BEST PRACTICES IN PRIVATE SECTOR FINANCING OF INFRASTRUCTURE PROJECT
(Draft)
Introduction

Development specialists see infrastructure as a priority condition for economic growth and development, since it has direct effect on the size and quality of investments, competitiveness and the nation’s wealth. This point was further elucidated in the document “African Initiative” issued by African heads of state at the 37th annual meeting held in Lusaka, Zambia. It said “If Africa had the same basic infrastructure as developed countries, it would be in a more favourable position to focus on production and improving productivity for international competition. The structural gap in infrastructure consists a very serious handicap to economic growth and poverty reduction”[1].

The Infrastructure Initiative contained in the above-cited initiative highlighted the need to attract foreign private entities to participate in the process. The document further stated that “…if infrastructure is to improve in Africa, private foreign finance is essential to complement the two traditional funding methods, namely credit and aid”. It also recognized the importance of building institutions that would effectively facilitate the process. The Initiative puts as one of the proposed actions, in connection with infrastructure development, the establishment of “…policy and legislative framework to encourage competition. At the same time, introduce new regulatory frameworks as well as build capacity for regulators, so as to promote policy and regulatory harmonization…”.

Recognizing the importance and timeliness of the topic, African Development Forum 2001 (ADF 2001), an initiative led by the Economic Commission for Africa (ECA) to establish an African-driven development agenda, has also identified Physical Integration through Infrastructure development as one of this year’s five thematic areas. It will focus on priorities for infrastructure development as a means to step up the pace of regional integration. Particular attention will be given to the regulatory framework for regional projects, financing of such projects, and services to be delivered by supra-national institutions. This thematic cluster will also look at modalities for agreeing, designing and implementing regional infrastructure projects, and for attracting and servicing investment in these sectors.

It is a common knowledge that Africa is lagging far behind the rest of the world in almost all economic and social development indicators. Given current rates of population growth, studies indicate that Africa needs to achieve sustained economic growth of some 7 percent a year to arrest and reverse the spread of unemployment and poverty. Achieving such growth would require enhancing the magnitude and productivity of investment, especially deepening reform; and promoting the development of the private sector generate sustained investments [2].
Major investments are needed to build adequate and well functioning infrastructure services, which is seen as the pre-requisite to eradicate poverty and maintain economic growth in Africa. This point is well articulated in two major publications on the topic, 1994 World Development Report and in the 1999 Africa Development Report [these two studies provided the basis for some of the data and the analytical arguments presented in this study].

An overview of current literature on the subject generally emphasizes on the fact that a meaningful change in this area will have to be preceded by deep restructuring and reorganization of the state. Among the fundamental change states would have to make is to bring in the private sector as partner in the process of development. Some countries have developed schemes, which promote private participation in a competitive environment. These has allowed the state to focus its activities on financing education and basic health needs, and on services only it can provide such as the security and judicial administration. While this thinking has taken root among policy makers and development specialists in many parts of the world, in Africa, however, it is still a topic of debate. There are several factors that have contributed to keeping the state as an active and often the sole provider of infrastructure services in Africa.

The reason that infrastructure industries have remained so long in the public sector is that they have components that are natural monopolies; e.g., the costs are lower with only one provider and the services are often essential (water, power and transport). These infrastructure monopolies also typically have a relatively high proportion of capital costs, have long-lived assets with low unit variable costs, and exhibit significant economies of scale. It had been a common judgement that state ownership of such monopolies, rather than state regulation of privately owned assets, was likely to deliver the best outcomes.

Existing service providers in these infrastructure areas have also had a considerable competitive advantage over potential new entrants, because of the relatively long time required to construct expensive new networks and to build up the market for their services. The scarcity of land, and rights-of-way for development of the network also act as an additional barrier to competition. Sites for dams, power plants, and rights-of-way for roads, rail lines and transmission systems had become increasingly difficult to acquire. Another common argument for retaining these industries within the public sector was that they must provide common (or universal) access to their services and that subsidies are required. These facts combined with the relatively weak private sector in Africa have rendered the state an active player in owning and operating infrastructure services.

Large infrastructure developments required huge capital investment and because of the risk associated with such ventures, they were not the types of projects that attracted foreign investors. The small size of the domestic market has also contributed to the lack of interest shown by investors to invest in infrastructure
projects in Africa. Local private sector was weak and had fairly limited technical skills, with too little capital to enable them to undertake major investments. Capital markets were also non-existent or underdeveloped and could not be depended upon to provide adequate credit. Therefore, much of the responsibility of building and operating infrastructure services was left to governments.

In Africa, as in many developing countries, public ownership and provision of infrastructure were effective in meeting the needs of the public at least in urban areas. However, the explosion of urban populations and subsequent shrinking of resources in the wake of economic crisis after the mid-1980s have meant that public provision of infrastructure services are for the most part now characterised by less than adequate performance, especially with respect to resources allocation and enterprise management. The combination of poor management, inadequate capital structure, bad investment decisions and the bureaucratization of the decision-making process meant that public enterprise have been ill-prepared to address the rapidly changing conditions of African economies.

Private participation in infrastructure development, which has a long history in the west and to a limited extent in the emerging economies of Asia and Americas, despite resistance from some quarters, is slowly making in road in Africa. Multilateral and bilateral aid and financial institutions, encouraged by the results obtained particularly in Asian countries, are advising African governments to adopt similar methods. PSP in infrastructure development still requires the government to play a key role in planning, policy and regulation. And for this to happen the presence of well-developed institutional and organizational capacity is essential. Therefore, the main challenges, with respect to infrastructure development, for African governments are to build these capacities. With out proper institutional strength promoting private sector participation may have serious long-term negative consequences on economies.

This study has identified some best practices both from and outside of Africa that we can draw lessons from, which include appropriate approaches and institutional requirements in addressing the issue of PSP in infrastructure development. The purpose of this paper is to highlight the importance of building and strengthening institutions that play key role in promoting the private sector participation in building infrastructure services in Africa. Moving to best or better practice, in this respect, involves a shift to good governance, and requires an upgrade of regulatory, restructuring, and monitoring roles of governments. The study is based on desk research and literature reviews, however, such future undertaking may produce significant results if it include surveys and actual fieldwork.

The organization of the paper is as follows: In section two the current state of infrastructure in Africa is examined with special attention to Telecommunication, Electricity, and Roads. This is followed by an extended discussion on the role of private participation in infrastructure development in section three. These include
a conceptual analysis of PSP and identification of constraints limiting the participation of non-state actors in infrastructure development in Africa. The conclusion and selected case studies are presented in section four and as appendix.

