

# **A Toolkit for Municipal Asset Management**

Submitted to

**Municipal Finance Task Force**

Submitted by

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# Table of Contents

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Section	Page
<b>1. THE IMPORTANCE OF ASSET MANAGEMENT FOR MUNICIPAL FINANCE AND DEVELOPMENT .....</b>	<b>1</b>
<b>2. POLITICAL, LEGAL AND REGULATORY ASPECTS OF PUBLIC ASSET MANAGEMENT .4</b>	<b>4</b>
2.1 INTRODUCTION.....	4
2.2 THE LEGAL AND ADMINISTRATIVE FRAMEWORK.....	4
2.3 IMPORTANT LEGAL PROVISIONS.....	7
2.3.1 Land Management Regulations.....	7
2.3.2 Acquisition or Disposal of Municipal Assets .....	7
2.3.3 Leases and Contracts .....	8
2.4 ENFORCEMENT OF LEGAL PROVISIONS .....	8
2.5 PLANNING AND REGULATIONS .....	9
<b>3. INVENTORY OF THE MUNICIPAL ASSET BASE AND SYSTEM.....</b>	<b>11</b>
3.1 INVENTORY POLICY AND PRACTICE.....	12
3.2 CLASSIFICATION OF FIXED ASSETS.....	13
3.3 REGISTRATION OF MUNICIPAL PROPERTY AND ASSETS .....	14
3.4 ORGANIZATION OF REGISTRY .....	15
<b>4. FINANCIAL AND VALUATION ASPECTS .....</b>	<b>18</b>
4.1 ACCOUNTING STANDARDS, CASH VS. ACCRUAL ACCOUNTING .....	18
4.2 METHODS OF VALUATION AND APPRAISAL OF MUNICIPAL ASSETS .....	19
4.3 VALUE OF LAND.....	20
4.4 VALUE OF BUILDINGS.....	21
4.5 EXPENSES ASSOCIATED WITH THE USE OF ASSETS .....	22
4.6 RATING AGENCIES AND VALUATION OF MUNICIPAL ASSETS .....	22
<b>5. ADMINISTRATIVE AND ORGANIZATIONAL CONSIDERATIONS FOR PROPERTY MANAGEMENT .....</b>	<b>23</b>
5.1 ORGANIZATIONAL ARRANGEMENTS .....	23
5.2 AUDIT MECHANISMS OF THE ASSET MANAGEMENT FUNCTION .....	24
5.3 INCREASING TRANSPARENCY AND EFFICIENCY .....	25
5.4 ACQUISITION, RENTAL AND SALE OF ASSETS.....	25
5.5 CONTRACTING AND ASSET MANAGEMENT .....	26
<b>6. TECHNOLOGY AND ASSET MANAGEMENT.....</b>	<b>27</b>
6.1 NEW TECHNOLOGIES FOR ASSET MANAGEMENT.....	27
6.2 MAPPING TECHNOLOGIES .....	27
6.3 INCREASING TRANSPARENCY AND EFFICIENCY THROUGH NEW INFORMATION SYSTEMS.....	28
<b>7. STRATEGIC ANALYSIS AND VALUATION OF MUNICIPAL ASSETS.....</b>	<b>29</b>
7.1 STRATEGIC REVIEW OF OPTIONS.....	31
<b>8. SUMMARY .....</b>	<b>32</b>
<b>9. REFERENCES.....</b>	<b>33</b>

# A TOOLKIT for MUNICIPAL ASSET MANAGEMENT<sup>1</sup>

## 1. The Importance of Asset Management for Municipal Finance and Development

For strategic, operational and financial reasons, asset management is becoming an increasingly important area of decision making for municipal governments. New demands for better service provision, trends towards decentralized systems of public sector management in emerging economies, potential synergies and changing roles in the public and private sectors in many countries are creating the need for better management and accountability of municipal resources. Open and effective management and reporting of public property resources is an important aspect of public trust. In many countries, however, there has been significant concern about actual and potential misuse, abuse or corruption especially related to misappropriation and disposal of public property (for private gain).

There is a new and heightened interest in the strategic role that asset management can have for municipal governments and their residents. As the processes of decentralization, urbanization and economic development in the cities continue in developing economies, there is growing need to provide better living and working conditions for rapidly growing urban populations through better service provision and improved access to amenities. A review of successful cases of municipal management indicates that effective use of the asset base is an important factor contributing to increases in municipal revenues and successful performance. For example, estimates show that in many cases, the value of fixed assets of a municipality can amount to more than 4 times its yearly expenditures (400%). In these cases, if property can be rented out, a conservative estimate is that the municipality could earn additional yearly revenues equivalent to 10% of the budget expenditures (assuming conservatively that about 50% of the fixed assets are rented out at 5% of the value of the asset per year). With a balanced budget, this means that additional revenues to local government could potentially increase by 10%. Hence, there is strong incentive for local governments to develop their fixed asset base as a productive resource to help in the attainment of public goals.

### The Concept of Municipal Asset Management

Municipal assets are property owned, controlled or used by the local governments. They can be managed directly or indirectly for the benefit of their constituents in the attainment of local service delivery goals. Municipal asset management is the process of inventory, valuation, use, strategic portfolio reviews, reporting and auditing of municipal assets and, in some cases, state properties as part of the decision making process of local governments.

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<sup>1</sup> Prepared by Dr. Fernando Fernholz and Dr. Rosemary Morales Fernholz. Duke University. March 2007

The main benefits of an effective asset management system are to help local governments:

- a) Provide local residents with improved services based on municipal asset use (such as infrastructure, water systems, parking, etc.)
- b) Increase revenues
- c) Improve the overall credit rating for the Municipal Government
- d) Attract more domestic and foreign investors
- e) Improve land valuation (for example, through relocation of public properties, sale and leases, and improvements in infrastructure such as better roads) that make land assets attractive for productive and real estate purposes.
- f) Enhance the environment and improve quality of life (for example through public parks and greenways)

An effective asset management system can provide useful information to managers of the city government as well as other stakeholders, about the actual and potential net worth and asset base of a city.

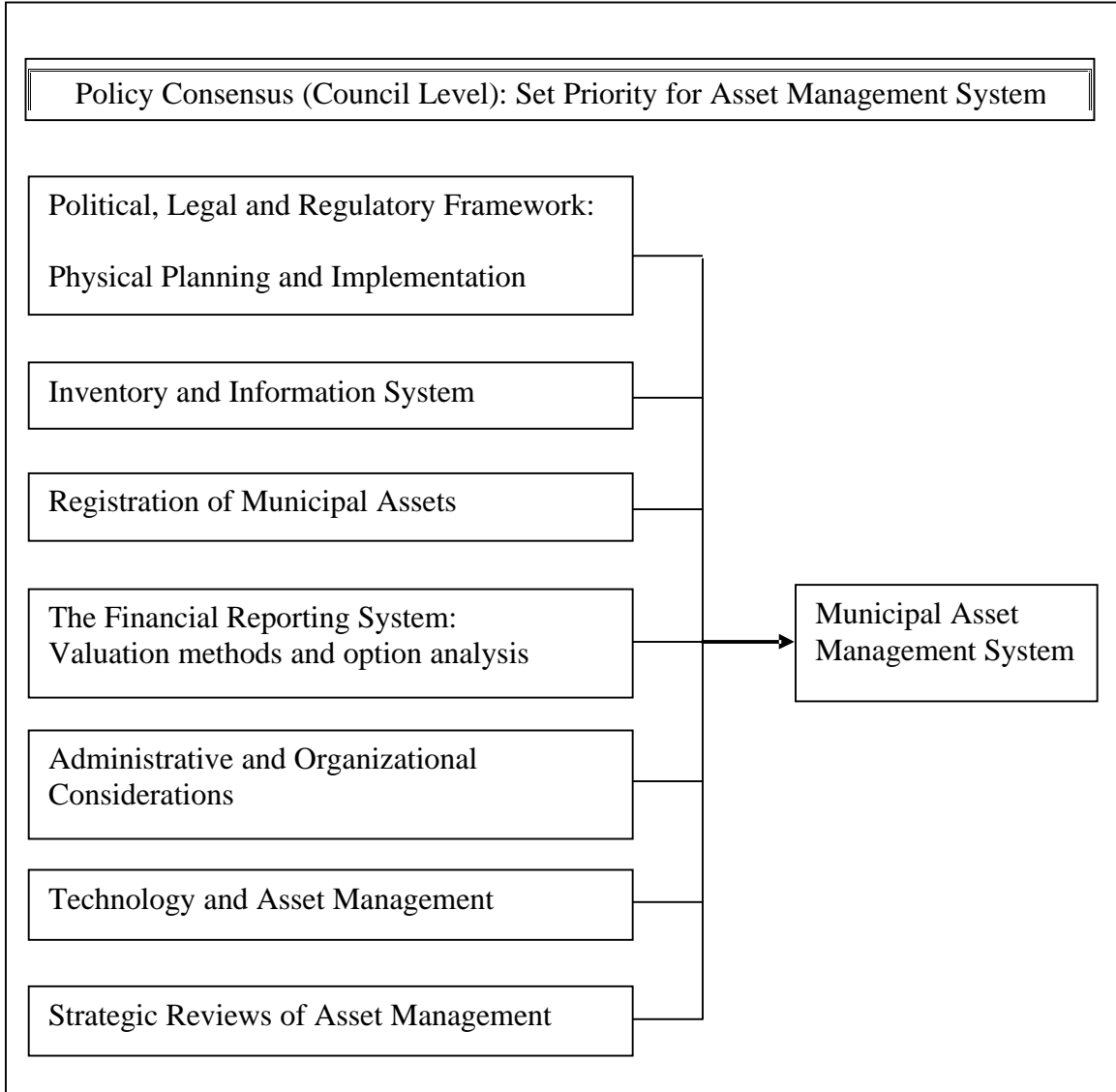
#### Guide to the Use of the Toolkit:

