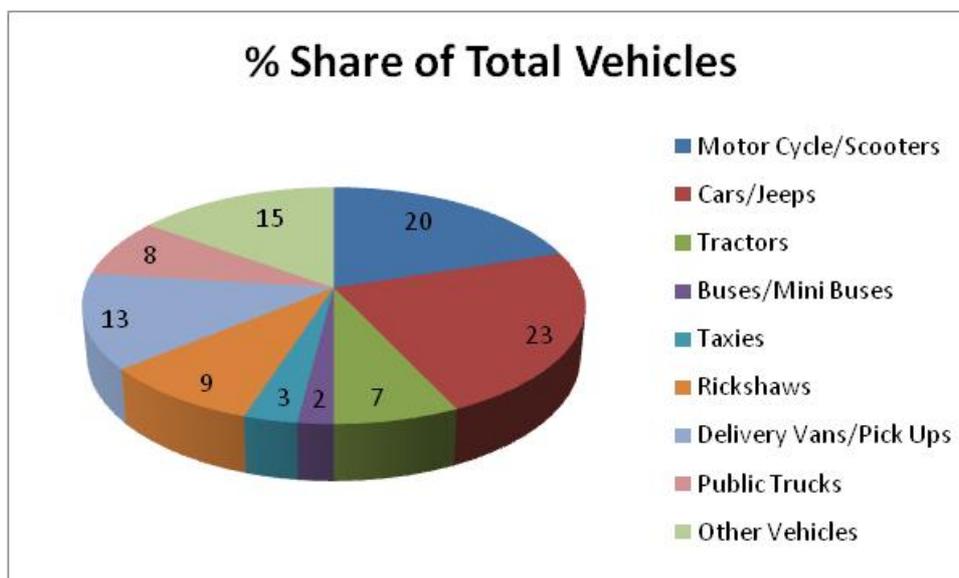
¹⁷ Source: Bureau of Statistics (2014)

and intracity transport, but the transport activities increase during the tourist season. During the peace times the hotel industry would provide jobs to 20,000 people. As per a study of the USAID Firms project, a total number of 475,800 tourists visited the Swat, out of which 98.8% were domestic and the rest were foreign. After the operation against insurgents, the law and order situation has been continuously improving, and during the Swat Tourist Gala of 2014, around 100,000 tourists arrived in Kalam to witness the event.¹⁸

Though the trading activities are spread throughout the district but Mingora is the region dominating the wholesale and retail activities. The estimated number of private sector shops with the district is 21,735¹⁹. The floods of year 2010 and the insurgency adversely affected the overall commerce of Swat. The project of ERKF to a great extent helped the businesses rehabilitate and upgrade. With the gradual restoration of law and order situation, the private schools, CNG/Gasoline Fuelling stations, vehicle wash service stations, auto workshops, fruits and vegetable trading, and grocery shops are regaining momentum.

Owing to the tourism activities the private transport sector flourished. The year 2012 data from Excise and Taxation, KP reveals the number of Tractors to be 2,305, Busses and Mini Busses 788, Taxis 1,168, Rickshaw 2,912, and Delivery Vans 4,245.

The total number of registered vehicles in the Swat is about 33,597.



On the basis of the total number of registered vehicles and the margin of vehicles registered in other cities but running in the Swat, the allied businesses of spare parts and lubricants are also

¹⁸ Source: The Express Tribune, August 8th, 2014.

¹⁹ Source: ADB & WB: NWFP & FATA Preliminary Damage and Need Assessment (www.cppr.edu.pk)

increasing. The estimated consumption of lubricants in the automobile and industrial sector is about 1.2 Million Liters per year.²⁰

From investment point of view PATA is a tax exempted area. So the investors get about 10% of relaxation while investing in a business venture.

7. Economic potential

Agriculture comprises of 31% of Swat's economy. The main source of irrigation is the tube well and boring whereas the river is mainly used for the small scale hydel power generation. The total reported area during 2012-13 as per the agricultural statistics of KP was 1.3 million acres.

