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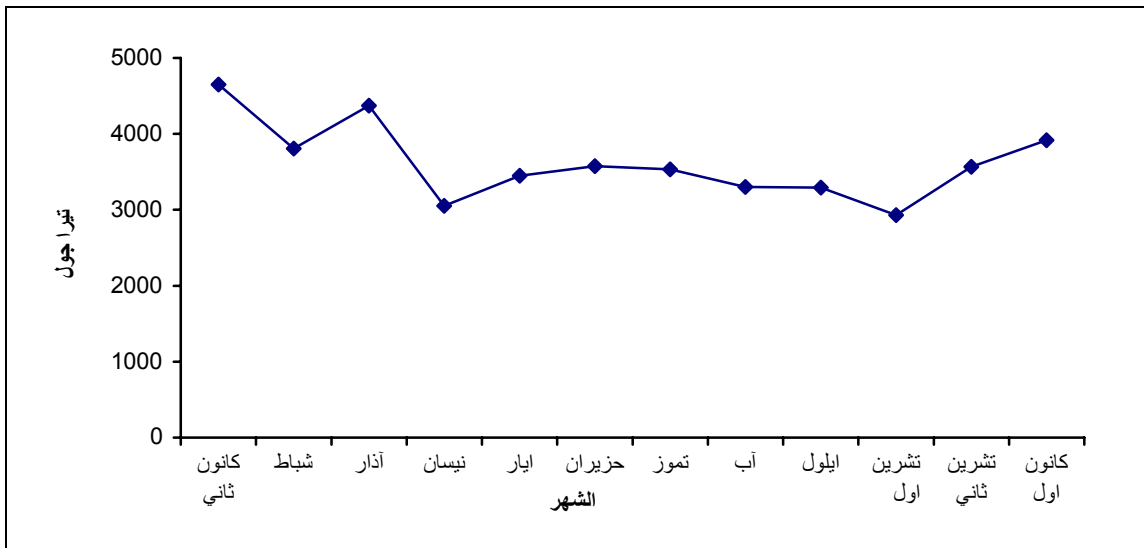
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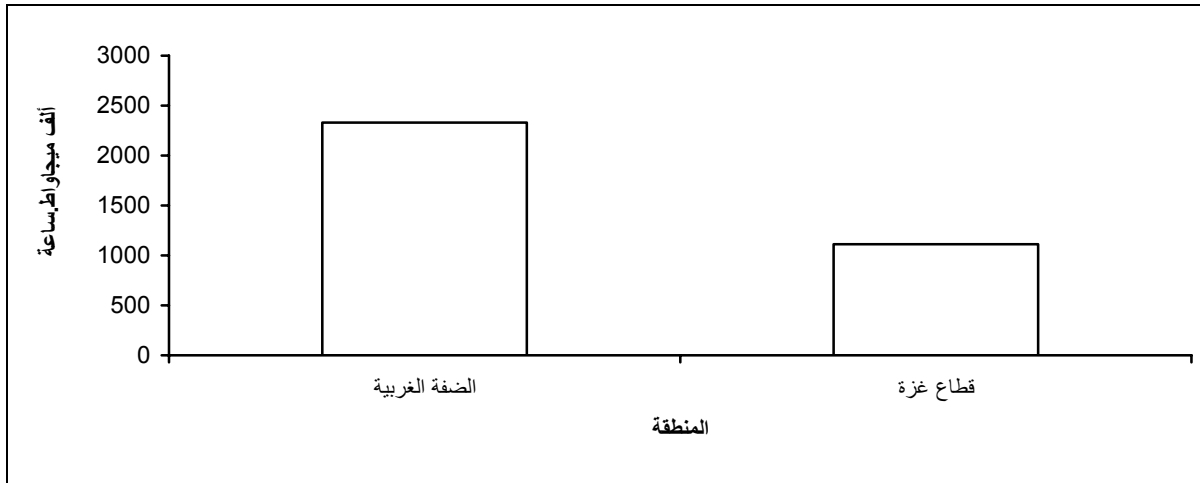
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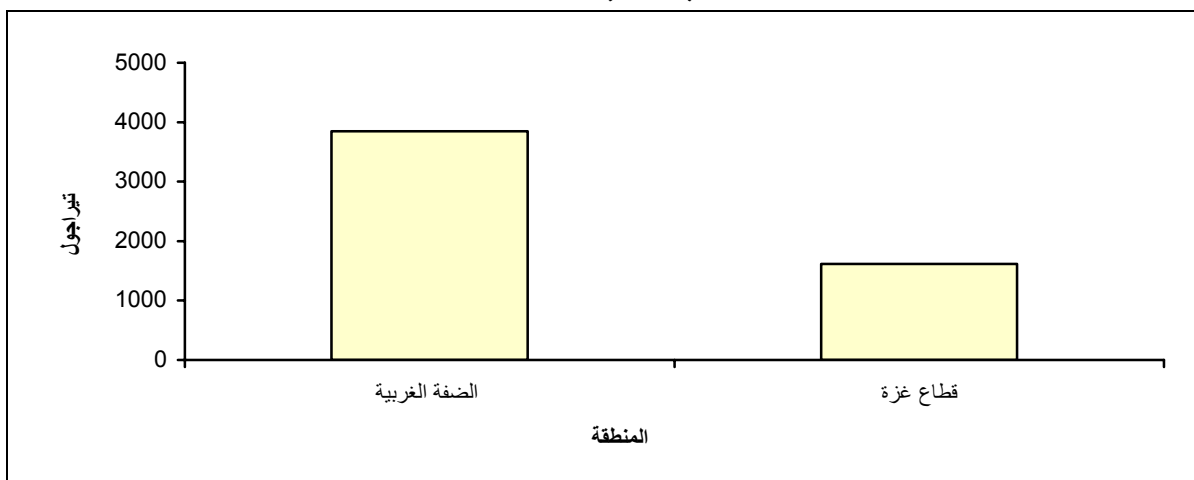
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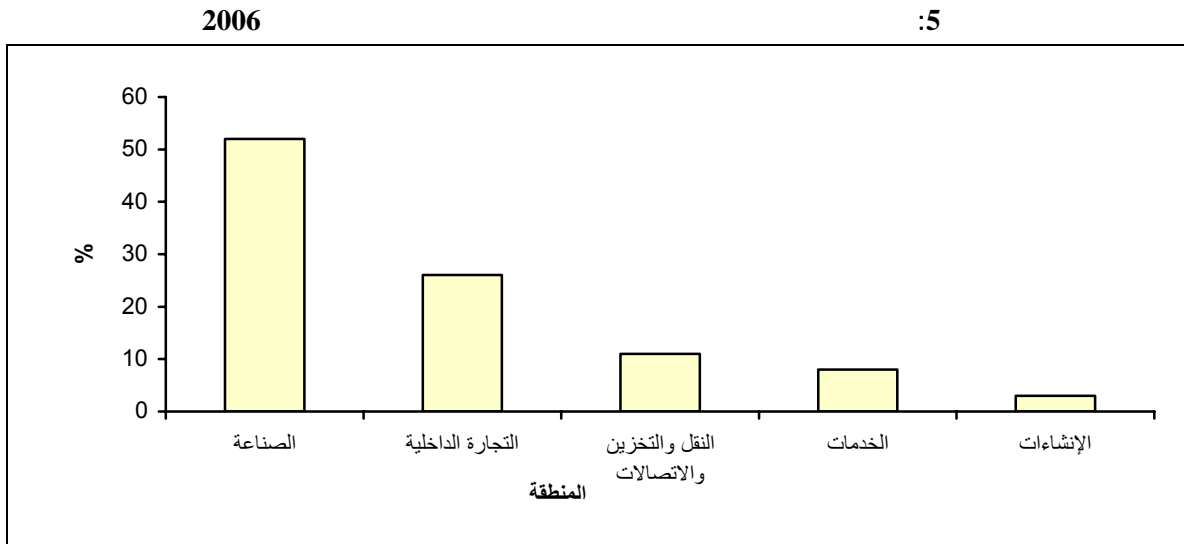
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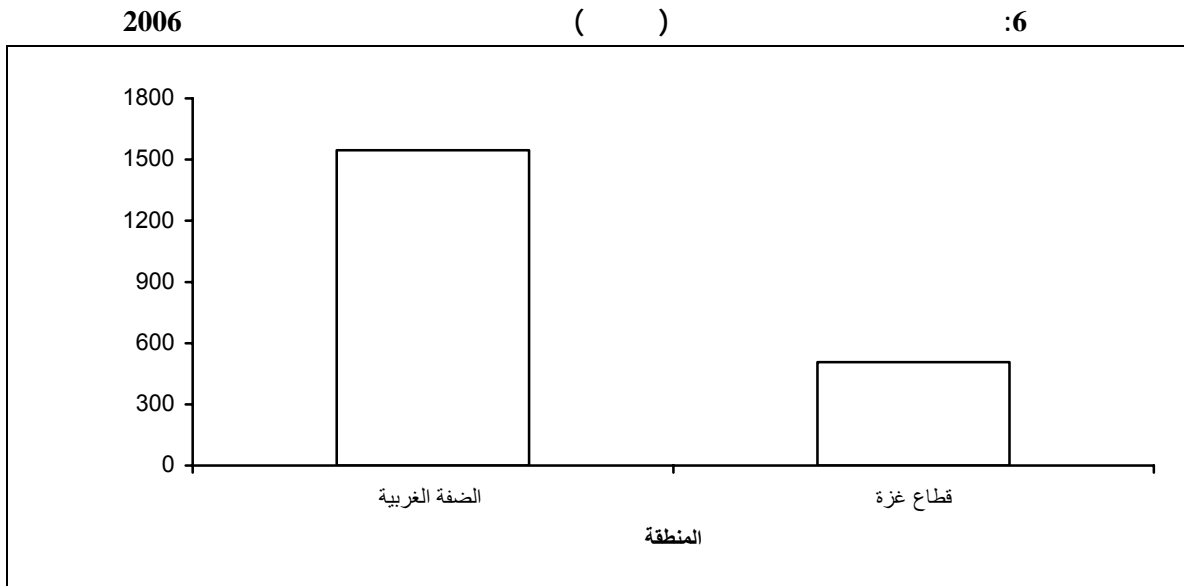


