

Japan International Cooperation Agency (JICA)

Ministry of Natural Resources and Environment Protection  
Almaty City Government  
Republic of Kazakhstan

**The Study on**  
**Solid Waste Management for**  
**Almaty City in the Republic of Kazakhstan**

**Final Report**  
**SUPPORTING REPORT**

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January 2000

Yachiyo Engineering Co., Ltd.  
CTI Engineering International Co., Ltd.

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## **FINAL REPORT COMPOSITION**

**The Final Report is composed of the following reports:**

- 1. SUMMARY REPORT**
- 2. MAIN REPORT**
- 3. SUPPORTING REPORT**
- 4. DATA BOOK**
- 5. ENVIRONMENTAL IMPACT ASSESSMENT REPORT**

**This report is the SUPPORTING REPORT**

### **EXCHANGE RATE**

**US\$ 1.00 = KZT 115 (May 3, 1999)**

**US\$ 1.00 = Yen 121.10 (May 6, 1999)**

1. The first part of the document discusses the importance of maintaining accurate records.

2. It then goes on to describe the various methods used to collect and analyze data.

3. The next section details the results of the study and the conclusions drawn from the data.

4. Finally, the document provides a summary of the findings and offers suggestions for future research.

5. The overall goal of this document is to provide a comprehensive overview of the research process.

6. It is hoped that this information will be helpful to anyone interested in the field.

7. Thank you for your attention and interest in this work.

8. Sincerely,  
[Name]

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15. [Title]

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22. [Signature]

23. [Title]

## Abbreviations

ACDEP	Almaty City Department of Environmental Protection
(Akim)	Head of Local Government, Mayor, Governor, or Head of District
(Akimate)	Local Government Office
(Maslikhat)	Parliament, Council of Local Government
(Oblast)	Province
AMC	Territorial Committee on Regulating Natural Monopoly and Protecting Competition – Anti Monopoly Committee
Alt.	Alternative
BH	Block housing
C/N	Carbon-Nitrogen factor
CIS	Commonwealth of Independent States
D/S, DS	Disposal site
EIA	Environmental Impact Assessment
EIU	Economic Intelligence Unit
EL	Elevation
FDI	Foreign Direct Investment
FSU	Former Soviet Union
GDP	Gross Domestic Product
GKI	Territorial Committee of State Property and Privatization
GRDP	Gross Regional Domestic Product
IC/P	Incineration Plant
IEE	Initial Environmental Examination
IH	Individual housing
JICA	Japan International Cooperation Agency
JSC	Joint Stock Company
KSD (PKSK)	Cooperatives for individual house community management
KSK (PKSK)	Cooperatives for block housing management
KZT, T	Kazakhstan Tenge (Exchange rate at May 3, 1999 US\$ 1.00 = KZT 115.0)
Kcal/kg	Kilo calorie per kilogram
Kg, kg	Kilogram
Kg/cap/d	Kilogram per capita per day
Km, km	Kilometer
NEAP/SD	National Environment Action Plan for Sustainable Development
NEC	National Environment Center of the Ministry
RMB	Road Management Board
SWM	Solid Waste Management
T/S, TS	Transfer station
The (Study) Team	The JICA Study Team of the Study
The Ministry	Ministry of Natural Resource and Environmental Protection

**The Study**

**USD**

**USSR**

**bn**

**m<sup>3</sup>**

**t/a**

**t/d**

**The Study on Solid Waste Management in Almaty City**

**United States Dollar**

**Union of Soviet Socialist Republics**

**Billion**

**Volume in cubic meters**

**Ton per annum**

**Ton per day**



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***SECTION A***  
***INSTITUTIONS AND***  
***PRIVATIZATION***

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## **SECTION A: INSTITUTION AND PRIVATIZATION**

### **1. INSTITUTIONS AND PRIVATIZATION**

#### **1.1 BACKGROUND**

##### **1.1.1 Scope of Supplementary Report**

The institutional structure proposed in this Masterplan is a relatively common structure found in many western countries. Typically these structures have evolved over a considerable period. The rationale for these structures is also well accepted in the West. However in the current rather chaotic economic and social conditions of Kazakhstan there is considerable uncertainty about basic principles of organization of public services, and in fact very considerable mis-understandings about how these services are normally organized in developed Western countries.

The major objective of this supplementary report is thus to outline some of these principles needed to support the proposed institutional structure. This supplementary report does not attempt a complete presentation of principles for the organization of these services. It simply addresses key issues and misunderstandings that have been identified during this study which cannot be addressed in sufficient detail within the masterplan itself.

##### **1.1.2 Previous Structure of Sector**

To understand the current crisis in this sector it is helpful to understand the recent history of the sector. Under the previous economic regime there was a functional solid waste management system. This was operated by a large state enterprise under the Department of Housing and Communal Services of the City Akimate. In some respects this was inferior to services provided in the West. For example sanitary landfill procedures were never adopted. Intrinsically it was also probably relatively expensive to operate. The technical specifications of the equipment, especially collection trucks, was well below that of western equipment at the same period, and the inefficiencies of these trucks, even when new, undoubtedly increased costs. However the budgetary procedures of the previous system ensured that sufficient resources were provided to operate the system according to its design characteristics.

There is little doubt that if the previous political and economic system had remained operational, the waste management services would have continued to operate satisfactorily though developments to cut costs would have been introduced only slowly if at all. Why then has the service virtually collapsed?

##### **1.1.3 Economic Restructuring**

Since 1991 an economic revolution has overtaken the whole of the CIS. Unfortunately the "economic bloodshed" is not yet over. The objective of this revolution is to encourage greater economic efficiency, but in the process of clearing away many of the inefficiencies of the previous system a period of chaos has been inevitable. A 1991 Russian garbage collection truck is a very simple example of why the old system had to

change. These "compactors" achieved a compaction ratio of only 1.2 compared with about 2.0 for its western equivalent, requiring the Russian truck to make many more collection trips. Why was the Russian truck so inferior? The bottom line was a lack of incentive under the old system for the manufacturer to produce a better product. The manufacturers certainly had the technical skills needed to produce a far superior model but lacked any effective incentive. Such examples could be found throughout the economy and illustrate why radical change was inevitable.

The change process unfortunately has been rather brutal. As the least efficient parts of the old economy - the large state enterprises - have disintegrated, real GDP has been reduced to around 50% of its 1990 level. Worse as the Government was heavily dependent on these for taxation revenue, tax receipts have dropped to about 25% of historic levels.

This created a massive crisis for public services, with the Government scarcely able to find sufficient financial resources to support even basic administration. Funds for many services have simply not been provided. Many public services as well as Solid Waste Management have been affected. For example expenditures on roads at one point dropped in real terms to 10% of historic levels. The effect of this funding crisis is immediately apparent to anyone driving through any city of Kazakhstan. The impact has been as severe in other key sectors such as health and education though the effects might not be as immediately obvious.

The economic revolution has stressed the need to abandon state management and to privatize the economy. However in the absence of any real experience in how a market economy actually operates, there has been a tendency to believe that everything can be privatized. This is addressed in more detail below in 1.2.2 and 1.5.1.

The combination of these two factors led Governments, both national and local, to privatize many public services and to "wash their hands of any responsibility" leading to the collapse of many of these services. The core problem has been the failure of the national Government to repair the tax system. The Kazakh Government has been more responsible than any other Government in the CIS in controlling the fiscal deficit, and for that it should be commended. However it has been unable as yet (in common with all other Governments in the CIS) to rebuild the tax system to collect a reasonable percentage of GDP as tax for the provision of critical public services.

#### **1.1.4 Recent Structural Changes in Waste Management**

The general trend noted above has been followed in the Solid Waste Management Sector. In 1996 the state enterprise which ran all solid waste management services for Almaty was on the verge of financial collapse. The ongoing budget crisis had starved it of investment funds from the city budget, and revenues collected from the users were insufficient to cover even operating costs. Rather than face the underlying financial problem this state enterprise was "privatized" by breaking it into several Joint Stock Companies. The central administration became the JSC "Parasat" which also retained many of the other functions of the old Department of Communal Services. The branches of the old state enterprise in each raion, which had been responsible for local collection, each became a new JSC. Operation of the transfer station and disposal site was taken over by a JSC "Spectrans". Operation of the transfer station, part of the compost plant and the disposal site was transferred to Parasat in December 1998. It appears that some

form of lease that allows Parasat to control access to these sites has been granted to Parasat, but despite repeated requests the study team has not been provided with copies of documents to clarify the actual legal position.

In the privatization process some of the stock in the collection companies was transferred to private hands. Not surprisingly the collection companies again got into financial trouble and were again restructured into Limited Liability Partnerships. Despite repeated requests the study team was not provided with documents identifying the owners of these partnerships, but there are strong rumours of substantial cross ownership.

While the companies were partly privatized, many of the assets remained state property and were leased to the companies, initially by the Territorial Branch of the Committee for State Property and Privatization. Later responsibility for these assets was transferred to the Department of Communal Property within the City Akimate. Again despite repeated requests, full details of state assets on lease to companies were not disclosed to the study team.

A few very small private collection companies have been formed, and some of these have actually purchased their key assets (trucks) either from GKI or from other sources.

At the beginning of August 1999, the Akimate decided to transfer the leases of all state equipment in the sector to Parasat. The legal basis for these changes remains at best obscure. No documentation on these changes has been provided to the study team. However it appears that Parasat now has an effective monopoly over all parts of the sector from collection to final disposal. The state share in this company was 31% before these changes. There have been suggestions that these changes might alter this percentage, but no hard documentation has been provided to the study team.

### **1.1.5 Collapse of Waste Management Systems**

The existing systems are on the verge of collapse. In the time-honoured Soviet tradition of scapegoats, the managements of the collection companies have been blamed for this problem. This has been used as a justification for re-amalgamating these partnerships under Parasat.

If however Parasat held a key stake in most of these partnerships (as stated verbally by the Deputy Chairman of the Anti-Monopoly Committee), it is difficult to see how this re-amalgamation will have much effect on management. Despite repeated requests the study team has not been supplied with detailed ownership information, and so the team can neither verify or disprove this statement.

Certainly the management of these collection companies is inexperienced and there is substantial scope for improvement. Essentially these companies are or were operating on the basis of day to day crisis management. Long term planning in any form is impossible in the current circumstances. When conditions are changed we suspect that most of these managements will need substantial assistance to develop elementary management and planning systems.

