Republic of Lebanon

Ministry of Environment

Mediterranean Environmental

Technical Assistance Program

REGIONAL SOLID WASTE MANAGEMENT PROJECT
NATIONAL ACTIVITY IN LEBANON

TASK 4: APPLICATION OF THE REGIONAL GUIDELINES FOR SOLID WASTE MANAGEMENT FINANCING AND COST RECOVERY MECHANISMS

COST RECOVERY FOR SOLID WASTE MANAGEMENT IN LEBANON

Final Report
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LIST OF ABBREVIATIONS

CAS	Central Administration for Statistics
CDR	Council for Development and Reconstruction
CoM	Council of Ministers
FCR	Finance and Cost Recovery
GBA	Greater Beirut Area
GDP	Gross Domestic Product
GoL	Government of Lebanon
ISWM	Integrated Solid Waste Management
IWM	Integrate Waste Management
METAP	Mediterranean Environmental Technical Assistance Program
MoE	Ministry of Environment
MoF	Ministry of Finance
MoIM	Ministry of Interior and Municipalities
MU	Municipal Unions
NERP	National Emergency Reconstruction Plan
O&M	Operation and Maintenance
PSP	Private Sector Participation
RSWMP	Regional Solid Waste Management Project in Mashreq and Maghreb Countries
SWEMP	Solid Waste Environmental Management Plan
SWM	Solid Waste Management
WB	The World Bank
WM	Waste Management
WTO	World Trade Organization
VAT	Value Added Tax

1 INTRODUCTION

1.1 THE CONTEXT OF THE PROJECT

The World Bank, as administrator of the Mediterranean Environment Technical Assistance Program (METAP), has mobilized a grant from the Euro-Med SMAP program for the implementation of a *Regional Solid Waste Management Project in Mashreq and Maghreb Countries (RSWMP)*. The overall objective of the project is to promote the adoption of integrated solid waste management in the selected Mediterranean countries, among which Lebanon. The project will provide the necessary tools for designing, developing, and implementing the main elements of ISWM while promoting exchange of information and experiences within the Region in the field of solid waste management.

1.2 THE LOCAL CONTEXT

The Lebanese Ministry of Environment (MoE) has requested from the World Bank that the national activity in Lebanon be tailored towards the elaboration of a legal framework for ISWM in Lebanon while strengthening the capacities in selecting preferred SWM systems and in negotiating private sector contracts.

1.3 THE OBJECTIVES OF THE PROJECT

In this context, the objectives of the national activity are to : (1) develop a legal framework that supports the adoption of ISWM; (2) implement training modules at the national and municipal level for the application and enforcement of the legal framework with focus on capacity development in supervision and monitoring contracts; (3) develop an economic model with relevant implementing tools that assist municipal and national entities in selecting preferred SWM; and (4) assist concerned institutions in selecting and applying two of the World Bank Regional Guidelines for Solid Waste Management in METAP countries, developed by the International Consortium (GTZ – GKW - ERM), the regional consultants for the project.

Based on the needs assessment conducted with the MoE, the Regional Guidelines selected for application included: (i) Financing and Cost Recovery, and (ii) Private Sector Participation. The application of the above mentioned guidelines would take place through on-the-job training of the relevant national or local public authority.

1.4 OBJECTIVE OF THE REPORT

The objective of this report is to present the findings of the training-on-the job exercise conducted with the Ministry of Finance (MoF) aiming at developing a cost recovery system for waste management in the Republic of Lebanon. The exercise was based on the World Bank Regional Guidelines on Financing and Cost Recovery for Solid Waste Management.

1.5 STRUCTURE OF THE REPORT

In addition to this introduction, this report consists of three sections. Section 2 presents the methodology adopted in the on-the-job training exercise. Section 3 approximates the total

costs of waste management in Lebanon and then estimates the recurrent costs that will need to be recovered annually. Section 4 lists and evaluates the current sources for cost recovery in Lebanon: i) the national treasury, ii) municipal budgets and iii) the independent municipal fund. Section 5 presents the potential funds that could be collected to recover the recurrent costs of waste management as was determined through the on-the-job training exercise with the Ministry of Finance. Finally, an evaluation of the cost recovery sources, as well as some recommendations are presented in Section 6.

2 METHODOLOGY

The on-the-job training exercise for developing a cost recovery system for WM with the MoF consisted of:

(i) Estimating the real costs of existing services in Section 3.1,

(ii) Evaluating and selecting preferred WM alternative based on the national strategy,

(iii) Estimating the costs of the preferred alternative projected for a period of ten years in Section 3.2, and

(iv) Review of the existing funding system in Section 4, and

(v) Determining the means through which the cost of the new system could be recovered from the service users in Sections 5 and 6.

The absence of national waste management (WM) strategy and plans, which are supported by a legal framework, rendered steps (ii) and (iii) ineffective. At present, the Government of Lebanon does not present decision-makers with guidance in their choices of WM service areas, service levels, or preferred technologies. This leads to a wide selection of alternatives - all of which have disparate associated costs.

Step (iii) was also deterred by the scarcity of reliable data on the municipal solid waste generation in the country, in addition to discrepancies amongst these few sources. Moreover, few if any sources distinguish between the investment costs and the O&M costs of WM, which reduces the grounds upon which assumptions can be made.

Accordingly, in its computations, this report relies on numerous approximations and assumptions. When no data was found (recent or otherwise), the report relied on benchmark figures for the region and assumptions.

3 ESTIMATED COSTS OF WASTE MANAGEMENT IN LEBANON

This chapter of the report comprises three sections all of which address the costs associated with Waste Management in Lebanon. Section 3.1 presents an overview of the adopted SWM systems and their associated costs based on geographic location. Due to the lack of a national strategy or plan, Section 3.2 attempts to estimate the costs a preferred SWM system for Lebanon and projects these costs for the next ten years (2004 - 2014). The computations used depend on reliable benchmarks, available data and basic assumptions when necessary. Finally, Section 3.3 investigates the scope of affordability of the Lebanese public for SWM services.

3.1 COST OF EXISTING SWM SERVICES IN LEBANON

A brief overview of the METAP region (Table 1, METAP, 2001) demonstrates that the per-capita expenditure on SWM in Lebanon exceeds that of all countries in the region. Also, the unit cost of WM (per capita and per tonne) in Lebanon is significantly higher than that of the other METAP countries.

Table 1. Estimated SWM Expenditures in METAP Countries (1998)

	Lebanon	Syria	Jordan	West Bank /Gaza	Egypt	Tunisia	Morocco
Total Cost (Million $US)	69.00	30.10 - 39.00	21.76 - 26.18	7.83-15.70	32.40-37.26	33.38-44.94	96.92-127.94
Average Cost Per-Capita ($US/capita)	16.82	1.80 – 2.33	4.93 – 5.95	2.70 - 5.40	0.49 - 0.56	3.58 - 4.83	3.23 – 4.26
Average Cost Per Ton ($US/Ton)	50	9 – 11	17 – 20	8 – 17	2 – 3	19 – 25	16 – 21
Average Cost as % of Per Capita GDP	0.37	0.04 – 0.05	0.37 – 0.45	0.23 - 0.46	0.04 - 0.05	0.17 - 0.23	0.27 – 0.35

Source: METAP, "Regional Solid Waste Management Project: Current Situation Report", March 2000

As for the methods of financing for SWM in Lebanon, initial investment costs have traditionally been financed by the central government through the national treasury or international loans and grants. To a considerably lesser extent, these costs were shouldered by municipalities through their individual budgets or their share of the Independent Municipal Fund (means through which the government distributes monies to municipalities).

On the other hand, the central government plays a more limited role in the recovery of recurrent costs (operation and maintenance costs, private sector contracts...) for SWM activities. It is the local authority - mainly the municipality - that supports this cost. Based on geographic location, municipalities can be grouped into two main categories regarding their means of cost recovery with few exceptions such as the cases of the Zahleh and Tripoli municipalities.

3.1.1 Cost of Existing SWM Services outside the Greater Beirut Area

The SWM activities of a majority of municipalities located outside the Greater Beirut Area (GBA) and parts of Mount Lebanon comprise waste collection by small-scale private sector haulers followed by illegal dumping and burning. This fact reduces the recurrent costs of these activities to approximately $US 15-25/ton. A feasibility study on SWM in the Caza of Jbeil by Ecodit (Ecodit, 2004) determined that the costs of waste collection and illegal dumping comprised an average of 12.7 percent of total municipal expenditures in the Caza of Jbeil (Table 2, Appendix B).

The cost of WM is sustained by budgets of individual municipalities, which in turn are mainly replenished by taxes (refer to Section 0). However, low tax collection rates restrict the affordability of even the most basic WM services by municipalities, leading to haphazard dumping and open burning. According to Farouk and Hickman (METAP-WB, Feb. 2004), "In Baalbek, for example, municipal funds from property taxes are only about 10 percent of what they would be if all taxes were paid."

Table 2. SWM Costs on Municipalities of the Caza of Jbeil

Average Total Cost	Average Unit Costs	Average Ratio of SW Costs to Municipal Expenses[1]
22,078 US$/yr	24 $US/ton	12.7%

Based on the Ecodit "Feasibility Study of Solid Waste Management in Byblos", Appendix C-2 - Table C3 April 2004
[1] Calculation is based on the 2004 Figures

3.1.2 Cost of Existing SWM Services within GBA

On the other hand, SWM activities as well as the means for cost recovery vary greatly for the municipalities located within GBA and parts of Mount Lebanon. Two private sector contracts were authorized by the Government of Lebanon (GoL) on behalf of these municipalities. These contracts provide for street sweeping, collection, treatment and disposal of their SW. The recurrent costs of these services are directly nourished by the Independent Municipal Fund (refer to Section 4.3) without prior consent of the municipality. Moreover, payments are made on a per ton basis as follows: collection - $US 20, sorting of waste - $US 20, composting - $US23, hauling between facilities - $US 4, shredding of bulky items - $US 7, baling of waste - $US 12, wrapping of baled waste in plastic film - $US 10, and landfilling - $US 21 - 37. Since not all the waste is managed similarly, the overall costs of SWM vary within the range of $US 80 – 100 $/ton.

3.1.3 Case of Zahleh and Tripoli Municipalities

Not all municipalities fall within the above two categories. This is especially true when municipalities, based on their own initiative and supported by international funding agencies, develop and implement plans for the management of their own municipal waste. Although located outside GBA, municipalities such as Zahleh and Tripoli benefit from advanced SWM systems.

In Zahleh, the Solid Waste Environmental Management Project (SWEMP), financed by a loan from the World Bank, provided for the construction of a sanitary landfill and sorting facility within the municipality. Excluding the waste collection costs of $US 6.5/ton (WB-METAP, Feb. 2004), the recurrent costs of the SWM system amount to approximately $US 17 - 26 /ton (CDR, 2003; WB-METAP, Feb. 2004).

In Tripoli, MSW is collected and disposed of in the Tripoli landfill rehabilitated as part of the National Emergency Reconstruction Project (NERP). The management of the landfill, contracted to a private company, was costing the Federation of "Al-Fayha" Municipalities a sum of $US 18.7/ton according to the CDR Annual Report (CDR, 2003). Today the contract for collection and dumpsite management in Tripoli costs the Federation the equivalent of approximately $US 14/ton (WB-METAP, Feb. 2004).

3.2 PROJECTED COSTS OF SWM IN LEBANON

As was mentioned in the Methodology Section (Section 2), developing a cost recovery system for waste management consists of several steps. This section estimates the costs of the preferred SWM system and projects them for the next ten years (2005 – 2014). Section 3.2.1 calculates the quantity of MSW generated in Lebanon in 2004 and then projects these values for the following ten years (2005-2014). Next, based on the findings of Section 3.2.1 and WB benchmark figures for the region, the costs of WM are calculated and projected in Section 3.2.2.

3.2.1 Solid Waste Quantity

Based on the State of the Environment Report (MoE/Ecodit, 2001) generation rate of 0.925 kg/capita/day, an estimated 1.5 million tons of MSW in Lebanon would have been generated in 2004, or about 4,144 tons/day. However, the Lebanon-MSW Fact Sheet published by METAP estimated the daily per-capita SW generation rate to fall within the range of 0.5-0.7 kg/day in rural areas and 0.75-1.1 kg/day in urban regions. Based on the above mentioned rates, the amount of SW generated nationally in 2004 was estimated to be 3,736 tones/day (Table 3), with Mount Lebanon and Beirut contributing approximately 55 percent of the total (Appendix A). Figure 1 portrays the waste generation rates on the Mohafaza level based on the above mentioned METAP generation rates.

Table 3. Municipal Solid Waste Generation in Lebanon (2004)

Population[2]	SW Generation (ton/dy)	SW Generation[1] (ton/yr)
4,482,312	3,736	1,363,702

[1]Based on the Waste Generation Rates of 0.75 – 1.1 kg/day (Urban) and 0.5 – 0.7 kg/day (Rural) presented in the METAP Fact Sheet on MSW in Lebanon

[2] Population projections for 2004 were estimated using Lebanon's annual population growth rate of 1.65% in 1999 and the official population census for the year 1997 from the Central Administration of Statistics (CAS).

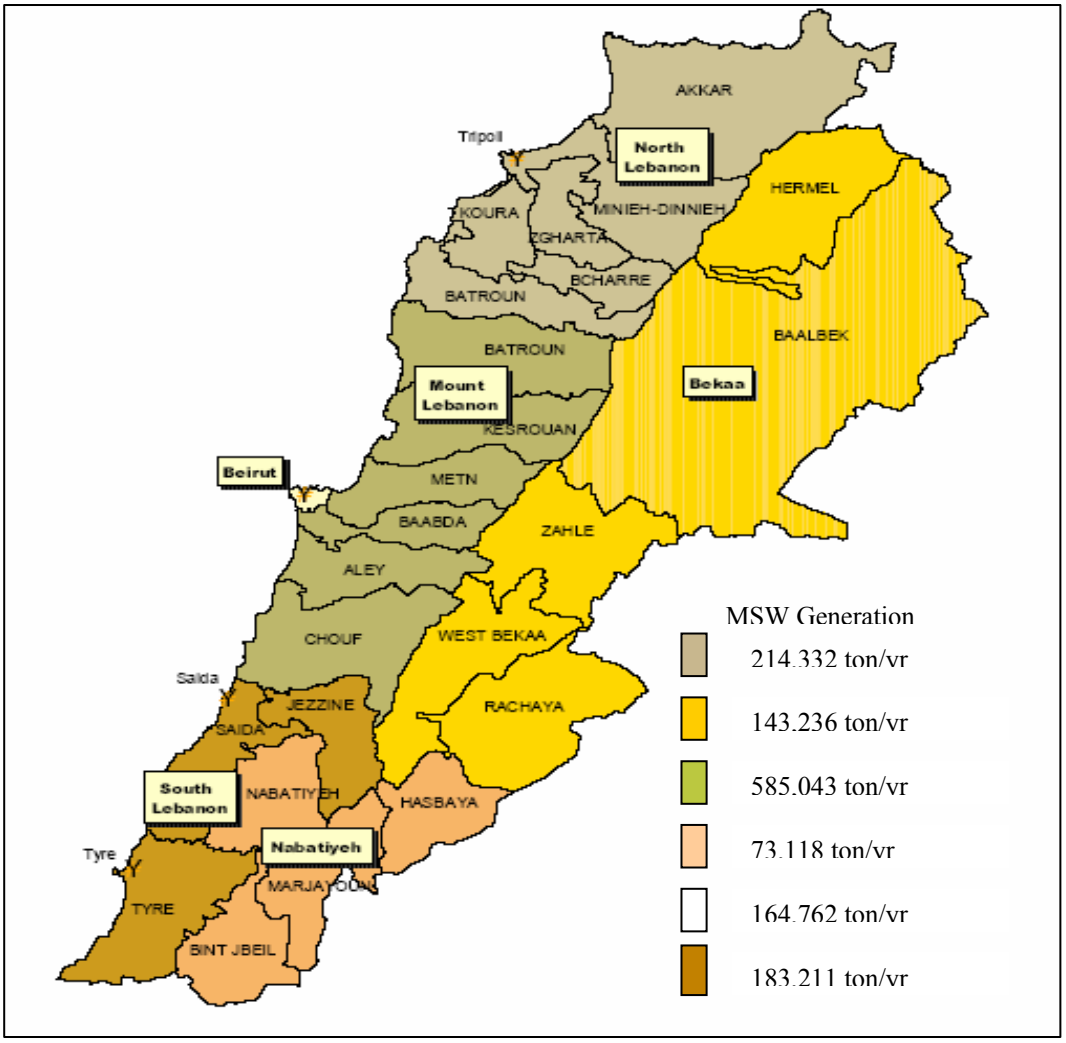


Figure 1. Municipal Solid Waste Generation in Lebanon by Mohafaza (2004)

However, when planning for the next ten years, it is unrealistic to assume the estimated 3,736 ton/day generation rate would remain constant. The effect of introduction of waste reduction and prevention measures through public awareness campaign would become tangible at least five years down the line. Also, unavoidable rising population numbers in Lebanon would contribute to increasing this rate.