This toolkit is a practical guide consisting of useful approaches to effective municipal asset management. It will focus on major municipal assets: fixed assets consisting of buildings and land properties owned or in the custody of the municipal governments. It is prepared for municipal administrators, elected and appointed officials in local government such as the mayor and her/his staff, council members, private sector officials, as well as leaders in professional associations, civil society and other organizations or citizenry involved in relevant activities at national, state or local levels.

The toolkit is made up of a set of brief discussions in municipal asset management, presents checklists, and answers the question of 'how to'. Research on municipal asset management practices and experiences show that almost all municipal governments need to make improvements, although the starting points, policy implementation experiences, and priorities can be very different. Cities vary depending on their legal traditions, institutional and political development, the degree of decentralization of public functions, and level of technological adoption, access and use. The sections of the paper can be used in any sequence.

The components of the toolkit are presented in the following diagram.

**Enabling Environment for Municipal Fixed Assets Management:**



## 2. Political, Legal and Regulatory Aspects of Public Asset Management

### 2.1 Introduction

National and local governments need a common framework that clearly establishes the authority of local government over municipal assets. In some countries, this framework of laws, regulations, and management of local properties has existed over a long period of time. In other cases, processes of reform and transition have accelerated decentralization and strengthened the authority of the municipal governments. Although laws may have been promulgated, there can be, in many instances, areas of contradiction and lack of clarity that potentially discourage local governments in their asset decision making initiatives.

Like any other system of government, the asset management functions have to be understood in the context of the social and political environment. The laws and regulations will, to some extent, reflect these realities. Municipal leaders, who, with their constituents have developed a common vision and social agreement, often have their endorsement and support to strengthen or reform the asset management system that will optimize resource use in the attainment of public objectives. The specific legal and contextual aspects of policy and decision making processes are the focus of this section.

#### **CHECKLIST A**

In relation to the legal and administrative framework for asset management:

- Is the existing framework clear in giving authority to municipal governments over municipal assets?
- What specific legal provisions allow Municipal Governments to:
  - Issue land management and zoning regulations
  - Register ownership
  - Acquisition and disposal
  - Determine valuation and negotiate price for buying and selling
  - Use the asset
  - Lease, contract
- Other conditions and regulations (environment, national priorities)
- Does the municipal government have the power and resources to enforce planning regulations?
- Does the legislation establish clearly the methods of valuation and payment for eminent domain expropriation of properties?

### 2.2 The Legal and Administrative Framework

The framework consists of the applicable laws and regulations that affect the ownership and management of public assets. Countries and regions of the world have different legal and administrative traditions, some based on Roman Law, French Law, British Common Law or other legal traditions. The legal systems can define property ownership including rights and responsibilities, sale and registration differently. The laws and norms guide the management, use, acquisition and disposition of public property. They are important in determining who might be the ultimate beneficiary of the services and financial returns that municipal assets can provide. The laws and regulations normally establish the right and obligations to register properties, methods of valuation for transaction purposes (buying, selling, leasing, and

concessions) as well as the processes that apply for eminent domain cases. The laws also establish the instances and authorities for appeal and arbitration.

The legal framework starts from the basic law – in many cases, this is the constitution of a country, and can include:

- National asset ownership and management laws
- State laws governing asset management
- Laws covering decentralization and citizen’s participation
- Relevant municipal laws and regulations
- Laws on environmental protection including national and local parks
- Laws on national assets such as government lands and buildings in municipal jurisdictions.

An example in Ontario Canada shows some relevant municipal laws and regulations:

- *Municipal Act to finance operations through asset securitization*
- *Investment and financing opportunities under the Municipal Act's new regulations*
- *How to implement the new municipal licensing and procurement provisions*
- *Requirements of the new Brownfields Act,*
- *Sustainable Water and Sewage Systems Act,*
- *Building Code reforms*

The list of legal instruments can be extended significantly to include laws and regulations relevant to asset management. Although reforms may introduce or change laws, it is often long term development and refinement of laws and their application that provides an enabling environment for asset management that endures. Practice and application of the laws, the experience of using assets for additional revenue generation, and the experience of service provision and better public management of assets are the processes through which trust relationships are developed, institutions are respected, and goals of development are achieved. The processes that consider incentives and trust building among stakeholders, normally take years to evolve and improve; unfortunately, they can be disrupted by various types of conflicts or political and policy changes.

Countries vary in level of centralization or decentralization and this has to be acknowledged in building municipal asset management frameworks. The framework chosen has to have a compatibility with systems used at various levels of government. In countries such as Canada, for example, a central office coordinates the management of all “Crown Land” at federal as well as state level. There is autonomy in decision making, but compatible systems of registration and management among the provinces ensure a clear delimitation of authority in relation to fixed assets and especially land. The degree of institutional performance of national systems of public property varies significantly. The lessons and initiatives of

successful municipalities can provide models for other municipalities or central governments to improve the delivery of public services, in relation to the registration, ownership, taxation and other legal aspects of public property.

### Test the system

It should always be kept in mind that legal and administrative capacity has to be tailored well to the size, composition and economic complexity of a particular municipal government. The test should ask a critical question: how can the administration of laws and regulations support the development of municipal services and the complementary activities of the social and private sectors, in an environment of justice, transparency and predictability?

There are different steps that the municipal authorities can take to test whether their legal and administrative framework is adequate and whether they have the necessary authority and capacity to use and manage the municipal assets:

- |   |
|---|
| <ul style="list-style-type: none"><li>• Is there a coherent, national and local legal and administrative framework that enables municipal asset management?</li></ul> |
| <ul style="list-style-type: none"><li>• Are there required specialized skills on hand or on call?</li></ul>   |

1. Within a country, the local governments and the national government need to have a common framework to incorporate clear mandates for the management, acquisition and disposal of public assets. In some cases, this has resulted from processes of reform, such as the case in transition countries or countries that have accelerated the decentralization of public service provision throughout the world. In Europe, there are special entities such as the Council of European Municipalities and Regions that seek to develop common governance frameworks for local governments<sup>2</sup>.
2. The next step is to test internally as well as externally, if there is a workable municipal asset management system. Legal and administrative expertise should be tapped by municipal authorities if necessary, to provide advice on the authority level of local officials.
3. The third step is to assess whether local government has the capacity in asset management to optimize use, to respond to the needs of the community and the municipal government. Rapid appraisal through relevant professional groups' surveys and peer review could provide some answers. If the results are negative, a strategic plan of the required capacity building is needed.
4. The municipal government has to evaluate periodically its internal organization's legal and administrative skills to handle legal aspects of asset management and to be able to issue bidding documentation; award, negotiate, and enter into contracts with

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<sup>2</sup> CEMR works to promote a united Europe that is based on local and regional self government and democracy. To achieve this goal it endeavors to shape the future of Europe by enhancing the local and regional contribution, to influence European law and policy, to exchange experience at local and regional level and to cooperate with partners in other parts of the world.



private sector investors, developers of real estate properties, construction companies, other municipal and state level organizations and different units in government.

## **2.3 Important Legal Provisions**

### **2.3.1 Land Management Regulations**

Laws and regulations often have special provisions for land use and construction. These would include zoning (residential, commercial, and recreational) and limitations on density, height of buildings, and the allowable removal of soil cover and impact on the landscape and adjacent properties of any construction activity.

Other regulations can have special provisions affecting properties as they relate to the physical environment and the health of residents in the respective district and beyond. For example, there might be special restrictions for waste disposal and generation of water and air pollution, burning of trees or shrubs, tree falling, and diversion of water streams.

Special state designated areas are also subject to special legislation. Considered under special legislation, due to geographical location, defense related reasons and other strategic concerns; state property can be administered and protected under municipal regulation.

