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## African Trade Policy Centre

# Private Sector Participation in the Provision of Basic Infrastructure

Reto Thoenen

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ATPC is a project of the Economic Commission for Africa  
with financial support of the Canada Fund for Africa

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The views and opinions expressed herein are those of the author and do not purport to represent those of the United Nations Economic Commission for Africa.



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# Table of Contents

- Executive Summary.....vii
- I. From public goods to private sector participation..... 1
- II. Private sector participation on the rise in developing countries and in Africa..... 3
- III. A framework for private sector participation ..... 6
- IV. Examples of private sector participation in the provision of electricity..... 9
- V. Examples of private sector participation in the provision of water and sewerage ..... 11
- VI. Lessons learnt..... 13
- VII. Policy recommendations and conclusions..... 15
  - 7.1 Preparation ..... 15
  - 7.2 Information ..... 16
  - 7.3 Participation ..... 16
  - 7.4 Transformation..... 16
  - 7.5 Political commitment..... 17
  - 7.6 Contracting out regulatory functions ..... 17
  - 7.7 Mitigating private risk..... 17
  - 7.8 Currency risk ..... 17
  - 7.9 The public-private infrastructure advisory facility..... 17
  - 7.10 Synergies ..... 18
- Bibliography..... 19

# Executive Summary

Private sector participation in infrastructure has become more common in the last 15 years or so. Initially, the expansion of private sector involvement was driven by constrained budgets and concerns about efficient service delivery. With the onset of the Asian financial crisis private participation in infrastructure projects dropped for developing countries as a group and only started to recover in 2004. Sub-Saharan Africa was less affected by the drop in investment in infrastructure with private participation than the rest of the developing countries.

Private sector participation in the provision of infrastructure can take on a range of contractual forms. It includes rendering management services against a fee to full privatisation. The paper looks at the different forms private sector participation in the provision of infrastructure can take on, including public-private partnership. It argues that there is not a one size fits all arrangement and that solutions should heavily depend on the broader context within which infrastructure must be delivered.

Section one briefly discusses the economic rational of the provision of infrastructure. Section two looks at the evolution of infrastructure provision with private sector participation since 1990 and at its composition. Section three reviews the contractual framework in which private sector participation takes place. Section four and five review examples of private sector participation in the provision of infrastructure and section six draws lessons from those examples. Section seven gives policy recommendations and concludes.

The main messages of this paper are the following:

- 1) Private sector participation is not a “light” version of full privatisation or a way around capable institutions and sound regulation. In order to successfully involve the private sector, the public sector must have strong capacities within its institutions in order to negotiate a fair and satisfying deal.
- 2) Private sector participation demands careful project assessment, project implementation, and specific measures to make it profitable for the poor (pro-poor).
- 3) The private sector requires a set of initial conditions in order to consider an involvement. These conditions include good business climate, sound regulations, property rights and contract enforcement.

## I. From public goods to private sector participation

Basic infrastructure such as the provision of water, sewerage and electricity were long seen as typical cases of natural monopolies and public goods. In infrastructure, economies of scale exist due to large initial investments. The cost of every additional connection to the water, sewerage or electricity system is – compared to the initial investment of setting up the network – comparatively low. Economic theory states that the provision of such infrastructure and the services linked to it can be more cost effective when it is done by one single provider that takes advantage of the economies of scale. This situation is referred to as natural monopoly which is frequently used to justify government intervention.

The provision of infrastructure and linked services share another economic characteristic that justifies government intervention: externalities. Improvements in a person's access to water, sewerage and electricity tend not only to improve his or her personal situation and well-being but at the same time increase the overall economic and social outcome in the economy. Further, public goods – such as public health – share the characteristic that private provision without government intervention leads to a demand that is below the optimum for the economy.

Provision of basic infrastructure has therefore for a long time been considered as the exclusive responsibility of the public sector. But the public sector by itself, for a variety of reasons, has not been able to meet infrastructure requirements arising in Sub-Saharan Africa. The monopoly granted to public entities in charge of providing basic infrastructure often led to under-provision. Frequently, the delivery of infrastructure was rationed to a limited part of the population and associated costs of production were high. Further, the ability to raise capital for financing new projects is constrained in the context of poor credit ratings of African States and macroeconomic stability programmes (Estache et al. 2005, Nellis 2005).