2. State of Infrastructures development in Africa

The 1960's and 1970's, the public sector in Africa took significant steps in promoting the development of infrastructure services. For example, historical data indicate that the average main telephone lines per 100 inhabitants in 1980 was 0.74, a 65 per cent increase form 0.45 main telephones lines 1965. In 1986, this figure increased again by 43 percent to 1.06 mainlines. In the same way electricity production increased from a per capita of 43 kilo-watts in 1965 to 87 kilowatts in 1986, a 100 percent increase, only to remain virtually stagnant thereafter [3]. Below is a summary analysis of the infrastructure problems and challenges facing African countries in telecommunications, electricity, and transport.

**Telecommunications:** Studies indicate that Africa's telecommunications infrastructure is far below the world's standard. While the developed and the developing countries are fast moving towards digital exchange, the networks in the region are generally analogue with outmoded equipment and high rates of failure. It should also be noted that there are few countries that have made reforms and have opened up the market and are installing digital technologies and equipment.

The demand for telephone services in Africa far outstrips the supply, particularly in higher income countries. There is a high waiting list for services in countries like Cameroon, Ghana, Kenya, Nigeria, South Africa, Tanzania and Zimbabwe. The average expected waiting time for services in Africa for 1996 was 3.5 years as compared with 0.3 in America and 0.7 in Asia (ADB: 1998 ADR).

The most common measures of telephone access is tele-density or the number of main telephone lines per 100 inhabitants. In 1990 Africa averaged 2 percent compared to 30.38 in the Americas, 6.02 in Asia 30.6 in Europe and 40.39 in Oceania. On average, North African countries have three times the Sub-Saharan African rates.
The variation in penetration rates is highly correlated to per capita GNP. Countries with higher per capita income such as South Africa, Botswana and Tunisia, for example, have significantly higher penetration rate than landlocked countries with weaker economies like Chad, Niger and Mali. Another striking feature of the uneven infrastructure development in Africa is while over 80 percent of the population live in the rural parts of the continent, they only have access to 20 percent of the total number of available lines.

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<th>Main Telephone Lines</th>
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<td>Oceania</td>
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Europe: 28%

Source: International Telecommunication Union 1998

The current spread of cellular phones in many parts of Africa is partly driven by the lack of fixed telephone services. In the majority of markets where cellular mobile services are now provided, private capital has been introduced in the form of joint venture with state owned enterprises or stands alone private ventures. This has allowed for some level of market competition to take place. Newsweek magazine reported on its August 27, 2001 issue that “... in just over five years, the number of mobile connections in Sub-Saharan Africa has surpassed the number of fixed lines installed over four decades: more than 12 million versus 9 million”[3] . In Botswana over one person in eight has a cell phone. South Africa has 9 million mobile phones in operation, compared with just 5 million conventional lines.
The Newsweek report further pointed out that "Africa's new digital networks are a very different kind of business. Building big national networks requires deep pockets, discipline and transparency. The old analog networks were funded with borrowed money, forcing operators pass the exorbitant interest costs on to customers. The second generation digital networks, by contrast, require the multimillion-dollar financing of multinational. To win their confidence, governments across Africa have revamped telecom-licensing authorities to meet western norms"[5]. This is a very interesting observation, which raises several questions. First of all, what are in the nature of the mobile phone business that foreign investors find attractive? And why isn't the private sector showing the same level of enthusiasm when it comes to taking part in building the more capital intensive infrastructure services such as water, transport and power? This is an area that needs a closer scrutiny as the lessons learned can help African governments develop similar investment schemes in other infrastructure sectors that can attract domestic and foreign investors.

Among the major changes in the telecommunication industry in the last few years is the introduction of Internet and the tremendous impact it is making on today's information and knowledge based economy. While the Internet use is expanding in Africa its rate of growth, however, is severely limited by the poor telecommunication infrastructure. The key indicators of Internet development are the number of host computers, Internet service Providers (ISPs) and the number of users. In 1998, there were about 129,300 Internet host computers in Africa of which 3,300 were in North Africa and 122,000 were in South Africa and 4,000 in the whole of Sub-Sahara Africa. Recent studies indicate while the distribution by region remain the same, the number of Internet users are increasing in all parts of the continent. Subscription charges for dial-up Internet access in Africa vary greatly - between $10 and $100 a month - which means that in some countries, even if a computer is available, the service is beyond the reach of all but the top elite [6]. It is hoped that the current revolution in wireless telecommunication sweeping Africa will also positively impact availability and cost of Internet services in the continent.

**Electricity:** The data on electricity generation, transmission and distribution in Africa is very limited. However, available data indicate that by mid-1990s Africa's generation reached 350,000 giga-watt hours. The generation mix is dominated by fossil fuel generating plants, which account 81% of total electric generation with hydroelectricity accounting for just 15%. In terms of regional distribution, North Africa accounts for about one third of Africa's electricity production based largely on burning oil supported by oil and natural gas. West Africa's share of 9% is based a mixture of hydroelectricity, oil and gas. Central Africa's share of 4% is dominated by hydroelectricity and East Africa's share of 3% consists of a mixture of oil and hydroelectricity. Southern Africa produces the largest share of Africa's electric production representing 55% of the total output. The generation mix includes Coal and hydroelectricity.
At the beginning of 1997, electric generating capacity in Africa totaled nearly 94 gigawatts, about 3% of the world's total.

Most of Africa's generating capacity (76%) is thermal. This is particularly the case in North Africa (88%) and southern Africa (81%). In North Africa, thermal capacity is a mix mainly of oil and natural gas. In southern Africa, it is mainly coal and oil.

Hydroelectric capacity accounts for about 22% of total electric generating capacity in Africa. Hydroelectricity represents the primary source of electricity in East Africa and Central Africa (and nearly half in West Africa). Reliance on hydropower is 80% or greater in Cameroon, the Democratic Republic of Congo, Ghana, Mozambique, Rwanda, Uganda, and Zambia. Hydropower reliance is greater than 70% in several other African countries.

Nuclear power accounts for only 2% of total African electric generating capacity, and is located in only one country -- South Africa.

Geothermal generating plants make up only about 0.1% of total electric generating capacity in Africa. Ethiopia and Kenya account for all of this capacity.

Access to a central power grid is a major challenge for Africa. Outside of southern Africa (and to a lesser extent, North Africa), electrification rates are very low. As a result, per capita electricity consumption is extremely low in Central, East, and West Africa. In those regions, use of biomass largely takes the place of electricity from a power grid.

