

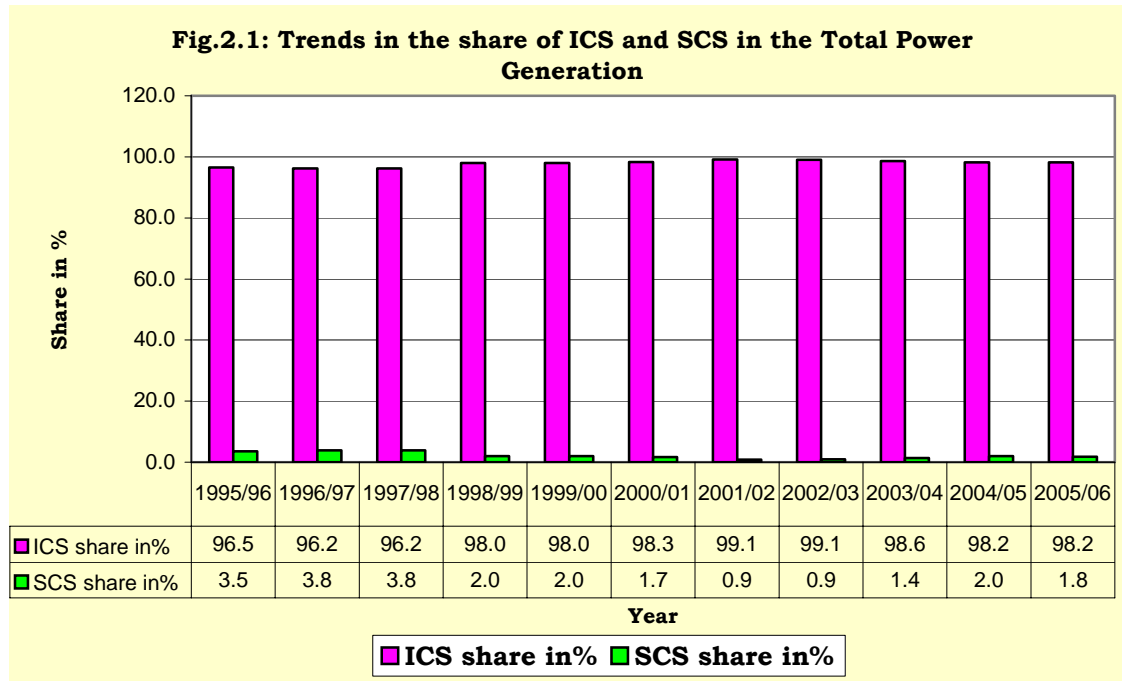
ENERGY PRODUCTION

2.1 Electricity Generation

Ethiopia is endowed with enormous potential for hydroelectric power and geothermal energy generation. Among its major rivers, nine are suitable for hydroelectric power generation with a total capacity of 15,000-30,000 MW. The geothermal potential is said to be so huge that, if adequate finance is available to develop the sector, it could even be exported to neighboring countries. Despite such facts, however, the country so far managed to utilize a mere 790 MW of its power generating potential and, hence, only about 17 percent of the population has access to electricity.

The Ethiopian Electric Power Corporation (EEPCo), being a public Enterprise mandated to generate, transmit, distribute, and sell electricity, generates electricity through two different power supply systems: the Interconnected System (ICS) and the Self Contained System (SCS). The ICS, which is largely generated by hydropower plants, is the major source of electric power generation. On the other hand, the power generated from SCS system has become increasingly

less. SCS's share in total electric power production in 2005/06 was only 1.8 percent from an average of 3 percent during 1995/96-1999/00. The ICS is advantageous compared to the SCS. In the case of the latter, there is no chance to use power from other proximity plant when power fails.



The total electricity generation during 2005/06 was 2896.5 million KWH, which was 12.3 percent higher than the preceding year. Out of the total, 98.6 percent of the electricity was generated through hydropower while the rest (1.4 percent) came from thermal power (Table 2.1).

As per the government's five year partnership for Accelerated and Sustained Development to End Poverty (PASDEP), it is envisaged to increase electricity generation capacity of the country by completing the power projects currently under construction and building new ones and increasing the distribution to rural towns and *Kebeles*.

By 2010, when the power generation projects such as *Tekeze* (300 MW), *Gilgel Gibe 2nd* (420 MW), *Amerteneshe* (97 MW), *Beles* (460 MW), Wind Power (50 MWH) and *Yayo* (100 MW) are completed, the country's power generation capacity is expected to reach 2218 MW per hour. The number of electrified cities and towns is also planned to reach 6000 from the current level of 1166.

