

# Assessment of Project Preparation Facilities for Africa

Appendixes

November 2012



*Submitted by*  
Cambridge Economic Policy Associates Ltd

*in association with*  
Nodalis Conseil

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Appendixes



The Infrastructure Consortium for Africa  
Le Consortium pour les infrastructures en Afrique

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This assessment forms part of the Infrastructure Action Plan prepared by the Multilateral Development Bank Working Group on Infrastructure for the G20. It also responds directly to the G20 High Level Panel on Infrastructure (October 2011), which recommended that “the size and range of project preparation facilities should be reviewed, with the view to restructuring them on a more sustainable basis including the provision of additional resources if needed. Greater emphasis should also be placed on the ability to recover the costs of project preparation. This would allow grants and public funding to be used more selectively and effectively.”

## Data

The assessment was prepared from April to November 2012 and reflects the data available at the time of the work.

## Authors

This is an independent assessment prepared and led by Cambridge Economic Policy Associates (CEPA), a London-based economic and finance advisory firm ([www.cepa.co.uk](http://www.cepa.co.uk)), in association with Nodalys Conseil, a French consultancy firm specialising in the development and management of infrastructure, utilities and public services ([www.nodalys.fr](http://www.nodalys.fr)).

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# Appendix **A** Data Collection





CEPA distributed questionnaires to facilities on 18 June 2012, requesting return by 6 July 2012. After that date, a window of a further three weeks was allowed; however, despite intensive follow-up and tracking, responses from all those facilities willing to respond were not received until 24 August 2012. Some key issues arose as a part of the data collection process:

- A number of facilities were unable to complete Part B due to the fact that they had not yet provided support to any projects.
- Some facilities, due to time constraints, were only able to provide information sources, from which

we developed responses to the questionnaire. While this ensured we had the basic data needed, these numbers have not been confirmed by the facility.

- A number of facilities responded, clarifying that the majority of their work was relevant to our project, which led us to re-evaluate our assessment of its value to our analysis.

Table A.1 summarises the status of the returns received for the original list of 30 facilities presented at the ICA AGM in Tunis in June 2012. And Table A.2 summarises the facilities dropped from the original list.

TABLE A.1

FINAL SHORTLIST OF FACILITIES

FACILITY	CONTACT	INFORMATION PROVIDED
AFD DBSA Infrastructure Project Preparation Feasibility Studies	Rosemary Mangope	Completed full questionnaire
African Water Facility	Katia Theriault	Completed full questionnaire
Arab Financing Facility for Infrastructure	Muneer Ferozie	Provided information for Part A; unable to complete Part B as no projects supported
DBSA & EIB Project Development & Support Facility	Rosemary Mangope	Completed Part A; unable to complete Part B as no projects supported
DevCo	Laurence Carter	Provided information for Part A; unavailable to complete Part B due to other commitments
ECOWAS Project Preparation and Development Unit	Olumuyiwa Shokunbi	Provided information for Part A via telephone
ESMAP	Rohit Khanna	Provided completed questionnaire
EU-Africa Infrastructure Trust Fund	Yves de Rosée	Completed full questionnaire
Facility for African Private Sector Assistance	Peter Ide	Provided information for Part A; unavailable to complete Part B due to other commitments
InfraCo Africa	Lauren Ryder	Completed Part A
InfraVentures	Alain Ebobisse	Provided information for Part A; unavailable to complete Part B due to other commitments
NEPAD Infrastructure Project Preparation Facility	Bamory Traore	Completed full questionnaire
PIDG TAF	James Leighland	Completed full questionnaire
Project Preparation Implementation Unit	Amos Marawa	Completed full questionnaire, but implementation started in 2011 so information limited
Public-Private Infrastructure Advisory Facility	Adriana de Aguinaga	Completed full questionnaire
SADC PPDF	Angelo Mondlane	Completed Part A; unable to complete Part B as no projects supported
USAID African Infrastructure Program	Jeffrey Humber	Interviewed; unable to complete questionnaire due to other commitments

TABLE A.2

FACILITIES DROPPED FROM SHORTLIST

FACILITY	CONTACT	STATUS / REASON FOR EXCLUSION
Policy & HR Development Fund TA Grant Programme	Closed facility	N/A
African Development Fund Project Preparation Facility	Leonce Yapo	Provided information for Part A, but felt facility not relevant as small and not focussed on infrastructure
DBSA Development Fund	Rosemary Mangope	Provided completed Part A but facility appears South Africa-focussed
Islamic Development Bank Technical Assistance Facility	No contact found	No information available
Globeleq	Paul Kunert	Few recent development projects
Access to Energy Fund	Peters Koen	Noted AEF not relevant to our study as is investment fund with no specific TA resources
Nigerian Infrastructure Advisory Facility	David Storer	Noted NIAF not relevant to our study – programme of advisors based within line ministries
Africa-European Union Energy Partnership	Peter Cattelaens	Noted AEEP not relevant to our study. Yet to receive funding for project preparation
PPP Unit South Africa	Will Bautista	Unavailable to complete questionnaire
IFC Advisory Services	Laurence Carter	Not relevant as a PPF
EuropeAid	Kristina Ottou	Not relevant – EuropeAid an EC Directorate
PPP Central Unit Egypt	Noha Ragab	Not relevant as PPF as does not appear to have ring-fenced budget of more than US\$5m
PPP Unit Mauritius	Visuanaden Soondram	Not relevant as PPF as does not appear to have ring-fenced budget of more than US\$5m

# Appendix **B** Comparator Regions

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This section provides case studies of a number of project preparation facilities and methods in different regions of the world. Some key lessons of this section are the following:

- Pooling of PPF resources was recommended in the MDB Action Plan. Pooling is a feature of Joint Assistance to Support Projects in Eastern Europe (JASPERS) and the Western Balkans Investment Framework Infrastructure Project Facility (WBIF-IPF). The facilities are tied to a group of European public sector financiers, who provide both financing and in-kind contributions.
- The BNDES and Inter-American Development Bank facilities as well as the India Infrastructure

Project Development Fund (IIPDF) offer examples of PPFs, which are more focussed on PPPs and include a revolving fund concept, offering incentives to the governments to engage in making the projects successful. The Estruturadora Brasileira de Projetos (EBP) facility aimed to be self-sustaining over three years.

- The case study of infrastructure development in Malaysia provided in Section B.4 demonstrates the benefits and risks of allowing more private sector-initiated projects to be taken forward by PPFs. Malaysia has one of the best infrastructure systems in South-East Asia as a result of its open policy.

## B.1 Asia

### B.1.1 India Infrastructure Project Development Fund (IIPDF)

In 2007 the Indian federal government set up IIPDF as a revolving fund to support project development, with the Ministry of Finance providing an initial capital to the IIPDF of Rs. 100 Crore (approximately US\$18m).

The IIPDF will support a Sponsoring Authority (SA) to cover the costs of project preparation for a specific project, from the Feasibility / Structuring phase. The IIPDF does not provide grants, but will provide interest-free loans to the SA, up to the value of 75% of the project development costs. On the successful completion of the bidding process, the project development expenditure is recovered from the successful bidder, along with a success fee. Three main types of projects are funded by the IIPDF, which generate different levels of success fee:

- Revenue-generating commercial projects: commercial projects undertaken by the private sector are charged a success fee of 40%.
- Efficiency enhancement projects: where there is low private sector investment, or none at all, the IIPDF charges a success fee of 25%.
- Non-revenue-generating projects with high economic returns: in this case, IIPDF funding is repaid by the government without any success fee.

### B.1.2 Project Preparation Technical Assistance Facility (PPTAF), Vietnam

This initiative was set up for five years in 2010, to improve the disbursements schedule and quality of projects under existing World Bank operations. It covers areas such as feasibility and detailed design and procurement, and concentrates on smaller scale infrastructure; but it can fund projects requiring up to US\$20m in project preparation. As well as pure project preparation there is a small institutional capacity component; the sectors covered include traditional productive infrastructure plus health, education and agriculture/fisheries. The PPTAF is financed via an IDA credit of US\$100m plus US\$3m in counterpart funds. It is task-managed by the World Bank with use of local and international consultants.

PPTAF is seen as a flexible but fast-track way of replacing traditional individual project preparation advances. The pipeline is reported at US\$40m, but no specific results are yet available.

### **B.1.3 Association of Southeast Asian Nations (ASEAN) Infrastructure Fund (AIF)**

This fund is described as an innovative regional financing and integration initiative involving Asian Development Bank (AsDB) and ASEAN Member States. Authorised by the AsDB Board in May 2012, this is a pooled resource initiative to try to improve regional matching of savings with infrastructure investment. The aim is to co-finance, with AsDB and individual ASEAN countries, via a fund with AsDB contributing US\$150m, Malaysia US\$150m and Indonesia US\$120m. Using AsDB project preparation, the AIF will initially finance the public sector portion of PPP projects to crowd in private flows. This builds on the 2008 Asian Financing Initiative, supported by about US\$4.6bn from the AsDB and the Republic of Korea.

The AIF plans to complete financing for six projects in 2012–2013, of which two will be regional. Annual lending is expected to ramp up from US\$300m in 2012 to around US\$440m by 2016. Once established, the equity is expected to be leveraged via use of hybrid capital. The AsDB will act as lender of record and administer the AIF. The investment criteria limit exposure to 30% by country and 40% by sector, subject to an overall maximum of US\$75m. The start-up phase will emphasise sovereign operations with long tenors. The AIF does not appear to have any specialised project preparation facility, but the AsDB's ASEAN infrastructure pipeline was reported at US\$10bn for 2010–2012.