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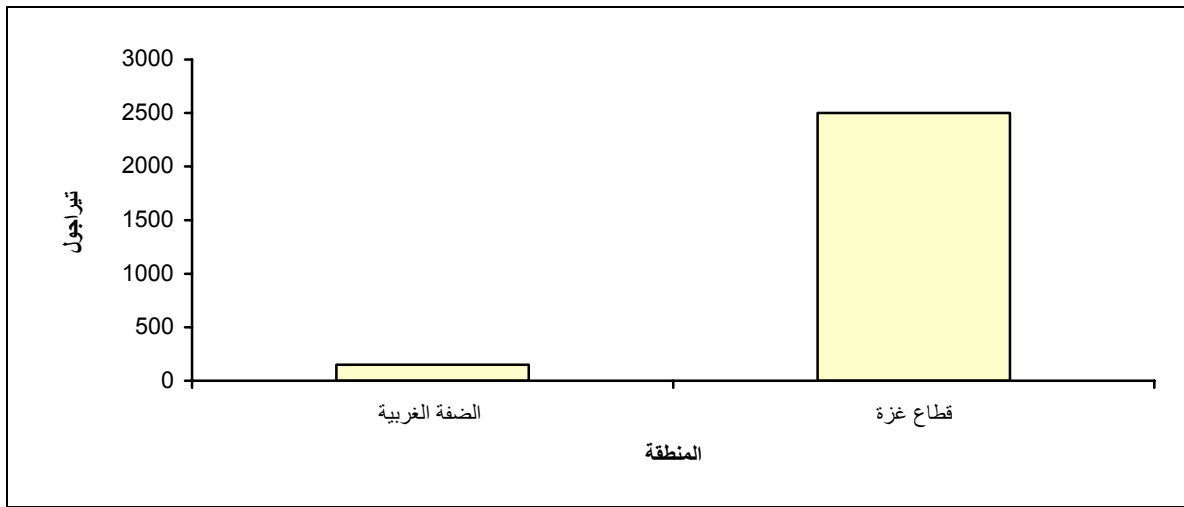
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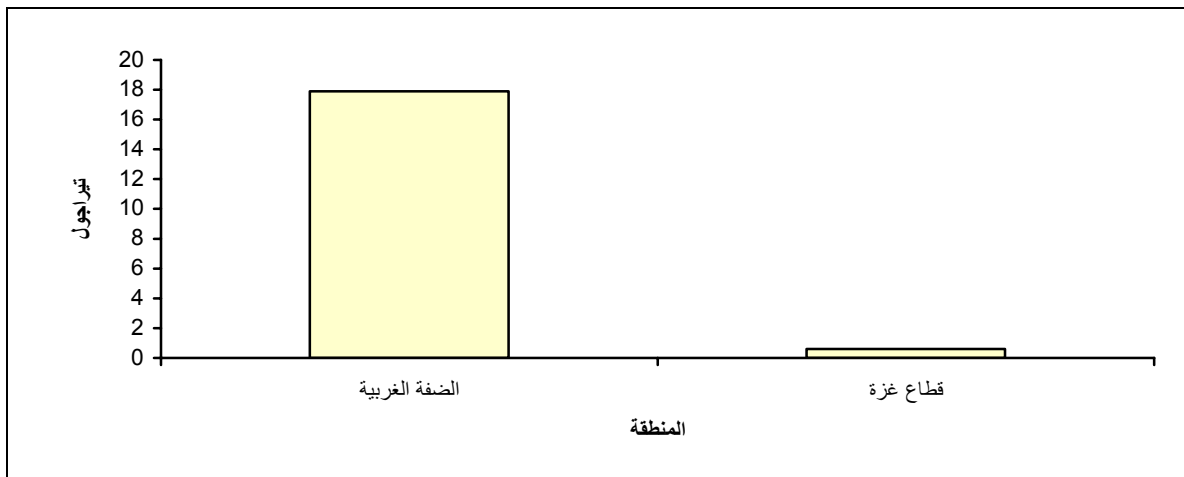
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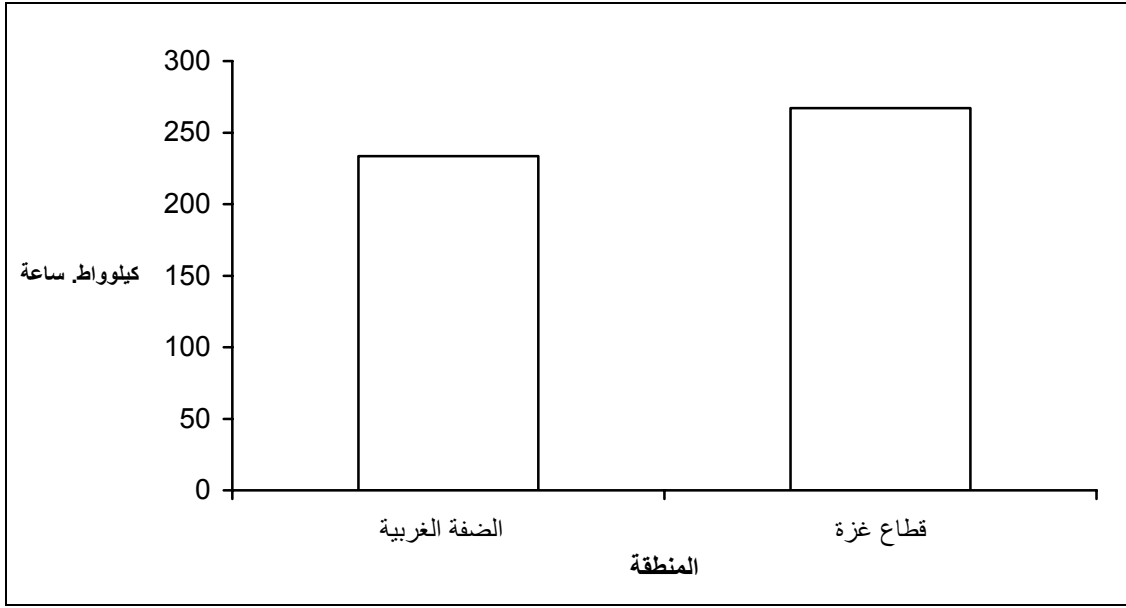
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Tables

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Table 1: Imported Energy in the Palestinian Territory by Type of Energy and Month, 2006