Parasat has not co-operated with the team, but what information is available to the team also casts very severe doubts on the competence of Parasat's management. It is

currently promoting a recycling scheme that can only be described financially as totally irresponsible.

The core of the current crisis however is not management incompetence, but inappropriate controls imposed by the Anti-Monopoly Committee (AMC). The AMC has set tariffs at far too low a level, making it totally impossible for any management, however competent, to operate profitably.

Partly this is a "chicken and egg problem". The AMC is under considerable pressure, given the financial distress faced by many of the city's residents, to hold tariffs at the lowest possible level. It has argued that the service provided is poor, and that tariffs must be based on the historic costs of the obsolete equipment in operation. However it has ignored two key points. Firstly it is impossible for the companies to collect fees from 30% or more of the population. Its tariff setting has ignored this collection problem. Secondly it has used the historic costs of equipment for calculation of depreciation charges, ignoring the fact that this will not generate sufficient funds for replacement of equipment. Replacement costs of equipment are very much higher than the historic costs that have been used for calculation of depreciation charges.

To end this crisis the collection charges have to rise very substantially. The whole focus of the AMC activities must change from tariff setting to the break-down of monopoly powers. In this respect it is extremely unfortunate that the AMC made no attempt to block the recent consolidation of the monopoly powers enjoyed by Parasat.

## **1.2 ECONOMIC AND SOCIAL FACTORS**

### **1.2.1 A review of the economics of Waste Management**

#### ***Taken from paper "RECYCLING and PROFITABILITY"***

At first sight discussion of the economics of the sector may seem out of place in the discussion of institutional structures. However it has become clear that there is widespread and major mis-conception that an overall economic surplus can be created by this sector through the introduction of recycling. Using this misconception it has been argued that the sector can be managed totally by the private sector. Infact there is an overall economic cost, and this requires the public sector to assume some responsibility to ensure that these costs are met. How that responsibility should be discharged is discussed in the next section. This section is intended to explain that there is indeed an overall economic cost.

This misconception has certainly been promoted by visiting equipment salesmen keen to sell their equipment. These salesmen have even at times operated as scheme promoters, but none have actually offered to provide finance as far as we can determine. Unfortunately the distinction between a promoter and a financier has not been understood. However the fact that no western financier familiar with the risks in such investments has actually provided finance after several years should serve as a warning that perhaps these investments are not as attractive as the promoters have suggested.

We would like to provide a sober independent view based on experience from many different cities of the world.



In every city of the world solid waste management involves a net cost to the community. In no city is the total costs of solid waste management covered by the sale of recycled products.

Certainly in many cities recycling operations are conducted by the private sector, and are apparently profitable. These operations might be shown to potential equipment buyers without a full explanation of the financing of the sector overall.

Many different schemes exist, but frequently the real cost of waste collection is hidden. Frequently it is covered by taxation or other public revenues. In almost all cities the collection and disposal of waste remains a public responsibility, though actual operations are frequently contracted out.

- 1) The Waste Management Authority in any city is responsible for minimizing overall costs that must be funded from general taxation or specific user charges. A Waste Authority can reduce its overall costs by selling recycled raw materials for less than the collection costs as at least this allows it to reduce transport costs and avoid disposal costs. This is in practice the position in most developed countries. To explain the economics incineration (with the possible recovery of energy) and other recycling are treated separately Incineration

The incineration option was already examined in the Interim Report. In table 5.1.21 the overall operations and maintenance cost of the total waste management system is compared for several different options. This table shows that where the majority of the waste is incinerated total operation and maintenance costs is over double those of a system where all waste is disposed of in sanitary landfill. **This is even after reducing operations costs by the proceeds from the sale of electricity and steam from the incineration plant.** The initial investment cost (see table 5.1.22) for an incineration based system is over three times that of a sanitary landfill system.

While these figures are based on a preliminary desk study and might change up or down as much as 20% when all the facts are reviewed in a full feasibility study, the ranking of options will not change.

Why then is waste incineration used in some cities? Essentially incineration only becomes a viable option when the costs of waste disposal in sanitary landfill become extremely high. In Japan now the cost of disposing of waste in sanitary landfill typically exceeds \$300 per tonne, largely due to the extremely high cost of suitable sites and the large distances of these sites from major cities.

If we view an incinerator as a special type of power station designed to use a cheap fuel it is **not an attractive option even in Japan.** It is not attractive in Japan even though the price of electricity is about five times that in Kazakhstan and the price of conventional fuels (natural gas, fuel oil or coal) are several times the price of such fuels in Kazakhstan. Viewed as a power station, a waste incinerator is an extremely expensive plant largely due to the high costs of equipment to treat the toxic gases that may be generated by incineration of wastes.

In Japan incineration is an attractive option simply because it reduces the volume of waste that must be sent to landfill by over 80%, avoiding costs of several hundred dollars per ton of raw waste. In other countries incineration is less attractive, though in

some of the more densely populated parts of Europe and North America, incineration plays some role in the management of solid wastes.

A far more relevant example for Almaty however is Sydney, Australia, where cost relativities are somewhat closer. Municipal incinerators for solid waste were phased out in the 1980's, when it was realized that the capital costs of upgrading these plants to meet current environmental standards could not be justified. Large scale incineration for solid wastes was first introduced in the Eastern suburbs of Sydney in the 1920's but is now considered uneconomic. Price relativities in Almaty are even less favourable for incineration.

## **2) Recycling Materials**

Recycling of materials has certainly increased markedly in western countries over the past two decades. This has been partly driven by economics but largely by voter pressure to "protect the environment". Even in the west many of those advocating increased recycling do not understand the economic problems of making it viable, and frequently recycling schemes that are only marginal in economic terms are expanded to satisfy the demands of voters for more recycling.

In almost all cases recycling is based on separation at source by households or other generators. Often the initial phase of aggregation of these wastes into saleable packages is also undertaken by households at no cost to the waste authority or recycler. For example households may deliver separated wastes to collection centres providing both the labour and transport. In most countries the initial stages of separate waste collection are undertaken by some form of public waste authority, though there may be exceptions for specific wastes.

Separation at source is the preferred approach both because the labour costs of separation after initial collection are far too high in western countries, and the quality of recyclable wastes separated at source is higher.

Once collected and consolidated, the Waste Authorities sell these separated wastes to commercial recyclers at market prices. Both the demand and price for these recyclable waste materials are determined by the market. In many developed countries there is frequently an oversupply of some recycled materials such as paper, which depresses the price of these materials. These prices are in any case always limited by the supply and price of virgin raw materials which are usually of superior quality. Disposal of excess separated recycled materials is frequently a problem though it is often not advertised. In the case of paper for example excess stocks of recycled paper are frequently sent to landfill or incineration plants. In other cases, such as scrap metals, it might be possible to export surpluses. Millions of tons of ferrous scrap are exported from the US to India and millions of tons are exported by Europe to Turkey each year.

Waste Authorities are happy to manage separate collection as it reduces their overall costs. In most cases the price received for the recyclable waste materials does not cover the costs of collection, but the collection costs less sales proceeds are at least lower than the cost of alternative disposal arrangements.

In the case of Almaty the potential sales of recyclable waste materials are currently very limited.

The availability of recyclable waste materials is only 41 million Tenge or less than 300,000 dollars. We however stress that the likely demand is probably much less. Thus the total investment for collection of separated wastes or separation of wastes from mixed streams is therefore less than a million dollars.

It should also be noted that the demand for most recyclable waste materials is a derived demand, dependent on other economic developments. For example the major demand for recycled paper is for the production of cardboard packaging; for glass, bottles for beverage or food packaging (The quality is not suitable for many other glass products). In market economies factories to produce such packaging materials are built to service nearby beverage or food processors. Entrepreneurs will not build plants to produce these products until after a plant to produce the main product has been created. Creation of a factory such as the Kyzl-Orda cardboard box factory is unthinkable in a market economy. Substantial demand for these recyclable waste materials will therefore only emerge once other industries recover.

### **3) Financially Responsible Recycling**

Before any substantial investments are made in separate collection systems, it is necessary to test the market for recyclable waste materials. This will probably have to be done by the public sector.

The easiest way to do this would be to establish a small pilot "amenities centre" where waste generators can leave separated wastes. This can be a very low cost operation requiring little more than a small paved area with car and truck access and a few large containers for receiving the separated wastes. When demand justifies it this can be expanded and new "amenity centres" opened. Eventually when these amenity centres are unable to meet the demand for recyclable waste materials, then wide scale separate collection can be introduced.

Substantial investment in large scale systems cannot be justified until a market for the products develops. Kazakhstan is no longer a centrally planned economy. One can no longer create a market by decree or by quoting old "norms" and pretending that these determine actual demands. The discipline of the market must be accepted and risks must be minimized while determining its needs.

#### **1.2.2 Rethinking Responsibilities – the Public Role**

Up until 1991 the central authorities had almost total control over the allocation of all resources in the economy, which was exercised through a single pyramid-type administrative structure. The distinction between public and private responsibilities was not of practical concern.

These centralized administrative powers had a disastrous impact on the overall economy, particularly in what was then known as the productive sector. This administrative power allowed a massive and continued mis-allocation of resources to industries that were highly inefficient and in some cases were even destroying wealth. It also allowed the true financial situation to be hidden for long periods. The old system however ensured adequate resources were allocated to the "social" sector of the economy to support many social services including solid waste collection and disposal. Under the old system the precise mechanisms used to transfer resources to these social

services were unimportant, but have proved to be a major factor in the collapse of these services once the overall economic management system started to change.

The lower level of social services in the CIS in comparison to developed western countries was the result of the inefficiencies in the "productive sector", rather than a misallocation of resources between the productive and social sectors or within the social sector itself.

However the failure of the allocation process in the "productive" sector led some decision makers to assume that all allocation processes should be left to the private sector. This is quite contrary to the practice of all western countries where Governments take a major role in resource allocation in the social sector. The "privatization" programs in western countries are frequently misunderstood in the CIS. At least in the social sector such programs are not usually designed to reduce Government involvement in broad issues of resource allocation: in some instances Governments become more rather than less involved. Rather they are designed to increase the efficiency of service delivery, by using the private sector to manage the delivery of services.

This new environment requires a redefinition of public and private responsibilities, and a review of the Government's role in resource allocation.

#### *From "PUBLIC AND PRIVATE ROLES"*

##### **1) Public Responsibilities**

Prior to 1991 virtually everything was seen as a public responsibility. Now the pendulum has swung to the other side, and most services are seen as a private responsibility. What though is a realistic assignment of responsibility for utilities and services such as solid waste based on economic rather than political considerations?

