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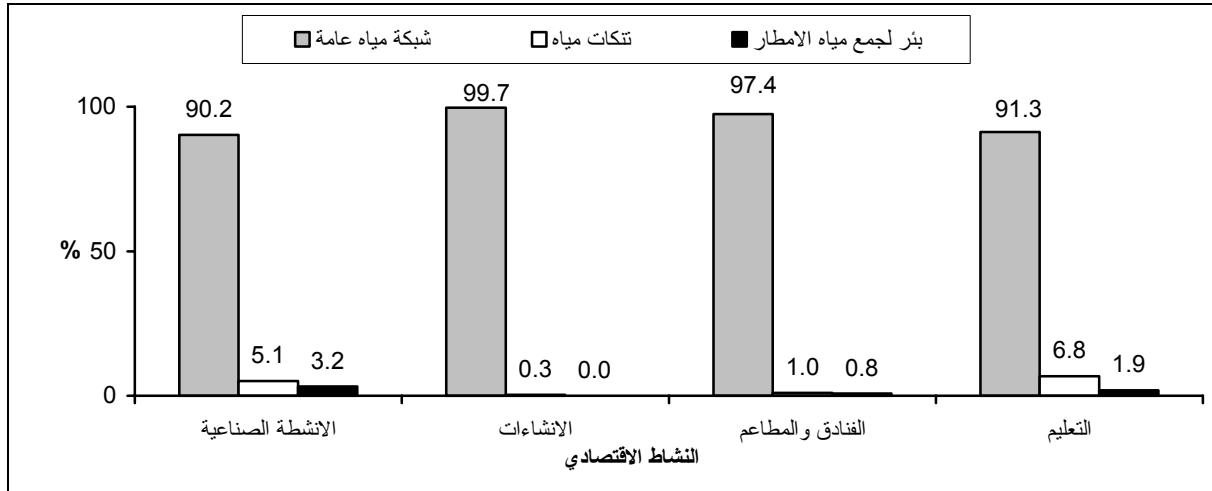
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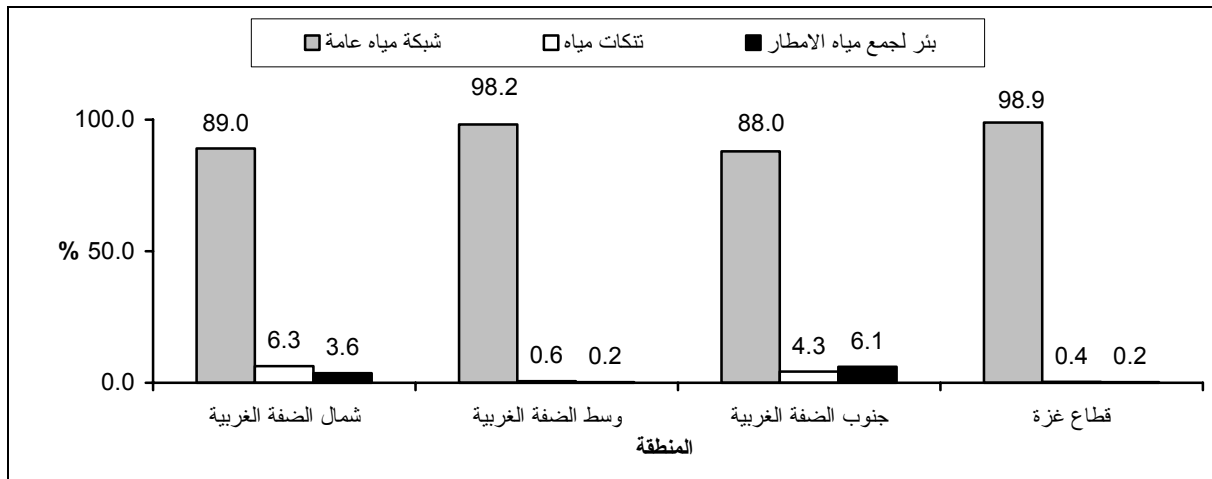
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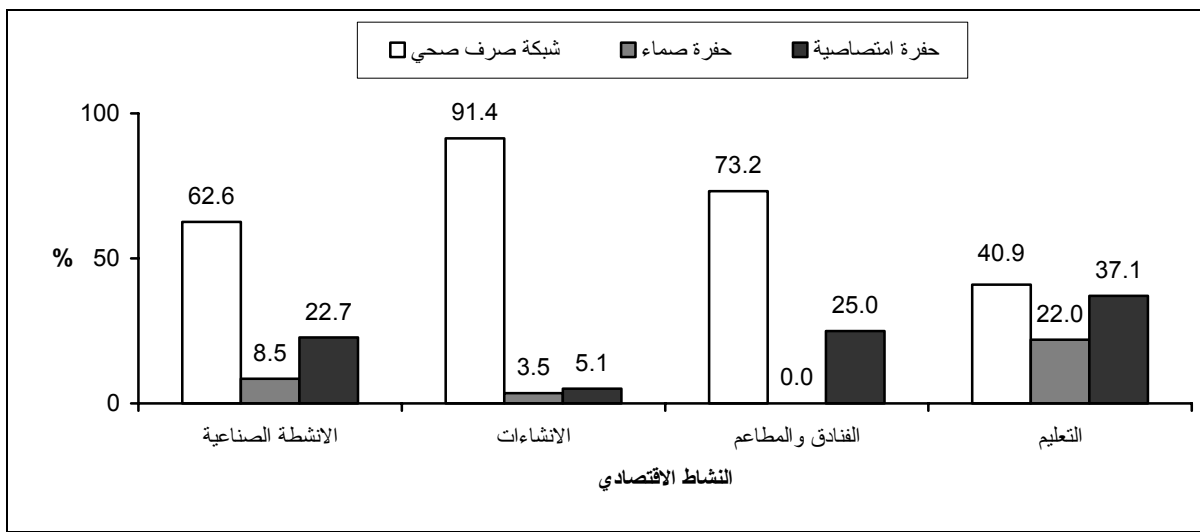
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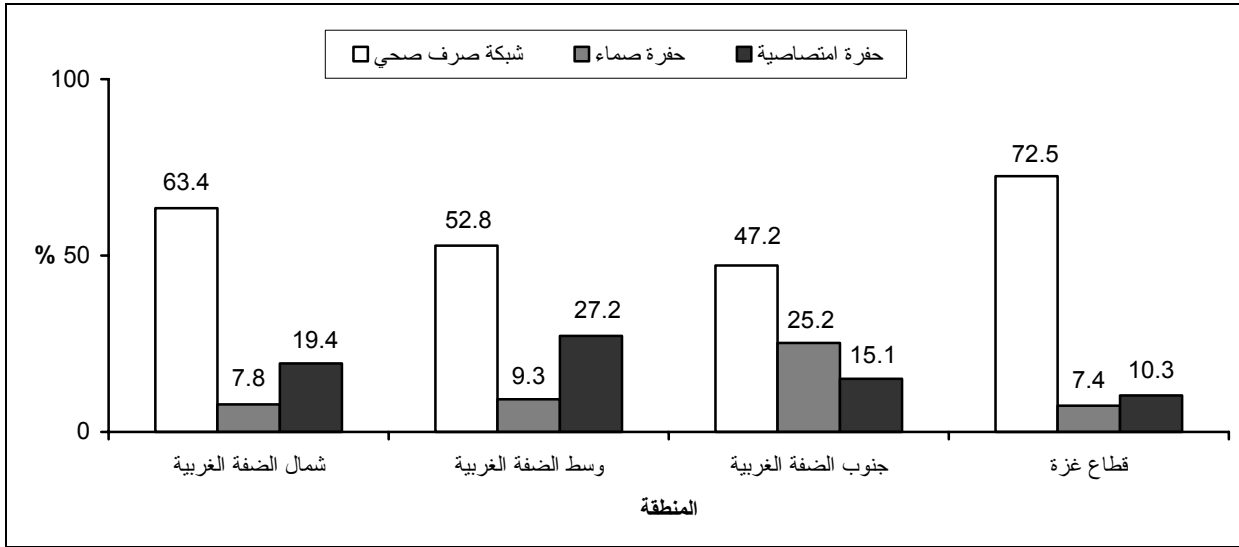
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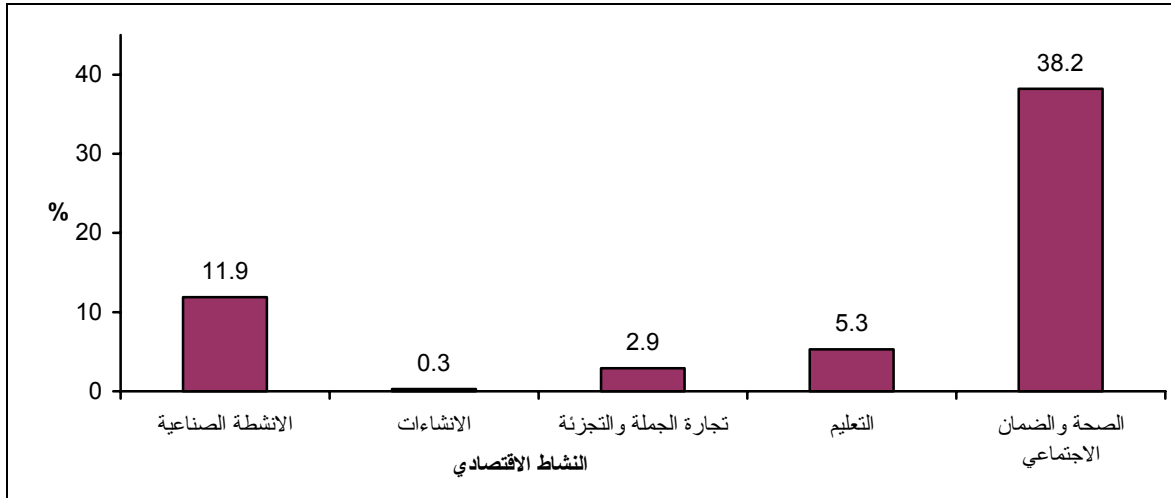
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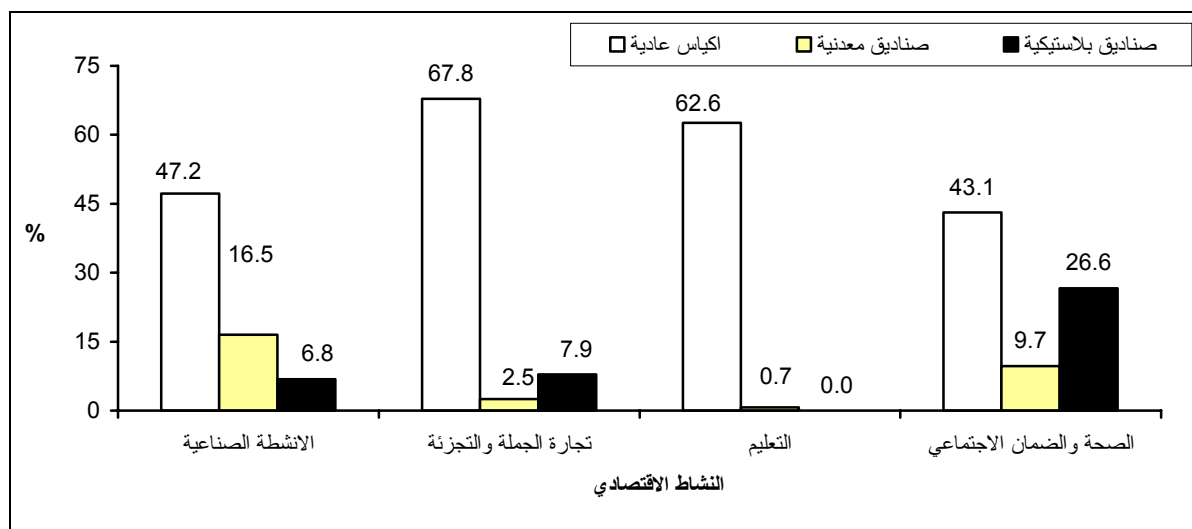
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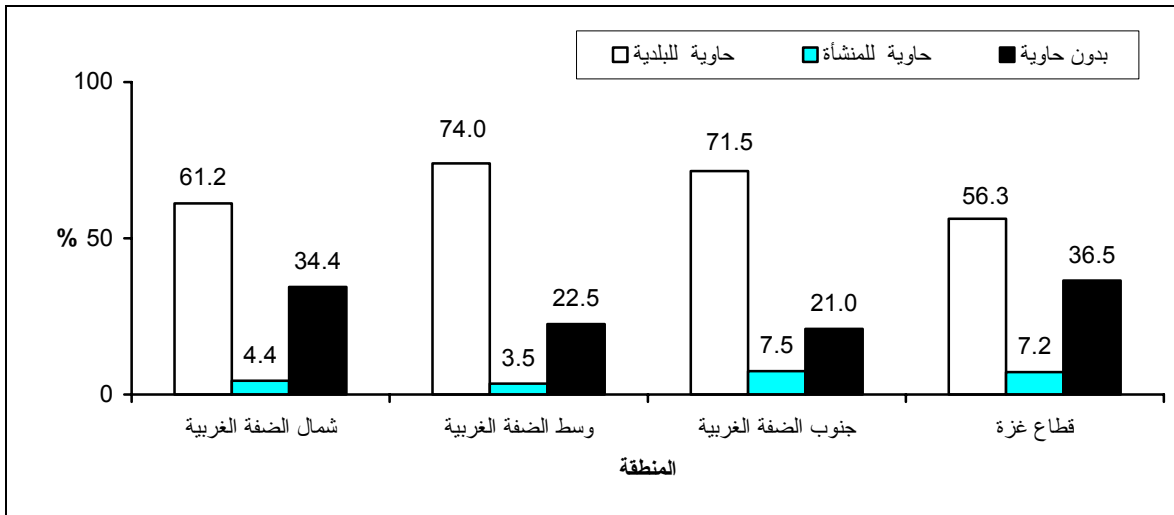
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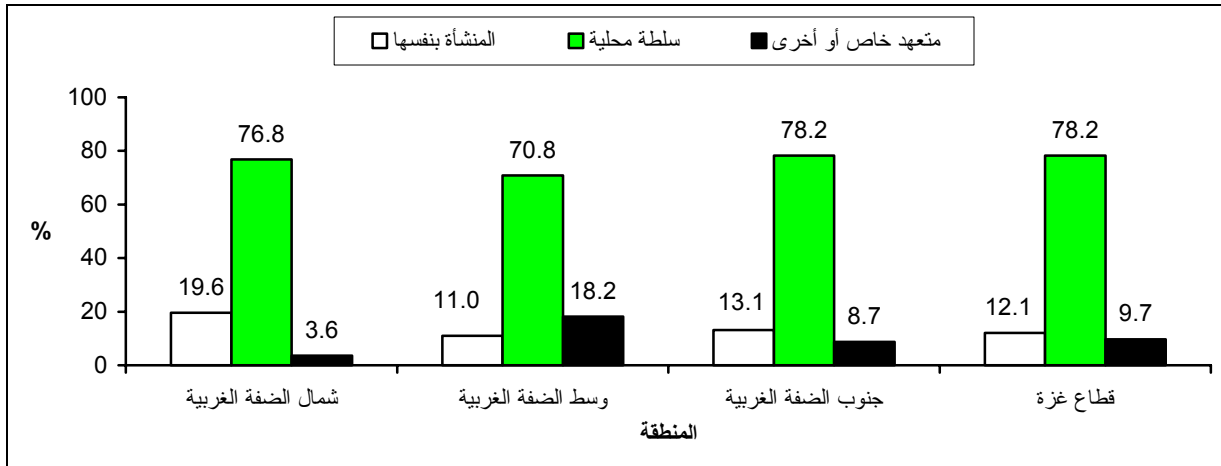
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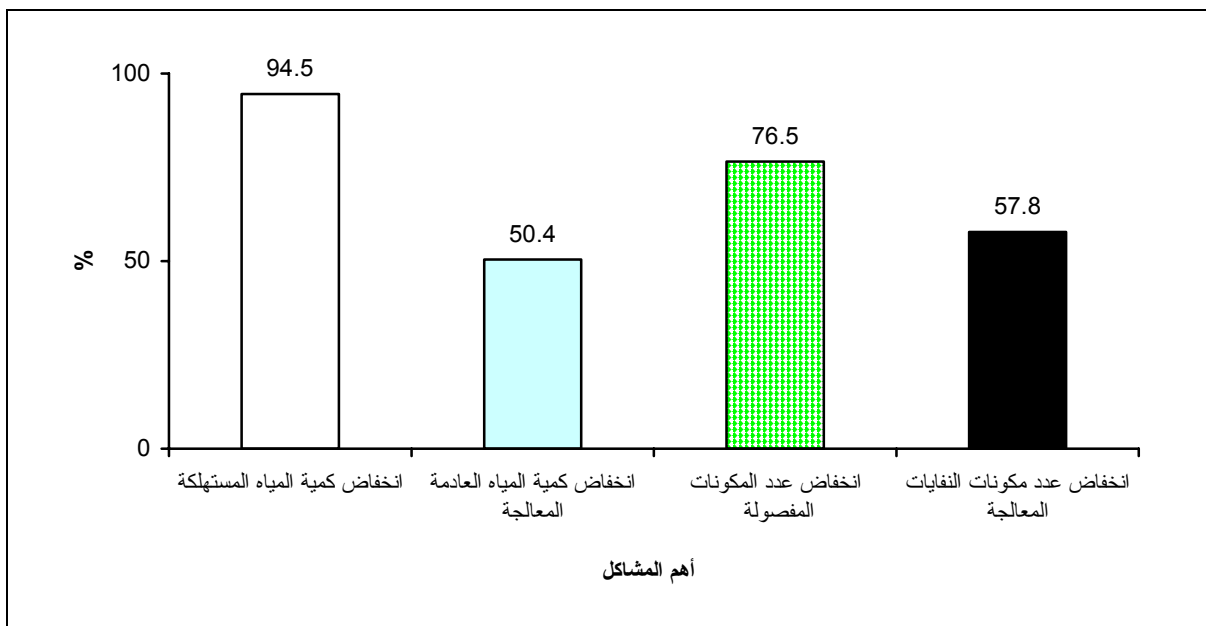
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Tables