### **2.3.2 Acquisition or Disposal of Municipal Assets**

The constitutions delegate rights and obligations through the federal, state and local government provisions, for municipalities to exercise the ownership and management, buying, use and alienation of public property. The legal and administrative public sector management system normally establishes the conditions, processes, valuation and compensation to acquire and dispose property for the regular conduct of asset management operations to achieve service delivery objectives. The US Constitution provides an example as discussed in this excerpt from a report:

*The Fifth Amendment's Takings Clause reads: "nor shall private property be taken for public use without just compensation." As presently interpreted by the Court, that clause enables owners to receive compensation when their entire estate is taken by a government agency and title transfers to the government; when their property is physically invaded by government order, either permanently or temporarily;(2) when regulation for other than health or safety reasons takes all or nearly all of the value of the property;(3) and when government attaches unreasonable or disproportionate permit conditions on use.(4). Pilon 1995.*

The financial and fiduciary regulations also normally establish the rules and processes to be followed to sell, rent and lease public municipal properties. These processes and transactions are at the core of auditing processes as the amounts involved can be substantial in relation to revenue streams or to the salaries of the civil servants and others involved.

### **2.3.3 Leases and Contracts**

Legal and regulatory provisions are very important in an efficient system of property administration, and can make investment attractive to investors. The practice and application of delegated mandates (e.g. granting of leases) can in some cases be used successfully to leverage land assets to finance infrastructure. The example of China is illustrative: the city of Shanghai used the mandate of the central government to allocate leases of land for different uses and for different lengths of time to finance road construction. Undeveloped land near the urban center was used as collateral to finance the initial costs of road construction. As the road progressed, the value of land adjacent to the road increased, allowing the municipality to sell land use rights at a higher price. The appreciation of land due to improved road access was induced by the project plan. Similar funding mechanisms allowed many cities to increase their infrastructure and water provision investments significantly since 1990 in many municipalities in China. (See Peterson, 2006).

Changes in land use and lack of appropriate compensation may negatively affect existing users, such as farmers, and some caution must be taken in planning and administration of leases on behalf of public entities. The processes of allocation of land to farmers and change of use by local governments is creating tensions and reportedly some social unrest in rural areas of China, for example, as farmers feel they are not compensated fairly nor protected adequately. There is also in year 2007 the discussion on the status of constitutional provisions in China, as they refer to the difficult issue of the definition and acceptance of private property.

What is important from the point of view of efficiency of public services to benefit the population, is that a system is agreed upon that attracts and allows the citizens of the city, development and commercial banks, and private investors to invest, fund, loan and approve projects on the basis of credible practices that permit the recovery of invested funds, in a stable legal, judicial and regulatory environment. The lease method of property use is an excellent argument to overcome the resistance against outright sale of public properties. Unlike freehold which allows the use of land for unlimited duration, leasehold is normally granted for a fixed period of time (from 10 to 99 years, for example). Thirty five to seventy year lease periods often are of sufficient duration to attract investment in leased properties versus fully owned properties, if there is a perceived credible environment for investors to exercise property rights. Some experts in this subject argue that more important than type of tenure, it is government attitudes and record toward the private and business sectors that could be the cause of market insecurity.

### **2.4 Enforcement of Legal Provisions**

An important aspect of land and property management is the enforcement of legal provisions and regulations. For example the provisions could include:

- Obligations to maintain vacant lots free of animals
- Demarcation, fencing, minimum lighting
- Payment of taxes depending on use

The municipal authorities have to set the example of compliance with regulations. In addition, the penalties and sanctions in case of non-compliance provided by the statutes have to be enforced fairly. For this purpose, the municipal government has to ensure that it has enough capacity to assess the violations, the applicable norms, the technical avenues for enforcement and the appropriate manpower and equipment. In severe cases, for example the corrupt sale of an urban park to private developers, sanctions can include penalties for all the parties involved, from developers, to civil servants to buyers and contractors. Once the appropriate processes of law have been followed, the municipal government should then proceed to enforce the sanctions, from eviction to clearing of structures and fines, and in extreme cases, incarceration.

All the incentives do not need to be negative. Owners, who fulfill their duties and help enhance the urban environment through additional investments that show respect and concern of the public good should also be publicly praised as examples of good citizenship. The rules have to be clear, but they don't mean much if they are not enforced with fairness.

### ***2.5 Planning and Regulations***

The process of urbanization is better planned than acted upon once powerful trends, such as illegal occupation of lands and properties are in place. It is much harder to improve services provision once settlements have been established without planning, than to anticipate growth and proactively provide subdivisions of land with public utility services (both public and private) at affordable rates for the expected population. This is a challenging issue, as the resources needed are many times significant and city governments will need to coordinate actions and request allocation of resources with the national government, state and private sector corporations, utilities, and other economic and social organizations to address these challenges.

### **Box 1: Perspectives on Municipal Assets and Slums**

In some cases, the rapid increase of urban populations driven significantly by rural workers and families moving to the cities, has led to violations of the laws and overriding of municipal and national legal zoning and authorizations for settlement. This provides a source of difficulty for local governments, in some cases unable to cope with the increase in the size and number of slums and populations. Efforts are being made by many cities to not only upgrade slum conditions, but use the transformation of slums with the participation of the community, as a mechanism for the generation of employment, small enterprise development, growth and significant poverty reduction.

Properties managed or owned by both the private as well as the public sector, including municipal governments could be illegally occupied (the development of slums). The value of the property and the use for particular purposes could be affected for an extended period of time. While there are different views on the role of slums, a proactive land, zoning and asset management, can provide several avenues for the improvement of municipal service provision.

A positive view of slum and squatter contribution to municipal development states:

*Many municipal governments have a tendency not to realize the role of squatters in, for example, the construction, industrial and service sector. Economically and politically weak, squatters provide crucial inexpensive labor for the development of the booming Asian economies. Instead governments emphasize the fact that a sizeable land area is occupied by the settlements as well as the problems related to health, economic and social issues. However, in terms of micro-economics, squatters are actually the most intensive users of land both in terms of population density and economic productivity.*

From UNESCAP. Municipal Land Management in Asia: A Comparative Study

Useful examples of successful cases of slum upgrading exist in several cities around the world and are documented and accessible through different sources (e.g. World Bank, MIT Slum upgrading, USAID, regional associations of municipalities, etc).

The physical land planning and urbanization in anticipation of expected population growth rates and physical transformation should be regulated ideally in coordination with state and, in some cases, national level authorities. Depending on the per capita income levels and prospects, the process should start by defining growth areas in strategic locations that include dimensions of land and housing units affordable for low income residents and that can grow physically through time and that respond to a dynamic process of settlement with the participation of the private sector and the newly forming communities.

The environmental dimension of some municipal assets is normally included as part of the physical planning processes. For the purposes of this toolkit, the classification and valuation of assets that serve particular environmental functions has to be recognized by the inventory, valuation, auditing and strategic methods of asset management. The more information is available to the public and the auditing authorities about special zones to protect river basins, mountain slopes, geologically unstable areas, flooding, protection of special habitats for animals and plants, etc. the more likely these areas will not be converted (by corrupt means in some cases), to residence zones that endanger not only the uninformed buyers and future residents of these areas, but also the neighboring residents. Negative impacts could be caused

by changes in the proximity and characteristics of the river basins and proximity to unstable mountain slopes, coastal regions or buffer zones.

Parks in the city centers should be effectively protected by planning regulation, since they are part of the public environment for residents of the area. Changes in zoning applicable to outlying areas, areas that were initially public properties for restricted use, but that became available potentially for residential or commercial use have to be part of the physical planning that needs to be openly debated. New development and approved areas at different levels of potential subdivision could be sold, leased or rented on the basis of competitive auctioning mechanisms.

This aspect of land based asset management should form part of the regular municipal strategic planning reviews and implementation. Reporting by municipal government on the more important rezoning and development of new areas should be subject of wider open debate before implementation. Open discussion models such as those practiced in Switzerland might be good approaches, appropriate to increase effective citizen’s participation. In larger cities, more information and analysis flows made available to the public can help improve the management of assets in support of municipal development and environmental objectives. These processes of information sharing, in conjunction with systematic channels of participation and communication, will allow greater levels of participation of stakeholder groups and the population at large. Many municipalities have included their own processes of consultation and democratic participation.

### 3. Inventory of the Municipal Asset Base and System

The cornerstone of municipal asset management is a well functioning inventory system. The system should contain the information to be able to assess quickly what the city government owns, the type of properties and their location, as well as an updated value indicating the methodology used to assess the value.

A first step is for municipal officials to review whether there is an inventory of their asset base and a transparent system for data retrieval. Regarding the asset reports – the concern is how accurate the information is, how functional the format, how costly the system in comparative terms, and how accessible is the data base.

