# Financing Urban Infrastructure Development and Maintenance with Particular Reference to Nairobi

### Wafula NABUTOLA, Kenya

**Key words:** Infrastructure, Financing, Maintenance Policy, Economic and social development, sanitation, water, roads, pollution, congestion, pollution, graft, urban poor, unserviceable, approved housing, trash collection, solid waste management, equitable distribution, reliability, affordability, cost efficiency, performance benchmarks, poverty eradication, wealth creation, investor confidence, efficiency measures, accountability, collaboration, globalization, local government.

#### **SUMMARY**

At its third sitting between June 24th, and 25th, 2005 the National Economic and Social Council of Kenya, (NESC) discussed the development challenges posed by deep-seated inadequacies in Kenya's Infrastructure sector.

It was concluded that the condition of infrastructure in Kenya today is the worst it has ever been since Political Independence in 1963. The extent of deterioration in Kenya's roads, railways, ports, energy sector, telecommunications, water and sanitation, and public buildings is by now well-known and may not need a detailed exposition. To put the matter in perspective however, it may be necessary to record the highlights of this unsatisfactory state:

- 47 percent of our classified roads (63,000km) is unserviceable, needs reconstruction. Jomo Kenyatta International Airport is now handling nearly twice the passenger and cargo traffic that it was built for.
- Kenya Railways revenue per km-tonnage fell from KShs3.20 in 2000 to Kshs 2.17 in 2003, due to lack of equipment and poor maintenance.
- Kenya Telekom the national landline monopoly is saddled by inefficiency and old technology that has given Kenya the highest costs of international telephony in the region.
- Despite much progress recently, the rate of national access clean water is rated at 57percent, and that of sanitation at 86percent
- Some 68 percent of Kenyans depend on wood-fuel for energy; only 9percent have access to electricity. Energy costs facing industry are higher than those of Kenya's competitors.
- The supply of approved housing is way below demand; 60percent of Nairobi's residents live in slums. This is true of all the major urban areas in Kenya.

Service delivery is the cornerstone of city governance and includes access to water, trash collection, solid waste disposal, wastewater collection and treatment, and electricity connection. The reliability, quality and cost efficiency of equitable services to all areas of the city — wealthy and poor — is the primary responsibility of local government, and is the most tangible result for which the community will hold their elected officials accountable.

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In the middle of all the foregoing, Kenyan cities and urban areas, the basic infrastructure is very badly challenged and overwhelmed. Fortunately, the Cities and towns remain the focal points and drivers of societal development in all countries. At the same time, they are the largest consumers of natural resources and the biggest sources of pollution and greenhouse gas emissions on the planet. Kenyan cities and towns also house the greatest concentration of brains, brawn, money, talent, ambition and vision – all of which need to be deployed to find environmentally and financially sustainable solutions to urban problems.

This paper discusses the infrastructural challenges to the Kenyan economy, especially the urban sector, with reference to Nairobi in particular. It seeks to identify the opportunities to be explored in order to address the following:

- Urban congestion
- Urban pollution
- Exodus from the CBD
- The strains of the rural-urban migration and possible solutions
- The strains on existing facilities for public use in Nairobi and the possible amelioration
- Insecurity and its impact on urban economic growth

The noticeable divesting from the CBD and how this can be reversed

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#### 1. BACKGROUND AND THE PROBLEM IN OUTLINE

At its third sitting between June 24<sup>th</sup>, and 25<sup>th</sup>, 2005 the National Economic and Social Council of Kenya, (NESC) discussed the development challenges posed by deep-seated inadequacies in Kenya's Infrastructure sector.

It was concluded that the condition of infrastructure in Kenya today is the worst it has ever been since Political Independence in 1963. The extent of deterioration in Kenya's roads, railways, ports, energy sector, telecommunications, water and sanitation, and public buildings is .well-known. The highlights of this unsatisfactory state can be summarized as:

- 47percent of our classified roads (63,000km) is unserviceable, needs reconstruction.
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- The rate of national access to sanitation is 86percent
- Some 68 percent of Kenyans depend on wood-fuel for energy;
- 9 percent have access to electricity. Energy costs facing industry are higher than those of Kenya's competitors.
- The supply of approved housing is way below demand; 60percent of Nairobi's residents live in slums. This is true of all the major urban areas in Kenya.