### **B.1.4 Pacific Infrastructure Advisory Center (PIAC)**

For national public sector project preparation the AsDB often advances grants that call for project or programme technical assistance (PPTA); it also has sector, thematic and country trust funds. A recently approved (May 2012) regional example is PIAC. This is a multi-donor (AsDB, AusAID, NZAid and World Bank) US\$3.8m partnership, which covers policy and analytical advice, technical assistance and project preparation plus co-ordination.

### **B.1.5 Asian Development Bank potential PPF**

The AsDB has historically used TAF grants or country-based donor facilities to finance infrastructure project preparation. The April 2012 AsDB Operational Plan supports establishment of a PPF / fund to address the lack of properly structured PPPs; it would be quick-disbursing and cover sovereign and non-sovereign operations. No other data are currently available.

## B.2 Latin America and Caribbean (LAC)

### B.2.1 Inter-American Development Bank (IDB) facilities

The IDB website lists the Project Preparation Facility (PPF), which provides up to US\$1.5m in complementary financing to finalise projects for the IDB pipeline; plus the Project Preparation and Execution Facility (PROPEF), which will provide up to US\$5m for a wider range of uses. The PPF aims to improve the quality at entry and help avoid delays. No volume or disbursement information is in the public domain.

In addition to the above is the InfraFund; this is for public, private or mixed capital entities across all infrastructure sectors. Areas include pre-feasibility, feasibility, design, bidding and structuring. It is meant to be fast-disbursing, with cost recovery if the project is not financed by the IDB. The criteria for access to InfraFund include the following:

- high probability of financial closure;
- mobilisation of private finance;
- climate adaptation;
- subnational focus; and
- location in a fragile or high-risk country.

The activities are non-reimbursable if financed by the IDB or preparation for non-sovereign operations. The facility was initially funded via a US\$20m IDB grant, effectively from net income, and it is administered by the IDB. It is typically replenished every three years; to date it has committed some US\$40m in a variety of project preparation activities. The maximum grant allocation is US\$1.5m but most grants are in the range of US\$0.7m to US\$1.0m.

The Fund for Integration Infrastructure (FIRII) was initiated in 2005 and is also non-reimbursable. It deals with regional infrastructure project preparation and is therefore the most closely aligned with NEPAD-IPPF. IDB's definition of regional projects differs from that of the World Bank IDA: it is driven by impact and defined within a corridor or network. FIRII had a US\$20m IDB start-up grant contribution from IDB net income, but this appears to have been increased to US\$40m in a 2010 replenishment. The maximum FIRII project size is again US\$1.5m.

Since 2008, IDB also has had AquaFund, which is multi-donor and provides grants for a wide range of

TA, capacity building and project preparation only in the water and sanitation sector. To date it has spent US\$11m on 20 projects with an investment value of US\$1bn; most if not all would be public metropolitan or community-level projects.

Another IDB initiative is the Sustainable Energy and Climate Change Initiative (SECCI), started in 2009 with four themes: RE and EE, biofuels, climate adaptation and access to carbon markets. It covers all infrastructure sectors and environments. It is multi-donor and gives grants.

The current IDB infrastructure project preparation portfolio of four funds has a capacity of around US\$60m: AquaFund, US\$20m; FIRII, US\$10m; InfraFund, US\$11.5m; and SECCI, US\$21m. By the end of 2012 / 2013, about US\$10m will have been allocated to new projects.

The IDB proactively manages PPFs plus about 55 trust funds as well as its own resources. Use of internal IDB project preparation advances to investment operations has declined with the rise of facilities like InfraFund and the increase in trust funds, particularly since 2005.

### B.2.2 Estruturadora Brasileira de Projetos (EBP)

The Brazilian Development Bank, BNDES, launched EBP in 2008 as a joint venture with eight commercial banks. It aims to structure and develop bankable infrastructure projects through concessions or PPPs. EBP has US\$50m in share capital, equally provided by the nine banks. Its costs are reimbursed by the winners of concessions, but if the public administrator does not approve a project, the costs are borne by EBP. When the facility was set up, it was expected to be self-sustaining within three years.

EBP provides project structuring services, assures study and modelling compliance with government standards and assists public administration throughout the bidding stages. EBP supports projects with investments ranging from approximately US\$250m to US\$1bn and contracts that can be signed in two years.

From the EBP website, five studies have already been completed for airports, sewage, stadium, bus and hospital projects, with the airport and hospital projects already closed. Seven further projects are currently under way.

### B.2.3 Other BNDES facilities

There is a Brazil initiative with IFC / BNDES / InfraFund; the commitment of US\$1m / US\$1.9m / US\$1m each is designed to avoid the local legal requirement to choose the lowest bidder for advisors. Managed by the IFC, it has closed five PPP deals with a similar number in the pipeline. The facility is untied, but support is recoverable if any of three financing institutions are lenders; so far, none are. The intervention really supports transaction capacity in local and state government.

The original concept was to accelerate Brazilian PPPs and concessions within an existing framework

but over a seven-year period, the aim being to leverage the IDB project preparation resource. Coverage includes pre-feasibility and feasibility studies – technical, economic and financial, legal and environmental – but with a focus on transactions. Sectors cover both productive and social. Execution is via a lead advisor, which can be the IFC, the BNDES or a third party. A condition of support is that the successful bidder agrees to repay 100% of all costs plus 3.5% of each disbursement as an administrative charge. Clients are all Brazilian or state or local government organisations. The maximum individual project advance is US\$1.5m.

## B.3 Europe

### B.3.1 Western Balkans Investment Framework Infrastructure Project Facility (WBIF-IPF)

The Western Balkans Investment Framework (WBIF) was launched in 2009 as a regional tool for EU enlargement. It includes a TA facility and a trust fund for investment. It was developed with the aim of streamlining existing EC-funded facilities in the region and pooling grant resources from the EC, partner IFIs (Council of Europe Development Bank (CEB), EBRD, KfW and EIB) and bilateral donors to leverage loans for the financing of infrastructure and socio-economic development in the Western Balkans.

WBIF beneficiary countries include Albania, Bosnia & Herzegovina, Croatia, Kosovo, FYR Macedonia, Montenegro and Serbia. The beneficiary countries define and propose priority projects. WBIF priority sectors in infrastructure include the environment (32%), energy (25%), transport (23%) and social sectors (19%).<sup>1</sup> As well, WBIF supports private sector development, with grant activity constituting 16% of grants by value but less than 1% of grants by number.

Grant resources for WBIF come from the EC Instrument for Pre-Accession (IPA) and grant contributions from CEB, EBRD and EIB, as well as from bilateral grant contributions provided through

the European Western Balkans Joint Fund (EWBJF). Participating financial institutions and donors are:

- multilateral IFIs: CEB, EBRD, EIB and WB;
- bilateral DFIs: Czech Export Bank, Hungarian Development Bank, KfW, Slovenia SID Bank, Austrian Development Bank; and
- donors: Austria, Canada, the Czech Republic, Denmark, Finland, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Slovakia, Slovenia, Spain, Sweden and the UK.

Each of the IFIs has contributed €10m to the Joint Grant Facility.

Between 2009 and 31 December 2011, €220m in grant funding had been allocated to WBIF-approved projects, over 112 projects through 123 grants. The types of support were incentive payments to financial intermediaries, investment grants, interest rate subsidies and technical assistance. Most grant contracts (90%) are worth less than €2m (many are less than €1m). The average project preparation contract is worth €1.2m.

The WBIF is tied to participating PFGs, one of which will lead. TA covers all parts of the project cycle, including implementation. The two framework contracts in place reduce time and tender costs and allow for a more systematic, less ad hoc approach



to mainly public projects. National IPA offices in each country act as co-ordinators. Following a call for submissions, projects are screened and join a pipeline, and project development ToRs are drawn up and then implemented via one of the consortia. A steering committee reviews priorities and the reserve list biannually. IFIs tend to compete for projects; this means earlier intervention to help structure deals and sponsor relations. Each country has a rolling action plan which gives priorities.

WBIF also finances upstream project preparation. WBIF's IFIs or the Steering Committee can reject projects if they consider them not mature or not feasible. This screening is important to avoid problems later. WBIF supports not only project preparation but also project implementation support. The large majority of WBIF projects are public.

### **B.3.2 Joint Assistance to Support Projects in Eastern Europe (JASPERS)**

JASPERS is a joint TA initiative between the EC and three IFIs (EIB, EBRD and KfW). The facility provides specialist expertise (due diligence) for project preparation at different stages from project conception to project implementation, using grant financing from the EU DG Regional Policy. The project sponsors (beneficiaries) generally then apply for grant investment financing from the EU Structural and Cohesion Funds. Lending may also be gained from the IFIs, which are partners in JASPERS, or from other sources; no direct link exists between the TA provided and the prospective lending.

The facility has 13 beneficiaries: the 12 Member States that joined the EU in 2004 and 2007, as well as Croatia. It supports the following sectors: public transport (roads, air, maritime), water, knowledge economy (R&D), energy and waste. JASPERS projects are overwhelmingly in the public sector, although it will also support private sector and PPP projects.

JASPERS is hosted in EIB but is separate from EIB operations. Most of JASPERS staff are in close proximity to beneficiaries: 70% of staff are in JASPERS regional offices. This proactivity and closeness is a key attribute. The EIB has contributed 20 staff members to JASPERS as an in-kind contribution. JASPERS is supported by a large number of consultancy framework contracts (over 30) covering 11 lots or areas. The combination of being 'close to the client' and using frameworks to cut down tendering time and costs is seen as very efficient. JASPERS's experience is that the

earlier their involvement in a project, the more the value added. They also help establish rolling annual priorities for Cohesion Fund applications; their job is to screen, improve the quality and assist early disbursement of Structural or Cohesion Funds. This is a form of due diligence for the beneficiaries of EU grant funding, and also indirectly enables swifter appraisal by the EU itself.