<b>CHECKLIST B</b>
Key question that have to be answered by an asset management system for decision making and auditing purposes:
<ul style="list-style-type: none"> <li>• Is there a clear inventory policy and practice that is clearly recognized?               <ul style="list-style-type: none"> <li>○ Where is this information located and who has access? Who is in charge?</li> </ul> </li> <li>• Is there a clear and consistent classification of fixed assets?               <ul style="list-style-type: none"> <li>○ Is this part of a strategic asset management system? Does it distinguish special uses?</li> <li>○ How frequently is the entire system or data on particular assets used?</li> </ul> </li> <li>• What registry indicates what the municipal government owns? What is the individual and total valuation of assets?</li> <li>• What national public assets are in the custody of municipal authorities? What functions do these assets perform? What are the governing agreements?</li> <li>• How is the registry of municipal assets organized?</li> </ul>

### 3.1 Inventory Policy and Practice

The review process can start with a careful review of existing practice. Ideally, the system would include computer based inventory and database methods for recording and, in some cases, use pre-established methods to assess the value of the properties, in order to produce regular reports on assets owned by the municipality. Duplication and contradiction in the inventory information as well as inconsistencies in the valuation of properties need to be gradually and systematically eliminated. The level of detail of the inventory reports will depend on the use of the information. For detailed planning and analysis of options, very detailed information is needed. For sub-units or the entire portfolio of assets, aggregation of properties in numbers and valuation, with some certification of quality of information by internal or external auditors is required.

<b>Example of Inventory Classification</b>
<b>Land Parcel Information</b>
Number of plot according to national, state or local classification
Location, Address
Geographical Coordinates
Zoning laws applicable, other current or potential national or local uses
Tax codes
Legal ownership
Site description
Size, front, depth, dimensions, map reference
Topography of site
Soil mechanical conditions (if applicable and available)
Flooding conditions
Environmental services, hazards
Site improvements
Road, Utilities access
<b>Construction and use details</b>
Buildings
Buildings areas, service area, usable area by categories
Properties
Other physical elements (e.g. overhead power cables)
<b>Financial valuation, revenues and costs</b>
Land value
Building Value(s) for each category
Fixed equipment and Improvements value(s)
Yearly cost of administration and maintenance (assigned and aggregate)
Yearly rents, leases, other fees received
<b>Additional information, as needed</b>

Improvement in the management of inventory information is done through a constant process of updating and application. The system should have clear directives and organization units with job descriptions and unit objectives for the municipal government employees, followed by the provision of training and upgrading of necessary skills. This includes the use of appropriate technologies and equipment for the task of constructing and maintaining inventory data on public assets and ensuring that organization and staff capabilities are adequate. An example of organization directives for inventory systems can be seen from the example of the city of New York's Directive 30 - Capital Assets. The directive spell out the components of the inventory system and identify responsibilities and location of the

information. This Directive is issued pursuant to the Comptroller’s authority as established in Charter 5, Section 93 of the New York City Charter. The classification, control and disposition of Capital Assets held by The City of New York are subject to periodic audit by The New York City Office of the Comptroller.

**Example of City of New York: Organizational Directives for Control of Capital Assets**

1.0 General Information
2.0 Capitalization Criteria
3.0 Valuation
4.0 Recording of Capital Assets in Financial Management System
5.0 Dispositions
6.0 Impairment
7.0 Capital Leases
8.0 Capital Assets Held for Sale
9.0 Inventory Controls over Capital Assets
Source: Adapted from: The City of New York. Office of the Comptroller.

Municipal offices can develop or adapt their own asset management systems; or they can choose to contract out the design and/or implementation. The issue of appropriate systems and their costs in relation to the benefits has to be assessed carefully by each municipal government.

**3.2 Classification of Fixed Assets**

The existing system should provide a clear classification of assets according to use and potential for commercial or other uses. Fixed municipal assets fall into three major categories: buildings, infrastructure assets, and land. Buildings can be for administrative use, service provision (schools for example) rental, and in some cases for housing. Infrastructure assets usually include power distribution stations, transmission towers, water distribution systems, roads and bridges. Land holdings are assets that could be in permanent or temporary use, such as parking areas, parks and environmental assets. Each in turn might have fixed equipment and plant as part of the asset (e.g. pumps for water service provision, elevators for buildings). The classification of property and use will depend on the practices, traditions, laws and regulations governing the particular municipal government jurisdiction.

Assets normally are classified into government service assets and commercial assets, even if they only have the potential use for these types of activities. Local government service assets are those that are required to fulfill the mandates of the government. They can include government administrative buildings, police buildings, health provision centers, water provision, parks, roads, public parking areas, right of way, river margins, transport terminals, etc. Commercial assets are those that are commercially leased and could be leased or sold for commercial activities. Examples are office buildings, market properties, land for different commercial services, sports facilities, parking properties, commercial spaces in transport terminal in buildings if applicable.

The classification of assets, can follow national registration procedures, classification and numbering (national system for land properties), with some parameters that help the local administration group classes of assets according to their function, specific location, characteristic (topographic and geographical, and environmental) and valuation.

Since the goal of asset management is effective and efficient use of assets, the municipal government needs to ensure that optimal use is made of assets and that this is reflected in the inventory information.

### **3.3 Registration of Municipal Property and Assets**

Registration of municipal assets ensures the identification of property, usually land or land/building, marking the information on ownership and use, as well as details of location, size and features. From an economic point of view, the reliability and costs associated with property registration merit great attention. Even if there is no unified system of registration of property at the national level, the local government by itself would be well advised to continually improve an existing system and make it more cost effective, transparent and credible. For example, a well functioning property registration system can help banks use project specific properties as collateral, with registration of debts linked to registry and certification of property for any transaction. This element has the potential to increase the financial flows to private and public owners of property, such as municipal corporations, and can generate additional economic activity, tax revenues and employment.

<b>CHECKLIST C</b>
Registration System:
• Are the municipal property assets registered locally and nationally?
• Who is responsible for the registry: municipal, national government, other public entity?
• Are the records of property up to date? What is the oldest record in the inventory?
• Is the transfer of property from and to the private sector clear and efficient?
• Is there appropriate security to establish the ownership?
• Is there an efficient system to register guarantees for loans and similar?
• Is the retrieval of registration information cost effective in comparative terms?

Ensuring the quality of the registration system, with easily available and secure information is in the interest of the municipal government and more importantly, of all residents. The quality of registry management can greatly enhance the quality of life and sense of security of both private and public sectors. For example, an excerpt from comparative studies of registry systems in Asia indicates the multiple benefits from property registration (Box 2).



## **Box 2: Benefits of a Cadastre System of Property Registration in Asia**

*What are the benefits of a juridical cadastre (land registration system)? The juridical cadastre normally consists of two parts: The first part is a written record or register with information on each parcel, such as owner and the rights of the land, while the second part includes a detailed description of the parcel in the form of a map or survey measurements. The second part is normally cross-referenced with the first (Dale and McLaughlin, 1988). When the records and descriptions are combined, then the land registration system should provide the following major benefits:*

- *Security of ownership and tenure rights. This is the most important impact. It reduces the amount of land disputes which currently is a major issue in developing countries. The security of ownership also stimulates land development;*
  - *More efficient land transfers. The costs of delays for permits is a serious constraint in most developing countries, and an efficient registration system makes transfers easier, less expensive and more secure;*
  - *Security of credit. The land title can be used as collateral for loans. This security has a positive impact on the productivity of the land since it enables the release of major financial resources for investment in the land;*
  - *Support for the land taxation system. The expenses for improving the cadastral system would, in actual fact, quickly be recovered by increased property tax revenues;*
  - *Improved land use and management. It can directly provide better information on land ownership and rights for physical planning as well as facilitate the development of other planning tools such as information banks covering land use, land values, population etc.*
    - *It can also provide a tool to restrict certain land uses with a negative environmental impact;*
    - *A land registration system based on parcels could lead to a more advanced land information system.*
- From Municipal Asset Management in Asia: Comparative Studies. UNESCAP.

### **3.4 Organization of Registry**

Municipal Governments have a high stake in a properly functioning registry of property. It is recommended that task forces, coordination committees, boards or similar organizational units are used to enhance the provision of adequate services for the locality. The checks and balances of highly sensitive offices such as the registry should be maintained as they can become a source of malpractices and corruption if too much discretion is exercised by one agency. More open access, scrutiny and transparency and credibility of operations will greatly enhance the asset management function.

In some cases, property both public and private, is registered in a common system, both locally and with a special number (or code) attached to the parcel of land or the building, or parts of the building, in some cases linked to the national registry of properties.

In relation to processes of registration and retrieval of data, the issue of security of records is a concern as there is a danger of destruction, both intentional and unintentional, and of theft.

The efficiency of the system for record keeping, updating, and retrieval needs constantly to be evaluated.

The use of appropriate technology, from the introduction and improvement of computerized record keeping and cadastre systems to the use of aerial photography and satellite mapping and similar systems for the secure localization, property registration are options that can improve registration accuracy and need to be carefully evaluated.