Month	() Total Energy (Tera Joule)	Type of Energy							
		() Wood & Coal (Ton)	() Bitumen (Ton)	() Oils and Lubricants (Ton)	() LPG (Ton)	() Kerosene (1000 Liter)	() Diesel (1000 Liter)	() Gasoline (1000 Liter)	(.) Electricity (MWh)
January	4,649.7	117	-	-	12,514	2,619	65,691	15,408	293,330
February	3,806.5	107	-	-	12,241	1,529	53,666	9,101	253,830
March	4,370.2	282	-	416	9,474	202	68,672	14,386	250,870
April	3,051.3	165	-	-	7,467	107	42,397	11,156	215,200
May	3,447.9	2,149	-	155	5,101	173	53,369	10,565	238,480
June	3,573.4	1,684	-	-	8,985	144	51,915	12,277	227,390
July	3,534.9	42	-	-	9,378	557	47,998	13,965	238,540
August	3,302.5	-	144	18	9,570	93	44,012	10,959	242,370
September	3,292.8	220	539	298	9,987	276	33,858	11,646	322,060
October	2,929.2	1,402	1,056	381	9,014	226	30,319	10,030	273,800
November	3,567.5	-	540	342	9,852	777	47,850	11,510	253,030
December	3,918.3	15	-	275	13,717	932	48,608	12,809	287,500
Total	43,444.2	6,183	2,279	1,885	117,300	7,635	588,355	143,812	3,096,400

2006

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Table 2: Imported Energy in the Palestinian Territory by Region and Type of Energy, 2006

Type of Energy	Region			
	Gaza Strip	West Bank	Palestinian Territory	
Electricity (MWh)	765,290.0	2,331,110.0	3,096,400.0	(.)
Gasoline (1000 Liter)	21,590.0	122,222.0	143,812.0	()
Diesel (1000 Liter)	175,482.0	412,873.0	588,355.0	()
Kerosene (1000 Liter)	1,053.0	6,582.0	7,635.0	()
LPG (Ton)	43,927.0	73,373.0	117,300.0	()
Oils and Lubricants (Ton)	0.0	1,885.0	1,885.0	()
Bitumen (Ton)	0.0	2,279.0	2,279.0	()
Wood & Coal (Ton)	47.0	6,136.0	6,183.0	()
Total Energy (Tera Joule)	11,984.3	31,459.9	43,444.2	()

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Table 3: Electricity Purchases (MWh) in the Palestinian Territory by Region, Source and Month, 2006

Month	Region and Source							
	Gaza Strip		West Bank		Palestinian Territory			
	Gaza Power Plant	Israeli Electricity Company	Gaza Power Plant	Israeli Electricity Company	Total	Gaza Power Plant	Israeli Electricity Company	
January	52,800	65,800	-	227,530	346,130	52,800	293,330	
February	46,300	64,090	-	189,740	300,130	46,300	253,830	
March	49,600	59,800	-	191,070	300,470	49,600	250,870	
April	49,500	49,500	-	165,700	264,700	49,500	215,200	
May	49,100	52,600	-	185,880	287,580	49,100	238,480	
June	44,000	56,200	-	171,190	271,390	44,000	227,390	
July	-	55,100	-	183,440	238,540	-	238,540	
August	-	57,500	-	184,870	242,370	-	242,370	
September	-	92,400	-	229,660	322,060	-	322,060	
October	-	70,700	-	203,100	273,800	-	273,800	
November	21,000	68,800	-	184,230	274,030	21,000	253,030	
December	33,000	72,800	-	214,700	320,500	33,000	287,500	
Total	345,300	765,290	-	2,331,110	3,441,700	345,300	3,096,400	

2006

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Table 4: Energy Purchases in Economic Activities in the Palestinian Territory by Region and Type of Energy, 2006

Type of Energy	Region			
	Gaza Strip	West Bank	Palestinian Territory	
Electricity (MWh)	126,171.0	309,871.1	436,042.1	(.)
Gasoline (1000 Liter)	2,828.6	6,111.4	8,940.0	()
Diesel (1000 Liter)	21,447.9	57,649.0	79,096.9	()
Kerosene (1000 Liter)	604.7	273.8	878.5	()
LPG (Ton)	5,119.1	6,873.1	11,992.2	()
Oils and Lubricants (Ton)	446.0	1,709.9	2,155.9	()
Wood & Coal (Ton)	113.2	527.9	641.1	()
Total Energy (Tera Joule)	1,613.9	3,847.4	5,461.3	()

2006

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Table 5: Energy Purchases in Economic Activities in the Palestinian Territory by Type of Energy and Economic Activity, 2006

Month	() Total Energy (Tera Joule)	Type of Energy							
		() Wood & Coal (Ton)	() Oils and Lubricants (Ton)	() LPG (Ton)	() Kerosene (1000 Liter)	() Diesel (1000 Liter)	() Gasoline (1000 Liter)	(.) Electricity (MWh)	
Industry	2,842.6	596.1	991.3	9,644.5	321.0	41,319.5	3,046.8	198,819.0	
Construction	174.8	3.9	83.4	62.5	8.3	3,946.5	380.1	2,728.5	
Internal Trade	1,427.7	37.0	814.6	2,173.2	261.0	17,256.1	4,766.5	136,576.2	
Services	430.5	3.9	83.4	62.5	8.3	3,946.5	380.1	73,749.0	
Transport, Storage and Communications	585.7	0.2	183.2	49.5	279.9	12,628.3	366.5	24,169.4	
Total	5,461.3	641.1	2,155.9	11,992.2	878.5	79,096.9	8,940.0	436,042.1	

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Table 6: Energy Used for Transport in Economic Activities in the Palestinian Territory by Region and Type of Energy, 2006

Type of Energy	Region			
	Gaza Strip	West Bank	Palestinian Territory	
Gasoline (1000 Liter)	2,915.0	6,880.8	9,795.8	()
Diesel (1000 Liter)	14,108.6	45,185.5	59,294.1	()
Kerosene (1000 Liter)	527.9	88.0	615.9	()
LPG (Ton)	80.1	182.3	262.4	()
Oils and Lubricants (Ton)	312.6	899.6	1,212.2	()
Wood & Coal (Ton)	4.0	0.1	4.1	()
Total Energy (Tera Joule)	506.2	1,545.6	2,051.8	()

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Table 7: Energy Used for Transport in Economic Activities in the Palestinian Territory by Region and Type of Energy, 2006

Economic Activity	Type of Energy						
	() Wood & Coal (Ton)	() Oils and Lubricants (Ton)	() LPG (Ton)	() Kerosene (1000 Liter)	() Diesel (1000 Liter)	() Gasoline (1000 Liter)	
Industry	0.5	415.4	162.0	114.6	27,561.2	2,803.3	
Construction	1.1	64.6	0.3	7.5	2,595.5	333.9	
Internal Trade	1.3	440.7	65.5	142.8	16,277.0	4,274.6	
Services	1.2	105.6	32.1	73.4	4,072.2	2,027.6	
Transport, Storage and Communications	0.0	185.9	2.5	277.6	8,788.2	356.4	
Total	4.1	1,212.2	262.4	615.9	59,294.1	9,795.8	

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Table 8: Energy Used for Electricity Generation in Economic Activities in the Palestinian Territory by Region and Type of Energy, 2006

Type of Energy	Region			
	Gaza Strip	West Bank	Palestinian Territory	
Gasoline (1000 Liter)	598.7	16.2	614.9	()
Diesel (1000 Liter)	76,612.2	4,524.0	81,136.2	()
Kerosene (1000 Liter)	65.7	0.0	65.7	()
LPG (Ton)	28.7	5.6	34.3	()
Oils and Lubricants (Ton)	19.0	40.2	59.2	()
Total Energy (Tera Joule)	2,499.3	149.3	2,648.6	()

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Table 9: Energy Used for Electricity Generation in Economic Activities in the Palestinian Territory by Type of Energy and Economic Activity, 2006

Economic Activity	Type of Energy					
	() Oils and Lubricants (Ton)	() LPG (Ton)	() Kerosene (1000 Liter)	() Diesel (1000 Liter)	() Gasoline (1000 Liter)	
Industry	40.6	26.7	45.7	79,717.4	49.6	
Construction	0.8	0.0	0.0	7.7	1.2	
Internal Trade	11.2	7.1	0.0	388.4	303.2	
Services	6.6	0.5	20.0	1,003.7	254.2	
Transport, Storage and Communications	0.0	0.0	0.0	19.0	6.7	
Total	59.2	34.3	65.7	81,136.2	614.9	

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Table 10: Energy Used in olive press in the Palestinian Territory by Region and Type of Energy, 2006