In fact, as depicted in , the percent increase in waste quantities in Lebanon from 1998-2010 was estimated to be 28% in the METAP Current Situation Report (METAP, March 2000). Calculation by the MoE, based on MoIM figures estimated a 7% annual growth of waste generation (WB-METAP, Feb. 2004). The METAP- World Bank Country Report - Lebanon (WB-METAP, Feb. 2004) assumed 5% growth in annual waste generation as appropriate since this rate applies to developing countries in similar circumstances.

Based on the above information, a 5% annual growth rate of waste generation was assumed in the computation of the projected waste quantities for 2005 - 2014. Assuming no radical changes to behavior or economic growth, approximately 2.2 million tons of waste would be generated in Lebanon in 2014 (Table 5).

Table 4. Estimated Existing and Projected Solid Waste Generation

	Lebanon	Syria	Jordan	West Bank /Gaza	Egypt	Tunisia	Algeria	Morocco
MSW Generation in 1998 (Million Tons)	1.384	3.396	1.287	0.842	144.54	1.8	5.2	6
Projected MSW Generation for 2010 (Million Tons)	1.778	5.96	2.024	1.447	21.274	2.278	7.354	8.807
Percent Increase (1998 – 2010)	28%	75%	57%	72%	47%	30%	41%	47%
Waste Generation– Rate in 1998 (Kg/capita-day)	337	203	292	292	219	193	173	206
Projected Waste Generation Rate for 2010 (Kg/capita-day)	363	252	349	329	262	211	195	246
Percent Increase (1998 – 2010)	8%	24%	20%	13%	20%	9%	13%	19%

Source: METAP, "Regional Solid Waste Management Project: Current Situation Report", March 2000

Table 5. Projected Solid Waste Generation in Lebanon (2005-2014)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Annual Growth Rate of Waste Generation[1]		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Waste Generation (ton/yr)	1,363,702	1,431,887	1,503,481	1,578,655	1,657,588	1,740,468	1,827,491	1,918,866	2,014,809	2,115,549	2,221,327

1- Waste growth per capita was assumed 5% based on the World Bank-METAP "Country Report – Lebanon" Prepared by Hickman, D., Merhebi, F., GTZ/ERM/GKW, January, 2004.

3.2.2 Estimated Capital and O&M Costs for WM

Based on the World Bank benchmarks, the unit cost of SWM in middle income countries should fall within the range of $US 39 - 95/ton. Accordingly, based on the quantities estimated in Section 3.2.1, the cost of SWM for 2004 was estimated to approximate $US 53.2 - 129.6 Million (Table 6).

Table 6. Cost of SWM in Lebanon Based on Mohafaza Generation Rates

Mohafaza	Solid Waste Generation[1] (ton/yr)	Minimum Cost[2] (Million USD/yr)	Maximum Cost[2] (Million USD/yr)
Beirut	164,762	6.4	15.7
Mount Lebanon	585,043	22.8	55.6
North-Lebanon	214,332	8.4	20.4
Bekaa	143,236	5.6	13.6
South-Lebanon	183,211	7.1	17.4
Nabatiyeh	73,118	2.9	6.9
Total	**1,363,702**	**53.2**	**129.6**

[1] 2004 estimates
[2] World Bank Benchmark for Cost of SWM in Medium Income Countries of 39-95 USD/ton

A projection of these costs applying an inflation rate of 2% is depicted in Table 8. It is estimated that, assuming the same level of service, the SWM costs of 2004 would increase from $US 53.2 – 129.6 Million to $US 105.60 - 257.24 Million by 2014.

However, due to haphazard waste management practices during and after the Lebanese Civil War, SWM activities should also include the remediation of abandoned dumpsites. Overall, open dumping practices (from 1982 – 2004), were assessed to cost an investment ranging from $US 68.33 to 131.66 Million to remedy (ELARD, 2004). Table 7 estimates the yearly costs of such an investment simulates a 10-year plan to remedy past open dumping practices. The total costs of SWM in Lebanon, including the burden of past mismanagement would amount to $US 96.90 – 138.75 Million in 2005. This amount would reach $US 173.93 – 388.90 Million by 2014 (Table 9).

Table 7. Estimated Annual Costs of Rehabilitation of Open Dumps over a Ten Year Period

	Total Cost (Mil $US)	Interest	Duration (yrs)	Annuity	Annual Cost (Mil $US)
Minimum Costs	68.33	10%	10	0.16	11.12
Maximum Costs	131.66	10%	10	0.16	21.43
Average Costs	100	10%	10	0.16	16.27

Table 8. Projections of MSW Costs (2004- 2014)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Annual Growth Rate of Waste Generation[1]	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Total Waste Generation (ton/yr)	1,363,702	1,431,887	1,503,481	1,578,655	1,657,588	1,740,468	1,827,491	1,918,866	2,014,809	2,115,549	2,221,327
Inflation[2]	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Unit Cost[3] ($US/ton)	39	39.78	40.58	41.39	42.21	43.06	43.92	44.80	45.69	46.61	47.54
Average Waste Management Cost[4] (Million $US/yr)	53.18	56.96	61.00	65.34	69.97	74.94	80.26	85.96	92.07	98.60	105.60
Unit Cost[3] ($US/ton)	95	96.90	98.84	100.81	102.83	104.89	106.99	109.13	111.31	113.53	115.80
Average Waste Management Cost[4] (Million $US/yr)	129.55	138.75	148.60	159.15	170.45	182.55	195.51	209.40	224.26	240.19	257.24

1- Waste growth per capita was assumed 5% based on the METAP "Regional Solid Waste Management Project: Current Situation Report", 2000 - Table 1.

2- The average value of the Inflation rates for Lebanon 2001-2004 is 1.43%, with the 2004 value being the highest (3.0%). Source: Ministry of Economy and Trade Homepage: http://www.economy.gov.lb A rate of 2.0% was assumed.

3- Based on the World Bank benchmark of US$ 39 - 95/ton for SWM in middle income countries. 4- Assuming same level of service

Table 9. Total Projected Cost s of SWM in Lebanon (2004 – 2014)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Minimum Total Costs[1] (Mil $US/yr)	53.18	125.29	129.33	133.67	138.30	143.27	148.59	154.29	160.40	166.93	173.93
Maximum Total Costs[1] (Mil $US/yr)	129.55	270.41	280.26	290.81	302.11	314.21	327.17	341.06	355.92	371.85	388.90

1- Costs include rehabilitation costs of abandoned dumpsites.

3.3 AFFORDABILITY ANALYSIS AND WILLINGNESS TO PAY

Evaluating sources for the recovery of the recurrent costs of waste management is futile without analyzing the affordability of such services as well as the willingness-to-pay (WTP) of the Lebanese public. However, in the absence of willingness to pay studies for SWM services in Lebanon, the affordability of such services are examined in this section based on ELARD's First Report (ELARD, 2004).

The following methodology was adopted to estimate the affordability of SWM by the Lebanese public:

a. Assess the distribution of households based on average monthly income and location (Mohafazat) of households;
b. Assess yearly revenue of households based on average monthly income;
c. Assess potential yearly revenue of households spent on SWM services based on average monthly income.

Appendix D presents the affordability calculation (estimation) approach above for Lebanon. In Section 3.2 the annual costs of adopting an ISWM system and remediation of abandoned dumpsite were estimated to fall in the range of 53 -130 million $US/yr (2004) - a range that will vary drastically according to the strategy and level of service selected by the Lebanese government. On the other hand, the affordability to Lebanese society is in the range of about 78 - 178 million $US/yr (or an average of about $US 90 - 210 /household-yr which varies considerably across regions), concluded from multiplying the benchmark range of 0.75-1.7% (of average income devoted to SWM) with the various households with various income levels (Table 10).

Table 10. Comparison of the Costs of SWM with its Affordability by the Lebanese Public

	Estimated Minimum (Mil $US/yr)	Estimated Maximum (Mil $US/yr)
Total Annual Costs of SWM and Rehabilitation (2004)	53.18	129.55
Affordability of Lebanese Public (2004)	78	178

4 SOURCES OF COST RECOVERY IN LEBANON – CURRENT SITUATION

After assessing the costs and affordability of SWM in Lebanon (Section 3), the sources that sustain the costs of the existing system will be evaluated. This section delves into these sources by explaining the funding mechanisms, supporting legislation and status quo of the three main sources: the national treasury (Section 4.1), municipal budgets (Section 0), and the independent Municipal Fund (Section 4.3).

4.1 NATIONAL TREASURY

4.1.1 Allocation of Funds from the National Treasury

In Lebanon, funds from the National Treasury are allocated according to the National Budget, prepared by the MoF. The process of preparing and adopting the budget is governed by relevant provisions of the Lebanese Constitution in addition to the Law on Public Accounting, implemented by Decree No. 14969/1963.

Every year, after reviewing the estimates prepared by the various Ministries, the Ministry of Finance has to propose a new budget for the following year. By September 1, the proposed budget has to be submitted to the Council of Ministers for review. The budget is then forwarded to the Parliament for final review and approval by October 15.

4.1.2 Status of the National Treasury

The government has reached its limits in national taxation and borrowing capacity. The former could be revealed by the current social situation and reaction(s) to any increases in taxes, and the latter is revealed by the already extensive public debt (exceeding 174 percent of 2003 GDP, or $US 32 billion). A summary of the financial situation of the GoL can be found in Appendix C. Furthermore, the government's revenues are severely limited after taking into account debt service (around 50 percent of total government expenditure in 2003) and public salaries, wages, subsidies and transfers (42 percent of total government expenditure in 2003). In the 2004 Draft Budget Law, personnel costs (salaries, wages, related benefits, pensions, and end of service indemnities) represent 37 percent of the total funds, enumerated in the budget, and 47 percent to service the public debt. These fractions of the total government expenditure are not flexible and cannot be tampered with as long as they are present.

What is left for the government of Lebanon is only between 10 and 20 percent of its total revenues to spend on various infrastructure and environmental issues, or an average of 15 percent of total revenues (or around USD 660 to 670 million only in 2003). Given the wide range of requirement for infrastructure provision such as water and sewage networks (construction and maintenance, C&M), the Lebanese road network (C&M) and their respective land acquisitions, and hardware military expenditures among other spending, USD 660 to 670 million (or around 3.6-3.7 percent of GDP) may not be sufficient.

Revenues for the national budget (2003 figures) are indicated in Table 11 along with the respective expenditure and public deficit (further elaborated in Appendix C). Most of the government tax revenue comes from income tax, tariffs on goods and services (other than VAT), Value Added Tax (VAT), and property taxes. Most of the revenue goes into servicing the public debt and salaries for public servants, inducing yearly budget deficits (almost 15% of GDP in 2003). The National Budget should always account for SWM, especially when the earmarked charges, if any, fail to cover the full cost of SWM.

Table 11. Revenue Classification of the Lebanese Government

2003 Budget Law	In Billions of Lebanese Lira	2003 Budget Law	In Billions of Lebanese Lira
A- Tax Revenues	**4,726**	Current Expenditures	8,820
Income, Profits & Capital Tax	1,000	Personnel cost	3,078
Tax on Properties	400	Debt service	4,874
VAT	1,100	Other current	868
Remaining internal tariffs on goods and services	1,196	Capital expenditures	713
B- Non-Tax Revenues	**1,749**	Other treasury expenditures	1,058
Proceeds from public administrations & institutions	1,180	Total expenditures	10,592
Proceeds from other state properties	35	*Budgetary revenues*	*6,219*
Beirut International Airport Revenues	30	*Budgetary expenditures*	*8,810*
Communications	1,050	**% of GDP Total deficit**	**14.52%**
Fines and seizures	27		

4.2 MUNICIPAL BUDGETS

4.2.1 Revenues and Expenditures of Municipal Budgets

Considerable variation can be found among Lebanon's 905 municipalities in terms of membership in unions or federations of municipalities, population numbers as well as budget size. Moreover, some villages in the rural areas of the country have no municipality.

According to Sarrouh E. (UNDP, 2003) the main law addressing municipalities, known as Law of Municipalities no. 118/77, "was passed to increase municipal financial autonomy. It stipulates that any work having a public character or utility within the area of the

municipality falls under the jurisdiction of the municipal council." The law specifies that municipalities can sustain their budgets from seven main sources[1]:

1. Direct charges collected by municipalities;
2. Funds collected by the state, private organizations or public institutions and re-distributed to each municipality;
3. Funds collected by the state for all municipalities (IMF);
4. Grants and loans;
5. Revenues from municipal property rentals;
6. Fines or penalties; and
7. Donations.

Additionally, *Law no. 60/88 dated 12/08/1988 on Municipal Fees and Charges* itemizes the types, values as well as the manner of collection of the various municipal charges. This law groups municipal fees into two main groups:

A. *Fees and tariffs collected directly by the municipality* - including: Fees on the rental value of property; Fees on residential and commercial rental contracts; Charges on construction permits; Fees for advertisements; Fees on classified industries; Fees on gas stations, gambling houses…; User-charge for sewage and pavement maintenance; Others… (not for solid waste management)

B. *Funds collected by the state, public agencies or private entities on behalf of municipalities* - including 10% tax on built real estate; 10% tax on profits of commercial, industrial and non-commercial professions; 10% tax on transfer of companies, bequests and grants; 3.5% of port authority collections; 3% on insurance premiums (private company)**;** 10% VAT on utility service bills for cellular phones (private company)**;** 10% VAT on water usage fees collected by the water authority; 10% VAT on electricity consumption collected by Electricité du Liban; and Others…

Municipal expenditures are either governed by the *Law of Public Accounting* or *Decree 5595/82*[2]**.** In fact, Decree 2838/59[3] stipulates the conformance of fifty of Lebanon's largest municipalities to the Law of Public Accounting and its stringent audit requirements. On the other hand, Decree 5595/82 governs the expenditures of the remaining municipalities and itemizes the following as valid municipal expenditures to be included in the municipal budget:

A. *Administrative Expenses* – including rent, salaries, telephone & electricity bills …

B. *Maintenance and Public Cleanliness* **–** such as street cleaning, road asphalting, street lighting, waste collection, pest control, setting up of road signs, maintenance of sewerage network, …

[1] Article 86 of Law of Municipalities no. 118/77, dated 30/6/1977.
[2] *Decree 5595/82 on the Mechanisms of Budgeting for Municipalities and Unions of Municipalities Not Subject to the Law of Public Accounting,* dated (22/09/1982) – Article 11
[3] *Decree 2838/59 dated 14/12/1959 on the Adherence of Select Municipalities to the Provisions of the Law of Public Accounting.*

C. *Infrastructure Development* – such as construction of sewage system, lighting system, pavement, roads, storm sewers, parks,

D. *Services and Aid* – such as help of the needy, charities, encouraging educational and cultural activities, scholarships…

E. *Miscellaneous Expenses* – such as **f**estivals, celebrations, previous year's expenses, legal expenses, union fees, debt payments…

F. *Reserve*

According to Sarrouh E., despite the expenditures assigned in the law, "in effect, the services provided by Lebanese municipalities are confined to marginal activities such as street cleaning, road asphalting, street lighting, setting up road signs, rehabilitating and extending the sewage and water drainage systems, etc,… There is, thus, a wide gap between what the municipalities are allowed to do by law, and what they are actually able to do, given their resources, " (UNDP, 2003).