The key economic principle that is applicable for a service such as garbage removal is that if failure of the service provided to one member of the population adversely affects other members of the population then there is a public responsibility to see that the service is provided.

In the case of garbage services, there is a clear public health issue. In urban areas at least, if garbage services are not provided to some individual households, the build up of garbage poses a health threat to neighbouring households. Hence there is a clear public interest in ensuring that all households receive proper garbage collection services. How this responsibility should be discharged is discussed later.

But to illustrate this public responsibility it is useful to contrast garbage collection with some other utility services such as telephones and electricity supply. If a particular household is not connected to the telephone system or electricity supply there is unlikely to be an adverse impact on adjacent households. Hence there is no public responsibility to ensure that these services are delivered to every household (though there may still be other responsibilities such as setting safety standards or ensuring monopoly positions are not abused).

## 2) The Pattern in Developed Countries

Except in the United States (which has always held strong attitudes against public ownership) public ownership of utility services has been the norm for most of this century. Over the last two decades privatization programs have been introduced in many developed countries. These programs are most advanced in the United Kingdom followed by New Zealand and Australia.

In all these countries utilities such as electricity, gas and telecommunications have been or are in the process of being fully privatized. These services are regarded as purely commercial services where there is no over-riding public interest<sup>1</sup>. However garbage services (and other services such as sewerage where there is an overall public interest that needs to be protected) are not fully privatized.

The structures of these services varies somewhat between city, country and service. The structure of garbage services in Sydney, Australia however are fairly typical of the way that this public interest is protected in countries where privatization is well advanced.

Garbage collection is the responsibility of local councils. (Council are the third level of Government with a council area in Sydney covering a population of between 100,000 and 500,000 persons). Garbage collection is managed by these councils all of whom now contract out the actual collection service. (The collection service is now dominated by a few large contractors which are part of larger transport and logistics groups.) The contractor is responsible to the council for providing collection services to all households in a specified region, and is paid by the council. This ensures that garbage is collected from all households even if individual households do not want to or are unable to pay for the service.

Councils in turn impose a specific fee (or rate) for garbage collection on households in its area as a component of the property tax that it collects under the Local Government Act. This rate covers the costs of the service. This system of local government responsibility has been maintained to ensure that garbage services are maintained throughout the region and not discontinued due to commercial problems between a contractor and individual households. At the same time competition between contractors has driven technological improvements in systems and lowered collection costs. Local councils and the State Government (the second level of government) still maintain an ownership role for transfer stations and disposal sites where ownership is not attractive to the private sector, but most services at these sites and all transportation services are provided by private contractors.

## 3) The Current Pattern in Almaty

The city government of Almaty appears to be privatizing not only the delivery of waste collection and disposal services, but also supervision and overall management of these services. This pattern is different from the pattern observed in almost every developed

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<sup>1</sup> The one exception is telecommunications in Australia where it is widely accepted that there is a "universal service obligation" to provide high quality telecommunications service throughout rural areas so that the whole population has access to electronic banking, electronic commerce, the internet etc. There is a difference of opinion between the left and the right of politics on the best way to ensure that this obligation is met.

country where city governments have retained some role to ensure universal delivery of services.

The government role has shrunk to the promulgation of environmental laws and operation of some enforcement agencies. While this may be an effective approach to the control of disposal services, certainly the judgement of almost every other state is that this is insufficient to ensure universal provision of collection services. In the current economic conditions in Kazakhstan the ability of households to pay for waste collection services is far more uncertain than in developed countries, and so the need for some (local) government role to ensure that adequate services are supplied to all households appears to be more pressing.

The City Government and the Republican Ministry have now accepted the need for greater public responsibility through their verbal agreement to establish the Waste Authority. It is to be hoped that this verbal agreement is soon turned into substantive actions.

### **1.2.3 Diversified Ownership of Land**

The dramatic change in ownership structures over the past decade has changed the management of land and services related to land. Under the old economic structure, all land was owned by the state. Certainly different state bodies might be directly responsible for different plots. However ultimately all of these bodies were under the control of the same central power. If problems of jurisdiction or responsibility arose, then these could be resolved by an administrative decision of a senior level of Government. As a result there was no need to draw up detailed laws and regulations to ensure that a service such as solid waste management could be provided universally.

The introduction of private ownership has complicated this issue. There are now many owners of different plots; the ownership of some areas is unclear; and in other cases ownership and responsibility of "common areas" is shared jointly by many owners. Some practical examples of potential problems helps to illustrate this point.

- Who is responsible for organizing and paying for waste management around a block house where there are many separate owners? If some of these owners refuse to co-operate with the local KSK what legal basis does the KSK have to manage the "communal area"?
- Where there is a small bazaar or kiosk on a footpath or area adjacent to a road, how will responsibility be apportioned between the kiosk and the street sweeping organization?

In the short term practical ad-hoc solutions will have to be developed as part of the detailed development of the tariff system by the Waste Authority. However eventually a proper legal basis will have to be developed as part of far wider developments to land tenure and land cadastre systems. This will have implications for many services as well as Solid Waste Management.

These developments will entail three key aspects:

- Ensuring that ownership of every parcel of land identified by the cadastre is clearly defined;

- Ensuring that local governments have appropriate powers to require land owners to maintain their land in a manner which does not adversely affect the common interest;
- Clarifying the rights and responsibilities of joint owners of common areas.

Of most immediate concern for solid waste management will be clarifying the legal powers of the KSK's. These seem to enjoy widespread support amongst most members of the population, and so should be retained to continue their current functions. However their legal powers need clarification. Currently membership appears to be effectively voluntary and their powers to enforce the majority decisions of owners of housing blocks extremely limited. The simplest solution would appear to be to amend the Housing act and land title system to create automatically a "body corporate" for any building where there are multiple owners and common areas. The powers of these "bodies corporate" could be modelled on those assigned to such bodies under most western legal codes.

These "bodies corporate" could then assign their powers to existing KSK's who could then continue to fulfil their existing functions with legal powers to enforce collective decisions where some apartment owners fail to co-operate with decisions taken for the management of common areas.

### **1.3 DECENTRALIZATION OF GOVERNMENT**

At first sight, the decentralization of Government would not seem to be particularly relevant to solid waste management! However current uncertainties surrounding the relationship of local executive bodies to the Republican Government may pose a significant impediment to financing of this masterplan, or for that matter to financing many other local services. Hence this issues cannot be ignored.

The changes in economic structure of the country might be expected to induce significant changes in the structure of Government. Certainly western countries have very different Government structures with more decentralization of functions and more autonomy at local levels. The relationship between local Governments and central Governments are governed primarily by law rather than by administrative actions of the central Government.

Intermediate levels of Government in Kazakhstan (such as Oblast and City Akimates) are not representative governments with autonomous powers over local issues as is commonly found in Western democracies. They are executive and administrative arms of the central Government. These intermediate levels of government have little effective input to the budgeting process, and have few real responsibilities or powers for balancing local revenues with local expenditures. As a result there are few mechanisms for drawing up budgets that reflect local priorities and needs.

For a complete review of the need for decentralization and reform of Government structures the reader is urged to consult the detailed report of the World Bank on Government Structures.<sup>2</sup>

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<sup>2</sup> This report was prepared based on a mission in 1995. Unfortunately there appears to have been little progress by the Government of Kazakhstan in addressing these issues. The original mission report has

The main idea however is that responsibilities should be matched with taxation collections needed to fund those responsibilities. Each level of government should be responsible to its electorate for the expenditure of those taxes, so that there is a real incentive for expenditure decisions to match the priorities of the population. Under this concept, tax administration might still be a republican responsibility (to simplify administration and to make avoidance more difficult) in accordance with the recent decision to remove the distinction between republican and local taxes. However the proceeds of specific taxes would be earmarked for the budgets of each level of Government.

The actual intentions of the Government of Kazakhstan for reform of central local relations are unclear. While there have been many re-organizations of ministries and agencies since 1991, the basic structure of Government has changed surprisingly little. The Communist Party has disappeared, but its traditional role of "co-ordination" has been largely taken over by a new pyramid of akims which report directly to the President of the republic, not the Prime Minister or the Parliament. Most departments within regional akimats are dually sub-ordinated. That is they report both to a national Ministry and to the regional akim, so that there are two separate channels for administrative control from upper levels. There appears to be no move towards delegating powers and responsibilities to local levels through legislation, and to managing the relationship between central and local governments via legal processes (as is common in Western countries) rather than administrative processes. This has an impact on monitoring and enforcement of environmental standards and on the relationship of the Waste Authority to ACDEP as discussed later in Section 1.4.

Of most immediate importance to the current project however is changes in financial relationships between the centre and local executive bodies. The changes to the budget laws introduced in March and April 1999 appear to further centralize control over the budget. These laws<sup>3</sup> are hard to interpret as they concentrate on specifying expected outcomes rather than principles for collection of revenues and approval of expenditures. Some expert advice<sup>4</sup> however clearly states that the distinction between local and republican taxes has been abolished.

The effect of these budget laws appears to be that local executive bodies have no control over any of the revenues collected through their local apparatus, and have no rights to spend these revenues for local purposes.

On the other hand recent legislation<sup>5</sup> on borrowing by government agencies appears to move towards decentralization of responsibility. In the interests of sound macro-economic management, this legislation imposes very strict limits on external borrowing by government and on the issue of State (sovereign) guarantees. This legislation is perhaps the most responsible such legislation of its type within the CIS region.

The effect of this legislation is that borrowing by the Waste Authority will not be eligible for a State Guarantee, unless the project is included in the list of "National Investment Priorities" which appears unlikely. The Waste Authority could however

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since been edited and reprinted as a monologue "Kazakhstan: Transition of the State" A World Bank Country Study, March 1997, ISSN 0253-2123

<sup>3</sup> Law xxx and xxx of

<sup>4</sup> Deloitte and Touche Tax newsletter of ....

<sup>5</sup> Law xxx



seek a guarantee from the City, and so the value of such a guarantee is of critical importance.

While the current legislation does allow the city to grant a mortgage over some of its assets as a form of guarantee, most lenders would still consider the ability of the City (the Guarantor) to meet from its own budget the cash flow obligations of the borrower (the Waste Authority) in the event of a default. Most lenders would far prefer that receive payments from the city budget than to have to assume ownership of the mortgaged assets.