Type of Energy	Region			
	Gaza Strip	West Bank	Palestinian Territory	
Electricity (MWh)	108.2	2,938.2	3,046.4	(.)
Gasoline (1000 Liter)	0.0	1.6	1.6	()
Diesel (1000 Liter)	16.7	580.2	596.9	()
Kerosene (1000 Liter)	0.0	0.1	0.1	()
LPG (Ton)	0.4	3.5	3.9	()
Oils and Lubricants (Ton)	1.1	14.7	15.8	()
Wood & Coal (Ton)	0.0	3.5	3.5	()
Total Energy (Tera Joule)	0.6	17.9	18.5	()

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Table 11: Average Monthly Household Consumption of Electricity and Petroleum Products in the Palestinian Territory by Region, 2006

Region	Average Household Consumption of Electricity, Petroleum Products					
	() Diesel (Liter)	() Gasoline (Liter)	() Kerosene (Liter)	() LPG (kg)	(.) Electricity (KWh)	
Palestinian Territory	2.1	14.1	0.6	16.6	259.6	
West Bank	3.2	17.3	0.8	16.6	233.6	
Gaza Strip	0.0	7.8	0.3	16.7	267.1	

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Table 12: Total Energy Purchases (Terajoules) in Economic Activities in the Palestinian Territory by Year and Economic Activity, 2001-2006

Economic Activity	Year					
	2006	2005	2004	2003	2002	2001
Industry	2,842.6	2,956.3	3,336.9	2,380.0	2,692.7	2,928.5
Construction	174.8	174.7	311.3	216.1	172.2	202.2
Internal Trade	1,427.7	1,721.3	1,408.2	1,530.5	1,460.6	1,571.2
Services	430.5	717.6	838.7	563.8	636.4	831.1
Transport, Storage and Communications	585.7	322.2	573.3	334.4	261.8	2,333.9
Total	5,461.3	5,892.1	6,468.4	5,024.8	5,223.7	7,866.9

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Table 13 : Energy Prices for Consumer by Type of Energy, Region and Month, 2006

Month	Type of Energy					
	() Charcoal (Kg)	() Oils and Lubricants (Kg)	() LPG (Kg)	() Kerosene (Liter)	() Diesel (Liter)	() Gasoline (Liter)
Palestinian Territory						
January	4.92	13.56	4.13	3.85	3.85	5.55
February	4.92	13.59	4.44	4.15	3.97	5.87
March	4.92	13.62	4.5	4.07	3.97	5.76
April	4.92	13.71	4.33	4.22	4.16	6.03
May	4.92	13.71	3.94	4.48	4.48	6.35
June	4.92	13.70	3.94	4.48	4.48	6.35
July	4.92	13.73	3.94	4.47	4.47	6.35
August	4.92	13.74	3.94	4.42	4.49	6.52
September	4.97	13.74	3.94	4.65	4.61	6.22
October	5.00	13.70	3.94	4.43	4.29	5.71
November	5.00	13.70	3.94	4.43	4.30	5.71
December	5.08	13.71	3.94	4.49	4.37	5.74
Average Price	4.95	13.68	4.08	4.35	4.29	6.01

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Table 13 (cont) : Energy Prices for Consumer by Type of Energy, Region and Month, 2006

Month	Type of Energy					
	() Charcoal (Kg)	() Oils and Lubricants (Kg)	() LPG (Kg)	() Kerosene (Liter)	() Diesel (Liter)	() Gasoline (Liter)
West Bank						
January	4.75	11.44	3.58	3.53	3.53	5.31
February	4.75	11.53	3.75	3.78	3.60	5.64
March	4.75	11.53	3.83	3.67	3.60	5.54
April	4.75	11.72	3.58	3.79	3.79	5.80
May	4.75	11.71	3.00	4.11	4.11	6.15
June	4.75	11.67	3.00	4.11	4.11	6.15
July	4.75	11.67	3.00	4.09	4.09	6.15
August	4.75	11.67	3.00	4.04	4.11	6.32
September	4.90	11.67	3.00	4.27	4.31	6.03
October	5.00	11.54	3.00	4.05	4.10	5.55
November	5.00	11.54	3.00	4.05	4.10	5.55
December	5.00	11.58	3.00	4.14	4.18	5.59
Average Price	4.83	11.60	3.23	3.97	3.97	5.81

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Table 13 (cont) : Energy Prices for Consumer by Type of Energy, Region and Month, 2006

Month	Type of Energy						
	() Charcoal (Kg)	() Oils and Lubricants (Kg)	() LPG (Kg)	() Kerosene (Liter)	() Diesel (Liter)	() Gasoline (Liter)	
Jerusalem							
January	6.00	17.50	62.50	4.50	4.50	6.04	
February	6.00	17.50	70.00	4.88	4.70	6.33	
March	6.00	17.50	70.00	4.88	4.70	6.20	
April	6.00	17.50	70.00	5.07	4.89	6.49	
May	6.00	17.50	70.00	5.23	5.23	6.74	
June	6.00	17.50	70.00	5.23	5.23	6.74	
July	6.00	17.50	70.00	5.23	5.23	6.74	
August	6.00	17.50	70.00	5.18	5.25	6.92	
September	6.00	17.50	70.00	5.41	5.22	6.61	
October	6.00	17.50	70.00	5.19	4.70	6.03	
November	6.00	17.50	70.00	5.19	4.70	6.02	
December	6.00	17.50	70.00	5.19	4.75	6.03	
Average Price	6.00	17.50	69.38	5.10	4.93	6.41	

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Table 13 (cont): Energy Prices for Consumer by Type of Energy, Region and Month, 2006

Month	Type of Energy					
	() Charcoal (Kg)	() Oils and Lubricants (Kg)	() LPG (Kg)	() Kerosene (Liter)	() Diesel (Liter)	() Gasoline (Liter)
Gaza Strip						
January	4.00	11.75	3.58	3.53	3.53	5.31
February	4.00	11.73	3.75	3.78	3.60	5.64
March	4.00	11.81	3.83	3.67	3.60	5.54
April	4.00	11.92	3.58	3.79	3.79	5.80
May	4.00	11.92	3.00	4.11	4.11	6.15
June	4.00	11.92	3.00	4.11	4.11	6.15
July	4.00	12.00	3.00	4.09	4.09	6.15
August	4.00	12.04	3.00	4.04	4.11	6.32
September	4.00	12.04	3.00	4.27	4.31	6.03
October	4.00	12.04	3.00	4.05	4.08	5.55
November	4.00	12.04	3.00	4.05	4.10	5.55
December	4.25	12.04	3.00	4.14	4.18	5.59
Average Price	4.02	11.94	3.23	3.97	3.97	5.81

Annexes

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Annex 1: Calorific Value and Equivalent Weight of Different Fuels

Fuel	(³ /) Equivalent Weight (Ton/m³)	(/) Calorific Value (Giga Joules/Ton)	
Charcoal	1.00	28.89	
Fuel wood	1.00	12.60	
LPG	0.54	45.55	
Gasoline	0.74	43.97	
Kerosene	0.81	43.21	
Diesel	0.87	42.50	
Lubricating oil	0.90	42.14	
Bitumen	1.04	41.80	



**Palestinian National Authority
Palestinian Central Bureau of Statistics**

**Energy Consumption in the Palestinian Territory
Annual Report 2006**

June, 2008

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Preface

Most countries pay special attention for providing statistics on energy due to the important role of energy in reflecting the situation of the infrastructure, economic situation and the level of living standards of a society. In Palestine, additional special attention is given due to the shortage of natural resources, the high cost of energy and the high population density. All these factors create a need for comprehensive and high quality statistics covers the need of data users of decision makers and researchers on this field of study.

PCBS is pleased to introduce energy consumption in the Palestinian Territory for the year 2006. This report is considered to be a collective summary of the available data from the activities and surveys conducted by PCBS and the data get from the administrative records.

This report presents statistical data on the basic indicators related to energy consumption in different economic activities. Also, the report provides data on the consumption of energy in the domestic sector in the Palestinian Territory.

PCBS hopes that the results of this report will contribute to provide necessary data needed for developing energy situation in the different sectors and raising the consumption efficiency in these sectors, and to light the way for the decision makers in the national comprehensive developing movement.

June, 2008

Luay Shabaneh, Ph.D
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Executive Summary

PCBS Publishes annually data about energy consumption in the Palestinian Territory that covers data about consumption and use of different energy types (electricity, petroleum products and other types of energy) in different economic sectors and other sectors.