Between 2006 and 2011, JASPERS completed 541 assignments, of which 332 were for major projects (greater than €50m), 250 of these assignments were submitted to the European Commission (EC) and 172 of those were approved (69%). Ownership of projects always belongs to the national authority and beneficiary (which can be a municipality). A 2011 strategy review concluded there was a need to increase support for capacity building to ensure sustainability and strategic support for the preparation of projects for the next programming round. Depending on the outcome of negotiations between the EC and the Member States, greater focus on 'connecting Europe' projects is also likely; at present the majority are national, not cross-border. The 2010 budget was €35m, of which 75% was funded by DG Regional and the rest in kind by EIB, EBRD and KfW.

JASPERS is currently operating on the 2007–2013 mandate while simultaneously preparing for the 2014–2020 mandate. (EC funding follows a seven-year cycle.) For the programming period 2007–2013 each Member State has produced a National Strategic Reference Framework (NSRF). This is a reference document for programming Structural Funds and Cohesion Fund interventions in a manner consistent with the Strategic Guidelines on Cohesion 2007–2013, and is accompanied by sector-specific Operational Programmes detailing sectoral priorities and indicative projects. All JASPERS activities must support projects that fit within the priorities of each country's Operational Programmes. A review of JASPERS will be held in 2017 to determine if it will be required beyond 2020.

Action plans are agreed on each year with the beneficiary countries and work on a rolling basis, since projects can take longer than a year. JASPERS input during the early stages of project preparation prevents later problems and in some cases results in weak projects not being submitted for funding, which benefits the national authorities as well as the EU and other funders. JASPERS operates in line with EC requirements. For example, the facility follows the EC criteria for cost-benefit and EIS analyses.

Project preparation is JASPERS's main service, but the facility also provides support for horizontal issues such as policy bottlenecks and state aid issues. JASPERS does not prepare feasibility studies, rather this is something that the beneficiary would use their own TA funding for. The facility assists in reviewing feasibility work and draft applications, making recommendations for improvement in such areas as CBA methods, value engineering, project dimensioning, procurement strategising, and support in developing TORs and fit with EU rules and procedures.

The facility is not a formal initiator of projects but may assist countries with pipeline development (support in identification of which projects to put in countries' operational programmes). It is not typically involved in financial structuring, but will advise on grant-related issues. JASPERS sees its role as being 'on call' to pre-empt and help resolve problems. JASPERS may advise against projects but

it is always the beneficiary / national authority that would make a decision to withdraw a project for funding.

Projects may already be complete before grant applications are submitted to the EC (e.g., some highways in the Czech Republic). JASPERS rarely has to co-ordinate cross-border projects. The facility was developed out of lack of capacity: the EC did not have resources to do upstream work and saw a need to create the facility, drawing on the appraisal experience of the IFIs. Grants are often faulted by moral hazard, but JASPERS thinks moral hazard can be mitigated by clear definition of project objectives in relation to strategies, sound analysis of project options and quantitative cost-benefit analysis of projects to ensure they bring benefits to society. The model is effective in Europe but is not necessarily applicable everywhere because of its close relationship to the EC institutional framework and EU funding requirements.

## B.4 Case Study: Infrastructure project development in Malaysia

Malaysia has one of the best-developed infrastructure systems in South-East Asia, which has been improved significantly since independence in 1957. Table B.1 summarises this growth provision between 1965 and 2005.

The main reason for Malaysia's success in its infrastructure development in recent years has been the active and flexible involvement of the private sector.

### B.4.1 Process for private sector involvement

In Malaysia, infrastructure proposals can come from two sources: government plans or the private

sector. There are no limits on the number or types of proposals that may originate from the private sector, a policy characterised as 'first-come, first-served'. For public-originated projects, the government is not obliged to have an open competition; instead it may select the companies to bid. Contracts are negotiated with the prime minister's Economic Planning Unit. This process is summarised in Figure B.1, using the example of toll roads.

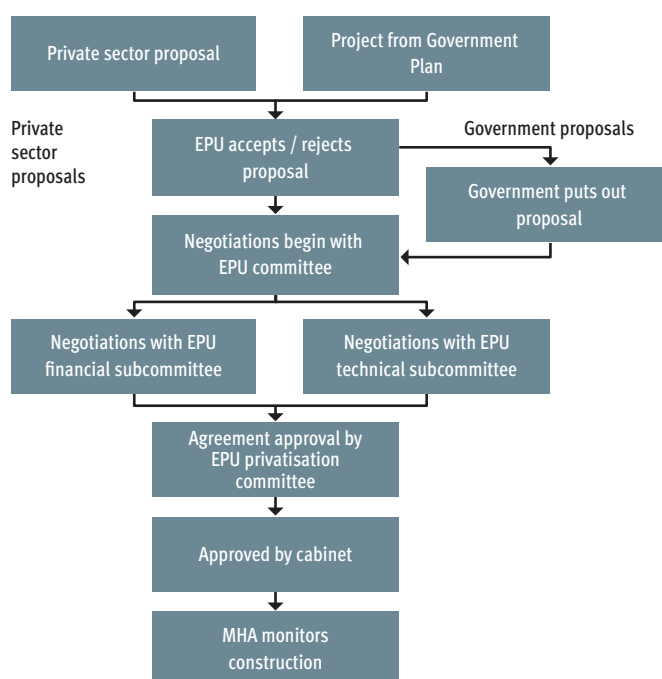
Allowing the private sector to be engaged in such a flexible way encouraged significant investments to be made. Over the course of the 7th Malaysian Plan (1996–2000), the private sector invested more in Malaysian infrastructure than the government, as is summarised in Table B.2.

TABLE B.1 INFRASTRUCTURE IN MALAYSIA

INFRASTRUCTURE	1965	2005
Paved roads (km)	12,464	67,851
Length of railway tracks (km)	1,731	1,920
Number of dry berths	19	233
Telephones per 100 people	1	16.6
Electricity generation capacity (MW)	336	9,217

Source: Adapted from G. Naidu. 'Infrastructure Development in Malaysia.'

FIGURE B.1 PPP PROCUREMENT PROCESS FOR MALAYSIAN TOLL ROADS



Source: Ward & Sussman. 2006. 'Analysis of the Malaysian Toll Road Public-Private Partnership Program and Recommendations for Policy Improvements.'

TABLE B.2

PUBLIC AND PRIVATE INVESTMENTS IN INFRASTRUCTURE DURING THE 7TH MALAYSIAN PLAN (1996–2000), US\$m

SECTOR	PUBLIC INVESTMENT	PRIVATE INVESTMENT
Roads	3,922	5,596
Ports	1,742	1,356
Airports	348	1,904
Rail	129	3,389
Telecommunications	1.31	8,203
Water and sanitation	974	1,385
Total	7,117	21,831

Source: Dani Salleh & Ho Chin Siang, 2008. 'The involvement of private sector in local infrastructure development in Malaysia.'

### B.4.2 Constraints

While involving the private sector in this way allowed Malaysia to gain from its dynamism, it did leave the government open to a number of risks.

The willingness to accept private proposals was not combined with sufficiently rigorous evaluation processes to ensure they were cost-effective or that sufficient demand for the project existed. The result is a number of notable cases of project failures and stranded facilities.

For example:

- A branch line of KTMB (the Malaysian Railways) to the Port of Tanjung Pelepas was developed expecting traffic of ten trains a day, but by the late 2000s it only had a utilisation of three trains per week.
- The BOT road project, the Seremban–Port Dickson Highway, was eventually rescued by the government in 2004 after the company had failed to meet its loan repayments since 1998.
- All three urban rail transit systems in Kuala Lumpur were also taken over by the government.

Due to the government's desire to encourage private sector involvement in infrastructure, it took a higher burden of this risk. This encouraged

the private sector to undertake adventurous projects with reduced levels of concern about the projects' viability. In addition, the willingness of the government to take over failed projects – and compensate the private sector parties fully for them – also raises issues of moral hazard. As well, this issue is reflected in the contingent liabilities that the government provided to private sector participants.

In addition, concessions were awarded with little or no competition, and where there were competitive tenders, the process tended to be opaque – the evaluation criteria were not always published, and politically connected concessionaires proved to have a significant advantage. The largest concession, the North-South Expressway, was awarded to a firm owned by the leading political party, UMNO, despite its bid having the third lowest toll proposal.

However, under the 9th Malaysia Plan, the government began to take a more holistic view to evaluating PPP proposals. The Public-Private Partnership Unit guidelines now state that a PPP proposal will only be considered if there is 'a need on the part of the government for the project', and in making this decision the government will take into account the benefits of the project such as socio-economic impacts and value for money.

## B.5 The Middle East

The Arab Financing Facility for Infrastructure (AFFI) was launched in April 2011 by the World Bank Group and the Islamic Development Bank (IsDB). It represents an integrated approach combining policy, project preparation and financing based on a higher level of engagement with the Arab world; it covers energy, ICT, transport, water and social sectors and has a particular focus on PPPs over 22 states. Progress has stalled with recent political upheaval.

The AFFI includes a high-level policy forum that addresses enabling environment, public (World Bank) and private (Shariah and non-Shariah via IsDB and IFC) financing windows plus a Technical Assistance Facility (TAF).

The latter is for transaction advisory services and is grant-based for public sector clients only. The TAF started in December 2011 with US\$1m each from

IFC, IBRD and IsDB, but EIB and possibly also EBRD will add similar amounts, giving a total of US\$5m initially. The TAF will have some PPF characteristics and be managed jointly by WB and IsDB. The EIB has signed an MoU to support the TAF. The public window is basically provided through the World Bank with an initial US\$200m allocation, with IFC / IsDB providing a start-up of US\$100m to the private window. This is now managed by a professional fund manager (EMP).