The control of the City over its own budget then is of crucial importance to potential lenders. In brief it is only logical that if the Republican Government wants city administrations to accept responsibility for local borrowings, then the city administrations have to be given more control over city budgets. One cannot be effectively decentralized without the other.

In stable developed economies there are many precedents for local governments accepting responsibility for local borrowings, but in these cases these governments have considerable control over their own budgets. There are however few precedents for such local responsibility for borrowing in countries at such an early stage of development of its financial systems, so some review of the ban on the issue of State Guarantees for such projects might be warranted.

#### **1.4 MONITORING AND ENFORCEMENT**

It is generally agreed that current environmental standards are not being met, and that there is a significant environmental problem in Almaty city. While there is some argument about the need for stricter environmental standards, clearly achieving existing standards is the most urgent issue, and would result in a major improvement of the environment.

Hence a very serious question must be asked. Why are existing environmental standards not achieved despite a plethora of monitoring and enforcement bodies. While enforcement of environmental laws has never been totally effective it has got significantly worse over the past decade. Why has enforcement of these standards deteriorated?

There are several reasons which are best explained by reviewing recent history.

Firstly the economic changes of the past decade have decimated public finance, and as a result none of these enforcement agencies is properly funded from the budget. As a result the focus of these agencies has changed from monitoring and enforcement to the collection of fines to ensure their own survival. Recent legislation, which places undue emphasis on fines as a source of funds for such agencies has only exacerbated this tendency.

Secondly most existing legislation follows the historic soviet patterns. This was and is concerned primarily with codifying norms and standards, with little emphasis either on enforcement procedures or identifying bodies responsible for achieving these standards. While all power resided in the one monolithic structure, this did not pose a significant problem. Responsibility could be determined within this one structure. However now

that powers and responsibilities are spreading amongst agents outside of the traditional Government structure, more attention needs to be paid to identifying responsibilities and procedures in the legislation. In some instances a new institution might need to be created and then recognised in the legislation.

The creation of the Waste Authority is the most urgent example of such a change. Dumping of rubbish at unauthorized sites is clearly illegal, but this has been insufficient to stop widespread unauthorized dumping. Hence the need to create a Waste Authority which will clearly be responsible for organizing a universal service. If it fails to manage this service properly then it clearly will be liable to prosecution. Similarly any citizen that fails to use the service and continues to dump at unauthorized locations can also be prosecuted.

Lessons can also be learnt from past environmental disasters in Kazakhstan. While the cause of disasters such as Semi-Palitsk, the Aral Sea and the Caspian Sea are of course complex, all have one common thread: - there was no environmental monitoring of activities at these sites independent of the organization which was exploiting the sites. In the light of this experience, the principle that environmental monitoring of any exploitation activities should be carried out by an independent body should be considered very carefully. This principle is adopted very widely in western countries and is applied even when the entity that is exploiting the environment is a government entity or agent.

According to this principle the Waste Authority would be responsible for management of Solid Waste services and ensuring that the whole city is serviced. In the course of fulfilling its management role, the Waste authority will inspect the city regularly to determine whether additional collection points are necessary (and of course if it decides that additional points are necessary it will have to identify the users so that it can bill them for collection services). However a separate body (ACDEP) will still be responsible for some monitoring to ensure that the Waste Authority is actually fulfilling its Charter and organizing an effective city-wide service.

The fragmentation of monitoring inspection and enforcement organizations is not helping effective enforcement of existing regulations. At the local level there is a need for considerable consolidation to ensure more effective enforcement. The current situation is perhaps well described by the old proverb "When everyone is responsible, no one is responsible."

One of the major reasons for the current fragmentation is the maintenance of strict vertical structures inherited from soviet times. Every central ministry or agency still wishes to control its own local branches.

Consolidation of activities at the local level will have to wait until more fundamental reform of the central government/ local government relationship has taken place. Developed western countries have found it advantageous to delegate some powers and responsibilities to local levels of Government. This delegation is codified in legislation. When discharging these responsibilities local levels of government are subject to the laws of the country but otherwise exercise these powers independently of the central authorities. If an agency of the central Government is dissatisfied with the actions of local Governments, it can of course bring an action through the courts and try to show

that the local Government has breached specific legislation, but cannot interfere directly through administrative channels.

Thus for example at the central level there might be separate Ministries for Public Health, and for the Environment and Land Use Planning. These Ministries might each develop legislation which touches on Solid Waste Management and housing development. Such legislation should identify not only standards, but enforcement procedures and agencies responsible for enforcement. These might well be local Government. Thus for example in Australia the roles of both ACDEP and the Sanitary and Epidemiology Station for monitoring solid waste management would be carried out by the "Health and Building Inspector" of a local Government. The role of the central Government in this sphere is limited to development of policy and standards. Both management of services and enforcement of these standards is entrusted to local Government.

Consolidation of the roles of ACDEP and the Sanitary and Epidemiology Station for enforcing regulations relating to solid waste management should be taken as a medium term objective once the role and status of local executive bodies has been clarified. However it is recommended that initial efforts should be directed to formation of the Waste Authority which will assume management of solid waste services.

## **1.5 THE ROLE OF PRIVATIZATION**

The Background Sections (1.1) of this report have already outlined recent ownership changes in the sector. These changes have been driven by a combination of the financial crisis facing the Government and policy decisions of the Government to encourage private ownership of as much of the economy as possible. In section 1.2.2 the need for some continued public involvement in overall management to ensure universal coverage of the system is identified.

What then is the role of Privatization in this sector. *From Annex 1 to "SAMPLE SECTOR STRUCTURE"* Privatization remains a major plank in the Republican Government's economic reform program even though there is now considerable disappointment in some circles that privatization has not delivered the promised benefits. This disappointment is evident in Almaty's SWM services, but is certainly far more wide-spread. What has gone wrong?

Perhaps the core of the problem is the term itself. Like many panaceas, privatization means different things to different people. To some people the term simply means the transfer of ownership from a public organization to a private owner. This process in isolation is little more than a transfer of the names on the office doors and is unlikely to change much. Public inefficiencies simply become private inefficiencies. Experience all round the world shows that this type of change is unlikely to have much impact on economic performance, but may create additional opportunities for corruption.

Others interpret the term "privatization" to cover a whole economic reform program designed to make economic entities more responsive to the market. Certainly such programs involve inter alia the transfer of ownership, but involve many other policy reforms that have to be tailored to specific sectors to ensure competition will be generated. It is usually competition, not transfer of ownership, that is most significant in

improving management performance. OECD countries that have undertaken substantial privatization programs have taken ten to twenty years to implement these programs. The core of these programs have been structural reforms to markets to ensure competition, not the actual transfer of ownership.

### 1) A Change of focus

The lesson to be learnt from the experience of other countries is that initially attention should be paid to competition, management and efficiency issues, not ownership. The changes that are needed in ownership structures will flow from these other considerations. This is well illustrated by the privatization of solid waste services in Sydney, Australia.<sup>6</sup>

The privatization of garbage services in Sydney occurred over a ten or fifteen year period, driven by pressures on local authorities to reduce costs. There was no specific privatization policies or programs<sup>7</sup> for this particular sector promulgated by the national or state governments, and there have been virtually no changes needed to the legal structure regulating this sector to accommodate the privatization of large parts of the sector.

The process was driven by pressure on local councils to reduce costs. (Councils are local representative governments who have powers under the Local Government Act to collect local taxes. They are responsible to the electors in their area for the expenditure of those taxes.) The other major pressure on local councils was the difficulty of renegotiating labour contracts to improve labour productivity.

Individual councils, on their own initiative, simply put out to tender the operation of collection services in parts or all of the municipalities that they managed. In some of the early tenders, the bidders tended to be fairly small transport operators and they were often given the option in the bidding documents of acquiring plant and equipment owned by the councils. As it became clear that contracting out of these services would become a major business, some of the bigger transport firms established divisions for waste management and aggressively started tendering to councils to take over management of more of their services.

This process did not require any intervention by either the state or national government. Local governments continue to collect a garbage service fee from all property owners in their municipality. This fee is determined by the zoning of the land and the types of improvements (buildings) that have been approved. (Individual contracts are negotiated between councils and operators of large commercial or industrial enterprises).

The councils negotiate contracts directly with collection companies for the collection of waste from all the designated containers in the specified region. This also defines the volume of waste that must be collected, as standardized bins or containers are distributed by the council to all rate payers. This puts pressure on the population to control the volume of waste generated. If they are unable to fit all their waste in the

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<sup>6</sup> The three largest privatization programs (ranked by the proportion of the economy transferred from the public to private sector) in the OECD have been the United Kingdom, New Zealand and Australia.

<sup>7</sup> In some sectors such as power or telecommunications, specific privatization programs were introduced by the national and state governments. These programs typically were designed to reform markets before the break-up and sale of the state enterprises.

containers supplied, it is the rate-payers responsibility to make arrangements for disposal of excess waste. One option available to the rate-payer is to request the council to supply and arrange emptying of additional containers, in which case the service fee is increased proportionally. To ensure compliance, the "health inspector" (a council employee) is responsible inter alia for lodging prosecutions against any property owner<sup>8</sup> in the municipality should they allow waste to be stored on their property contrary to sanitary regulations.

The councils negotiate separate contracts with the same or different companies for the cleaning of public areas – street sweeping, cleaning of parks etc. which are financed out of general rate (tax) income of the council.

The tendering process between the councils and the collection companies is purely a commercial negotiation. Depending on the size of the municipality several different contracts might be let. The councils divide up their municipalities into various areas for tendering out of collection services. They should do this in such a way that it should be possible to organize collection services in these areas efficiently so that the tenders will attract competitive bids.

There has been no need for the Australian Consumer and Competition Council (the body responsible for preventing abuse of monopoly powers and ensuring fair competition) to be involved in this tendering process.

Transfer Stations and most disposal sites are owned by the Sydney Waste Authority a statutory body established by the State Government of NSW (the second level of Government). It is a self financing body. Initial capital expenditures were funded by State Government guaranteed loans. Some councils own their own disposal sites which are often combined with recycling centres. Operation of these sites and line-haul operations between sites are mainly contracted out, but overall control of the sites and the setting of access conditions and charges remains the responsibility of the Sydney Waste Authority or the relevant Council.

