

Water and electricity in Nigeria

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1. INTRODUCTION.....	3
1.1. COVERAGE AND PERFORMANCE.....	3
1.2. DEVELOPMENT BANKS AND DONORS	3
Table 1. Nigeria: donor activities in infrastructure, electricity, water and sanitation.....	3
2. WATER	4
2.1. GENERAL	4
2.2. DONORS	4
2.2.1. World Bank.....	4
2.2.2. AfDB, AMCOW, NEPAD, AWF, UNICEF, DFID, EC, other donors	5
2.2.3. Wateraid, PAWS and small towns	6
2.3. LAGOS	6
2.3.1. Background	6
Table 2. Historical, Current and Projected Water Revenues for LSWC (2000 – 2025).....	6
2.3.2. IFC privatisation plan	7
2.3.3. Current position	7
2.3.4. No public debate.....	8
2.3.5. Labour and low staffing levels.....	8
2.3.6. Company accounts not published.....	8
2.4. COMPANIES.....	9
2.4.1. Biwater	9
2.4.2. Suez.....	9
2.4.3. Umgeni water	9
3. ELECTRICITY	10
3.1. GENERAL	10
3.2. DONORS	10
3.2.1. World Bank and DFID	10
3.2.2. AfDB.....	11
3.3. GENERATION: IPPS AND OTHER NEW POWER STATIONS	11
3.3.1. IPPs.....	11
Table 3. On-Going IPP Projects in Nigeria.....	11
3.3.1.1. Enron, AES and Lagos barges.....	12

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3.3.2.	<i>New public sector power stations</i>	12
3.4.	PRIVATISATION OF NEPA AND UNION CRITIQUE.....	12
3.4.1.	<i>Privatisation of NEPA</i>	12
3.4.2.	<i>Union critique</i>	12
3.4.3.	<i>Constitutional challenge and other action</i>	13
3.5.	RURAL ELECTRIFICATION.....	14
4.	CONCLUSIONS	14
5.	ANNEX: EFFECTS OF PRIVATISATION, ECONOMIC POLICY AND PUBLIC INVESTMENT	16
5.1.	IMPACT OF ELECTRICITY PRIVATISATION (ESMAP).....	16
5.2.	SAVINGS AND GROWTH IN AFRICA(UNDP)	17
5.3.	FINANCING INFRASTRUCTURE IN AFRICA: WORLD BANK	18
6.	NOTES	19

1. Introduction

This paper presents the context and current developments in the water and electricity sectors in Nigeria. It looks at:

- the problems with the service in these sectors
- the high impact role of donors
- activity by international companies in these sectors
- policies and privatisation
- responses and critiques

1.1. Coverage and performance

There is a general agreement that the utility services in Nigeria, including electricity, telephone, water, and transport, are failing to provide and develop the services and the infrastructure required for social and political development. The electricity and water supply systems are unreliable and under-developed. The Structural Adjustment Program (SAP) has increased prices but not performance, which has “contributed substantially to lowering the quality of life and well-being of the average Nigerian who, over the past four decades, has become more and more impoverished”. This poor performance has made the proposals for privatisation seem a plausible solution.¹

The importance of the public provision of these networks is emphasised by the inefficient costliness of the attempts to provide private substitutes. In response to the electricity shortages, over 90% of manufacturing companies own electricity generators. In response to the limitations of water supply, 44% of households have their own private boreholes, and many rely on water vendors whose high prices amount to more than 30 percent of household income for the poorest. As a result a large proportion of poor households resort to drawing water from unhygienic sources.²

1.2. Development banks and donors

A number of major international institutions and donors are active in Nigeria in the infrastructure, including water and energy. The table shows the complex inter-relationship between these donors. These donors are the source of many of the policy initiatives for privatisation.

Table 1. Nigeria: donor activities in infrastructure, electricity, water and sanitation

Donor interventions
<ul style="list-style-type: none"> • WB: Transmission Development; IFC off grid electricity projects; National Energy; Lagos Urban Transport; Lagos Metropolitan Development; Federal Roads; National Urban Water Sector Reform; Second National Urban Water Sector • DFID: Ekiti Rural Access Program; Water and Sanitation Program; Jigawa Urban Water Supply and Sanitation • UNDP: Energy and Environment Program • EC: Water Supply and Sanitation State Reform Program; Small Towns Water Supply and Sanitation Program • UNICEF: Water and Environmental Sanitation • ADB: Multi State Water Supply; Ibadan Emergency Water Supply; Olokola Deep Seaport study

Source: AfDB 2005³

2. Water

2.1. General

The water and sanitation sector in Nigeria is in need of both extension and improvement. Between 60% and 70% of the population is currently without either water or wastewater services but that still leaves 40-55 million customers receiving such services – a greater number than anywhere else on the African continent. Most consumers who receive piped water are supplied by state water corporations, all of which are currently owned by the governments of the states within which they operate.⁴ In rural areas, about 49 percent of the population have access to safe water and 30 percent to improved sanitation facilities. About 72% of the urban population have access to reliable water supply of acceptable quality: sanitation coverage is estimated at 48 percent. Except for Abuja and limited areas of Lagos, no urban community has a sewerage system.⁵

Leakage rates are around 50% and according to the Ministry of Water the proportion lost to wastage and illegal connections is actually rising.⁶ Many water agencies lack capacity and financial resources and so are finding it difficult to meet the existing demand for safe water and sanitation within their respective areas. In the far north and southwest of the country there are water shortages, and in the Delta region, and near major cities, there is insufficient control of water pollution and serious erosion.⁷

2.2. Donors

2.2.1. World Bank

As in other countries, privatisation policies in the water sector have been developed in Nigeria in response to conditionalities from external agencies, primarily the World Bank. The World Bank regarded all its water projects in Nigeria from 1979 to 2004 as failures. An overview evaluation in 2006 nevertheless concluded that a ‘Small Towns’ project had been relatively successful, and that in general:

“projects show that increasing system coverage and capacity is of little use if the rest of the existing system is dysfunctional due to inadequate maintenance.... the Small Towns project obliged the participating towns to contribute financially to the investments and to organize sustainable operation and maintenance of systems they now owned. Indeed, about half have employed small private entrepreneurs to operate the systems”.⁸

The IFC and the World Bank have initiated a series of projects aimed at privatisation of water in Nigeria.