Table1: Main Selected Indicators about the Activity of the Economic Establishments in the Palestinian Territory from Environmental Sides for the Years 2003 and 2004

Indicator	2004	2003	
Quantity of monthly consumed water (1000 m³)	1146.5	937.9	(³ 1000)
Means of obtaining water for normal uses			
Water network	93.6	93.2	
Water tanks	3.0	1.3	
Collection rain water well	2.4	4.1	
Others	1.0	1.4	
Normal wastewater disposal method			
Wastewater network	67.9	72.7	
Tight cesspit	8.1	3.6	
Porous cesspit	20.2	23.6	
Others	3.8	0.1	
Solid waste separation existence	7.4	9.6	
Component of separated solid Waste			
Paper & cartons	24.2	16.3	
Plastic & rubber	9.8	10.0	
Glass & metal	16.0	14.8	
Soil & stones	11.8	19.7	
Food Waste	13.1	22.4	
Medical Waste	20.5	14.9	
Chemical Waste	4.6	1.9	
Doer of solid waste Disposal			
The establishment	14.5	19.4	
Local Authority	76.1	76.1	
Private contractor	1.9	0.9	
Others	7.5	3.6	

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Table 2: Quantity of Consumed Water in the Economic Establishments in the Palestinian Territory by Economic Activity and Year

Units in thousand cubic meter/month

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Economic activity	Quantity of consumed water	
	2004	2003
Palestinian Territory	1,146.5	937.9
Industrial activities	395.5	413.4
Constructions	59.3	12.7
Whole sale, retail & repairs	323.8	252.2
Hotels & restaurants	123.4	59.3
Transport, storage & communications	16.5	6.3
Real estate, renting & business activities	36.1	27.7
Education	36.9	50.7
Health & social work	88.0	74.5
Community, social & personal services	67.0	41.1

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Table 3: Quantity of Consumed Water in the Economic Establishments in the Palestinian Territory by Region and Year

Units in thousand cubic meter/month

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Region	Quantity of consumed water	
	2004	2003
Palestinian Territory	1,146.5	937.8
West Bank	733.9	677.2
North of West Bank	138.6	216.2
Middle of West Bank	440.7	311.7
South of West Bank	154.6	149.3
Gaza Strip	412.6	260.6

Table 4: Percent Distribution of Economic Establishments in the Palestinian Territory by Means of Obtaining Water, Economic Activity and Year

Economic activity	Others		Collection water well		Water tanks		Water network	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	1.0	1.4	2.4	4.1	3.0	1.3	93.6	93.2
Industrial activities	1.5	3.2	3.2	5.4	5.1	0.1	90.2	91.3
Constructions	0.0	0.5	0.0	1.4	0.3	0.4	99.7	97.7
Whole sale, retail & repairs	1.2	1.3	2.3	5.3	2.4	2.3	94.1	91.1
Hotels & restaurants	0.8	0.1	0.8	0.0	1.0	0.2	97.4	99.7
Transport, storage & communications	0.0	1.2	0.0	3.1	2.7	0.6	97.3	95.1
Real estate, renting & business activities	1.4	0.0	0.8	0.0	0.0	0.0	97.8	100.0
Education	0.0	0.0	1.9	2.3	6.8	0.1	91.3	97.6
Health & social work	0.1	0.1	2.9	0.3	2.2	0.6	94.8	99.0
Community, social & personal services	0.0	0.0	3.0	2.4	3.3	0.0	93.7	97.6

Table 5: Percent Distribution of Economic Establishments in the Palestinian Territory by Means of Obtaining Water, Region and Year

Region	Others		Collection water well		Water tanks		Water network	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	1.0	1.4	2.4	4.1	3.0	1.3	93.6	93.2
West Bank	1.1	1.1	3.2	4.5	3.8	1.8	91.9	92.6
North of West Bank	1.1	4.8	3.6	4.5	6.3	4.3	89.0	86.4
Middle of West Bank	1.0	0.1	0.2	0.0	0.6	0.0	98.2	99.9
South of West Bank	1.6	0.0	6.1	8.0	4.3	1.9	88.0	90.1
Gaza Strip	0.5	2.2	0.2	3.2	0.4	0.0	98.9	94.6

Table 6: Percent Distribution of Economic Establishments in the Palestinian Territory by Their Normal Wastewater Disposal Method, Economic Activity and Year

Economic activity	Others		Porous cesspit		Tight cesspit		Wastewater network	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	3.8	0.1	20.2	23.6	8.1	3.6	67.9	72.7
Industrial activities	6.2	0.5	22.7	19.2	8.5	8.3	62.6	72.0
Constructions	0.0	0.0	5.1	16.0	3.5	3.6	91.4	80.4
Whole sale, retail & repairs	4.2	0.0	20.1	29.7	9.3	0.0	66.4	70.3
Hotels & restaurants	1.8	0.0	25.0	9.9	0.0	0.0	73.2	90.1
Transport, storage & communications	0.0	1.6	15.6	13.3	0.5	3.1	83.9	82.0
Real estate, renting & business activities	0.0	0.0	13.8	14.0	1.7	2.9	84.5	83.1
Education	0.0	0.0	37.1	27.1	22.0	9.5	40.9	63.4
Health & social work	0.0	0.0	14.9	14.5	7.2	8.2	77.9	77.3
Community, social & personal services	3.6	0.0	17.7	19.0	6.7	8.1	72.0	72.9