4.2.2 Status of Municipal Budgets

According to Shehadi K., approximately 50% of Lebanon's municipalities have annual revenues and expenditures that range from US$6,000 to US$60,000 (Shehadi K., 1997). A brief survey of municipal finances in the Caza of Jbeil, based on 2001 – 2003 figures4, indicates that municipalities in that area have an average collection rate of 44.47%, average revenues amount to $US 372,420, and average expenditures amount to $US 311,000 (Table 12, Appendix B).

Table 12. Average Revenues and Expenses of Municipalities of the Caza of Jbeil

Average Collection Rates (%)	Average Revenues ($US '000)	Average Expenses ($US '000)	Average Cost of SWM[1] (US$'000/yr)	SW Cost / Municipal Expenses (%)
44.47	372.42	311	22.08	12.7

Based on figures for 2000, 2001 and 2002, Source: Ecodit "Feasibility Study of Solid Waste Management in Byblos", Appendix C-2 - Table C3. April, 2004

[1] Estimation based on population figures and per-capita waste generation rate of 0.83 kg/day.

Regarding SWM in developing countries, such as Lebanon, it is typical for municipalities to spend 20-50 % of their available budget on SWM (WB, Jan. 2004). In the case of the municipalities of Jbeil (Table 12, Appendix B), the average ratio of SWM costs to total expenditures reaches 12.7%, with a range of 3.3% - 27.9%. However it should be noted that the costs of SWM in Jbeil only include the costs of collection, transport and open dumping activities without the costs incurred from treatment and controlled disposal. Implementing proper ISWM practices would incur higher costs and therefore consume a higher portion of municipal budgets, and may well fall within the above mentioned range.

Moreover, out of all the sources of municipal income listed in Section 4.2.1, revenue from rental value of real estate constitutes approximately 40% of the total revenues for most

[4] Source of the 2001-2003 Figures:

municipalities (USAID, 2004). Figures of 2001 – 2003 municipal revenue from the rental value of real estate for different municipalities in Lebanon are displayed in Table 13.

Table 13. Revenues from the Rental Value of Real Estate for Various Municipalities in Lebanon

	2001	2002	2003
Revenue from Rental Value Charge in Beirut (Mil $US)	26.0	31.1	38.6
Revenue from Rental Value Charge in Tripoli (Mil $US)	2.3	3.1	3.9
Revenue from Rental Value Charge in Jounieh (Mil $US)	0.57	1.2	1.3
Revenue from Rental Value Charge from 12 Municipalities from South Lebanon (Mil $US)	2.9	3.0	3.1
Revenue from Rental Value Charge from 12 Municipalities of Baalbek and Zahleh (Mil $US)		3.24	3.6

Source: University at Albany, State University of New York, Center for Legislative Development, "Lebanon Relief and Redevelopment Project: Government Institutions Strengthening Component – Local Government and Parliament Project – Annual Report", United States Agency for International Development (USAID), June 2004

4.3 INDEPENDENT MUNICIPAL FUND (IMF)

4.3.1 Description of the IMF

Revenues collected by the central government on behalf of the municipalities are placed in the "Independent Municipal Fund" (IMF) within the Lebanese Central Bank. Proceeds from the IMF to the various municipalities is undertaken with the consultation of the Lebanese State Council, according to standards and criteria set by Decree 1917/79 from the Council of Ministers, specifically upon suggestions from the Ministers of Finance and Interior.

Most of the IMF proceeds are redistributed to municipalities according to standards and criteria set by Decree 1917/1979 as described below and depicted in Figure 2.

A. 25 percent of the stated IMF proceeds are allocated to Municipal Unions (MUs) in the following manner:

- 25 percent of the total allocated to MUs is given on the basis of or in correlation with population estimates within each union.
- 75 percent is allocated for specific developmental projects or earmarked.

B. 75 percent of total stated IMF money is allocated to the various Lebanese municipalities according to the following:

- 70 percent (of total IMF 75%) is given according to the following criteria:
    - 60 percent given to all municipalities based on population estimates

- 40 percent given to municipalities based on actual received charges collected by each municipality over a two-year past period.

- 30 percent is allocated or earmarked for development projects, especially rural ones.

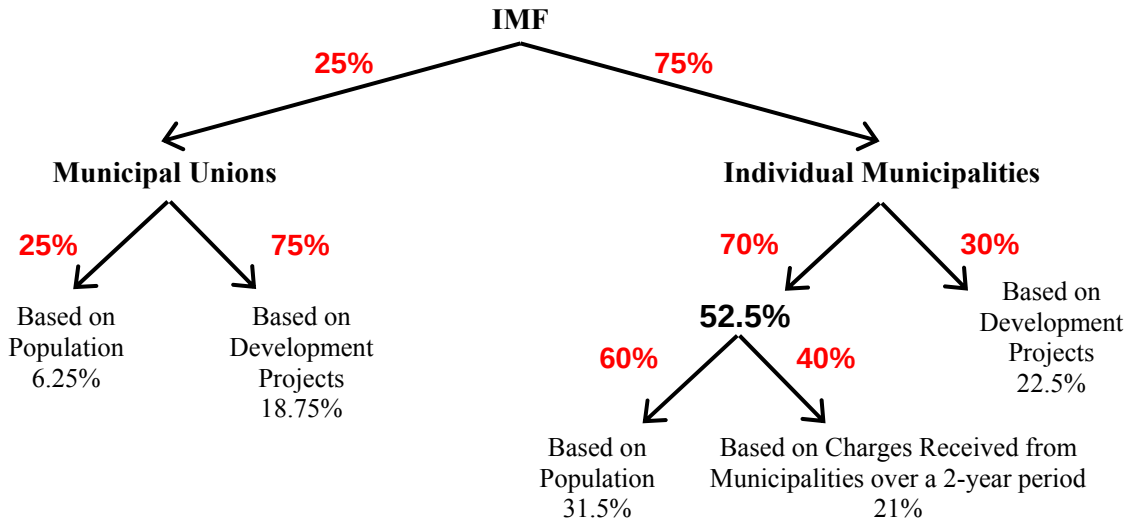


Figure 2. Theoretical Distribution of the Independent Municipal Fund (Decree 1917/1979)

Proceeds for the IMF are primarily nourished from charges (taxes) on basic services such as electricity and telephone bills that fall within the municipality's jurisdiction. Based on Law 60 / 885, some proceeds are directly deposited into the IMF, while others are transferred to the municipality or the IMF in the absence of a municipality. The surtaxes and fees that nourish the IMF include:

- Fees on Gambling Clubs (Article 23);
- Fees of Advertisements (Article 38);
- Fees on permits for Classified Industries (Articles 53 & 54);
- Fees on Motor Horsepower for Industries (Article 55);
- Fees on the trade of explosives or flammable commodities (Article 85:0);
- Fees on Insurance (Article 93, direct to IMF);
- Fees on Telephone Bills (directly to municipality or IMF in the absence of a municipality, Article 96);
- Fees on Electricity Bills (directly to municipality or IMF in the absence of a municipality, Article 97);
- Fees on Water Bills (directly to municipality or IMF in the absence of a municipality, Article 98);
- Excise Tax on tobacco and tobacco products (directly to IMF, Article 99)

Decree number 9093 (15/11/2002) further stipulates that any municipality that constructs a sanitary landfill or solid waste treatment facility (within its jurisdiction) will secure five times

[5] *Law no. 60/88 on Municipal Fees and Charges dated 12/08/1988*

its share from the IMF. Moreover, if any municipality constructs a sanitary landfill or solid waste treatment facility for itself and at least ten other municipalities will get ten times its share from the IMF proceeds. However, the decree is ambiguous in its formulation, and the proof is that so far no municipality was able to benefit from the said incentives.

4.3.2 Status of the IMF

Municipalities and Unions of Municipalities received transfers totaling USD 420 million for the years 1997, 1998, and 1999, or a yearly amount of around $US 140 million (MoE/Ecodit, 2001). Note that the total amount disbursed for municipalities and unions of municipalities from the years 1993 to 1996 was around $US 33 million only.

Table 14. Distribution of the Independent Municipal Fund from 1997 to 2001

Year(s)	Decree	IMF (Mil $US)	Funds for Municipalities (Mil $US)	Funds for Unions (Mil $US)	Civil Defense (Mil $US)	Reserve (Mil $US)
1997	365/99	126.67	81.33	31.67	4.75	8.92
1998 & 1999	2574/00	266.67	171.73	66.67	10.00	18.27
		266.67	171.73	66.67	10.00	18.27
2000	6512/01	66.67	60.17	3.33	3.17	
2001	9354/02	133.33	114.00	13.33	6.00	

Based on the revenues depicted in Table 14, municipalities received an average of $US 120 million/yr theoretically allocated as described in Figure 2. Funding municipalities sufficiently is of utmost importance in order to stimulate local economy, mitigate and reverse rural-urban migration and is at the heart of good governance. However, in reality the distribution of the IMF as stipulated by Law was not realized. Most of the revenues received by the IMF were used to fund Sukkar group's waste management operations in the Greater Beirut Area consuming approximately $US 100 million/year.

5 PROPOSED COST RECOVERY SYSTEM

Several factors contribute to the success of a cost recovery system, the least of which include user satisfaction, an efficient collection system with high collection ratios, a national WM strategy and plans, and a legal framework to support all the mentioned components.

Regarding user satisfaction, users should be convinced that they are being charged fairly in view of the provided service, and that the collected fees are being spent wisely. Moreover, the users' expectations of quality of the WM service should also be met in order to attain their approval. User satisfaction could be further enhanced through a system that takes into consideration the socio-economic background of the user and thus the affordability of the service. "Low-income members of society must be protected from paying unaffordable charge rates." (WB-METAP, Jan. 2004).

Ideally, charge collection systems would be integrated with the existing collection systems of public authorities, thus requiring less investment and administrative costs. Moreover, according to the WB Regional Guidelines for Financing and Cost Recovery for SWM, the collection systems "must be straightforward, simple to implement and enforce, and should lead to high fee collection ratios," (WB-METAP, Jan. 2004).

Ideally, ISWM principles, such as the polluter pays principle and the user pays principle should be applied in the cost recovery scheme for WM. That is, those who benefit directly from a SWM service should pay for this service. According to Merhebi F. and Hickman D. "Application of the "polluter pay" principle … would result in the introduction of new stakeholders … and the injection of new funds on a fair and equitable basis that could be applied to waste management financing and cost recovery" (WB-METAP, Feb. 2004). An advantage to applying these principles to the financing schemes is that they influence waste generation on the long term and encourage reduction and prevention practices.

However, when it comes to adopting such principles as the user pays, some difficulties arise. At the end of the day, waste management services fall within the box of "public services" and not private goods. Users can not be disconnected from the service without risking public health hazards. Therefore, integrating these principles within the cost recovery system is challenging.

Finally, the success of a cost recovery system is enhanced by the presence of waste management strategies and plans, as well as a legal framework for SWM setting the provisions for institutional responsibilities as well as financing and cost recovery mechanisms. A solid legal framework that organizes the sector would instigate a robust cost recovery system that can be enforced by the responsible authorities.

Section 3 estimated the costs of adopting an ISWM network in Lebanon, projected these costs to 2014 and then analyzed the affordability of these costs by the Lebanese public. An assessment of the existing funding sources for SWM in Lebanon followed in Section 4. This section, Section 5, presents and evaluates the recommended sources for the recovery of the recurrent costs for SWM in Lebanon based on the on-the-job training exercise conducted with the MoF. Section 5.1 lists recommendations specific to the case of Lebanon, as

determined in the on-the-job training exercise with the MoF. Each of the three sections that follow introduces one suggested source for cost recovery: a 5% increase in excise taxes (Section 5.2), a 1.5% increase in municipal fees on the rental value of property (Section 5.3), and a return of 5% municipal charge on electricity, telephone and water consumption bills (Section 5.4).

5.1 SPECIFIC RECOMMENDATIONS

In addition to the cost recovery sources proposed in the subsequent sections, this section recommends measures that would boost the efficiency of charge collection systems specific to the Lebanese context.

A. Acknowledging the Socio-Economic Situation in Lebanon

The foremost recommendation of the MoF regarding a cost recovery system for SWM in Lebanon was to allow for the austere socio-economic conditions prevalent in the country. Accordingly, the MoF advised against introducing any novel taxes or fees which would be rejected by both the Lebanese Parliament as well as the general public. Hence, all suggestions for cost recovery relied on modifying existing taxes or charges or reinstating taxes or charges that had been withdrawn.

B. Improving the Tax Collection System

Although revenues from property taxation in Lebanon amounted to $US 266.7 million in 2003 and an estimated $US 233.3 million in 2004, it is acknowledged that the collection rate of property taxes in Lebanon is deficient. The country's existing charge and tax systems are severely limited by low collection rates, which have a profound impact on the MSW sector (The WB-METAP, Feb. 2004). For example, the collection rates presented in Table 12 indicate an average collection rate of 44.47% for select municipalities in the Caza of Jbeil. Improving collection rates to ensure payment by all households will increase revenues from property taxes considerably hence increasing funds for SWM services.

In fact, the Lebanon Relief and Redevelopment Project[6], which assists selected municipalities in modernizing their financial and administrative procedures, has demonstrated the effectiveness of adopting data management systems on dramatically increasing municipal revenue from property taxes. To illustrate, assistance efforts in the Municipality of Beirut increased the total revenue collected from the charge on the rental value from $26.0 million in 2001 to $31.1 million in 2002 to $38.6 million in 2003 (USAID, 2004).

The project also aims at enhancing municipal revenue through identifying neglected revenue sectors. In fact, "an important revenue area that the Municipality of Beirut has been unable to fully collect is that of taxes and fees due from licenses for billboards and signs. It is estimated that approximately 90% of the 70,000 - 80,000 signs and billboards in Beirut are not licensed representing up to $1.25 million annually in lost income," (USAID, 2004).

[6]Lebanon Relief and Redevelopment Project: Government Institutions Strengthening Component – Local Government and Parliament Project - Funded by the United States Agency for International Development (USAID) and executed by the University at Albany, State University of New York, Center for Legislative Development.

C. Non-compliance Fines as a means of Enforcement

Even though non-compliance fines should not be regarded as a source for cost recovery, the Lebanese government must begin to enforce its laws on public cleanliness. The fines mandated in the existing laws on public cleanliness as well as the proposed draft Law on Integrated Waste Management, prepared as part of the RSWMP, would serve as an additional source of revenue which would gradually diminish with the adaptation of behavior.

D. Adapting to the Existing Limitations of the System

The recovery of the recurrent cost of SWM had to adapt to the rigid limitations of the centralized financial structure of the country. In Lebanon, municipalities do not posses the legislative power to issue charges or taxes. In fact, taxes or charges have to be levied at a national level and are specified through law ratified by the Lebanese Parliament. Moreover, Lebanese legislation does not allow for earmarking taxes or fees for specific purposes. For example, revenue from municipal charges on the rental value of property can be used to fund any municipal expense. Hence, increasing the charge will not necessarily bring about an increase in funds for SWM, since the law does not allow for any such specification.