The importance of delivering quality infrastructure, however, has been underlined by the United Nations Declaration of the Millennium Development Goals (MDGs). Research finds that investing in water, sewerage and electricity positively impacts on the livelihoods of people. Boosting the provision of those services has a great potential in helping to reach the MDGs as a whole (ECA 2005b, ECA 2005c). In this context new ways of approaching the provision of basic infrastructure involving the private sector have been explored in developing regions and Africa.

The private sector can participate in the provision of basic infrastructure in various ways. Private sector participation ranges from rendering specific contracted services (like management services, construction, etc) to full privatisation. One form of private sector participation often talked about are public-private partnerships (PPP). PPP include the whole range of private sector participation with the exception of

full privatisation. Further, public-private partnerships emphasise the collaborative element between the public and the private sector for achieving a particular goal. They have the potential of combining the concerns of the public sectors for equity and universal service delivery with competencies and strengths of the private sector such as efficiency, cost-effectiveness and responsiveness to consumers' needs (ECA 2005c, Labuschagne 1998).

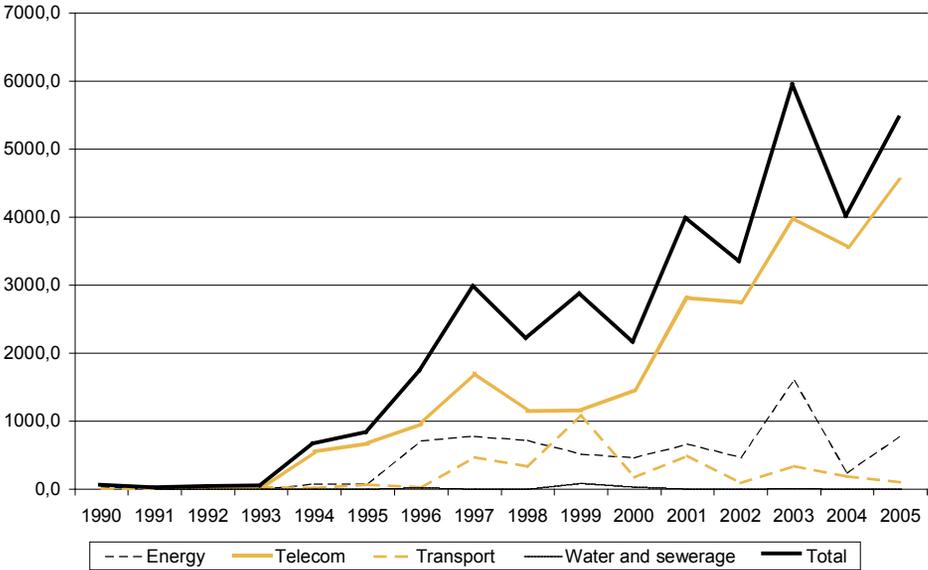
Public-private partnerships are often perceived as a middle ground between full privatisation and state ownership. They allow governments to tap into the resources, financial and human, of the private sector while still hanging on to ownership and control over the asset. However, governments should be aware that public-private partnerships are not a "light" version of privatisation. Public-private partnerships involve capacities and commitment from all sides as much as do privatisation and other forms of private sector participation (Mitchell-Weaver et al. 1992). PPP as well as other forms of private sector participation also bear significant risks for the public sector and for public service delivery.

## II. Private sector participation on the rise in developing countries and in Africa

Private sector participation has become more widespread in the developing world. Since 1990 a large number of developing countries have tried private sector participation in different sectors and in different forms. Investment in infrastructure with private sector participation increased from its 1990 level of US\$ 13 billion to reach a first peak of US\$ 114 billion in 1997 (World Bank, PPI Database). This boom was partly caused by the acknowledgment of states of their huge infrastructure needs while facing at the same time fiscal constraints in their attempts to maintain macroeconomic stability. As a consequence, many governments opened up their infrastructure sectors and invited private investors (Thomsen 2005).

After 1997 investment in infrastructure with private sector participation dropped and at its lowest point in 2003 (US\$ 53 billion) was less than half of the 1997 level. It only started to recover in 2004 (World Bank, PPI Database). The lower levels of investment in infrastructure with private sector participation in the late 1990s and first years of the new millennium were caused by a variety of reasons including the Asian financial crises and financial difficulties experienced by international companies in their home countries that reduced their appetite for risky investments in developing countries (Thomsen 2005).