Source: United States Dept. of Energy

Among the major problems facing power producers is energy loss resulting from old and outmoded generation, distribution and transmission equipment. The energy loss is estimated as high as 40% in some cases. Additional problems are power outage and voltage fluctuation causing enormous loss from damages to electronic equipment. In Uganda, most large customers maintain standby diesel generators. In Guinea, between 1983 – 1992 the private sector installed for its own use some 70 MW of power generation, and in the mid 1990's produced 109 GWH of electricity, almost as much as the national electric utility.
The above table presents two performance indicators: Transmission and distribution losses and rate of return on fixed asset for selected countries. Uganda has transmission and distribution losses of 38% and a zero rate of return on net fixed asset, while Ghana has lower transmission and distribution losses (17.8%) and higher rate of return on net fixed assets (6%) than Uganda.

**Roads:** The state of African roads is no different from other infrastructure services. The data show that Africa had approximately 311,184 kilometre of paved roads in 1996, with half of them in poor condition. With the exception of Mauritius and North African countries of Algeria, Egypt, Morocco and Tunisia, paved road account for less than 50 per cent of the road network in Africa.

Road building has traditionally been given more priority than road maintenance in most African countries, with scant attention to the imperative of recurrent costs and road management once a road has been constructed. The poor condition of paved roads in effect speaks to the low level of maintenance carried out by...
individual countries. Lack of maintenance has left over 50 per cent of the paved roads in poor conditions. Over 80 per cent of the unpaved main roads in Africa would be considered just fair. The case of rural feeder roads is even worse; up to 85 per cent are estimated to be currently in poor condition with accessibility in most cases limited to dry seasons. The rural feeder roads connecting villages and farming areas with each other and to market centers is major gap in rural transport in many countries.

As agriculture and industry expand, and as national and sub-regional economies develop, existing road networks will require tremendous extensions and improvements in quality. In particular, road links between nations will have to be strengthened to meet large-scale demand for intra regional goods traffic; all of this requires heavy capital investment and expenditure on roads in many African countries.

3. Private Sector Participation (PSP) in Infrastructure Development: Lessons from Developing Economies

(A) PSP in Infrastructure

In Africa the main form of private participation in infrastructure development has been through privatization. In the last decade a number of countries have headed toward privatizing core infrastructure sectors of natural gas, power, transport, telecommunications and water and wastewater. While it is too early to make a definitive statement on the outcome of this trend, by all experts account it looks like it is on the right course.

Governments in Africa, as in elsewhere, albeit at a slower pace, are retreating from owning and operating infrastructure and are focusing more on regulating and facilitating infrastructure services provided by private companies. It is believed that this shift offers the promise of more efficient investment in and operation of infrastructure services, as well as the potential to shift the burden of new investment from public budgets to the private sector.

Among the countries leading the privatization process in Africa is the Government of Lesotho. The Lesotho Privatization Unit announced recently that the government has approved the sale of 70% shareholding in Tele-Com Lesotho to Mountain Kingdom Communications, a group formed by Mauritius Telecom Eskom Enterprises and Econet Wireless International. Mountain Kingdom Communications will offer 5% of its 70% shareholding to an Employee Share Participation Scheme, and the Government of Lesotho is retaining 30% stake.

Telecom is the emerging regional leader in telecommunications and internet services with the highest tele-density rate in Africa of 26 telephone lines per 100
inhabitants. The companies that took part in the privatization include big names such as Eskoni and Econet and Eskom. Eskoni Enterprises has a telecommunications asset base worth US$20 million and is an international leader in modern construction techniques for rapid roll out of optical fiber networks through the use of power line. Econet Wireless is the largest cellular operator in Zimbabwe, with over 100,000 subscribers and is a shareholder in one of the largest cellular service providers in Botswana.

The government of Lesotho is also among the leading African countries in establishing regulatory institutions that facilitate the growth and development of private sector participation in infrastructure development. The privatised Tele­Com Lesotho will be operating under the laws, rules and regulations set out under the Lesotho Telecommunications Authority Act 2000. The Lesotho Telecommunications Authority, as regulator of the telecommunications services will issue a license to the privatised Telecommunication of Lesotho and will grant the company a five-year exclusivity for the provision of fixed-line telecommunication services. The license will prescribe, among others, the company's service expansion requirements, tariff regulations and quality of service requirements to ensure the protection of and optimal service provision to the consumers. Telecommunication of Lesotho will also be granted the right to the second cellular license in Lesotho commencing in June 2001 to promote competition in the cellular services market.

Progress in privatization of infrastructure services continues to be made in several Central African countries the implementation of structural reforms, particularly in the privatization area and the transport and petroleum sectors. For example, in Cameroon deregulation and infrastructure improvement has been a major focus of the policy reforms. Given the low efficiency of the public utilities, rehabilitation is projected to require substantial investment which the government regards as being best met by the private sector.

The privatization process, by mid 1999, was already under way for the main utilities (telecommunications, electricity, and water), and bids have already been launched for a private cellular telephone service. In the transport sector, the privatization of the national railway network is near completion and a number of actions are being taken to improve the management of the Port of Douala and the financing and management of the road network.

In 1997, Gabon privatized its water and electricity industries. Gabon is working with the World Bank on partial privatization of the Office of Posts and Telecommunication (OPT). In August 1998, Gabon secured funding of $14.7 million from the African development Bank to support its privatisation program [6]. Gabon also is trying to implement privatisation reform as part of its IMF structural reform package. Privatization process has been slower than originally envisioned due to economic and budgetary problems, as well as some labour and social
tension following the 1998 presidential election (see Appendix 3 for additional examples of PSP in west Africa).

In East Africa, as well, privatization is seen as the main option to improving the quality and availability of infrastructure services. For example, Utility Reform Unit within the Ministry of finance of Uganda reported that it was interested in selling its power generation, transmission and distribution utilities. The Uganda Electricity Distribution Company and Uganda electricity Generation Company have attracted interest from some of the big investors in the business. These companies who came into being following the splitting of the giant Uganda electricity board into three autonomous entities seem to have made themselves attractive to investors by making some fundamental changes. Among these changes was the tariff. The country recently raised its power tariffs to 10.4 US cents per kilowatt-hour from a previous rate of 7 US cents per kilowatt-hour. This represents nearly forty- percent increase. It is also reported that this decision is being met by strong resistance from the public and members of parliament.