5.2 EXCISE TAXES

5.2.1 Current Situation

Excise Taxation, or consumption tax, is indirect taxation. Therefore, by nature it is independent of the consumer's circumstances and directly linked to his / her behavior. Although local legislation does not specify these taxes to be used directly for environmental purposes, they, by nature, play an important role not only as a means for collecting revenue but also as an instrument to influence consumer behavior and, increasingly, to protect the environment. When substantial, as is the case with the approximately 100% total taxation of imported fuels in Lebanon[7], excise taxes can serve as economic instruments giving industries and households valid incentives to adopt environmentally-friendly behavior and to develop new, cleaner technologies.

Moreover, excise taxes allow the consumer to be charged the full social and environmental cost of a commodity. Thereby these taxes serve as effective means to implement the "polluter pays principle" as is called for in Law 444/2002[8].

Excise taxation in Europe[9], for instance is imposed on mineral oils, alcohol and alcoholic beverages, manufactured tobacco. In Lebanon, existing tax regulations allow for excise duties on alcoholic beverages[10], vehicles, fuel, tobacco and other luxury goods.

[7] Including custom duties, excise taxation and Value Added Taxation, Ministry of Finance, 2004
[8] Law 444 on the Protection of the Environment, Article 4 (c), 08/08/2002
[9] European Union, Council Directive 92/12/EEC of 25 February 1992 - On the general arrangements for products subject to excise duty and on the holding, movement and monitoring of such products.
[10] Law dated 07/06/1967

5.2.2 Proposed Supplemental Excise Tax on Specific Commodities

With Lebanon's aspirations to join the World Trade Organization[11] (WTO) and its Euro-Mediterranean partnership and Arab Free Trade Agreements, it is only a matter of time before custom duties and tariffs are gradually dissolved. Therefore, the 5% customs duty (before VAT) that is imposed on an overwhelming majority of imports is due to be rescinded.

As such, while keeping the environmental benefits of excise taxes in mind, the opportunity arises to introduce a supplemental 5% excise tax for certain commodities or increase the excise tax by 5% for commodities already subject to excise taxation.

5.2.2.1 Selection Criteria

Commodities subject to the supplemental 5% excise tax were selected based on the following criteria:

A. *Hazardous material based on the National List of Hazardous Material*[12] - including items such as pesticides, hazardous chemicals, etc.

B. *Commodities whose use needs to be restricted for environmental purposes* - These items would either produce hazardous emissions upon use (ex: tobacco products, vehicles, fuel, etc.), or impact the environment negatively when used excessively (ex: fertilizers,)

C. *Commodities that when discarded will require special waste management considerations:* These items incur additional treatment and disposal costs (Ex: tires, electric and electronic equipment, batteries, vehicles, etc)

5.2.2.2 Commodities Subject to Excise Taxation

By applying the above criteria to a detailed review of the standard Harmonized System Code[13] (HS Code) for imports (Table 15), the commodities proposed to be subjected to new or additional excise taxation were determined. These items are listed in Table 16. Any local production of these items will also be subject to the excise tax.

[11] Lebanon applied for membership in the WTO and was granted observer status in April 1999

[12] This list is currently being updated by the Ministry of Environment based on Law 387/94 on the Ratification of the Basel Convention (04/11/1994), and Law 64/88 on Protection of the Environment from Hazardous Wastes and Hazardous Materials (12/08/1988)

[13] The Harmonized Tariff System Classification is an international standardized numerical method of classifying traded products. The identifying number assigned to each product is used by Customs officials around the world to determine the duties, taxes, and regulations that apply to the product.

Table 15. List of Commodities of the Harmonized System Code

Section 1	Live animals; animal products
Section 2	Vegetable products
Section 3	Animal or vegetable fats and oils and their cleavage products, prepared edible fats, animal or vegetable waxes
Section 4	Prepared foodstuffs; beverages, spirits and vinegar, tobacco and manufactured tobacco substitutes
Section 5	Mineral Products
Section 6	Products of the chemical or allied industries
Section 7	Plastics and articles thereof
Section 8	Raw hides, leather, fur skins and articles thereof, saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silk-worm gut)
Section 9	Wood and articles of wood; wood charcoal; cork and articles of cork; manufactures of straw, of esparto, or of other plaiting materials, basket-ware and wickerwork
Section 10	Pulp of wood or other fibrous cellulosic material; recovered (waste and scrap) paper or paperboard; paper and paperboard and articles thereof
Section 11	Textiles and textile articles
Section 12	Footwear, headgear, sun umbrellas, walking-sticks, seat-sticks, whips, riding crops and parts thereof, prepared feathers and articles made therewith; artificial flowers; articles of human hair
Section 13	Articles of stone, plaster, cement, asbestos, mica or similar materials, ceramic products; glass and glassware
Section 14	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal and articles thereof; imitation jewellery; coin
Section 15	Base metals and articles of base metals
Section 16	Machinery and mechanical appliances; electrical equipment; parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, part and accessories of such articles
Section 17	Vehicles, aircraft, vessels and associated transport equipment
Section 18	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; clocks and watches; musical instruments; parts and accessories thereof
Section 19	Arms and ammunition; parts and accessories thereof
Section 20	Miscellaneous manufactured articles
Section 21	Works of art, collectors' pieces and antiques

Table 16. Commodities Subject to Excise Taxation Based on HS Code

Chapter 24	Tobacco and manufactured tobacco subsidies
Chapter 27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes
Chapter 29	Organic chemicals
Chapter 30	Pharmaceutical products
Chapter 31	Fertilizers
Chapter 32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other coloring matter; paints and varnishes; putty and other mastics; inks
Chapter 34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modeling pastes, "dental waxes" and dental preparations with a basis
Chapter 35	Albuminoidal substances; modified starched; glues; enzymes
Chapter 36	Explosives, pyrotech products; matches; pyrophoric alloys; certain combustible preparations
Chapter 37	Photographic or cinematographic goods
Chapter 38	Miscellaneous chemical products
Chapter 40	Rubber and articles thereof **40.11** - New pneumatic tires, of rubber.
Chapter 68	Articles of stone, plaster, cement, asbestos, mica or similar materials. **68.11** - Articles of asbestos-cement, of cellulose fiber-cement or the like. **68.12** - Fabricated asbestos fibers; mixtures with a basis of asbestos or with a basis of asbestos and magnesium carbonate; articles of such mixtures or of asbestos (for example, thread, woven fabric, clothing, headgear, footwear, gaskets), whether or not reinforced, other than goods of heading No. 68.11 or 68.13. **68.13** - Friction material and articles thereof (for example, sheets, rolls, strips, segments, discs, washers, pads), not mounted, for brakes, for clutches or the like, with a basis of asbestos, of other mineral substances or of cellulose, whether or not combined with textile or other materials. **68.14** - Worked mica and articles of mica, including agglomerated or reconstituted mica, whether or not on a support of paper, paperboard or other materials.
Chapter 84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof.
Chapter 85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles.
Chapter 87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof.
Chapter 88	Aircraft, spacecraft, and parts thereof.
Chapter 89	Ships, boats and floating structures.

5.2.2.3 Method of Collection

Excise taxes are charged on the consumer upon the purchase of the products listed in Table 16. Proceeds from these taxes would be collected by the customs authority for imported products and the other tax collection means of the central government for local production. The proceeds would then be deposited in the National Treasury and assigned to the Independent Municipal Fund in order to be redistributed to the municipalities as described in Section 4.3.

5.2.3 Estimated Revenue from the Proposed Excise Tax

Based on the average yearly import values from 2001 to 2004 documented on the Customs Authority (MoF) website, the total revenue from a 5% excise tax was estimated to reach $US 196.33 Million (Appendix E and Table 17). Revenues from the 5% supplemental tax on Petroleum and Bituminous Products would contribute approximately 34.06% of the total. Figure 3 depicts the individual (per commodity) and total revenues from a supplemental excise tax.

Table 17. Annual Revenues from a 5% Supplemental Excise Tax

Commodity	Average Yearly Imports* (Bil LBP)	Annual Revenues from a 5% Excise Tax** (Mil $US)	Percentage of Revenue by Commodity
Petroleum & Bituminous Products	2,006.35	66.88	34.06%
Motor Vehicles and Engines	1,063.97	35.47	18.06%
Pharmaceutical Products	546.44	18.21	9.28%
Electronic & Electric Products	1,448.96	48.30	24.60%
Organic Chemicals	317.76	10.59	5.40%
Tires	54.23	1.81	0.92%
Tobacco & Tobacco Products	201.48	6.72	3.42%
Asbestos	221.22	7.37	3.76%
Fertilizers	29.46	0.98	0.50%
Total	5,890	**196.33**	100%

* Based on figures for 2001 – 2004 from Source: Customs Authority, MoF website: www.customs.gov.lb
* These values are conservative since excise taxes on products that are produced locally have not been included due to the lack of such data.

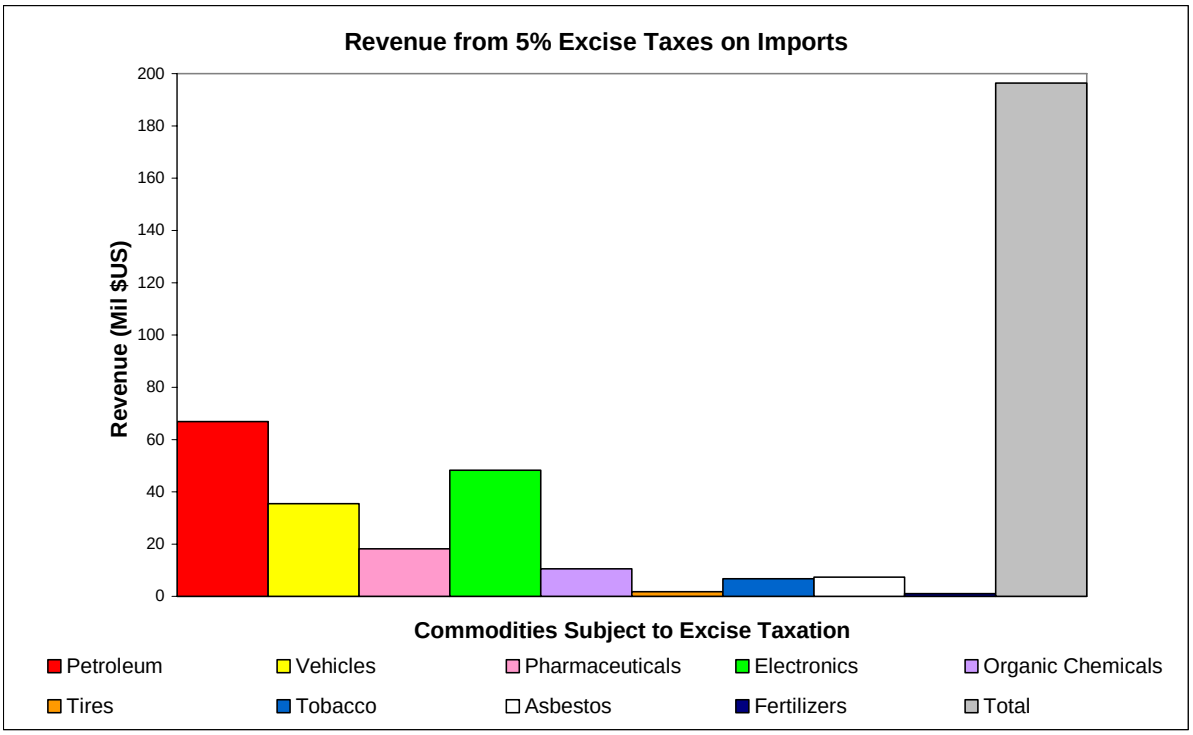


Figure 3. Graph of Revenues from Individual Commodities Subjected to a Supplemental 5% Excise Tax

It is important to note that the methodology used to estimate the revenues from a supplemental 5% excise tax underestimates the true value of this revenue. Proceeds from the taxation of commodities that are locally produced have not been included due to the lack of reliable information on production quantities.

5.2.4 Predicted Trend of Growth of Revenues from Excise Taxation

This study assumes that the growth of revenues from excise taxation mirrors that of the value of imports (Figure 4). Based on the above assumption, the average growth rate of the value of imports, equivalent to the expected growth rate of revenues from excise taxation was calculated in Table 18 to be 11.74%.

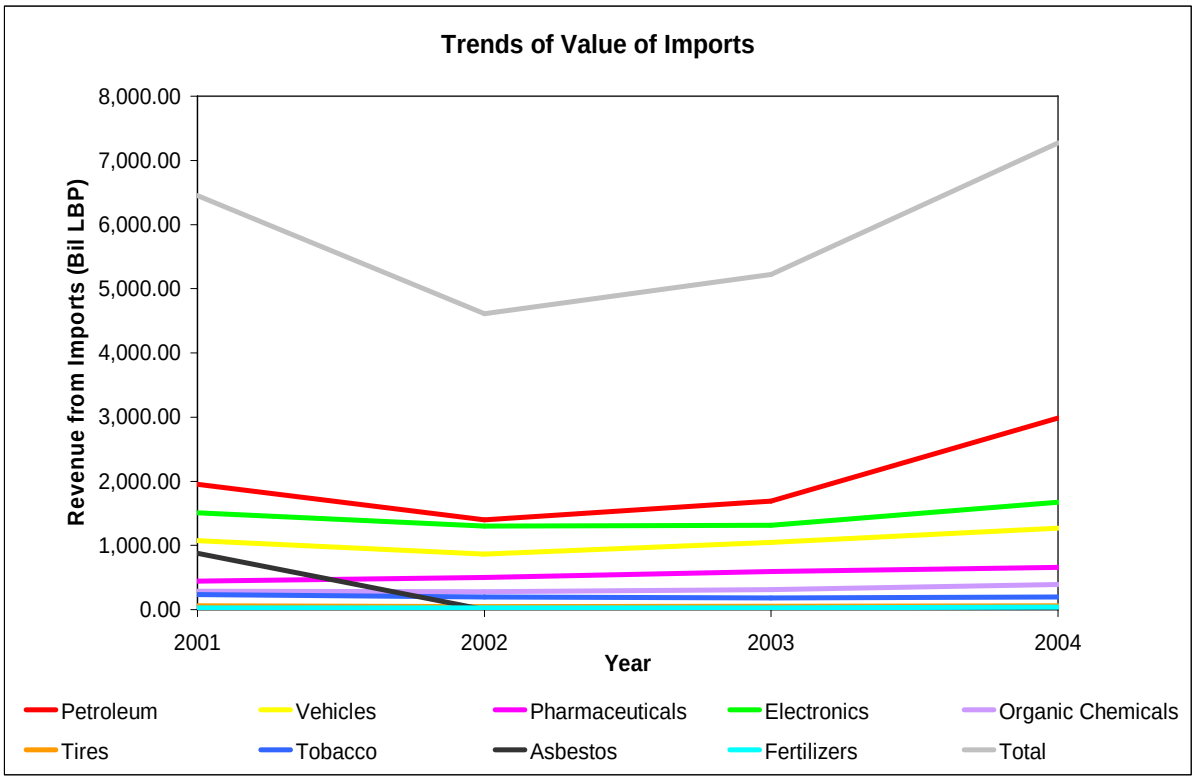


Figure 4. Trends of Import Values (2004-2014)

A ten-year projection of the revenues from the proposed excise tax (2005 to 2014) were made using the flat 11.74% growth rate calculated above (refer to Table 23, pg. 41). It was determined that the revenues would increase from $US219.38 Million in 2005 to 595.85 Million (without consideration for inflation).