## 2. IMPACT ON KENYA'S RECOVERY

It is not just the poor state of repair that bothers Kenyans. Existing infrastructure is inadequate for the purposes of economic recovery and a better quality of life; it has failed to keep up with technological change. Kenyans cite poor infrastructure as a constraint to production and to decent livelihoods. This is true whether one is talking about rural households that produce coffee, and cotton, or manufacturers in Nairobi's and Mombasa's industrial areas. Among foreign investors too, the poor state of the country's infrastructure has been cited in all business surveys as one of the top factors that deter further investment in the country. It is also cited as a major reason why the cost of doing business in Kenya is high in comparison with her competitors. That is why some companies have relocated from Kenya

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to neighbouring countries like Uganda, Tanzania and Mauritius. Poor infrastructure is neither good for business nor for poverty reduction.

What is now required is action to close the "infrastructure gap" between the dilapidated infrastructural conditions at present and the needs of an economy now clearly on the path to recovery and a target growth rate of 7-8 percent in the next decade. In the middle of all the foregoing, Kenyan cities and urban areas, the basic infrastructure is very badly challenged and overwhelmed. Admittedly a lot of the infrastructure, if well maintained would still be serviceable and useable for a much longer period than is currently the position. There is no maintenance policy at the national level or at the local level.

#### 3. HYPOTHETICALLY BUT REALISTICALLY SPEAKING

Service delivery is the cornerstone of city governance and includes access to water, trash collection, solid waste disposal, wastewater collection and treatment, and electricity connection. The reliability, quality and cost efficiency of equitable services to all areas of the city — wealthy and poor — is the primary responsibility of local government, and is the most tangible result for which the community will hold their elected officials accountable.

Fortunately, the Cities and towns remain the focal points and drivers of societal development in all countries. At the same time, they are the largest consumers of natural resources and the biggest sources of pollution and greenhouse gas emissions on the planet. Kenyan cities and towns also house the greatest concentration of brains, brawn, money, talent, ambition and vision – all of which need to be deployed to find environmentally and financially sustainable solutions to urban problems.

# 4. PRIVATE SECTOR FINANCING FOR CITY INFRASTRUCTURE DEVELOPMENT AND MANAGEMENT

This paper discusses the infrastructural challenges to the Kenyan economy, especially the urban sector, with reference to Nairobi in particular. It seeks to identify the opportunities to be explored in order to address the following:

- Urban congestion
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- Exodus from the CBD
- The strains of the rural-urban migration and possible solutions
- The strains on existing facilities for public use in Nairobi and the possible amelioration
- Insecurity and its impact on urban economic growth
- The noticeable divesting from the CBD and how this can be reversed.

#### 5. THE RATIONALE FOR PRIVATE SECTOR PARTICIPATION

- Strain on the central and local government funding.
- Insufficient public funds and the misappropriation
- Increasing public demand for higher levels of infrastructure services
- The gap in service provision between the wealthy and the poor
- Related to this is the need to minimize the inefficiencies of public administration
- Avoid the need for external borrowing.

# 6. CONDITIONALITY FOR PRIVATE SECTOR PARTICIPATION IN URBAN INFRASTRUCTURE

- Accountability and transparency: This often refers to the relationship between the city
  officials and their constituents, relationships between the contractors and the city
  governments; and lastly between the citizens and the service providers
- An enabling environment to transact business at arms' length. The principle of competition being, "may the best person win"
- The principles of Private/Public Partnerships
- Guidelines and a policy and legal framework that allows the private sector to participate without the fear of not being able to recoup its investment. It is the only way that the private sector would be attracted and retained to address the ever-increasing gap.