The past decade has also seen important signs of changes across the North African region. Governments in North Africa have are began experiment with private participation in infrastructure. Contracts have been awarded to private operators for solid waste in several countries; power and water in Morocco; the list of projects under study or preparation is growing and includes private power generation in Morocco, Egypt, Tunisia, and several North African countries. And concessions for toll roads in Morocco and Tunisia are also in the works. In Morocco a 1320-MW 30-year BOOT power plant expansion contract is underway (Jorf Lasfar project). In Tunisia, ten firms are competing to build the country’s first independent power generation plant, a 350-500 MW combined-cycle gas plant with an estimated cost of US$300 million.

A review of Nigeria’s experience with privatization indicates that there are three basic issues that the government privatization agency in the country need to tackle in order to have an efficient and successful divestiture program. Analyst argue that delays in the Nigerian privatization program are related mainly to the following issues [8].

- Procedures and standards for valuation and pricing of the enterprises earmarked for sale, particularly industrial enterprises;

- Determination of the potential implications of any divestiture decision on the welfare of Nigerian citizens; and

- Lack of information base for both the government agency and prospective buyers/investors. It is uncertain that any foreign investors would want to stake his money on a company in which he has no sufficient information.
These issues point to the overall lack of good governance in privatization particularly as it relates to participation, accountability and transparency. It also points to lack of effective regulatory mechanisms, which need to be in place to secure and protect the welfare of citizens.

Despite the earlier cited structural problems, African telecommunications sector has taken several steps toward attracting foreign investment and to improve its infrastructure and services. This trend is reflected in:

- The increase in the number of countries that have established an independent regulatory agency; the increase in partial/full privatization of the telecommunication operator; and the increase in the number of private ISPs and cell-phone operators.

The path taken in the liberalization of the telecommunication sector across the continent is similar. These are:

- Separation of the Posts and Telecommunications sectors; Separation of the telecommunications regulating and operating agencies; Licensing of operators of various types of telecommunications services; and Partial/full privatization of the PTO.

By the end of the year 2000, 25 countries have established an independent telecommunications regulatory authority. Out of these 25 countries, 9 of them did so only after 1998. There are only 17 countries where the PTO is the sole mobile telephone services operator. However, there remain 7 countries without mobile telephone services. Regarding Internet service provision, the PTO is the only ISP in 13 countries.

Seychelles is the only African country where the fixed telephone operation is fully privatized. The trend is to partially privatize the fixed telephone operations of the PTO with shares being sold to a strategic partner, a telecom company from the developed world. Thirteen countries have partially privatized the fixed telephone operations of their PTO. Four countries have a second fixed telephone operator. Among the four, Ghana has two fixed line operators besides the PTO. Somalia has four telephone operators although a PTO is non-existent due to the country's prevailing situation [9].

Parallel with privatization are other forms of Private Participation in Infrastructure that African governments have been experimenting. The early to mid part of last decade was a period of both rapid expansion of private investment in public infrastructure and a sharp increase in private management of the services associated with infrastructure. The investment was propelled by the development of new forms of Private Sector Participation (PSP) schemes including various forms of public/private partnerships: build-operate-transfer (BOT), build-own-operate, build-own-operate-transfer (BOOT), and concessions (See Appendix 1).

BOOT (Build-Own-Operate-Transfer) schemes are particularly becoming an increasingly popular means of financing large-scale infrastructure development such as roads, bridges and hydropower dams in both developed and developing countries. Under a BOOT scheme the private sector accesses the necessary capital for construction, builds and operates the infrastructure for an agreed
period of time (anywhere between 15 and 30 years) and then transfers ownership back to the relevant government. Proponents of this scheme argue that BOOT projects reduce the drain on the public purse, while allowing for the efficient provision of services as the private sector operates on a commercial basis.

Banks and other international financial institutions have enthusiastically been promoting BOOT schemes in developing countries. The level of investment required to build these capital-intensive projects is so huge that banks are seeking other private sector partners to play an active role. The banks see themselves more and more as facilitators and brokers for private sector investment. While banks still play their traditional role as direct creditor/investor, judging by the current trend it is clear to see that the private sector will assume a greater portion of this responsibility in the near future. These new financial instruments, especially project finance, and the globalization of private investment funds, played a major role in the expansion of the infrastructure sectors in many LDCs particularly in Asian countries.

Investment in Infrastructure Project with private Participation in Developing Countries by Sector and Region, 1990 - 1998

1998 US$ billions

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<td>13.1</td>
<td>7.9</td>
<td>10.9</td>
<td>19.5</td>
<td>20.1</td>
<td>33.4</td>
<td>49.6</td>
<td>53.1</td>
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<td>23.9</td>
<td>34.9</td>
<td>48.2</td>
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<td>1.8</td>
<td>7.3</td>
<td>0.8</td>
<td>1.4</td>
<td>2.0</td>
<td>8.4</td>
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<td><strong>Total</strong></td>
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<td>17.7</td>
<td>20.7</td>
<td>25.7</td>
<td>34.0</td>
<td>39.0</td>
<td>52.4</td>
<td>67.2</td>
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<tr>
<td>East Asia and Pacific</td>
<td>2.3</td>
<td>4.0</td>
<td>8.7</td>
<td>15.9</td>
<td>17.3</td>
<td>20.4</td>
<td>31.5</td>
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<td>Europe &amp; central Asia</td>
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<td>0.5</td>
<td>1.5</td>
<td>3.9</td>
<td>8.4</td>
<td>10.7</td>
<td>15.3</td>
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<td>12.3</td>
<td>17.1</td>
<td>18.0</td>
<td>18.4</td>
<td>19.0</td>
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<td>0.1</td>
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<td>0.1</td>
<td>1.2</td>
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<td>4.0</td>
<td>11.4</td>
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<td>1.0</td>
<td>2.0</td>
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<tr>
<td><strong>Total</strong></td>
<td>15.5</td>
<td>17.4</td>
<td>25.3</td>
<td>39.9</td>
<td>44.9</td>
<td>52.3</td>
<td>83.3</td>
<td>120.4</td>
<td>165</td>
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Source: The World Bank Group: Finance, Private Sector, and Infrastructure Network, Note No. 196, September 1999
As the above table indicates Africa's share of PSP in Infrastructure development represents less than 2 percent while Asian countries register nearly 30 percent and Latin American and the Caribbean countries represent over 50 percent of the total investment in infrastructure projects with private participation. The relatively small number of projects with PSP in Africa limits the choice from which to highlight best practices. And out of the 2 per cent, Africa represents, the lion share of the investment is concentrated in Southern Africa.