Table 2.1. Generation of Electric Power in the Inter-Connected System (ICS) and Self-Contained System (SCS)
(in, 000 KWH)

Source		Year				
		2003/04	2004/05	2005/06	Percentage Change	
		[A]	[B]	[C]	[C/A]	[C/B]
ICS	Hydro Power	2,262,503.6	2,514,693.1	2,838,714.1	25.5	12.9
	Thermal Power	16,043.3	18,216.5	6,306.8	-60.7	-65.4
Sub Total		2,278,546.9	2,532,909.6	2,845,020.9	24.9	12.3
SCS	Hydro Power	10,308.7	9,987.7	18,662.8	81.0	86.9
	Thermal Power	22,243.1	36,377.9	32,839.4	47.6	-9.7
Sub Total		32,551.8	46,365.5	51,502.2	58.2	11.1
Total	Hydro Power	2,272,812.3	2,524,681.0	2,857,377.8	25.7	13.2
	Thermal Power	38,286.4	54,594.4	39,146.8	2.2	-28.3
Grand Total		2,311,098.7	2,579,275.2	2,896,524.6	25.3	12.3

Source: Ethiopian Electric Power Corporation (EEPCo)

2.2 Volumes and Value of Petroleum Imports

In 2005/06, a total of 1.39 million metric tons of petroleum products worth of Birr 6.67 billion (about USD 768 million) were imported by the Ethiopian Petroleum Enterprise. The value was 34.3 percent higher than that of the preceding fiscal year on account of the persistent rise in international oil prices. As Ethiopia is net importer of fuel, the escalating oil price in the international

market has cost the country more foreign exchange than

anticipated and it has fed (and continue to feed) into inflationary pressure by way of a pass-through effect.

Component wise, the values of imports of Regular gasoline surged by 61.2 percent, Jet fuel by 40.4 percent, Fuel oil by 32.8 percent and Gas oil by 26.4 percent.

Table 2.2: Volume and Value of Petroleum Imports

(Volume in metric ton and value in thousand Birr)

Products	Year					
	2004/05		2005/06		Percentage Change	
	Volume	Value	Volume	Value		
	[C]	[D]	[E]	[F]	[E/C]	[F/D]
<i>Regular Gasoline (MGR)</i>	133193	519684	122503	837674	-8.0	61.2
<i>Jet Fuel</i>	332978	1363931	355650	1914852	6.8	40.4
<i>Fuel Oil</i>	161254	297854	158227	395449	-1.9	32.8
<i>Gas Oil (ADO)</i>	746899	2784699	757644	3520364.8	1.4	26.4
Total	1,374,325.0	4,966,168.0	1,394,024.8	6,668,339.8	1.4	34.3

Source: Ethiopian Petroleum Enterprise (EPE)