#### 7. METHODS OF SERVICE DELIVERY

The private sector and NGO's offer advantages of experience, technology and skill. Before the private sector can get involved the city has to examine the sophistication and competitiveness of its private sector and the city's own needs for investment and technical capacity. One or a combination of the following methods is acceptable:

- Contracting out the services when the ends are more important than the means
- Corporatization, when government wants the technical expertise of the private sector to improve management, but wants to retain overall responsibility
- Leasing and Concessions
- Privatization, when the market is well developed and the regulatory framework can ensure that fair pricing and adequate levels of coverage will be maintained
- It is abundantly clear that urbanization in Kenya has driven her infrastructure on its knees. However, globalization would make it possible to have the private sector participate in the all-important function of providing and maintaining, infrastructure services in Nairobi. The needs exist but conditions apply.

Given the notorious ineptitude and much talked about corruption in the public sector, especially in the Nairobi City Council much groundwork needs to be done to create confidence in the private investor to want to participate. This paper seeks to examine some of the obstacles to what is actually a need-driven service and to suggest ways and means of controlling and eventually eliminating them for the betterment of the economic environment that enables generation of wealth for all.

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Cities and towns are the focal points and drivers of societal development in all countries. At the same time, they are the largest consumers of natural resources and the biggest sources of pollution and greenhouse gas emissions on the planet.

Fortunately, cities and towns also house the greatest concentration of the world's brains, brawn, money, talent, ambition and vision – all of which need to be deployed to find environmentally and financially sustainable solutions to urban problems.

Cities and towns continue to be seen as offering economic opportunities superior to what can be realized in the countryside. Urban migration takes place on such a scale that we now have a new category of cities – mega-cities, with populations over 10 million.

Urbanization, population growth, and globalisation combine to create vast conurbations of millions of poor people in relatively constrained spaces, with wants and needs basic to all of humankind, yet influenced in particular by the consumption and transportation patterns of Western nations. This is not a recipe for a socially or environmentally sustainable society.

In recent years, suggestions for reforming the provision and financing of infrastructure services in developing countries have focused on private sector participation. This alternative to public financing is seen as a way both to minimize the inefficiencies of public administration and to avoid the need for external borrowing.

Because of the difficulties of assessing project, investors were reluctant to commit their funds, and governments turned to subsidies and loan guarantees to encourage investment. Often, however, government intervention only replaced one set of problems with another. Investors with government-guaranteed loans had no incentive to monitor the firm's performance - a limitation that led to the diversion of funds and frustrated the public interest.

## 7.1 Methods of Service Delivery

Service delivery is the cornerstone of city governance and includes access to water, trash collection, solid waste disposal, wastewater collection and treatment, and electricity connection. The reliability, quality and cost efficiency of equitable services to all areas of the city - wealthy and poor - is the primary responsibility of local government, and is the most tangible result for which the community will hold their elected officials accountable.

Fundamental to sustainable and responsive service provision are:

- Cost recovery
- Participatory management, engaging stakeholders
- Cooperation to assess needs and ability to pay
- Transparency
- Accountability

#### 8. ACCOUNTABILITY

Accountability often refers to the relationship between city officials and their constituents, but it also includes the relationship between contractors and city governments, citizens and service providers, and city governments and other levels of government.

Tools for improving accountability include:

- Efficiency measures that compare output produced or outcomes accomplished to inputs provided. The use of contractors for service delivery actually makes it easier to develop efficiency measures as costs are clearly defined.
- Performance benchmarks that help detect problems, and build confidence by tracking improvements over time.

#### 9. ENABLING ENVIRONMENT FOR SERVICE DELIVERY

Effective decentralization enables cities to better manage service delivery by giving them the autonomy to (i) set tariffs and user-fees; (ii) determine the appropriate mix and level of services; and (iii) design efficient delivery methods including the involvement of the private sector.

Other conditions promoting better management of service delivery by cities include:

- National laws and regulations setting health and environmental standards;
- A level playing field for involving private firms and NGOs as service providers;
- Strong capital markets allowing cities to access private sector finance;
- Land security in informal settlements where the poor are concentrated.

#### 10. INCREASING COVERAGE TO THE POOR

Affordability of basic services for the poor has long been a concern of all levels of government and the private sector. The first step to addressing the problem of service coverage is identifying the needs and demands of the community, including residents and businesses. Based on the needs and demands of the community, tariffs and user-fees should be calculated to ensure full recovery of costs, and thus operational sustainability.