Registration can be a delegated function from Central Government. It can be a local function that integrates data bases with the national registry and responds to local government demands. In some countries, and for some local governments, registering commercial purpose property, can be a priority, as it would make leases, transfers, debt encumbrances and other transactions easier. This will also enhance the auditing functions. Features of an effective registry system include: easy access, reliability, security, and low retrieval costs.

Capacity building to strengthen and maintain registry systems is needed so that municipal authorities will have information needed by the stakeholders in urban development - national authorities, the private sector, NGOs, academic and science agencies and civic organizations. The idea is to improve efficiency and transparency of the system and to involve stakeholders through committees, task forces and other approaches. Some international development institutions are also providing financing and technical assistance to improve real estate property registration systems (See Box 3).

For management purposes, nevertheless, in addition to safe and efficient registration of municipal property, the associated valuation has to be incorporated in the reporting at individual asset level. Hopefully, for the purposes of increased transparency, this information will be widely available and accessible through the internet, or through the deliberate decision and practice to make records of the municipal government easily accessible for the population at large. Only in very particular circumstances might there be a need to delay for a very limited period of time, the publication of asset valuation, if for example, an existing negotiation or bidding process with several private sector parties is taking place. But the process, the methodologies and the selection of winning bids for sale, concession, joint ventures, etc. needs to be performed transparently and the results with all the details made available to the public as soon as possible and within maximum allowable time spans.

### **Box 3: Priorities and trends for registry functions in Europe and Canada**

- *The institutional framework (for property registration) in most UNECE member countries is under ongoing consideration by policymakers. A trend towards more integration of different land-related authorities and agencies is obvious, as, for example, in the centralization and integration of data on real property cadastre, land register and mapping material in one system.*
- *The aims of national authorities are to give customers easy access to information, quick registration and service at fair prices. Clarity, compatibility and security of registration, legislation and procedures are the key factors. Simplicity and transparency with rapid and inexpensive registration procedures are highly recommended in order to eliminate corruption and be customer oriented.*
- *Individual countries' approaches to building cadastre and land registration systems differ according to individual and historical circumstances. Cadastre and registration systems should be developed in line with the UNECE recommendations on land administration and adapted to the national economic situation and traditions.*
- *Surveyors and land registrars are part of a dynamic process and development that includes land and property registration, land administration and land management. While the tasks of "land administration" are clearly defined, "land management" issues cover a broader range of tasks. A discussion on relevant tasks of "land management" is indispensable for an efficient institutional framework.*
- *Simplified, customer-friendly services should be developed to meet customer needs and demands to improve services and reduce demand for public resources and state budget.*
- *Registration procedures should be optimized and automatic registration systems introduced.*
- *Property registration systems should be improved and connected to banks, credit companies and other potential clients.*
- *Simple, customer-oriented, efficient and economically relevant, transparent and secure systems should be established.*
- *Private/public partnerships should be strengthened and the private sector should be involved in land administration processes.*
- *Cadastre and register e-services should be introduced and 24-7 accessibility implemented.*
- *The existing cooperation among national and international development agencies, professional associations, NGOs, the private sector and universities on issues related to property rights should become broader, stronger and more systematic.*
- *It is highly recommended that registration of all types of real estate (agricultural, non-agricultural land and buildings) as well as all types of real estate rights be conducted by the same institution. That would ensure optimal access to property information for public as well as private customers. Having information about all rights to and restrictions on property in one place would considerably increase the efficiency of the system by reducing costs related to data migration among different institutions.*

Source: ECONOMIC COMMISSION FOR EUROPE. ECE/HBP/2006/6.

#### **Canada: Implementation of Santiago Action Plan Item: Property Registration.**

*Streamline and decentralize, as necessary, property registration procedures by, adopting transparent, simplified procedures for titling and registration; disseminating information regarding these procedures; utilizing, whenever feasible, state-of-the-art technologies for property geo-referencing, computer-generated mapping and computerized records storage; incorporating alternative dispute resolution mechanisms; and avoiding overlapping administrative fees for titling and registration.*

*Section 92[13] of Canada's Constitution Act, 1867 prescribes that the legislature of each province of Canada has the exclusive jurisdiction to make laws in relation to "Property and Civil Rights" in the Province. This jurisdiction includes the creation of property rights, their transfer and their general characteristics, the law of landlord and tenant, trusts, wills, succession, conveyance, and land use planning. The term "real property", in the common-law provinces means land, including mines and minerals, and buildings, structures, improvements and other fixtures on, above or below the surface of the land, and includes an interest therein.*

Source: LandNet Americas. 2007

## 4. Financial and Valuation Aspects

Financial aspects of asset management include accounting and auditing, valuation methods, and analysis of options. The objective of financial management is to ensure that efficiency gains of asset management should lead to larger social and economic gains for the municipal population. The invested resources and recurrent expenditures should generate real and positive economic benefits or be clearly justified by social benefits. Financial reporting is one of the strategic building blocks of municipal capacity that can help attract investors, lenders and to explore real investment options strategically.

<b>CHECKLIST # D</b>
Financial Management and Reporting, Related to Asset Management:
• Is the current practice of financial management conducive to higher efficiency in asset management?
• What is the current system of accounting?
• What are the accounting methods? Do they correspond to national regulations, international practice and recommendations?
• Is the financial asset management and reporting system audited and credible?
• Is financial reporting compatible with the inventory system and methods of valuation? Are there links and references from one to the other reports provided?
• Is the financial management and reporting system transparent, clear and timely?
• Does financial analysis assist in the evaluation of options?

### 4.1 Accounting Standards, Cash vs. Accrual Accounting

A systematic review of the accounting standards and financial reports can provide useful feedback for improvement or strengthening of the system. The accounting standards and practice determine when and how transactions and economic events are reflected in the financial statements. There are two major bases for accounting: a cash basis and an accrual basis.

#### Cash Basis

Under the cash basis of accounting, revenues and expenditures are recognized when cash is received and disbursed. The balance sheet and income and expenditure statements reflect only a balance of cash and fund balance while activity statements simply are a summary of cash receipts and disbursements.

#### Accrual Basis

Accrual accounting systems determine when and where capital costs for the use of assets can be reported in a given period. Establishing accrual capital costs and depreciation of capital assets and relating these to other costs and revenues, facilitates the estimation of cost effectiveness and provides comparative analysis to improve the potential allocation of resources. Under the accrual basis of accounting, most transactions are recorded when they occur, regardless of when cash is received or disbursed. Today, most systems of financial reporting use accrual methods.

The balance sheet informs the public about expenditure allocation, investments, stock variables of assets and liabilities, and is complemented with the income and expenditure

accounts. For countries undergoing rapid growth and economic structural transformation, fixed, land based assets represent a significant portion of total assets and they might be increasing significantly in value. This offers many opportunities for strategic management of assets for municipal governments.

With the main accounting identity:  $Assets = Liabilities + Equity$ , and with the information provided in the Income and Expenditure Statements. A snapshot of key relationships, can be very informative about the relationship of major asset categories to operating budgets. For example, analysis of City of London data show a ratio of fixed assets to yearly expenditures of 2.36. The ratio can be much larger for other cities in the world, especially in developing countries.

Assets	£ Million
Operational	572.1
Investment properties	706.3
Total Fixed Assets	1278.4
Current Assets	328.5
Total Assets	1606.9
Liabilities including Pensions	625.4
Equity	981.5
For reference	
Total Expenditure for the year	541.3
Ratio of total fixed assets to expenditures	2.36

Source: London, Summary of Accounts 2005/2006.

For developing countries, for example for the City of La Paz, Bolivia, the ratio of fixed assets to yearly expenditures is 5.86 (City of La Paz, Financial Statements 2005). For some Chinese Municipal Governments or for municipalities in transition countries the ratio is even larger (Kaganova, 2006). This means, as we can see below, that there are opportunities for proactive asset management that, if well implemented and regulated, can add significant value to help satisfy the needs of an increasing population (due to the process of urbanization), improve the conditions of slums if applicable, and very importantly, to attract local and foreign investors.

The majority of city governments throughout the world report and publish their financial statements annually. Assets form an important support base for the generation of stable revenues and for auditing and assessing credit worthiness, for risk assessment purposes.

#### **4.2 Methods of Valuation and Appraisal of Municipal Assets**

The purpose of the appraisal and valuation should be to give both the local government as well as citizens of the jurisdiction and beyond, access to valuable information for the purposes of planning, approval, negotiation, execution and monitoring of performance for municipal governments of the use of assets. The valuation methods should link services provided with net revenues or costs associated with the management of particular public assets. The main methods of valuation and appraisal can be historical book value, replacement value, in use value, and market value. In relatively stable economic and

institutional environments, historical book values including the accumulated depreciation, if applicable, might be appropriate, to report values of particular assets. In more dynamic and rapidly changing economic conditions, market valuation, best option valuation or updated replacement costs might be a better alternative to reflect the asset position of the municipal government.

