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Training Workshop for Developing successful Public- Private Partnerships (PPPs) for increased transport connectivity in Botswana

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PPP Models and Programme Development & Road PPPs and Case Studies

PPP Model Contracts:

There are several different types of public-private partnership contracts, depending on various aspects such as the type of project (for example, a road or an airport), level of risk transfer, investment level and the desired outcome. Some types of PPPs include:

- **Build-Own-Operate (BOO):** BOO projects can be likened to the actual privatisation of a facility because often there is no provision of transfer of ownership to the host government. At the end of a BOO concession agreement, the original agreement may be renegotiated for a further concession period.
- **Build-Operate-Transfer (BOT):** The facility is paid for by the investor but is owned by the host. The investor maintains the facility and operates during the concession period.
- **Build-Own-Operate-Transfer (BOOT):** Ownership of the facility rests with the constructor until the end of the concession period, at which point ownership and operating rights are transferred free of charge to the host government.
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PPP Models and Programme Development

PPP Model Contracts:

- **Build-Transfer-Operate (BTO):** The private sector finances a facility and, upon completion, transfers legal ownership to the public sector. The agency then leases the facility back to the private sector under a long-term lease. During the lease, the private sector operates the facility.
- **Design-Build-Finance-Operate (DBFO):** The private sector partner finances the project and is granted a long-term right of access of about 30 years. The DBFO partner is given specified service payments during the life of the project.

PPP Models and Programme Development

PPP Model Contracts:

| Public-Private Partnership (PPP) | | | | | |
|----------------------------------|-------------------------------------|---|---|---|-------------------------|
| Contract Type | Design-Build-Finance-Operate (DBFO) | Build-Transfer-Operate (BTO) | Build-Operate-Transfer (BOT) | Build-Own-Operate-Transfer (BOOT) | Build-Own-Operate (BOO) |
| Construction | Private Sector | Private Sector | Private Sector | Private Sector | Private Sector |
| Operation | Private Sector | Private Sector | Private Sector | Private Sector | Private Sector |
| Ownership | Public Sector | Private Sector during construction then Public Sector | Private Sector during Contract then Public Sector | Private Sector during Contract then Public Sector | Private Sector |
| Who pays? | Users or Offtaker | Users or Offtaker | Users or Offtaker | Users or Offtaker | Users or Offtaker |
| Who is paid? | Private Sector | Private Sector | Private Sector | Private Sector | Private Sector |

PPP Models and Programme Development

Advantages of PPPs as a source of financing project:

- Improved service quality through the use of contracts and the public partner is able to specify the level of service quality required to be offered to the public.
- May lead to higher quality and timely provision of public services.
- Lower project costs may be incurred since PPP projects usually encompass a wide range of activities – design, construction etc., all in one project rather than being separated into its different parts.
- Risk sharing in that PPP projects are often designed so that each specific risk associated with the project is borne by the partner best suited to handle this risk.
- If the public sector is unable to finance all the projects that are considered to be socio-economically beneficial then the private sector can participate in the financing of some projects, thereby ensuring earlier and quicker construction.
- PPPs are seen as an instrument that combines the relative strength of government and private provision in a way that responds to market failure but minimizes the risk of government failure. Private sector actors in PPPs can use their management skills and capacity for innovation to improve efficiency and quality standards.

PPP Models and Programme Development

Advantages of PPPs as a source of financing project:

- Efficiency gains play an important role in increasing value for money through PPPs. Governments pay a fee to the private partner for the services provided (for example, in terms of usage fees and availability payments), which the private sector uses to pay operating costs and interest charges and to repay debt and return on equity.
- PPP projects presume long-term commitment from all parties, which may create locking and reduced flexibility.
- **Challenges with PPPs**
- The agent could act contrary to its instructions because the principal's instructions are not in their interests, for example by increasing profit margins despite cost-effectiveness being in the principal's best interests (also known as moral hazard).
- The principal could select an ill-suited agent (adverse selection), which causes problems with project implementation.
- The private sector could be more experienced and have superior knowledge of terms and conditions from previous projects (knowledge asymmetry), compared to the government entity, which has limited PPP experience. This asymmetry could result in reduced access to information as the private sector's engagement in project delivery and operations grows.