The poor and low-income groups who are unable to pay the user-fees should then be assisted with carefully targeted subsidies. One way to target subsidies is to identify specific households and provide them with cash or vouchers to pay the costs of essential urban services. Another way is to cover the costs of a minimum amount of consumption for all households. It is sometimes more efficient for cities to outsource the administration of social assistance programmes to the private sector or NGOs.

In terms of setting user-fees, a menu of options with varying degrees of service provision along with the opportunity for periodically upgrading the level of services would empower customers to choose a service that they feel is affordable and sufficient. Provided that the consumers are given full information about the related costs and benefits of the various

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service options available, they will increase or decrease their use of services depending on pricing, administrative arrangements, perceived levels of corruption, and the availability of alternative services.

Bringing stakeholders together in a strategic planning process may build consensus for services that not only meet immediate needs, but will attract businesses and contribute to urban employment and economic growth.

#### 11. RATIONALE FOR PRIVATE SECTOR FINANCING

- Increasing public demand for higher levels of infrastructure services
- Insufficient public funds; attention has refocused on private sector financing for public projects to restore, rehabilitate, expand or replace existing infrastructure
- Closing the gap in service provision among the poor and the wealthy
- Over 1.1 billion people lack adequate access to safe water
- Nearly 2.5 billion people lack access to sanitation services
- Minimize inefficiencies of public administration
- Avoid the need for external borrowing

#### 12. METHODS OF SERVICE DELIVERY

For most services, the private and NGO sectors – including user groups and citizen associations – offer advantages of experience, technology and skill.

The level of private sector involvement should be determined by examining the sophistication and competitiveness of the private sector and the city's own needs for investment and technical capacity.

Mechanisms for involving the private sector:

- Contracting out for services when the ends are more important than the means. If private firms (and NGOs) compete to deliver services and are rewarded appropriately for the results delivered, they are motivated to devise cost-saving technologies.
- Corporatization when government wants the technical expertise of the private sector to improve management, but wants to maintain overall responsibility.
- Leasing and concessions when the government is looking for the private sector to take on more financial responsibilities and risks. Usually, this means a longer-term commitment, from 5 to 10 years for leases and 15 to 20 years for concessions.
- Privatization when the market is well developed and the regulatory framework can ensure that fair pricing and adequate levels of coverage will be maintained.

Cities selecting to involve the private sector in service provision should be explicit about expanding coverage to the urban poor, particularly in unserviced areas. City governments can facilitate better basic services for the poor through specified deliverables and risk sharing, i.e. partial guaranteed lending.

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#### 13. METROPOLITAN AND COMMUNITY-BASED SERVICES

Service delivery can be managed at levels either above or below the city government. Cities may find it economical to cooperate on delivering services that naturally extend beyond their borders or when economies of scale or complementarities exist. An example of metropolitan cooperation is the management of supply and distribution of water in the Hyderabad, India metro area.

In the other direction, service delivery can be effective at the community level by empowering user groups and citizen associations to develop effective solutions to their community's needs. The involvement of citizens as owners and operators may offer savings as the residents may be more careful to ensure proper maintenance of capital they have bought themselves. Researchers have found that community-built sewerage systems cost approximately one-half to one-third the costs of systems built by governments. Condominiums are shown to have improved collection rates, as citizens police themselves in the payment of fees.

# 14. PRIVATE SECTOR INVOLVEMENT IN INFRASTRUCTURE DEVELOPMENT- PUBLIC PRIVATE PARTNERSHIP

Any collaboration between public bodies, such as local authorities or central government, and private companies are referred to as public-private partnership (PPP).

The wide-ranging benefits that the private sector can derive from expanded and improved infrastructure facilities justify the priority accorded to financing infrastructure projects.

Areas where governments could encourage private sector investment in infrastructure:

- Water: bulk water supply, water distribution, sewerage treatment
- Public housing
- Energy and power: power generation, transmission, distribution, renewable energy
- Oil and gas: pipelines, terminal distribution systems, field development
- Transportation: roads, bridges, ports, airports, rail transport systems
- Media and telecommunications: backbone networks, rural telephone systems
- Social Infrastructure: pro-poor health care, education

#### 14.1 Water, Sewerage and Environment

To improve living standards and greatly reduce health care costs in the long term, clean water and a clean environment are needed. Moreover, water supply is vital to both public health and the manufacturing sector. Due to the necessity of these services, governments must find ways to fund the balance when the full charge cannot be passed on to the consumers.