To make the valuation of assets more credible, the methods of valuation and assumptions used (for example applicable comparative and weighted prices in adjacent properties), have to be explicitly incorporated in the inventory of assets reports, especially for the most critical or strategic assets. (In some countries, minimum values or amounts are pre-established by national authorities for reporting purposes). It is recommended that, in addition to proper professional audits, the valuation results should be subjected to independent review using the services of real estate, engineering, economist, and financial experts, and relevant and qualified professionals or civil servants within the organization or outside.

<b>CHECKLIST # E</b>
Methods of valuation of land based assets:
<ul style="list-style-type: none"> <li>• What is the valuation method used for the assets? When, how and how often are the assets assessed?</li> <li>• Who controls the quality of the information? Have recent transactions confirmed the valuation?</li> <li>• How much do municipal assets cost to maintain, improve, use?</li> <li>• Are there alternative uses of the assets that would improve the service provision and the net worth of the municipal government? Has this aspect been included in regular portfolio reviews?</li> <li>• Rating agencies and valuation of municipal property</li> </ul>

Governments interested in maintaining assets in the hands of the municipal government, might consider using book values net of depreciation. New norms are emerging where national rules and regulations allow some latitude for each municipal government to choose the method of valuation to use: historical book values or replacement or market valuation. It is important for all involved; to have a clear understanding of the methods and data used for updating and value assessment of municipal properties and the purpose of valuation as it applies to different categories of assets.

The need to increase transparency, efficiency and ability to generate own funds and borrow funds for local development and slum upgrading purposes, for example, can be linked to the financial reports on fixed assets and accounting regulations of the country. Annual financial reports, including balance sheets, accounting and methods of valuation to those items in public municipal ownership that are considered of commercial nature, can be similar to those employed by the private sector. Municipal governments might need to pay special attention to the regulatory demands and special regulations (such as minimum prices, rental rates) which might need approval by higher authority.

### **4.3 Value of Land**

Government use of land that is not expected to be converted to other uses can value the same conservatively; either using the historical prices of acquisition or, in some countries, regulated minimum prices set for each municipality.

Commercial land (with the potential to be converted to commercial use), land for utilities, and potential areas of conversion from vacant land to buildings, has to take into consideration its appreciation due to: a) the value of improvements (fence, slope and containment walls, drainage, access roads, port connections, railroads and connection and access to other utilities) taking into consideration depreciation of the improvements. b) market value increases due to general economic development; c) construction or improvements in the physical infrastructure of the city, such as roads, parks, canals; and d) changes in the zoning and allowable activities. Land values could be assessed using regular real estate comparative transactions, or with expert advice from hired real state professionals who perform the valuation, specially for important projects or properties.

In rapidly growing economies, land valuation changes significantly from year to year, and the assessed values have to be accordingly adjusted periodically to reflect these impacts. Using indexes with appropriate local prices for different categories of assets and zones, updating of valuation at regular intervals could be implemented. Careful review of results would be needed for reporting purposes.

#### **4.4 Value of Buildings**

Assessing the value of buildings can likewise be done using different valuation methods. Some buildings have historical significance and assessed values will only be indicative as the real valuation might be much higher (this is not usually relevant as the assets in many cases are not for sale or conversion).

Buildings in use can be reported at historical purchase price including deductions for depreciation. For areas that are undergoing rapid transformation, comparative market valuations in sale and rental prices might need more frequent updating of in use values. For analysis of options, comparative sales prices under different assumptions have to be included in the valuation of assets that might have commercial value. This can imply the value of land alone, land plus existing structures, structures plus potential changes, or new zoning that would allow a higher density construction and the impact of zoning changes on the valuation.

In addition to traditional methods of comparative and applicable real estate property valuation, forward looking, cash flow and real option analysis for the use of properties under several alternatives has to be included in strategic reviews and valuation. Some examples of valuation are provided under Strategic Municipal Asset Management. RTI. MFTF, 2006, See: Capital Investment Decision Making.

For real options, the strategic and planning exercises should provide with alternative option values that have the objective to maximize the net returns to the municipal government. Decision criteria for further funding and implementation, should incorporate financial, economic and social considerations, with the objective to generate sustainable benefits for the municipal government and more importantly for the residents.

#### **4.5 Expenses Associated with the Use of Assets**

Cost of regular maintenance of facilities, utilities, equipment (air conditioning, fans) as well as administrative costs associated with the use of the asset have to be included in the financial statements. Expenditures such as staff time and number of employees dedicated to the administrative tasks on a pro rata basis, guards and security systems, insurance, tax if any, contributions to user fees for utilities if applicable and other associated expenditures. In the more detailed individual analysis of assets, comparative analysis of costs by category of asset (for cost effectiveness analysis) will also need to be reported periodically. This analysis will help the decisions made at the strategic portfolio analysis of options in relation to public assets.

#### Cost Effectiveness, Cost Benefit Analysis

For cost effectiveness and cost benefit analysis, comparative unit costs of maintenance, service, construction for different categories of assets is recommended. For example, construction costs/unit area of schools, hospitals, office buildings, fire stations, transport terminal buildings provides a first step in assessing the best performing assets. For total service provision, the present or discounted value of all costs, from construction to maintenance to recurrent costs of provision has to be divided by the discounted value of the stream of benefits or outputs (for example children attending and graduating from schools, number of patients attended, etc.). This will also give comparative information to both the municipal government as well as the public and other relevant authorities that could help increase the level and efficiency of service provision overall, and asset management in particular.

It is recommended for financial strategic reviews, starting with the more significant assets (those that add up to 80% of the assessed value for commercial or potentially commercial assets), analysis on returns on investment; internal rates of return or net present value are calculated for each asset. This would be done using accepted methods of return calculation (See National and International Guidelines). Properties can then be ranked according to contribution to the municipal revenue base, or to the social and economic base of the community.

#### **4.6 Rating Agencies and Valuation of Municipal Assets**

As municipal governments seek to become financially stronger with better credit rating levels, the production of audited reports, including the balance sheets, budgets with forecast for investment, depreciation, and cost of capital, imputed rental charges and valuation of assets will have a greater impact on the rating indexes for the local government. It is in the interest of the local government itself to produce and make more detailed information on the management of assets available to the public and rating agencies in order to increase its borrowing capacity. This strengthens further the financial and administrative credibility of the municipal government.

Although for more immediate assessments of credit rating liquid assets play a more important role, those properties that potentially could back up debt obligations can help



improve the credit rating of the municipal government, if asset values are consistently reported using generally accepted valuation methods for relevant properties.

## 5. Administrative and Organizational Considerations for Property Management

This aspect of asset management has to respond well to the local strength and conditions of the municipal government. Some municipalities have well established offices and personnel in charge of asset management, and their experience can contribute to improvement of the system inputs. Since asset management is both a financial management as well as an urban physical planning function, an asset management unit, integrating the contributions of different relevant departments, can help achieve the objectives of developing an improved and coordinated asset management system. Attracting highly qualified and motivated professionals to this important function, will depend on the financial and institutional strength of the municipal government, on the ratios of civil service salaries to those of the private sector and on the perceptions and incentives for professional development.

<b>CHECKLIST # F</b>
Administrative Organization of Asset Management
• Is asset management a well defined function?
• Does it have a clear link and reporting to the strategic levels of management?
• Does it have appropriate human and technological resources?
• Is the office in charge visible enough internally as well as externally?

### 5.1 Organizational Arrangements

The definition of types of ownership rights, and the uses and limitations that might affect urban property and assets management varies across countries significantly. As expressed before and by many authors on the subject, we cannot aspire to find a universal system of asset management. But, there are basic economic and management principles and tools, which associated with the use and interpretation of existing laws and regulations within each country, can help enhance the overall municipal service provision and strategic management for the benefit of all citizens. As can be seen from examples of practical application of strategic management of assets, for example in China and other emerging economies, the results are potentially very beneficial to the entire economy and population and they could be targeted well to attain particular objectives.

A review of the mandates and functions of the asset management office should indicate whether there is coherence in the guidelines, terms of reference, job descriptions and overall reporting lines and levels of responsibility. If some of the questions in the checklist are answered negatively, a special effort on the part of higher levels of government needs to be made, not only to improve the visibility, level and responsibility of this function and the office nominally, but also to begin to assess the contribution and performance of the individuals within this office and the office as a whole during the period of review. The sequence is important: assessment of performance and contribution can only be made, once

the resources, level of responsibility, job and office descriptions have been approved and understood clearly by the officials in charge who would be assessed.

## ***5.2 Audit Mechanisms of the Asset Management Function***

Special provisions for yearly (or half yearly) audit and reporting by external public or private entities (e.g. yearly audit of financial statements, including municipal assets) have to be made by the municipal government, either because it is mandated by law, or to improve the level of trust, and public performance and service. Public accountability is especially important in matters of stewardship of assets.