**Figure 1: Investment with private sector participation 1990 - 2005 in Sub-Saharan Africa (US\$ millions)**

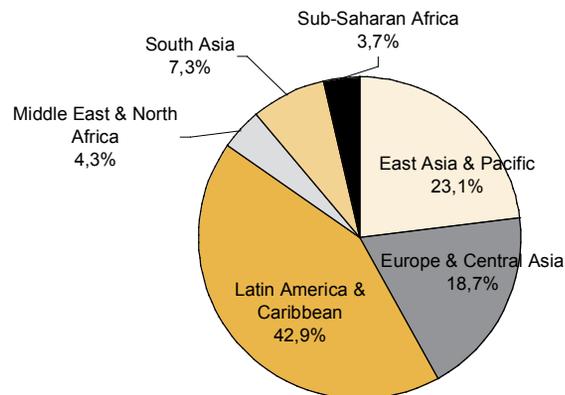


Source: World Bank, PPI Database

The experience of private participation in Sub-Saharan Africa differed from the overall situation for developing countries. Figure 1 depicts the aggregate and by sector evolution for Sub-Saharan Africa. Investment peaked twice, in 1997 and 2003, mainly driven by the telecommunication sector for the first peak, and by the telecommunication and energy sectors concurrently for the second peak. The overall development was also strongly driven by the telecommunication sector. The boom in the telecommunication sector was largely due to mobile telephony. In 1992, there were 14.6 fixed telephone lines and 0.1 mobile telephone lines per 1000 inhabitants in Africa. By 2002 these figures had increased to 26.2 fixed lines and 44.7 mobile lines per 1000 people (ITU 2004).

In international comparison Sub-Saharan Africa only represents a small percentage of investment in infrastructure with private sector participation (3.7 per cent), less than the Middle East and North Africa region with 4.3 per cent (see Figure 2). The biggest share goes to Latin America with 42.9 per cent followed by East Asia and the Pacific with 23.1 per cent.

**Figure 2: Infrastructure investment with private sector participation by region, 1990 - 2005**



Source: World Bank, PPI Database

Consequently there is a marked difference in the presence of the private sector in the delivery of infrastructure in different regions. Particularly, in developed countries the share of the private sector in these industries is significantly higher than in developing countries. Table 1 shows the share of countries that have some sort of private sector involvement (including privatisations).

In electricity distribution 28 per cent of Sub-Saharan African countries have some form of private sector involvement compared to 61 per cent in Latin America and 48 per cent in Eastern Europe. However,

East Asia, the Middle East and South Asia have lower averages of private participation in electricity. The gap between Sub-Saharan Africa and other developing regions is bigger in the water and sewerage sector. In 20 per cent of Sub-Saharan African countries the private sector is involved in the delivery of these services. In comparison, more than 60 per cent of East Asian and Eastern European countries involve their private sector; in Latin America it is just above 40 per cent.

**Table 1: Presence of the private sector in the delivery of infrastructure (% of countries)**

|                      | <b>Electricity distribution</b> | <b>Water and sewerage</b> |
|----------------------|---------------------------------|---------------------------|
| Developed countries  | 43%                             | 80%                       |
| Developing countries | 36%                             | 35%                       |
| Sub-Saharan Africa   | 28%                             | 20%                       |
| East Asia            | 20%                             | 64%                       |
| Eastern Europe       | 48%                             | 62%                       |
| Latin America        | 61%                             | 41%                       |
| Middle East          | 6%                              | 18%                       |
| South Asia           | 13%                             | 13%                       |

Source: Estache et al. (2005)

The above suggests that there might still be room for increased private sector participation in Sub-Saharan Africa. The potential to involve the private sector to expand service delivery seems even more promising considering the sheer size of infrastructure investment requirements (ECA 2002). To meet its growing infrastructure needs, Africa has to spend an additional US\$ 20 billion each year from 2005 to 2015. Only then the 7 per cent growth rate in GDP needed to halve poverty is attainable (Commission for Africa 2005).

### III. A framework for private sector participation

Private sector participation can take a variety of contractual forms. Accordingly the government hands over more or less managerial competences and control over assets. Risks associated to the project are shared as well. Adapted from Thomsen (2005), the most common forms of private sector participation in the provision of infrastructure can be summarised in four categories: 1) service contracts; 2) delegated management contracts; 3) construction support contracts; and 4) divestiture (see Table 2).