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## **14.2 Public Housing**

To encourage private sector participation in public housing, governments must recognize that foreign investors require an adequate return on investment. Governments could encourage investment in public housing in a number of ways, for example:

- Tax credits: In the United States, tax credits are provided to private developers of low-cost housing.
- Land: In Hong Kong, where approximately 50 per cent of residents live in public housing, the government allocates land for community and public housing uses by grant at zero or nominal rent, thereby ensuring that the cost of public housing is 20 to 40 per cent lower than private housing.
- Rental/sales: To ensure adequate returns, rental and sales prices must be set at market rates. However, financial assistance could be provided to families on a monthly basis and reduced over time in the case of rentals, and in the form of long-term low interest loans to promote home ownership.

## 14.3 Energy, Power, Pipelines, Transmission, Media and Telecommunications

Generating sufficiently high-income streams to support returns on foreign investment, these areas attract private sector participation. For example, by locking in long-term (typically 30 years) pre-agreed rates with the developer, the government distribution agency has the opportunity to obtain a premium as the prices to consumers increase over time. Electricity generation and telecommunications projects need to be coordinated with building a rational, cross-border transmission network to meet demand.

#### 14.4 Transportation, Roads and Mass Transport

Transportation projects require heavy up-front investment and have low-income streams in the early years of operation before traffic and passenger usage grow. Where rates of return fall below the expected norm, governments must actively support the private sector in developing infrastructure. Examples by which governments could assist private developers are as follows:

- Acquiring the right of way and clearing land for developers (which require strong public domain laws);
- Offering non-discriminatory tax holidays;
- Granting additional land to developers at or below market price as an additional source of repayment for the project;
- Providing grants or low-interest long-term loans to projects;
- Offering minimum traffic guarantees or shadow toll rate structures.

#### 15. PROJECT FINANCE

An important characteristic of project finance is that the lenders finance the project looking at the creditworthiness of the project, not the creditworthiness of the borrowing party. The

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repayment of the loans is made from the earnings of the project. Also, project financing is also known as "limited recourse" financing, as the borrower has limited liability. The security taken by the lenders is largely confined to the project assets.

### 16. BUILD, OPERATE, AND TRANSFER (BOT) PROJECTS

BOT is a relatively new approach to infrastructure development, which enables direct private sector investment in large-scale infrastructure projects.

The theory of BOT is as follows:

**Build** – a private company (or consortium) agrees with a government to invest in a public infrastructure project. The company then secures their own financing to construct the project. **Operate** – the private developer then owns, maintains, and manages the facility for an agreed

**Operate** – the private developer then owns, maintains, and manages the facility for an agreed concession period and recoups their investment through charges or tolls.

**Transfer** – after the concessionary period the company transfers ownership and operation of the facility to the government or relevant state authority.

There are a number of major parties to any BOT project and all of them have particular reasons to be involved in the project. The contractual arrangements between those parties, and the allocation of risks, can be complex.

The major parties to a BOT project will usually include:

## **16.1** Government Agency

A government department or statutory authority is a pivotal party. It will (i) grant the sponsor the "concession", that is the right to build, own and operate the facility; (ii) grant a long term lease of or sell the site to the sponsor; and (iii) often acquire most or all of the service provided by the facility.

The government's cooperation is critical in large projects. It may be required to assist in obtaining the necessary approvals, authorizations and consents for the construction and operation of the project. It may also be required to provide comfort that the agency acquiring services from the facility will be in a position to honour its financial obligations.

The government agency is normally the primary party. It will initiate the project, conduct the tendering process and evaluate the tenders. It will grant the sponsor the concession, and where necessary, the off-take agreement.

### 16.2 Sponsor

The sponsor is the party, usually a consortium of interested groups (typically including a construction group, an operator, a financing institution, and other various groups) that, in response to the invitation by the Government Department, prepares the proposal to construct, operate, and finance the particular project.