## **2) Accountability and the Rule of Law**

For privatization to be effective it is critical that the actions of all economic agents, both private entities and government agencies are subject to the rule of law. The operations of the legal system must be transparent and legal rights must be available to all potential economic agents. While the Government has made substantial progress in development of a civil code, there appears to be massive administrative interference by all levels of Government in its application, and it would be unrealistic to claim that commercial actions in Kazakhstan were currently governed by the rule of law.

The recent reorganization of equipment leases in the SWM sector is a typical example. The City Government has made no attempt to account for its actions, and despite repeated requests has not provided to the study team any documentation to clarify the legal basis for its actions. As far as we are aware none of the entities affected have challenged the actions of the City Government through the courts. This would have been expected in a country where the rule of law was established. It is possible that

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<sup>8</sup> For individual houses, this would be the land owner. For block housing where there are several different owners, it would be the "body corporate"

there is some basis for these actions, but the validity of such actions should be established by an independent judicial system, not the executive Government.

Until a genuine rule of law is established serious private investment will not be forthcoming particularly in areas such as this where the potential profits are modest. The lack of an effective "rule of law" seriously increases investment risks and discourages investment in all but the most speculative ventures.

### **3) Contracting out system**

Benefits will only accrue from privatization in this sector if an effective contracting out system is developed. First and foremost this must guarantee fair competition, and so it is essential that the Waste Authority which will manage this process does not have hidden ties to any particular contractors. The current partial state ownership of some of the potential contractors raises the question of whether the contracting process can be operated in a transparent manner. Full privatization and disclosure of ownership, as is required in most countries should be seriously considered.

Contracting out arrangements will not be effective if the AMC retains its current role in price setting. The market must be allowed to set these prices where there is a reasonable level of competition – otherwise potential entrants will be discouraged from entering.

The dominant position of Parasat, exacerbated by the recent changes to equipment leases must be acknowledged otherwise effective competition is unlikely to develop. If the company is agreeable, serious consideration should be given to splitting the company into two parts:

- One part to include all existing non solid waste management activities as well as existing and planned recycling activities. This part would become 100% private.
- The other part to include all existing solid waste collection and disposal activities. This part would become 100% state owned. Initially it would be allowed to retain a monopoly over collection in most areas, but be subject to price control by the AMC.

Under this arrangement competitive tenders would only be held in limited areas initially, though the area subject to competitive tender would gradually expand as new entrants appear. Tender prices would not be subject to AMC control, but the public company formed from Parasat would not be eligible to compete in these tenders.

### **4) Management Contracts and Leases**

Fair access arrangements for the transfer station(s) and disposal site(s) will be critical to the development of effective competition for waste collection and the overall success of the contracting out concept.

Unfortunately the leases recently granted to Parasat over both the existing transfer station and disposal site appear to leave Parasat considerable scope to discriminate against potential competitors. In most developed countries the validity of these leases would almost certainly be challenged in the courts by potential competitors under either Competition or Fair Trading Laws.

These leases may expire before their operation become a serious issue; they should not be renewed in their current form.

In future when tenders are let for operation of these sites, the resulting contract should allow the Waste Authority to retain control over access to the sites and give it the right to set the price for access to the site by third parties. In any event the operator of the sites cannot be allowed to discriminate against potential competitors in other areas of Waste Management. The form of contract is likely to be best described as a "Management Contract" rather than a "lease". However given the difficulty of capturing all the nuances of meaning in a single phrase, emphasis must be placed on the detail of these contracts rather than their title to ensure that equal access to these sites is guaranteed for all potential contractors.

## **1.6 TARIFF STRUCTURES**

The structures of tariffs vary significantly from country to country reflecting different institutional structures and organization of the sector. For example in Japan SWM services are operated by local Government. There is no separate user charge for the service – it is paid for out of general local taxes. By contrast in Australia local government levies a separate solid waste management charge on building owners. The service collects a container from each residence, and so the charge is levied per dwelling unit, not per person. The tariff structures must reflect both differences in organization and the feasibility of the proposed tariff collection arrangements.

Examples from other cities then may be of only limited value in determining a structure for Almaty City. It is more fruitful to go back to basic principles. Tariff setting principles should as far as possible be equitable, but must on the other hand be practical to implement. Both the study team and the local counterparts have agreed that the basic principles should be:

- Tariff will be set to cover the service cost
- Tariff will be collected by the Waste Authority
- Tariff will be based on waste amount to be collected and disposed of
- Low income group will be exempted from the charge (cross subsidy)

There are however major practical issues that must be considered when applying these principles. Many of the finer details can only be finalized after the Waste Authority has commenced operation, but some of the key issues that will have to be resolved are discussed below.

### **1) Should tariffs be uniform across the city?**

Collection in areas distant from the transfer stations will be more expensive. Once contracting out is introduced the different contract prices will reveal these cost differences. Should different tariffs be set in different regions based on the different contract prices?

To some extent these differences are determined by the choice of transfer station location which have been chosen to suit the city as a whole. Too rigid an application of user pays principles then would be extremely difficult. The team favours uniform tariffs

across the city unless it becomes clear that there are significant variations in generation rates.

**2) How should the tariff be related to the volume of waste generated?**

The current approach is to use norms estimating generation per person for domestic waste and generation per m<sup>2</sup> for commercial spaces. Obviously this is an approximation. Ideally one would relate the charge to actual containers emptied.

For block housing: (Note collection of fees from these will be undertaken by KSKs on behalf of the Waste Authority.) Initially tariffs can be set per capita. However one of the responsibilities of the Waste Authority will be to adjust the number of containers on platforms to prevent overflows. Once the new system is running the number of containers per platform will vary dynamically in response to actual waste generation rates, not "norms". Once this starts to occur the Waste Authority can start to adjust rates in different neighbourhoods to reflect their actual generation rates. KSK records of numbers in apartments are not totally accurate. A judgement will have to be made at some point about whether it is more practical and equitable for the tariffs to be charged per apartment (perhaps with different rates depending on the number of rooms) or according to the number of persons supposedly resident in the apartment.

For Individual houses (Note KSDs are weak – Waste Authority may have to bill directly). The only records that we believe are suitable are those of the "Centre for Estimation of Real Estate" Hence for practical reasons the tariff will probably have to be charged on a dwelling unit basis, not per capita. It is doubtful whether the records of the Interior Ministry that in theory registers all inhabitants of Almaty would be suitable for generating accounts, but this could be followed up further.

For small isolated commercial premises. These normally use containers provided for block housing complexes. The waste authority will instruct these to pay a tariff to the KSK who monitors the container platform used by the commercial entity. This would be based on area. If more containers are needed (due to overflow) than estimated by the norm, then the commercial entity and the KSK will discuss who is responsible and may develop other measures (such as the entity taking its recyclable waste to an amenity centre). If this does not resolve overflows then the KSK will have to increase rates per person or rates per m<sup>2</sup> to cover the costs of the additional container(s). This increase in rates will be legalized by powers in the regulations establishing the Waste Authority which the Authority can delegate to the KSK.

For groups of small commercial enterprises. Once the waste authority determines that a grouping of kiosks, stalls etc. justify a separate container platform, it should install such a platform. It would then immediately start to invoice these enterprises as follows

- a. if there is no formal organization or management of the bazaar etc., then each will be billed separately by the Authority based on the commercial trading licences issued to these entities. The rate will be on an area basis to cover the costs of the number of containers provided.
- b. if there is a formal management (such as in a large bazaar). The Authority will invoice the bazaar management for the number of containers provided. The bazaar management will be free to recover these from stallholders as part of the charges it levies for trading in the bazaar.



There are many details that will have to be worked out after the Waste Authority is formed. However the general principle can be stated at this stage.

The Waste Authority is responsible for identifying locations where containers are needed to ensure proper waste management: Failure of the Authority to do this will leave it liable to prosecution by ACDEP for failure to manage the system to maintain sanitary conditions in the city.

It is in the Authority's interest to identify the sources of waste that have made the installation of additional containers necessary, and to develop procedures for billing these waste generators for the provision of the service.

Note that the contractors will presumably insist that the collection contracts will include clauses to vary the contract price if the number or location of containers to be emptied are varied by the Waste Authority. The Authority will therefore need to identify additional sources of revenue cover its additional costs when it increases the number of containers.

### **3) Consumer protection and Price Control**

Control of tariffs charged for utilities to the poorer members of the community of Almaty is understandably a sensitive political issue. Certainly the ability of many in the community to pay for basic services is limited. Many pensioners are spending most of their pensions paying for heating, hot and cold water and electricity. These four services make up the bulk of a typical KSK bill.

The anti-monopoly committee has controlled the price of all utilities arguing that in all cases the utilities concerned were monopolists. Never the less the AMC did not block an 100% increase in the price of electricity and a similar increase in the price of heat following the privatization of Almaty Energo. The effect of these increases on KSK bills was far greater than any projected increase in SWM charges, simply because electricity and heat make up a large percentage (possibly over 50%) of the total bill while SWM is only 1 or 2% of the total bill.

In essence the AMC is trying to hold prices of all utilities down to short run marginal costs, to minimize the immediate impact on the consumer. While this is understandable, the effect is that the utilities cannot accumulate any cash for investment, and so these systems become unsustainable. The AMC has argued that when calculating tariffs, utilities should only be allowed to include depreciation charges based on historic costs. This however does not allow sufficient accumulations of cash in the utilities to provide for replacement, leading eventually to a collapse of the utility. While this might be in the short term interest of consumers, it clearly is not in the long term interest of the consumers.

Unlike the other major utilities, Solid Waste Management is not a natural monopoly. In many cities of the world there is healthy competition in the delivery of these services. Certainly the AMC is correct in arguing that currently there is an effective monopoly, but this is largely the result of the price controls imposed by it. At current prices entry into the sector is simply not attractive. The AMC should shift its focus to the development of competition, rather than the control of prices. Control of prices for new entrants is certainly not justified: if these rise too far, many new entrants will appear and

push down prices, as entry to this sector is relatively easy. The problem is rather the reverse – predatory pricing by the currently dominant company which could hold prices sufficiently low in the short term to prevent entry by new companies.

The study team recommends however that price control should be lifted for new entrants, and the AMC shift its attention to control of predatory behaviour by the currently dominant company.

To address the consumer protection issue, the study team has instead proposed a cross subsidy system discussed in section (5) below.

#### **4) Payment Enforcement**

Currently only 60% to 70% of all waste collection charges that are payable by consumers are actually collected. While no accurate statistics were made available to the study team it seems that while some non-payers are poor residents who cannot pay, other non-payers are capable of paying but are simply avoiding their responsibilities.