The audit function on behalf of the citizens of a region and locality can be exercised in different forms, according to traditions, laws and technical innovations incorporated in the public administration processes for example: parts of the inventory valuation of properties can be subjected to regular audits internally and externally to guarantee the quality of information. Main assets status and values could then be made available to the public via regular publications, and widely accessible through local websites and other methods. Special efforts should be made to hold regular public meetings, to discuss financial reports asset valuation and planning objectives, and to obtain inputs from the public in a systematic fashion.

### The Auditing Authorities of the Country

The local audit authority, who might report to elected council members, might also need to report to the auditor general of the state or the country. Regular reviews of the asset management and financial reports should be conducted at set intervals; unannounced reviews are also recommended. Ideally, the findings and recommendations of such public audit efforts should be made public for greater transparency.

Financial statements and a review of the portfolio of assets should be presented yearly to assemblies, where applicable, or selected commissions, task forces, or associations of professionals with the ability to review and make recommendations. Open fora could be meetings on reports on the state of the municipal finances and wealth, this could form part of a mayor's annual report. Examples of interested groups could include associations of engineers, auditors, economists, real estate agents, or the public at large. The purpose is to have the public engaged in the results and to explore potential for further development of the assets and associated services of the city.

In some cases specially created joint local and central government commissions entrusted with land and asset management oversight responsibilities can be tasked to audit the reports. Commissions could also be formed with public servants and selected members of the community who are part of special professional groups, associations and civic organizations.

### **5.3 Increasing Transparency and Efficiency**

Governments that have been able to use more astute forms of public asset management, for example by increasing significantly the yearly revenues of the municipal government, which can translate into better services for all citizens with special concern for the poor. Land that was idle can be transformed into highly productive purposes with the objective to increase tax revenues, services, the overall welfare in a balanced and pro poor manner.

It is a challenge to municipal authorities to find and improve approaches in asset management. Many of the new residents of a city in the developing world for example will initially relocate to the urban slums. The sooner they understand the rules of settlement in new areas of development and the more efficient the process of resettlement and communication, the higher their acceptance of municipal authority and support. The trust that develops creates synergies and heightens probabilities for initiatives emanating from entrepreneurial poor residents to succeed for their benefit, and ultimately the benefit of the city.

The rules under which public properties are managed by municipal governments form part of the necessary social contract for the creation of credibility and social capital, understood here as the institutions needed to create social coherence and lower transaction costs for economic activities. If local authorities are entrusted with the management and allocation of critical assets, without oversight and accountability measures, the potential danger and perception of collusion, corrupt practices, and possibilities of bribery etc. are very high. Although many current laws around the world guarantee free access to municipal records from financial budgets, balance sheets and records on inventory, valuation and use of public property, there is still lack of transparent management and reporting, as well as obstacles that prevent this, sometimes even in the most advanced economies.

Municipal policy makers interested to increase economic growth and welfare, reduce poverty and improve the living conditions of new and old urban and peri-urban residents will tend to promote the use of a transparent system of land and asset management. They should be formally recognized for their leadership by the public sector and through citizen's initiatives.

### **5.4 Acquisition, Rental and Sale of Assets**

Depending on the case, purchase, rent, leases or sale of existing municipal properties could be the recommended action based on the analysis of alternative options.

Land, buildings and other fixed assets can become part of the portfolio of assets of the municipal government, for example, through the following processes:

- 1) Allocation of rights and transfer of land and fixed assets by the central government, according to the constitution and other laws of the country.
- 2) As part of development implementation plans, developers might be required by law and local statutes to relinquish a certain percentage of the privately owned and developed land to the municipal government for different uses: from access roads, to community centers to parks, schools, and other.

- 3) In the process of adjudication of lawsuits, infringements, re-possession due to lack of tax payments, death, bequests by individuals or other legal entities.
- 4) Buying through competitive bidding of private land backed up by a special process of appraisal and valuation for the benefit of the municipality (although if not properly managed, this can be a contentious issue).
- 5) As part of other public and administrative processes, for example the redirection of water flows that can liberate important areas of river basin land for other potential commercial uses, which by constitution are owned by the state until such an intervention.
- 6) Eminent domain and public interest expropriation or buy outs.

For disposition of assets, the financial and fiduciary regulations prescribe the processes for open auctioning, arbitration of values and other methods of sale, which need to be clearly written, explained and made public by the municipal administration. The process of asset disposal must be not only fair, and perceived as such by all parties. Methods of recourse and disclosure must also be clearly indicated, made public and enforced.

### ***5.5 Contracting and Asset Management***

Some functions, of a more technical nature, could be contracted out for better results in public sector management at the Municipal level. If the government is at the early stages of an asset management improvement strategy formulation, during critical period of implementation, or during particularly difficult design and negotiations of projects involving significant assets and potential future revenues, it might be advisable to hire consultants through the most optimal and transparent methods available. More specific work, such as setting up the inventory and valuation methods, could in some cases be fully or partially contracted out, with capacity building components to ensure sustainability.

Municipal authorities need to manage the cost of appraisal, design and negotiation and to contract when needed with private partners who could provide specialized skills and technical resources. The process needs to be carefully assessed and managed. Local governments should strengthen their capacity in project management, appraisal and risk analysis, contracting and negotiation, and their appreciation for local conditions, laws, customs, and local and national norms. Well managed processes which have been evaluated ex-post show significant net gains can be achieved when such expertise was utilized by local governments and/or consultants.

## **6. Technology and Asset Management**

### ***6.1 New Technologies for Asset Management***

There is an explosion of new technologies available to municipal officials. In the area of asset management, there are internet and electronic reporting systems which can be accessed by any citizen, for example using cell-phones, concerned with issues of public management and efficiency in the use of public property or to pay taxes. Well designed, these systems can help provide valuable information for planning and strategic review processes as well as in the provision of services.

Specialized agencies and companies can offer options for services and different methods of asset inventory, valuation and reporting. Technologies that link financial and inventory records with internet portals and satellite based mapping are increasingly used. Great care needs to be applied in choosing the appropriate level and sophistication of information systems. A relatively simple platform that can grow with the development of the asset management system, and that can be integrated to the financial management system of the municipal government is desirable.

An example of an integrated asset management system was provided by Datastream to the City of San Jose in California in 2001 and this has been certified by the users. Datastream 7i enables the City of San Jose to consolidate its Facilities Management and Parks Maintenance divisions' data into a single Web-architected application and provides management with real-time visibility across all of its operations. With this visibility, managers can make better-informed operational decisions to drive down costs and improve efficiency. Another example is the City of Greensboro in North Carolina. Recently Greensboro sought to implement an integrated technology based solution that combines asset management, customer relationship management, and geographic information systems (GIS) to help achieve its goal of providing quality service. The City turned to Datastream 7i, asset performance management solution, to serve as the foundation for this initiative. Over 1,200 cities, municipalities, departments, and government agencies in the U.S. rely on Datastream software and services, making it an ideal fit for Greensboro.

There are many examples where innovations and new technological applications are helping city governments in the whole process of asset management. For developing countries, costs of efficient technologies are also being reduced for mapping, data gathering, analysis of flows of people and transactions that, with the corresponding safeguards for privacy of information, can be very useful for public officials in charge of asset management.

### ***6.2 Mapping Technologies***

Mapping technologies integrate inventory data with graphical representations of the different assets that a municipal government owns. The data entry, updating and retrieval of relevant information for asset management is enhanced and improved through computer based systems that can link local data bases to national data bases and data generated through

satellite based mapping techniques and geodesic surveys. There are numerous applications for different areas of asset management. Below is an example of a computerized inventory and asset management system for water and road networks as it is applied in Alberta, Canada. Other examples are the application of constant stream mapping used in mobile or cell-phone use tracking systems in London, Rome and Graz in Austria. (See for example the applications being developed by Senseable City Laboratory, MIT and other private providers).