The sponsor may take the form of a company, a partnership, a limited partnership, a unit trust or an unincorporated joint venture.

## **16.3 Construction Contractor**

The construction company may also be one of the sponsors. It will assume construction and completion risks, that is, the risk of completing the project on time, within budget and to specifications.

#### **16.4 Operation and Maintenance Contractor**

The operator will be expected to sign a long-term contract with the sponsor for the operation and maintenance of the facility. Again the operator may also inject equity into the project.

#### 16.5 Financiers

In a large project there is likely to be a syndicate of banks providing the debt funds to the sponsor. The banks will require a first security over the infrastructure created. The same or different banks will often provide a stand-by loan facility for any cost overruns not covered by the construction contract.

#### 16.6 Other Parties

Other parties such as insurers, equipment suppliers and engineering and design consultants will also be involved. Most of the parties too will involve their lawyers and financial and tax advisers.

#### 17. BOT PROJECTS IN INDIA

There is a tremendous thrust in the infrastructure sector in India. The National Highway Development Programme (NHDP), consisting of the Golden Quadrilateral and the North-South, East-West corridors, has been launched. NHDP is being implemented by National Highways Authority of India (NHAI). The NHDP is India's largest ever highway project. It involves four and six lanes of 13,146 km of roads with a total cost of Rs. 540 billion. The NHDP consists of nine BOT projects of 456 km with estimated cost of Rs. 27 billion. Apart from the BOT projects under NHDP, there are several other projects being done on BOT basis in India.

#### 18. INDIRECT INFRASTRUCTURE FINANCING

Indirect private sector involvement in infrastructure financing assumes commercial viability. More importantly, it relies on the minimal risk of default on private funds due to the effective 'guarantee' on local government borrowings. Indirect private sector financing usually takes the form of local government/revenue/infrastructure bonds or debentures. They are issued in capital markets, usually via a State underwritten borrowing authority and operate as typical debt instruments.

### 19. DIRECT INFRASTRUCTURE FINANCING

The private sector can and has also become more directly involved in the provision of local government infrastructure. Such involvement revolves around the rights and obligations in the contractual arrangements between private operators and Councils and can take the form of service/ management contracts, lease contracts, build operate and invest arrangements (e.g. BOOT, BOO or BOT schemes), concession or franchise agreements, joint ventures or full privatisation.

Each type of direct private sector involvement in local government infrastructure assumes some element of risk and, as with all efficient investment of resources; the 'risks' must be adequately counter-balanced by 'returns'. In terms of local government infrastructure investment these risks can be categorised as being either:

- Commercial risks: cost overruns in construction (construction risks), operation (operational risk) or uncertainties surrounding the demand for infrastructure services (market risk), amongst others; or
- Non-commercial risks: (specifically policy risks), which cover any adverse conditions that are imposed on infrastructure operation because of changes in the regulatory, legal or economic policy framework.

### 20. RISK STRUCTURE IN PROJECT FINANCE

Most project finance structures are complex. The risks in the project are spread amongst the various parties; the party, which can most efficiently and cost-effectively control or handle it, usually assumes each risk.

Once the project's risks are identified, the likelihood of their occurrence assessed and their impact on the project determined, the sponsor must allocate those risks. The options are;

- To absorb the risk;
- To lay off the risk with third parties, such as insurers;
- To allocate the risk among contractors and lenders.

Apart from the allocation of risks between the private sector and councils, the various forms of involvement can be distinguished by the ownership of the infrastructure assets, capital and recurrent investment responsibilities, basis for remuneration and contract duration.

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These differentiating factors can be used to describe the various forms of private sector involvement common in the delivery of local government infrastructure. Prior to this process it is useful to consider the intensity of private sector involvement via a continuum of responsibility, ranging from full public sector responsibility to full privatisation.