Under the Master-Plan, the Waste Authority will assume responsibility for collection of all charges, though much of the detailed processing will be contracted out to the existing payment processing centres and the KSK's.

Collection of tariffs for Waste collection is more difficult than the collection of tariffs for other services such as electricity where the provider can easily cut-off service to non-payers, and charge a reconnection fee in lieu of a penalty to force consumers to pay their accounts. Such a practical remedy is not available for Waste services as it is not practical (or desirable in the interests of public health) to cease service to individual consumers.

In other cities local Government has very substantial powers to collect waste management charges. For example in Australia the charge is collected by local councils as one of the components in the rates collected by councils from all land owners. Under the Local Government Act the council has the power to seize and sell land if any rates payable on that land remain unpaid for more than one year. After the council has recovered its rates from the offending land-holder any balance must be returned to the former land-holder.

The team has been assured by akimate staff that the Department of Communal Services already has sufficient powers to collect payments from residents who at present are avoiding their responsibilities, and that these powers can be transferred to the Waste Authority. The team has not been able to review these powers. The team would however note that significant powers might have to be granted to the Waste Authority and that it would be inappropriate to give such powers to a private sector company.

The team would also note that under the Masterplan the poorest members of the community will be exempted from payment of these charges, so that enforcement action is not planned against the poorest members of the community who genuinely would have problems paying these charges.

**5) Cross subsidies**

The Master-Plan proposes that the poorest residents will be exempt from the user charge. This “cross subsidy” is particularly important in Almaty, as currently the social security system is barely developed in Kazakhstan. Such explicit cross subsidy schemes are not common in developed countries. In developed countries this problem would be addressed through more general schemes to provide housing assistance to very low income groups as part of broader income support schemes for the poorest members of society. However in the absence of such a social security net, specific cross subsidy schemes for specific utilities become important.

The study team understands that the akimate has already developed an exemption scheme to waive payments for several basic utilities for some pensioners and other very low income groups. The legal basis of the existing scheme is doubtful, and this scheme has not been explained in full to the study team. The team urges the Akimate to regularize this scheme and ensure a sound legal basis is established as soon as possible.

However there is no need to duplicate this existing scheme. Rather exemptions from SWM charges should become part of this existing scheme. The akimate should simply inform the Waste Authority of those people that are eligible for exemptions under the existing arrangements. In turn the Waste Authority can exempt these residents from the payment of SWM charges. Details of these arrangements should be worked out after the Waste Authority has been established.

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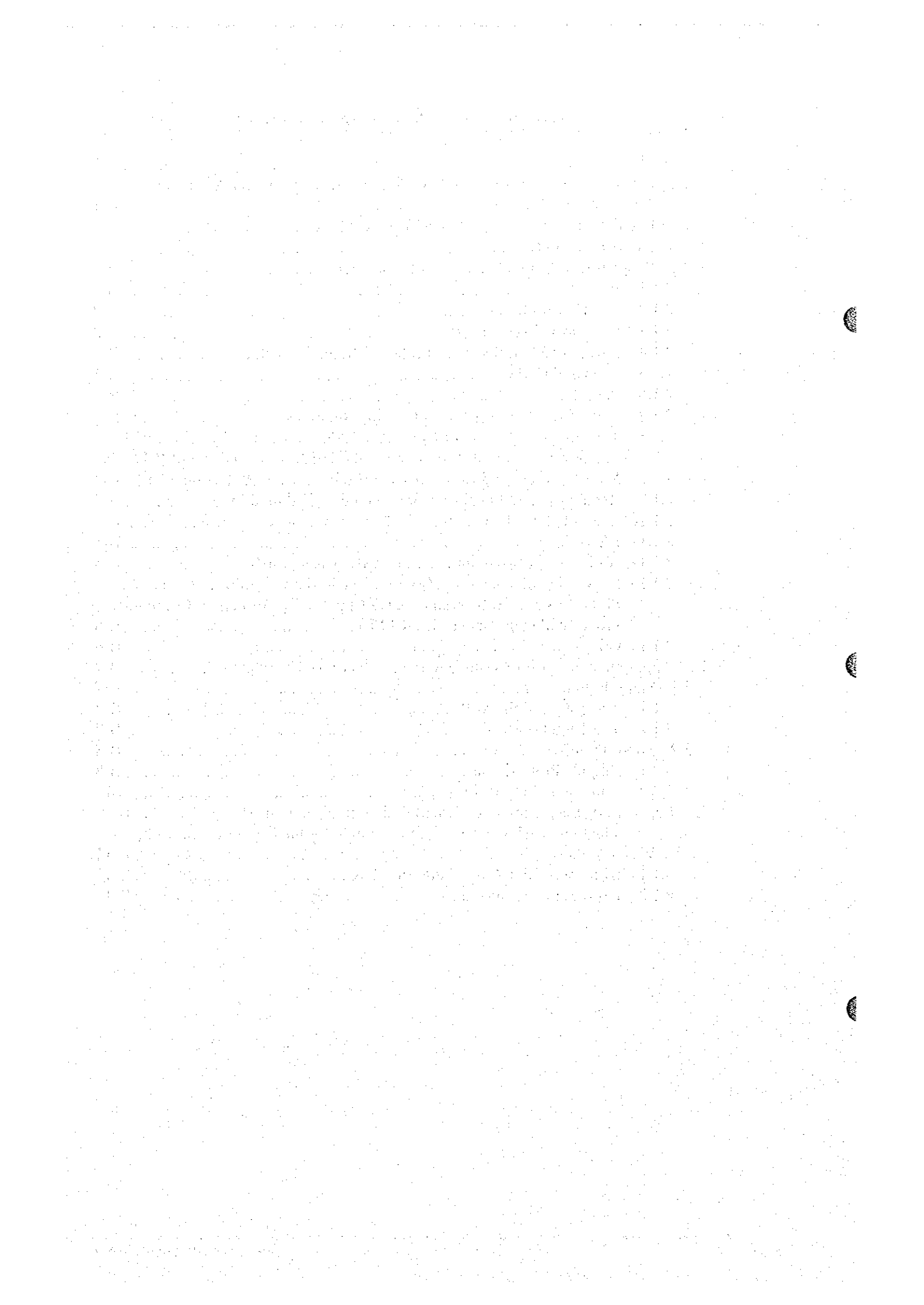
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***SECTION B***  
***LEGAL STRUCTURE***

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## **SECTION B: LEGAL STRUCTURE**

### **1. INTRODUCTION**

#### **1.1 LEGAL DOCUMENTS AS TO A SOLID WASTE MANAGEMENT ( THE SWM ) IN AN ADMINISTRATIVE SPHERE**

The Study on legal structures as to the SWM in the city of Almaty, the Republic of Kazakhstan ( the RK ) is required for comprehension of all statutory papers as many as obtainable commencing with the Constitution and ending with agreements between cooperatives for block housing management ( the KSK ) and waste collection companies.

Regulations exist too many to be gained and scrutinized because promulgation or abrogation of statutory documents is an everyday experience according to changes of the transition period which still continues and no law of the SWM can be found. So that rarely is it possible to discern whether or not a resolution is valid as for the SWM in Almaty. Under such circumstances as latent existence of a centralization in lieu of a decentralization called to the public, redundancy of efforts has been paid to formulate a mater plan ( the M/P ), in which urgently needed components are picked out as objectives of a feasibility study ( the F/S ).

#### **1.2 REGULATIONS AS TO THE SWM ON A TECHNICAL SIDE**

A plethora of legislation is prone to perplex the people/citizens with which regulations are still in force and already nullified. Although the "Normative documents on Environmental Protection, Provisional Instructions on Assessment on economic activity Impact on Environment" issued on January 1st, 1996 by Ministry of Ecology and Bio-Resources is valid as a regulation of an Environmental Impact Assessment ( the EIA ) for new lands and facilities on the new land to be used, and the "Basic standards and norms on Environmental Protection" is likewise for improvement of lands and facilities on the lands now being used, for example, various regulations issued in Moscow, USSR, at the Soviet periods are said to have still been in force since 1973, when the classification was made on industrial waste ranking I~IV as far as in obtainable papers. As to the categorization of waste, the "V" is provided in the Authorization of Almaty City Department of Environmental Protection ( the ACDEP ) dated January 4th, 1998, as a V class waste is deliverable to the disposal site ( the D/S or the Polygon ), which lasts on January 1st, 2000.

Ad hoc regulations have been used for case by case, so that it can not be helped that technical standards and norms are left to the discretion of respective technical sectors, albeit it is advisable that a comprehensive regulation should be codified as to quality, treatment and disposal methods of solid waste for the SWM in the city of Almaty.

## **2. PROCESS OF THE STUDY**

### **2.1 RANGED-OVER AVAILABLE DOCUMENTS AND FACTS**

All the obtainable documents and fact findings are read extensively and scrutinized respectively, and purposive means are taken for the Study eliminating regulations and facts not related to the Study.

#### **2.1.1 Basic Laws**

The Constitution of September 5th, 1995 is the fundamental law. Concerning the environment, there are two basic laws; i.e. the law No.160 of July 15th, 1997 on the Environmental Protection ( the E/P ) and the No.162 of July 15th, 1997 on the Specially-Protected Natural Territories.

As to health, there exists the law of May 19th, 1997 on the Health Protection of the Population as a basic law, albeit no word of "wastes" is found in this law despite the fact that the phrase of "in the sphere of health protection of citizens" is prescribed at about 30 provisions in Articles of this law.

The Civil Code is a bit related to the SWM in the domain of ownership of assets or properties, leasing and payment matters etc., chiefly concerning rights and responsibilities.

#### **2.1.2 The Constitution**

The 1995 Constitution has three times been amended. Provision related with ownership is stipulated in Article 6, safety and health of the population are prescribed in Articles 24, 29, 31, etc., the protection of natural environment is regulated in Article 38, the payment of taxes etc., is ordained in Article 35, legislative matters are provided in Articles 61, 62, 69, 88 ( as to abolishment of decisions and ordinances of Akim ) etc., and the local state administration is stipulated in Articles 85 etc.

#### **2.1.3 Law No.160 on the E/P**

- (1) As to the SWM, Article 16 is a basic provision on permission to use the nature and 46 is likewise adopted.
- (2) Concerning the authority on environmental protection, Articles 8, 10 etc., regulate which authority does what kinds of roles are fulfilled.
- (3) Ownership is provided in Article 11 as to private sectors.
- (4) Funds on the E/P are prescribed in Article 7 for payments for pollution, 26 for creation of funds, 27 as to the Republican and local budgets, 29 for payment rates approved by Akims of provinces ( Almaty City Akim on the same level as Akims of province ), 33 for local funds, 34 for use of resources of State owned E/P funds etc.