### Example of a Computerized Inventory and Management System, Alberta, Canada

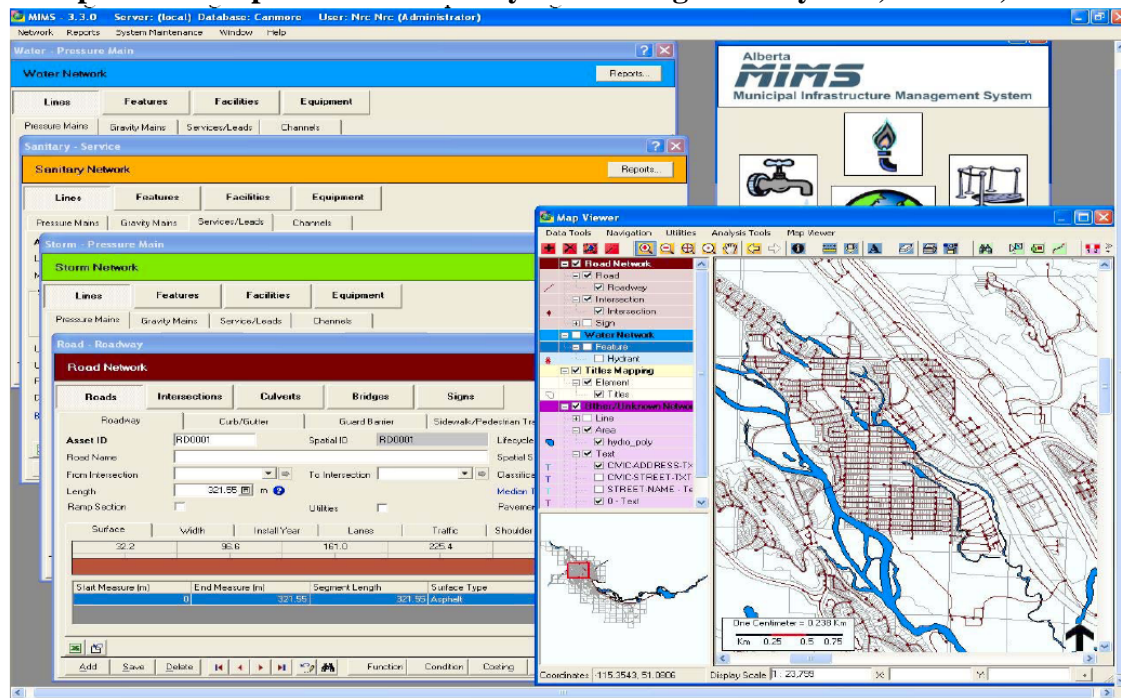


Figure 3. MIMS MapViewer and forms for managing water, sanitary, storm water, and roads networks (Courtesy of MIMS). Source, Halfawy. Dresden 2005.

### 6.3 Increasing Transparency and Efficiency Through New Information Systems

Electronic and Internet-based information systems allow more open access and potentially increased levels of social auditing by the residents. The criteria for selecting a computerized asset management inventory, valuation and reporting system depends on the size and complexity of the portfolio of public properties. The systems design, standards, reporting requirements, valuation methods, etc, will depend on the authority level given by law and custom to the local governments, financial, institutional and professional capability, and size of the local economy. A systematic evaluation of the information systems to be used to regularly report the inventory of properties including updated valuation, cost implications and other relevant information, has to be assessed carefully, in comparative terms, so that it becomes cost effective and can grow in sophistication while maintaining a certain relation to the costs and benefits of reporting.

Electronic data bases that can be accessed by internet or through cell-phones are now increasingly being used by citizens for tax payments. Efficient systems help in regularly updating property values and can be a basis to develop indexes for municipal asset valuation.

## **7. Strategic Analysis and Valuation of Municipal Assets**

Whenever a municipal government wants to significantly change the quality of municipal administration, engage the citizens in a process of urban renewal, or develop a master plan into the future, it will need to engage the community in participatory processes to define vision, objectives and an action plan of implementation. It is here where a well managed asset management system can make significant contributions and can benefit from proposals to improve the entire city administration.

A strategic review of asset management will/can:

- Help improve the level of public and then private services
- Increase the active participation of the residents of a city for their support
- Define the necessary steps to improve the city living environment, which could result in measurable increase in prices of real estate assets
- Develop strategies to make the process of economic development inclusive, so that nobody is left behind from the results of improvements and investors are attracted
- Help enter into a virtuous circle of improvement of municipal performance.

Examples of such processes can be observed in the City of Newburgh in New York, where an innovative, participatory process of planning and implementation was introduced in 2005, under the leadership of the city authorities and with active participation of a core group of stakeholders.

#### **Box 4: Sustainable Master Planning Process. City of Newburgh, New York**

The Master Plan is being created using the EarthCAT Guide to Community Development, a workbook that helps communities build a common vision, set long-term goals, and then work from there to develop an action plan for the community to achieve social well-being, good governance, economic security, efficient services, infrastructure, and production, and a healthy environment. The general methodology takes the staff and stakeholders through the following phases, culminating in a Master Plan that will be adopted by City Council and endorsed by the community organizations and others who will play a role in its implementation.

Building A Common Vision

Establishing Goals

Understanding Trends and Setting Targets

Planning Strategies for Taking Action

Indicators of Community Performance

The Community Action Plan

Tracking and Reporting

Shared Vision & Asset Inventory

The first phase of the planning process involves two main activities:

- 1) creating a shared vision by engaging the public in an appreciative inquiry process to discover their core values and aspirations for the future, and
- 2) working with focus groups from the stakeholder group to do an inventory of community assets. Since the kick-off event in September of 2005, over 2,000 people have participated in the questionnaires that have been circulated, and the focus groups have been meeting regularly to pull together an asset inventory in the following general categories:

- Education, Recreation, Health and Well-Being
- Housing
- Transportation
- Built Environment
- Environment and Land Use
- Governance
- Economic Opportunities
- Culture and Heritage

From the Draft Plan-It Newburgh. 9/10/06

A critical assessment of the situation in some municipalities in Canada points to some unrealized potential that could weaken asset management:

Real asset management of state, regional and municipal property lacks strategic focus and is mainly treated as a sunk cost in provision of municipal services or as a procedural item regulated by privatization process. There is very little focus on seeing real assets as counterparts to financial assets in constituting capital base of various levels of government. Consequently, there is a poor perceptive linkage between asset based revenues and local fiscal autonomy, and through this to infrastructure finance capacity.

Canada, Handbook of Urban Sustainability, 2006.



The strategic review of asset management to support proactively the mission of the local government has to become gradually a very important aspect of overall municipal government functions.

Practical questions and steps for regular strategic reviews are for example:

- Question the mission, objectives and performance of the municipal assets
- Develop regular portfolio reviews (for major assets initially).
- Appoint and support qualified asset managers
- If necessary, and on a temporary basis, contract out to well qualified consultants, the review of existing systems for asset management, valuation and strategic linkages to the rest of the municipal functions
- Organize competition of ideas within staff and sometimes outside the government, to elicit suggestions for best use of assets. Recognize particular valuable contributors and participation
- Open the process to promote synergies, accountability and full support from different actors
- Follow up on recommendations

### **7.1 Strategic Review of Options**

Municipal authorities need to undertake analysis of options for individual or categories of assets by doing regular review of the costs (maintenance for example) vs. the benefits of keeping the assets under different potential uses: (e.g. fire stations), leased units (e.g. market spaces and office space), joint ventures (with special provisions of reversal of assets in case of dissolution), concession contracts (for example for water provision), rent and sale of assets. The decision making criteria for ranking and suggesting programmatic decisions on municipal assets should include economic criteria (returns on investments, long term asset position in relation to liabilities of the government, economic objectives such as increasing economic activity and job creation and tax base) or financial criteria (budgetary resources needed to maintain an asset or optimized level of rent revenues. In addition, environmental considerations might be crucial in the decision making process on municipal assets: for urban planning and zoning considerations, ensuring the allocation, preservation and enhancement of public parks and buffer land areas (erosion, air quality, recreational value) might be important issues to consider.

Local authorities need to apply national and international planning norms as they apply to the balancing of private and public property, densities of economic and human habitation and the necessary urban services. A multidimensional and multi-criteria decision making matrix will be needed to explicitly develop rules of the game for asset management purposes. For example a well developed urban plan, with great attention to environmental amenities and quality of air, freedom from noise and pollution, can also enhance significantly the value of the private and public properties, which can have a significant impact on the financial flows to the municipal government through higher taxes and user fees. In addition, the feedback from enhanced quality of city life can help make the area more competitive in attracting

additional investors, potentially increasing economic and social returns to the city. From a social perspective, the ability of the city to create jobs of certain quality, and engage in service provision that is progressive (e.g. favors the poor more than the rich in a sustainable manner), could be one of the objectives that a strategic review of assets should help attain.

## **8. Summary**

Strategic use of assets can greatly enhance the ability of a local government to provide better services and engage the participation of residents to achieve the goal of a shared vision. Land based fixed assets are particularly important for the delivery of economic, social and environmental services that people are willing to pay, either through systems of taxation, or special user fees. Because of its potential, particularly in cities that are growing rapidly, municipal asset management deserves special policy and political attention from both the municipal government and very importantly, from the citizens themselves.

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Useful sources of information

Asset and Service Management for Municipalities

GFOA (Government Finance Officers Association) is the professional association of state/provincial and local finance officers in the United States and Canada, and has served the public finance profession since 1906. More than 17,000 GFOA members are dedicated to the sound management of government financial resources.

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American Bar Association's 2002 Model Procurement Regulations, there is a growing focus among municipal agencies and Departments of Transportation to manage costs across the pavement life cycle with an emphasis on maintenance and repair over replacement. When integrated with Asset and Service Management capabilities, a pavement management application can better support an optimal balance of cost and service levels for pavement assets.

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