Table 2: Different forms of private sector participation

|                                | <b>Form of contract</b> | <b>Operation &amp; maintenance</b> | <b>Ownership</b> | <b>Investment</b> | <b>Commercial risk</b> | <b>Duration in years</b> |
|--------------------------------|-------------------------|------------------------------------|------------------|-------------------|------------------------|--------------------------|
| Service contracts              | Management support      | Public and private                 | Public           | Public            | Public                 | 1-2                      |
|                                | Operation & management  | Private                            | Public           | Public            | Public                 | 3-5                      |
| Delegated management contracts | Lease                   | Private                            | Public           | Public            | Semi-private           | 8-15                     |
|                                | Affermage               | Private                            | Public           | Public / private  | Public and private     | 8-15                     |
|                                | Concession              | Private                            | Public           | Private           | Private                | 20-30                    |
| Construction support contracts | BDO                     | Private                            | Public           | Public            | Private                | 20-30                    |
|                                | BOT, BOO                | Private                            | Public/private   | Private           | Private                | 20-30                    |
| Divestiture / privatisation    | -                       | Private                            | Private          | Private           | Private                | -                        |

Source: Adapted from Thomsen (2005)

The overall operational responsibility remains with the public sector in a service contract. The contracted private sector firm provides a number of specific services. The service contract has two main forms: the management support contract and the operation and management (O&M) contract. Management support provides technical and human resources against a fee. Ownership and some management responsibilities remain within the sphere of the public authority. Operation and management places more responsibility in the private hands. The private contractor is responsible for operating and maintaining the facility. It is paid according to the achievement of agreed performance criteria.

In delegated management contracts the public entity preserves ownership of the asset but hands over the responsibility for the management to a private entity. The duration of the contract is longer than for service contracts. The lease agreement is one form such a contract can take. The private firm is responsible for directly invoicing the end-user and it takes charge of the existing assets and all personnel. However, the responsibility for financing and building new investment remains with the public sector. Another contractual form is the concession. Under this type of contract the private firm takes on all responsibilities for management and investment for a longer (e.g. 20 years) period. The private firm invoices the end-user directly. The public authorities retain control over service terms and decisions on tariffs and enlargement targets. The affermage contract is more frequently used in Francophone Africa. The private sector entity bills all consumers and collects the revenue at the tariff set by the government. However, the company receives a fixed fee for each unit sold (covering costs and a regulated profit) that might differ from the tariff. Affermage contracts can incorporate investment requirements as well as incentives in the fee structure to meet targets on leakage, bill collection and connections of poor households.

In construction support contracts the private sector is involved in the design, construction, and operation of a new investment. The private sector firm bears some of the risks involved. The build design operate (BDO) contract delegates the design, construction, and operation of a new facility to a private sector operator. The property remains with the public sector. The private operator assumes the risks linked to design and management of the facility and is remunerated by an agreed fee. In the build operate transfer (BOT) contract ownership remains with the public sector. The private firm is given the responsibility of designing, financing, and managing the facility over a period long enough to allow the private firm to recover the costs it incurred. The build own operate (BOO) arrangement essentially differs from BOT in that the private sector firm retains ownership over the facility. Other arrangements are the build own operate transfer (BOOT) and the build operate train transfer (BOTT) contracts. Both are similar to the BOT contract, with variation in initial ownership and emphasis given to training before transferring the asset to the public entity.

Circumstances under which the private sector participates in infrastructure vary largely between countries and sectors. The public sector entity has to separately evaluate for each project whether private sector participation is appropriate and which contractual arrangement (concession, lease, BOT, etc.) to chose. The appropriate contract depends on the size of the project, the sector, the political environment, and the financial situation, only to mention a few factors (ECA 2002, ECA 2005c, Khalifa et al. 2003, WEF 2005). In the water and sewerage sector for example, concessions were used most frequently accounting for 69.0 per cent of all investment and 41.5 per cent of all projects in developing countries (Sub-Saharan Africa: 52.4 per cent and 11.8 per cent respectively) from 1990 to 2005 (World Bank, PPI Database).

**Table 3: Cancelled or distressed private sector participation in Sub-Saharan Africa and the world, % of total, 1990 – 2005**

| Sector             | Sub-Saharan       |                 | World             |                |
|--------------------|-------------------|-----------------|-------------------|----------------|
|                    | Investment volume | No. of projects | Investment volume | No. of project |
| Energy             | 15.0%             | 11.6%           | 11.0%             | 5.8%           |
| Telecom            | 2.7%              | 9.2%            | 4.0%              | 4.4%           |
| Transport          | 6.2%              | 7.1%            | 11.3%             | 6.2%           |
| Water and sewerage | 5.8%              | 17.6%           | 33.7%             | 11.0%          |
| Total              | 5.5%              | 9.9%            | 8.8%              | 6.2%           |
|                    |                   |                 |                   |                |