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Table 7: Percent Distribution of Economic Establishments in the Palestinian Territory by Their Normal Wastewater Disposal Method, Region and Year

Region	Others		Porous cesspit		Tight cesspit		Wastewater network	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	3.8	0.1	20.2	23.6	8.1	3.6	67.9	72.7
West Bank	3.8	0.2	23.2	29.0	10.2	4.6	62.8	66.2
North of West Bank	5.3	0.0	20.6	43.2	6.3	0.1	67.8	56.7
Middle of West Bank	2.1	0.0	27.8	16.0	5.5	6.0	64.6	78.0
South of West Bank	3.9	0.4	21.2	31.8	21.0	5.8	53.9	62.0
Gaza Strip	3.5	0.1	11.1	11.5	1.8	1.3	83.6	87.1

2004

Table 8: Percent Distribution of Economic Establishments in the Palestinian Territory by Their Activity Wastewater Disposal Method, Economic Activity, 2004

Economic activity	2004			
	Others	Porous cesspit	Tight cesspit	Wastewater network
Palestinian Territory	10.2	18.5	10.7	60.6
Industrial activities	20.7	15.1	16.0	48.2
Constructions	32.0	1.2	0.0	66.8
Transport, storage & communications	23.1	0.0	1.9	75.0
Real estate, renting & business activities	0.0	24.8	0.0	75.2
Health & social work	0.0	14.3	9.5	76.2

Table 9: Percent Distribution of Economic Establishments in the Palestinian Territory by Their Activity Wastewater Disposal Method, Region and Year

Region	2004							
	Others		Porous cesspit		Tight cesspit		Wastewater network	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	10.2	6.6	18.5	20.5	10.7	8.9	60.6	64.0
West Bank	10.3	5.6	20.7	20.8	11.7	10.8	57.3	62.8
North of West Bank	9.4	1.4	19.4	21.5	7.8	7.4	63.4	69.7
Middle of West Bank	10.7	15.1	27.2	12.2	9.3	22.2	52.8	50.5
South of West Bank	12.5	14.2	15.1	25.5	25.2	14.3	47.2	46.0
Gaza Strip	9.8	10.7	10.3	19.3	7.4	1.0	72.5	69.0

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Table 10: Percent of Economic Establishments in the Palestinian Territory by the Existence of Wastewater Treatment, Region and Year

Region	Existence of wastewater treatment	
	2004	2003
Palestinian Territory	4.1	5.7
West Bank	4.9	7.1
North of West Bank	2.0	2.3
Middle of West Bank	11.7	12.7
South of West Bank	3.1	21.0
Gaza Strip	1.3	0.3

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2004

Table 11: Estimated Monthly Solid Waste Quantity in the Economic Establishments in the Palestinian Territory by Economic Activity, 2004

Economic activity	Estimated quantity of solid waste	
	(/) (Cubic meter /month)	(/) (Ton/month)
Palestinian Territory	5,817.0	84,732.6
Industrial activities	3,962.8	61,290.6
Constructions	12.0	8,445.6
Whole sale, retail & repairs	564.7	4,712.9
Hotels & restaurants	80.0	7,863.6
Transport, storage & communications	132.2	18.2
Real estate, renting & business activities	0.0	573.3
Education	427.1	165.8
Health & social work	561.3	1,499.1
Community, social & personal services	76.9	163.5

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Table 12: Estimated Monthly Solid Waste Quantity in the Economic Establishments in the Palestinian Territory by Region, 2004

Region	Estimated quantity of solid waste	
	(/) (Cubic meter /month)	(/) (Ton/month)
Palestinian Territory	5,817.0	84,732.6
West Bank	5,138.3	75,156.8
North of West Bank	2,325.5	26,972.1
Middle of West Bank	2,487.8	41,328.5
South of West Bank	325.0	6,856.2
Gaza Strip	678.7	9,575.8

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2004

Table 13: Estimated Monthly Separated Quantity of Solid Waste in the Economic Establishments in the Palestinian Territory by Economic Activity , 2004

Economic activity	Estimated quantity of solid waste	
	(/) (Cubic meter/month)	(/) (Ton/month)
Palestinian Territory	103.4	35,792.8
Industrial activities	37.7	33,861.9
Constructions	0.0	1.5
Whole sale, retail & repairs	6.4	1,806.7
Hotels & restaurants	0.0	7.0
Transport, storage & communications	0.8	2.0
Real estate, renting & business activities	0.0	6.0
Education	0.0	7.2
Health & social work	0.9	93.6
Community, social & personal services	57.6	6.9

Table 14: Percent Distribution of Economic Establishments in the Palestinian Territory by Separation of Solid Waste, Region and Year

Region	No separation		Type of separation			
			Partial		Total	
	2004	2003	2004	2003	2004	2003
Palestinian Territory	92.6	90.4	5.8	7.1	1.6	2.5
West Bank	92.9	93.6	6.3	5.0	0.8	1.4
North of West Bank	92.5	94.5	6.8	3.3	0.7	2.2
Middle of West Bank	91.5	88.3	8.3	11.7	0.2	0.0
South of West Bank	95.2	96.4	3.3	2.3	1.5	1.3
Gaza Strip	91.8	82.5	4.2	12.3	4.0	5.2

Table 15: Percent of Economic Establishments in the Palestinian Territory by the Existence of Solid Waste Separation and Economic Activity and Year

Economic activity	Solid waste separation existence	
	2004	2003
Palestinian Territory	7.4	9.6
Industrial activities	11.9	16.8
Construction	0.3	7.7
Whole sale, retail & repairs	2.9	6.1
Hotels & restaurants	5.3	3.1
Transport, storage & communications	5.1	2.1
Real estate, renting & business activities	1.0	0.1
Education	5.3	2.6
Health & social work	38.2	29.6
Community, social & personal services	3.8	2.0

Table 16: Percent Distribution of Economic Establishments in the Palestinian Territory by the Component of Separated Solid Waste, Economic Activity and Year

Economic activity	Chemical Waste		* Medical Waste*		Food Waste		Soil & stones		Glass & metal		Plastic & rubber		Paper & cartons	
	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	4.6	1.9	20.5	14.9	13.1	22.4	11.8	19.7	16.0	14.8	9.8	10.0	24.2	16.3
Industrial activities	2.8	0.0	5.8	0.0	17.0	17.2	14.7	38.6	32.0	10.5	4.9	2.0	22.8	31.7
Constructions	:	0.0	:	0.0	:	38.0	:	28.5	:	14.4	:	14.3	:	4.8
Whole sale, retail & repairs	5.3	0.0	8.7	0.0	23.6	46.4	5.5	0.0	13.2	3.2	5.1	4.0	38.6	46.4
Hotels & restaurants	0.0	0.0	0.0	0.0	27.0	17.8	32.9	17.7	0.6	0.0	6.6	5.5	32.9	59.0
Transport, storage & communications	6.0	20.0	0.0	0.0	9.0	0.0	36.5	0.0	0.0	40.0	3.0	20.0	45.5	20.0
Real estate, renting & business activities	0.0	0.0	0.0	1.4	16.7	48.6	33.3	1.4	0.0	0.0	16.7	0.0	33.3	48.6
Education	0.0	4.4	0.0	60.0	33.6	3.7	16.0	1.6	0.0	6.0	0.0	3.4	50.4	20.9
Health & social work	6.0	0.0	36.7	0.0	5.3	0.0	9.4	0.0	10.5	0.0	15.5	0.0	16.6	0.0
Community, social & personal services	0.0	48.8	0.0	0.0	15.0	49.6	30.1	0.8	8.3	0.0	0.0	0.0	46.6	0.8

• Medical Waste include sharped, infectious and radioactive waste

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Table 17: Percent Distribution of Economic Establishments in the Palestinian Territory by the Component of Separated Solid Waste, Region and Year

Solid Waste component	Gaza Strip		South of West Bank		Middle of West Bank		North of West Bank		West Bank		Palestinian Territory		
	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	
Paper & Cartons	25.9	10.1	30.4	28.2	22.2	23.6	20.1	19.4	23.4	23.4	24.2	16.3	
Plastic & rubber	16.1	7.8	11.0	14.6	2.1	11.5	7.7	12.7	6.6	12.6	9.8	10.0	
Glass & Metal	8.0	12.1	13.2	7.3	17.4	24.1	26.4	17.2	20.0	17.9	16.0	14.8	
Soil & Stones	31.2	27.8	0.1	0.2	3.3	14.5	2.3	12.5	2.2	10.4	11.8	19.7	
Food Waste	8.3	32.2	20.3	14.4	17.0	8.4	11.4	12.6	15.5	11.1	13.1	22.4	
Medical Waste*	6.4	8.2	13.9	33.8	36.8	14.5	28.3	25.5	27.5	22.6	20.5	14.9	*
Chemical Waste	4.1	1.8	11.1	1.5	1.2	3.4	3.8	0.1	4.8	2.0	4.6	1.9	

* Medical Waste include sharped, infectious and radioactive waste

Table 18: Per cent Distribution of Economic Establishments in the Palestinian Territory by the Means Where Separated Solid Waste Put in, Economic Activity and Year

Economic activity	Others		Plastic boxes		Metal boxes		Carton boxes		Special bags		Nylon bags	
	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	6.8	15.3	18.0	22.7	9.5	15.9	4.9	7.1	11.2	14.2	49.6	24.8
Industrial activities	14.8	21.9	6.8	16.2	16.5	15.3	5.1	13.6	9.6	16.7	47.2	16.3
Constructions	:	13.1	:	4.1	:	30.2	:	4.4	:	0.0	:	48.2
Whole sale, retail & repairs	14.1	21.0	7.9	31.6	2.5	26.3	5.2	5.3	2.5	0.0	67.8	15.8
Hotels & restaurants	0.0	0.0	32.9	0.0	0.0	0.8	13.2	1.1	0.0	1.1	53.9	97.0
Transport, storage & communications	36.5	13.9	3.0	13.9	3.0	7.2	0.0	7.7	0.0	0.0	57.5	57.3
Real estate, renting & business activities	0.0	0.0	0.0	0.0	66.7	60.0	0.0	0.0	0.0	40.0	33.3	0.0
Education	0.0	0.0	0.0	49.1	0.7	1.8	0.0	0.0	36.7	1.4	62.6	47.7
Health & social work	0.5	0.7	26.6	19.5	9.7	2.9	4.6	2.4	15.5	34.6	43.1	39.9
Community, social & personal services	0.0	0.0	37.3	0.8	0.5	0.0	0.0	0.0	8.3	0.0	53.9	99.2

2004

Table 19: Percent Distribution of Economic Establishments in the Palestinian Territory by the Means Where Separated Solid Waste Put in and Region, 2004

Region	Others	Plastic boxes	Metal boxes	Carton boxes	Special bags	Nylon bags
Palestinian Territory	6.8	18.0	9.5	4.9	11.2	49.6
West Bank	7.5	16.5	12.2	6.0	14.2	43.6
North of West Bank	5.1	17.7	14.3	10.8	13.8	38.3
Middle of West Bank	13.5	19.0	6.9	1.0	16.0	43.6
South of West Bank	3.5	11.3	15.9	4.8	12.4	52.1
Gaza Strip	5.4	21.0	4.1	2.7	5.1	61.7

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Table 20: Percent Distribution of Economic Establishments in the Palestinian Territory by the Periodicity of Separated Solid Waste Collection, Economic Activity and Year