Therefore, the search for best practices in Private Sector Participation will naturally lead us to explore the experiences of Asian and Latin American countries.

In the first half of the 1990s, investment requirements for infrastructure in Asia were seen to be on a scale that outpaced earlier projections and experience. The emerging economies of Asia were growing rapidly, and demanding massive investments in power, roads, telecommunications and other infrastructure. In most Asian economies, there was also a sense that development was being hindered by bottlenecks in power (e.g., the Philippines), transport (e.g., Thailand), water (most of Asia) and telecommunications. Since government infrastructure spending, international aid, and official sector lending could not be on a scale sufficient to meet requirements, the private sector was the focus of attention. The huge infrastructure requirements of a growing and increasingly prosperous and urbanized Asia helped make clear the need for a major shift of focus towards PSP in infrastructure. To some extent, this was motivated by efficiency considerations, but mainly reflecting the view that public sector financing for this scale of infrastructure requirements was neither feasible nor desirable.

There had also been a shift in views as to the comparative advantages of governments and the private sector in performing the various roles related to the provision of quality infrastructure services. Increasingly, an expanded regulatory and restructuring role was seen for governments, with investment, construction, financing, and management viewed as best opened to competitive PSP. Risks should, under this approach, be assigned to the parties best able to mitigate them, and this meant a greatly expanded role for the private sector.

However, as the 90s came to end the Asian economies were severely hit by economic downturn. The economics of a number of projects built through BOT scheme came under serious question. Some early successes, under special circumstances, led to the assumption that this BOT approach could be universally applied. A recent Asian Development Bank report noted that "The expression BOT had become a shorthand for PSP in many countries by the mid 1990s. But, by 1999 BOTs and often the associated power purchasing agreements had also become a shorthand for unacceptable government risk exposure, and of project isolation from customer and market pressures"[10].
There was recognition that while many private sector investments of the BOT type were being completed, the assignment of risks in many of these projects left much to be desired. Government guarantees of bulk take-or-pay contracts (between electric utilities and investors), often indexed to exchange rates, had created huge contingent financial obligations of the utilities and their governments (See Appendix 4).

(B) Lessons Learned

This study has arrived at the conclusion that despite the confident promises made by proponents, the supposed benefits of the BOOT model are based more on free-market ideology than on empirical evidence or fact. BOOT has no track record as less than a decade ago the concept was little more than a curiosity. Given that concession periods are usually at least 15 to 20 years, there is to date no major BOOT project that has successfully completed all stages of the cycle according to original plans. Some of the projects have, according to some analyst, have produced results that are less than desirable (See appendix 4). Nonetheless, since the alternative, government ownership, has been tried and has been proven inefficient, our aim should now be to identify the weakness inherent in these schemes and address them appropriately.

There is a need to review, sector by sector, the strengths and weaknesses of the process that has been used to implement past investments. The opportunities and risks of new approaches need to be addressed – e.g., the case for expanding the emphasis on customer focused and privately managed concessions. There is a need to develop bank-able versions of these models, ideally backed by the security of customer accounts rather than government guarantees or public sector assurances. A detail review of the various schemes that led to the wireless communication boom in Africa, for example, need to be scrutinised and be replicated if found to be beneficial and correspond to the governments overall developmental objectives. A review of various LDCs with regards to power sector development, for example, reveal some facts and lessons that are crucial and which must be kept in mind as Africa makes the big jump into the free market economy. Infrastructure service providers, particularly the power sector, need to be restructured. These would include the following:

Create an enabling legal and regulatory environment to support competitive markets in electricity; un-bundle the power sector into separate generation, transmission, distribution, and possibly retailing sectors to achieve the maximum benefits for customers;

Open access to transmission and distribution wires, and the ability to trade power between buyers and sellers in open market, are critical to achieve a competitive framework;
The role of independent regulator would simply be to facilitate the smooth functioning of power market by mainly overseeing prices and incentives for generation, transmission and distribution operations.

It must also be pointed out that the decisions on which infrastructure components should be transferred to the private sector are of a strategic nature. They depend not only on the characteristics of the sector and the market it serves but also on government objectives. There is consensus among experts that the primary objective should be to benefit consumers. In addition, there are a number of additional objectives, which governments need to consider:

- reduction in national debt;
- stimulation of domestic capital markets;
- reduction in capital and operating subsidies;
- investment in new infrastructure or rehabilitation of existing infrastructure;
- improvements in the quality of service;
- increased range of services;
- reduced prices for services;
- client-oriented operations; and
- More effective marketing.

There are a number of cross-sectoral issues relating to promoting private sector investment in infrastructure that this study identified. The review of best practices in various sectors, both in and outside of Africa, highlighted the importance of competition, transparent tendering, and effective regulation. There is broad agreement among experts that:

- Government should specialise in planning, structuring, and regulation while the private sector should specialise in management, investment, construction, and financing;

- The transfer of responsibility to the private sector should be accomplished through deregulation and open competition or well-established contractual arrangements including management contracts, capital leases, concessions, sale of assets and rights to operate;

- Economic regulation should be applied where there is insufficient competition but it should be transparent and predictable while still accommodating the concerns of the affected parties;

- Long-term domestic financing sources must be developed; and

- Commercial risks should be assigned to the private sector but other risks should be assigned according to which party is able to mitigate the risks.
Similarly, with regards to road infrastructure, what is clear is that private construction and maintenance of public roads produced better results where there was adequate competition and effective methods for enforcing contracts. Efforts to substitute private sector management for public sector officials in the management of the public network are in their early stages, even in the developed economies, but the preliminary results are encouraging (See Appendix 2).

World-wide experience identifies a broad range of PSP modalities, which include maintenance management contracts, turnkey, operate, and maintain or rehabilitate-operate-transfer concessions. Many of these modalities target improved maintenance, and rehabilitation of the network (rather than solely network capacity expansion). Literatures reviewed in connection with this particular sector indicate that for the private sector to fully participate the following critical issues need to be taken into account:

- Governments must prepare the PSP environment. Institutions may need to be restructured with the objectives of controlling the PSP process in the public interest, and creating a regulatory body, separate from vested interests. A sound legal framework and a predictable regulatory regime are essential.

- Governments must identify priority PSP projects. This will almost always require an independent feasibility study, which focuses on traffic and tariff policy, project staging, network integration issues, risk allocation, finance and implementation issues.

- Government support should be defined up-front as a maximum so that the private sector can prepare realistic bids.