Source: World Bank, PPI Database

In order to isolate the determinants of the performance of private sector participation it is necessary to look at both, successful and failed projects. The Data of the Private Participation in Infrastructure (PPI) Database of the World Bank provides a first insight of the proportion of failure and success. In developing countries as a whole, cancelled or distressed investment in infrastructure with private sector participation accounted for 6.2 per cent of projects and 8.8 per cent of investment from 1990 to 2005. In Sub-Saharan Africa 9.9 per cent of projects were cancelled or were distressed but they only represent 5.5 per cent of total investment (see Table 3). The high global failure rates as percentage of investment were mainly driven by the two regions with the largest share in investment in infrastructure with private sector participation: Latin America and the Caribbean and East Asia and the Pacific (World Bank, PPI Database). This implies that on average large projects failed less in Sub-Saharan Africa than in Latin America and the Caribbean and East Asia and the Pacific.

In general private sector participation has been more successful in areas such as tourism projects and telecommunication compared to water, sewerage and power generation and distribution. The reason for this lies much in the nature of these industries. In clearly defined and limited projects, risk allocation is more obvious. Thus return on investment can be assessed with greater accuracy. Water, sewerage and electricity lack a priori these clear definitions. However, with proper regulation and strong commitment from both sides, projects with private sector participation can succeed in these sectors as well (Farlam 2005). The following two sections look at examples of private sector participation in electricity, water and sewerage.

## IV. Examples of private sector participation in the provision of electricity

Technological change is one of the driving factors for increased private investment. The telecommunication sector, where mobile telephones have changed the way services are provided, is a typical example. But other sectors have been affected by technological change as well. Sustainable forms of small and medium scale electricity generation are now possible with the proliferation of solar technology and more efficient wind generators (Estache et al. 2005). Since local power sources avoid the cost of long distance transmission they become cost-competitive for rural electrification. Such forms of electrifications can more easily be conceived with private sector participation for example with concessions or lease agreements than larger and technically more complex, regional or national, projects (Bouille et al. 2002).

Examples of small scale off-grid electricity production include Ghana and Sudan. In Sudan photovoltaic systems are used in rural areas for clinics, schools, and social centres. Solar generated electrical energy is used for refrigeration and computers. During daytime unused electrical energy is stored in batteries and is used for lighting at night time. Rural schools that had a solar system installed improved their examination results due to the availability of lighting (GEF 2005). In Ghana new legislation introduced with the reforms of the electricity market in the second half of the 1990s allowed for independent small-scale off-grid electricity production. With the help of the Global Environmental Facility and other development partners, projects for wind and solar energy production are pursued in rural areas (Bouille et al. 2002).

An example of a large public-private partnership for energy generation is found in the Republic of the Cape Verde. The island state has a limited natural resource endowment. Traditionally the inhabitants relied heavily on fire-wood. In 2000 fire-wood still met 57 per cent of household energy demand. This has led to the depletion of the local forests and a deterioration of the livelihoods of poor households as firewood has become increasingly scarce. Until recently, ELECTRA, the State-owned utility, depended heavily on imported fuel for electricity production. Diesel generated electricity is comparatively costly and ELECTRA had difficulties meeting the growing demand.

However, the islands have an excellent wind energy potential. Energy provided by wind has traditionally been used for water pumping but not for electricity generation. Since 1994 wind farms generated 2.6 megawatts which represents 10-15 per cent of total energy production of the Cape Verde. The World Bank / Global Environment Facility (GEF) helped setting up a public-private partnership for further wind farms. The project increased energy produced by 7.8 MW at a project cost of \$9 million. The public-private partnership not only allowed for increased energy production but also contributed to reducing CO<sub>2</sub> emissions (ECA 2004a).

The case of Gabon and Société d’Energie et d’Eau du Gabon (SEEG) which combines the delivery of water and energy is an interesting one in many respects. SEEG is mostly foreign owned but has been present in the water and electricity sectors in Gabon for a while.

Preparation for private participation started well ahead. Since the early 1990s reforms in the water and electricity sectors saw prices increase to cost covering levels albeit reducing employment. The private sector participated in service delivery in the two major cities, Libreville and Port-Gentil. This long initial phase allowed government and the private firm to build capacities and to establish the base for mutual trust.

In 1997, the Government of Gabon and SEEG signed a 20 year concession contract for the provision of water and electricity. The contract specified investment obligations, fixing specific targets for the water and the electricity sectors. Incentive mechanisms were included that reward timely service expansion to more remote regions and to poorly connected neighbourhoods. The combination of water and electricity allows for cross-subsidies in the provision of infrastructure. Even though water only made up 15 per cent of SEEG’s turnover, 60 per cent of investment went to rehabilitating and extending the water network (Farlam 2005).