Table 18. Estimated Trend of Growth of Excise Tax Revenues

Commodity	Trend (2001-2002)	Trend (2002-2003)	Trend (2003-2004)	Expected Trend
Petroleum	-28.36%	20.95%	76.81%	23.13%
Vehicles	-19.56%	21.65%	21.10%	7.73%
Pharmaceuticals	14.39%	17.32%	10.88%	14.20%
Electronics	-13.64%	1.13%	27.11%	4.87%
Organic Chemicals	-2.27%	10.77%	25.02%	11.18%
Tires	-24.16%	15.71%	17.39%	2.98%
Tobacco	-16.29%	-6.98%	7.44%	-5.28%
Asbestos	108.87%	0.22%	18.70%	42.60%
Fertilizers	-9.12%	15.31%	42.95%	16.38%
Total	-17.31%	13.20%	39.34%	11.74%

5.3 MUNICIPAL CHARGE ON RENTAL VALUE OF PROPERTY

5.3.1 Current Situation

Listed amongst the various sources of revenues in Section 4.2.1, the municipal charge on the rental value of real estate represents up to 40% of the income of some municipalities (USAID, 2002). This charge is directly collected by municipalities in Lebanon and is deposited in municipal treasuries. The calculation of this charge for a property depends upon several factors[14]and consumes considerable effort and resources. To a certain extent, the charge reflects the socio-economic situation of the user.

Currently, article 12 of Law 60/88 on Municipal Fees stipulates that municipalities can collect a charge of 6.5% of the rental value of a residential property with a minimum charge of LBP 25,000 and a charge of 8.5% of the rental value of non-residential property with a minimum charge of LBP 50,000 (Table 19).

5.3.2 Proposed Increase in Municipal Charge on the Rental Value of Property

The current applicable rates for the municipal charge on the rental value of real estate have not always been consistent with the above values. Prior to 1990[15], the municipal charge on the rental value of property were set at 11.5% of the rental value of a residential property with a minimum charge of LBP 50,000 and 16.5% of the rental value of non-residential property with a minimum charge of LBP 100,000. These values were reduced to the current rates described in Section 5.3.1 based on Law 14/90 dated 20/08/1990.

The on-the-job training exercise conducted with MoF recommended increasing the rates on residential property from a value of 6.5% to 8.0% of the rental value of the property, and the minimum charge from LBP 25,000 to LBP 50,000. The rates on non-residential property would increase from 8.5% to 10.0% of the rental value of the property, and the minimum charge from LBP 50,000 to LBP 100,000 (Table 19). The suggested 1.5% increase in the municipal charge rates on the rental value of property, in addition to the doubling of the minimum charge remain lower than the values prior to 1990 as described above.

Table 19. Suggested Municipal Charges on Rental Value of Real Estate

	Estimated # of Units*	Average Rental Value of Property** (LBP)	Existing		Suggested	
			Rate	Minimum (LBP)	Rate	Minimum (LBP)
Residential	914,344	1,500,000	6.5%	25,000	8.0%	50,000
Non-Residential	415,000	4,500,000	8.0%	50,000	10.0%	100,000

*Central Administration of Statistics (CAS), 1997 Study estimated the number of residential units in all of Lebanon to be 914,344. The number of non-residential units registered in the Ministry of Finance database is 215,000. However, it is estimated that an additional 200,000 non-registered units exist. Therefore, the number of non-residential units is assumed to be 415,000 units.

**A conservative estimation of the average rental value of residential property was assumed be LBP 1,500,000 and of non-residential property to be LBP 4,500,000.

[14] Factors include: date and type of occupancy, size of the property, state and condition, availability of local services, type of institution, and exemptions if any.

[15] Law no. 14/90, dated 20/08/1990, amended article 12 on the municipal charges on rental value of property of Law 60/88.

5.3.3 Estimated Revenue from the Suggested Increase in the Municipal Taxes on Rental Value of Property

In the calculation of the expected revenue from the proposed municipal charge on the rental value of property, the following assumptions were made (Table 19):

- Number of Residential Units in Lebanon: 914,344 based on the 1997 consensus of the Central Administration for Statistics
- Number of Non-Residential Units in Lebanon: 415,000. The number of non-residential units registered in the MoF database is 215,000. However, it is estimated that an additional 200,000 non-registered units exist.
- Average Rental Value of Residential Property: LBP 1,500,000/yr (conservative estimate).
- Average Rental Value of Non-Residential Property: LBP 4,500,000/yr (conservative estimate).

Based on the above assumptions, the revenue from the increase in municipal charge on rental value of property was calculated as follows:

- Increase in Estimated Revenue = # of Units * Increase in Rate (1.5%)* Average Rental Value of Property
- Increase in Minimum Revenue = # of Units * Increase in Minimum Charge

The additional revenue that would result from an increase in municipal charges on the rental value of residential property was estimated to range from $US 15.24 - 13.72 Million, and that of non-residential property was estimated to range from $US 13.83 - 24.90 Million. The total additional revenue from the suggested increase in municipal charge, which can be dedicated to support SWM costs, ranges from $US 29.07 – 38.62 Million.

Table 20. Estimated Revenues from Municipal Charges on the Rental Value of Property

	Estimated Revenue from the Increase in Municipal Charge on Rental Value of Property[3]	
	Average[1] (Mil $US)	**Minimum[2] (Mil $US)**
Residential Units	13.72	15.24
Non-Residential Units	24.90	13.83
Total	**38.62**	**29.07**

[1]Average revenue values were calculated based on the following formula: Avrg Revenue= # of units * Rate * avrg rental value of property
[2]Minimum revenue values were calculated based on the equation: Min Revenue= # of units * minimum charge
[3] Difference of Existing Revenue and Revenues based on the suggested rates.

5.3.4 Predicted Trend of Growth from the Suggested Increase in the Municipal Charges on Rental Value of Property

Assuming municipal charge collection rates improve at a flat rate of 2% starting from 2005 to 2014, the additional revenue from the suggested increase in municipal charges on rental value

of property would increase from $US 34.44 – 38.62 Million in 2004 to $US 47.07 – 35.44 Million in 2015 (Table 23, pg. 41) without adjusting for inflation.

5.4 MUNICIPAL CHARGE ON UTILITY CONSUMPTION

5.4.1 Current Situation

Electricity, telephone and water consumption bills in Lebanon have been subject to a 10% Value Added Tax[16] since 2002. Proceeds from this charge are collected by public or private institutions and then re-distributed to each municipality or, in the absence of a municipality, deposited in the Independent Municipal Fund.

5.4.2 Proposed Municipal Charge on Utility Consumption

Prior to 2002, a municipal charge of 10% was imposed on the consumption bills of water, electricity and telephone utilities. With the adoption of VAT, this charge was cancelled. Based on discussions with the MoF, reinstating a 5% municipal charge on utilities (before VAT) was recommended as a source for the recovery of the recurrent costs for SWM in Lebanon.

5.4.3 Revenue from the Proposed Municipal Charge on Utility Consumption

The total revenue that would be generated in 2004 from reinstating a 5% municipal charge on water, electricity and telephone consumption bills would amount to approximately $US 70 Million. This value was calculated based on the proceeds from the 10% VAT on these services in 2004 (Table 21) as recorded in the MoF database.

Table 21. Estimated Revenue from the Suggested Municipal Fee on Utility Consumption Bills

	2002	2003	2004
Current VAT Revenues* (Billion LBP)	156	182	210
Trend in Revenues		16.67%	15.38%
Expected Revenue from a 5% Municipal Charge (LBP Billion)	78	91	105
Expected Revenue from a 5% Municipal Charge ($US Million)	52.00	60.67	70.00

*Since 1998, consumption bills of telephone, water and electricity utilities have been subject to a Value Added Tax of 10%. The revenues of which are represented in the table courtesy of the MoF. Note: 2004 figures are estimates
** The 2004 values were used instead of the average due to projected increase in this field.

5.4.4 Growth Trend of the Proposed Municipal Charge on Utility Consumption

The growth trend of the revenue from the proposed municipal charge on utilities would mirror that of the proceeds from the 10% VAT on the utility consumption bills. Figures from 2002 – 2004 indicate a steady increase in these revenues (Table 21 and Figure 5). Assuming a

[16] Law no. 379 14/12/2001 on Value Added Taxation.

conservative growth rate of 8%, the revenues from reinstating a 5% municipal charge on water, telephone and electricity consumption would increase from $US 70 Million in 2004 to $US 151.12 Million in 2015.

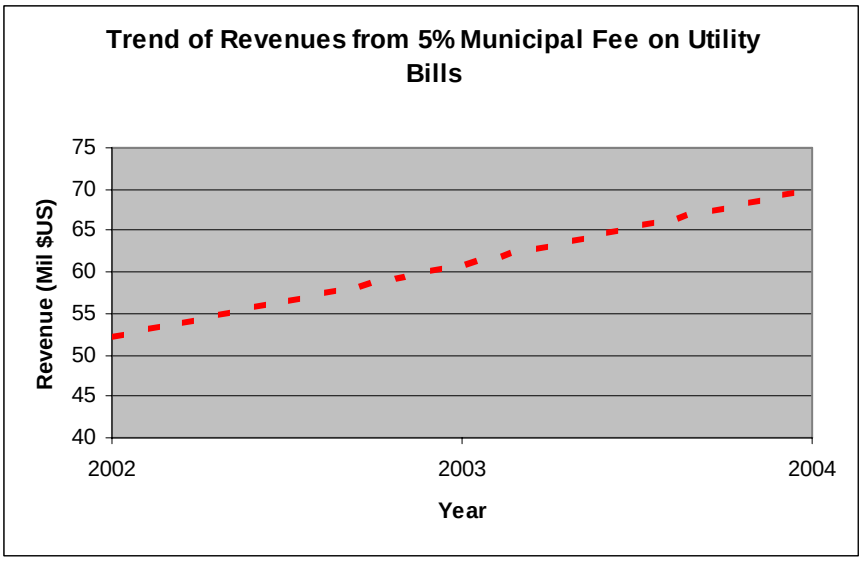


Figure 5. Trend of Increase of the Revenues from Utility Service Consumption Bills

6 DISCUSSION AND RECOMMENDATIONS

The financing of the recurrent costs of a SWM system is critical to ensure the sustainability of the system. After determining viable sources to recover the recurrent costs of SWM, this section concludes the report with a brief discussion of and recommendations for the sources for the recovery of the recurrent costs of WM in Lebanon.

6.1 CUMULATIVE COST RECOVERY POTENTIAL

The collective proceeds from the three sources of cost recovery described in this Section 5 amount to $US 295.40 Million with the 5% excise charge contributing approximately 66% of the total, and the municipal charge on the rental value of real estate representing approximately 10% (Table 22 and Figure 6). By projecting the estimated collective revenue from these sources (Table 23 and Figure 7) and adjusting for inflation (2%), it is predicted that proceeds would increase from $US 295.4 Million in 2004 to 794.06 Million in 2014, *a value that by far exceeds the maximum costs calculated in Section 3.* This indicates that not all the sources have to be adopted. A simple analysis of three scenarios for cost recovery follows in this section.

Table 22. Collective Proceeds for the Recovery of Recurrent Costs

Estimated Revenue (2004)	Mil $US	Percentage of Total
5% Municipal Charge on Utility Consumption Bills	70.00	23.70%
Increase of Municipal Charge on Rental Value of Real Estate (minimum value)	29.07	9.84%
5% Supplemental Excise Tax	196.33	66.46%
Total	**295.40**	**100 %**

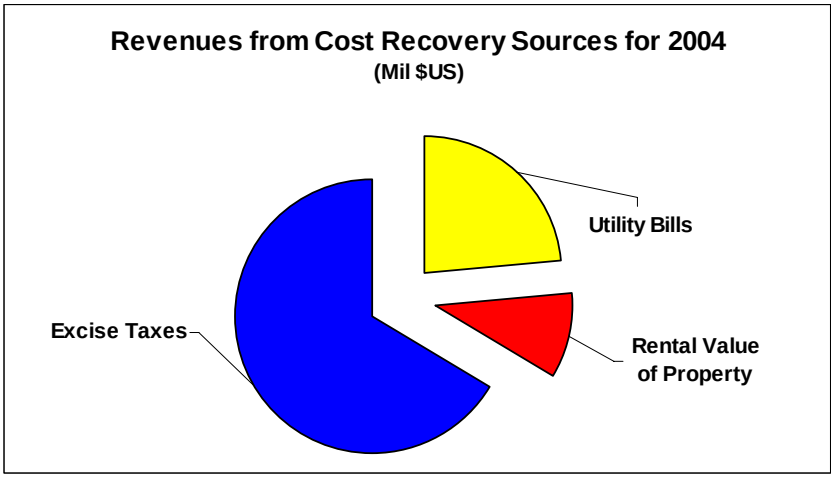


Figure 6. Revenues from the Suggested Sources of Cost Recovery

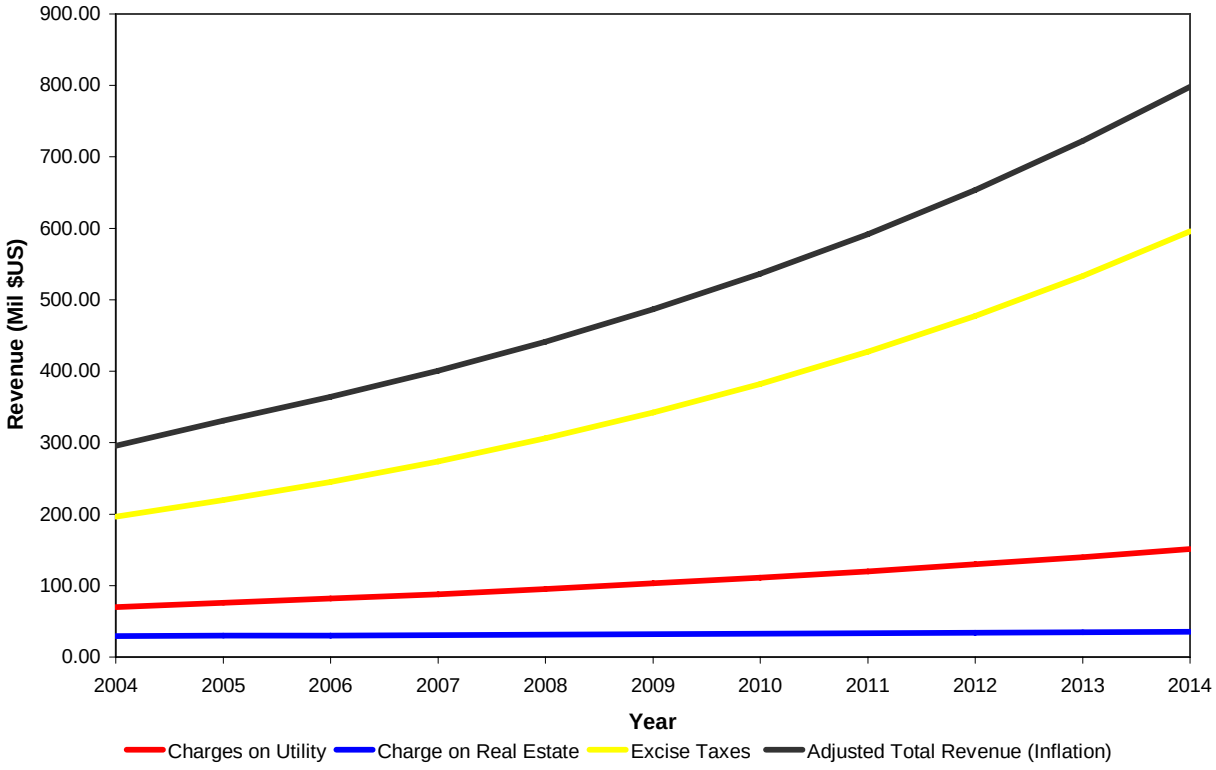


Figure 7. Projected Revenues for Suggested Sources of Cost Recovery

Table 24 presents the estimated costs of implementing a SWM system in Lebanon along with the projected revenues to recover these costs. In year 2005, the costs of SWM in Lebanon are estimated to range from $US 125.29 – 270.41 Million. On the other hand, the proceeds from a 5% supplemental excise tax on certain products are approximately $US 219.38 Million, lying below the maximum costs of that year. In fact, the revenues from a 5% supplemental excise tax remain below the maximum cost until 2008. A detailed illustration of the trends can be found in Figure 8.