The main findings of the report indicate that the total energy imports in the Palestinian Territory in 2006 were estimated to be 43,444.2 TJ. This amount of energy was composed of 3,096,400 MWh of electricity, 143,812 thousand liters of gasoline, 588,355 thousand liters of diesel, 7,635 thousand liters of kerosene, 117,300 tons of liquid petroleum gas, 1,885 tons of oils and lubricants and 6,183 tons of charcoal and wood.

Total electrical energy purchases in the Palestinian Territory reached 3,441,700 MWh; 2,331,110 MWh in the West Bank and 1,110,590 MWh in Gaza Strip (765,290 MWh imported from Israel and 345,300 MWh produced by Gaza Power Plant).

Data indicate that the total energy purchases in economic activities in the Palestinian Territory in 2006 were estimated to be 5,461.3 TJ (3,847.4 TJ in the West Bank and 1,613.9 TJ in Gaza Strip). This amount of energy was composed of 436,042.1 MWh of electricity, 8,940 thousand liters of gasoline, 79,096.9 thousand liters of diesel, 878.5 thousand liters of kerosene, 11,992.2 tons of LPG, 641.1 tons of charcoal and wood and 2,155.9 tons of oils and lubricants.

The average monthly household consumption of electricity in the Palestinian Territory reached 259.6 kWh (233.6 kWh in the West Bank and 267.1 kWh in Gaza Strip). The average household consumption of LPG in the Palestinian Territory reached 16.6 Kg (17.3 Kg in the West Bank and 7.8 in Gaza Strip) and the average household consumption of gasoline reached 14.1 liters.

Chapter One

Introduction

1.1 Introduction

Energy plays an important role in peoples level of living that is the presence of energy is considered to be one of the main elements in welfare and the level of living for citizens. Also it is considered to be an indicator to the economical situation of the country, and so most official statistical bureaus in different countries pay attention in gathering, classifying and publishing statistics specialized in energy subject.

The data of this report is based on the administrative records and the data extracted from surveys conducted by the Palestinian Central Bureau of Statistics (PCBS). This data was gathered and processed to prepare this report to cover energy consumption in different sectors in the year 2006.

This report is considered to be a step by which to focus the light on the energy situation in the Palestinian Territory in the absence of accurate and comprehensive data in this important field.

1.2 Report Aims

This report aims to present a statistical data about the main indicators related to energy in the Palestinian Territory that this report is to achieve especially the following:

- provides essential data for preparing energy balance in the Palestinian Territory.
- Provides necessary data for research and analysis purposes.
- Provides necessary data for policy makers, planners and conserved persons in energy field.

The report provides data on the following indicators:

- Imported energy in the Palestinian Territory by type of energy.
- Amount of energy purchased in the deffirent sectors by type of energy.
- Amount of energy used for Electricity generation in different sectors by type of energy.
- Amount of energy used for transport in different sectors by types of energy.
- Average energy prices in the Palestinian Territory by type of energy.
- Average monthly household energy consumption by type of energy.

1.3 Report Structure

This report is divided into five chapters; the first chapter contains the introduction, aims and report structure. The second chapter contains the concepts and definitions in this report. The third chapter defines the main findings of the report. The fourth chapter explains the methodology of this report according to the methodology of the surveys and the administrative records which was considered to be as sources of this report, also it explains the methodology of calculating the estimations. The fifth chapter handles data quality through spreading the main notes on the data and estimations of the data sources of this report.

Chapter Two

Concepts and Definitions

Motor Gasoline:	Gasoline is a hydrocarbon fuel used mainly in internal-combustion engines. This fuel is obtained via filtration of crude oil. The quality of this type of fuel is measured by the octane number (from 0 to 100), which points to its resistance of early burning. This number is obtained by comparing the performance of its resistance of early burning with a mixture of C ₇ H ₁₆ and C ₈ H ₁₈ . For instance, the performance of “Gasoline 95” equals the performance of a mixture of 95% C ₈ H ₁₈ and 5% C ₇ H ₁₆ .
Kerosene:	Medium oil distilling between 150 300°C. Its specific gravity is around 0.80 and the flash point above 38°C. It is used in sectors other than aircraft transport.
Diesel:	Heavy oil distilling between 200°C and 380°C. Its flash point is always above 50°C, and its specific gravity is higher than 0.82.
Lubricants:	Viscous, liquid hydrocarbons rich in paraffin waxes, distilling between 380°C and 500°C, obtained by vacuum distillation of oil residues from atmospheric distillation. Its flash point is greater than 125°C, an ash content less than or equal to 0.3% and water content less than or equal to 0.2%.
Liquefied Petroleum Gases (LPG):	It is mainly used in heating as well as a fuel in some types of engines and as a raw material for chemical industries. Usually it is marketed in cylinder metallic packages. This gas is comprised of propane and butane or mixture of them. It is obtained from natural gas or by fracture of crude petroleum.
Bitumen:	Solid or viscous hydrocarbon with, brown or black in color, It is used mainly in road construction.
Fuel Wood:	All wood in the rough used for fuel purposes.
Charcoal:	The solid residue, consisting mainly of carbon, obtained by the destructive distillation of wood in the absence of air.
Joule Unit:	Energy unit, it is defined as the energy resulting from the movement of a one-Newton body to a distance of one meter.
Metric Ton Unit:	Mass unit, a Metric ton = 1000 kg.
Mega Watt-Hour (MWh):	Energy unit, a 1 MWh = 10^6 Watt × 3600 Second = 3.6×10^9 Watt-second Other prefixes are used for referring to the multiplications of the units, Kilo = 10^3 , Mega = 10^6 and Tera = 10^{12} .

A set of special symbols was used in the tables of this book. The representation of these symbols are:

- (0.0) Less than 0.05**
- (-) Nil**
- (J1) Those parts of Jerusalem, which were annexed forcefully by Israel in 1967.**

Main Findings

This section presents the main findings of the report, divided into eight parts to simplify its presentation.

3.1 Energy Imports

The main findings of the report indicate that the total energy imports in the Palestinian Territory in 2006 were estimated to be 43,444.2 TJ. This amount of energy was composed of 3,096,400 MWh of electricity, 143,812 thousand liters of gasoline, 588,355 thousand liters of diesel, 7,635 thousand liters of kerosene, 117,300 tons of liquid petroleum gas, 1,885 tons of oils and lubricants and 6,183 tons of charcoal and wood.

The distribution of total energy imports over time indicates that the highest quantity of energy imports was 4,649.7 TJ in January 2006, and the lowest quantity of energy imports was 2,929.2 TJ in October 2006. On the other hand, the distribution of energy imports by region indicates that energy imports were 11,984.3 TJ in the Gaza Strip and 31,459.9 TJ in the West Bank.

Figure 1: Total Imported Energy (Terajoule) in the Palestinian Territory by Month, 2006