Economic activity	Periodicity (weekly)					
	7		6 -4		3 1	
	7 times and more		6 -4		From 1 to 3 times	
	2004	2003	2004	2003	2004	2003
Palestinian Territory	7.4	29.6	52.3	44.0	40.3	26.4
Industrial activities	2.1	13.4	43.3	47.4	54.6	39.2
Constructions	0.0	0.0	100.0	53.4	0.0	46.6
Whole sale, retail & repairs	14.1	57.1	54.5	33.3	31.4	9.6
Hotels & restaurants	53.9	4.3	46.1	94.9	0.0	0.8
Transport, storage & communications	6.0	21.7	12.0	41.8	82.0	36.5
Real estate, renting & business activities	0.0	0.0	100.0	20.0	0.0	80.0
Education	0.8	1.8	99.2	96.9	0.0	1.3
Health & social work	5.0	9.0	54.8	55.1	40.2	35.9
Community, social & personal services	1.9	0.0	67.8	2.4	30.3	97.6

Table 21: Percent Distribution of Economic Establishments in the Palestinian Territory by the Periodicity of Separated Solid Waste Collection, Region and Year

Region	Periodicity (weekly) ()					
	7 7 times and more		6 -4		3 1 From 1 to 3 times	
	2004	2003	2004	2003	2004	2003
Palestinian Territory	7.4	29.6	52.3	44.0	40.3	26.4
West Bank	6.7	12.2	36.6	38.9	56.7	48.9
North of West Bank	3.3	0.1	33.4	57.7	63.3	42.2
Middle of West Bank	10.5	1.1	39.3	27.4	50.2	71.5
South of West Bank	6.9	48.5	37.7	35.7	55.4	15.8
Gaza Strip	8.6	44.9	82.8	48.5	8.6	6.6

Table 22 : Percent Distribution of Economic Establishments in the Palestinian Territory by the Transportation Method of Separated Solid Waste, Economic Activity and Year

Economic activity	Both methods		Special tools		Manually	
	2004	2003	2004	2003	2004	2003
Palestinian Territory	1.5	0.3	4.7	10.3	93.8	89.4
Industrial activities	1.3	0.7	11.6	19.9	87.1	79.4
Constructions	0.0	4.4	50.0	36.6	50.0	59.0
Whole sale, retail & repairs	3.1	0.1	5.0	9.5	91.9	90.4
Hotels & restaurants	0.0	3.2	0.0	0.0	100.0	96.8
Transport, storage & communications	0.0	0.0	6.0	13.9	94.0	86.1
Real estate, renting & business activities	0.0	40.0	66.7	40.0	33.3	20.0
Education	0.0	0.0	0.8	1.8	99.2	98.2
Health & social work	1.3	0.2	1.2	0.1	97.5	99.7
Community, social & personal services	0.0	0.0	0.0	0.0	100.0	100.0

Table 23: Percent Distribution of Economic Establishments in the Palestinian Territory by the Transportation Method of Separated Solid Waste, Region and Year

Region	Both methods		Special tools		Manually	
	2004	2003	2004	2003	2004	2003
Palestinian Territory	1.5	0.3	4.7	10.3	93.8	89.4
West Bank	1.9	0.5	4.7	12.9	93.4	86.6
North of West Bank	0.3	0.3	8.1	13.1	91.6	86.6
Middle of West Bank	3.5	0.6	4.1	19.5	92.4	79.9
South of West Bank	2.5	0.7	0.0	0.2	97.5	99.1
Gaza Strip	0.7	0.2	4.5	8.0	94.8	91.8

2004

Table 24: Percent Distribution of Economic Establishments in the Palestinian Territory by the Means Where Non-Separated Solid Waste Put in and Economic Activity, 2004

Economic activity	Others	Plastic boxes	Metal boxes	Carton boxes	Special bags	Nylon bags
Palestinian Territory	0.7	9.5	3.2	6.4	5.3	74.9
Industrial activities	1.0	8.7	13.3	4.3	9.3	63.4
Constructions	0.0	11.3	5.7	0.3	17.8	64.9
Whole sale, retail & repairs	0.5	10.9	1.0	8.9	3.0	75.7
Hotels & restaurants	3.4	6.4	2.9	1.1	4.1	82.1
Transport, storage & communications	0.0	4.1	0.0	0.0	4.8	91.1
Real estate, renting & business activities	0.0	5.2	1.0	3.0	6.9	83.9
Education	0.0	6.6	0.0	1.8	10.1	81.5
Health & social work	1.6	3.7	0.0	1.4	13.0	80.3
Community, social & personal services	0.5	8.4	0.7	0.0	5.9	84.5

Table 25: Percent Distribution of Economic Establishments in the Palestinian Territory by the Means Where Non-Separated Solid Waste Put in, Region and Year

Region	Others	Plastic boxes	Metal boxes	Carton boxes	Special bags	Nylon bags	
Palestinian Territory	0.7	9.5	3.2	6.4	5.3	74.9	
West Bank	0.9	9.1	3.4	6.8	5.3	74.5	
North of West Bank	0.7	9.0	3.2	5.4	1.4	80.3	
Middle of West Bank	0.3	8.9	2.4	6.4	4.9	77.1	
South of West Bank	1.8	9.4	5.1	9.7	12.7	61.3	
Gaza Strip	0.3	10.6	2.7	5.1	5.3	76.0	

Table 26: Percent Distribution of Economic Establishments in the Palestinian Territory by the Transportation Method of Non-Separated Solid Waste, Economic Activity and Year

Economic activity	Both methods		Special tools		Manually		
	2004	2003	2004	2003	2004	2003	
Palestinian Territory	1.2	1.3	2.4	1.8	96.4	96.9	
Industrial activities	3.9	3.1	7.3	4.4	88.8	92.5	
Constructions	7.2	1.7	4.7	3.1	88.1	95.2	
Whole sale, retail & repairs	0.4	1.2	1.1	1.1	98.5	97.7	
Hotels & restaurants	0.9	0.0	1.1	0.2	98.0	99.8	
Transport, storage & communications	0.0	0.7	3.0	1.1	97.0	98.2	
Real estate, renting & business activities	0.0	0.0	1.1	0.0	98.9	100.0	
Education	1.6	0.2	0.2	0.0	98.2	99.8	
Health & social work	0.0	0.0	0.6	2.5	99.4	97.5	
Community, social & personal services	1.2	0.1	2.5	0.0	96.3	99.9	

Table 27: Percent Distribution of Economic Establishments in the Palestinian Territory by the Transportation Method of Non-Separated Solid Waste, Region and Year

Region	Both methods		Special tools		Manually	
	2004	2003	2004	2003	2004	2003
Palestinian Territory	1.2	1.3	2.4	1.8	96.4	96.9
West Bank	1.0	1.8	2.9	1.0	96.1	97.2
North of West Bank	0.6	0.1	2.7	0.3	96.7	99.6
Middle of West Bank	1.1	1.0	3.7	0.5	95.2	98.5
South of West Bank	1.5	4.8	2.3	2.2	96.2	93.0
Gaza Strip	1.8	0.1	1.0	3.7	97.2	96.2

Table 28: Percent Distribution of Economic Establishments in the Palestinian Territory by the Periodicity of Non-Separated Solid Waste Collection, Economic Activity and Region

Economic activity	Periodicity (weekly) ()					
	7 7 times and more		6 -4		3 1 From 1 to 3 times	
	2004	2003	2004	2003	2004	2003
Palestinian Territory	11.7	18.4	44.4	50.0	43.9	31.6
Industrial activities	2.9	7.2	37.1	56.8	60.0	36.0
Constructions	6.5	1.8	40.2	56.3	53.3	41.9
Whole sale, retail & repairs	14.7	25.2	44.1	43.5	41.2	31.3
Hotels & restaurants	31.5	36.0	53.2	51.7	15.3	12.3
Transport, storage & communications	8.8	20.3	47.6	44.2	43.6	35.5
Real estate, renting & business activities	5.7	6.0	41.7	41.7	52.6	52.3
Education	4.3	6.5	73.0	77.9	22.7	15.6
Health & social work	10.1	4.9	45.8	69.1	44.1	26.0
Community, social & personal services	8.6	14.7	59.0	58.1	32.4	27.2

Table 29: Percent Distribution of Economic Establishments in the Palestinian Territory by the Periodicity of Non-Separated Solid Waste Collection, Region and Year

Region	Periodicity (weekly) ()					
	7 7 times and more		6 -4		3 1 From 1 to 3 times	
	2004	2003	2004	2003	2004	2003
Palestinian Territory	11.7	18.4	44.4	50.0	43.9	31.6
West Bank	11.8	15.3	37.4	48.6	50.8	36.1
North of West Bank	11.7	9.3	30.7	41.5	57.6	49.2
Middle of West Bank	13.5	21.2	42.6	63.8	43.9	15.0
South of West Bank	9.6	19.0	43.2	46.5	47.2	34.5
Gaza Strip	11.7	26.1	65.7	53.8	22.6	20.1

2004

Table 30: Percent Distribution of Economic Establishments in the Palestinian Territory by Presence of Solid Waste Treatment, Type of Treatment and Economic Activity, 2004

Economic activity	Type of treatment					Presence of solid waste treatment
	Others	Mechanical treatment	Chemical treatment	Buried	Open burning	
Palestinian Territory	8.1	9.9	11.4	2.7	67.9	1.4
Industrial activities	0.0	23.4	0.6	0.0	76.0	1.6
Constructions	-	-	-	-	-	0.0
Whole sale, retail & repairs	0.0	0.0	0.0	0.0	100.0	0.6
Hotels & restaurants	0.0	0.0	0.0	0.0	100.0	0.7
Transport, storage & communications	-	-	-	-	-	0.0
Real estate, renting & business activities	-	-	-	-	-	-
Education	0.0	0.0	0.0	0.0	100.0	1.0
Health & social work	17.3	9.3	23.9	5.6	43.9	8.9
Community, social & personal services	0.0	0.0	0.0	0.0	100.0	0.6

2004

Table 31: Percent Distribution of Economic Establishments in the Palestinian Territory by Presence of Solid Waste Treatment, Type of Treatment and Region, 2004

Region	Type of treatment					Presence of solid waste treatment	
	Others	Mechanical treatment	Chemical treatment	Buried	Open burning		
Palestinian Territory	8.1	9.9	11.4	2.7	67.9	1.4	
West Bank	9.0	10.7	12.6	2.9	64.8	1.7	
North of West Bank	34.9	24.2	0.6	11.3	29.0	1.0	
Middle of West Bank	0.0	16.3	0.0	0.0	83.7	1.5	
South of West Bank	0.0	0.0	26.3	0.0	73.7	3.1	
Gaza Strip	0.0	2.5	0.0	0.0	97.5	0.5	

2004

Table 32: Percent Distribution of Economic Establishments in the Palestinian Territory by Presence of Solid Waste Treatment, Doer of Treatment and Region, 2004

Economic activity	Doer of treatment		Presence of solid waste treatment	
	Other establishment	The establishment		
Palestinian Territory	7.1	92.9	1.4	
West Bank	7.7	92.3	1.7	
North of West Bank	11.3	88.7	1.0	
Middle of West Bank	17.4	82.6	1.5	
South of West Bank	0.3	99.7	3.1	
Gaza Strip	1.3	98.7	0.5	

2004

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Table 33: Percent Distribution of Economic Establishments in the Palestinian Territory by the Solid Waste Collection Mean Inside the Establishment and Economic Activity, 2004

Economic activity	Without container	Establishment closed container	Establishment open container	Municipality closed container	Municipality open container
Palestinian Territory	29.8	1.7	3.8	9.2	55.5
Industrial activities	28.1	1.4	8.0	9.6	52.9
Constructions	14.6	0.6	8.5	37.5	38.8
Whole sale, retail & repairs	35.3	1.4	2.1	7.7	53.5
Hotels & restaurants	22.2	1.7	2.3	11.6	62.2
Transport, storage & communications	10.4	7.0	14.7	14.7	53.2
Real estate, renting & business activities	11.3	0.0	4.5	17.4	66.8
Education	15.7	2.8	4.9	15.4	61.2
Health & social work	16.2	3.5	4.9	9.7	65.7
Community, social & personal services	23.0	3.2	2.7	9.7	61.4