PPP Models and Programme Development

Programme Development: Project Scope and Requirements

- One of the fundamental causes of project failure, for both traditional public sector procurement and PPPs, is often a lack of clarity on the part of the public authority regarding the exact scope and requirements of the project.
- If change takes place during the construction or operating phases of a PPP, this may lead to significantly higher costs for the public sector.
- What distinguishes PPPs is that the long-term contractual relationship requires the public sector to be very clear from the start about the outputs needed from the project.
- Private sector investors expect to see in PPP contracts a clear set of output requirements, associated standards, and the terms by which they can expect to be paid. They want to understand from an early stage the risks they will be asked to assume.

PPP Models and Programme Development

Programme Development: Can the Project be delivered as a PPP?

Once the scope and requirements of the project have been broadly identified, is it feasible for the project to be delivered under a PPP structure? Three key questions have to be answered:

- Who will pay for the project and how (Affordability)?
- What are the risks inherent in the project, and how should these be dealt with (Risk Allocation)?
and
- Will the resulting project be able to raise the required debt financing (Bankability) and attract contractors and other equity investors?

At this stage the public sector normally brings in an Advisor.

PPP Models and Programme Development

Programme Development: Affordability

- Affordability examines the level and structure of the project's overall revenue requirements in relation to the capacity of users or the public authority to pay for the infrastructure service..
- For this purpose a project Financial Model is developed using the best estimates of capital, operating, and maintenance costs, appropriate cost escalation indexes, and assumed financing structure and terms; this model projects the cash flow over the proposed term of the PPP contract. Development of the model is one of the main roles of the Transaction Advisors.
- Once the expected revenue requirements for the project have been established, for concession PPPs the capacity and willingness of users to pay for the infrastructure service then needs to be assessed. For availability-based PPPs, where the public authority, not the user, makes the payments over the period of the long-term contract, assessment of affordability is one of the most important aspects in considering deliverability of the project. examined.

PPP Models and Programme Development

Programme Development: Risk Identification and Allocation

- **Risk Identification** -Identifying risk includes determining all the risks relevant to the project, possibly breaking this down over the various phases of the project (for example, construction, commissioning, early operation. A “risk register” can be used to record all risks and to serve as a checklist throughout the life of the project. The Transaction Advisors can play an important role in this process.
- **Risk Allocation**-This involves allocating or sharing the responsibility for dealing with the consequences of each risk between the parties. The principle is to allocate the risk to the party best able to control its occurrence and consequences as well as to the party in the best position to assess information about the likelihood of the risk within the context of what is likely to be commercially acceptable to the private sector.
- There are only three parties to whom the risks can be allocated: **users, investors (the private sector), and taxpayers** (through the government). Risk associated with design, technology, construction, and operation are typically allocated to the private sector, which is usually more efficient at controlling and managing them. Other risks may be better managed by the public sector, such as regulatory, environmental, and foreign exchange risks, or may be shared, such as demand or change-of-law risks;

PPP Models and Programme Development

Programme Development: Risk Identification and Allocation

- **Risk Mitigation**-It is important to reduce the likelihood of risks and their consequences for the risk taker. A change in project scope can sometimes reduce risk.
- **Risk Monitoring and Review-Risk** management is an ongoing process that continues throughout the life of the project. Existing risks need to be monitored and new risks identified as the project develops and the environment changes. The Contract Management Team will normally update the Risk Management Plan, which is linked to the risk register, regularly throughout the life of the project.



