

## **FOSSIL FUEL**

The fossil fuels, i.e., oil, gas, and mineral coal are supplied from sources external to the district.

**Table 4: Electricity Consumption and Connections by Different Sectors in Rural and Urban Areas of Swat District, 1986-87**

Sector	Urban Consumption		Rural Consumption		Total Consumption		Rural Connection		Urban Connection		Total Connection	
	Unit (MWH)	Share (%)	Unit (MWH)	Share (%)	Unit (MWH)	Share (%)	No	%	No	%	No	%
Domestic	14224.68	47.51	39131.38	66.17	53356.07	59.9	41079	91.53	9357	69.24	30936	86.16
Commercial	3429.52	11.46	1774.07	3	5203.59	5.84	2469	5.5	3941	22.68	6410	10.84
Industrial	11346.59	37.9	15128.23	25.58	26474.82	29.72	631	1.41	392	2.75	1023	1.73
Bulk	-	-	530.39	0.9	530.39	0.6	5	0.01	-	-	5	0.01
Agricultural	23.59	0.08	2561.08	4.33	2584.67	2.9	693	1.55	19	10.13	712	1.21
Public Lighting	912.47	3.05	10.38	0.02	922.85	1.04	1	0	22	0.2	29	0.05
	29936.95	100	59135.53	100	89072.29	100	44878	100	14307	95	59115	100

## Kerosene

Kerosene is mostly used for domestic lighting and to some extent for cooking. It is supplied by tankers through two different routes and is distributed to various dealers throughout the district. The agencies (major dealers) supplying kerosene are located in four places and more than a dozen sub-agents in the district sell kerosene to retailers.

From the major depots, kerosene is transported to small shops in all the major villages of Swat. The shopkeepers usually sell kerosene from drums or cans using the bottle as a unit. The price of kerosene in the district varies from Rs 3.30 per litre to Rs 5.00 per litre, depending upon the accessibility of the place and the amount purchased. Kerosene is primarily used for lighting. The average consumption per household in the area is about four litres/month/household. This means that the total rural household monthly consumption in the district is about 4,862 tons of oil equivalent (TOE) per year. The end use consumption of kerosene is given in Table 5.

Investigation on the availability of kerosene revealed that 70 per cent of the households obtained it from a distance of within one mile. Of the remaining households 20 per cent, got it from within a radius of 1 to 2 miles and only 10 per cent of households had to travel more than 2 miles to procure kerosene. The people who suffered most in this respect were the ones living in the high altitude areas. Thus, almost half of the population living in the high altitude villages surveyed in this study had to travel a distance of 4 miles or more to procure kerosene. It is also a problem for scattered settlements at medium and low altitude.

**Table 5: Kerosene Consumption by Households with Different Income Levels in Sample Villages of Swat District, 1987**

Village	Monthly Consumption	(Litres)
Low Altitude with Electricity	Low Income	2.9
	Medium Income	2.6
	High Income	2.4
Low Altitude without Electricity	Low Income	4.4
	Medium Income	4.7
	High Income	5.0
Middle Altitude with Grid Electricity	Low Income	3.8
	Medium Income	2.8
	High Income	2.0
Middle Altitude without Grid Electricity but with Micro-hydel	Low Income	4.3
	Medium Income	4.9
High Income	5.6	
High Altitude without Electricity	Low Income	3.7
	Medium Income	3.9
	High Income	4.2

Source: Primary Survey

## Mineral Coal

Coal is transported to the district from Baluchistan either by trucks or through railways up to Dargai and from there by trucks to Swat. It is used mainly by brick kilns which consume about 60,000 tons of coal annually.

## **Petrol/Diesel**

Petrol/diesel is mainly used for transport vehicles. However, diesel is also used for running agricultural machinery, i.e., tractors, threshers, tube wells, etc as well as for operating diesel generators and industrial machinery such as saw machines. Like kerosene, petrol/diesel is supplied through tankers. There are a number of filling stations in the district located at different places. Besides filling stations, petrol/diesel is also sold in cans at roadside shops in the major villages.

## **Liquified Petroleum Gas (LPG)**

Liquified petroleum gas (LPG) is used mainly for cooking. It is supplied to the district by trucks from Rawalpindi. Each truck has the capacity of about 252 cylinders. There are many agencies of LPG in Swat District. LPG use has been reported in almost 40 per cent of the Union Councils of the district. LPG is commonly available in those villages having relatively better accessibility. It is used only by medium or higher income households. Among the study samples, none of the low income households used LPG. In certain cases, it was found that people travelled up to as much as 40 miles to obtain LPG from Mingora, where the headquarters of the district are situated. On an average, one cylinder was used per month by user households, and these totalled about 9,300. However, when both user and non-user groups of households are combined, the average reduces to 0.04 cylinders per month per household. At this rate, the total amount of gas used monthly by the household sector is about 110 tons. The restaurants in the commercial sector also use gas up to about 17 tons per month. The total consumption of gas per year in the district, therefore, is about 1,500 tons or approximately 1,700 TOE per year.