AFFI design emphasises flexibility; there is no legal entity but only virtual co-operation with senior management active in a governing body. The TAF is not tied to any DFI or MDB. Part of the rationale for involving EIB is to access EU NIF financing for PPPs. AFFI is still in start-up mode, with no projects funded as yet. The forum for policy / regulatory discussions has held its first meeting.



# Appendix **C** Project-Level Analysis

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A specific assignment task has been to help understand how project preparation has been undertaken in each of seven projects, specifically as regards the role, if any, played by PPFs. Some key findings are presented below:

PPFs are only a part of the overall project preparation picture. There are also bilateral and country programmes (including public and private sources) plus Africa level or sectoral partnerships and programmes MDB project preparation advances or pure MDB project preparation operations also are present. Counterpart financing in the MDB activities seems to be minimal.

Use of multiple sources is common. Based on the case studies, project preparation costs for the larger regional projects can exceed US\$10–15m, not counting bidding costs for PPPs.

Grants dominate funding; closing cross-border deals seems to require highly concessional financing for both LICs and MICs.

The more comprehensive the funding in the early stages, the less likely are delays, misfires and blockages.

Sponsor quality and authority is critical. Most of the PPP power generation projects require a treaty, a regulator and an SPV (that then needs institutional support). Strong national sponsors do not feature much in the seven case studies. The EU-ITF direct link to EIB and KfW operations is clear.

Summary details of each of the case studies are set out in Table C.1. Full case studies have been provided in Section C.1.

TABLE C.1 CASE STUDIES

PROJECT	REGION	SECTOR	COUNTRIES	FINANCIAL CLOSE	SOURCES OF PROJECT PREPARATION FUNDING, INCLUDING PPFs	TYPE
Bujagali II Hydropower – PPP	EAC	Power generation	1 fragile state	Closed 2007; operational in 2012	Two private sponsor consortia, plus IDA / IFC	Private plus IDA / IFC grants
Ruzizi III Hydropower – PPP	COMESA	Power generation	3 fragile states	No; ongoing to March 2014	EU ACP; ITF; NEPAD-IPPF; DBSA / KfW	Grants
Cabeolica Wind Farm – PPP	ECOWAS	Power generation	1; no fragile state	Closed 2010	PIDG TAF; InfraCo Africa	Fully recoverable
East Africa Rail Corridor – PPP	Tripartite – North-South Corridor	Railways	3; with 2 fragile states	No; ongoing	NEPAD-IPPF; USTDA; AfDB ADF project	Grants
Trans-Gambia River Crossing – public	ECOWAS – West Africa Highway	Road transport	2 fragile states	Closed 2010	NEPAD-IPPF; EU Inf. Partnership	Grants
CLSG Interconnector – public SPV	ECOWAS – WAPP	Power transmission	4 fragile states	No; ongoing	EU-ITF; WB ESMAP	EU-ITF grant; WB project preparation advance
Kazungula Bridge – public SPV	Tripartite – North-South Corridor	Road transport	2; with Zimbabwe adjacent	Closed 2012	NORAD/CIDA/ JICA/ NEPAD-PPF and AfDB /ITF	Grants

## C.1 Case Study: Bujagali II Hydroelectric Project

The Bujagali II hydroelectric project involves the construction and operation of a 250 MW generation plant on the Victoria Nile River near Jinja in Uganda. The 28 meter earth dam and spillway has a 388 ha water reserve, most of which was already covered by the Blue Nile. The Bujagali II facility is now built, and the five turbines have progressively become operational through 2012; a formal commissioning is planned for July 2012. Updated information on progress is available from [www.bujagali-energy.com](http://www.bujagali-energy.com). A transmission line linking Jinja to Kawanda near Kampala provides grid connection and was separately financed (AfDB / government of Uganda / JICA) and is also now built and operational.

Bujagali II was the first major transformational African PPP to reach financial close in December 2007 and although national, has regional impact via its scale and investment cost. It has been subject to extensive economic, environmental and social criticism plus other exogenous shocks and delays, resulting in the loss of the original private sponsor and conversion from the original BOOT concept to an IPP within a public-private partnership. Due initially to enabling environment, technical and financial challenges, then delays and restructuring over a period of six years, it has absorbed substantial project preparation funds from both private and public sources. There have also been referrals to the World Bank Inspection Panel and the AfDB Independent Review mechanism. James Leighland of PIDG referred to it as the most expensive IPP transaction in history.

Once fully operational it will eliminate the chronic energy deficit in Uganda, save on expensive thermal generation, underpin economic growth and widen modern energy access. It is registered as a Clean Development Mechanism and expected to yield 860,000 Carbon Emission Reductions credits per year.

### C.1.1 Project concept

The original BOOT concept originated from discussions started in 1994 and resulted in the formation of a private sector development consortium called AES Nile Power Limited (AESNP); this was 94% owned by AES of the U.S. and 6% by the Madhvani group of Uganda. The original structure envisaged an SPV with US\$115m in equity plus US\$234m from export credits and US\$115m in senior debt from IFC and AfDB.

Following the withdrawal of AES in 2003, the GoU tendered and then appointed Bujagali Energy Limited (BEL), a privately owned SPV (see below) to build and operate the gravity dam and hydropower

plant under an EPC contract. The IPP will sell electricity via a 30-year PPA to the distribution entity UETCL; BEL also plays a management and contract role in the Bujagali II interconnection.

### C.1.2 Project preparation phases

The first phase of substantial project preparation took place during 1997 to 2001 against a background of major power sector reform and unbundling led by the World Bank; for example, a Hydropower Development Master Plan was drawn up in 1997. AESNP spent millions of dollars in sponsoring a series of consultant studies plus consultations / communications. These included:

- engineering and technical studies by Rust, Kennedy and Donkin in 1997;
- EDF hydrology studies in 1998; and
- assessment of Generation Alternatives and then Economic Appraisal by Acres International in May and November 2000, with final reporting in 2001.

In addition the IFC/IDA financed ESG International to undertake a Victoria Nile Strategic Impact Assessment in January 2000. A full EIA – by ESG International and W S Atkins – was also completed in March 2001, leading to formal World Bank appraisal and then to outline funding agreement in December 2001. Issues relating to the corruption of a GoU minister via a US\$10,000 payment in 1999 via the subsidiary of the appointed contractor then surfaced and led eventually to the withdrawal of Veidekke as leader of the Bujagali II construction consortium in July 2002. The World Bank also undertook an internal investigation in 2002 as to whether the project complied with Bank policies, including EIA and resettlement.

The project continued to attract strong cultural, social and environmental complaints from Ugandan and international NGOs; major efforts were made to force disclosure of the PPA with Uganda Electricity Transmission Company Limited (UETCL). With the Enron collapse and changed international circumstances, AES eventually responded to the continuing delays by withdrawing from the project in 2003. No estimates exist of their total project preparation costs during the 1997 to 2003 period.

The GoU then stepped in, cancelled the 30-year concession and started a transparent procurement process to select another development consortium; this started in early 2004 but was subject to revision and rebids until three proposals were received in 2004 / 2005 and a new consortium appointed in April 2005. During this period the

GoU was supported by the World Bank Group and possibly other donors.

Bujagali Energy Limited (BEL) is an SPV with majority ownership (58%) through Sithe Global Power LLC, a U.S. private power developer, in turn owned by the Blackstone Group; a minority 32% is with Industrial Promotion Services (Kenya), a subsidiary of the Aga Khan Fund for Economic Development.<sup>2</sup> BEL appointed Power Planning Associates in January 2006 to undertake financial, economic and social / environmental studies; these were very high profile and involved an extended consultation / reporting process until February 2007. The funding appears to have been routed via the IFC / IDA. In parallel R J Burnside International Limited were hired to redo the social and environmental impact appraisal – despite their previous acceptance by the World Bank and the GoU. The ESIA was finalised in December 2006. R J Burnside also finalised an ESIA study for the Bujagali interconnection line.

Because of concerns about the impact of the dam on the lake's hydrology, another strategic and sectoral study was made of the Nile Equatorial Lake Region in 2005 by SNC-Lavalin.

The project achieved financial close in December 2007, following signature of the PPA in May 2007, although this was later amended. At the same date, the contracting consortium led by Salina Hydro of Italy was appointed and started on the basis of a temporary advance of US\$75m by the GoU. The construction took place over 2008 to 2012, and as noted earlier, full commissioning is due in July 2012. The economic cost to Uganda of the six-year delay has been estimated at around US\$0.75bn.

A complaint was made to the World Bank Inspection Panel (and the AfDB independent review mechanism) in 2007. After investigation, the Inspection Panel reported in mid-2008 and recommended continuation, albeit with some additional management action.

The above is based on desk review but it is interesting that the data available, unlike in other case studies, make no substantial reference to the value of the project preparation contracts or their sources. While the initial private project developer was largely if not fully self-financing, during the 2003 to 2008 period there was clearly major support via the IFC / IDA plus possibly other donors. Uganda was also highly dependent on aid – project and budget – during that period. Basically the final project preparation expenditure envelope was more than double that which would have been the

case without delays, extended referrals and more detailed, high profile repeat studies – technical, economic and ESIA. The full cost – including project management and stakeholder sponsorship, positive or negative – will probably never be known.

### C.1.3 Financing outcomes

The December 2007 financial close envisaged a total investment cost of US\$860m, excluding the interconnection. The debt-to-equity ratio was 78/22 with some US\$670m in loans; the cost per installed KW was US\$3,440. Eight DFIs are involved, of which the main ones are IFC, EIB and AfDB but also KfW, Proparco, AFD, DEG and FMO. Two commercial banks – Standard Chartered and ABSA – have provided loans that are covered by an IDA partial credit guarantee of up to US\$115m. MIGA have also provided political risk insurance of a similar amount.