- The IFC initiated the privatisation of water in Lagos state in 1999, which was later modified (see section on Lagos below).
- In April 2002 the World Bank set up the first National Urban Water Sector Reform project with privatisation as a conditionality.⁹ Originally it was stated to involve seven states - Ogun, Enugu and Rivers in the south; Plateau in central Nigeria; and Gombe, Kano and Kaduna in the north, which the WB had selected “because their governments were prepared to consider private sector investment”. But these funds were inadequate for needs: Kaduna state alone estimated in the same year that \$257m was required to repair and expand its water network to cover 60% of the population.¹⁰ By 2004, the size of the project had been scaled down to \$140 million, and only 3 states were involved: Kano, Kaduna and Ogun¹¹ (although according to the HBS report in 2004, only Lagos and Ogun states were considering privatising their water systems).¹²
- In 2003 the World Bank suggested developing privatisation of water in Nigeria through a ‘franchising’ structure, similar to the principle used for fast food chains like KFC, whereby local private water vendors would be ‘branded’ by a multinational eg Suez. This concept appears to have been abandoned.¹³
- In 2005 the World Bank initiated a further project, the 2nd National Urban Water Sector Reform Project (NUWSRP), worth \$200m, in two states: Lagos and Cross River. It remains based on privatisation, but “will seek to establish a successful PPP intervention through management

contracts. If management contracts can develop a positive track record, then higher forms of PPP can be considered where necessary".^{14 15}

The net current position of the WB is thus ongoing projects worth a total of \$340 million, all linked to privatisation in some form or other, in 5 states out of 36.

However, another World Bank project for development and governance of Lagos metropolitan area is encouraging higher property taxes, through higher rates and better collection, to support infrastructure:

"In most cities, property taxes are a substantial part of general revenues. In Lagos, however, property tax rates have been historically very low'. Increasing the yield from this source of revenue, therefore, is critical for Lagos State Government (LASG) to sustain benefits from investments in drainage and solid waste. Results of major reforms in property taxation during the first term of the current administration have remained elusive, at least in part due to its poor implementation and administration. Increasing yield from property related charges remains a critical issue (see Annex 1 paragraphs 65-67)."¹⁶

2.2.2. AfDB, AMCOW, NEPAD, AWF, UNICEF, DFID, EC, other donors

The African Development Bank (AfDB) is responsible for providing development finance in Africa. NEPAD is now seen as the continental coordinating body for economic strategies including infrastructure, but has its own water programme. Thus there are complex overlaps:

"At the continental level, NEPAD provides the overarching framework for directing water resources development efforts to achieve the strategic goal of ensuring water security across the whole of Africa. The Bank [AfDB] has the lead responsibility to assist NEPAD to implement its water and sanitation infrastructure development program with a view to enhancing regional integration. The Bank is also assisting NEPAD in the formulation of the medium- to long-term strategic framework (MLTSF) for Water and Sanitation Infrastructure Program."¹⁷

Two specific water bodies have been created since 2002, which are extra layers of bureaucracy between donors and countries: the African Ministers Council on Water (AMCOW), and the African Water Facility (AWF), drawing funds from donors, managed by the AfDB, but controlled by AMCOW:

"The AWF aims to raise about US\$ 615.7 million, of which some US\$ 2.5 million will be allocated to organization and administration, US\$ 170 million to facilitation activities, and US\$ 434 million to capital investments. An indicative medium-term action program for the period 2005-2009 has been developed to guide this effort.....
.....[AMCOW] seeks to improve the enabling environment and strengthen water resources management so as to attract the massive investments necessary to achieve the regional objectives."¹⁸

The AfDB sets itself the task of trying to coordinate multiple agencies in water: "Bank operations to improve water supply and sanitation will ensure partnership and synergy with other donor's operations, particularly with the EU's Water Sector Reform program in six States and UNICEF/DFID's Focus project in eight States."¹⁹ The AfDB's current strategy for Nigeria (2005-2009) repeatedly refers to privatisation as an element in water policies:

"foresees the implementation of interventions that will contribute to a more conducive environment for private sector activity through improved water supply and sanitation, power supply and enhanced road transport and mobility."²⁰

".... Priority will be given to projects that will attract public and private participation and lead to immediate capital investments. Support activities will focus on preparatory activities to make a project attractive (short term studies, execution studies, Public Private Partnership, tender documents, etc.). ...Private sector participation (PSP) in the Water sector has great potential in several areas of AWF interventions. The AWF would provide the necessary support to attract private sector participation, whenever possible, in line with the Country policy and regulatory framework."²¹

2.2.3. Wateraid, PAWS and small towns

Wateraid, the UK water charity, is a large operator in Nigeria. Wateraid states that it is committed to work with 30 local governments “to build their capabilities to carry out their water and sanitation work effectively”.²²

It is also a member of Partners for Water and Sanitation (PAWS), which is a grouping of the UK aid agency, DFID, the UK private water companies, and Wateraid.

In April 2005, Benue State Government signed an agreement with WaterAid Nigeria and Partners for Water and Sanitation (PAWS) for a project in 3 small towns - Lessel, Naka, and Ugbokpo. This project explicitly rejects a public sector approach because ‘neither the government nor external support agencies have enough resources to maintain the many installations’, in favour of Water Consumer Associations (WCA), comprising 10 - 50 households, licensed to produce and sell water in a specific neighbourhood. User charges co-finance construction, and fully finance operation and maintenance. In practice there was strong resistance from communities to the new charges, ‘but the Unit has educated them on cost recovery’.²³

2.3. Lagos

2.3.1. Background

Lagos is the largest city in Africa with a population of over 13.4mn in 2000, forecast to rise to 23.2mn by the year 2015, when Lagos will be the 3rd largest city in the world (after Tokyo and Bombay). The Lagos State Water Company (LWSC), which is wholly owned by the Lagos State government, operates in 29 zones covering 3,577 square kilometres and a population of 15mn.¹ It is the largest water utility in West Africa. The LSWC currently has an installed water supply capacity of 160 million gallons per day (MGD) (712.9 million litres per day (MLD)), but ageing supply lines, water works and poor public electricity hamper the services of the corporation, hence it is operating at only 48% capacity, or only 36% of water demand. Only about 4million of the state’s 15million population have access to piped water.²⁴

The size and growth rate of Lagos means that needs are growing very rapidly. The company claims that between 2000 and 2025 demand for potable water will grow from 200 to 1,200 million gallons per day (MGD), capital investment of US\$100 million per annum will be required in order to reach 80% coverage. .

Few users pay their bills (including the government) - at its worst, water revenue collection was at only 4% of water produced. According to the company, until 1997 water was provided free of charge in Nigeria, but the water tariff is now 50 naira/m³. Many users are not connected, and are supplied by a large private sector with private tankers, water carts, boreholes and wells, providing up to 70% of the water consumed. Given the electricity shortfalls, LWSC needs its own generators: as a result energy accounts for 40% of LWSC’s operating costs).