There are major challenges for governments and investors alike, emerging from this shift to a new model for infrastructure development. The new best practice model does not mean a total retreat by governments; on the contrary, moving to best or better practice involves a shift to good governance, and requires an upgrade of regulatory, restructuring, and monitoring roles. Without greatly improved governance, the shift to increased PSP could just mean monopoly powers being shifted to the well connected in the private sector. Moreover, without improved governance, PSP would eventually flounder and the demands for infrastructure will not be met, as risks would become unacceptable.

Lessons from African countries indicate that attracting private sector participation in infrastructure in African countries requires a number of policy, legal and regulatory decisions on the part of the authorities in charge. In Africa, a number of important initiatives have been or are being taken to encourage PSP and harness private enterprise. These will need to be built upon. Also, institutional
innovations have been conceived and partially put in place for planning, regulation, and project implementation. Where new institutional arrangements are successfully implemented, a strategy for infrastructure development and PSP must be guided by the specific economic needs of Africa reflecting its special characteristics.

**General conclusions and recommendations.**

The decision-making process on infrastructure planning and projects needs to be more predictable. Governments should be prepared to involve the private sector in an early stage of developing infrastructure projects. Several countries in Africa are currently examining the privatization options. As governments reach the essentially political decision to follow the privatization route in a sector, multilateral and bilateral technical assistance should ensure availability of the most relevant experience from the rest of the world to countries privatization agencies. It must also be emphasised that for this change in economic policy to properly function governments need to keep peoples concerns in mind [11]. Particularly, governments should try to provide a safety net for those sections of the population who simply cannot afford the increase of prices when fees are brought in line with the real costs as the result of private sector involvement. Some of the recommendations

**Institutional Reform:** Governments should carefully review the structure, size and responsibilities of state-owned utilities and other entities in the infrastructure sectors and establish special reform units reporting directly to top level ministers to spearhead the necessary reforms.

**Strategic Planning:** Governments should maintain and strengthen their role in strategic planning of the infrastructure sectors and in the process identify where PSP should be encouraged and the level of complementary support that should be provided.

**Legal and Regulatory Framework:** The mechanism for consultation between the public and private sector and for dispute resolution between the providers and users of the network has not been fully developed in Africa. PSP without a well-developed legal and regulatory framework increases the level of risk to investors. It also encourages investors to rely on special situations and political relationships rather than their merits as a means for securing and implementing contracts.

**Unbundling and Introducing Competition:** The unbundling of the infrastructure sectors is an important technique for reducing their natural monopoly and promoting competition. Many parts of the network can support competition. Where it is not possible to create direct competition between suppliers of network services, it is often possible to create competition among providers of
complementary network services. For example, in the power sector, many countries are separating the networks into generation, transmission, distribution, and in some cases, a fourth segment responsible for retailing power to customers, with different companies responsible for each segment.

**Sources of Financing**: Direct foreign investment will remain an important source of fund for the development of the infrastructure sectors. However, it will take time to restore investor confidence and, given the experience of some Asian countries, governments will naturally seek to limit their exposure to these funds in preference to local sources of capital, if possible. The development of domestic long-term capital markets will be critical for private sector investment in infrastructure, but these markets must have much better regulation as well.

**Risk and Risk Mitigation**: Governments should build up capacity to negotiate and deal with the private sector. Commercial risks should be assigned to the private sector and other risks should be assigned to the party best able to mitigate them.

African governments have great responsibility in encouraging the private sector to take an active part in infrastructure development. In order to meet this responsibility they must build their organisational and institutional capacities at all levels of government concerned with infrastructure.
Notes

[1] South Africa Department of Foreign Affairs: *African Initiative*; (July 2001) Merger of MAP and Omega *(NOTE: This document was approved by the OAU summit on 11 July 2001)*


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Appendix 1

Modalities of Private Sector Participation

Management Contract: Management contract governs the relationship between the principal (the owners) and the management of the enterprise. It is through such contracts that operating autonomy is given to the management of the enterprise. It is also through such contracts that the incentive structure that defines the ownership-management relationship is reflected.

Leasing: Lease and operate constitutes a stronger form of private participation than management contracts. A firm pays a lease fee to operate and maintain the state-owned enterprise, while earning its income directly from tariffs. The lessee firm has no obligation to invest anew in the infrastructure. Leasing makes it necessary for the government to be committed to tariffs that cover at least operating and maintenance costs, and to give the operator adequate profit.

Investment Concessions: The private contractor has obligation not only to operate and maintain the infrastructure facility but also to build and finance investments in new facilities or expand existing ones. At the end of the contract term, the facility is returned to public ownership, when it might be re-bid.

Build-operate-Transfer: This is the most common form of investment concession. Another version of this modality is Rehabilitate-Operate-Transfer (ROT), where private sector participation entails primary rehabilitation rather than construction. A third version is Build-Own-Operate (BOO), which is similar but does not involve transfer of the assets. Build-Own-Operate and Transfer (BOOT) is a fourth version.

De-monopolization and New Entry: This involves the de-monopolization of an infrastructure market segment in whole or in part, and permits the private investors to enter the market at their own risk. New private initiatives participating through this modality may compliment the existing public provider or compete with it. Both entry strategies provide opportunities for the government and the general public to appreciate the benefits of private sector participation, thereby facilitating progress towards divestitures of the public enterprise.

Divestiture: This involves the sale to the private sector of the ownership of existing assets and the responsibility for future expansion and maintenance. This constitutes the strongest form of commitment to private sector provision of infrastructure.
Appendix 2

Mozambique Corridor Project

Introduction

The Maputo Corridor Project is the first infrastructure development programme of its size in sub-Saharan Africa. The Project has been initiated both by private and the Governments of Mozambique and South Africa for an investment of US$4.4 billion. The project will link Africa's most important manufacturing centre, Gauteng, containing half of the sub-Saharan Africa's industrial capacity with its nearest export/import port in Maputo. This link will create in turn a wide range of development opportunities for both countries which include the development of mining as well as energy resources along the corridor. This infrastructure project will require a huge investment, which will be developed along commercial lines through private capital.

Main components of the infrastructure development programme

The main components of the development programme include:

Toll road connecting Witbak and Maputo
The Build-Operate Transfer (BOT) contract for the toll road has been awarded to a private consortium. This consortium is made up of three large construction companies. There are also 18 other important companies involved in the project. The project will also utilise the services of several smaller companies that would play a significant role in ensuring the success of this public as well as private partnership infrastructure project.

In its design and financial arrangements, the single toll road is the first of its kind in the region. The road is located both in South Africa (SA) and Mozambique, but has been packaged as a single road by the two countries as a joint project.