### C.1.4 Conclusions

Despite strong political commitment and an initial private developer with deep pockets, a combination of corruption, local and international NGO opposition and timing all combined to force major delays and the additional funding of largely replicative studies. Stakeholder project management and sponsorship costs soared, as indeed did the capital cost – from an initial US\$500m to some US\$860m. The cost of six years of delays to the Ugandan economy is estimated at US\$750m. If PPF existed in 2003 that could directly support or help bridge the funding gap faced by AESNP, then delays could have been reduced and the project development costs perhaps better controlled. It would be interesting to find out if such assistance was available.

Somewhat surprisingly the desk review has identified no clear sources or amounts of project preparation funding other than IFC / IDA. But the sums involved are clearly more than double the norm. On the other hand this project was the first major transformational IPP to close in Africa and therefore carried some development premiums. Indeed at closure the debt was oversubscribed. The importance of open and transparent processes and in particular full stakeholder communications on issues like resettlement as well as cultural, environmental and tourism assets need to be emphasised; once delays and opposition become entrenched it is extremely difficult and costly to regain momentum. Large hydroelectric plants are also now more fashionable.

## C.2 Case Study: Ruzizi III Hydropower Project

Ruzizi III (147 MW) involves the construction and operation of a regional hydroelectric plant on the Ruzizi River, a natural border between DRC and Rwanda upstream and DRC and Burundi downstream. The two earlier plants, plus Ruzizi III, will operate as a cascade; the capacity of Ruzizi I is 29.8 MW<sup>3</sup> and Ruzizi II some 43.8 MW.<sup>4</sup> The potential of the whole river cascade is around 500 MW, and early stage feasibility studies have already taken place on future construction of Ruzizi IV (287 MW). Both Ruzizi I and II now require rehabilitation, plus there are common transmission, access and operating issues and investment needs; the cascades' interdependence is critical to the structure of the proposed PPP solution. However, for the purposes of this case study the focus will be on Ruzizi II. But how questions of trinational costs and benefits are being addressed and co-ordinated in a framework that facilitates both public and private investment will be a recurring theme. Recent investment cost estimates for Ruzizi III alone add to €318m.

Ruzizi III is a PIDA priority action project and involves a wide range of stakeholders including the governments of DRC, Rwanda and Burundi, as well as MDBs, DFIs and commercial banks, the operating entity, contractors, power companies and other regional specialised institutions. It addresses the energy deficit of Burundi, Rwanda and eastern DRC via a least cost regional solution; it is based on renewable sources and has a low land take, with very limited resettlement.

A number of major risks also exist, some related to access and other technical or commercial difficulties, but most are associated with the project's regional location at the confluence of three fragile states and the history of conflict. At the project level the sponsor is EGL ('Energie des Grand Lakes'), a specialist public organisation under the umbrella of the CEPGL – the Economic Community of the Great Lakes Region. Due to regional conflict and instability, CEPGL collapsed in the 1990s, but following the International Convention on the Great Lakes Region initiative started in 2004, CEPGL was re-launched in 2007 and this is when we pick up the Ruzizi III project development story. Earlier studies may exist but the current momentum builds from 2007.

### C.2.1 Project concept

The Ruzizi III project is at an advanced stage of development as a PPP, with the 25-year concession bidding process now underway and a transactions advisor in place. The overall structure is as follows:

- agreed international convention or treaty on management and use of waters of Lake Kivu and Ruzizi River – July 2010 onwards;
- establishment of a regulator – the Kivu Water Basin Management Authority – to implement the treaty via monitoring of water rights and use;
- a co-ordinating body of all the Ruzizi hydropower plants for power purchase and sales – this would be a small facilitating company;
- financing of the special purpose Ruzizi III project company, say 70/75% debt to 30/25% equity, with some implementation and power purchase agreements now in place together with shareholder agreements;
- shortlisting of interested developers done in the beginning of 2012 and four investors pre-qualified, of which three are still on-board;
- the RFP, issued in April 2012, and a bidders conference held in May 2012; the final RFP was issued at the end of June 2012;
- the proposal deadline of August 2012, with the selection of preferred bidder at mid-September 2012, followed by negotiations;
- the commercial close (execution of project agreements), scheduled for March 2013 and the financial close for March 2014; and
- if construction starts in 2014 also, the plant could be commissioned in 2017.

The bid resulting in the lowest return on equity will be the winning bid.

Effectively the treaty, regulatory and co-ordinating body are in place plus support agreements (but not the co-ordinating body between Ruzizi I to III); this provides a framework under which benefits and costs are defined and shared on a largely equal basis and the core river cascade potential fully brought to market via a PPP. This has required a major, upfront effort, largely funded through project preparation facilities, to get the project to the current stage. Strong political support has also been demonstrated by the governments and through AfDB, EIB and other financiers.

### C.2.2 Project preparation phases

The initial feasibility study on Ruzizi III, along with detailed design and tender documents, was undertaken by a Fictner-led consortium from 2007 to May 2010. This study was funded through the EU-ACP Energy Facility grant and cost some €2.85m. It also covered pre-feasibility of Ruzizi IV, which in due course should be able to piggy-back on the framework provided by Ruzizi III.

The EIB, as a member of the financiers group in the EU-Africa ITF, then led a process to secure an initial ITF grant of €2.8m to provide additional technical and institutional / PPP studies. Later additions included advice on 220 KV transmission interconnectors plus an environmental and social impact assessment. This contract was won by a SOFRECO consortium in 2010, and the ESIA finally completed it in early 2012. The ITF grant was also expanded and the maximum value increased to €4.2m. This project preparation work now appears more or less complete; however, it also included institutional development for EGL, which may be ongoing.

The third intervention came with the need to finance the appointment of transaction advisors in mid-2011. Grant support was provided from NEPAD-IPPF, KfW and DBSA-PPFS for funding the contract won by a consortium led by Hunton and Williams; IPPF allocated some US\$1.42m in grants in 2011. Together DBSA / KfW added a further US\$0.95m.

The above seems to take the Ruzizi III PPP up to financial close. All of the above are grants and exclude assistance from regional or other energy initiatives.

### C.2.3 Financing outcomes

These are clearly not yet known but an indicative likely financing structure is available from various presentations and project documents available on the Internet.

Via the MIGA, it is likely that IDA will provide political risk insurance plus possibly a partial credit guarantee. EIB has been a committed sponsor to Ruzizi III; other public support has come from KfW, AfDB, DBSA, AFD, FMO, Proparco and the Austrian ADA. National power utilities will not participate in the equity, while the three states may add to 10% each, probably financed via IFI credit or loan operations. Private investors are expected to hold a majority of shares, with minority positions taken by DFIs. As noted earlier, an approximate 3 to 1 debt-to-equity ratio is envisaged. It would be useful to know more as to the anticipated leverage of public to private investment, both in equity and debt.

### C.2.4 Conclusions

The Ruzizi III case study is a good example of the legal, institutional and commercial agreements that have to be in place so that a regional PPP can be appropriately structured, co-ordinated and bid out;<sup>5</sup> in this case the project preparation interventions have largely come from EU facilities plus NEPAD-IPPF and add to over US\$11m in total commitments. This 'tunnel of funds' period started in 2007 and will continue through to the anticipated financial close in 2014. All the support appears to have been in the form of grants. The interdependence of the existing and future projects on the river cascade has been dealt with via a balanced, equal share but also a holistic solution. The lessons of other African regional hydropower projects appear to have fed into and informed the project preparation process, with the EIB acting as a consistent MDB sponsor.

The Ruzizi III project is clearly built on the already established hydropower potential of the river cascade, but the co-operation and institutional base had to be rebuilt following the ICGLR peace and stability initiative and project preparation has had to be widely defined, linking an enabling environment through feasibility and detailed design to transaction support. Ruzizi IV should be a major beneficiary and demonstrate pull-through via the mechanism provided for Ruzizi III.



## C.3 Case Study: Cabeolica Wind Farm Project, Cape Verde

This project, with some 30 onshore wind turbines located on four islands of the Cape Verdean archipelago and an installed capacity of up to 28.0 MW, became operational in October 2011. Cabeolica was the first commercial scale, privately financed PPP in wind energy in Sub-Saharan Africa and won the Africa renewable energy project of the year award in 2011. It was developed by InfraCo Africa, a PIDG facility with the support of two grants from the TAF. It is now managed and operated by a special purpose vehicle – Cabeolica S A – a PPP between the government of Cape Verde, the local utility (Electra S A), an African private equity firm (AFC),<sup>6</sup> Finnfund and InfraCo Africa. Most of the equity is owned by AFC and Finnfund but with long-term debt financed via the AfDB private sector department and the EIB. MIGA provides political risk insurance. The total investment value of the project is around US\$90m.

The project was developed from 2007<sup>7</sup> to 2010 by InfraCo Africa and its partners following two earlier failures to complete a public procurement process for a wind farm. Pilot projects having been operational on the islands since 1994.

The main benefits of the project are that it diversifies energy sources away from imported diesel and adds capacity to a strengthened grid; the national share of renewable energy is now approaching 25% and the target of 50% by 2020 is feasible. Annual savings in fossil fuel imports add to about US\$12m; put another way, the cost of power via wind farms is about 20% lower. The project has also generated savings in emissions; an application for a carbon credit via the CDM for 95 tCO<sub>2</sub>/year is being processed. The additional power generation has also stabilised the grid and enabled economic growth.