Table No. 26: Land Utilization of Private Farms²¹

Description	Area (Acres)
Total Farms	177,519
Total Farm Area Cultivated	161,641
Total Farm Area Uncultivated	15,878
Culturable Waste	15,151
Un-Culturable Including Forest	728

The Culturable waste land of 15,878 acres in itself is an opportunity for fruit orchards. The fruits like, peach, persimmon, plum, and olive can be successfully grown and managed in the district. However, learning from the past and current practices is that, the use of pesticides and insecticides has not only made the product to be hazardous for consumption but also destroyed the grass and fodder. The use of research based human and crop friendly pesticides is available and the NIFA has been working on such products. The entrepreneurs starting with environment friendly agricultural products have an opportunity to succeed.

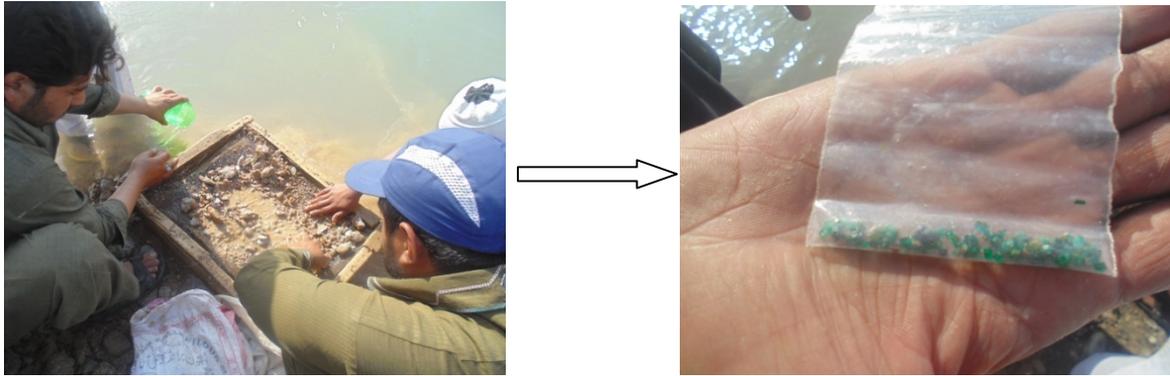
Like agriculture, the trout fish farming, and fish selling points are potential due to the uniqueness of the product in the country. This fish is an attraction for tourists. Similarly, the dry fruits shops, and honey trade centers are promising economic activities.

Unlike, other countries, even the Sri Lanka, where finished gemstones are marketed to tourists, the gems sector of Swat is lagging far behind with raw stone sales. The Emerald is mined and mostly sold in raw form. The stone from mines is attached to the mother rock and bigger in size. As compared to this, very small pieces of Emerald came to the market through the river side panning. The young men go to mine sides and collect debris from mine stones, then bring it to

²⁰ Source: SMEDA's working on the basis of estimated number of vehicles in Swat

²¹ Source: www.kpbos.gov.pk (Important Socio Economic Indicators of KP-2014), agriculture census 2010-KP

the river side and sift for tiny pieces of Emerald. The obtained stone is traded in raw form. These two types of activities pave the way for establishment of proper gemstones lapidaries.



Apart from this, the business of renting out agricultural land and machinery is also in practice, which is reflected in the section 7- Agriculture. The business of fertilizer, herbicides, and pesticides though acceptable, but the potential for further consumption exists.

The river bank on one hand attracts the tourists and thus investors in hotels and restaurants, while on the other hand it carries potential for the development of water sports and fishing. Also, the river is full of beautiful pebbles which can be value added as tourist gift items.