The general shortage of water supply that is a result of this low capacity utilisation is then met by privately operated tankers, porters and privately owned boreholes and wells. This in turn has its own issues with regards to water purity standards, higher delivery costs and the ultimate impact on the state’s water levels from the improper tapping of ground water reserves and wastage in its collection and delivery.

The CEO claims that: “It is sadly evident that public sector provision in a country such as Nigeria will likely fail to meet the millennium goals. The historical precedents illustrate this; state owned utilities at the federal and state levels are largely failing to meet their purpose and are proving to be a huge drain on public resources.”²⁵

Table 2. Historical, Current and Projected Water Revenues for LSWC (2000 - 2025)

Volume and Revenue Projections	2000	2003	2007	2020	2025
Water Demand (MLD)	668.40	956.48	1,405.39	3,901.16	5,347.20
Water Supply (MLD)	267.36	430.42	702.69	2,925.87	4,277.76

¹ The growth rates of each of these zones ranges from 1% in some of the older habitations like Lagos Island to 16.6% in new development areas such as the Lekki Peninsula.

Annual Value of Water Supply (N'm)	4,879.32	7,855.10	12,824.17	53,397.19	78,069.12
Annual Revenue from Water Supply (N'm)	600.17	927.34	2,564.83	26,698.60	58,551.84
<u>Assumptions:</u>					
Supply/Demand (%)	40%	45%	50%	75%	80%
Revenue/Value of Water Supplied (%)*	12%	12%	20%	50%	75%
Market Coverage^	40%	45%	50%	75%	80%
Lagos' Population (millions)	12.5	15.0	17.4	23.0	25.0
Consumption (litres per person per day)	30	32	36	51	60
Total Consumption (litres per day)	375	477	631	1,167	1,500
Supply (litres per day)	150	215	315	875	1,200

* as a proxy for revenue collection efficiency

^ as a proxy for water delivery efficiency

Source: CEO report

2.3.2. IFC privatisation plan

The privatisation plan was initiated by the World Bank's private sector arm, the International Finance Corporation (IFC) in 1999. The Lagos State government signed an agreement with the IFC which "required the state government to seek private sector operators for the operation of its water utility" (at the same time as the Lagos State government was agreeing the IPP power project with Enron, see below). The IFC "put together a group of local and international experts including Deloitte & Touche and Paris-based law firm Gide Loyrette Nouel" to prepare the scheme.²⁶ The Lagos water privatisation was one of many IFC projects in Nigeria at the time,²⁷ and was coupled with the privatisation of the national airline: "IFC's involvement is expected to lend credibility and transparency to the sale of the two assets. The work will include independent assessments, recommendations of market strategies, preparation of documents, and making sure that proper bidding processes are used to choose ultimate winners, all within the next 18 months to two years [i.e. by late 2001]."²⁸

The IFC said Lagos Water was using under half its capacity of 148 m. gallons per day, and collecting only 10% of charges. Privatisation was expected to reduce the cost of water, enable investment, and improve public health and economic growth:

"A key goal in privatising the company is bringing cheaper water to at least 80% of the population," said IFC's Tony Clamp. "That would probably require more than a billion dollars spent on improving capacity over 20 years, largely financed by tariffs generated by the expanded system. But it would be money well spent. The availability of adequate and reliable water services is critical to the health of the population — waterborne diseases are the most common illness in Lagos — as well as the commercial, industrial, and agricultural sectors of the state's economy."

The proposed privatisation was anticipated as a large contract opening a larger market: whoever won the Lagos contract would be "in a strong position to bid for contracts elsewhere in the country over the next few years"- for example the British government sent a 14 person delegation in February 2002.²⁹ Thames Water, Severn Trent, Veolia and Suez prequalified as bidders³⁰, but the companies then lost interest, as part of their global withdrawal from developing countries, and the IFC plan for a private concession was abandoned.³¹

2.3.3. Current position

The current position is that the water company has been corporatised along commercial principles, but there remains much confusion about exactly what form of privatisation is now envisaged. A new law was passed in 2004 and created a holding company with a number of subsidiaries.

According to a lengthy paper by the CEO of the company, the policy is now to sell the LSWC itself on the stock market, through an IPO, and retain the power to borrow further money from the markets. The aim is "to target domestic Nigeria investors ... while equally encouraging them to seek partnership with international water sector operators". The districts would also be contracted out, though the precise form is unclear: the CEO report says that the company will "transfer to investors who would invest, manage and run

each of the 12 regional systems for an agreed period of time after which the investment would revert back to the government who may choose to give it out for another period of 'concession'. Elsewhere the report says that LSWC's operations will be split into 33 operating zones, and that it will "issue 5-year contracts to private operators for the management of" these zones: though this partly contradicted by a statement that "Each contract duration will be negotiated with the private sector bidders".³²

2.3.4. No public debate

A critique of the Lagos water privatisation by Babatope Babalobi, published in 2004, argues that the failure of the projects so far were not due to public ownership, but because the projects were never people driven or people centred, and because of wastage resulting from the contractorisation of the execution of almost all government projects. He points out that the privatisation policy was never exposed to popular debate. The privatisation bill received its second reading on 20 July 2004, and July 20, 2004, and "stakeholders including civil society organizations expected a public hearing to be conducted by the Legislature before the third reading of the bill, but to the surprise and chagrin of all, the executive arm of government under the headship of the Governor executed a 'coup' against democratic norms, by hurriedly signing the "Lagos State Water Sector Law' into law" following a 3rd reading on July 29, 2004. One provision of the new law "empowers the new Lagos Water Company to disconnect water supply to public primary schools defaulting in payment of water bills."

Babalobi also points out that the privatisation is a recycling of other schemes rather than some new 'Lagos model', as claimed by the company. He further criticises the fact that: "the World Bank's involvement in water and sanitation projects in Nigeria is wholly externally induced and driven. There are no records that the citizens, mass democratic organizations or even most Nigerian government institutions either at state or Federal levels decide voluntarily on their own to seek World Bank support to expand its water and sanitation services." At a roundtable meeting organized by the Society for Water & Public Health Protection (SWAPHEP), in Benin City, Nigeria, on 26th April 2004, a communiqué noted that "there are no clear evidences that the private sector will serve the purpose of the poor more than the public sector. The failed African Development Bank (ADB)-funded water supply scheme and the incomplete Ikpoba Dam project in Benin City were apt case studies of disastrous World Bank supported water projects in Nigeria".³³

2.3.5. Labour and low staffing levels

The new company management have already cut the staffing levels by 25% from 1,852 in 1999 to 1,450 in 2002 and 1,393 in 2003.³⁴

The number of employees is astonishingly low for a water company covering such a city. According to the CEO's report there are over 4million people connected to a piped supply. Even if average household size is as high as 8, that implies half a million connections, and so the current staffing levels would thus represent about 2.8 employees per 1000 connections – about the same level as in the USA.