### C.3.1 Project concept

The project concept originated from the failures of public procurement, but the scope and scale was adjusted through the project development phases. These included enabling environment actions to get the JDA and PPP legislation in place, power demand market studies for each island, grid and road access improvements, specialist wind and environmental reports and legal and other advisory support, including structuring and negotiation. For the CDM application a designated national authority had to be defined. The turnkey build, operate and maintain project was then tendered to Vestas of Denmark.

Although the concept is judged replicable, considerable effort was needed to build capacity and keep momentum.

### C.3.2 Project preparation phases

Public domain evidence of the pre-2006 procurement failures is very limited. A GEF grant to be used for RE project preparation is mentioned. The only record found via an Internet trawl related to a recent GEF award of a US\$1.7m grant to the ECOWAS Centre for Renewable Energy and Energy Efficiency / Cape Verde Ministry of Energy in March 2012. This is for promoting market-based development of SME renewable and energy efficiency systems. These may include solar as well as wind technologies but there is no clear link as yet.

InfraCo Africa reported its total Cabeolica development costs as being US\$7.9m in the PIDG Annual Report for 2010. It is not clear if this included a roll up of all TAF grant support. TAF reports these as US\$70,000 in 2007 and a further US\$40,000 in 2009. However, another PIDG case study source records the TAF total as US\$170,000. No other project development grants or loans are recorded.

### C.3.3 Financial outcomes

The financial closure for the debt was in December 2010; of the €65m, some €30m was provided by the EIB and €15m by the private sector department of the AfDB. In July 2010, the Africa Finance Corporation (AFC) – which is also involved with the financing of the InfraCo Africa jointly developed Kpone IPP in Ghana – invested some €16m; some of this went into equity.

As noted earlier, construction was undertaken in 2010 / 2011 and the four sites were operational by October 2011.

### C.3.4 Conclusions

The US\$90m PPP originated in public procurement failures and is seen as a successful private sector-led development and financing model that is replicable elsewhere in Africa. The period from its start in 2007 to financial close in 2010 and operation in 2011 is impressively short. Private sector finance – both equity and debt – does appear to have been crowded in. MIGA also gave a political risk guarantee.

## C.4 Case Study: East Africa Rail Corridor Project

This project combines rehabilitation of existing rail assets with major new greenfield development. It is now in the project structuring stage, and the detailed engineering / PPP options report is due around mid-2013. The overall project is an example of a complex, large scale regional integration transport corridor; capital costs are estimated in the range of US\$3.5–5.5bn. It is in the PIDA priority action plan and was recognised as an ‘exemplary’ project by the HLP Report to the G20 at Cannes. It is also a priority for the East African Railways Master Plan and the Tripartite.

Landlocked Rwanda and Burundi (and parts of DRC) currently use the Central Corridor, which links by road or road / rail / lake combinations to Dar Es Salaam port. They and Uganda also use the Northern Corridor, which provides road and rail connection to Mombasa. To reduce high transport costs, access mineral deposits and accelerate regional trade and integration, Rwanda, Burundi and Tanzania propose to

- build and operate a new 494 km railway line between Isaka (Tanzania) and Kigali (Rwanda);
- construct a new 197 km line between Keza (Tanzania) and Musangoti (Burundi); and
- rehabilitate or upgrade the existing 970 km railway line between Isaka and Dar Es Salaam.

An inland clearing depot or dry port is also planned at Isaka for transit storage and clearance, but this is not a part of the above primary project. The project influence area covers some 22 million people – about half of whom live below the poverty line – and connects at least four major mineral deposits.

### C.4.1 Project concept

The current project, while not entirely new, was launched under the auspices of the EAC, which Burundi joined in 2007. Government support was documented in 1998 and reaffirmed in 2003. Other possible transport corridors linking up the Great Lakes have also been studied. A three-country Joint Technical Monitoring Committee was established in 2009 following the signature of an MoU; the Rwanda Ministry of Infrastructure acts as the lead co-ordinator and has set up a specialised unit.

As documented below, after a series of initial outline design, economic, environmental and financial studies, a detailed design plus PPP options study is now underway and will recommend preferred ways to finance and operate the assets. While there exist several international rail lines in

Africa,<sup>8</sup> they did not involve the creation of new infrastructure. European examples include the concession of the Perpignan-Figueras high-speed link between France and Spain plus the Channel Tunnel Fixed Link concession. The EAC record of rail concessions is also poor: Tanzania Railway Limited, the RITES concession that was revoked in 2011 and also the collapsed Rift Valley Railways concession for Kenya and Uganda.

A number of key legal and bankability issues need to be resolved, and project preparation costs during the structuring / transaction phases will be substantial. These include bundling the three components together or separately; national or international regulation; allocation of all or part of the traffic risk; negotiation of an international PPP convention to ensure interests are fully aligned; and the transparency of the rules and terms of the eventual contract. This would include rail infrastructure and services standards and regulations in the three countries.

### C.4.2 Project preparation phases

Phase 1 was financed by a combination of a US\$1.5m NEPAD-IPPF grant plus reportedly some DBSA support. The Phase 1 feasibility study was undertaken by Deutsche Bahn International of Germany and covered the period from mid-2007 through 2008, although the final reports are dated mid-2009. In total, the Phase 1 project preparation funding made available was probably around US\$2m.

The need to rehabilitate or relay the existing meter gauge track from Dar Es Salaam to Isaka was increasingly evident, and the USTDA funded a separate study by the Burlington Northern Santa Fe Railroad Company (BNSF) in 2009. The sum allocated by USTDA, from an initiative called the Trade Lines Partnership, was US\$0.65m.

Following the completion of the EAR Master Plan consultancy study by CPCS in January 2009 – funded via the EAC – and other corridor diagnostics plus other events and conferences, the AfBD approved a Phase 2 study project<sup>9</sup> worth UA5.25m or US\$8.15m. Of this, the ADF financed 95%; the three governments each provided 1.6% in counterpart monies. The main allocation is for detailed design and PPP options study – some UA4.26m – and there is also UA0.46m for TA support to the implementation unit in Rwanda.

CANARAIL of Montreal was appointed as the successful bidder in March 2012 and should now

report in mid-2013. A PPP contract could be in place, at best, say by 2016, with construction then over about five years or more, given the technical complexities.

The AfDB ADF project allocations between the three countries are UA1.67m grants for Rwanda and Burundi but a UA1.67m loan for Tanzania; also even for this small two-year operation, the ADF regional window largely supplied the funds, not country allocations.

On completion of Phase 2 but before any transaction support, the total dedicated project preparation spend will be around US\$11m, excluding trade facilitation and overall corridor diagnostic studies.

### **C.4.3 Financing outcomes**

None exist, but roundtables and conferences have included the EIB, AfDB and the World Bank. Trade facilitation would be addressed by DFID funded Trademark EA.

### **C.4.4 Conclusions**

The lack of clear information on Phase 1 is limiting – the AfDB project documents refer to use of a NEPAD-IPPF grant as ‘Bank financing’ – but the AfDB clearly prepares and approves very small operations that are effectively project preparation grants or loans. Also, as per interview data, the AfDB often adds next stage project preparation studies on current investment operations; but this is not an option for this major new, high visibility rail corridor.



## C.5 Case Study: Trans-Gambia River Crossing

This bridge plus two ‘one-stop border post’ facilities will replace existing ferries; it was approved by the AfDB Board in December 2011 and construction is scheduled for 2012 – 2017. It forms part of the PIDA priority Trans-West African Highway or Dakar-Lagos corridor.

The Gambia is the smallest country in Africa and is an elongated state largely defined by the river, surrounded by Senegal, but with access to the Atlantic Ocean at Banjul. The Gambia River Basin also serves water and power needs in the ECOWAS region via the OMVG, which is separately responsible for major regional power initiatives. The 0.9 km prestressed concrete bridge is part of the 25 km section of the highway that is located in The Gambia; the N4 is the primary road link between Northern and Southern Senegal, connecting Farafenye and Mansa Konko. The southern region of Casamance is an area with a long-standing insurrection movement. The concept of a bridge dates back to at least 1978, but both political commitment and finance have proved problematic. In August 2005 the Gambia River Authority doubled the ferry crossing tariffs, and Senegal responded by closing the border and threatening a tunnel; the dispute was soon fixed but some baggage remains. The 2011 financing agreement seems to reflect such tensions.

### C.5.1 Project concept

The current wholly public sector project – the bridge will be owned and operated by the Gambian National Roads Authority – is deemed Phase 1; Phase 2 is intended to deal with rehabilitation of the 137 km Ziguinchor link road in Senegal plus the 24 km Farafenye-Senobe road in The Gambia. To date The Gambia has benefited from major road network rehabilitation support from the EU; JICA is active in Senegal. Apart from Gambian and Senegalese overland traffic the link will also facilitate other ECOWAS transit trade.

The updating studies that appear to have taken place during 2007–2010 considered the use of a concessional model, but the implications for 130% increases in current ferry charges caused its rejection. The main hard options considered were different locations and designs.

As well as the bridge and border posts, the financing envelope has small allocations for project management and local feeder roads. As noted below, future corridor studies appear to be the subject of a separate technical assistance contract

recently let through the EU-Africa Infrastructure Partnership.

### C.5.2 Project preparation phases

The main sequence seems to date from 1974 to 1978, when the first technical and feasibility studies were undertaken; the funding source and amount are not known. Further engineering and design work was completed in 1997; again no source is yet known. A memorandum of agreement was signed between Senegal and The Gambia dealing with the bridge but no action resulted. In 2006 the NEPAD-IPPF awarded a US\$300,000 grant to update and finalise the work. This appears to have been very slow to disburse. The financing close was achieved in late 2011 with the AfDB as the main lender, via its ADF regional window rather than national allocations.