PPP Models and Programme Development

Programme Development: Bankability

- The majority of third-party funding for PPP projects normally consists of long-term debt finance, which typically varies from 70 percent to as much as 90 percent of the total funding requirement (for example, in a PFI-model PPP), depending on the perceived risks of the project. Debt is a cheaper source of funding than equity, as it carries relatively less risk. Lending to PPP projects (usually referred to as project financing or limited-recourse financing) looks to the cash flow of the project as the principal source of security.
- The currency of the project's cash flow must match the currency of the debt service, or the risk of any mismatch must be credibly covered either through hedging or by government taking the risk. As these options are either difficult or very expensive to obtain for long-term debt in many African markets, one of the early considerations in assessing bankability is the availability of long-term funding that matches the currency of the project revenue.
- The tenure of the debt also has an impact on the affordability of the project: longer-term debt implies lower annual capital repayments and therefore lower annual costs.
- Apart from the debt, the balance of funding consists of equity, usually made available by the main contractors or by third-party financial investors. The return on equity also depends on the performance of the project after construction and operating costs.

PPP Models and Programme Development

Programme Development: Initial Market Assessment

- At this stage, a reasonably well-developed picture of the project's scope and its output, construction, operating, and funding requirements should be available.
- Projects that are unlikely to be affordable or whose funding requirements are clearly outside the scope of what may be available, can be eliminated quickly.
- Provided that the public authority can provide a reasonably coherent picture of the intended scope and requirements of the project, it is well placed to initiate a constructive dialogue with the private sector—investors, lenders, and subcontractors—on the feasibility of the project's scope and to establish the potential number of suppliers in the market.

Road PPP Case Studies: Kazungula Bridge

Kazungula Bridge Project: Botswana & Zambia

- The North-South Corridor (NSC) is a key trade route in Africa. It is approximately 2,800km long stretching from the mining region of Lubumbashi in the Democratic Republic of the Congo (DRC) to the port city of Durban in South Africa. Along the way it passes through the Copperbelt (Zambia's industrial heartland) and Gaborone, the capital of Botswana. With spill over effects, the corridor further integrates Namibia, Zimbabwe, Lesotho and Eswatini.
- The NSC is primarily road-based and the Kazungula crossing point at the Zambezi River at a confluence between Zambia, Botswana, Zimbabwe and Namibia was a critical bottleneck that prevented the efficient flow of goods due to the lack of a bridge across the river(a ferry was being used instead).
- The development of a Bridge at the crossing was an opportunity to increase the capacity and speed of transit and also introduce an alternative mobility mode: railway transportation.
- The Kazungula Bridge Project (KBP) is a multi-national project on the NSC within the Southern African Development Community (SADC) region and part of a corridor-long infrastructure improvement programme. The project was identified as a key project under SADC's Regional Development Plan and was spearheaded by the governments of Botswana and Zambia.

Kazungula Bridge Project: Botswana & Zambia



Kazungula Bridge

- The project scope includes a bridge linking Botswana and Zambia over the Zambezi River to replace the existing ferry and juxtaposed one-stop border facilities at Kazungula.
- The project's development objective is to improve the efficiency of transit traffic through the Kazungula border to facilitate and increase trade activities and global competitiveness of Zambia and Botswana; improve regional connectivity of the NSC; and contribute to economic regional integration within the SADC region.
- The project's stated outcomes include:
 - (i) reduced border transit time;
 - (ii) improved procedures on trade facilitation;
 - (iii) improved border management operations, and consequently
 - (iv) increased traffic throughput and
 - (v) reduced time-based transport and trade cost (African Development Fund (ADF), 2011).

Kazungula Bridge

The Bridge:

- It is a 925m long, 18.5m wide viaduct across the Zambezi River;
- Design type: extradosed cable stayed bridge;
- Longest span: 129m;
- Number of road lanes: 2;
- Railway tracks: 1, narrow gauge 1.067m;
- US\$260 million capital cost;
- Main contractor Daewoo of South Korea; and
- One-stop border crossing facility located on the Zambian side.

Kazungula Bridge



Kazungula Bridge

Financing the Project:

The implementation of KBP is divided into three contract packages namely:

- Package one: bridge and approach Ramps;
- Package two: one stop border post (OSBP) facilities Botswana side and approach road; and
- Package three: one stop border Post (OSBP) facilities Zambia side and approach road.