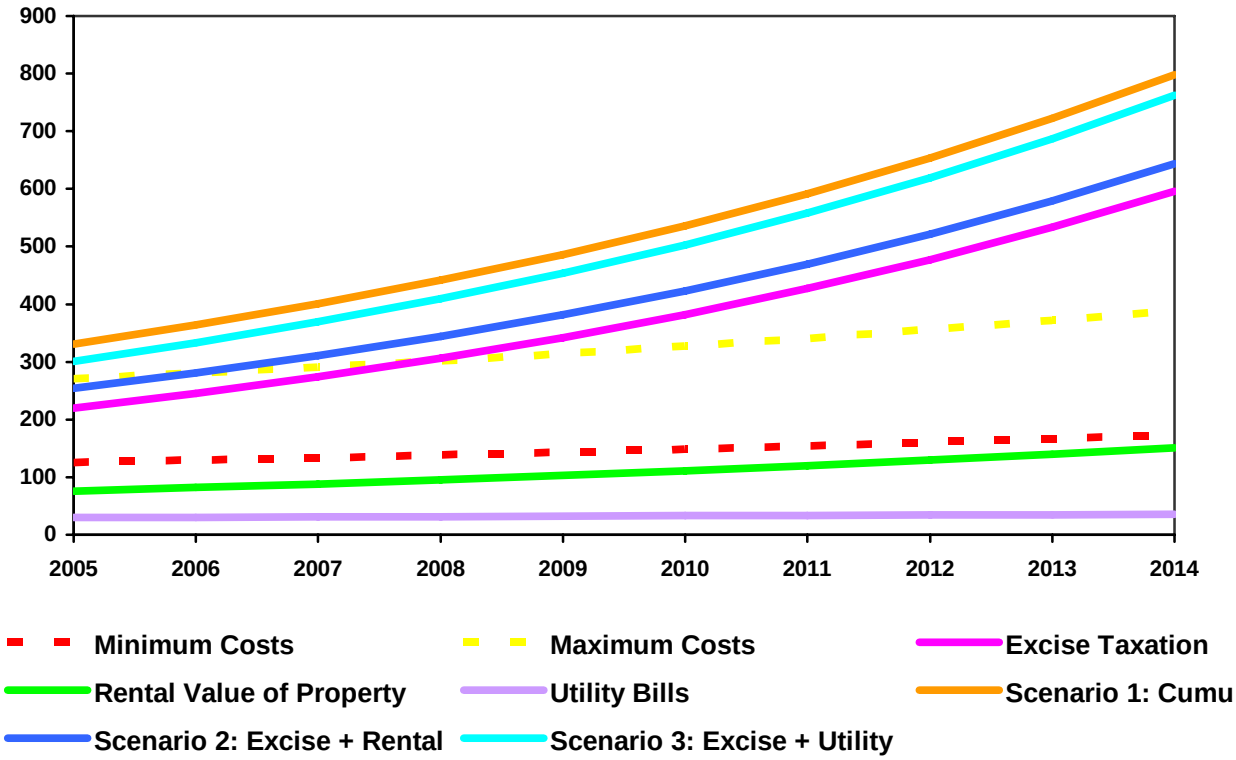
Revenues from the municipal charge on the rental value of property, as well as that from the municipal charge on utility bills both fall below the minimum cost of a SWM system (Figure 8, Table 23). Therefore, each of these two sources would not be sufficient to fulfill the cost requirements of implementing a SWM system in Lebanon.

Table 23. Projected Revenues for the Recovery of the Costs of SWM

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Revenue from a 5% Municipal Charge on Utility Bills (Mil $US)	70.00	75.60	81.65	88.18	95.23	102.85	111.08	119.97	129.57	139.93	151.12
Expected Trend of Revenue from Utility Bills	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Estimated Revenues from the Increase of Municipal Charge on Real Estate (Mil $US)	38.62	39.39	40.18	40.98	41.80	42.63	43.49	44.36	45.24	46.15	47.07
Minimum Revenues from the Increase of Municipal Charge on Real Estate (Mil $US)	29.07	29.65	30.25	30.85	31.47	32.10	32.74	33.40	34.06	34.74	35.44
Expected Trend of Revenue from Rental Value of Real Estate*	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Projected Revenues from Excise Taxes (Mil $US)	196.33	219.38	245.14	273.92	306.09	342.03	382.19	427.06	477.20	533.24	595.85
Expected Trend of Revenue from Excise Taxes**	11.74%	11.74%	11.74%	11.74%	11.74%	11.74%	11.74%	11.74%	11.74%	11.74%	11.74%
Total Expected Revenue without Inflation (Mil $US)	295.40	324.64	357.04	392.96	432.79	476.98	526.01	580.42	640.83	707.91	782.41
Inflation Corrector		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Projected Revenues (Mil $US)		**331.13**	**364.18**	**400.81**	**441.45**	**486.52**	**536.53**	**592.03**	**653.65**	**722.07**	**798.06**

As discussed in the previous section, the cumulative proceeds from the three proposed sources of cost recovery (scenario 1), would by far exceed the needs of the system. However, the proceeds from charging a supplemental 5% excise tax and from increasing the municipal charge on rental value of property (scenario 2) would satisfy the costs of the system. Moreover, since these two sources are more likely to be accepted by the Lebanese public, this scenario seems to be the optimum solution.

The proceeds from Scenario 3, comprising of the sum of proceeds from the supplemental excise tax and from the reinstatement of municipal charges on utility consumption bills, cover the recurrent costs of SWM. However, similar to Scenario 1, these proceeds by far outweigh



those required to support the recurrent costs of a SWM system in Lebanon.

Figure 8. Projected Recovery Revenues and Costs for SWM

Table 24. Projected Recovery Revenues and Costs of SWM

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Projected Minimum Total Costs (Mil $US/yr)	53.18	125.29	129.33	133.67	138.30	143.27	148.59	154.29	160.40	166.93	173.93
Projected Maximum Total Costs (Mil $US/yr)	129.55	270.41	280.26	290.81	302.11	314.21	327.17	341.06	355.92	371.85	388.90
Projected Revenues from Excise Taxes (Mil $US)	196.33	219.38	245.14	273.92	306.09	342.03	382.19	427.06	477.20	533.24	595.85
Revenue from a 5% Municipal Charge (Mil $US)	70.00	75.60	81.65	88.18	95.23	102.85	111.08	119.97	129.57	139.93	151.12
Minimum Revenues from the Increase of Municipal Charge on Real Estate (Mil $US)	29.07	29.65	30.25	30.85	31.47	32.10	32.74	33.40	34.06	34.74	35.44
Projected Revenues **Scenario 1:** Cumulative (Mil $US/yr)	-	331.13	364.18	400.82	441.45	486.52	536.53	592.03	653.65	722.07	798.06
Projected Revenues **Scenario 2:** Excise + Rental (Mil $US/yr)	-	254.02	280.90	310.87	344.31	381.61	423.23	469.67	521.49	579.34	643.91
Projected Revenues **Scenario 3:** Excise + Utility (Mil $US/yr)	-	300.88	333.33	369.35	409.35	453.78	503.13	557.97	618.91	686.63	761.91

6.2 ACCEPTANCE BY LEBANESE PUBLIC

Three sources of cost recovery have been identified in the previous sections of this report. However, a critical question that must be addresses is the acceptance of the Lebanese public. Based on the considerable experience of the MoF in this domain, the proposed sources of cost recovery, ranked in order of most acceptable to least acceptable, are as follows: 1) supplemental excise taxation, 2) increase of municipal charge on rental value of property, 3) reinstatement of municipal charge on utility consumption bills.

6.3 INSTITUTIONAL FRAMEWORK

According to the Strategic Planning Guide for MSWM (Wilson, Whiteman and Tormin, 2001), the recurrent costs incurred through operating MSWM services, include: 1) direct operational expenditures (wages, maintenance, etc), 2) provisions for accrued expenses and liabilities (employee pension obligations, insurance, after-care costs, etc), 3) annual amortization charges to recover the capital assets over their useful life (loan interest and depreciation).

In Lebanon, the Draft Law on Integrated Waste Management, developed as part of the RSWMP – National Activity in Lebanon, mandated that a Waste Management Committee would be established as the lead authority for WM in Lebanon. This Committee would in turn prepare the WM strategy and plans on the national level. Local authorities (clusters of municipalities) would implement these plans through local WM Plans. Thus, the recurrent costs of SWM in Lebanon are mainly incurred by local authorities. As such, the currently recommended sources for cost recovery would satisfy the institutional framework proposed in the draft law (Figure 9).

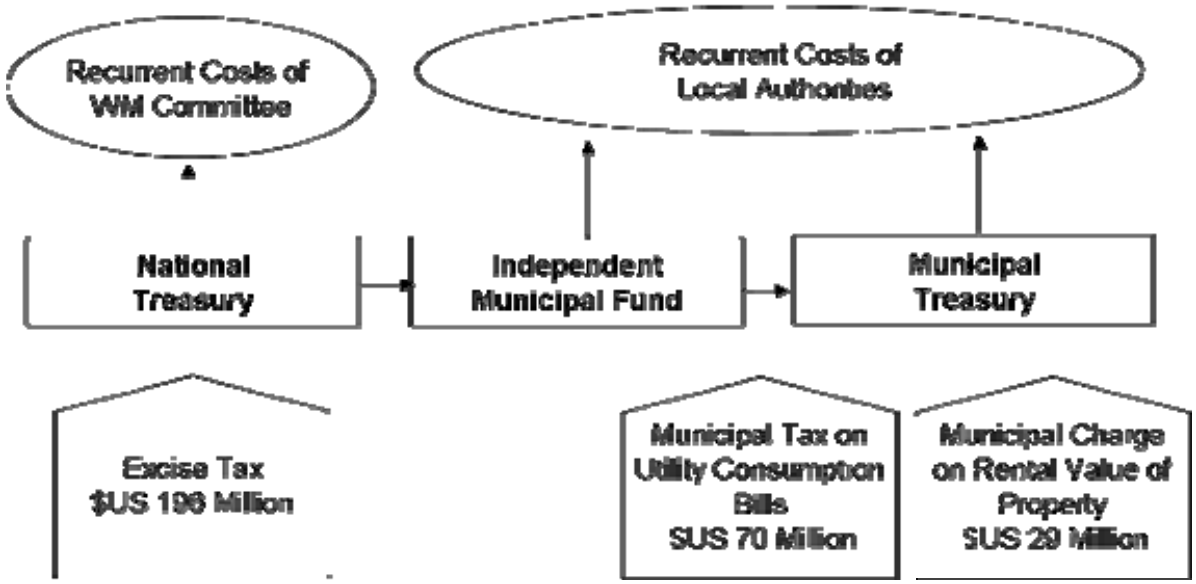


Figure 9. Institutional Framework for FCR based on Draft Law on Integrated Waste Management

In conclusion, to summarize the recommendations of Section 6.1, Section 6.2, and Section 6.2 (Table 25):

- Introducing an additional excise tax of 5% would, in general, generate sufficient funds to recover the costs of SWM in Lebanon. Moreover, due to the expected decline of customs duties (average value of 5%) upon joining the WTO, such a tax would be more acceptable to the Lebanese Public. On the other hand, proceeds from this tax are collected by the central government and deposited in the National Treasury. Therefore, the funds are not directly accessible to municipalities since they have to be transferred to the IMF and then distributed to individual municipal treasuries – a process that had traditionally been prone to corruption.

- Reinstating a 5% municipal charge on telephone, water and electricity consumption bills does not recover the estimated recurrent costs of SWM in Lebanon. Moreover, the overall acceptance by the Lebanese public is predictably low. However, proceeds from this charge would be directly deposited in the individual accounts of municipalities based on registered inhabitants. In the absence of a municipal authority, proceeds from the 5% charge on utility consumption bills are deposited in the IMF. Moreover, the proceeds correspond with the institutional framework proposed in the Draft Law on Integrated Waste Management, developed under the RSWMP – National Activity in Lebanon.

- Increasing the municipal charge on the rental value of property does not recover the estimated recurrent costs of SWM in Lebanon. Moreover, the expected acceptance by the Lebanese public is acceptable. Proceeds from this charge are directly collected by municipalities and therefore correspond with the institutional framework proposed in the Draft Law on Integrated Waste Management, developed under the RSWMP – National Activity in Lebanon.

- Scenario 1, which comprises imposing all of the above mentioned charges, would generate proceeds that by far exceed those required. Such a scenario is expected to be opposed by the public. However, this scenario is in accord with the proposed institutional framework for SWM.

- Scenario 2, which entails increasing the charge on the rental value of property as well as excise taxation, would generate proceeds that generally satisfy those required. Such a scenario is expected to be reasonably accepted by the public. This scenario is fairly in par with the proposed institutional framework for SWM.

- Scenario 3, which involves imposing a municipal charge on utility consumption as well as excise tax, would generate proceeds that by far exceed those required. Such a scenario is anticipated to be generally opposed by the public. However, this scenario is in high agreement with the proposed institutional framework for SWM.

Based on the above evaluation, it is recommended to impose a supplemental 5% excise tax as described in Section 5.2, along with increasing the municipal charge on the rental value of property as depicted in Section 5.3 (Scenario 2) so as to recover the recurrent costs of SWM in Lebanon.

Table 25. Summary of Recommendations

	Relation to Minimum Cost	Relation to Maximum Cost	Predicted Acceptance by Public	Agreement with Institutional Framework
5% Increase of Excise Taxes	Greater	Greater after 2008	Relatively high	Low / Moderate
Reinstate a 5% Municipal Charge on Utility Consumption Bills	Less	Less	Low	High
Increase of Municipal Charge on Rental Value of Property	Less	Less	Moderate	High
Scenario 1: Cumulative	Much Greater	Much Greater	Low	High
Scenario 2: Excise + Rental	Greater	Greater after 2006	Moderate	Moderate
Scenario 3: Excise + Utility	Much Greater	Much Greater	Low	Moderate / High

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APPENDIX A - WASTE GENERATION IN LEBANON

Waste Generation in Lebanon

Mohafaza	Solid Waste Generation Rate[1] (Kg/capita/day)	Population[2] (2004)	Solid Waste Generation 2004, (ton/dy)	Solid Waste Generation 2004, (ton/yr)	Percentage
Beirut	1	451,404	451	164,762	12.08%
Mount Lebanon	0.95	1,687,218	1,603	585,043	42.90%
North-Lebanon	0.65	903,400	587	214,332	15.72%
Bekaa	0.65	603,735	392	143,236	10.50%
South-Lebanon	0.95	528,367	502	183,211	13.43%
Nabatiyeh	0.65	308,188	200	73,118	5.36%
Total		**4,482,312**	**3,736**	**1,363,702**	**1**

1- World Bank Fact Sheet on MSW in Lebanon
2- Based on Central Administration for Statistics, Lebanon figures for 2001 and population growth rate of 1.65%

APPENDIX B – SOLID WASTE MANAGEMENT AND MUNICIPAL BUDGETS

Cost of Waste Management in the Caza of Jbeil

Municipality	Population	Waste Collection Costs (Million LBP)			Per Capita Costs (LBP/yr)	Waste Generation (ton/yr)	Average Cost (US$/yr)	Unit Costs* ($US/ton)	SW Cost / Municipal Expenses* (%)
		2000	2001	2002					
Aamchit	20,000	90.00	90.50	90.50	4,525	6,205.00	60,222.22	10	8.2
Al Fidar	1,367	31.00	31.00	31.00	20,667	424.11	20,666.67	49	7.9
Al Monsif	2,000	18.00	18.00	15.00	7,500	620.50	11,333.33	18	14.0
Al Mgheiri	367			9.80	10,889	113.86	2,177.78	19	
Annaya Kfar baal	533	16.00	16.00	16.00	13,333	165.36	10,666.67	65	23.5
Bejjeh	1,033			10.00	4,000	320.49	2,222.22	7	
Blat	17,333	62.00	67.00	68.00	4,250	5,377.56	43,777.78	8	4.6
Edde	467		24.00	24.00	48,000	144.89	10,666.67	74	15.1
Ehmej	2,833	18.00	18.00	18.00	4,000	878.94	12,000.00	14	16.2
El Aqoura	2,200	15.00	15.00	16.00	3,019	682.55	10,222.22	15	8.0
Fatre	1,667	6.75	9.62	10.34	5,168	517.19	5,933.33	11	27.9
Halat	15,000	30.00	30.00	30.00		4,653.75	20,000.00	4	
Jbeil	38,000	183.40	208.90	198.49	5,223	11,789.50	131,287.33	11	11.3
Kartaba	5,333	6.00	15.00	15.00	1,000	1,654.56	8,000.00	5	3.3
Laqlouq	67	1.80	1.80	1.80	18,000	20.79	1,200.00	58	
Lassa	1,767	8.00	9.00	11.00	2,200	548.21	6,222.22	11	7.6
Mayfouq el Kattarah	1,333	18.00	18.00	18.00	9,000	413.56	12,000.00	29	22.8
Nahr Brahim	2,933	43.20	43.20	43.20	15,429	909.96	28,800.00	32	7.2
AVERAGE		36	38	35	10,365		22,078	24	12.7

Based on Ecodit survey of Municipalities of Caza of Jbeil in the "Feasibility Study of Solid Waste Management in Byblos", Appendix C-2, April 2004
Note: Waste Management activities include sweeping, collection and open dumping and burning.