There are a number of possible explanations for these figures: (a) the company does not employ enough staff to maintain a water supply service (b) the company uses subcontractors for most of its operations (not only for construction) or (c) the company is exceptionally efficient in its use of labour. The first explanation seems the most likely.

The CEO claims that LWSC "has avoided labour issues by shedding labour through natural wastage and dialoguing with unions at every stage of the implementation of its reform. It has made a concerted effort to communicate with and inform its staff of every aspect of the reform process. In the instances of lay-offs, staff have been awarded their full retirement packages, while staff left on board have been given extensive training and capacity building to improve their efficiency and commitment to the work at hand. Staff compensation is also one of the highest amongst the public sector and comparable to the private sector that the corporation aims to emulate".³⁵

2.3.6. Company accounts not published

The CEO claims that "LSWC is one of the only public companies to prepare and publish annual accounts for public information adhering to its tenets of transparency and accountability. This report is easily available

online and from the corporation's corporate affairs department." However, the only report available online is the report for the year 2000.³⁶

2.4. Companies

There are no concessions, leases or management contracts in Nigeria with any of the water multinationals. Some water engineering contracts have been given to multinationals, but they appear to be construction only contracts, not BOTs. One South African parastatal, Umgeni, was involved in the early 2000s.

2.4.1. Biwater

Biwater has a long-standing and controversial record as a water construction contractor in Nigeria.

In 2005 Biwater was awarded a 1-year contract by Kwara State Government for the design, expansion and refurbishment of Asa Dam (the contract had previously been awarded to another firm, but terminated because the company did not deliver).³⁷

In 2005 the Federal government awarded a 2-year US\$ 103-million contract to **Biwater** for the construction of the Lower Usuma Dam **Water** Treatment Plant Phases Three and Four in Abuja.³⁸ In 2003 Biwater was awarded a waterworks contract in Makurdi, the Benue State capital. This followed a previous Biwater contract in the Amaludu project, which failed.³⁹

2.4.2. Suez

Degremont won a contract in 2005 to upgrade an existing water treatment plant at Ibadan.⁴⁰

2.4.3. Umgeni water

Umgeni Water, one of the South African state-owned regional water boards, also tried to gain business in Nigeria. In 2002, the governor of Edo state sacked the existing members of the water board and made 'a working agreement with a South African company Umgeni Water with a view to revamping the water supply system in the entire state'⁴¹ Umgeni had identified Nigeria as a strategic area for expansion and had also signed an agreement in March 2001 to provide management services to the Rivers State Water Board in Port Harcourt, intended to bring Umgeni Water substantial further business in Nigeria and the rest of Africa. However the Nigerians failed to make payments and by April 2002 Umgeni estimated it had lost nearly 900million Rand, including the costs of winding up the project. In 2002 the CEO of Umgeni was also investigated for corruption and replaced, following demands for his dismissal from the South African union NEHAWU.⁴² The Nigerian contract was cancelled by the new CEO at Umgeni.⁴³

3. Electricity

3.1. General

The organisation responsible for electricity production and supply in Nigeria is the National Electric Power Authority (NEPA), which has been renamed the Power Holding Company of Nigeria (PHCN) as part of the privatisation process – see below). While NEPA's installed generation capacity is 4,200 MW, the maximum available capacity is limited to 3300 MW, mainly due to a lack of maintenance. The transmission system is unable to deliver power to a major part of the country and is unreliable because it does not have adequate capacity and backup lines. There are transmission losses of 30-35 percent. NEPA benefits from fuel subsidies and public finance for capital spending. Currently, only 10 percent of rural households and approximately 40 percent of Nigeria's total population have access to electricity.

There is general agreement that the system currently suffers from inefficiency and corruption. The Union (see below) identifies clear steps to be taken to deal with inefficiency, and also corruption. Press reports blame both contractors and employees for corrupt behaviour:

“Some commentators have argued that less than ten per cent of the entire money [N300 billion, spent by government] actually got to NEPA/PHCN. The rest, the commentators argue, ended up in the private accounts of a few contractors. These contractors, it is alleged, know next to nothing about electricity. Their major qualification is that they are well connected with those who call the shots. Some of course are mere fronts. We may never find out the truth because the system is complicated. Meanwhile, the crises in the Niger Delta region, shortage of gas and low water level at the Kainji, are reasons always given to explain the inability of government to provide electricity for the people. While misappropriation of funds is the order of the day at the government level, in NEPA/PHCN the name of the game is fraud, corruption and inefficiency. The officers and workers have perfected other means of enriching themselves. There is a lot of truth in the allegation that PHCN workers are reluctant to install the pre-paid meters. The reason is simple. The introduction of prepaid meters has blocked one of the lucrative avenues of making illegal money. The workers can no longer intimidate consumers with disconnection ladders. They can no longer send fictitious bills. They can no longer tamper with meters. Above all, they can no longer extort money from consumers who have outstanding arrears. “The manipulations in NEPA/PHCN affect Nigerians in another way. It is bad enough that the people live and work in darkness. It is worse still that they are made to pay exorbitant bills that are calculated from the imagination of the PHCN officials.”⁴⁴

Nigeria is involved in the West African Power Pool (WAPP). It is expected to be one of the main sources of hydro power for the WAPP, and NEPA is planning a 330kV line from Lagos to Benin as part of a larger west African interconnection involving Niger, Benin and Togo, financed with a US\$15.6m. credit from the AfDB.⁴⁵

3.2. Donors

3.2.1. World Bank and DFID

The World Bank (WB) is the most active donor in relation to the electricity sector. It coordinates with DFID, and the two bodies produced a joint country ‘partnership’ strategy (CPS) for Nigeria.⁴⁶ The strategy paper envisages extending this to other agencies - which it describes as ‘stakeholders’, although the list does not include the government of Nigeria or any other Nigerian body - into developing a full economic policy for Nigeria:

“The strategy proposes that the World Bank Group - IDA, IFC, and MIGA - and DFID develop a joint framework on economic growth with a range of stakeholders, including other donors (UN, USAID, ADB, CIDA). This will identify opportunities for triggering and sustaining growth, shaping existing initiatives and guiding new investments and analysis at three levels: at the federal level, the CPS focus is on improving the business environment and removing major infrastructure bottlenecks. This is likely to entail large infrastructure programs in the energy sector (electricity and gas), transport, and improvements in ports and customs services...