The commercial banks are the major professional cluster of district's services sector. The detail is as follows:

Table No. 27: Commercial Banks in Swat

Bank's Name	Branch Location
Bank Alfalah	➤ Saidu Sharif Road, Mingora
Khushali Bank Ltd	➤ Saidu Sharif Road, Mingora
Habib Bank Ltd.	<ul style="list-style-type: none"> ➤ Bank Road, Mingora ➤ Bank Square, Mingora ➤ Green Chowk, Mingora ➤ New Road, Mingora ➤ Nishat Chowk, Mingora ➤ Saidu Sharif
MCB Bank	<ul style="list-style-type: none"> ➤ Abasyn Market, Mingora ➤ Airport Road, Mingora ➤ Barikot ➤ Fateh Pur ➤ Kabal ➤ Khwaza Khela ➤ Matta ➤ Main Bazar, Mingora ➤ Royal Campus, Saidu Sharif ➤ Sirssinay ➤ Shamoza ➤ Zara Khela
Meezan Bank Ltd.	<ul style="list-style-type: none"> ➤ Green Chowk, Mingora ➤ Mingora Branch
National Bank of Pakistan	➤ Saidu Sharif
Standard Chartered Bank	➤ Swat
UBL	<ul style="list-style-type: none"> ➤ Abasyn Market, Mingora ➤ Bara Banda ➤ Darbar Dehrai ➤ G.T. Road, Mingora ➤ Kabal ➤ Khwaza Khela ➤ Madyan ➤ Main Bazar, Mingora ➤ Matta ➤ Nawan Kali

8. Clusters

8.1. Embroidery

The innovative Swati embroidery evolved when modern embroidery accessories were not easily available. At that time the pure silver yarn was used in embroidery and the dresses decorated this way used to be very heavy and flamboyant.

The culture of female remaining within the boundaries of their home, made them adopt this art as a source of utilizing their spare time as a source of livelihood.



Different types of embroidery work are produced in Chakdarrah and Moingora.

Fire Fan²²



²² Source: <http://islamic-arts.org/2012/the-tenacity-of-tradition-art-from-the-valley-of-swat/>

8.2. Furniture

Upper parts of Swat district are famous for making furniture out of carved wood for hundreds of years, where trained laborers are seen busy to meet the demands of customers from both Pakistan and abroad.²³



There are total 250 registered units providing employment to about 800 people. The main areas are the Mingora, Rahimabad, Manglawar, Madyain, Khwazakhela, Mianadam, Kabal, Fatehpur & Matta. The wood used in furniture manufacturing is the Dyaar, Deodar, Mulberry Oak, and Walnut wood. Some manufacturers are also working on the Malaysian ply based furniture.

8.3. Gems and Jewellery

The district Swat is endowed with quality gemstone of Emerald. There are about 125 gemstone trading units and 15 processing units. Normally the gemstone is sold in raw form and as far as the processors are concerned, they use the hand held tools for bringing the raw stone into form. The number of registered units in jewellery sector is 415.



8.4. Handicrafts

The handicrafts include woolen rugs, woolen shawls, beadwork, and wood carvings. Traditionally, the women of Mingora, Khwazakhela and Matta have been great contributors towards the promotion of the crafts industries of their area, as it is customary for women, both young and old to weave and decorate fabrics with exquisite needlework. They cover their dresses, shawls, blankets, bed sheets, pillow covers with beautiful motifs, which adorn their

²³ Source: Daily Dawn, June 18th, 2014

homes and their dowry. These indigenous skills are the most natural and effective way of bringing the war-affected communities, especially women, out of a state of apathy and trauma and to provide them with increased opportunities for a respectable livelihood.

8.5. Islampur Wool Weaving

With above 2,000 handlooms, the cluster of Islampur is producing warm shawls and suits. Main shopkeepers of the area supply wool (local, Chinese, and Australian) to the producers either on cash or informal credit. Majority of the weavers get raw material from the local market on credit. In return, the weavers are bound to supply their produce to them at very low profit margins. These main shopkeepers further supply these products to Peshawar, Karachi, and Islamabad and Lahore markets at high profit margins. There are three main categories of products, namely, the Shawls (Male/Female), Males Suits and Female Wear, and Chitral Patti. However the Pashmina Shawl is the core product the Cluster is famous for and the annual production is estimated to be 1.8 Million shawls.