The EU-Africa Infrastructure Partnership is mainly at the level of the AU in Addis but included some €10m for regional project preparation activities. These consultancy contracts include Inga, the Beira-Lobito railway plus some €0.8m for Mott MacDonald for advocacy and technical support to the Gambia River Bridge project. The above budget line is referred to as the ‘Port Moresby Declaration’. The €10m appears to have been fully allocated by end 2011.

### C.5.3 Financing outcome

The AfDB Project Appraisal<sup>10</sup> refers to an overall cost of UA67.36m or US\$107.4m; of this the bridge itself is UA41.5m and the cross-border facilities UA7.9m; this leaves UA2.8m for local feeder roads and some UA3.0m for project management. Some 99% of financing is via an ADF loan; government counterpart funds add to less than 1% of the total. Some UA63.6m is in the form of a grant to the government of The Gambia; only UA3.2m is a concessional loan to Senegal.

### C.5.4 Conclusions

Despite being recommended as a case study, the Trans-Gambia River crossing does not add much to the broader analysis of project preparation in regional projects. The origin and scale of the early studies are not available; the use of the IPPF grant in 2006 helped lower political concern in ECOWAS, following the 2005 ferry price dispute and other more long-standing tensions. The almost wholly ADF grant funding to The Gambia through the regional window is interesting. The EU-Africa Infrastructure Partnership grant of €0.8m also points to another layer of AU level facilities.

## C.6 Case Study: CLSG Interconnection Project

The Côte d'Ivoire, Liberia, Sierra Leone and Guinea (CLSG) interconnection project is one of the West African Power Pool (WAPP)'s priority projects. The objective of the West African Power Pool is to establish a regional electricity market in West Africa through the appropriate development and implementation of key infrastructure.

The CLSG interconnection project will consist of the construction of more than 1400 km of high voltage transmission lines, as well as the extension of existing alternatively constructed new high voltage substations in Côte d'Ivoire, Liberia, Sierra Leone and Guinea (Table C.2).

The project is critical for the reconstruction efforts currently underway in the post-conflict countries of Liberia and Sierra Leone and the forest region of Guinea. One of WAPP's priorities is to interconnect these countries with the Côte d'Ivoire. This will allow mutually beneficial power exchanges and a reliable electricity supply fostering economic growth and consolidating the fragile peace that has been achieved so far in these countries.

The total cost of the project is €343m.

### C.6.1 Project concept

In January 2008, the Authority of ECOWAS Heads of State and Government enacted the WAPP Transmission Line Implementation Strategy (TLIS), which gave authority to the WAPP to use Special Purpose Companies (SPCs) as a means to accelerate implementation of a number of cross-border transmission projects amongst its member power utilities, in particular the CLSG interconnection project.

To establish an SPC (CLSG-SPC) that will develop, own and operate the CLSG transmission infrastructure and will be legally responsible for the physical implementation of the project, the four countries involved in the CLSG project have established a WAPP Joint Implementation Committee (JIC), comprising high-level representatives of ministries of energy and national utilities.

Legal documentation, institutional development and the business plan of the CLSG-SPC were expected to be finalised by the end of May 2012 and the CLSG-SPC to be in place by September 2012. Taking into account the time needed to establish the CLSG-SPC, the CLSG-JIC has agreed, during a meeting held in July 2011 with funding agencies in Conakry, to set up a dedicated Project Implementation Unit (PIU) responsible for ensuring the success of the procurement and construction of the CLSG project and addressing issues related to the implementation of the Environmental and Social Management Plan. The PIU project director was recruited in early June 2012. A complementary Owner's Engineer will also be recruited to provide technical support to pre-construction and supervision activities.

TABLE C.2 LIST OF INTERCONNECTORS

COUNTRY	TRANSMISSION LINE (KM)	NEW SUBSTATION SITES	EXTENSION OF EXISTING SUBSTATION
Côte d'Ivoire	116	—	1
Liberia	532	4	—
Sierra Leone	530	5	—
Guinea	233	2	—
Total	1,411	11	1

### C.6.2 Project preparation phases

The EU-Africa Infrastructure Trust Fund (EU-ITF), through the European Investment Bank (EIB) and the Kreditanstalt für Wiederaufbau (KfW), has granted a €3m grant to the WAPP to finance the following:

- a feasibility study performed by the consortium Applications Européennes de Technologies et de Services and Sogreah Consultant (contract of 1 147 300 euros signed in September 2008);
- a line route and environmental and social impact assessment (ESIA) study realised by the Korean Electric Power Corporation (KEPCO) (contract of €1.4m signed in September 2008). The ESIA study was finalised in the first quarter of 2012.

The balance of the grant has been used in 2010 to finance an extension of the terms of reference of the feasibility study. The study's purpose is to assess the connection of the Kaleta hydropower site in Guinea to the interconnection, and to further finance the review of the existing bidding documents for the Kaleta project.

A second grant of up to €1.75m was made available by the EU-ITF for the financing of the Owner's Engineer (OE) until the award of the Engineering Procurement Construction (EPC) contracts for the project (€1.5m); and for temporary capacity reinforcement, initially of the WAPP, and at a later stage of the PIU, for the duration of the technical assistance, amounting to €250,000.

The World Bank has provided a US\$1.95m project preparation advance, in part to support the establishment of the SPC:

- The study for the establishment of the SPC is performed by the consortium Nodalis Conseil/Emergence (contract of €399,894 signed in February 2011 and final interim report delivered in November 2011).
- The consortium Sogreah/Frilet is designing the institutional framework and the business case for the SPC.

### C.6.3 Financing outcomes

According to the WAPP, firm indications to participate in the financing of the project have been indicated by the EIB, the World Bank, the AfDB and the KfW, and they are very advanced in their approval processes. KfW conducted an Appraisal Mission in August 2011.

Nine EPC contracts are envisaged and are being finalised with their corresponding bidding documents (Table C.3).

The project financing plan has not yet been finalised and the number of EPCs may still change.

### C.6.4 Conclusions

The CLSG interconnection project is a good example of the preparation of bankable projects at the regional level. The development of this project since 2008 has been quite quick. The support given by the EU-ITF for pre-investment studies was decisive in obtaining resources from the Energy Sector Management Assistance Program (ESMAP), administered by the World Bank, to finance the design of the institutional framework necessary to the project's implementation. These additional interventions also leveraged complementary support from other WAPP donors – the AfDB, the EIB, the KfW and the World Bank have indicated their intention to participate in the investment financing of the project – and enabled enhanced donor co-ordination in the development of WAPP projects.

At present it is difficult to obtain updated information on the CLSG project, in particular as regards the various financiers' specific commitment and conditions in its financing.

TABLE C.3 EPC CONTRACTS

EPC CONTRACTS	FUNDING
<b>Transmission lines</b>	
Yiben (Sierra Leone- Sierra Leone/Liberia border)	EIB
Sierra Leone/Liberia border-Yelena (Liberia)	World Bank
Man (Côte d'Ivoire)-Yelena (Liberia), and Nzérékoré (Guinea)-Yekepa (Liberia)	AfDB
Linsan (Guinea)-Yieben (Liberia)	AfDB
<b>Substations</b>	
Bikongor, Kenema and Bumbuna (Sierra Leone)	EIB
Mano, Monrovia, Buchanan and Yekepa (Liberia)	KfW, World Bank
Linsan (Guinea), Kamakwie and Yiben (Sierra Leone), Nzérékoré (Guinea) and Man (Côte d'Ivoire)	AfDB
Control Centres and SCADA	AfDB
<b>Other</b>	
Frequency control and compensation equipment	Requirement to be determined by the PIU and the OE

## C.7 Case Study: North-South Corridor, Kazungula Bridge

The North-South transport corridor links eight countries and is probably the most advanced regional trade and integration initiative covering the Tripartite (SADC/EAC/COMESA). The Kazungula Bridge will connect Zambia and Botswana over the Zambezi River and eliminate the delays and restrictions imposed by the ferry operation. The new road / rail bridge has long been recognised as a ‘missing link’, and the recently agreed financing envelope includes one-stop border-crossing facilities and studies for additional transport projects. It is included in the priority action plan of PIDA.

### C.7.1 Project concept

The original project concept dates back to at least early 1983, when the then-Southern Africa Transport and Communications Commission (SATCC) approached NORAD to finance a feasibility study. This was completed in the same year by an individual consultant – J U Hoffman of the Oslo Institute of Transport Economics – who recommended that improvements in the efficiency and capacity of the river ferries was the best economic option at that time. SATCC, however, retained the bridge project in its portfolio, and the crossing was then subject to a long sequence of various project preparation activities. From a wholly public sector project, it transformed to a BOT concept – which was tendered but failed to attract investors / operators – and was then re-evaluated in terms of PPP or public sector. The 2012 financial close<sup>11</sup> treats it as a sovereign, wholly public sector project sponsored via a joint venture vehicle of the governments of Zambia and Botswana. The possibility of bidding out the operations and maintenance to a PPP remains on the table.

The project has also been adapted in the face of political disputes – in particular Zimbabwe’s territorial claims – which caused delays and the eventual collapse of a three-state MoU during 2006–2008. The approved final design avoids any border contact with Zimbabwe. Namibia also has a contiguous but more constructive border interest.

Various engineering bridge options were analysed and the final package is a 0.93 km span-cable stayed structure but with substantial additional border-crossing facilities, plus additional studies. The total project cost is currently UA162.6m or US\$259.3m, wholly financed from government, bilateral and MDB sources. The economic cost-benefit analysis suggested a robust EIRR of some 23%.