#### **2.1.4 Law No.162 on Specially-Protected Natural Territories**

- (1) Creation of public associations and public funds are promulgated in Articles 6 and 7. Article 8 ordains regulations on own funds, 10 for local significance from the funds of the local budgets, 76 for expenditure of funds from the E/P funds etc.
- (2) The word of "waste" appears in Article 23 as storing and burying waste of production and consumption.

#### **2.1.5 The Civil Code**

- (3) Regarding legal and communal entities, Articles 42 and 108 prescribe provisions of obedience for the ownership of houses and premises.
- (4) As to property loan ( lease ), Article 540 stipulates the process of presenting property by the lesser to the lessee on a payment basis into temporary management and use. Direct leasing refers to property lease.

#### **2.1.6 Plans**

Some National plans are regarded as similar regulations to laws.

- (1) **The Natural Environmental Action Plan for Sustainable Development (NEAP/SD)**  
Resolution of the Government No.137 dated February 3rd, 1997 has determined strategy of development up to 2030 and its components-the "Ecology and Natural Resources" approved by the President as an Agenda for the 21st Century as adopted by the President in April 1996. The "Polluter Pay" principle is described pursuant to the laws and international treaties such as the UN conference on environment and development ( Rio 1992 ).
- (2) **Almaty City development plan formulated in 1989**  
This plan was made in 1989 with the target year 2020 including population estimation, and prediction of structure of housing and territorial development of Almaty City. It is reported that direction of territorial development will be expanded mainly westward but also in the north and east directions.  
Almaty City is preparing a new general development plan with the target year of 2030 which will be completed in 2000
- (3) **Blueprint for law reform in post-Soviet Kazakhstan, 1996**  
This was well prepared by legal advisor on July 30th, 1996. The summation of core principles governing law reform describes that:
  - Full implementation of legal reform program should not extend beyond December 31,1999.
  - Certain aspects of the substantive law may be subjected to a dose of influence from American law. Such areas include "E/P Law", tax law, banking law etc., albeit the core character of the law follows a continental European civil law system.

This plan is liable to be neglected but has presumably highly evaluated in part for reference to stringent points of the legal reform.

### **2.1.7 Law of April 16th, 1997 on Housing Relations**

This describes mainly ownership of various types, its right or alienation. Only the phrase of "garbage removal" appears as part of utilities in Article 2.

As to waste collection, part of the SWM in the city of Almaty had better be separated from the other utilities and be enlarged in detail into an independent SWM law because of being regarded as a basic law for KSKs and KSDs from which solid waste is collected.

### **2.1.8 The Temporary Order of November 12th, 1997 issued by Ministry of Ecology and Natural Resources ( call on those days and reshuffled to the Ministry of Natural Resources and Environmental Protection later )**

Based on the law No.160, Article 16, this law was promulgated and now in force without being approved by Minister of Justice albeit his signature is needed for the law.

The ACDEP issues a permission to waste collection companies for waste collection in the city of Almaty. In short, it is said that the SWM in the city of Almaty is practically implemented based on the order, even though it is not a comprehensive SWM order.

In light of the order, a comprehensive SWM law should be created for the city of Almaty.

### **2.1.9 Republican and Local Budgets ( including E/P funds )**

- Law No.318 of December 16th, 1998 concerning the Republic's budget for 1999
- Law No.357 of April 1st, 1999 concerning the budget system
- Law No.359 of April 1st, 1999 concerning amendments to the law No.318

After 3 months and half, No.318 was altered. No body, except for the persons concerned, can understand how much it is for the state and local governments in the documents. It is hardly comprehended how much interventions to withdrawals from provinces are, though amounts are mentioned respectively.

In addition, the E/P funds are stipulated as 21% for Almaty in Article 7 of No.318 while 50% is prescribed for local state funds in Articles 7 and 11.

Decentralization entails an autonomy of local governments which requires a precious demarcation of budget between the Republican and local governments with accurate amounts respectively without using the phrase of "except for".

A law inherent in local governments should be established from their autonomous point of view irrespectively of the Republican Government which should financially support them as seen in majority of developing countries to materialize the decentralization.

#### **2.1.10 Law N464-1 3PK of August 2nd, 1999 on State Guarantee**

- Article 16 stipulates “the National Bank and local executive bodies shall have no right to issue guarantees for loan on behalf of the RK.
- Article 18 ordains “state guarantees may not issue as a security of loans of local executive bodies”

It is difficult for a donor to obtain a state guarantee for a loan to Almaty City at present. It is hoped that a state guarantee would be issued for a loan to Almaty City pursuant to a well turn of the state financial situation.

#### **2.1.11 KSKs**

It is reported that there are 667 KSKs in the city of Almaty as of March 1999. A lot of regulations exists as to KSKs.

- Resolution #259 of the Akim dated April 20th, 1997 on establishment of KSK.
- Resolution #266 of the Akim dated October 18th, 1996 on reforming housing and public utilities
- Resolution #647 of the Akim dated May 27th, 1996 on development of KSKs and dwelling
- #85 Attendum #1 of the Akim dated April 30th, 1996 on MODEL CHARTER of KSK
- Based on the decrees of September 6th, 1993 and of October 4th, 1995, the resolution #85 was issued to principally regulate organizational work on establishment of KSK.
- Resolution #259 of the Akim dated April 14th, 1998 stipulates that, in view of launching waste processing facility, liquidation of illegal dumpsites and upgrading ecological conditions, Almaty City Akim has resolved that the state fiscal department has to give Joint-Stock Company ( JSC ) Parasat free of an interest loan in the amount KZT 24 mln to be repaid on December 1st, 1998 for the resources provided in the city budget to promote small and mid-scale business.

The ACDEP recognized in July 1999 that 12 major illegal dumpsites had still existed in the city of Almaty, while 242 unauthorized dumpsites had remained there in the field survey as of March 1999.

Lots of other resolutions on KSKs and housing have been promulgated as necessary.

#### **2.1.12 Anti-monopoly Committee ( the AMC ) as to Tariffs**

- Resolution #6/11 of May 15th, 1998 the AMC for Almaty City: Attachment 1 for tariffs on solid waste transportation ( for 1 individual a month in Tenge including VAT ) and Attachment 2 for tariffs ( for institutions transporting and recycling solid waste, per cubic m.).
- Act of April 15th, 1998, pursuant to Order #2-II dated January 1st, 1998 of the AMC

The AMC is ready for alienating the right of setting tariffs to an authorized municipal ( state ) owned entity should it perform a fair and open competition in contracting out the waste collection with qualified private collection firms, according to the AMC's opinion made as a response at the interview on July 29th, 1999.

**2.1.13 Devolution of state assets from the Territorial Committee of State Property and Privatization ( the GKI ) to the Department of Communal Property Management ( the DCPM )**

- The edit of the President dated November 1998 provides that ownership of the state properties/assets shall statutorily be divided into two: the Republican and the municipal ones. The procedures started on October 23rd, 1997 which was explained by the GKI as a response at the interview of August 3rd, 1999.

Since the alienation of state properties might be implemented from the GKI to the DCPM, it is still unclear whether only the right of using was transferred to or ownership was devolved to the DCPM. Providing that no ownership might be alienated to the DCPM, the eventual owner is deemed to be the GKI.

If so, it must be considered that the GKI may be needed to create a new department as a commercial leasing section or a new commercial leasing company as an option.

**2.1.14 Others**

Appropriate measures as to legal aspects will be taken up and conducted should it be possible to fulfill them or some of them in light of current situations.

### **3. APPROPRIATE PROPOSITIONS SUITED TO THE RESULTS OF THE STUDY**

#### **3.1 MAJOR PREMISE**

##### **3.1.1 The Target of the M/P**

- 1) Target year: 2010**
- 2) Target: Establishment of sustainable SWM system**
  - Arrangement of appropriate equipment and facilities
  - Reform of institutional set up
  - Establishment of financial base
  - Provision of appropriate service to whole city areas
  - Introduction of appropriate system to reduce solid waste and to recycle

##### **3.1.2 The Target of the F/S**

- 1) Target year: 2005**
- 2) Target: Fulfillment of minimum service level requirements ( in the M/P )**

Detailed description is referred to the other parts of this report. Only marked points shall be mentioned here.

  - a. Waste collection**
    - Block housing...Collection coverage:100% from stations with containers
    - Individual housing...Twice/week, from stations & door-to-door. 80%-90%
    - Commercial waste...Minimum 2 times/week & daily for central areas
    - Harmful waste discharged from households...Separate collection
  - b. Waste treatment and disposal...Sanitary landfill & harmful waste will be disposed ( buried ) separately or stored.**
  - c. Waste reduction, processing and resource utilization...Collection of recyclable materials**
  - d. Medical waste...Separate collection & disposal of infectious wastes**
  - e. Industrial waste...Generators' responsibility for their waste disposal & system for educating and registering firms responsible for collection and treatment**
  - f. Street sweeping...Minimum once/week & daily in city center**
  - g. Illegal dump site...System for abolishing and control of illegal dumping. Phased improvement of illegal dump sites**
  - h. Waste collection tariff. Maximum 1-2% of disposable income**