The cluster provides direct & indirect employment to more than 19,000 people and therefore is a major source of livelihood for the people of the area. The role of females is vital, as making and cleaning of usable thread from the wool are purely done by the females of the area, while the other phases of the process like pressing and drying are done by men but highly supported by females.

For improvement of product quality the capacity building of cluster players is needed. Trainings on technical knowhow, marketing, designing, color combination, labeling and on book keeping are required. Apart from this, exploring new markets for their traditional products is very essential to ensure sustainability.

The establishment of Wool Spinning CFC by the SMEDA (Project Cost Rs. 29.697 Million) is under progress. Its main objective is to:

- Uplift of the socio economic status of the cluster
- To provide support to the cluster activities in the shape of Technical Knowhow On the subject for improvement of product quality
- To provide the cluster with innovative improved wool spinning methods for cost reduction and time saving.
- Employment generation in the region
- Provide market linkages
- Provide technical support to spinning units of the region

8.6. Minerals

Swat is endowed with huge mineral resources, including the Actinolite, Albeit, Almandine, Andradite, Andkerite, Antigorite, Aragonite Marble, Beryl, Emerald, Calcite, Chlorite, Chromite, Cobaltite, Dolomite, Dravite, Enstatite, Granite, Garnet, Gersdorffite, Kyanite, Limonite, Mackinawite, Magnetite, Magnetite, Muscovite, Pentlandite, Prehnite, Pyrite, Pyroxene Group, Pyrrhotite, Quartz, Siderite, Talc, Tourmaline, and Violarite.

Out of these, the Emerald's reserves are estimated to be around 100 million carats, and that of China Clay is 2.8 million tons.²⁴ There are 8-10 Private Gemstones Lapidaries having display and the remaining (around 130) are display stores with focus upon selling raw form of the Gemstones. Normally they use the hand tools for making it proper form or normally they sale raw form. The estimated direct employment is about 300 people.

Table No. 28: Mineral Production in Swat 2012-13²⁵

S. No.	Mineral	Production (Tons)
1	Dolomite	810
2	Emeralds	695
3	Limestone	6,827
4	Marble	1,410

8.7. Silk

With the subsidies for imports of raw materials and production of silk in Swat, during 1980s the region attracted considerable investment for Silk Cluster. The current situation of high electricity and raw material costs render the entire cluster to be uncompetitive.

In order to help the cluster, the SMEDA initiated the establishment of a Common Facility Centre (Total Project Cost of Rs. 57.53 Million) for social uplift of the community and development of cluster through quality improvement of dyeing, washing and pressing facilities. The centre also aims to enhance the technical knowhow of the cluster and diversified product range. The project is under progress.

²⁴ Source: DGMM, KP, and, www.siteresources.worldbank.org

²⁵ Source: Directory of Industrial Establishments, Government of KP (2011)

9. Small and Medium Sized Potential Investment Projects

9.1. Gladiolus Floriculture

Statistical data reveals that almost 10 to 12 Thousand tons of floricultural products are produced in Pakistan on an estimated area of 6,880 hectares with no data available on fresh flowers.²⁶ While the production of cut flowers has spread to several areas of the Punjab and Sind, but the Patoki (Punjab), and Hathri, Halanaka (Sind) are prominent areas for the production of varieties like, Gladiolus , Marigold, Statice, and Tuberose. The leading markets for these flowers are Karachi (Teen Hutti Wholesale), Patoki, Shaikhupura, Lahore, and Islamabad.