2004

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Table 34: Percent Distribution of Economic Establishments in the Palestinian Territory by the Solid Waste Collection Mean Inside the Establishment and Region, 2004

Region	Without container	Establishment closed container	Establishment open container	Municipality closed container	Municipality open container
Palestinian Territory	29.8	1.7	3.8	9.2	55.5
West Bank	27.5	1.8	3.1	11.8	55.8
North of West Bank	34.4	1.1	3.3	12.0	49.2
Middle of West Bank	22.5	1.9	1.6	17.5	56.5
South of West Bank	21.0	2.9	4.6	4.8	66.7
Gaza Strip	36.5	1.4	5.8	1.5	54.8

Table 35: Percent Distribution of Economic Establishments in the Palestinian Territory by the Used Container Material Construction, Economic Activity and Year

Economic activity	2004 Others, 2004	Plastic		Metal	
		2004	2003	2004	2003
Palestinian Territory	0.3	8.5	6.3	91.2	93.7
Industrial activities	0.2	10.1	4.2	89.7	95.8
Constructions	0.0	5.7	7.1	94.3	92.9
Whole sale, retail & repairs	0.2	7.3	7.1	92.5	92.9
Hotels & restaurants	0.0	4.4	2.2	95.6	97.8
Transport, storage & communications	0.0	36.3	6.5	63.7	93.5
Real estate, renting & business activities	0.0	8.3	5.9	91.7	94.1
Education	0.0	11.2	18.6	88.8	81.4
Health & social work	0.9	11.0	6.5	88.1	93.5
Community, social & personal services	0.7	8.5	2.7	90.8	97.3

Table 36: Percent Distribution of Economic Establishments in the Palestinian Territory by the Used Container Material Construction, Region and Year

Region	2004 Others, 2004	Plastic		Metal	
		2004	2003	2004	2003
Palestinian Territory	0.3	8.5	6.3	91.2	93.7
West Bank	0.2	8.7	7.1	91.1	92.9
North of West Bank	0.0	6.8	2.9	93.2	97.1
Middle of West Bank	0.6	5.5	4.5	93.9	95.5
South of West Bank	0.2	15.3	12.6	84.5	87.4
Gaza Strip	0.3	8.0	3.8	91.7	96.2

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Table 37: Percent Distribution of Economic Establishments in the Palestinian Territory by The Used Container Volume, Economic Activity and Year

Economic activity	Container volume (m ³) ()							
	12 12 and more		12 -7		6 -4		3 -1	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	1.4	2.4	5.4	11.6	17.1	17.3	76.1	68.7
Industrial activities	1.0	0.2	4.3	6.6	18.8	19.4	75.9	73.8
Constructions	0.3	2.9	1.8	5.9	14.3	24.6	83.6	66.6
Whole sale, retail & repairs	1.9	3.2	6.3	15.9	16.1	17.5	75.7	63.4
Hotels & restaurants	0.0	2.1	5.7	12.8	19.2	21.8	75.1	63.3
Transport, storage & communications	0.4	1.4	2.9	6.9	19.2	15.4	77.5	76.3
Real estate, renting & business activities	1.0	2.9	4.3	8.5	26.0	12.3	68.7	76.3
Education	0.5	0.4	2.8	4.0	12.2	10.5	84.5	85.1
Health & social work	0.9	4.2	4.7	6.9	14.5	14.7	79.9	74.2
Community, social & personal services	2.3	0.0	4.0	2.7	17.5	16.7	76.2	80.6

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Table 38: Percent Distribution of Economic Establishments in the Palestinian Territory by the Used Container Volume, Region and Year

Region	Container volume (m ³) ()							
	12 12 and more		12 -7		6 -4		3 -1	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	1.4	2.4	5.4	11.6	17.1	17.3	76.1	68.7
West Bank	1.9	1.1	6.9	8.6	17.8	15.7	73.4	74.6
North of West Bank	3.6	3.0	11.5	7.5	12.8	21.8	72.1	67.7
Middle of West Bank	1.2	0.5	5.1	9.2	27.2	26.6	66.5	63.7
South of West Bank	0.0	0.3	2.3	8.9	14.3	2.3	83.4	88.5
Gaza Strip	0.2	6.2	0.2	21.3	14.6	22.4	85.0	50.1

2004

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Table 39: Percent Distribution of Economic Establishments in the Palestinian Territory by the Solid Waste Collection Place, Distance Between Establishment and Solid Waste Collection Place and Economic Activity, 2004

Economic activity	() Distance between establishment and the solid waste collection place (m)			Outside establishment	Inside establishment square	Inside establishment building	
	151 and more	150 - 51	50 and Less				
Palestinian Territory	3.5	11.4	85.1	43.5	11.6	44.9	
Industrial activities	7.6	8.9	83.5	34.9	17.7	47.4	
Constructions	2.7	13.2	84.1	29.6	35.7	34.7	
Whole sale, retail & repairs	2.4	11.3	86.3	49.5	8.9	41.6	
Hotels & restaurants	6.7	10.1	83.2	39.9	13.9	46.2	
Transport, storage & communications	0.0	1.3	98.7	33.9	10.8	55.3	
Real estate, renting & business activities	0.0	12.2	87.8	34.5	7.1	58.4	
Education	0.2	19.1	80.7	41.0	26.6	32.4	
Health & social work	4.2	15.8	80.0	34.0	13.1	52.9	
Community, social & personal services	5.4	15.3	79.3	38.0	7.9	54.1	

2004

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Table 40: Percent Distribution of Economic Establishments in the Palestinian Territory by the Waste Collection Place, Distance Between Establishment and Waste Collection Place and Region, 2004

Region	() Distance between establishment and the solid waste collection place (m)			Outside establishment	Inside establishment square	Inside establishment building	
	151 and more	150 – 51	50 and Less				
Palestinian Territory	3.5	11.4	85.1	43.5	11.6	44.9	
West Bank	3.0	9.5	87.5	39.8	13.5	46.7	
North of West Bank	5.3	7.4	87.3	29.3	11.0	59.7	
Middle of West Bank	2.9	9.7	87.4	41.0	15.0	44.0	
South of West Bank	0.9	11.5	87.6	57.2	16.2	26.6	
Gaza Strip	4.6	15.4	80.0	54.5	5.8	39.7	

Table 41: Percent Distribution of Economic Establishments in the Palestinian Territory by the Doer of Solid Waste Disposal, Economic Activity and Year

Economic activity	Others		Private contractor		Local Authority		The establishment	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	7.5	3.6	1.9	0.9	76.1	76.1	14.5	19.4
Industrial activities	8.3	4.8	3.9	2.0	65.4	63.9	22.4	29.3
Constructions	2.8	2.3	3.1	1.9	78.7	74.0	15.4	21.8
Whole sale, retail & repairs	5.8	3.9	1.4	0.0	80.4	78.8	12.4	17.3
Hotels & restaurants	13.6	2.5	4.3	0.0	62.6	79.3	19.5	18.2
Transport, storage & communications	12.1	3.5	3.1	0.6	74.8	79.7	10.0	16.2
Real estate, renting & business activities	10.1	0.0	1.1	4.0	72.9	87.0	15.9	9.0
Education	7.8	2.0	0.3	1.8	83.1	84.0	8.8	12.2
Health & social work	6.7	1.0	0.3	1.5	82.1	77.6	10.9	19.9
Community, social & personal services	16.7	3.9	1.3	2.3	71.3	83.5	10.7	10.3

Table 42: Percent Distribution of Economic Establishments in the Palestinian Territory by the Doer of Solid Waste Disposal, Region and Year

Region	Others		Private contractor		Local Authority		The establishment	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	7.5	3.6	1.9	0.9	76.1	76.1	14.5	19.4
West Bank	6.9	2.3	2.4	0.9	75.3	82.4	15.4	14.4
North of West Bank	3.1	1.2	0.5	0.0	76.8	89.0	19.6	9.8
Middle of West Bank	14.2	0.5	4.0	0.7	70.8	88.6	11.0	10.2
South of West Bank	4.9	5.1	3.8	2.4	78.2	68.8	13.1	23.7
Gaza Strip	9.2	6.8	0.5	0.7	78.2	60.8	12.1	31.7

Table 43: Percent Distribution of Economic Establishments in the Palestinian Territory by the Solid Waste Final Disposal Place, Economic Activity and Year

Economic activity	Others		Disposed randomly		Private dumping site		Local Authority dumping site	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	4.5	2.8	2.6	3.0	11.2	4.1	81.7	90.1
Industrial activities	7.6	11.7	6.6	3.4	16.4	8.9	69.4	76.0
Constructions	0.6	0.3	3.5	2.7	9.7	4.2	86.2	92.8
Whole sale, retail & repairs	3.3	0.0	1.8	3.7	9.6	3.0	85.3	93.3
Hotels & restaurants	3.1	0.0	2.1	2.7	20.7	0.1	74.1	97.2
Transport, storage & communications	5.9	0.8	0.0	2.0	10.2	3.3	83.9	93.9
Real estate, renting & business activities	6.8	4.0	2.1	0.0	4.5	0.0	86.6	96.0
Education	4.1	0.0	0.8	1.8	5.2	4.9	89.9	93.3
Health & social work	5.2	1.4	0.0	0.0	9.2	1.5	85.6	97.1
Community, social & personal services	5.6	0.0	0.0	2.0	12.5	2.3	81.9	95.7

Table 44: Percent Distribution of Economic Establishments in the Palestinian Territory by the Solid Waste Final Disposal Place, Region and Year

Region	Others		Disposed randomly		Private dumping site		Local Authority dumping site	
	2004	2003	2004	2003	2004	2003	2004	2003
Palestinian Territory	4.5	2.8	2.6	3.0	11.2	4.1	81.7	90.1
West Bank	5.7	2.3	2.5	3.2	13.2	3.7	78.6	90.8
North of West Bank	1.8	1.2	2.4	3.0	7.9	4.2	87.9	91.6
Middle of West Bank	13.2	1.0	2.5	3.3	24.6	0.2	59.7	95.5
South of West Bank	3.7	4.6	2.8	3.4	9.0	5.7	84.5	86.3
Gaza Strip	1.1	4.4	2.6	2.5	5.5	4.7	90.8	88.4

Table 45: Percent Distribution of Economic Establishments in the Palestinian Territory by Effect of Al-Aqsa Intifada on the Consumed Water Quantity, Region and Year

Region	Type of effect				Presence of intifada effect	
	Consumed water decrease		Consumed water increase			
	2004	2003	2004	2003	2004	2003
Palestinian Territory	94.5	98.8	5.5	1.2	16.3	15.1
West Bank	93.3	99.2	6.7	0.8	14.2	15.5
North of West Bank	91.6	96.9	8.4	3.1	12.7	6.6
Middle of West Bank	90.2	99.3	9.8	0.7	14.7	17.5
South of West Bank	99.1	100.0	0.9	0.0	16.4	26.1
Gaza Strip	96.7	97.8	3.3	2.2	22.3	14.0

Table 46: Percent Distribution of Economic Establishments in the Palestinian Territory by Effect of Al-Aqsa Intifada on the Wastewater Treatment, Region and Year

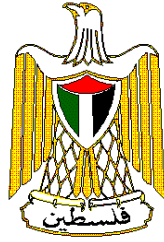
Region	Type of effect				Presence of intifada effect	
	Treatment process paused		Treated quantity decrease			
	2004	2003	2004	2003	2004	2003
Palestinian Territory	49.6	34.5	50.4	65.5	0.4	0.5
West Bank	35.1	34.8	64.9	65.2	0.3	0.6
North of West Bank	0.0	0.0	100.0	100.0	0.1	0.9
Middle of West Bank	37.7	96.4	62.3	3.6	0.7	1.0
South of West Bank	100.0	50.0	0.0	50.0	0.1	0
Gaza Strip	67.2	0.0	32.8	100.0	0.7	0