## V. Examples of private sector participation in the provision of water and sewerage

Private sector participation can involve big (multinational) companies or small local enterprises. Mauritania developed a scheme of small scale independent water providers for small towns. In 1993 the government decided to decentralise the water supply management system in small towns. The new rules give local governments the possibility to delegate water provision to private operators. Municipalities still can assume the responsibility for water provision but in slightly more than 70 per cent of small towns water provision is private.

The private operators are usually given a one year concession if the groundwater is pumped by a diesel pump or a one month concession if it is pumped by electricity generated by solar panels. The contracts governing the concession are often loose, relying more on informal checks and balances between the community and the provider. The small size of the concessions allows for this more informal way of contracting.

Network maintenance should be provided by the National Water Department. But as it is often short of capacities, spare-parts, and means of transport, many private concessionaries have taken over some of the maintenance responsibilities. The private concessionary is in principle responsible for the extension of the network. However, as funds are short and concessionaries face difficulties in borrowing money from the formal banking system, extensions are often paid for by the community, rich individuals living in the community, remittances from the diasporas, or associations such as farmers' cooperatives (IRC 2004).

In Senegal the government and Sénégalaise des Eaux (SDE), a private firm with the French company SAUR as the main shareholder, entered an agreement for private provision of water and sewerage in 1995. Since then the quantity of water supplied has increased by 20 per cent. The number of connections increased by 35 per cent. The collection of water bills has improved and water losses have been reduced significantly. The private operator was one of the first water companies in Africa to receive ISO 9001:2000 certification .

The preparation and negotiation were a long process. International donors helped the government build capacity in the involved ministries. The type of contract chosen was that of an affermage. The ownership and tariff setting power remain with the public entity. The private firm is responsible for the collection of tariffs, water treatment, and new connections. It is paid a fee that incorporates incentive structures for tariff collection, leakage reduction, and expansion of service.

The contract was chosen to avoid political backlashes that are frequently associated with private tariff setting and ownership. Further, tariffs were set in a manner to supply the first ten cubic meters at a lower

rate. This scheme should render water provision more pro-poor. It allows poor households to cover their needs at a lower cost while recovering some of the costs from bigger (and presumably richer) users. This kind of tariff structure assumes connectivity of poor households. However, it has certain draw-backs. For example, if a couple of poor households share one connection, the tariff scheme will not work in their favour (Kerf 1999, Thomsen 2005).

A key factor of success was the flexibility on both sides. At the beginning, when SDE realised that the initial investment would be larger than planned because the quality of the existing installations was not as good as assessed, the government and the private operator entered a renegotiation process which allowed the private operator to carry out the necessary refurbishments. During the first two years the private operator was making losses but subsequently was able to capitalise on its investments.

## VI. Lessons learnt

The advantages of small, local contracts involving the private sector are numerous as the example from Mauritania shows. Local involvement creates a sense of ownership among the local community. This translates into willingness to participate in the cost of network extension. Local concessions are a key driver of local economic empowerment as they permit local capacity and capital to build and accumulate (Berthélemy et al. 2004).

Contracts can be less formal as they are small and of short duration. Local contracts make constant communication and adoption of services easier, as both parties come from the same community and share a broader a priori understanding of the goals and expectations of a concession. The small size also facilitates an informal monitoring of achievements.

On the other hand, a large number of small contracts increases the work load of the central regulatory agency (if existent) as it needs to monitor and negotiate with a large number of concessionaries. These concessionaries most often do not have subsidiaries in the capital which makes communication between the central agency and the concessionary more costly.

The examples from Gabon and Senegal highlight several important issues. First, it is crucial to plan sufficient time for the preparation, planning, and contracting phase. Partnerships that will satisfy both sides typically take time to be formed. Objectives and information need to be shared, compromises elaborated, and goals clearly specified. Second, public entities involved in the process should be very concerned about building the capacities required for private sector participation with their employees. Third, flexibility is key. Once trust has been established between the two partners, it is easier to renegotiate the contract along the way. In complex projects as water delivery, there will often be contingencies which will make it necessary for one side or the other to ask for renegotiation. Both sides need to be sufficiently flexible to allow for balancing interests (Kerf 1999, Thomsen 2005).