The CPS includes a full programme for the electricity sector, with the private sector at the heart even at the level of extending rural electrification:

“... The World Bank Group (IDA, IFC) and DFID will work at the federal and national levels, when appropriate, by developing private-public partnerships, to improve the business environment and the energy and transportation environment. IDA, IFC and DFID will continue to coordinate activities in the area of privatisation, building the capacity of the Bureau of Public Enterprises. A significant increase in power generating capacity is expected by the end of the CPS. A better functioning transmission and distribution systems should further contribute to significantly reduced power outages. The recently approved power bill facilitates the restructuring of NEPA and the engagement of the private sector. The strategy will assist the government in reforming the power sector, particularly in developing a framework for off-grid projects (in both urban and rural areas). The IFC will support developing off-grid electricity projects to supply power to industrial users and areas of concentrated demand.”⁴⁷

Elsewhere, the electricity strategy is not presented under the ‘social sectors’, but as part of a private sector strategy:

“Actions to encourage private sector growth include: (i) unbundling of the power parastatal ahead of divestiture, passing a landmark Power Bill to underpin and accelerate transformation of the electricity sector... (v) increasing funding to address key infrastructure constraints.”, and later under ‘supporting growth’the quality of the electricity services is the largest barrier to business in Nigeria. it is now possible to unbundle *de facto* the state energy company (NEPA) and engage the private sector in the electricity sector. IFC has been actively cooperating with the Bank in the reform of the electricity sector, including preparing the basis for private sector off-grid investments.”⁴⁸

3.2.2. AfDB

AfDB has relatively little impact in this sector. Its operations are geared towards the improvement of power supply foresee the erection of a transmission line in the northeast of the country where it will electrify water supply installations provided within the framework of the Bank’s interventions to improve water supply. It will also complement the ongoing World Bank’s Transmission Development project in other parts of the country.⁴⁹

3.3. Generation: IPPs and other new power stations

3.3.1. IPPs

From 1999 several independent power projects (IPPs) were set up, as shown in the table.⁵⁰

Table 3. On-Going IPP Projects in Nigeria

Date	Location	Company	Capacity	Initiating Government
July 2000	Lagos	AES (ex-Enron)	270MW	Lagos
N/A	Abuja	ABB	450MW	Federal Government
August 2000	P-Harcourt	Siemens	276	MW
April 2000	Kwale	ENI/Agip	450MW	Delta
N/A	Bonny	Exxon/Mobil	388MW	
N/A	Enugu	Eskom	2,000MW	
March 2001	3 locations in RiversState	N/A	180MW	Rivers

According to one report, an (unnamed) Austrian company decided to invest \$10million in power in Nigeria: by 2006 it was involved in a legal dispute with its Nigerian partners.⁵¹

In 2006 the new regulator, NERC, issued licenses to new private power projects, including: Supertek Nigeria Limited 1000MW, Farm Electric Supply Limited 150MW, ICS Power Limited 624MW and Ethiope Energy Limited 2,800MW. Their base of operations include Akwete, Abia,Ota,Ogun, Alaoji, Abia and Sapele,Delta states respectively.⁵²

3.3.1.1. Enron, AES and Lagos barges

In 1999 Enron agreed to develop an IPP in Lagos, involving supplying 290MW from nine barge-mounted gas turbines at Egbin Power Station, to provide electricity for industrial consumers in the state. The deal was based on a 13 year power purchase agreement (PPA) which specified that NEPA would buy power at USD\$0.032/kWh. In January 2001 Enron sold the project to AES. A Nigerian partner, YF Power, a division of Nigeria's privately held Yinka Folorunso Group, was given an unknown stake in the project.⁵³ The original deal formed part of the prosecutions against former Enron executives, who had misrepresented the status of the barges.⁵⁴

In 2003 NEPA demanded that Lagos State should renegotiate the contract due to the financial burden imposed by the contract terms, particularly since the state government was failing to pay its 15% share of the guaranteed price. A NEPA director, Sam Agbogun, said that the contract term is one sided in favour of AES because "we [NEPA] were not involved in the negotiations, otherwise we would have straightened out all the grey areas in the contracts.we have had to abide by the contract terms because the integrity of the country involved and any attempt to do otherwise would send wrong signals to some foreign investors What we are trying to do now is to call all the parties and lay the cards on the table, because the contract terms are now threatening our survival". NEPA had been paying in accordance with the contract but this was now financially unsustainable for NEPA.⁵⁵

The integrity of the IPP deal was further questioned in 2005 by National Union of Electricity Employees (NUEE) representatives, who implied that AES was even exaggerating the amount of electricity it was actually supplying to NEPA: "How do we know the quantity of energy delivered to us by the IPP, that is, AES and AGIP? Where is the meter measuring the consumption of the zone from the IPP, and who reads the meter to know the actual energy delivered to the zone from IPP every month?"⁵⁶ In 2006, the Peoples Democratic Party (PDP) called for on the Economic and Financial Crimes Commission (EFCC) to probe the Lagos/AES power project claiming that it has cost the state over \$500 million.⁵⁷

3.3.2. New public sector power stations

In 2006 the government continued to make public sector investments in new power stations.

A total of 12 new power stations are being created by the government, at a cost of US\$7 billion. They include 11 new thermal power stations at: Geregu, Kogi State (414 Megawatt), Papalanto, Ogun State (335megawatt), Omotosho, Ondo State (335 megawatt), and Alaoji (310 megawatt) in South Western Nigeria, Ikot Abasi in Akwa Ibom State, Sapele in Delta State, Omoku in Rivers State, Egbema in Imo State, Benin in Edo State, Calabar in Cross River State and the seventh in Bayelsa State.