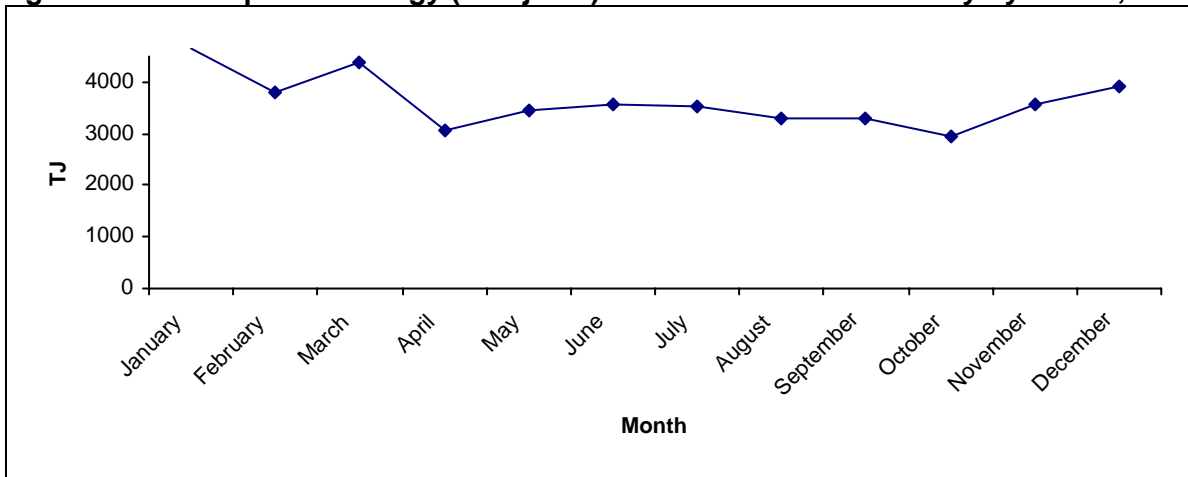
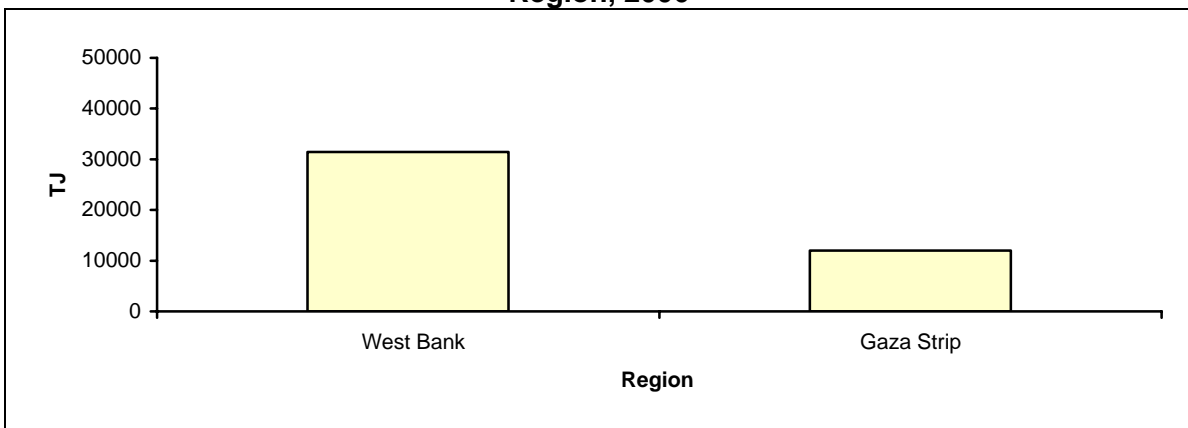


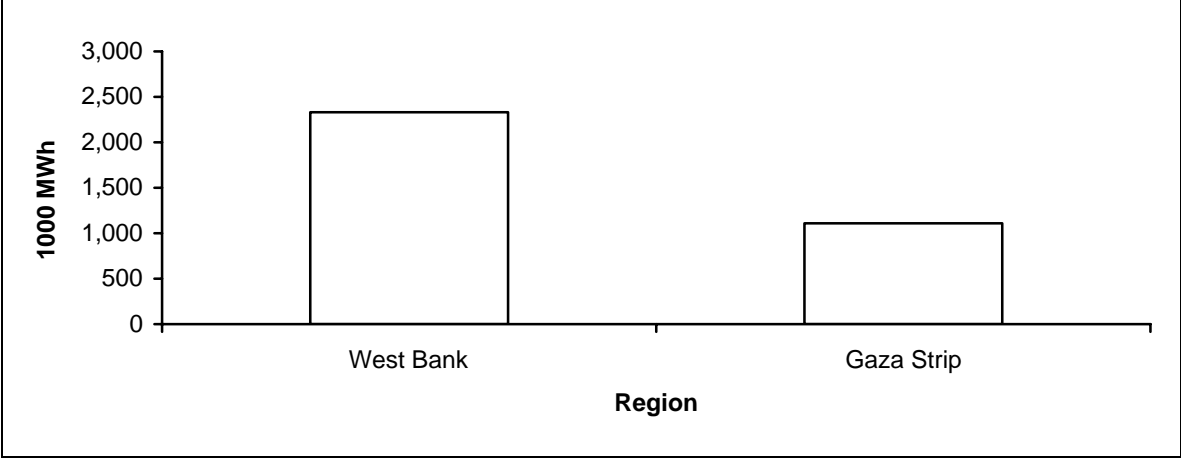
Figure 2: Total Imported Energy (Terajoule) in the Palestinian Territory by Region, 2006



3.2 Purchases of Electrical Energy

Total electrical energy purchases in the Palestinian Territory reached 3,441,700 MWh; 2,331,110 MWh in the West Bank and 1,110,590 MWh in Gaza Strip (765,290 MWh imported from Israel and 345,300 MWh produced by Gaza Power Plant).

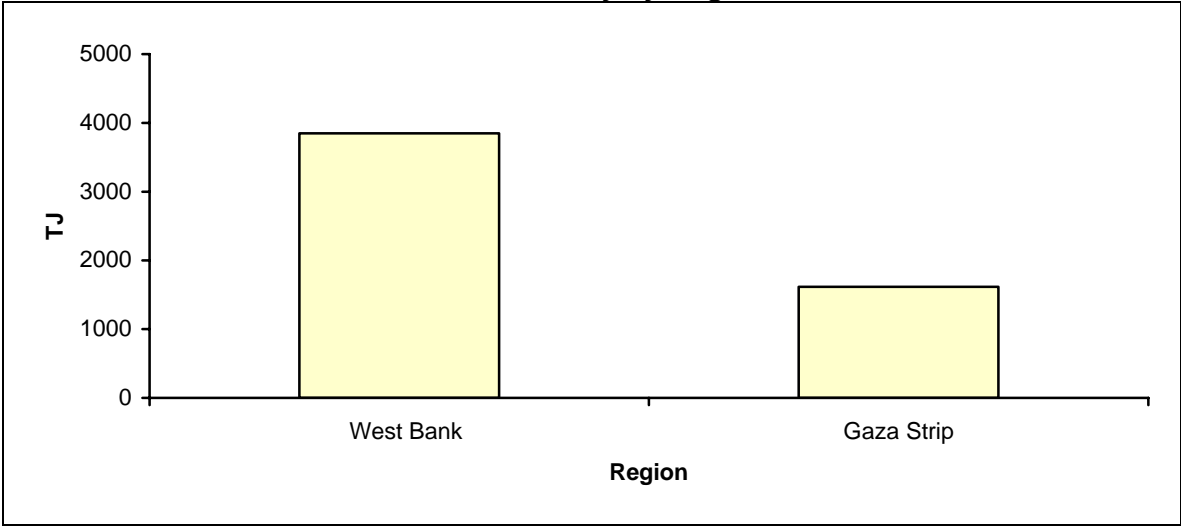
Figure 3: Total Imported Electricity (1000 MWh) in the Palestinian Territory by Region, 2006



3.3 Energy Purchases in the Economic Activities

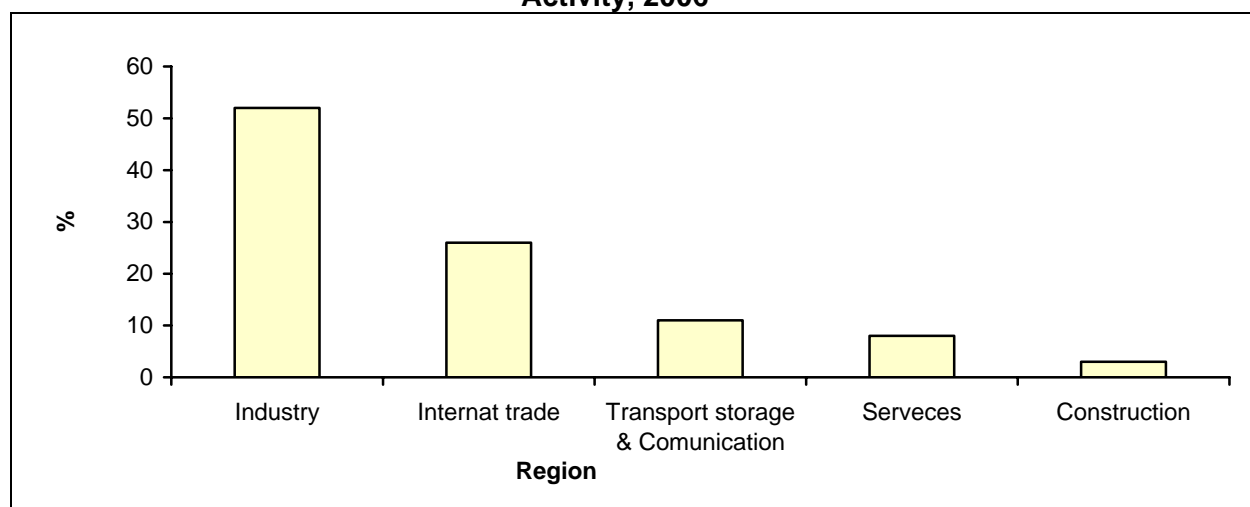
Data indicate that the total energy purchases in economic activities in the Palestinian Territory in 2006 were estimated to be 5,461.3 TJ (3,847.4 TJ in the West Bank and 1,613.9 TJ in Gaza Strip). This amount of energy was composed of 436,042.1 MWh of electricity, 8,940 thousand liters of gasoline, 79,096.9 thousand liters of diesel, 878.5 thousand liters of kerosene, 11,992.2 tons of LPG, 641.1 tons of charcoal and wood and 2,155.9 tons of oils and lubricants.