The KP is having production of gladiolus at Hazara region but the estimates of production are yet unavailable. There exists a potential of gladiolus farm within the Swat due to its cooler summer as compared to the other regions. Especially the Punjab and Sind the growing of seeds and corms of glad is done from September to November followed by the harvesting season from December to February. The Swat offers suitable summer weather where the sowing can be done from April to August, with the harvesting to be planed before December. This practice will not only avoid harsh winter/frost but will also ensure a market with minimum competition and thus higher rates for produce.

The estimated investment for a gladiolus farm (Better quality) for 45,000 corms over one acre is around Rs. 360,000 whereas the revenues to be about Rs. 675,000 for the same size of land. Another option of producing inferior quality gladiolus is also possible with 45,000 corms per acre requiring lesser investment Rs. 135,000/acre, but the market acceptance makes it a low priced item and hence the revenue is expected at about Rs. 200,000 per acre.

9.2. Olive Farming, and Conversion of Wild Olive into Edible Varieties

Pakistan is facing widening gap between edible oil requirements (3 million tons-year 2010-11) and domestic production (0.47 million tons-year 2010-11). The rest of the requirement is met through import of edible oil i.e., 2.67 million tons with a value of USD 1,045 billion²⁷. The

²⁶ Source: PARC

²⁷ Source: Dr. Azmat Ali Awan (PODB)

province of Khyber Pakhtunkhwa can highly contribute due to its best climatic conditions for New Olive Plantation (Farming), and conversion of the existing wild olives into edible oil bearing varieties.



Olive Farming

The plantation can be done between 250 to 400 plants per acre depending upon the inter tree space requirement decision by the farmer. The investment thus is between Rs. 150,000 per acre to Rs. 250,000 per acre. The plant is expected to start production after 03 years of plantation. The production though smaller in the first year and reaches about 31 Kg per tree. In terms of revenues this production yields Rs. 4,030. For a farm of 250 trees per acre the annual revenues from sale of fruits is around Rs. 1 million. The additional revenue from sale of pruned leaves depends upon the trees pruned. Currently the leaves are purchased by pharmaceutical companies with an average price of Rs. 150/Kg. This source will generate an additional income for a farm of 250 trees will be Rs. 4,700/.

The production of edible olive for table fruits and pickles production is also an option that a farmer may utilize.

Conversion of Wild Olives into Edible Oil Bearing Species

A survey of the district Dir, by Kuwait Charity identifies the number of wild olive trees exceeding 60 Million.²⁸ As the district Dir is adjacent to the Swat and groves of wild olives can be spotted in various locations of swat, therefore the project can be properly explored. The existence of sufficient number of wild olives means an opportunity for the locals of the district. This type of business activity requires negligibly small investment while generating the same proportion of income as that of the commercial olive farming. The investment is mainly in the grafting not exceeding Rs. 100/Wild Tree.

9.3. Tunnel Farming

To increase the production of vegetable within the district, and ensure higher returns to the farmers, the promotion of tunnel farming is essential. Today, the visibility of this modern

²⁸ Source: Olive Grower Association, Lower Dir

technique is good throughout the KP province. The SRSP is putting in considerable efforts to make the rural farmers adopt this. A widespread introduction of this modern technique in the district Swat will be equally beneficial for the farmers of Swat.

Average investment in the high or low tunnels farming options is about Rs. 2.1 Million. (For detail, please refer to the prefeasibility studies PMYBL section of the SMEDA's website)



9.4. Trout Fish Farming

The trout of Swat is famous for its quality and taste throughout the country. This potential project can be started in the areas of Bahrain, Madyan, and Kalaam. With an average project investment of Rs. 2.3 Million the project earns a profit of Rs. 1.22 Million every 18 months cycle.



9.5. Fruit Dehydration Units

The fruit production losses of about 40% throughout the value chain, means the loss of around Rs. 352 Million to the district. With the establishment of a fruit pulp processing unit at Swat (5 Tons/Hour Capacity), there emerged a hope for the Apple and Peach farmers of Swat and adjoining districts. Apart from this, the distribution of the fruit dehydration plants the EU is another development. Despite these processing options there exists a gap for the commencement of small scale dehydration units with hydro power electricity because the existing solar based dehydrators are said to have some technical performance problems. With a project having an annual capacity of 30 to 50 Tons' dried fruits and vegetable, the total project cost of Rs. 4 Million, and annual revenue starting from Rs. 7.5 Million, the project will earn a profit of Rs. 1.8 Million right from the very first year.²⁹ However the local investor may take a start with even lower capacity and later expand.