In addition, in July 2006 the government agreed to start on the Mambilla hydropower project, which is expected to generate 2000MW, and will be financed with loans from China, and the Islamic Bank, and funding from the Federal Government. It will cost the nation about US\$3 billion or some N390 billion, and construction should start before the end of 2006. It will be managed by a special team under the President's own control.⁵⁸

3.4. Privatisation of NEPA and union critique

3.4.1. Privatisation of NEPA

The core policy of the government and the main donors is unbundling and privatisation of NEPA. The National Electric Power Policy set out these objectives in 2001, and in March 2005, President Obasanjo signed the Power Sector Reform Bill into law, enabling private companies to participate in electricity generation, transmission, and distribution. The government separated NEPA into eleven distribution firms, six generating companies, and a transmission company, all of which will be privatised, and creates a National Electricity Regulatory Commission (NERC). The World Bank provided NEPA with \$100 million in February 2005, to assist in its privatisation. Strong opposition from unions and others has delayed the privatisation.

3.4.2. Union critique

In a concise critique of this privatisation plan, "NEPA and Privatisation"⁵⁹, NUEE says its campaign is due to "a patriotic duty to speak for the voiceless and disempowered majority". The union insists it is not

defending inadequacies and inefficiencies, but says that inefficiency is due to 3 factors: “bad management, obsolete equipment, and corruption”.

NUEE points out that one of the major problems is lack of access for the 70% of Nigerians unconnected, and that privatisation will make it less likely that they will be served, not more. By contrast, it is the function of the public sector to do this: “Public enterprises are established to consciously bridge social inequality and the gap between rich and poor.” Nigeria’s Gini coefficient of inequality, 0.58, is 3rd worst in the world (after Brazil and South Africa), but only the better off will benefit from privatisation, so “what is the dividend of democracy?”. The great need is for more generating capacity, and private sector can contribute to this. But even so: “the urban and rural poor will prefer an epileptic and inefficient NEPA than an efficient and overpriced Enron”.

The country’s very core is at stake:

“If the government privatises NEPA, NITEL, and NNPC and privatises the education sector from tertiary level downwards, what becomes of the future of the country? What is/becomes of the ‘commanding heights’ so lavishly referred to in the 1999 constitution? Why must government refurbish NEPA, NITEL and NNPC refineries with taxpayers’ money only to privatise them? Why must the poor man’s tax be used to subsidise the private sector?”

The union argues that reform of NEPA could include:

“appoint an autonomous board of competent people, people of proven ability and integrity that will bring their background to bear in managing NEPA more efficiently.....Eliminate unplanned capital cost, ensure that public and private sector subscribers pay their tariffs, all revenue leakages should be apprehended, grid loads must be scientifically established, consumer waste of energy or electricity should be curbed through proper enlightenment campaigns, transmission efficiency index, accurate customer/consumer census and accurate billing and collection index, should be established” The number of subscribers to NEPA must be established, tougher penalty for illegal power users and their NEPA staff collaborators would also assist. There are so many things that can be done if only the BPE and government will listen and agree to a dialogue and advice of those who know better....”⁶⁰

NUEE states that the BPE has no expertise or understanding of the issues faced by the parastatals in Nigeria, but is only concerned to privatise them. The Nigerian private sector is just as corrupt and inefficient and more exploitative than the public sector. El-Rufai, Director-general of BPE, has publicly boasted that 20,000 out of 30,000 NEPA employees will be sacked as a result of privatisation. The BPE obtained a court injunction restraining NUEE from strike action.⁶¹

3.4.3. Constitutional challenge and other action

In August 2006 the National Union of Electricity Employees (NUEE) “mounted a court challenge to the impending privatisation of the parastatal, which they fear will negatively affect their employment prospects because of expected downsizing. [NUEE] submitted a petition to a high court in the capital Abuja to have the privatisation of the state monopoly declared unconstitutional.”⁶²

In July 2006 the union called off a nationwide strike threat after offers of negotiations: “... The union had threatened industrial strike over its disaffection at being left out of the winding down process of PHCN. Secretary General of National Union of Electricity Employees, Joe Ojiro said yesterday in Abuja that the union has shelved the strike because BPE had agreed to involve them in the winding process...”⁶³

In February 2006 the TUC opposed a proposed 60% rise in the price of electricity:

“TRADE Union Congress of Nigeria (TUC) has kicked against the proposed 60 per cent increase in tariff for services provided by the Power Holding Company of Nigeria (PHCN). TUC said it is objecting to the proposed hike because the current economic situation in the country do not support such increases as, according to it, the hike will not only add to the burden of the Nigerian people but also pauperise them. It also said its objection to the PHCN proposal is based on the fact that the company has not lived up to its expectations despite the huge sums of money being spent on the

company, but instead is "now holding on to power rather than delivery." It is therefore calling on the federal government to reject the proposed increase in tariff. "The congress believes that the proposed increase should be rejected by the federal government as the PHCN has not lived up to expectations despite the enormous resources pumped into the sector," it stated. This opposition is coming on the heels of a proposed 60 per cent tariff hike by the Power Holding Company of Nigeria, popularly known as NEPA. Currently, the company charges N4.00 per unit for non-commercial consumers."⁶⁴

In November 2005 a NUEE branch brought a court case to try and protect pension rights:

"Some staff of the Power Holding Company of Nigeria (PHCN) Plc have urged a Federal High Court, Abuja to hold that N107 billion be put aside to off set their pension liabilities before the company's tax liabilities of N8.8 billion is settled. The staff in the action against PHCN and the Federal Government are seeking to stop the company from transferring its property in Ikoyi, Lagos to the Federal Inland Revenue Service (FIRS) to settle its debt liabilities. At the resumed hearing of the case Monday, Lagos lawyer, Mr. Abiodun Owonikoko who represented the workers, said there was a nexus between the company's assets and the pension debt. Consequently, the workers came to court seeking an order to compel PHCN to primarily set aside money to off set their pension said to about N107 billion. FIRS, the Bureau of Public Enterprises (BPE) and the Accountant General of the Federation were equally named as defendants..... The workers had earlier sworn to resist the taking over of NEPA House located at No 17 B Awolowo Road Ikoyi, Lagos by FIRS. The house was relinquished to FIRS by the management of PHCN in a bid to settle a debt of N8.8 billion tax liabilities owed by PHCN to the tax authorities. Workers in PHCN comprising the National Union of Electricity Employees, Senior Staff Association of Statutory Corporations and Government Owned Companies as well as the Nigeria Union of Pensioners had also written to the management of PHCN not to hand over the complex in Ikoyi to FIRS. The workers wondered why FIRS was threatening to take over the property of NEPA because it owed N8.8 billion why other Federal Government agencies owed NEPA about N44 billion. According to the workers, money to settle their pension should be given priority before the debt owed to FIRS."⁶⁵

In September 2006 an opinion poll by Business Trust suggests that many Nigerians are ready to pay more for constant electricity, which is crucial to make private operations possible.⁶⁶

3.5. Rural electrification

The National Rural Electrification Program was started in 1981 with the aim of connecting all the country's local government headquarters and some important towns to the national grid. Currently about 600 of the 774 Local Government Headquarters in the country have been connected to the national grid. In the absence of government funding, there is often no further extension of the grid in towns and villages, a common problem in poor countries.⁶⁷

The 2005 Act created a Rural Electrification Fund (REF) with the remit to promote rural electrification:

"through public and private sector participation...in order to achieve more equitable regional access to electricity; maximize the economic, social and environmental benefits of rural electrification subsidies; promote expansion of the grid and development of off-grid electrification".