Waste Management in the Caza of Jbeil

Municipality	Waste Collection	# of Collection Containers		Collection Frequency		Destination
		Barrel	Container	Summer	Winter	
Aamchit	Municipality	800	26	7	7	Hbaline
Al Fidar	Private Hauler	100	0	3	3	Hbaline
Al Monsif	Private Hauler	250	0	4	4	Hbaline
Al Mgheiri	Private Hauler	70	0	2	1	Hbaline
Annaya Kfar baal	Private Hauler	80	0	4	2	Hbaline
Bejjeh	Private Hauler	100	0	3	2	Hbaline
Blat	Private Hauler	500	0	7	7	Hbaline
Edde	Private Hauler	150	0	3	3	Hbaline
Ehmej	Private Hauler	50	0	3	2	Hbaline
El Aqoura	Private Hauler	Door-to-door Collection		6		Hbaline
Fatre	Private Hauler	75	0	2	2	Hbaline
Halat						
Jaij						
Jbeil	Municipality	45	200	7	7	Hbaline
Kartaba	Municipality	Roadside Collection		6		Municipality
Laqlouq	Private Hauler	25	0	1	0	Hbaline
Lassa	Private Hauler	100	0	3	0	Municipality
Mayfouq el Kattarah	Municipality	250	0	3	2	Hbaline
Nahr Brahim	Private Hauler	200	0	6	6	Hbaline
Tartej	Municipality	140	0	5	2	Hbaline

Source: Ecodit "Feasibility Study of Solid Waste Management in Byblos", Appendix C-2 - Table C3 April 2004.
Hbaline: uncontrolled dump, Municipality: open burning within municipal boundaries.

APPENDIX C - FINANCIAL SITUATION OF THE GOVERNMENT OF LEBANON

CENTRAL GOVERNMENT OPERATIONS

The following table shows a summary of central government operations for the period from 1999 to 2003:

Table C.1: Revenues, Expenditures, Deficit: Lebanese Government, 1999-2003

	1999	2000	2001	2002	2003
Revenues (Bill LBP)					
I. Tax	3,350	2,936	2,961	3,995	4,502
II. Non-tax	1,116	1,252	1,302	1,390	1,717
III. Budget (I+II)	4,466	4,188	4,263	5,385	6,219
IV. Treasury	407	561	386	445	436
V. Total (III+IV)	4,873	4,749	4,649	5,830	6,654
Expenditures (Bill LBP)					
I. Current	7,093	7,968	7,930	8,321	8,820
Personnel	2,760	2,908	2,992	3,008	3,078
Debt service	3,624	4,197	4,312	4,622	4,874
Other current	709	863	626	691	868
II. Capital	1,097	900	325	610	713
III. Other	265	1,754	624	1,208	1,058
IV. Total	8,454	10,622	8,879	10,139	10,592
Total Deficit	**3,582**	**5,873**	**4,230**	**4,308**	**3,938**
Budget balance	(2,734)	(4,199)	(3,459)	(3,101)	(2,591)
Budgetary Rev.	4,466	4,188	4,289	5,385	6,219
Budgetary Exp.	7,200	(8,387)	(7,748)	8,487	8,810
Net treasury operations	(849)	(1,673)	(771)	(1,207)	(1,347)
Treasury receipts	407	561	359	445	436
Treasury outlays	1,254	(2,234)	(1,130)	1,652	1,783
% of GDP					
Total deficit	14.36%	23.76%	16.84%	16.53%	14.52%
Total revenues	19.53%	19.21%	18.51%	22.36%	24.53%
Total expenditures	33.89%	42.97%	35.35%	38.89%	39.05%
Nominal GDP	24,945	24,721	25,115	26,068	27,121
Net Public Debt	120%	143%	162%	170%	174%

TAXING MECHANISMS OF THE GOVERNMENT OF LEBANON

The Lebanese government adopts the following taxation mechanisms:

(i) Income tax on business profits (Title I)

Title I tax is applicable to all individuals undertaking a business activity in Lebanon, including incorporated companies, sole proprietorships and professions. Non-profit organizations and public entities that do not compete with private companies are exempt.

Table C.2: Title I Statutory Tax Rates on Business Income (1999)

	Statutory Tax Rates	Taxable Income Brackets (millions of LBP)	
		Greater	Less or Equal
Corporations & Limited Liability Companies	15%	n.a.	n.a.
Sole Proprietorships and Professions	4%	0	9
	7%	9	24
	12%	24	54
	16%	54	104
	21%	104	n.a.

(ii) Tax on salaries, wages and benefits (Title II)

Persons subject to Title II taxes are those who earn business income, or who have worked for more than one employer during the year.

Net income for Tax Title II is gross income less eligible expenses and family abatements (see Table B3 below) to arrive at taxable income:

Table C.3: Title II Statutory Tax Rates on Incomes from Salaries, Wages and Benefits: 1999, and Family Abatements, 1999

Statutory Tax Rates	Taxable Income Brackets (millions of LBP)	
	Above	Below Or Equal To
2%	0	6
4%	6	15
7%	15	30
11%	30	60
15%	60	120
20%	120	-
Family abatements 1999		**Millions of LBP**
Single individual		7.5
Married couple (spouse does not work)		10
Married couple (spouse works)		7.5
Children (up to 5 years of age)		0.5

(iii) Tax on Passive Investment Income (Title III)

The main types of income subject to Title III tax are dividends, interest, and any payments that can be considered as substitutes for interest and dividends. The most important exemptions are for interest on current bank accounts and interest on Lebanese government bills. The tax rate is ten percent.

(iv) Value Added Tax (VAT)

VAT is a 10% flat tax rate on taxable goods and services sales' price. Essential goods and services, agriculture, real estate, health, and education are exempt.

(v) Property Tax

Property taxes covers all properties located in Lebanon, and are in the following percentages depending on rental income the property can receive (per year):

Table C.4: Property Tax Percent of Rental Income

Rental Income In LBP/year	Percent tax
1 – 20,000,000	4%
20 – 40 million	6%
40 – 60 million	8%
Over 60 million	10%

Government buildings, hospitals, religious authorities, political parties, and foreign governments' buildings are exempt.

(vi) Excises

Excises cover a wide range of products, most importantly petroleum, alcoholic beverages, tobacco and cigarettes, restaurants and hotels, playing cards and departure tax:

Table C.5: Excise Tax Types and Rates

Type	Tax Rate
Milk, cream, yogurt, fruit juices and other non-alcoholic beverages	LBP 25/Litre
Wine & other fermented beverages	LBP 200/Litre
Ethyl alcohol & other spirits, denatured	LBP 150/Litre
Whiskies, rum, gin, vodka, liqueurs	LBP 400/Litre
Petroleum (unleaded)[17]	LBP 492.5/Litre
Tobacco	108%
Departure Tax	First Class: LBP 100,000 Business Class: LBP 70,000 Economy: LBP 50,000

[17] Subject to high fluctuation or continuous change

(vii) Customs Duties

Customs duties is levied on all import, and ranges from 70% on agricultural products, to alcoholic products (mainly 15% tax), to LBP 6.5/Litre on octane gasoline among other things. With these taxes, and with other non-tax sources of revenues, the government of Lebanon is expecting revenues in 2004 to amount to the following (and compared to 2003):

Table C.6: Revenues, 2003 and expected 2004

(Bill LBP)	**2003 Budget Law**	**2004 Draft Budget**
A- Tax Revenues	4,726	4,645
Income, Profits & Capital Tax	1,000	1,045
Tax on Properties	400	350
VAT + Internal Tariffs + Customs duties	3,076	3,049
VAT	1,100	1,200
Remaining internal tariffs on goods and services	1,196	1,299
Tariffs on trade and international exchange	780	550
Other tax revenues	250	201
B- Non-Tax Revenues	1,749	1,755
Proceeds from public administrations & institutions	1,180	1,296
Central Bank Revenues	20	0
Proceeds from other state properties	35	45
Casino du Liban Revenues	2	0
Beirut International Airport Revenues	30	35
Grottos, ancient & tourist sites	2	2
Beirut Port	10	10
National Lottery	25	47
Communications	1,050	1,150
Other revenues from public institution proceeds	6	7
Tariffs, administrative proceeds and sales	415	376
Fines and seizures	27	6
Miscellaneous Non-fiscal Revenues, including;	127	77
Pension slashes	75	77
Seafront properties settlement fees and construction violations	47	0
Postal proceeds	5	0

In the years 2002, 2003, the following expenditures by the Lebanese government were undertaken, based on the economic classification of expenditures:

Table C.7: Economic Classification of Government Expenditures

Total Expenditures (Billion LBP)	***2002 Budget Law***	***2003 Budget Law***
Material and Supplies	132.23	124.13
External Services	111.98	104.84
Salaries and Wages	2,061.46	2,178.48
Subsidies and Transfers	1,397.21	1,470.77
Other Expenses	245.37	239.15
Interest Payments and Financial Charges	4,500	4,000
Unallocated General Reserves	102.8	86.05
Total Current Expenditures (including debt service)	8,551.06	8,203.41
Total Current Expenditures (excluding debt service)	4,051.06	4,203.41
Acquisitions of Land	0.43	0.13
Acquisitions of Buildings	2.55	0.50
Acquisitions for the Construction of Roads, Ports, and Airports	2.76	2.15
Acquisitions for the Construction of Water Networks	8.29	5.00
Equipment	38.67	40.87
Construction in Progress	677.20	260.80
Maintenance	63.65	51.72
Other Expenditures Related to Fixed Capital Assets	30.40	35.43
Total Capital Expenditure	824	397
Grand Total	**9,375**	**8,600**

APPENDIX D - AFFORDABILITY ANALYSIS

AFFORDABILITY ANALYSIS

Table D.1. Distribution of Households Based on Average Monthly Income & Location[18]

Income category (LL000')	Lebanon (%)	Beirut (%)	Suburbs of Beirut (%)	Mount Lebanon (%)	North (%)	South (%)	Nabatiyeh (%)	Bekaa (%)
< 300	5.8	4.1	2.8	3.6	8.5	10.4	7.0	7.5
300 – 500	13.0	10.3	9.6	7.8	17.0	22.8	14.5	13.0
500 – 800	21.0	15.9	21.5	15.5	23.3	24.5	25.4	22.4
800 – 1200	21.1	18.9	22.4	19.3	21.5	18.0	24.0	24.1
1200 – 1600	13.4	14.7	15.2	14.2	11.5	10.0	13.4	13.3
1600 – 2400	12.1	14.9	12.2	16.2	10.6	6.8	9.7	11.9
2400 – 3200	5.9	7.3	7.2	9.9	3.7	3.4	3.6	3.9
3200 – 5000	4.3	6.3	5.0	8.2	2.1	2.0	1.6	2.6
> 5000	3.1	6.7	3.8	5.0	1.5	1.6	0.6	1.3
Not specified	0.3	0.8	0.3	0.2	0.3	0.4	0.2	-
Total	100	100	100	100	100	100	100	100

Based on the above distribution of Lebanese households based on income, the following table estimates the overall yearly revenue of all Lebanese households: (1500 LL = $1.0US)

Table D.2. Yearly revenue of households based on average monthly income

Income Category (LBP 000')	All Lebanon	Population[19]	Total Revenue[20] (LBP 000')	Yearly Revenue[21] (LBP 000')	Yearly Revenue ($US)
< 300 (avg. 300)	5.8	48,394	< 14,518,200	1,74,218,400	116,145,600
300-500 (avg. 400)	13.0	108,469	43,387,600	5,20,651,200	347,100,800
500-800 (avg. 650)	21.0	175,220	113,893,000	1,366,716,000	911,144,000
800-1200 (avg. 1,000)	21.1	176,054	176,054,000	2,112,648,000	1,408,432,000
1200-1600 (avg 1400)	13.4	111,807	156,529,800	1,878,357,600	1,252,238,400
1600-2400 (avg 2,000)	12.1	100,960	201,920,000	2,423,040,000	1,615,360,000
2400-3200 (avg 2,800)	5.9	49,228	137,838,400	1,654,060,800	1,102,707,200
3200-5000 (avg 4,100)	4.3	35,878	147,099,800	1,765,197,600	1,176,798,400
> 5000 (avg 5000)	3.1	25,866	129,330,000	1,551,960,000	1,034,640,000
Not specified	0.3	2503	-	-	-
Total	100			13,446,849,600	8,964,566,400

[18] MoSA and UNDP, Mapping of Living Conditions in Lebanon, 2nd ed., 2001
[19] Average household size in Lebanon is estimated at 4.8 individuals; Population: 4,005,025; Number of Households = 4,005,025/4.8= 834,380 households
[20] Total Revenue = Average Income * Number of Households
[21] Yearly Revenue = Average Income * Number of Households * 12

CALCULATING AFFORDABILITY FOR LEBANON AND ITS MOHAFAZAT

A benchmark adopted from the World Bank's estimates of the percentage of household expenditure that would need to be allocated to waste management services in a middle-income country ranges from 0.75 to 1.7% of average income, and will be used in our analysis.

The following Table Combines estimates from Table C.2 (giving an average for monthly incomes) and the WB benchmark of 0.75% - 1.7%:

Table D.3. Yearly Minimum Revenue of Households capable of allocation to SWM services based on average monthly income

Income Category (LBP 000')	Yearly Revenue ($US)	Revenue to be delegated for SWM in Lebanon[22] ($US)	Average Revenue to be Delegate for SWM in Lebanon ($US)
< 300 (ave. 300)	116145600	871092 -1974475.2	1422783.6
300 – 500 (ave. 400)	347100800	2603256 - 5900713.6	4251984.8
500 – 800 (ave. 650)	911144000	6833580 - 15489448	11161514
800 – 1200 (ave. 1,000)	1408432000	10563240 - 23943344	17253292
1200 – 1600 (ave. 1,400)	1252238400	9391788 - 21288052.8	15339920.4
1600 – 2400 (ave. 2,000)	1615360000	12115200 - 27461120	19788160
2400 – 3200 (ave. 2,800)	1102707200	8270304 - 18746022.4	13508163.2
3200 – 5000 (ave. 4,100)	1176798400	8825988 - 20005572.8	14415780.4
> 5000 (ave. 5000)	1034640000	7759800 - 17588880	12674340
Not specified	-		
Total	**8,964,566,400**	**67234248 - 152397629**	**109,815,938**

The annual cost of a complete and efficient national solid waste program in Lebanon, is possibly in the range of 43.2 - 100.8 million USD per annum (World Bank Benchmark) 23. The range of affordability to Lebanese society is in the range of about $US67 - 152 million per year (or an average of about $130/household/year), concluded from multiplying the benchmark range of 0.75-1.7% (of average income devoted to SWM) with the various households with various income levels.