The estimated total project cost is USD 259.3 million funded through a co-financing arrangement between the African Development Fund (ADF) and JICA. The African Development Bank (through ADF) covers 31.5% of the total project cost. The balance is shared between JICA (57.5%), Governments of Botswana and Zambia (9.2%) and EU-ITF Grant (1.8%) (ADF Project Appraisal, 2011). The project implementation period is five (5) years.

The loans from AfDB and JICA are zero interest, with a tenure period of 50 years inclusive of a 10 -year grace period (ADF, 2011). The executing agency for the project is a combination of the Zambian and Botswana road authorities.

Kazungula Bridge

| Organisation | Percentage of project funding provided |
|----------------------|--|
| JICA | ▪ 57.5% |
| ADF | ▪ 31.5% |
| Zambian Government | ▪ 5.2% |
| Botswanan Government | ▪ 4.0% |
| ITF Grant | ▪ 1.8% |

Kazungula Bridge

Governance:

Once operational, the bridge will be managed by the Kazungula Bridge Authority, which will be set-up using the European Union Infrastructure Trust Fund (EU-ITF) grant. In effect, the project will be run similar to other trans-boundary projects such as the Zambezi River Authority, a body corporate enacted by parallel legislation in the Parliaments of Zambia and Zimbabwe.

Economic Sustainability:

Evaluation of economic sustainability was based on the economic internal rate of return (EIRR) and the net present value (NPV) of toll revenue. With an assumed opportunity cost in Zambia of 12%, the base case of the project yielded an EIRR of 23% and a benefit-cost ratio of 2.34. Even with an increase in costs of 20% and reduction in benefits of 20%, an EIRR of 17.5% and benefit-cost ratio of 1.56 provided a convincing case for financing the project (ADF, 2011). The cost of operating the bridge (OPEX) was intended to be covered by the toll revenue. A conservative assumption of 2.5% annual growth in traffic and 5% annual growth in OPEX were assumed and found to be covered by projected toll revenue (ADF, 2011).

Kazungula Bridge

Challenges:

Boundary Dispute

A boundary dispute ensued among the partner countries. Botswana and Zambia had originally intended to work with Zimbabwe on the project. However, Zimbabwe later pulled out of the project as a result of some dispute at the time about the country's boundary. Zambia and Botswana decided to go ahead with the project but Zimbabwe refused passage of the bridge through her territory. The Bridge, which was supposed to be 600 metres long, had to undergo design alterations and have its belly stretch away from Zimbabwe and curve into Zambia. The changes to the bridge design saw it stretching to 923 metres.

Tender Dispute:

The KBP also experienced a delay in its development due to a tender dispute. The disputed contract was for the Bridge construction only, but was sorted out after further discussions.



Kasomeno Mwenda Toll Road: DR Congo & Zambia

Kasomeno Mwenda Toll Road

Background:

- The Kasomeno-Mwenda Toll Road and associated One Stop Border Posts are located in the Democratic Republic of Congo (DRC) and Zambia.
- The project is currently undergoing its development cycle which has included the preparation of a pre-feasibility study (2017-2019), full feasibility bankable study (2019-2020) and fund raising (2020).
- Implementation of the project is expected to commence in April 2021 through a PPP regime with a 25-year concession given to the private sector after which the road and ancillary infrastructure will revert to the governments of DRC and Zambia.
- The project preparation studies were funded by the Development Bank of Southern Africa (DBSA) (Athari Advisory Group, 2020). The winning Concessioner and financier is Groupe Europeen de Development Africa (GED Africa) together with another equity investor from Hungary, Duna Aszfalt Investments (Athari Advisory Group, 2020).

Kasomeno Mwenda Toll Road



Kasomeno Mwenda Toll Road

Key Elements:

- 182 km of new single carriageway road – around 96km of the road is situated in the DRC and 86 km in Zambia;
- Construction of a 345 metres cable-stayed bridge across the River Luapula;
- Construction of one-stop border posts on each side of the River Bridge with associated parking and warehousing facilities;
- Construction of toll plazas on both sides of the bridge;
- Construction of four satellite toll plazas; and
- Provision of an access road to the proposed airport at Kasenga.