An ESMAP study at the end of 2005 pointed out that while tariffs remain below cost, consumers will refuse to pay cost recovery prices for private power; and that it is hard to find private finance for the extension of electricity when Nigeria is an unattractive destination for international finance, and domestic interest rates are currently at 20%.⁶⁸

4. Conclusions

The problems of Nigeria's water and energy sector are real. Current policies of privatisation, in both water and electricity, are incoherent and highly unlikely to deliver the necessary investment or distribution of resources. The water plans for Lagos are confused and contradictory – local contractors are expected to compete for operating contracts, but are somehow expected to bring the vast amounts of capital needed to

extend the water system, while the privatisation by concession is still a prominent wish in the policy, despite being abandoned 3 years ago due to passionate lack of interest by the multinationals. The privatisation plans for NEPA are based on an old recipe for unbundling and sales, ignoring the fact that very few multinational companies remain interested in bidding for such fragments.

These policies have been formulated by external agencies, specifically the World Bank, DFID and the IFC, and driven by conditionalities, which are laced with the ideological certainty that the only solutions are private sector solutions. This is highlighted by what is happening in electricity generation - the new large-scale plans for expansion of public sector generating capacity is financed by the government, the Islamic development bank, and China, not by the World Bank or DFID.

Three recent papers published by international bodies highlight the errors of the privatisation recipe for Nigeria, and the need for a policy based on investment in public sector operations using public finance.

- An ESMAP report on electrification in a sample of African countries (not including Nigeria) found that extensions of electricity were not due to privatisation, but the major factor was active intervention by government based on equality-led policies, through public investment and subsidy: whereas full cost recovery resulting from privatisation can make electricity less affordable for the poor.⁶⁹
- A UNDP report argues that savings in developing countries are being diverted to rich countries, but need to be used to develop poorer economies. Public sector investment programmes are crucial for sub-Saharan Africa, to boost demand, improve overall productivity, and redistribute in favour of poorer households. This investment needs countries to develop a stronger tax base, and increase the level of taxation of the economy, especially in sub-Saharan Africa.⁷⁰
- A paper by a World Bank economist argues that public sector finance for investment to develop infrastructure is almost always cheaper than private finance. So the role of the public sector has to be central - but the problems of inefficiency and corruption must still be dealt with.⁷¹

(Extracts from the relevant papers are set out in the annexe.)

5. Annex: Effects of privatisation, economic policy and public investment

5.1. Impact of electricity privatisation (ESMAP)

ESMAP Report 306/05 August 2005 Power Sector Reform in Africa: Assessing Impact on Poor People
[http://wbln0018.worldbank.org/esmap/site.nsf/files/306-05+Final_to_Printshop.pdf/\\$FILE/306-05+Final_to_Printshop.pdf#search=%22%22Power%20Sector%20Reform%20in%20Africa%22%22](http://wbln0018.worldbank.org/esmap/site.nsf/files/306-05+Final_to_Printshop.pdf/$FILE/306-05+Final_to_Printshop.pdf#search=%22%22Power%20Sector%20Reform%20in%20Africa%22%22)

.....5. At a minimum, the extent to which power sector reform affects poor people depends on their ability to access electricity. Reforms have the potential to affect access levels in many ways. By improving the efficiency and financial soundness of the power sector, reforms can attract new investors or free up government resources to be used in expanding access, provided there is an effective demand. However, introducing market-driven private sector participation may encourage utilities to focus on providing electricity to communities that are already proven to be profitable and can be connected at a low cost, and to not extend the network to poor areas.

6. In most of the case study countries, access to electricity, defined as the number of effective connections, has more than doubled over the past decade (Ghana, Mali, South Africa); for other countries for which data are available, there has been a substantial increase in access (Tanzania, Uganda), although, with the exception of Ghana and South Africa, it remains at very low levels, especially among the rural populations. This increased electrification, however, cannot be definitively attributed to reform initiatives. Instead, it appears to be a result of government policies, programs, and subsidies specially intended to expand access to electricity by making it physically available and making the access affordable for more in the population.

7. The experience in Tanzania, for example, suggests that private participation and reforms alone have not produced dramatic acceleration in access. It should be noted, though, that Tanzania's two-year management contract was designed primarily as an interim measure toward preparing the company for privatisation and unbundling. Its target was essentially to instil commercial discipline rather than increase access. Electrification actually continued to increase during the management contract period, although less than in the period before Net Group Solutions' management contract with the national utility, Tanzania Electric Supply Company. In contrast, in Namibia, the private company Northern Electricity invested in new electricity connections that can account for the expansion.

8. In South Africa, where electrification has swelled, expanding access has been a dominant feature in the policy debate. The government set national electrification targets and initially the state-owned utility Eskom cross-subsidized the national electrification program with earnings from industry and wealthier households. Since Eskom was corporatised and started paying taxes, the government has funded the capital costs of new connections and the first 50 kilowatt hours (kWh) per month for poor households. As a result of these hands-on policies, the percentage of the population with access to electricity increased from a third of the population in the early 1990s to about 70 percent today: as many people were connected in 7 years as in the previous 100 years.

9. Ghana represents a further example of the potential impact of dedicated electrification programs and funding. Under the Self-Help Electrification Programme, the government offered to connect communities within 20 kilometers of the existing network that could demonstrate a minimum number of interested households and provide the required low-voltage wooden distribution poles. This program has been so popular, particularly among smaller communities, that it had to be divided into several phases so the government can meet demand. Its sustainability, however, is still under review: a large number of voluntary disconnections due to affordability constraints were registered recently.

10. Despite rising numbers of connections and increased availability of electricity, it is interesting to note that per capita rates of electricity use have declined in many countries. In Ghana, although access to electricity increased by 500 percent between 1991 and 2000, per capita consumption actually fell over the same period. This suggests that although more people are connecting to the network, poverty limits their use of electricity services and many poor households continue using other fuels, such as kerosene, wood, or charcoal. Nevertheless, there is also the example of Mali, where both access levels and per capita consumption increased, although both remain at very low levels.