Breaking down the affordability into Mohafazat (regions) will require the same procedure for each Mohafaza (region) as undergone above. However, for simplicity and further

[22] World Bank benchmark of 0.75 to 1.7% of average income can be delegated to SWM in Middle Income Countries such as Lebanon

[23] 1.44 million tons of municipal solid waste is generated per year in Lebanon, multiplied thus by the range of middle-income countries of US$30 – US$70/ton of collection, disposal and treatment of MSWs.

reassurance, average income per household for Lebanon and per Mohafaza is tabled below, along with the affordability of each Mohafaza.24

Table D.4. Average Income Per Household Per Year (US Dollars), 1999

Average Income Per Household Per Year (US Dollars), 1999							
All Lebanon	Beirut	Suburbs of Beirut	Mount Lebanon	The North	The South	Nabatiyeh	Bekaa
12,320	16,552	13,792	15,568	9,880	9,080	8,712	10,112
x 0.75-1.7% (Devoted to SWM)							
92.4 - 209.44	124.14 - 281.384	103.44 - 234.464	116.76 - 264.656	74.1 - 167.96	68.1 - 154.36	65.34 - 148.104	75.84 - 171.904
Average Income per Household per Year devoted to SWM							
150.92	202.762	168.952	190.708	121.03	111.23	106.722	123.872

In 1999, the range of affordability for all Lebanon was between USD 78.5 – 178 million25 (average $US128.2 million), a little over the estimates (USD 67 - 152 million per year) above, yet more or less within range. The difference between 1997 estimates above and 1999 estimates is due to the fact that in 1999, household growth rates was taken into account (from 1997 estimates) and the high income-per-household group (monthly income of over LL5 million or USD 3300 per month) was not assumed to earn a uniform LL5 million per month (as was assumed in the affordability calculations of 1997).

[24] Devco, Issa Consulting, for MMRA, CDR, Presentation, Cost Recovery, Solid Waste/Environmental Management Project (SWEMP), 1999

[25] Assumption: 834380 households in 1997 times annual growth rate for two years (0.9% growth per year from 1997 – 1999, UNDP Indicators) = 849,466 households in 1999. Thus 849,466 household x 92.4 – 209.44.

APPENDIX E – REVENUES FROM PROPOSED EXCISE TAXATION

Revenues from a Supplemental Excise Tax of 5% on Imports

Commodity	Value of Imports 2001 (Bil LBP)	Value of Imports 2002 (Bil LBP)	Value of Imports 2003 (Bil LBP)	Value of Imports 2004 (Bil LBP)	Average Yearly Imports (Bil LBP)	Revenue from 5% Excise Tax (Bil LBP)	Revenue from 5% Excise Tax Mil $US*
Petroleum / Bituminous Products	1,950.29	1,397.20	1,689.91	2,987.98	2,006.35	100.32	66.88
Motor Vehicles and Engines	1,072.53	862.77	1,049.55	1,271.05	1,063.97	53.20	35.47
Pharmaceutical Products	439.45	502.68	589.74	653.90	546.44	27.32	18.21
Electronic and Electric Products	1,506.49	1,301.03	1,315.78	1,672.54	1,448.96	72.45	48.30
Organic Chemicals: Dyes, pigments, pesticides, …	288.00	281.46	311.78	389.80	317.76	15.89	10.59
Tires	59.17	44.88	51.93	60.96	54.23	2.71	1.81
Tobacco and Tobacco Products	233.45	195.41	181.78	195.30	201.48	10.07	6.72
Asbestos	879.00	1.84	1.84	2.18	221.22	11.06	7.37
Fertilizers	26.46	24.04	27.73	39.63	29.46	1.47	0.98
Total	**6,455**	**4,611**	**5,220**	**7,273**	**5,890**	**294.49**	**196.33**

Source: Customs Authority, MoF website: www.customs.gov.lb , based on 2001 – 2004 figures

Trend of Revenues from Excise Taxation of Imports

Commodity	Value of Imports 2001 (Mil LBP)	Trend (2001-2002)	Value of Imports 2002 (Mil LBP)	Trend (2002-2003)	Value of Imports 2003 (Mil LBP)	Trend (2003-2004)	Value of Imports 2004 (Mil LBP)	Expected Trend
Petroleum / Bituminous Products	1,950,290	-28.36%	1,397,201	20.95%	1,689,912	76.81%	2,987,982	23.13%
Motor Vehicles and Engines	1,072,529	-19.56%	862,768	21.65%	1,049,552	21.10%	1,271,045	7.73%
Pharmaceutical Products	439,445	14.39%	502,680	17.32%	589,742	10.88%	653,902	14.20%
Electronic and Electric Products	1,506,487	-13.64%	1,301,030	1.13%	1,315,779	27.11%	1,672,538	4.87%
Organic Chemicals	288,000	-2.27%	281,456	10.77%	311,782	25.02%	389,804	11.18%
Tires	59,171	-24.16%	44,875	15.71%	51,925	17.39%	60,956	2.98%
Tobacco and Tobacco Products	233,447	-16.29%	195,407	-6.98%	181,775	7.44%	195,303	-5.28%
Asbestos	879	108.87%	1,836	0.22%	1,840	18.70%	2,184	42.60%
Fertilizers	26,455	-9.12%	24,043	15.31%	27,725	42.95%	39,632	16.38%
Total	**5,576,703**	**-17.31%**	**4,611,296**	**13.20%**	**5,220,032**	**39.34%**	**7,273,346**	**11.74%**

Source: Customs Authority, MoF website: www.customs.gov.lb , based on 2001 – 2004 figures

APPENDIX F - PROPOSED AMENDMENT TO CUSTOMS LAW

Decree for Charging a Supplemental 5% Excise Tax

Decree no. XXXX

The President of the Republic,

In accordance with the Constitution,

In accordance with Law 132, dated 26 October 1999 on Granting the Government the Authority to Ratify Custom Duties,

In accordance with the Customs Law (Decision 422, dated 30 June, 1954) and its Amendments,

In accordance with Decision 95, dated 20 December 1995 and its Amendments (Classification of Imported Commodities Based on the Harmonized System Code),

Having regard to the recommendations of the Ministers of the Environment and Finance,

With the approval of the Council of Ministers on XXXX,

Has adopted this decree

Article 1 - An additional 5% excise taxation, in conformity with the taxation laws and regulations, shall be imposed on the materials and commodities listed in Table 1.

Article 2 - This decree shall be posted and distributed as needed, and shall become upon its publishing in the official gazette.

Baabda on XXXX

مرسوم رقم:

إن رئيس الجمهورية،
بناء على الدستور،
بناء على القانون رقم 132 تاريخ 26 تشرين الأول 1999 (منح الحكومة حق التشريع في الحقل الجمركي)،
بناء على قانون الجمارك (القرار رقم 422 تاريخ 30 حزيران 1954 وتعديلاته)،
بناء على القرار رقم 95 تاريخ 20 كانون الأول 1995 وتعديلاته (تعريفة الرسوم الجمركية وفقا للنظام المنسق)،
بناء على اقتراح وزراء المالية والبيئة،
وبعد موافقة مجلس الوزراء في جلسته المنعقدة بتاريخ...

يرسم ما يأتي:

المادة الأولى – يفرض رسم استهلاك داخلي على المواد والسلع المحددة في اللائحة رقم ( ) المرفقة وفقا للمعدلات المثبتة تجاه كل منها.

المادة الثانية – ينشر هذا المرسوم ويبلغ حيث تدعو الحاجة ويعمل به فور نشره بالجريدة الرسمية.

بعبدا في

Table 26.List of Materials and Commodities Subject to a Supplemental 5% Excise Tax

HS Code	Description
Chapter 24	Tobacco and manufactured tobacco subsidies
Chapter 27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes
Chapter 29	Organic chemicals
Chapter 30	Pharmaceutical products
Chapter 31	Fertilizers
Chapter 32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other coloring matter; paints and varnishes; putty and other mastics; inks
Chapter 34	Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modeling pastes, "dental waxes" and dental preparations with a basis
Chapter 35	Albuminoidal substances; modified starched; glues; enzymes
Chapter 36	Explosives, pyrotech products; matches; pyrophoric alloys; certain combustible preparations
Chapter 37	Photographic or cinematographic goods
Chapter 38	Miscellaneous chemical products
Heading 40.11	New pneumatic tires, of rubber.
Heading 68.11	Articles of asbestos-cement, of cellulose fiber-cement or the like.
Heading 68.12	Fabricated asbestos fibers; mixtures with a basis of asbestos or with a basis of asbestos and magnesium carbonate; articles of such mixtures or of asbestos (for ex: thread, woven fabric, clothing, headgear, footwear, gaskets), whether or not reinforced, other than goods of heading No. 68.11 or 68.13.
Heading 68.13	Friction material and articles thereof (for example, sheets, rolls, strips, segments, discs, washers, pads), not mounted, for brakes, for clutches or the like, with a basis of asbestos, of other mineral substances or of cellulose, whether or not combined with textile or other materials.
Heading 68.14	Worked mica and articles of mica, including agglomerated or reconstituted mica, whether or not on a support of paper, paperboard or other materials.
Chapter 84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof.
Chapter 85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles.
Chapter 87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof.
Chapter 88	Aircraft, spacecraft, and parts thereof.
Chapter 89	Ships, boats and floating structures.

APPENDIX G - PROPOSED AMENDMENT TO MUNICIPALITY LAW – RENTAL VALUE OF PROPERTY

Amendment to Law of the Municipalities to Increase Municipal Charge on the Rental Value of Property

Decree no. XXXX

Concerning Municipal Charge on the Rental Value of Property:

Article 12 of Law of the Municipalities no. 60/1988, dated 8/12/1988, is amended as follows:

Article 12 - The values of the municipal charges on the rental value of property are as follows:

- A charge of 6.5% for residential property, with a minimum yearly value of LBP 50,000.
- A charge of 8.5% for non-residential property, with a minimum yearly value of LBP 100,000.

مرسوم رقم:

في الرسم على القيمة التأجيرية:

يعدل نص المادة 12 من قانون الرسوم البلدية (قانون رقم 1988/60)، ويصبح كما يلي:

المادة 12 – تحدد معدلات الرسم على القيمة التأجيرية كما يلي:

6.5 % للاماكن المستعملة للسكن.
8.5% للاماكن المستعملة لغير السكن.

على أن لا يقل مقدار الرسم السنوي المفروض في كل تكليف عن / 50.000/ ل.ل. خمسين ألف ليرة لبنانية في الأماكن المستعملة للسكن وعن / 100.000/ ل.ل. مئة ألف ليرة لبنانية في الأماكن المستعملة لغير السكن.

APPENDIX H - PROPOSED AMENDMENT TO MUNICIPALITY LAW – CHARGES ON UTILITY BILLS

Decree for Reinstating a 10% Municipal Charge on Water, Electricity and Telephone Consumption Bills:

The President of the Republic,

In accordance with the Constitution,

In accordance with Law 2/76, dated 30/12/1976, on Granting the Government the Authority to Ratify Application Decrees,

Having regard to the recommendations of the Ministers of the Environment and Finance,

Has decreed the following:

Article 96 of Law 60/88 on Municipal Fees and Charges dated 12/08/1988 shall be as amended follows:

> A 5% tax on the consumption bills of water, telephone and electricity services shall be charged, before value added taxation, for the purpose of Solid Waste Management.
>
> The relevant administrations and institutions shall collect the above mentioned charge from the service users on behalf of the municipality in which the service is being provided. Proceeds from the charge shall then be transferred to the relevant municipality in time with the transfer of proceeds from the Value Added Tax on these utilities, and in proportion to the funds collected from the service users within the municipal jurisdiction. Proceeds from service users not within a municipal jurisdiction shall be deposited in the Independent Municipal Fund.

في الرسم على خدمات الماء والكهرباء والاتصالات السلكية واللاسلكية:

الخيار الاول:

إن رئيس الجمهورية،
بناء على الدستور،
بناء على القانون رقم 76/2 تاريخ 1976/12/30 (منح الحكومة حق إصدار مراسيم اشتراعية)،
بناء على اقتراح وزير الداخلية والبلديات،

خلافا لأي نص آخر، يرسم ما يأتي:

المادة 96: يفرض على خدمات الماء والكهرباء والاتصالات السلكية واللاسلكية بالإضافة إلى الضريبة على القيمة المضافة، علاوة لصالح البلديات بمعدل 5% خمسة بالمائة من قيمة هذه الخدمات قبل الضريبة على القيمة المضافة، وذلك بهدف (النفايات الصلبة)

تتولى الإدارات والمؤسسات المعنية فرض هذا الرسم على المشتركين بهذه الخدمات واستيفاءها لصالح البلديات التي يقع الاشتراك في هذه الخدمات ضمن إطارها، على أن يجري تأدية حاصل هذا الرسم بالتزامن مع تأدية حاصل الضريبة على القيمة المضافة على هذه الخدمات إلى كل بلدية معنية، وذلك بنسبة حصتها من قيمة الاشتراكات المستوفاة، أو إلى الصندوق البلدي المستقل فيما يعود للخدمات التي يقع الاشتراك فيها خارج النطاق البلدي.

الخيار الثاني:

تلغى الفقرة الثانية من المادة 55 من القانون 2001/379 تاريخ 2001/12/14 ، والمادتين 9 و 10 من المرسوم رقم 7333 تاريخ 2002/1/31 وتستبدل بالنص التالي:

يعاد العمل بالمواد 96، 97 و98 من القانون رقم 88/60 تاريخ 1988/8/12، على ان يصبح الرسم البلدي المفروض على استهلاك الماء والكهرباء والاتصالات السلكية واللاسلكية 5%. كما وتفرض ضريبة على القيمة المضافة بنسبة 10% على هذه الخدمات بعد استيفاء الرسم البلدي.

تتولى الإدارة المختصة فرض الرسم والضريبة على المشتركين واستيفائهما منهم على أن تؤدي حاصلهما مرة كل ثلاثة أشهر إلى كل بلدية معنية، بنسبة حصتها من الاشتراكات، أو إلى الصندوق البلدي المستقل فيما يعود للاشتراكات الواقعة خارج النطاق البلدي.

يحق لهذه الإدارات أن تحسم من قيمة الضريبة المتوجبة على خدمات الماء والكهرباء والاتصالات السلكية واللاسلكية التي تقدمها، قيمة الضريبة المدفوعة على مشترياتهم التي اكتسبوها من اجل ممارسة نشاطهم.

أما بالنسبة للأشخاص الذين يقدمون خدمات الاتصالات والمياه والكهرباء بموجب عقود موقعة مع الدولة، فان عليهم أن يحصلوا الضريبة على القيمة المضافة عن هذه الخدمات ويؤدوا إلى الإدارة المختصة الفرق بين الضريبة المحصلة والضريبة المدفوعة.

على كل شخص من الأشخاص المذكورين في هذه المادة أن يقدم تصريحا خاصا للإدارة الضريبية يبين فيه قيمة الضريبة المتوجبة لصالح البلدية وقيمة الضريبة المدفوعة على مشترياته عن كل فترة ضريبية.