Scheme Costs:

- The preliminary Capital Cost (CAPEX) and Operating Cost (OPEX) cost estimates for the baseline solution were USD 770 million and USD 970 million, respectively.
- The preliminary CAPEX and OPEX cost estimates for the Potential Southern Route – Option 1 are USD 541 million and USD 1,001 million, respectively.
- The preferred option was (2) for the potential southern Route with a total CAPEX and OPEX of US\$1,541 million.

Kasomeno Mwenda Toll Road

Challenges:

- **Project Preparation-** being a bilateral project (DR Congo and Zambia) meant that concessions for the Toll Road had to be negotiated for each country and this delayed project commencement by almost two years. In addition the Feasibility Studies took a while to prepare due to the flooding in Democratic Republic of Congo in the Kasenga area making accessibility impossible for the study team for about 3.5 months. Traffic and Hydrological Surveys had to be put on hold.
- **Resettlement** Issues-the project scoping had greatly underestimated the impact of the road on village settlements. When the Environmental and Social Impact Assessment was carried out it revealed that at least 35 families would be to be resettled in the DR Congo area. A land resettlement plan for the affected persons was then drawn up in mitigation.

Kasomeno Mwenda Toll Road

Key Take Aways:

- Project preparation was funded by Development Bank of Southern Africa which is a South African government owned bank with regional interests within SADC. Members of SADC – a number of which are also LLDCs - can take advantage of the bank.
- Road Pricing is proving to be a sustainable way of funding road infrastructure in Africa and a good way of attracting the private sector as development partners.

Case Study: New Limpopo Bridge between Zimbabwe and South Africa

- Beitbridge border post in Zimbabwe is located across the Limpopo River from Messina border post in South Africa.
- One of the busiest ports of entry in Southern Africa-in 2016, an average of 8,000 travellers were accessing the border per day increasing to around 20,000 during peak periods.
- A bridge was first constructed across the Limpopo River at the beginning of the 20th century.
- The shareholders of a company called New Limpopo Bridge (PVT) Limited (NLB) identified the potential in building a new bridge over the Limpopo. The governments of Zimbabwe and South Africa welcomed the initiative.
- The New Limpopo Bridge (NLB) project was one of the first Build Operate Transfer (BOT) projects in Africa.
- 20 year concession agreement with the Governments of Zimbabwe and South Africa .
- NLB Ltd provided funding and built the bridge over 13 months.
- The bridge provides an essential link with strategic importance. It promotes trade and development primarily between Zimbabwe and South Africa but also facilitates trade between South Africa and other LLDCs namely Zambia and Malawi, and other developing countries such as Democratic Republic of Congo (DRC) and Tanzania.

Case Study: New Limpopo Bridge between Zimbabwe and South Africa

- Since its commencement, the new bridge has operated successfully. As of 2016, a total of 10 million vehicles had also passed through Beitbridge border post since 1994.
- The border post also employs local workforce and is one of the most important employers in Beitbridge.
- Shareholders in the project included an Israeli consortium who were the main developers, Old Mutual, NedBank and Sanlam Bank.
- The project became the first Southern Africa Public-Private Partnership to reach the BOT transfer stage and is now under the ownership of the Zimbabwean Government after the BOT agreement expired in mid-2014. It was transferred at no cost to the Government.

Case Study: New Limpopo Bridge between Zimbabwe and South Africa

Key Lessons:

- Bridges, owing to their natural monopoly of sorts (they are usually the only permanent crossing over a river), have good potential to attract private sector investment.
- Beitbridge border post is one of the busiest border posts in Africa. The traffic across the bridge was a key factor in making this project bankable. Project proponents should look for similar opportunities where traffic is high.
- Owing to the existence of the old bridge, it was also easier to accurately forecast future traffic volume and revenues i.e. traffic and revenues were predictable. This supports the common adage that private sector are more attracted to brownfield projects (even though the bridge was completely new infrastructure, the old bridge provided a basis for analysis).
- PPPs, if structured right work properly and the recipient governments will retain the infrastructure and toll revenues on expiry of the concession.