Characteristics of Private Sector Involvement in Infrastructure Delivery

Characteristic	Complete Public Sector Delivery	Traditional Public Contracting	Service/ Management Contracts	Lease Contracts	BOO, BOOT or BOT Schemes	Concession or Franchisee Agreements	Joint Ventures	Full Privatisation
Infrastructure Ownership	Public	Public	Public	Public	Public	Public	Joint	Private
Contract Duration	Not applicable	Once off	5 to 10 years	Up to 30 years	20 to 30 years	20 to 30 years	Permanent	Permanent
Basis for Private Sector Compensation(All are performance based)	Not applicable	Agreed contract fee	Agreed contract fee	estimated	guarantees to	lease of BOOT	Market driven(with regulation)	Market driven(with regulation)
Revenue Collection Responsibility (inc. invoicing & collection)	Public	Public	Public	Public (some private)	Public	Private	Joint	Private
Capital Investment Responsibility (inc. initial, upgrade & service expansion investment)	Public	Public	Public	Public (Private operator funds capital maintenance expenditure)	Private operator (Public sector funds service expansion expenditure)	Private	Public and Private	Private
Recurrent Expenditure Responsibility	Public	Public	Private	Private	Private	Private	Public and Private	Private
Commercial Risks	Public							
Construction	Public	Private	Private	Private	Private	Private	Private	Private
Operation (Cost)	Public	Not applicable	Public	Private	Private	Private	Public and Private	Private
Market (Revenue)	Public	Public	Public	Private	Shared (guaranteed minimum custom)	Private	Public and Private	Private
Non-commercial Risks	Public	Public	Public	Public	Public	Public	Joint	Private
Sectors where Most Appropriate			Low willingness to pay	Where limited capacity expansion required	facilities are	Networked based infrastructure (e.g. water)	Where private capital is required immediately	Where competitive structures can be unbundled

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#### 21. CHALLENGES AND OPPORTUNITIES FOR EAST AFRICA

In recent years, suggestions for reforming the provisions and financing of infrastructure services in developing countries have focused on private sector participation. This alternative to public financing is seen as a way both to minimize the inefficiencies of public administration and to avoid the need for external borrowing.

Rapid economic growth and urbanization have dramatically increased the demands on the region's already inadequate infrastructure. It is thus becoming increasingly clear that the public sector alone cannot bear the burden of supplying, managing and maintaining the infrastructure to meet the region's growing demand, and that private capital, technology and management know-how are needed.

The World Bank has evolved some Guidelines for facilitating private sector participation in infrastructure development. There is a need for a set of transparent guidelines for governments to facilitate private sector participation and enhance risk mitigation measures in infrastructure development projects.

- Intensify coordination amongst East African economies and between export credit agencies of each economy to help finance infrastructure projects. Member economies should consider ways to promote coordination of their export and investment insurance policies.
- Cooperate with multilateral institutions to further enhance risk mitigation.
- Provide export and investment insurance adapted from successfully executed models used by Japan's Ministry of International Trade and Industry and the United States' Overseas Private Investment Corporation as the basis for a carefully structured insurance system.
- Maintain a stable policy and macroeconomic environment and guarantee foreign exchange convertibility. Continuity of policies even with changes in government and administrations is an important consideration for investors.
- Ensure that the projects are in accordance with clearly defined domestic development plans and programs that enjoy strong administrative and political support and are underpinned by the principle of sustainable development.
- Ensure maximum flexibility in the use of public sector funds and coordination with private sector funding. An example of such coordination would be the case of an electrical power project, where the project itself is carried out under a BOT scheme while related projects such as roads and ports are built with government financing.

- Promote a competition-driven environment for private sector infrastructure projects and open non-discriminatory access to infrastructure. An example would be access to public telecommunications networks for all information providers and users.
- Secure appropriate and responsible risk allocation between the host government and private enterprises.
- Establish and harmonize domestic laws and regulations regarding private infrastructure projects to guarantee currency conversion, policy consistency in setting basic terms and conditions, and fulfilment of government obligations by pertinent authorities at all levels. For example the Philippines' BOT law of 1990 provides a regulatory and legal framework for infrastructure development that facilitates the entry of private firms in infrastructure projects. In 1994, the law was amended to further improve the environment for private investors.
- Establish clear policies and well-defined means of coordination between government agencies.
- Host governments should consider assigning a project manager responsible for interacting with the private investor on all government matters and managing all intragovernmental coordination to provide the investor with "one-stop shopping". Expedite procedures for approving privately financed infrastructure projects.

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