Table 47: Percent Distribution of Economic Establishments in the Palestinian Territory by Effect of Al-Aqsa Intifada on the Solid Waste Separation, Region and Year

Region	Type of effect				Presence of intifada effect	
	Separation process paused		separated components decrease			
	2004	2003	2004	2003	2004	2003
Palestinian Territory	23.5	0.5	76.5	99.5	1.0	1.7
West Bank	23.2	0.8	76.8	99.2	1.2	1.4
North of West Bank	23.2	0.9	76.8	99.1	1.8	1.9
Middle of West Bank	23.4	0.5	76.6	99.5	1.1	2.2
South of West Bank	22.7	-	77.3	-	0.3	-
Gaza Strip	25.7	0.0	74.3	100.0	0.4	2.4

Table 48: Percent Distribution of Economic Establishments in the Palestinian Territory by Effect of Al-Aqsa Intifada on the Solid Waste Treatment, Region and Year

Region	Type of effect				Presence of intifada effect	
	Treatment process paused		Treated components decrease			
	2004	2003	2004	2003	2004	2003
Palestinian Territory	42.2	0.8	57.8	99.2	0.4	0.5
West Bank	42.2	0.8	57.8	99.2	0.5	0.7
North of West Bank	37.4	1.3	62.6	98.7	1.0	0.9
Middle of West Bank	88.9	0.0	11.1	100.0	0.2	1.1
South of West Bank	-	-	-	-	0.0	-
Gaza Strip	0.0	0.0	0.0	100.0	0.0	0



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September, 2004

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All correspondence should be directed to:
Dissemination & Documentation Department/ Division of user services
Palestinian Central Bureau of Statistics
P.O.Box 1647, Ramallah, Palestine.

Tel: (972/970) 2 2406340

Fax: (972/970) 2 2406343

E-mail: diwan@pcbs.pna.org

Web-site: <http://www.pcbs.org>

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On this occasion, the PCBS extends special thanks to the (CFG) for this support.

Note to the Users

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

- (.) Data not available
- (0) less than half of the unit
- (:) Data not available for publishing
- (-) Not available

Preface

The world attention increased to provide environmental statistical data on the economical sector. Providing such data will participate in policy making and legislation that will reduce the pressure on the environment. As in the rest of the world, the attention has greatly increased in Palestine to provide such data after many years of environment negligence and the absence of standards and rules during the period of the Israeli occupation.

This report is one of a series of expected reports to be published by the PCBS on the environment according to the sub master plan for the Environment Statistical Department, as a tool for describing the status of environment in the Palestinian Territory.

This report handles the main results of the economic environmental survey that has been conducted in parallel with the economic surveys series during the period from 20/03/2004 to 10/06/2004.

The main objective of this survey is to provide reliable data of environmental reality on the economic establishments in the Palestinian Territory, including the methods used to handle the solid waste and wastewater. It includes also the role of the local authority in providing the suitable environment that will reduce the negative effect of the different types of pollution on the household sector.

This report presents statistical data of water consumption at the economic establishments by water source, the methods of solid waste disposal and their main components, and the disposal of wastewater.

PCBS hopes that the main findings of this survey will contribute to improve the environmental status and stopping the random depletion of natural resources, in addition to providing reliable and useful statistics for Palestinian planners and decision-makers.

September, 2004

Hasan Abu-Libdeh, Ph.D.
President

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Executive Summary

This survey is based on an economic establishments sample survey, covering the whole economic sectors. It provides data on the main indicators of environment in the economic establishments, including water, management of solid waste and wastewater, beside the effects of the Israeli measures on the establishments during the Al-Aqsa Intifada.

Results of Economical Environmental Survey 2004 show that the quantity of consumed water was 1,147 thousands m³/month in the economical establishments, of which 395.5 thousand cubic meters consumed in the Industrial sector establishments. Also data show that water network is the main sources of obtaining water for activity uses in 88.9% of the establishments in the Palestinian Territory.

Results show that wastewater network is the main method of disposing wastewater for 67.9% of the establishments. Concerning the wastewater treatment, data show that more than 95.9% of establishments do not treat the produced wastewater in their establishments.

Data show that 85 thousand tons and about 6 thousand cubic meter of solid waste produced monthly in the establishments, and more than 92.6% of the establishments do not separate solid waste, in addition to that food waste is the common separated component and most of the produced solid waste collected in normal bags.

Concerning solid waste disposal, data show that more than 59.7% of the Economic Establishments dispose its solid waste more than 4 times a week, and the common solid waste transportation method is the manual one. Also, data show that 98.6% of the establishments do not treat solid waste, and more than 92.9% of the establishments that used the treatment process treat its solid waste by itself.

Data show that, more than 55.5% of the establishments use municipality open container, and the common type of these containers is the metal one. The common solid waste disposal places are the local authority dumping sites.

The establishments faced many problems due to the Israeli destruction of the infrastructure of the Palestinian community during Al-Aqsa intifada, the most important problem was the decrease in the number of separated solid waste components which represents a problem for 94.5% of the establishments.

Chapter One

Introduction

This survey is based on an economic establishments sample survey, covering the whole economic sectors. It provides data on the main indicators of environment in the economic establishments, including water, management of solid waste and wastewater, beside the effects of the Israeli measures on the establishments during the Al-Aqsa Intifada.

1. Sources of water supply in establishments.
2. Establishments solid waste disposal, its components, and its approximate quantity.
3. Wastewater disposal and the existence and use of cesspits in establishments.

This report presents data on various environmental establishments indicators in the Palestinian Territory, and presents statistical data on water consumption for the establishments sector by the water source, the methods of solid waste disposal and their main components, the disposal of wastewater, existence of cesspits.

This report consists of five chapters: the first chapter presents the survey objectives and the report structure, the second chapter describes the definitions and explanations and the third chapter briefly describes the main findings, while the fourth chapter presents the methodology used in the survey, consisting the questionnaire design, sampling design, fieldwork operations and data processing, the last chapter includes an assessment of data quality and technical notes.

Chapter Two

Concepts and Definitions

- Activity Uses of Water:** Using water for industrial and production operations in the establishment
- Activity Wastewater:** The produced wastewater from activity uses of water.
- Wastewater:** Used water, typically discharged into the sewage system. It contains matter and bacteria in solution or suspension.
- Biological Treatment:** Wastewater treatment employing aerobic and anaerobic microorganisms that result in decanted effluents and separate sludge containing microbial mass together with pollutants. Biological treatment processes are also used in combination or in conjunction with mechanical and advanced unit operations.
- Cesspit:** A well or a pit in which night soil and other refuse is stored, constructed with either tight or porous walls.
- Chemical Treatment:** Treatment methods that are used to effect the complete breakdown of hazardous waste in to non-toxic gases or, more frequently, to modify the chemical properties of the waste, for example, through reduction of water solubility or neutralization of acidity or alkalinity.
- Mechanical Treatment:** Wastewater treatment of physical and mechanical nature that results in decanted effluents and Separate Sludge. Mechanical treatment processes are also used in combination with biological and advanced unit operations. Mechanical treatment includes Processes such as sedimentation and flotation.
- Normal Uses of Water:** Using water for cleaning, cooking, washing, etc...in the establishment
- Normal Wastewater:** The produced wastewater from normal uses of water.
- Sewage Network:** System of collectors, pipelines, conduits and pumps to evacuate wastewater (rainwater, domestic and other wastewater) from any of the location paces generation either to municipal sewage treatment plant or to a location place where wastewater is discharged.
- Solid Waste Disposal:** Ultimate deposition or placement of refuse that is not salvaged or recycled.

Waste Collection:

Collection or transport of waste to the place of treatment or discharge by municipal services or similar institutions, or by public or private corporations, specialized enterprises or general government. Collection of municipal waste may be selective, that is to say carried out for a specific type of product, or undifferentiated, in other words, covering all kinds of waste at the same time.

Wastewater Treatment:

Process to render wastewater fit to meet environmental standards or other quality norms. Three broad types of treatment may be distinguished: mechanical, biological, and advanced.

Main Findings

This section presents the main findings of the report, including main environmental indicators of the economic establishments in the Palestinian Territory.

3.1 Water

The economical establishments consumed around 1,147 thousands m³/month

Results show that the consumed water quantities by the establishments in the Palestinian Territory in 2004 was 1,146.5 thousand cubic meters per month, distributed into different types of activities. The water quantity consumed by the industrial sector establishments was 395.5 thousand cubic meters per month comparing with 16.5 thousand cubic meters per month for transport, storage and communication establishments, and the remaining amount was distributed among the other activities. Geographically, the consumed water quantities by the establishments in the West Bank was 733.9 thousand cubic meters per month, and 412.6 thousand cubic meters per month in Gaza Strip.

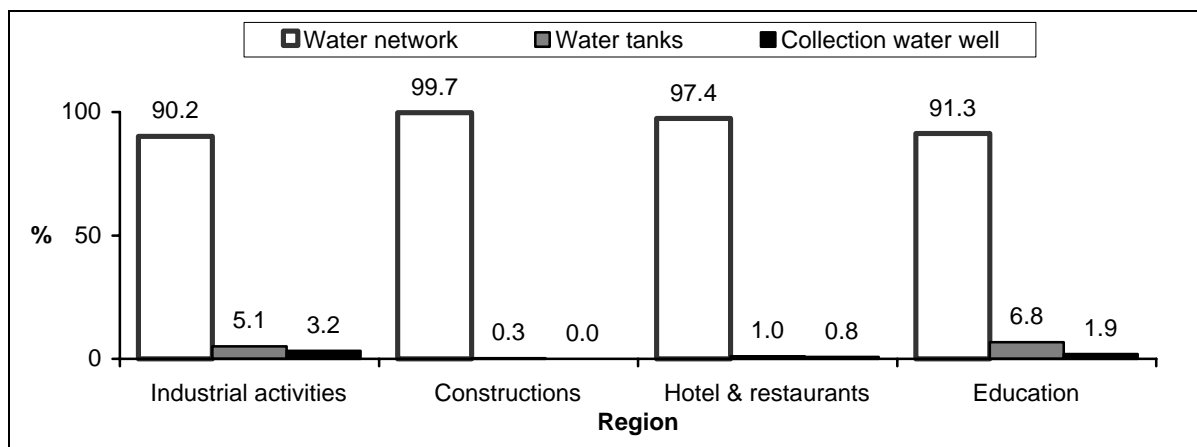
Results show that the consumed water quantities by the establishments in the Palestinian Territory in 2003 was 937.8 thousand cubic meters per month.

Certain establishments show major increase in water consumption quantities between the years 2004 and 2003 due to the extending of their economic activities and adding of new production lines, while other establishments show a reduction in the consumed water quantities which is related to the deterioration of the economic situation, also due to the closure and curfew.