11. Reforms often are expected to result in improved utility performance and lower costs, but power sector reform is typically associated with price increases aimed at making the utility more financially sound. In order to attract private investors, most reform programs have included measures to increase tariffs to cost reflective and commercially profitable levels, accounting for inflation and market risks, and reducing across-the-board subsidies.

12. Price increases can cause social hardships, particularly for the poor, and many countries have encountered political opposition to reform efforts to make and many countries have encountered political opposition to reform efforts to make the utility financially solvent. In most cases, therefore, countries have adopted alternative strategies or relief systems such as government subsidies to IPPs or the utility (Ghana, Mali, Tanzania, Uganda), cross-subsidization programs (South Africa), or "lifeline" tariffs that supply a limited quantity of energy at a subsidized rate (Ghana, South Africa, Tanzania, Uganda).

5.2. Savings and growth in Africa(UNDP)

Economic Alternatives for Sub-Saharan Africa: 'Poverty Traps', MDG-Based Strategies And Accelerated Capital Accumulation Draft Paper for the G-24 Meeting, 15-16 September 2005 Terry McKinley, UNDP
<http://www.g24.org/mcki0905.pdf#search=%22%22Strategies%20And%20Accelerated%20Capital%20Accumulation%22%20Africa%22>

..... Over half of the 'excess savings' in the world economy are being generated by middle-income developing countries, transition economies and newly industrialized countries. But almost three quarters of these excess savings are being absorbed by the U.S. economy. The amount going to the U.S. alone is about seven times higher than global ODA flows. The paper maintains that these savings flows are travelling in the wrong direction, namely, to rich countries, instead of poor countries, such as in sub-Saharan Africa. ODA can play a role in redistributing global savings, but only a limited one. Economic policies in current-account surplus countries (such as China), rich current-account deficit countries (such as the United States) and poor current-account deficit countries (such as in Africa) will have to be significantly re-adjusted in order to direct savings to poorer countries instead of rich.

.....

Fiscal Policies Countries need more 'fiscal space', namely, increased public revenue and loanable funds, in order to deploy more expansionary fiscal policies. Central to expansionary fiscal policies is public investment. The reason: it can perform three important functions: 1) stimulate aggregate demand (the 'Keynesian' function) 2) expand the productive capacity of the economy (the 'Development' function) and 3) focus resources on poor households (the "Anti-Poverty" function). It is important to clarify and expand on the "Development" function of public investment since this is the most neglected, and probably the most important. Few developing countries, particularly those in sub-Saharan Africa, have viable strategies for rapid capital accumulation. Part of the problem is that prevalent growth strategies rely on 'private sector led' development. But, by definition, the private sector cannot 'lead' development: that is not its inherent objective. Although the private sector can be the main generator of growth and employment, in underdeveloped economies the public sector clearly has to lead the development process.

Once this confusion is dispelled, then clarity is still needed on how the public sector should lead. The usual response is that the public sector has to create a more 'pro-business' environment—e.g., boost 'business confidence'. But changing the 'climatic' conditions for the private sector seems to have had little effect in many countries. Businesses are not investing, and for good reason: growth is too slow or uncertain and profit expectations are not promising. In order to help break this logjam, states have to deploy public investment, not only to stimulate aggregate demand but also to lay the groundwork for long-term economic growth. This makes eminent sense in many low-income developing countries, where the public capital stock has remained low or has deteriorated as a result of fiscal retrenchment. The state has to ensure that the private economy is supported by an adequate economic and social infrastructure. Achieving such an objective will require, for most countries, a dramatic scaling up of public investment. If well designed, this investment will raise the productivity of labour and private capital. By increasing productivity and stimulating economic growth, public investment will 'crowd-in' private investment, not 'crowd it out', as is often feared. ...

..... **Tax Policies and 'Fiscal Space'** Public revenue is low in many developing countries. This is a particular problem in sub-Saharan Africa. Low incomes or poor growth performance are often given as reasons for low revenue. Nevertheless, many countries will have great difficulty in halving extreme income poverty by 2015 or reaching other MDG targets without mobilizing more domestic revenue. A larger influx of Official Development Assistance could help scale up public investment programmes to attain the MDGs, but such assistance cannot supplant domestic resource mobilization over the long term. Despite conventional assumptions to the contrary, the domestic revenue base of most

developing countries is too small, not too big. A widespread ‘small government’ ideology has masked the reality that many governments do not command the resources necessary to finance many essential public services. To put matters in perspective, for all developing countries, tax revenue as a ratio to GDP is only 18 per cent, compared to 38 per cent for industrial countries (Tanzi and Zee 2001). The revenue of many poor countries is well below this average. It is imperative for many developing countries to find ways to boost their revenue base towards 20 per cent—if not towards 25 per cent of GDP over the longer term. This process will not be easy, of course. The case for boosting public revenue is particularly compelling in sub-Saharan Africa.

5.3. Financing infrastructure in Africa: World Bank

Africa’s infrastructure: challenges and opportunities; Antonio Estache February 2006

<http://www.imf.org/external/np/seminars/eng/2006/rppia/pdf/estach.pdf#search=%22%22Africa%E2%80%99s%20infrastructure%3A%20challenges%20and%20opportunities%22%20Africa%22>

10. The mismatch between demand and supply was amplified by the recurrent fiscal crises that accompanied the various economic crises. The policy responses to these fiscal crises.....may not have been the optimal policy ... fiscal shortfalls and/or cuts led to under-maintenance and underinvestment across infrastructure subsectors....

21. It is only in Ethiopia, Mali and South Africa that public financing requires a higher rate of return than private financing for all sectors. In most of the other countries, it is only for specific projects in any sector that it will be cost effective to rely on the private sector.

22. ... it is quite crucial to recognize at this stage that any scaled-up ODA flows and long term commitment will be require major changes in the ways the public sector does its business in infrastructure. The new environment requires an exceptional commitment to institutional changes by African countries and by the donors. It also requires a very concrete workable game plan to achieve improved governance, capacity and institutions.

Indeed, there is a fundamental dilemma to address as part of the debate on how to meet Africa’s financing needs. Once it is accepted that the public sector will be the main actor and that donors will have to scale up their commitments, everyone needs to accept that the dramatic scale-up in aid risks overwhelming fragile institutions. The ideal would that the efficiency and effectiveness of use of greater aid flows will improve the delivery of public services and be coordinated with the development of good institutions that increase the accountability of all the parties involved.

6. Notes

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