An example of less successful private sector participation is an electricity purchasing agreement in Tanzania. The state-owned electricity company Tanesco signed a 20 year contract with a private power supplier in 1995. The contract included clauses that guaranteed the private supplier minimum sales or, in case of insufficient demand, compensation payments. From the government's point of view the contract was flawed in a number of ways. Prior to signing needs were not properly assessed. At the time, Tanesco had enough generating capacities but was facing limits in its grid lines. Further, stakeholders were not involved during the preparation. The obligations related to the contract increased the average cost of electricity production for Tanesco, leading to considerable financial losses (Farlam 2005).

In the case of electricity, water and sewerage, ownership is less important for achieving efficiency than in other sectors such as transport or telecommunication. The difference in efficiency for electricity, water

and sewerage between public and private providers is in fact statistically not significant (Estache et al. 2005).

It is far more important that the operators deliver their services in a competitive environment. When incentives are set in a way that they remunerate enhanced outcomes, the operators will improve their performance. Here, an interesting difference between public and private operators surfaces. In general, private operators are quicker to improve efficiency and lower cost than public operators. However in the long run, private operators will not be more efficient than public operators (Estache et al. 2005).

Further, a strong and capable regulatory body will improve performance in the electricity, water and sewerage sectors independently of ownership. Other variables influencing the outcome are the general quality of institutions and the level of corruption. In a setting of feeble institutions and/or generalised corruption, handing over the provision of electricity, water and sewerage to a private operator is not likely to improve the service or efficiency at all (Estache et al. 2005, Nellis 2003).

## VII. Policy recommendations and conclusions

### 7.1 Preparation

Even though projects involving the private sector might produce faster results than pure public sector projects, it is important that the initial phase is undertaken carefully. The risk of renegotiation increases with a less careful planning phase (South African National Treasury 2004, Thomsen 2005). Starting off with small projects involving the private sector and gradually moving to bigger and more complex ones helps building capacities within the government over time. For example, Botswana started off with relatively small contracts in constructing and maintaining government offices.

Donors can play a crucial role in the initial phase of a project by providing technical assistance and capacity building (e.g. PPIAF, see below) and informing the government as well as the private bidders about the needs and priorities of the respective other party. Helping to adjust unrealistic expectations on both sides and playing the role of an “honest broker” donors can help to put projects involving the private sector on a sound basis.

One way to assess the adequacy of a project with private sector participation is the Public Sector Comparator as recommended by the South African National Treasury. The Public Sector Comparator compares costs of the government providing the service as opposed to the private sector providing it. To obtain the risk-adjusted Public Sector Comparator model, risks have to be identified, their respective costs assessed, and the likelihood of the risk estimated. The procedure is the following:

- Identifying risks associated to each step in the project.
- Identifying the impacts of each risk and estimating the costs associated to it.
- Estimating the likelihood of occurrence for each risk.
- Obtaining the expected cost of each risk by multiplying the cost and the likelihood of it occurring.
- Identifying and developing appropriate strategies for minimising the likelihood of a particular risk occurring or mitigating the cost associated to the risk.
- Allocating risks between the contractual parties. It is advisable to be explicit about which risks are born exclusively by which party and which risks are shared and in what manner they are shared.
- Constructing a risk matrix (which consolidates all identified project risks, their impacts and their associated costs).
- Building the risk-adjusted Public Sector Comparator model.

This process helps building consciousness of the real cost of the project. Comparing the risk-adjusted Public Sector Comparator model with the institution’s medium term budget frame will give an indication of the project’s affordability (Adapted from South African National Treasury 2004).

## 7.2 Information

Governments at the local, provincial and national level should try as much as possible to inform the public about private sector participation plans and possibilities. Political and popular resistance to private sector participation is a serious limiting factor for its success. When public acceptance is low, leading a fruitful and for both sides satisfying partnership will be hard to achieve. Government must inform well in advance about plans involving the private sector. They must inform the public about their reasons for asking for private sector involvement. Advantages and drawbacks should be discussed openly. Acceptance is generally higher when the process is transparent; this is particularly true for the final contract awarding. Rumours of corruption, true or false, can damage a project involving the private sector crucially (Farlam 2005).

## 7.3 Participation

All stakeholders should be able to participate in the design of a project. Active participation increases acceptance as concerned groups and individuals feel that their needs are heard and taken into account. Participation can start at the very beginning while assessing demand. In the case of water and sewerage, it might not be possible to connect all households directly to the main water supply. Alternative solutions (such as central fountains, flexible plastic hoses, etc.) could meet the needs of consumers better.