Water network is the sources of water

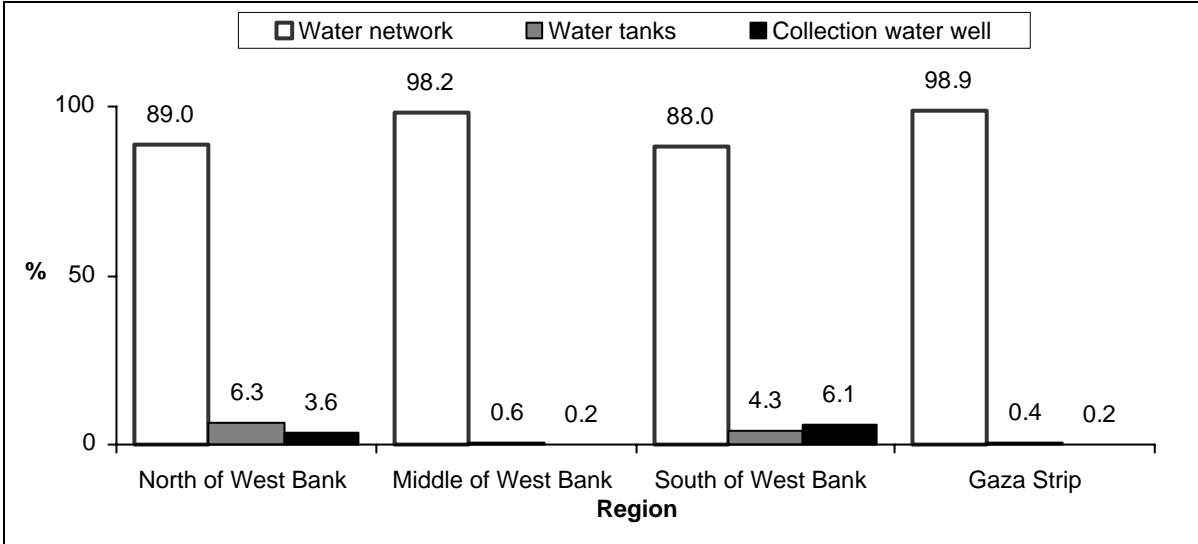
Results show that the main source of obtaining water for normal uses in the establishments in the Palestinian Territory in 2004 was the public water network, which amount 93.6% comparing with 2.4% of the establishments use collection water wells. The percent of establishment that obtain water from the public water network in the industrial activities establishments was 90.2%, and 99.7% of the establishment in the construction sector.

Figure 1: Percent of Establishments in the Palestinian Territory by Means of Obtaining Water for Normal Uses and Economic Activity, 2004



Geographically, The percent of establishments that obtain water from public water network for the normal uses in the West Bank was 91.9% of the establishments, comparing with 98.9% in Gaza Strip. The Middle of West Bank ranked as the first region that obtain water for normal uses from the public water network and amount to 98.2% comparing with 88.0% of establishments in the South of West Bank.

Figure 2: Percent of Establishments in the Palestinian Territory by Means of Obtaining Water for Normal Uses and Region, 2004

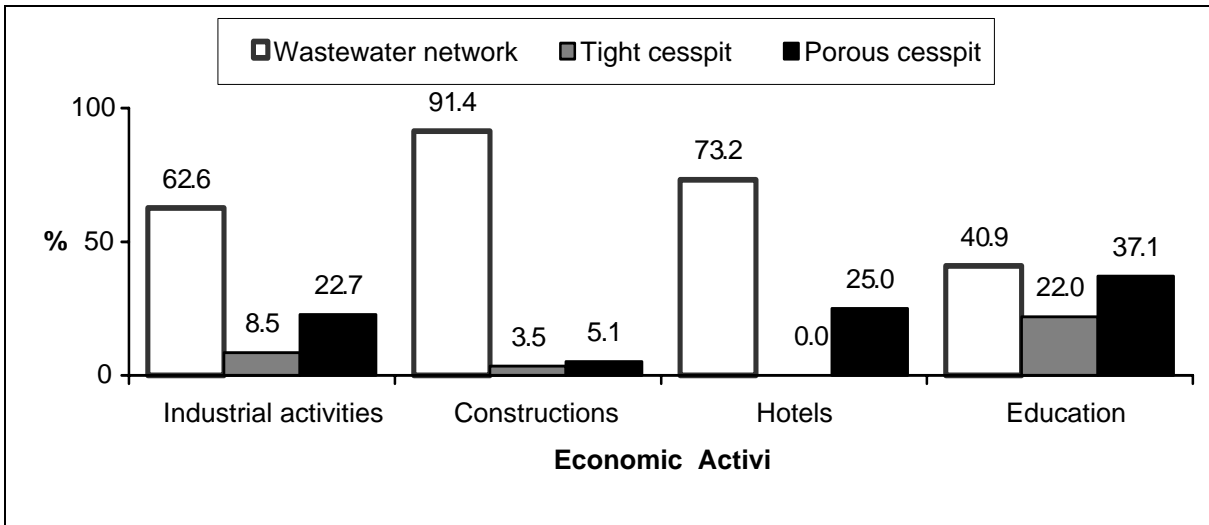


3.2 Wastewater

Wastewater network is the main method of disposing wastewater

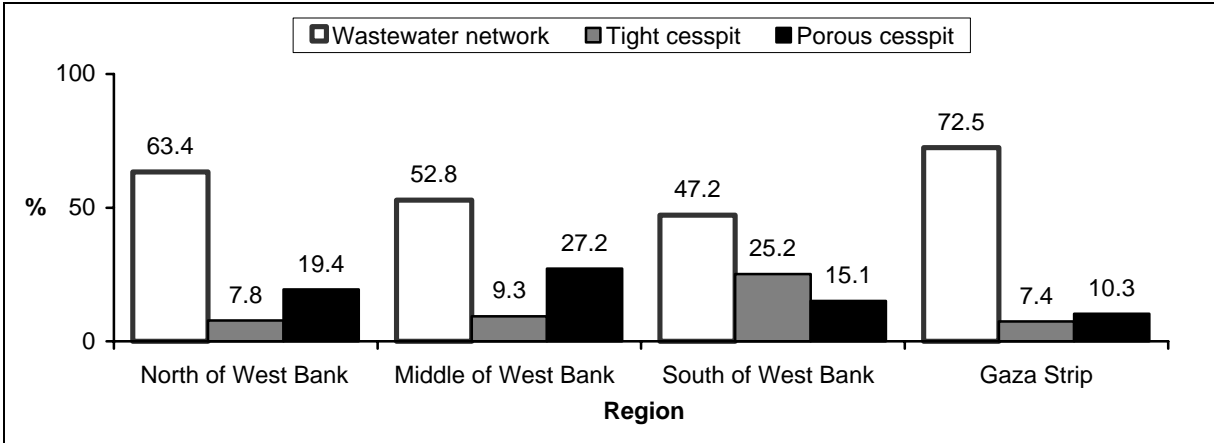
Results show that the percent of establishments in the Palestinian Territory in 2004 year that use wastewater network to dispose normal wastewater was 67.9%, comparing with 20.2% use porous cesspits. The percent of establishment that use wastewater network was distributed in the economical activities as 91.4% for construction and 40.9% for education establishments.

Figure 3: Percent of Establishments in the Palestinian Territory by Their Normal Wastewater Disposal Method and Economic Activity, 2004



Geographically, the percent of establishments that use wastewater network to dispose normal wastewater in the West Bank was 62.8% of the total establishments and 83.6% of the total establishments in Gaza strip. Also, the percent of establishments that use wastewater network to dispose its activity wastewater in the Palestinian Territory was 60.6% of which 57.3% of the total establishments in the West Bank and 72.5% of the total establishments in Gaza strip. In the West Bank region, the percent of establishments that use wastewater network to dispose its activity wastewater was 63.4% of the total establishments in North of West Bank, comparing with 52.8% of the total establishments in the Middle of West Bank and 47.2% of the total establishments in the South of West Bank.

Figure 4: Percent of Establishments in the Palestinian Territory by Activity Wastewater Disposal Method and Region, 2004



More than 95% of establishments do not treat wastewater

The results show that 4.1% of the establishments treat the wastewater produced by it’s activity in the Palestinian Territory in 2004, of which 4.9% of the total establishments in the West Bank and 1.3% of the total establishments in Gaza Strip. The highest percent of establishments that treat its wastewater was in the Middle of West Bank and amount 11.7% of the total establishments comparing with 3.1% of the total establishments in the South of West Bank.

3.3 Solid Waste

Solid Waste Produced Quantities

More than 84 thousand ton of solid waste produced monthly in the establishments

Results show that the monthly produced solid waste quantities from the establishments in the Palestinian Territory in 2004 was 84.7 thousand ton, and 5,817 m³. Most of this quantity was produced from industrial activities establishments which amount 61.3 thousand ton, and 3,963 m³. Comparing with 18.2 ton and 132 m³ in the transport, storage and communication sectors. These quantities distributed into 75.2 thousand ton and 5,138 m³ in the West Bank and 9.6 thousand ton and 679 m³ in Gaza Strip.

Solid Waste Separation

More than 92% of the establishments do not separate solid waste

The percent of establishments that separate solid waste in the Palestinian Territory in 2004 was 7.4% of the establishments, distributed into 38.2% for health and social work activities, and 0.3% for construction establishments. Geographically, these percents distributed to 7.1% of these establishments were in the West Bank and 8.2% in Gaza Strip.

Figure 5: Percent of Establishments in the Palestinian Territory by Presence of Solid Waste Separation for Some Economic Activities, 2004



Paper and cartons waste are the common separated component.

Results show that the paper and cartons waste ranked as the first among the separated solid waste components, with a percent of 24.2% of the economical establishments in the Palestinian Territory in 2004, followed by the medical waste (20.5%) and glass and metal (16.0%). Geographically, separation of medical waste ranks as the first among the separated solid waste components of the total establishments in the West Bank (27.5%), whereas soil and stones rank as the same in Gaza Strip (31.2%).

Plastic bags are widely used in solid waste collection

The percent of the establishments in the Palestinian Territory in 2004 that use plastic bags to put the collected separated solid waste in was 49.6%, comparing with 18.0% of the establishments use plastic boxes. Concerning the non-separated solid waste, the percent of the establishments that use plastic bags to put these wastes in was 74.9%, comparing with 9.5% of the establishments use plastic boxes.

Figure 6: Percent of Establishments in the Palestinian Territory by Separated Solid Waste Collection Means and Economic Activity, 2004



More than half of the economical establishments dispose its solid waste more than 4 times a week.

Data show that 40.3% of establishments in the Palestinian Territory in 2004 dispose separated solid waste less than or equal 3 times a week, comparing with 7.4% of the establishments dispose solid waste more than 7 times a week. Concerning the non-separated solid waste, the percent of the establishments that dispose these wastes less than or equal 3 times a week was 43.9%, comparing with 11.7% of the establishments dispose solid waste more than 7 times a week.

The manual transportation of the solid waste is the common method

Data show that 93.8% of the percent of establishments transport separated solid waste manually in the Palestinian Territory in 2004, comparing with 4.7% of the establishments transport separated solid waste by special tools. While 96.4% of establishment transport the non-separated solid waste manually, comparing with 2.4% of the establishments transport solid waste by special tools.

Solid Waste Treatment

More than 98% of the establishments do not treat solid waste

The results show that the percent of establishments that treat solid waste in the Palestinian Territory in 2004 was 1.4%. This percent is distributed into 1.7% in the West Bank and 0.5% in Gaza Strip. Data show that 67.9% of the establishments in the Palestinian Territory in 2004 use the open burning method in treating the solid waste, where 9.9% of the establishments use the mechanical treatment.