Figure 4: Total Energy Purchases in Economic Activities (Terajoule) in the Palestinian Territory by Region, 2006



The percentage distribution of energy purchases by economic activity showed that 52.0% of energy purchases were in industry, 26.0% in internal trade, 8.0% in services, 3.0% in construction and 11.0% in transport, storage and communications.

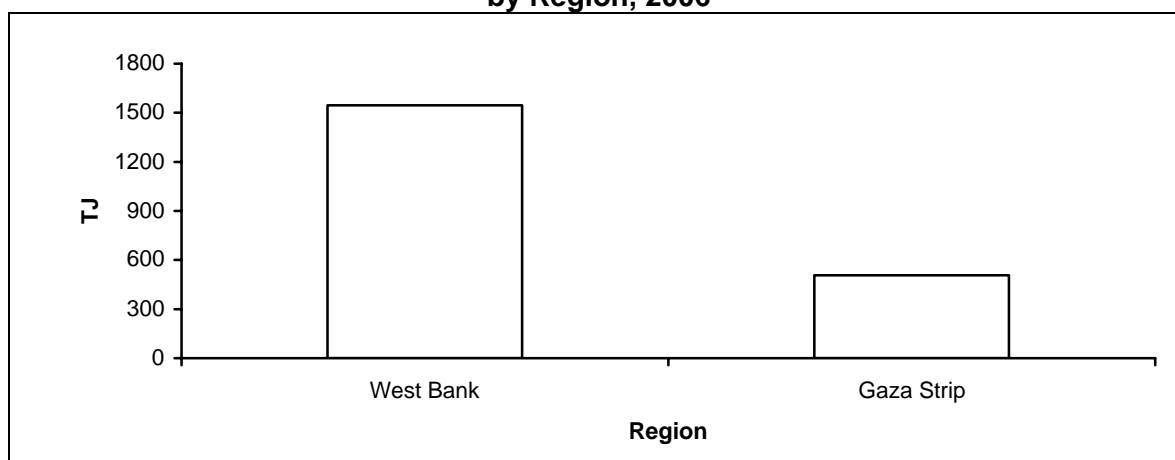
Figure 5: Percentage Distribution of Total Energy Purchases by Economic Activity, 2006



3.4 Energy Used for Transport

The results show that the total energy used for transport in the Palestinian Territory in 2006 was estimated to be 2,051.8 TJ. This amount of energy was composed of 9,795.8 thousand liters of gasoline and 59,294.1 thousand liters of diesel.

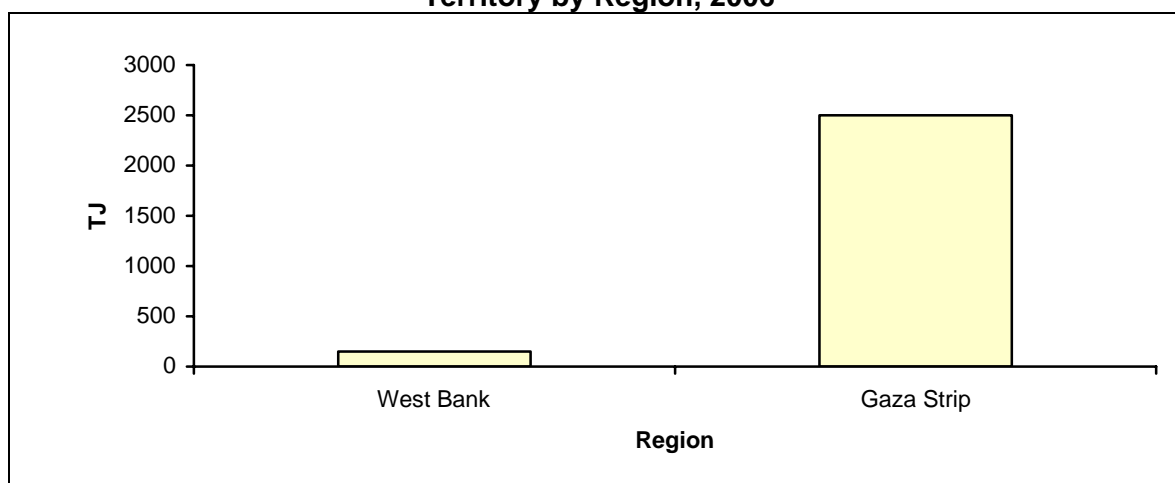
Figure 6: Total Energy Used for Transport (Terajoule) in the Palestinian Territory by Region, 2006



3.5 Energy Used in Electricity Generation

The total energy used in generating electricity in 2006 reached 2,648.3 TJ (2499.3 TJ in Gaza Strip and 149.3 TJ in West Bank). The quantities of fuel used were as follows: 614.9 thousand liters of gasoline, 81,136.2 thousand liters of diesel, 65.7 thousand liters of kerosene, 34.3 tons of LPG and 59.2 tons of oils and lubricants.

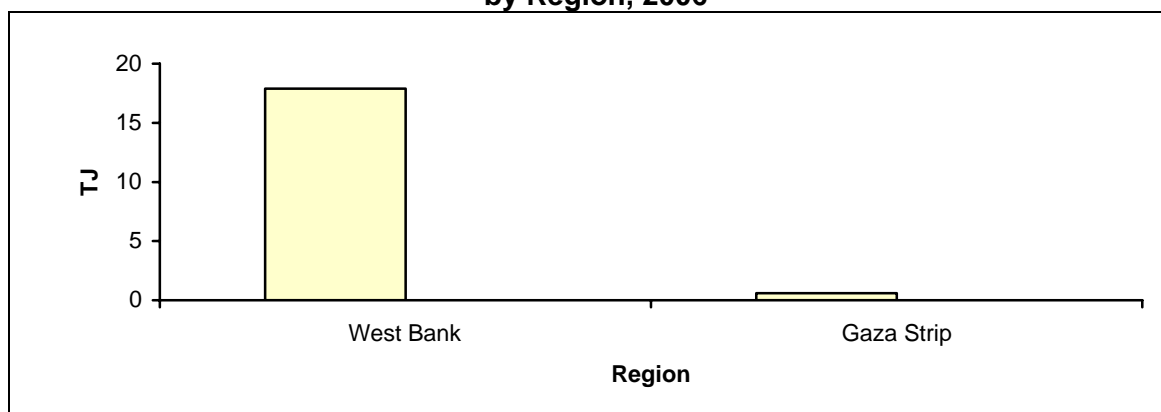
Figure 7: Energy Used for Electricity Production (Terajoule) in the Palestinian Territory by Region, 2006



3.6 Energy Used in Olive Press Establishments

The total energy used in olive press establishments in 2006 reached 18.5 TJ (17.9 TJ in the West Bank and 0.6 TJ in Gaza Strip). The quantities of fuel used were as follows: 1.6 thousand liters of gasoline, 596.9 thousand liters of diesel, 3.9 tons of LPG, and 15.8 tons of oils and lubricants.