²⁹ Source: Prefeasibility Study of PCSIR-LHR

A unit with processing capacity of 2,000 Tons/Annum with a project cost of Rs. 28.364 million is expected to generate annual profit of Rs. 1.3 Million from the very first year of operation.³⁰



9.6. Gemstones Lapidary

The gemstones mining in Swat indicates towards the potential of gemstones lapidary. This project with an installed capacity of 3,000 pieces (cut and polished) per year will have a project cost of Rs. 2.08 Million, and annual net profit of Rs. 0.8 Million for the first year of operations.



9.7. Marble and Granite Stocking Yards

The production from the mine bearing areas of Dimensional stone in the Swat, and the nearest FATA regions provides the opportunity for a well established stocking yard equipped with Gantry crane, Mono Lama for Block Squaring, and Small Cutters for Mono Lama Waste utilization. This type of project will cost around Rs. 20 Million. The expected income from such a project will be between Rs. 5 to 8 Million per year.



³⁰ Source: Prefeasibility Study of National Bank of Pakistan

9.8. Marble Waste Utilization Project (Crushing Ball/Roller Mill)

Upon the basis of the estimated production of Marble during the year 2012-13, the wastage is calculated to be about 700 Tons per annum. With the increase in mining activities in the region, this will multiply accordingly. The solid waste going into landfills, can be utilized into value added Terrazzo, Chips, and Powder while fetching above Rs. 20,000/Ton. Investment for a small scale project is around Rs. 2 Million depending upon the cost of land.

9.9. Other Projects

The Oyster Mushroom Farming alone and in combination with Domestic Scale Fruit Dehydration Units can be potential projects for small scale investment up to Rs. 1 Million each. Similarly, the commencement of a professional honey bee apiary with an investment of about Rs. 2 Million and focus upon honey bee feeding and migratory style can be another potential option.

The recent development of Persimmon Chamber of 700 Kg fruit per 48 hours batch by Nuclear Institute of Food and Agriculture (NIFA), is also a potential option. The investor may consider this option as a low cost concrete chamber with a capital cost under Rs. 0.7 Million and focus upon the Apple, Peach, and Persimmon treatment for extended shelf life of 4 to 6 weeks. The operational cost is about Rs. 1 to 1.5 per Kg, and hence the processing fees may be between Rs. 3 to 5 per Kg. The potential of small hydro power project is also proven with the existing practice within the district.

10. References

Bureau of Statistics. (2014). *Development Statistics of Khyber Pakhtunkhwa*. Benevolent Fund Building, Peshawar

Copyright 2007, ValleySwat. All rights reserved. (2007, december thursday). Retrieved Feb 26, 2015, from valley Swat

CPPR. (2010). *census of tourism assets in Swat 2010*. IM|Sciences. Peshawar: Durrani, S. (2015, March 3rd). Assistant Manager CSU. (U. Fahd, Interviewer)

Khyber Pakhtunkhwa Official gateway to Government. (KPK, December 12).

Situation Analysis & Baseline Surveys For Poverty Reduction through Rural Development in KPK, F. &. (October 10, 2014). *DEVELOPMENT PROFILE OF SWAT DISTRICT*. SWAT: PPAF.

UNDP. (2013). *UNDP Human Development Report (2013)*. United Nations: UNDP.

UNESCO, DFID. (2010, dec 11). *Reviving Livelihood through Handicrafts in Swat*. Retrieved march tuesday, 2015, from UNESCO/ Culture: <http://unesco.org.pk/culture/rlhp.html>