Port of Maputo
The Port of Maputo is the main component generated by this project. With the upgrading of this Port, it will play a vital role in reducing transport-related export/import cost and ensure global competitively of products manufactured in the sub-region and thereby contributing to sustainable economic development.

The Government of Mozambique has already announced a restricted tender to sell of 51% of the joint venture companies which will be responsible for the operation, rehabilitation, maintenance and development of the port of Maputo.

Railway lines to Maputo
There are three railway lines to the port of Maputo with an impact on the Maputo Development Corridor namely the line from Swaziland; the Limpopo line from Zimbabwe and the Ressano Garcia line from South Africa. In principle, the four countries concerned would be required to enter into a joint venture with Mozambique’s CFM accounting for 33 per cent, the rail operators 16 per cent and the private sector 51 per cent. A joint venture company will rehabilitate, operate and maintain these railway lines.

**Access facility between countries**

In order to facilitate easy access as well as the flow of goods and peoples between the two countries, a single border facility has been planned at Komatipoort/ Ressano Garcia. It is envisaged that this facility will reduce cross-border bottlenecks by providing a one-stop border control procedure. The relevant ministries in South Africa and Mozambique have already met to discuss financing and other arrangements.

**Infrastructure programme opportunities**

In order to attain the maximum benefits of the Corridor at provincial and local levels, a wide range of programmes have been initiated to develop opportunities for small and medium-sized enterprises in the tourism, manufacturing and agricultural sectors.

As an example, the toll road is expected to provide a significant boost to Mozambique’s small tourism sector which has yet to capitalize on its vast natural assets and the Kruger National Park which attracts a million tourists every year.

**Sectoral Development**

A number of very large investments planned following the successful implementation of the key infrastructure components of the project. These include Alusať’s $1bn Maputo-based aluminum plant; a new multi-billion dollar hydro-electric dam on the lower Zambezi river; a R3bn fertilizer plant (in Maputo). Gencor’s is planning to develop heavy mineral sand deposits on the lower Mozambican coastline; Sappi’s has a proposed forest project south of Maputo. There is also a US-funded ecotourism project on the coast of Maputo; and proposals to link SA’s Kruger National Park with a huge transnational park in Mozambique.

The project will also trigger the development of other major infrastructure projects in the region, including the construction of new hotels and a new international airport. Plans for the first airport are underway and private sector participation will soon be invited on a Build Operate and Transfer basis.

Approximately, two thirds of the total cost of the first major project namely the toll road will be financed locally. Financial institutions will provide funds to contractors who will reimburse the debt from the cash flow arising from the toll receipts. In so doing, neither the consortium group nor the government is exposed to the risk of projected revenue falling below expectations.

The meeting that Mpumalanga was launching a multi-million rand equity fund, aimed at assisting medium and small enterprises participate in bigger projects. The fund, which will be largely private-sector funded, is also
intended to serve as a channel for the transfer of technical knowledge and skills from large corporations to emergent businesses.

A final element of the Corridor development programme calls for the upgrading of the telecommunications system, through the development of a digital microwave system, to increase trunk carrying capacity between SA and Mozambique. Additional plans to establish a cellular network are also under consideration.

**The project as a model for sub-regional and regional cooperation**

The Southern Africa Development Community (SADC). Which has also shown considerable interest in the project is convinced that it might provide a model for the development of other transport corridors in the African region. It seems that Maputo is only one of seven transport corridors in the SADC subregion, to be linked to a port for export/import. Others, such as the Beira and Malawi/Nacala corridors, may attract interest for international attention in the near future.

The next step in the near future in collaboration with SADC is to formulate a coherent strategy to develop these regional corridors. Mozambique and SA are willing to share the experience gained in the Maputo Corridor with the SADC.

Future extensions of the Corridor includes the link between Botswana, through Rustenburg as well as Walvis through the planned Trans-Kalahari highway. Southern Zimbabwe also stands to benefit, from a connection on the Tzaneen/Northern Province subcorridor route. An improved transport system between Maputo and Beira, along the Mozambican coastline, should also stimulate other development activities. According to SA Department of Transport "The way will be opened for the initial phases of the project: rail, road and port upgrades which will lay the foundations for an integrated regional infrastructure network crucial to the realization of the opportunities for economic growth and development which exist in the area."
Appendix 3

Cote d'Ivoire *

Cote d'Ivoire currently has installed electric generation capacity of 1.2 gigawatts. Approximately three-fourths of Cote d'Ivoire's installed generating capacity is hydroelectric, with the remainder being provided by thermal generating facilities. The major hydroelectric facilities are: Ayame I, Ayame II, Buyo, Grah, Kossou and Taabo. An additional hydroelectric facility at Soubre is being considered. A feasibility study for the facility, which would be constructed under the build, own, operate transfer (BOOT) scheme, was delayed by Cote d'Ivoire's political upheavals. Construction of the facility will take six to ten years.

SAUR and EDF began the joint-development of the CIPREL (Compagnie Ivoirienne de Production d'Electricite) project in 1993. CIPREL, located at Vridi near Abidjan, was one of the first independent power producer (IPP) projects undertaken in sub-Saharan Africa. CIPREL, which is gas-fired, has a current generating capacity of 210 megawatts (MW). A 100-MW section of the plant began delivering power to the national grid in 1997, and the final 110-MW section came on line in March 1998.

In June 1997, it was announced that a consortium had won a 23-year BOOT concession to build a third thermal power plant at Azito outside of Abidjan. The consortium, Azitoenergie, includes Swiss-based Asea Brown Boveri (ABB), Industrial Promotion Services (IPS) -- an affiliate of the Aga Khan Fund for Economic Development -- and EDF. The plan called for a $225-million, 420-MW facility, with operation of the first 144-MW phase beginning in early 1999. Construction of the plant began in the last quarter of 1997. The first phase of the Azito power plant was inaugurated on January 23, 1999. A second 144-MW gas turbine was scheduled to begin operations in January 2000. A steam-powered turbine and two recovery boilers, which will transform the facility into the combined-cycle format, will be added to boost the facility’s capacity to the planned 420 MW.

On February 19, 1999 the International Finance Corporation (IFC), part of the World Bank group, announced that it had entered into a 14-year, $32 million interest rate swap with the Azito project. The agreement followed the IFC’s earlier $60 million loan to the project. The Commonwealth Development Corporation (CDC) and the AfDB also provided financing for the Azito project.