More than 75% of the establishments treat its solid waste by itself

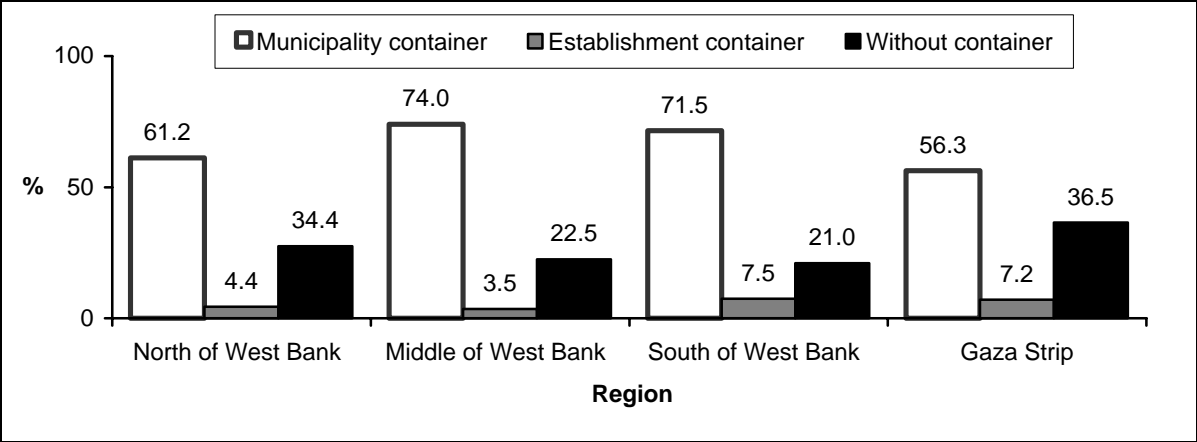
Data show that 92.9% of the establishments that treat solid waste in the Palestinian Territory in 2004 do the treatment by itself, comparing with 7.1% of the establishments say that the treatment process is done by another party. Geographically, these percents are distributed into 92.3% in the West Bank treat its solid waste by it self and 98.7% in Gaza Strip.

Solid Waste Disposal

More than 50% of the establishments use municipality open container

Data show that 55.5% of the establishments in the Palestinian Territory in 2004 use municipality open container for solid waste collection comparing with 29.8% of the establishments do not use containers. The percent of the establishments that use municipality open container for solid waste collection was 55.8% of the total establishments in the West Bank (56.5% of the total establishments in the Middle of West Bank, and 66.7% of the total establishments in the South of West Bank) comparing with 54.8% of the total establishments in Gaza Strip.

Figure 7: Percent Distribution of Establishments in the Palestinian Territory by the Solid Waste Collection Mean and Region, 2004



Metal containers is the common type in solid waste collection

Data show that 91.2% of the establishments in the Palestinian Territory in 2004 use metal containers for solid waste collection, of which 91.1% of the total establishments in the West Bank and 91.7% of the total establishments in Gaza Strip.

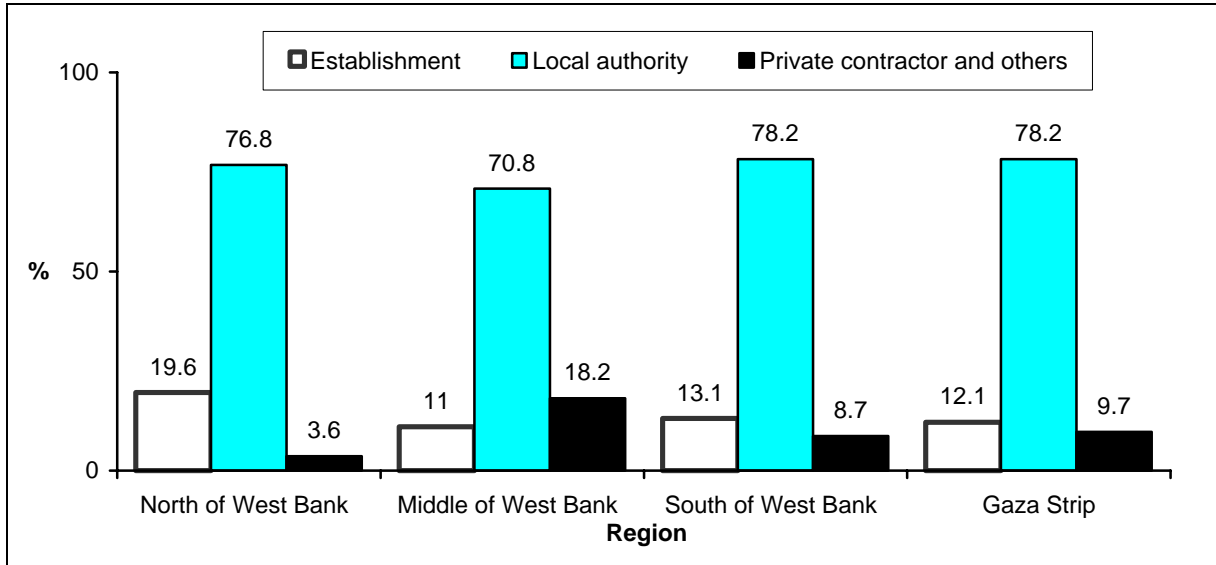
More than 75% of the establishments served by local authority solid waste disposal services

The percent of the establishments in the Palestinian Territory in 2004 that dispose its solid waste by itself was 14.5%, of which 22.4% in the industrial activities establishments, whereas the percent of the establishments which is served by local authority disposal services was 76.1% of which 83.1% in the education activities. Also, data reveal that, 15.4% of the total establishments in the West Bank dispose its solid waste by itself (11.0% of the total establishments in the Middle of West Bank, and 13.1% of the total establishments in the South of West Bank) comparing with 12.1% of the total establishments in Gaza Strip.

Common solid waste disposal places are the local authority dumping sites

Data show that 81.7% of the establishments in the Palestinian Territory in 2004 dispose its solid waste in a local authority dumping sites, of which 89.9% of the education establishments.

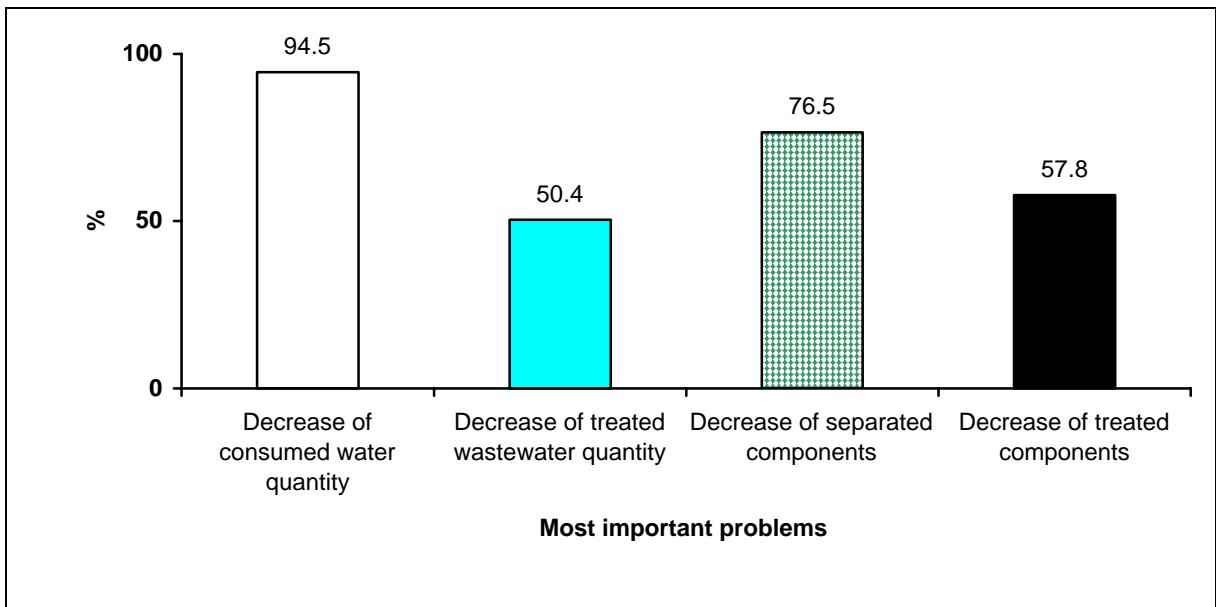
Figure 8: Percent of Establishments in the Palestinian Territory by the Responsible Party for Solid Waste Disposal and Region, 2004



3.4 The Establishments Problems During Al –Aqsa Intifada

Establishments faced many problems due to Israeli destruction of the infrastructure of the Palestinian community during Al–Aqsa intifada, the most important problem was the decreasing of the consumed water which considered as a problem for 94.5% of the establishments, and then reduction of number of separated solid waste (76.5% of the establishment).

Figure 9: Percent of Establishments in the Palestinian Territory by the Most Important Problems During Al-Aqsa Intifada, 2004



Methodology

4.1 Reference Period

The data was collected between 20/03/2004 and 10/06/2004, the reference period during the data collection process was the last month of the fieldworker existence in the establishment for all the data except the periodicity of the solid waste collection, the reference period was the last week of the fieldworker existence in the establishment.

4.2 Questionnaire

The environmental questionnaire was designed according to international standards and recommendations for the most important indicators, taking into account the special situation of Palestine. Many visits for economical establishments were made in order to improve the survey tools and to test the questionnaire before implementing the survey; consequently some modifications were made on the questionnaire and on the instructions following the visits.

4.3 Sample Design

The sample is a single-stage stratified cluster random sample. It was 3,590 Palestinian economic establishments distributed according to the economic activities and governorates.

Target Population

All the Palestinian economic establishments, which included in the Economic Series Survey sample in the Palestinian Territory.

Sample Frame

The sampling frame was based on the Census-1997 conducted by PCBS, which was updated by frame modification survey 2002.

Stratification

Three levels of stratification were followed in designing the sample of the economic Survey including:

1. Stratification by Region: the establishments were classified to regions: West Bank and Gaza Strip
2. Stratification by economic activity.
3. Stratification by employers group.

4.4 Fieldwork

Training Fieldworkers

The field workers were trained on the main skills before the start of data collection. The interviewers were trained on the environmental survey by implementing training courses in three locations in the West Bank and one location in Gaza Strip. Instructions for filling the questionnaire were made available for the interviewers. The trainers provided the participants with aims and definitions of the different indicators of the survey and how to fill in the questionnaire.

Data Collection

Field operations started on 20/03/2004 and lasted until 10/06/2004. The fieldwork team consisted of coordinator and the directors of the fieldwork offices and field workers, and each team consisted of supervisors and five field workers.

4.5 Data Processing

The data processing stage contain of the following operations:

1. Editing before data entry: all questionnaires were edited again in the office using the same instructions adopted for editing in the fields.
2. Data entry: In this stage data were entered into the computer, using Access database. The data entry program was prepared to satisfy a number of requirements such as:
 - Duplication of the questionnaire on the computer screen.
 - Logical and consistency check of data entered.
 - Possibility for internal editing of questions answers.
 - Maintaining a minimum of digital data entry and fieldwork errors.
 - User-Friendly handling.
 - Possibility of transferring data into another format to be used and analyzed using other statistical analytical systems such as SAS and SPSS.

Chapter Five

Data Quality

Two types of errors affect the quality of survey data; sampling and non sampling errors. The sampling errors are measurable, however the non-sampling errors could not be determined easily due to the diversity of sources (e.g. the interviewers, respondent, editor, data entry operator... etc).

However, several measures were adopted to minimize the effects of these errors. The interviewers, editors and coders had undergone intensive training and were provided with fieldwork manuals to consult when facing any problem.

The data entry program was designed in a way that allows error detection and correction. This applies particularly to logical errors that might not be discovered before data entry operations. A consistency check was also performed to assure accuracy after data entry.

Responding rates:

During fieldwork 3,590 establishment were visited in the Palestinian Territory, the end results for the interview become as following:

(2,824)	Completed questionnaires
(472)	Totally closed
(100)	Partially closed
(21)	Not found unit
(51)	Didn't work this year
(47)	Reject to cooperate
(10)	Duplicated
(14)	Closed because of Al-Aqsa intifada
(51)	Other cases

Estimations Procedure:

It is necessary, when calculating the estimations of the survey indicators, to calculate the weights of the establishments. The weight of an establishment is the mathematical inverse of choosing it.

Calculation of Variances:

Variance is change from a variable to another, it depends on:

1. The sample size
2. The actual variance for all the population units
3. the sample design

The variance for a number of variables was calculated using CENVAR

The variables that calculated are:

1. standard error
2. Coefficient of variance = standard error*100% / estimation
3. Effect of sample design
4. 95% confidence interval

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