## 3.2 MINOR PREMISES

### 3.2.1 Eligible Propositions

- 1) Recommendation on Almaty City Akim's legislation
  - a. Legislation for the establishment of the municipal ( state ) owned Waste Management Authority ( the Waste Authority )
    - Promulgation of a decree for the establishment of the Waste Authority
    - Issuance of a decree or a resolution for stringent alienation of state properties from the GKI to the DCPM concerning properties regarded and decided as municipal ones
    - Issuance of a decree or a resolution for rigid devolution of the tariff-setting right from the AMC to the Waste Authority
  - b. Legislation for permission to and/or approval of rights and responsibilities of the Waste Authority stipulating at least the following matters
    - Autonomy and perfect independence of the Waste Authority, without any intervention from any governmental bodies at any levels
    - The Waste Authority to be under the umbrella of but outside the edifice of Almaty City ( municipal ) local government which is responsible for the SWM in the city of Almaty
    - Self-sustainable financial system, without any leakage of money and/or internal reserves to any other governmental bodies and/or any other entities
    - Right to set tariff ( rates ), according to any kinds of classification, considering current costs and internal reserves for sound operation, amelioration and further expansion of the Waste Authority albeit it is not a profit-oriented institution, in light of current economic situations
    - Right to change receiving routes or means of waste collection fees according to tariff rates, negotiating with relevant bodies/entities and/or individual persons concerned, and to implement direct payments to waste collection companies at the rates fixed respectively when the tenders are carried out.
    - Reservation of right to acquire some subvention from Almaty City ( municipal ) local government, in case and if possible from the Republican Government if deficit happens to come out, and to enjoy receiving any unconditional donation from any enterprises regardless of domestic and foreign donors subject to the approval of Almaty City Akim and/or the Republican Government
    - Right to divide waste collection areas from technical points of view, though administrative demarcation lines of Almaty City by district are much considered carefully
    - Right to call bidders ( qualified waste collection companies and/or qualified ones capable of operating transfer stations and/or the Polygon) for fair and open tenders in order that winners may engage in waste collections at the areas and/or districts decided by tender respectively and that may engage in operation and management of transfer stations and/or the final disposal site ( the Polygon )

- Leasing right of its owned municipal ( state ) properties to waste collection companies ( winners in the tender competition ) and (an) operational company(-ies) i.e. (a) winner(s) for transfer stations and/or the Polygon
- c. Order of Almaty City Akim between citizens/residents and the Waste Authority
- Explanation of “Polluters-Pay” principle
  - Explanation of social awareness about waste, inter alia, domestic waste and comprehension of the collaboration with the Waste Authority to clean thorough city of Almaty according to the regulations
  - Explanation of a local government responsibility; i.e. the Waste Authority under the umbrella but outside the structures of Almaty City local government has to have the responsibility for the SWM in the city of Almaty.
- d. Some legal document of Almaty Oblast ( Provincial ) Department of Environmental Protection ( the APDEP ) on the area in the Oblast ( the province ) presently used as the Polygon by the city of Almaty should be scrutinized and, if necessary, amended in part so as to enable the Waste Authority use the area in Oblast as it remains when the Waste Authority is established.
- 2) **Laws to be amended by relevant Ministries of the Republican Government**
- a. Budget system ( laws Nos. 359 & 357 of April 1st, 1999 and No. 318 of Dec.16th, 1998 being confronted with ) to be amended in part making a rigid and clear demarcation in amount between the Republican and local budgets, particularly the budget of Almaty City ( municipal ) local government.
- General budget of Almaty City to be so clarified as to be capable of being well known to everybody of the citizens of Almaty City, without provisions of subventions to and withdrawal from provinces such as Almaty City at the provincial level
  - The E/P funds ( an absolute and defined percentage ) for Almaty City to be so clarified as to be capable of being well known to everybody of the citizens of Almaty City, without stipulations of the phrase; “except for”
- b. Law of April 16th, 1997 on Housing Relations to be amended in part at least as follows
- Extraction of “garbage removal” from the public utilities for creating an independent law like a comprehensive SWM law which should be consolidated after being aligned in order
  - Ownership of communal areas such as container platforms and the like to be enunciated and defined for determining who should have the responsibility for cleaning them, in consideration of connection with the responsibility of contracted-out waste collection companies ( winners in fair-and-open tendering competitions )

### **3.2.2 Elimination of Propositions**

#### **1) Amalgamation of the Sanitary and Epidemiological Station ( the SES ) with the ACDEP**

The ACDEP is the key organization ( being composed of 37 personnel as in May 1999 ) for enforcing regulations intended to ensure effective waste collection and to prevent illegal dumping of wastes through monitoring. It is advisable that the ACDEP had better be merged with the SES in order that the amalgamation would reduce opportunities for violators to evade enforcement actions by arguing about jurisdictional responsibilities. Thus, the ACDEP will be much involved in the SWM of Almaty City without intervention of the Waste Authority management.

#### **2) Elimination of the street cleansing**

Street cleaning services are supplied by a Joint-Stock Company ( JSC ) "Road Exploitation Department", which was formerly an organization of the City government but was privatized as a whole department. It cleans the roads ( 1,336km ) for cars and bus stops ( 1,400 in total ). The shareholders are the Republican Government at 71.5% and the employees at 28.5%.

Its revenue comes from only the City Financial Department through a JSC "Landscape department", which is something like a parent company. 80% of the business profit goes to the Republican Government.

Street sweeping services had better be left to "JSC Road Exploitation Department". So that, street sweeping services are put aside in the plan of the Study.

#### **3) Exception of industrial toxic waste and infectious medical waste**

- a. In principle, respective industries ought to treat and dispose of their waste respectively. Some industrial enterprises are likely to conclude contracts with waste collection companies for the removal of their waste at their expense to the transfer station and/or the Polygon.

No body, except for the persons in charge, knows how the toxic waste of the classes I & II categorized in the 1973 Moscow regulation is disposed of in respective industries, though the class V waste is shown as domestic waste in the authorization of the APDEP dated January 4th, 1998.

Thus, industrial waste is excluded in the Study, albeit some study is carried out to know the actualities and establishment of waste cadasters is recommended.

- b. Medical waste is disposed of in the same way as that for the above-mentioned industrial waste. A few hospitals are reported to treat well infectious waste but all the clinics and hospitals are hardly considered so. Be the waste ever well treated, no one, except for the persons concerned, knows how the waste is disposed of. Materialization is recommended on separate collection and disposal of infectious waste, because collectable is the medical waste similar in quality of the waste components to the domestic waste.



## **4. LEGAL ARRANGEMENTS FOR A NEW SWM SYSTEM IN THE CITY OF ALMATY**

### **4.1 PROMULGATION OF ALMATY CITY AKIM'S STATUTE FOR THE ESTABLISHMENT OF THE WASTE AUTHORITY**

The Akim shall issue at least the following legal documents for the set-up of the Waste Authority and the agreement of citizens on its establishment, the relations between the Waste Authority and citizens/residents including any legal entities, enterprises, KSKs and KSDs and also the public awareness about sanitation.

The Almaty City local government, as well as the Waste Authority when established, shall endeavor to diffuse the new SWM system in the city of Almaty by means of mass media such as newspapers, official magazines, radios, TVs, etc., until making it be fully understood by citizens and popularized.

#### **4.1.1 Synopsis of the Waste Authority**

- a. Ownership: The Republic of Kazakhstan ( the RK ), i.e., a 100% municipal ( the state ) owned public enterprise, for which the Akim of Almaty City ( actually his nominee among Akim's officials; Akimate ) shall be totally responsible.
- b. Initial capital for the establishment: the E/P Funds of Almaty City local government. (Remarks: It was reported at the Akimate's office in charge of laws on August 13th, 1999 that the E/P funds of Almaty City could be used for the establishment of the Waste Authority, consulting with the City Financial Department of Housing Insurance Funds.)
- c. Governance: Board of directors, which shall be composed of:-
  - (1) City Akim or his nominee from City Akimate
  - (2) Akim of each district in Almaty City or his respective nominee from the respective Akimate
  - (3) Nominee of the Akim of Almaty Oblast ( probably a responsible official from Karasai district where the Polygon is located )
- d. Charter
  - (1) The SWM ( waste collection, transportation, treatment and disposal ) services shall be provided, controlled and managed by the Waste Authority.
  - (2) The Waste Authority shall statutory and financially be independent of and without any intervention from any other governmental bodies at any levels under the umbrella of but outside the edifice of Almaty City local government.
  - (3) The Waste Authority shall be a perfect independent and a not-profit-oriented organization enjoying an autonomous self-accounting system and legally capable of utilizing internal reserves for its sound operation and future expansion should a profit happen to come out.
  - (4) The Waste Authority shall the right to lease the properties, not only equipment and facilities but also the designated land areas of Almaty City ( which the

DCPM holds ) by contract and/or agreement through fair and open tendering processes, and to deprive such private and/or joint-stock companies of the leasing rights as determined to be disqualified firms.

- (5) The Waste Authority shall have the right to conclude a contract-out with winners ( legal bodies ) in the competition of fair and open tenders among qualified legal entities for waste collection and transportation, and the management of transfer station(s) and the Polygon, in the residential and commercial areas in the city of Almaty and at the places to be designated by the Waste Authority.
- (6) The Waste Authority shall have the right to set waste tariffs ( tariff rates ) as:-
  - collection and transportation fees per person ( capita ) a month for household
  - commercial and medical waste collection and transportation fees per ton a month for relevant entities and enterprises and to apply a Cross Subsidy system to fees for waste collection and transport from households in light of income levels.
- (7) The Waste Authority shall hold the right to collect the fees and/or charges for:-
  - waste collection and transportation from households and any other entities according to the tariff rates via banks and/or directly
  - receiving the waste per ton from the waste transportation companies at the transfer station(s) and the Polygon by means of coupon ( sold beforehand ) and/or banks
- (8) The Waste Authority shall have the right to pay the appropriate amount(s) decided at the time(s) of the fair and open tenders to:-
  - the contracted-out collection and transportation companies
  - the contracted-out company(-ies) for the operation and management of the transfer station(s) and Polygon
- (9) The Waste Authority shall neither issue any guarantee nor any loan to any private and joint-stock companies in any form.
- (10) The Waste Authority shall be audited for its accounts by the Financial Department of Almaty City local government based on an account book and a financial report at the end of a fiscal year.

#### **4.1.2 Decrees to be issued on:-**

- 1) Establishment of the Waste Authority at the beginning of the year 2000**
- 2) Stepwise shifts from the present SWM system towards 2005**
  - a. Citizens' payment system for waste collection fees  
Citizens shall make a monthly payment of waste collection and transportation via banks through KSKs or KSDs concerned or directly to the Waste Authority (Remarks: The change of payment flows entails the comprehension and agreement of present waste collection companies by negotiation about the new SWM system, so that it shall gradually be materialized, company by company, towards around the month of September 2001, until which it will not be helped that the present payment channel shall exist mixed with the new system in waste

collection areas.)

- b. Enterprises for waste collection, transportation, and treatment and disposal at transfer station(s) and the Polygon  
Chief Executive Officers ( the CEO ) and/or managers of respective companies concerned shall totally abide by the law the new SWM system, be obedient to the decree and materialize it. Only wining companies in a fair and open tendering competition to be made by the Waste Authority under the advice of the AMC shall be in a position to practice their roles and activities pursuant to the rules and amounts set by the Waste Authority based on the contracts between the Waste Authority and the wining companies.