CIE handles the management of the government-owned generation facilities as well as transmission and distribution of electricity in Cote d'Ivoire. SAUR and EDF are the majority owners of CIE (51% share). Other investors in CIE included the GOC (20%) and private and employee investors (29%). CIE has nearly doubled the number of its customers in the ten years following its privatization. The number of customers has increased from 400,000 (in 1991) to 750,000 (as of January 2001).

Cote d'Ivoire is a leading proponent of the development of the West African Power Pool (WAPP). The WAPP was formed by an agreement between ECOWAS Energy Ministers in November 1999. Although the formal structure and operational agreements for the pool have yet to be determined, it is envisioned that the WAPP will interconnect the power networks of all the mainland ECOWAS nations. Cote d'Ivoire is currently connected to Ghana, Togo and
Benin through one interconnection and a link to Burkina Faso is currently under construction. Additional connections to Mali and Guinea are being studied.

* DOE EIA
Case Study: Nam Theun 2

Capacity: 680 MW
Size: 50m high, 450km² reservoir
Proposed cost: US$1.5 billion
Status: Construction not yet started pending agreement with Thailand on price for electricity

Developers:
- Government of Laos (GoL) (25%)
- Nam Theun Electricity Consortium (75%)
  - Transfield (Australia)
  - Electricité de France (France)
  - Ital-Thai Development (Thailand)
  - Jasmine International (Thailand)
  - Phatra Thanakit (Thailand)

The Nam Theun 2 hydropower project is a proposal to build a 50 metre high dam on the Theun River, the fourth largest tributary of the Mekong in central Lao PDR. The dam would flood approximately 450 km² of the Nakai Plateau and divert water to the Xe Bangfai River which then flows into the Mekong about 150 km south of the Nam Theun. It is proposed that all electricity generated will be sold to earn foreign exchange for Lao PDR.

The Nam Theun 2 project is the largest infrastructure project ever embarked upon in Lao PDR - its US$1.5 billion price tag being roughly equivalent to Lao PDR’s entire 1997 GDP. It is being developed as a Build, Own, Operate, Transfer (BOOT) scheme whereby a private consortium of foreign investors - Nam Theun Electricity Consortium (NTEC) - will Build, Own, Operate and then Transfer ownership of the project to the Government of Laos (GoL) after a period of 25 years.

Transfield the leading project proponent is one of Australia’s largest construction and engineering companies and is also behind several large BOOT schemes in Australia - Melbourne's CityLink Expressway and the Sydney Harbour Tunnel. These schemes have been dogged by controversy about their economic justification as well as the transparency and accountability of decision-making. Despite this, the Australian government is a keen ally of the multilateral development banks in their promotion of BOOT projects in developing countries, seeing them as lucrative opportunities for Australian business and services.

Economic risks

Although the Nam Theun 2 project was first proposed in 1989, construction has not yet begun pending agreement between the project’s developers and the Electricity Generating Authority of Thailand (EGAT) over the price Thailand will pay for the electricity generated by the dam.
Thailand is in a very strong position in these negotiations as EGAT is the sole customer for Nam Theun 2's electricity. The Asian economic crisis has also significantly reduced projections of Thailand's future electricity demands, and EGAT has cheaper alternative electricity sources at home.

As of December 1999, it appeared that a Memorandum of Understanding between EGAT and NTEC would be signed setting the price at 4.372 US cents per kilowatt-hour (c/kWh), although the project's economic feasibility study was based on a tariff of 5.7 cents/kWh. This study's conclusion that Nam Theun 2 would yield substantial net benefits to the GoL was also based on assumptions of a stable Thai baht and low inflation - assumptions which since the 1997 economic crisis have been anything but realistic.

However, as the private developers in the project will be 'selling' their services (in procurement during construction and then operation and management) to the project, they are likely to make a comfortable profit even if returns on equity from the actual sale of electricity are negligible or non-existent. The GoL on the other hand is entirely dependent on revenue from electricity sales to recoup its investment. The financing arrangements set up by the World Bank also ensure that any revenue that is generated will go first to loan repayments to international creditors, and only then to equity holders such as the GoL.

Furthermore, in order to attract private investment to the project, the World Bank has had to provide a guarantee to private investors against 'political risk' associated with doing business in Lao PDR. Under this risk guarantee, the World Bank will compensate private investors for any losses incurred as a result of any decisions made by the GoL that affect project revenue during the full 25-year period of private sector involvement. The GoL is then forced to repay the World Bank plus a heavy fine. For example, if the GoL increased water releases from Nam Theun 2 so as to maintain electricity output at the downstream Theun-Hinboun (in which it owns a larger equity share), it would risk triggering the guarantee rendering it liable for any payment the World Bank made on its behalf, plus a heavy fine.

No parallel guarantee mechanism exists for the people or government of Laos if the promised benefits of the development do not materialise. On the contrary, not only is Laos providing the rivers and natural resources which will generate profit for private investors, but it is also carrying most of the risk and is in danger of exacerbating its already serious debt burden.

Environmental and social impacts

As well as the economic risks to the GoL, the project also has serious environmental and social implications. The Nakai Plateau is home to 28 ethnic minority groups and is an area rich in biological diversity. Inundation of the 450km2 reservoir would result in the loss of riverine and forest habitat and cause the resettlement of at least 4,500 people. Although the highly publicised Resettlement Action Plan developed by the World Bank is indeed far more comprehensive than any other such plan developed for other projects in Lao PDR, it is primarily targeted at the relocation of families directly threatened by inundation. However, construction of the dam and subsequent river diversion will have major impacts on flow regimes and fisheries both upstream and downstream of the dam and in the Xe Bangfai catchment, thus threatening the food security and livelihoods of up to 40,000 people.
Furthermore, if it turns out that resettlement catered for in the project doesn’t improve peoples’ lives in the ways promised, then any future costs and compensation (not included in the Plan) will have to be borne by GoL and/or local people. Once the deal is signed and sealed, GoL cannot seek any additional compensation or make any changes to the contract arrangements without triggering the risk guarantees mentioned above.

Since 1990, the military-run logging company BPKP has cleared more than one million cubic metres of old-growth forest on the Plateau despite continuing uncertainty about whether the project will even go ahead. The dam’s proponents now claim that the Plateau is so degraded by logging that it is not worth saving! A recent proposal backed by the World Conservation Union (IUCN) to use some of the revenue generated by the dam to create a conservation area is now being presented not just as mitigation, but as a positive environmental benefit. It is not clear what rights local indigenous peoples would have to these ‘conserved’ areas.

Sources and further reading


Notes