Community involvement allows for a design that responds, from the beginning, to local needs. Further, local business can be involved as subcontractors. In Tanzania the 10 year lease agreement for the container terminal in Dar es Salaam's port included a provision that expatriate staff had to be reduced by 50 per cent during the first five years of the lease. Further, the foreign company from the beginning included local companies in the consortium. A similar approach is used in South Africa with the Black Economic Empowerment (BEE) policies where public-private partnerships must include a certain amount of local firms owned by individuals of previously disadvantaged communities. These measures aim at sharing the "profit" among the local community, while giving those firms and individuals an opportunity to build capacity and improve their services over time (Farlam 2005).

## 7.4 Transformation

In the context of free or under-priced provision, a gradual transformation is key. Increasing tariffs in a single big step often proves to be politically unsustainable. Planning for a sufficiently long period of time for price adjustments, enforced bill collection, and labour adjustment is likely to increase public acceptance. This is particularly the case if improvements in the service delivery, extension of connections, and better reliability are observed at the same time.

## **7.5 Political commitment**

For a project with private sector participation to be successful, strong support from the political side is crucial. Most successful projects with private sector participation in Africa took place in an environment of strong political commitment. A political champion, a person on the political side that advocates private sector participation, can make a huge difference (Farlam 2005, WEF 2005).

## **7.6 Contracting out regulatory functions**

In the short run, contracting out regulatory functions can bridge the capacity gap. It gives national regulatory bodies the time to build up their capacity while already being functional (Nellis 2003). A world-wide survey among regulatory bodies found that three quarters contracted out certain tasks. These tasks included tariff reviews, compliance monitoring, and dispute settlement. The findings of the external party were binding in only 15 per cent of the agencies. The agencies saw the main advantages of out-contracting in improving competencies, building trust between stakeholders, and ensuring independence (Thomsen 2005).

## **7.7 Mitigating private risk**

Risks are attributed in the contract to one party or the other. Political and currency risks are often interlinked. Private firms might not be willing to assume those risk or only with a large risk premium. In this case donors can provide schemes for mitigating those risks, making the private sector more likely to be interested in a project and lowering the risk premium considerably (Nellis 2003).

## **7.8 Currency risk**

Sudden and substantial devaluation poses a problem to private operators that had to raise capital in foreign currency. Rapid adjustments of tariffs often are not possible for political reasons. One solution proposed and implemented in a public-private partnership in Brazil is a sort of liquidity backstopping facility. Tariffs are indexed to local inflation, the liquidity backstopping facility provides, in case of sudden devaluation, a loan in foreign currency that is used to service the debt. The private operator can repay the loan to the liquidity backstopping facility as local inflation catches up with the devaluation (Thomsen 2005).

## **7.9 The public-private infrastructure advisory facility**

The Public-Private Infrastructure Advisory Facility (PPIAF) is an initiative supported by 11 donor governments and three multilateral organisations. Its goal is to help developing countries to improve their infrastructure by involving the private sector. It provides technical assistance to the government in

the following areas: regulatory and institutional reforms; infrastructure development strategies; consensus building; and capacity building, among others (PPIAF 2005).

## **7.10 Synergies**

One way of advancing service provision is by creating synergies for private initiative and infrastructure provision. In Tanzania, the Barrick Gold Corporation planned to construct a water pipe for operational needs. They aligned the track of the water pipe with the District Development Plan for water. This coordinated effort facilitated the provision of water to 35,000 people in the region (WEF 2005).

Another domain where improvement to the conditions of livelihood can easily be made is in tourism. The approach of pro-poor tourism tries to maximise the welfare impact of tourism on local communities. One aspect of this is that infrastructure provided for the tourist facilities can be extended to include local communities, often at low cost. These infrastructures include roads, communication, healthcare, electrification, water and sewerage. Integrating local communities and sharing economic prosperity with them has obvious benefits for the tourism industry as well. It is key that these issues are addressed in the initial stage of a project, in order to avoid backlashes (see PPT 2005).

Private sector participation is not a “light” version of privatisation or a way around capable institutions and sound regulation. In order to successfully involve the private sector, the public sector must have strong capacities within its institutions in order to negotiate a fair and satisfying deal. Private sector participation has the potential to combine concerns of the public sectors for equity and universal service delivery with competencies and strengths of the private sector such as efficiency, cost-effectiveness and responsiveness to consumers’ needs. If implemented poorly, though, it can bring out less desirable aspects of each sectors. Hence, private sector participation demands careful project assessment, project implementation and specific measures to make it profitable for the poor (pro-poor).

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