Case Study: N4 Toll Road from South Africa to Mozambique

- The N4 Toll Route is a brownfield toll road concession of 630 km running from Pretoria, South Africa's administrative capital, to Maputo, the capital of Mozambique and a deep-sea port on the Indian Ocean. This is a PPP project.
- 1996 - governments of South Africa and Mozambique signed a 30-year concession for a private consortium, Trans African Concessions (TRAC), to build and operate the N4 toll road from Witbank, South Africa to Maputo, Mozambique.
- After the 30-year period, control and management of the road reverts to the governments.
- Concession project value: ZAR 3 Billion (1996 prices).
- Project was financed from 20% equity and 80% debt. The three construction companies who are the sponsors of the project contributed R331 million worth of equity with the rest of the capital provided by the SA Infrastructure Fund; Rand Merchant Bank Asset Management and five other investors. The debt investors include South Africa's four major banks: ABSA, Nedbank, Standard Bank and First National Bank; the Development Bank of Southern Africa; and the Mine Employees and Officials Pension Funds.

Case Study: N4 Toll Road from South Africa to Mozambique

The Project:

Initially the project involved the upgrading and rehabilitation of 390km of existing road between Balmoral (20km west of Witbank) and Moamba (proximity of RSA/Mozambique border) and a further 50km long road between Moamba and Maputo. The project was later extended to include the N4 road sections between Witbank and Pretoria, a total of 630km. The road is partly 4-lane separated carriageways and partly 2-lanes with widening to accommodate large hauling vehicles. A one-stop border facility was developed at Komatiport/ Ressano Garcia in order to reduce cross-border bottlenecks between the two countries.

Key Lessons

- The commercial risk was shared between a range of partners. Cross-subsidisation (from the more affluent South African users) and substantial discounts for regular Mozambican users helped to reduce the user payment risk.
- The risk associated with the financing of the project was borne entirely by the TRAC consortium (no government subsidies were allocated), although the two governments guaranteed the debt.
- The road facilitated further private sector investment in Mozambique, which in turn raised traffic volumes.

Case Study: N4 Toll Road from South Africa to Mozambique

- The N4 toll road showed the viability of PPPs in the road sector where the users are willing and able to pay. The N4 has successfully reduced overloading of heavy vehicles, a major cause of road deterioration. It has also facilitated the growth of tourism in the region as well as other sectoral investments in Mozambique such as the Mozal aluminium smelter and the natural gas plants at Pande and Temane.
- Recognition by African countries to promote self-reliance in view of enhancing economic development via a major transportation project.
- The project stems out of a political will for economic cooperation between neighbouring countries South Africa and Mozambique but which also has wider ramifications for other regional SADC countries.
- Some criticism levelled by the general public to the South African government regarding the massive investment in such a transport project included the fact that the project is likely to benefit big business and not much the poor. The governments of both countries indicated that mega projects such as Mozal Aluminum smelter near Maputo or the Pende gas extraction project are likely to benefit the economies of both countries and that in return is going to benefit the citizens.

Case Study: N4 Toll Road from South Africa to Mozambique

- Complaints by commuters and other normal users, to the effect that a road that was previously free of charge becomes a toll road after upgrading. This subject was addressed by introducing much lower toll fees for these categories of road users.

Case Study: Dakar-Diamniadio Toll Road, Senegal

Background

- In 2007 the Public-Private Infrastructure Advisory Facility (PPIAF) approved a \$250,200 grant to help establish the institutional and regulatory framework for the transport sector in Senegal.
- The PPIAF grant supported technical assistance to the National Agency for the Promotion of Investments (APIX) to consolidate the institutional framework and develop contractual arrangements for the Dakar–Diamniadio Toll Highway project.

Project Expectations:

- Highway was to reinforce the Dakar metropolitan area as the driver of Senegal's economic development;
- Help expand this densely populated capital city and integrate it with the rest of the country and sub-region, directly benefiting its people, businesses, and economy.; and
- To reduce congestion and travel time by more than half.