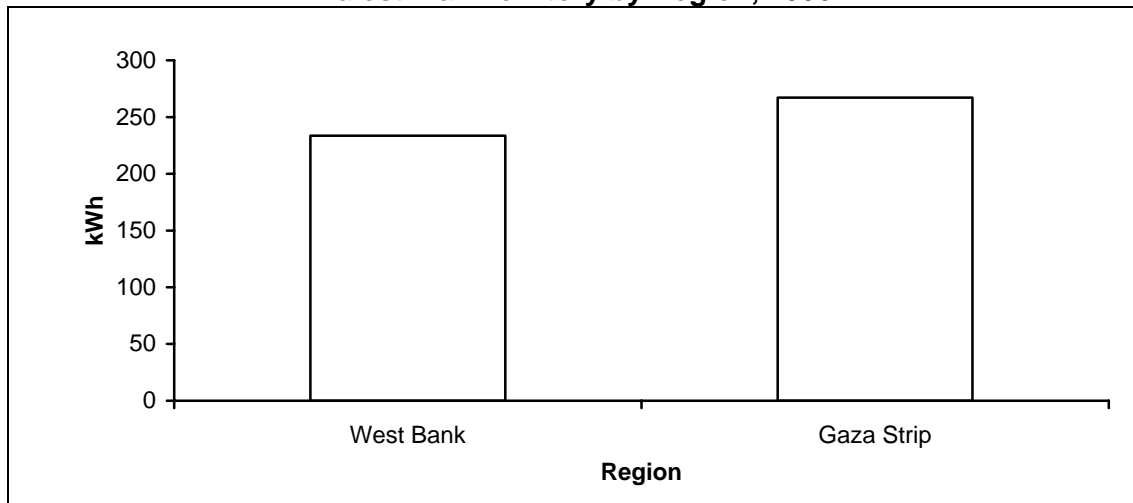
Figure 8: Total Energy Used in Olive Press (Terajoule) in the Palestinian Territory by Region, 2006



3.7 Household Consumption of Energy Types

The average monthly household consumption of electricity in the Palestinian Territory reached 259.6 kWh (233.6 kWh in the West Bank and 267.1 kWh in Gaza Strip). The average household consumption of LPG in the Palestinian Territory reached 16.6 Kg (17.3 Kg in the West Bank and 7.8 in Gaza Strip) and the average household consumption of gasoline reached 14.1 liters.

Figure 9: Average Monthly Household Consumption of Electricity (kWh) in the Palestinian Territory by Region, 2006



3.8 Prices of Energy to Consumer

The price of energy differs between regions due to the full control of Israeli Authority on energy sources for the Palestinian Territory. The average annual price (to the consumer) for different types of energy in the Palestinian Territory were distributed as follows: gasoline 6.01 NIS\ liter, diesel 4.29 NIS\ liter, kerosene 4.35 NIS\ liter, LPG 4.08 NIS\ Kg, charcoal 4.95 NIS\ Kg and 13.68 NIS\ Kg for oils and lubricants.

Chapter Four

Methodology

This section presents documentation of the main characteristics of the methodology used in preparing this report and the methodology used in data collection from the different sources, including the economic survey series, foreign trade statistics, prices statistics, household consumption, expenditure survey, and the Palestinian Energy and Natural Resources Authority.

4.1 Preparing Report Methodology

In the absence of opportunity of implementing an inclusive survey for energy, and because administration records on this subject do not include the whole Palestinian Territory, we depended on the surveys conducted by the PCBS to obtain the data of energy used in preparing this report. The data covers the following forms of energy:

- Electricity
- Petroleum products: diesel, gasoline, kerosene, oils and lubricants, pitumen and LPG
- Wood and charcoal

The energy consumption report in the Palestinian Territory was prepared in physical units; the Joule unit was used also to express some totals. International energy conversion factors were used following the United Nations recommendations to convert the different types of energy into a common energy unit (Joule).

The foreign trade statistics provided data on import of energy forms, and the Palestinian Energy and Natural Resources Authority provided data on purchased electrical energy. The economic surveys provided data about the value of energy purchases, and energy used in transport, energy used in generating electricity. The olive press survey was used to provide data on energy used in olive press establishments, and the household consumption and expenditure survey was used to provide the average monthly consumption of different fuels. The department of price statistics provided the average consumption price for the different energy forms.

4.2 Data Sources

Economic Surveys 2006

The main objective of these surveys is to collect data on the basic economic indicators covering the main economic activities (industry, internal trade, service, transport and storage and communication and construction). Data related to production inputs of goods were used to provide data on energy purchases, energy used in production, and energy used in generating electricity.

Foreign Trade Statistics

The main objective of the foreign trade statistics is to cover data related to the flow of goods to the Palestinian Territory. Foreign trade statistics data were used to obtain data related to the import of the different energy types, excluding the data on electricity which was obtained from the Palestinian Energy and Natural Resources Authority.

Prices Statistics

Through the price statistics program PCBS is gathering data about consumer prices, depending on a complete system covering the ways of gathering prices, resources and its geographical distribution.

The prices data are gathered in the field through personal interviews by a team trained for this purpose, from retail shops and the different service shops in the main cities of the Palestinian Territory.

Palestinian Energy and Natural Resources Authority

The Energy and Natural Resources Authority provides statistics on the electrical energy imports from Israel, and also on diesel used in the electric generation station in Gaza Strip, and also the electric power produced in the station.

Household Consumption and Expenditure Survey

Household Consumption and Expenditure Survey provides many indicators about living conditions in the Palestinian Territory such as expenditure and consumption and includes indicators about expenditure on various energy types.

4.3 Consumption Estimations of the Economic Sectors

Statistical tables for the economical indicators on the forms of energy were requested and these indicators are:

- The value of purchases from the mentioned energy forms (Electricity, Petroleum products, Charcoal and Wood).
- The value used in transport from the mentioned energy forms.
- The value used in electricity generation from the mentioned energy forms.

These indicators are requested through the economic surveys; the data processing changes the sample numbers into numbers representing the whole frame through weighting equilibrium.

Chapter Five

Data Quality

This section provides the most important points concerning the statistical quality for energy consumption in the Palestinian Territory depending on the calculations of the data quality for the surveys and the administration records that were used as sources for this report, in addition to special technical notes which should be taken into consideration.

This chapter is divided into two sections: the first one presents data quality according to the sources; the second section presents the special technical notes concerning the energy balance of the Palestinian Territory.

5.1 Data by Sources

Foreign Trade Statistics

The program for foreign trade statistics has many strong points in the methodology and data processing that are consistent with the international standards and recommendation. The foreign trade statistics in the Palestinian Territory include all goods that are imported or exported. The strength of the foreign trade statistics is in the fact that they provide the real number gathered through total counting of data and is not based on estimates. But it is worth mentioning the following important notes:

- Data excludes the quantities that entered into the Palestinian Territory in illegal cases.
- Data does not cover the quantities that are not included in interchange between Israel and the Palestinian National Authority (about 20% of the total interchange according to Ministry of Finance).
- For Petroleum Products, administrative records of General Petroleum Corporation covers the major part of data related to imports; the other part is covered by value added tax invoices from Ministry of Finance.
- For electricity data, administrative records of the Palestinian Energy Authority were used to provide data on electricity imports in Gaza Strip. In the West Bank, data were compiled from the electricity value added tax invoices for the local communities from the Ministry of Finance.

Economic Surveys 2006

Through dealing with data from economic surveys, the following points should be taken into consideration:

- The response rate of data for these surveys is relatively high if it is compared with the response in other countries. There are some rejections (9.3%) which affect the accuracy of data especially in cases where the rejected establishment has significant weight in its economic activity.
- All data depends on establishment records, and if these records were not available, for small establishments, in most cases, the respondent was asked to give approximate estimates.
- There were many difficulties during data collection in Jerusalem Governorate (J1 area) because of the special political situation of the city, which affects the response rate and data accuracy.

Household Expenditure and Consumption Survey

Since the data reported are based on a sample survey and not on a complete enumeration, they are subject to sampling errors as well as non-sampling errors. Non-statistical errors in general referred to the nature of PECS, which can be summarized as follows:

- Many households considered the specific details of the survey as intervention in their own life.
- Some households thought the survey related to social assistance or to taxes.
- There was hesitation among households in the Jerusalem Governorate (J1 area) in responding because they were worried about Israeli procedures against them if they participate in any Palestinian survey or activity.
- Errors due to non-response because households were away from home or refused to participate.

5.2 Technical Notes

- The energy consumption in the Palestinian Territory covers the import of all petroleum products in the Palestinian Territory, excluding those parts of Jerusalem, which were annexed by Israel in 1967.
- The report covers data related to the main types of energy (electricity, petroleum products and biomass). It is important to note that there are other types of energy (coke, other petroleum products, animal and vegetal residues) that are not included due to the lack of data, and rarity of such energies.
- In all calculations related to Gasoline, we deal with the average of all available types of Gasoline. Also, a common price and conversion factor were used.
- In all calculations related to oils and lubricants, we deal with the average of all available types of oils and lubricants. Also, a common price and conversion factor were used.
- In all calculations related to wood and coal, a convenient conversion factor was taken for each year according to the quantities.
- The ton unit in the tables refers to a metric ton.
- Diesel data used to produce electricity in Gaza Generation Plant are not included in the purchases of diesel in the economic surveys.

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