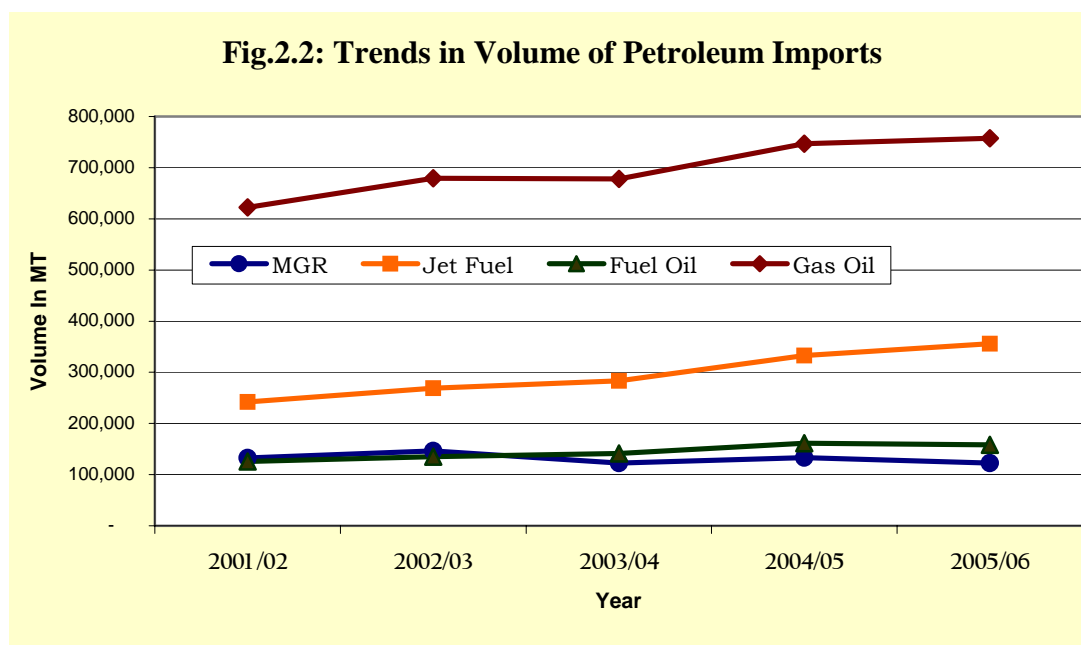
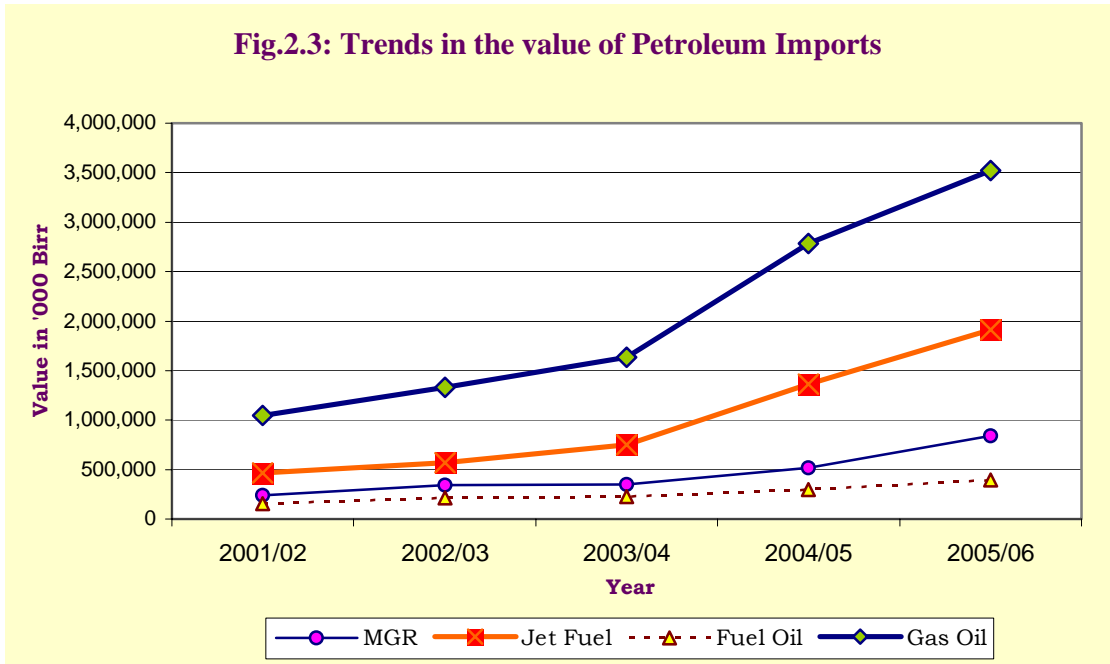


Fig.2.3: Trends in the value of Petroleum Imports



Although the plan was to periodically (on quarterly basis) adjust the domestic retail prices of petroleum products in line with the rising oil prices in the world market, the retail price of petroleum products was not adjusted since the third quarter of 2004/05 to minimize the adverse economic impacts of the hike in the world prices of petroleum products through the fuel price stabilization

program of the government until the last quarter of 2005/06. Following the August 2006 petroleum price adjustment, the Addis Ababa retail price of Regular gas oil in the fourth quarter of 2005/06 increased to Birr 6.2/litre (13 percent) from Birr 4.7/litre a year earlier.

Table 2.3: Addis Ababa Quarterly Retail Price of Petroleum Products**(Birr/liter)**

Year	Quarter	Petroleum Product			
		MGR	Fuel Oil	Gas Oil	Kerosene
2002/03	Qtr.1	4.4	2.2	2.7	2
	Qtr.2	4.4	2.2	2.7	2
	Qtr.3	4.4	2.2	2.7	2
	Qtr.4	4.4	2.3	2.7	2
	Average	4.4	2.2	2.7	2
2003/04	Qtr.1	4.4	2.3	2.7	2
	Qtr.2	4.4	2.3	2.7	2
	Qtr.3	4.4	2.2	2.7	2
	Qtr.4	4.7	2.5	3	2.2
	Average	4.5	2.3	2.8	2
2004/05	Qtr.1	5.0	2.9	3.4	2.5
	Qtr.2	5.3	3.2	3.9	2.8
	Qtr.3	5.5	3.4	4.3	3.0
	Qtr.4	5.5	3.4	4.3	3.0
	Average	5.3	3.2	4.0	2.8
2005/06	Qtr.1	5.5	3.4	4.3	3.0
	Qtr.2	5.5	3.4	4.3	3.0
	Qtr.3	5.5	3.4	4.3	3.0
	Qtr.4	6.2	3.9	4.6	3.3
	Average	5.7	3.5	4.4	3.1

Source: Ethiopian Petroleum Enterprise.