Case Study: Dakar-Diamniadio Toll Road, Senegal

The Dakar–Diamniadio Toll road project exemplifies PPIAF’s strategy to encourage public-private partnerships for developing priority infrastructure projects in Sub-Saharan Africa. PPIAF support was focused on five areas:

- Designing and proposing a framework for the oversight of the highway project that reflects the context and institutional characteristics of Senegal.
- Helping to build consensus on the option or models preferred by the government through seminars for specific stakeholder groups.
- Recommending an operational organization for the administrative entity responsible for the oversight of the highway concession.
- Providing tailored technical assistance for that entity’s efforts in building technical and operational capacity.
- Contributing to a broader review of the institutional management of public-private partnerships in Senegal under the direction of APIX.

The PPP component of the road consisted of the 20.4 km Pikine–Diamniadio section. This road segment was concessioned to Société Eiffage de la Nouvelle Autoroute Concédée (“SENAC”), a Senegalese special purpose company created to implement the project, owned by the Eiffage Group.

Case Study: Dakar-Diamniadio Toll Road, Senegal

- The concession contract between the government of Senegal and SENAC was signed on July 2, 2009; it required the concessionaire to build, finance, operate and maintain the Pikine–Diamniadio segment for 30 years, and to operate and maintain other existing road segments for the same period of time.
- The PPP road segment in the amount of €225 million was financed as follows: €95 million, representing 42% of total project costs, with equity from the sponsors and debt from international financial institutions, and the remaining €130 million, representing 58% of total project costs, was financed with public sector funds, consisting of loans from: AfDB in the amount of €50 million, AFD in the amount of €25 million, and government of Senegal in the amount of €55 million.
- The Public sector component of the road consists of the 20.4 km road segment Pikine-Patte d'Oie. This component in the amount of €223 million was financed as follows: funds from the government of Senegal in the amount of €120 million and loans from the World Bank IDA in the amount of €70 and from AFD in the amount of



Case Study: Dakar-Diamniadio Toll Road, Senegal

Key Lessons

1. Political commitment. The Government of Senegal set the project as a priority. The first driver on the road was the President – who paid the toll. But commitment alone isn't enough; it needs to be turned into action by government agencies. An intra-agency coordinating committee was set up. The National Agency for the Promotion of Investments (APIX) oversaw the preparation of the concession. The Public Private Infrastructure Advisory Facility (PPIAF) supported APIX with technical assistance, including the design of a framework for the oversight of the project.

2. Toll plaza along the road. Consensus-building and stakeholder engagement. Part of PPIAF's US\$250,000 grant to the Government of Senegal helped to pay for seminars with stakeholder groups to discuss structuring options for the road and socio-economic drivers of the willingness to pay. The final structure chosen involved a relatively low toll, with an upfront contribution by the government to the cost, with the concessionaire taking full construction, operating and traffic risk. The combination of careful outreach to stakeholders, a fairly low toll, significant time savings and a well-maintained road meant that the first toll road in the country was accepted by the population. In addition, the fact that there is a free alternative road helped the Government and other stakeholders point out that motorists could always choose to use the other route.

3. Experienced concessionaire with strong commitment to Senegal. The concessionaire, the Eiffage Group is one of Europe's leading construction and toll road operating

Case Study: Dakar-Diamniadio Toll Road, Senegal

- **4.Strong involvement of development institutions in both public and private financing.** The public sector component, financed by the Government of Senegal, the African Development Bank, the Agence Francaise de Developpement and the World Bank, covered right-of-way clearance, urban restructuring and re-settlement of households – up to 30,000 people – affected by the road. On the private side, IFC served as the lead arranger and global coordinator for this landmark €230 million toll road project, committing €22.5 million in long-term debt facilities. In all, the total private equity and debt raised by the concessionaire amounted to €100 million. The amount of the debt financing package was €65 million, of which €45 million was mobilized from the Western African Development Bank (BOAD), the African Development Bank and CBAO, one of the main Senegalese commercial banks.
- **5.Clear, visible benefits.** Commuters are saving three hours a day. The road is safer and the quality of the ride is higher. There is economic development sprouting all around the road. Small farmer businesses have been developed with women associations alongside the road. For those who do not wish to use the new highway, the previous road remains as a free – and now more fluid – alternative.