### C.7.2 Project preparation phases

Based on the information to hand the main sequence of project preparation appears to have been as follows:

- 1983: SATCC initiated a feasibility study via NORAD, by J U Hoffman – no value known;
- 1986: CIDA funded a feasibility study by SLI Consultants – no value known;
- 2000–2003: a JICA-financed feasibility and design study by Nippon Koei and Oriental Consultants.<sup>12</sup> No value known but the team of consultants seem to retain partial involvement on traffic forecasts and the wider North-South corridor through mid-2005; and
- ad hoc support through the SADC Secretariat and emerging North-South corridor programmes like Trademark SA and the PIDA process.

AfDB detailed design and engineering support from 2006, delayed by renegotiation of the MoU in 2008, then continuing through to 2011. The ADF made a grant of UA1.8m to Zambia (US\$2.8m); but Botswana, as an MIC, only qualified for the MIC Trust Fund and gained some US\$1m, again of grant, from this. In addition the NEPAD-IPPF provided an additional US\$0.42m grant to Zambia. These funds covered not only design but also corridor transport and trade facilitation activities. The AfDB project preparation phase also suffered various delays due to slow mobilisation and payment deposit issues.

The medium-term development of transport facilities linked to the crossing is addressed through some UA5m (US\$8m) of technical assistance funds contained within the AfDB final financing agreement. These appear to be a Zambian National Transport Master Plan (UA3m) and two feasibility and preliminary design studies for railways spurs, totalling UA2.0m (Livingstone-Kazungula-Sesheke and Mpulungu-Nseluka).

The Kazungula Bridge Project is planned to be constructed by end 2017; this would be 34 years from the first negative feasibility report.

### C.7.3 Financing outcome

The final project financing outcome is shown in the table below. The importance of JICA and ADF sourcing is self-evident, and total government counterpart financing adds to less than 10%. The EU-ITF contribution goes towards set-up of the Kazungula Bridge Authority and trade facilitation. No ADF funds are allocated to Botswana. The ADF finance for Zambia is at standard loan terms, and some two-thirds comes from the ADF regional allocation. The funding is wholly public.

Given that construction has yet to begin, it is too soon to estimate user or corridor development impacts.

### C.7.4 Conclusions

The project preparation phase has been extended and has seen significant delays resulting from political and economic / financial issues. The stop / go progression has been largely funded by bilateral donors such as Japan, Norway and Canada, with the technical work being undertaken by a variety of international consultants. As a stand-alone, bilateral

(originally trilateral) initiative, the project lacked momentum and visibility; this changed significantly with the rise of the North-South Corridor concept and the associated trade and integration agenda.

Surprisingly there appears little use of ADF PDF or advances, although some US\$8m of follow-up transport studies are blended into the final financing envelope. The value of the NEPAD-IPPF contribution to the overall project preparation is some US\$0.42m and appears to have been critical in getting to closure. The case study also demonstrates the complexities of working on regional infrastructure projects that connect fragile or conflict states with low and medium income neighbours.

The full financing of the various studies and support mechanisms through the last 30 years is not entirely known. Despite efforts to crowd in private investment, the BOT and PPP options have not really generated anything substantial to date and may well have added to delays. More positively, once the bridge asset exists and has an established cash flow, options for private sector involvement may change. To date the project preparation appears to have been provided on a wholly grant basis.

TABLE C.4 SOURCES OF KAZUNGULA BRIDGE INVESTMENT FINANCING

SOURCE	ZAMBIA		BOTSWANA		TOTAL	
	US\$m	%	US\$m	%	US\$m	%
JICA	37.1	28	112.1	90	149.2	58
ADF	81.6	61	–	–	81.6	33
EU-ITF	2.4	2	2.4	2	4.8	2
GR Zambia	13.5	10	–	–	13.5	5
GR Botswana	–	–	10.3	8	10.3	4
Total	134.6	100	124.7	100	259.3	100

Source: AfDB Multinational Project Appraisal Report. October 2011.

Appendix **D** Interviews  
Undertaken  
by the CEPA  
Consortium

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## Interviews conducted at the African Development Bank Group (Tunis)

TABLE D.1 INTERVIEWS IN TUNIS

	INTERVIEWEE(S)	POSITION / AFFILIATED INSTITUTION	DATE OF INTERVIEW
1.	Mohamad Hassan	ICA Coordinator	15 May 2012
2.	Peter Fernandes-Cardy	Infrastructure Expert	15 May 2012
3.	Ralph Olaye	Manager, NEPAD and Regional Integration Department	15 May 2012
4.	Alex Rugamba	Director, NEPAD and Regional Integration Department	15 May 2012
5.	Gilbert Mbesherusuba	Director, Transport and ICT Department	15 May 2012
6.	Hela Cheikhrouhou	Director, Energy, Environment and Climate Change Department	16 May 2012
7.	Jean Michel Ossete, Franz Hollhuber	Chief, Water Operations; Principal Water and Sanitation Specialist, African Water Facility	16 May 2012
8.	Bamory Traore	Lead NEPAD-IPPF Specialist	16 May 2012
9.	Tim Turner, Neside Tas Anvaripour	Director, Private Sector Department; Division Manager, Infrastructure Finance and PPP	16 May 2012
10.	Mrs Terri Sarch	Team Leader, Wealth Creation Africa Regional Department, DFID	11 June 2012
11.	Alessandro Provaggi	EuropeAid Africa Department	11 June 2012
12.	Stephen Young	Head of Infrastructure Profession, DFID	11 June 2012
13.	Dr James Leighland	TAF Advisor for PIDG	11 June 2012

## Interviews conducted at the World Bank Group and USAID (Washington, D.C.)

TABLE D.1 INTERVIEWS IN TUNIS

	INTERVIEWEE(S)	POSITION / AFFILIATED INSTITUTION	DATE OF INTERVIEW
14.	Mustafa Hussain	Senior Infrastructure Finance Specialist, WB (WBG)	7 July 2012
15.	Alan Townsend	Senior Energy Specialist, WB (WBG)	7 July 2012
16.	Pankaj Gupta, Mustafa Hussain	Manager, Finance Solutions, WB (WBG); Senior Infrastructure Finance Specialist, WB (WBG)	8 July 2012
17.	Adrianna de Aguinaga, Matt Bull	Program Manager, PPIAF; Infrastructure Specialist, PPIAF (WBG)	10 July 2012
18.	Jamal Saghir, Zoubida Allaoua, Marriane Fay, Anna Bjerde	Director, Sustainable Development Department; Director, Finance, Economics and Urban Development; Chief Economist; Senior Manager SDD (WBG)	11 July 2012
19.	Praful Patel	President of Centennial Group; ex-head of PIDA Expert Panel	11 July 2012
20.	Paul Nomba	Sector Manager, World Bank Finance and Private Sector Development (WBG)	11 July 2012
21.	Alain Ebobisse	Global Head of InfraVentures, IFC (WBG)	11 July 2012
22.	Gaston Atesiano	Infrastructure and Environment Department, Inter-America Development Bank (WBG)	12 July 2012
23.	Jeffrey Humber	Director, Africa Infrastructure Program (USAID)	12 July 2012
24.	Laurence Carter	Director, PPP Transaction Advisory, IFC (WBG)	12 July 2012

## Interviews conducted at the European Investment Bank (Luxembourg)

TABLE D.3 INTERVIEWS IN LUXEMBOURG

	INTERVIEWEE(S)	POSITION / AFFILIATED INSTITUTION	DATE OF INTERVIEW
25.	Yves de Rosée, Alistair Wray	Head of Secretariat, EU-Africa Infrastructure Trust Fund; Senior Infrastructure Specialist, Project Directorate	20 July 2012
26.	Luis Hebrero	Technical Assistance & Implementation Coordinator, Project Development & Implementation Support, Project Directorate	20 July 2012
27.	Stefan Kerpen	Head of Technical Assistance Unit, Technical and Financial Advice Department	20 July 2012
28.	Gerald Muscat	Senior Coordination Officer, JASPERS	20 July 2012
29.	Heike Ruttgers	Head of Division, Portfolio Management and Policy, ACP – Investment Facility	20 July 2012
30.	Nancy Saich, Peter Zajc	Technical Adviser; Operational Adviser	20 July 2012

## Interviews conducted with representatives from the French government (Paris)

TABLE D.4 INTERVIEWS IN PARIS

INTERVIEWEE(S)	POSITION / AFFILIATED INSTITUTION	DATE OF INTERVIEW
31. Aurélien Billot	Deputy Head of ODA and Multilateral Development Institutions, French Treasury	8 August 2012

## Interviews conducted with other stakeholders (London)

TABLE D.5 INTERVIEWS IN LONDON

INTERVIEWEE(S)	POSITION / AFFILIATED INSTITUTION	DATE OF INTERVIEW
32. Brian Baxendale	Senior Infrastructure Advisor, Africa Regional Department, DFID	29 May 2012
33. Klaus Gühr	Head of Division for Transport and Telecommunications, KfW	22 June 2012
34. Keith Palmer	Chair, InfraCo Africa	3 July 2012
35. Peter Cattelaens	Project Manager, Africa-EU Renewable Energy Cooperation Programme (RECP)	16 July 2012
36. Helen Tarnoy	Managing Director, Aldwych	20 July 2012
37. Jonathan Berman	Fieldstone	27 July 2012
38. Mark Pearson, Phil Brown	TradeMark Southern Africa (TMSA); Department for International Development (DFID)	15 August 2012
39. John Hodges	Former PIDG Manager	15 August 2012
40. George Kostovos	Standard Bank	17 August 2012
41. Oliver Andrews	African Finance Corporation	24 August 2012

# Abbreviations

<b>Abbreviation</b>	<b>Description</b>	<b>Abbreviation</b>	<b>Description</b>
ACP	African-Caribbean-Pacific	EPC	Engineering Procurement Construction
ADA	Austrian Development Agency	ESIA	Environmental and Social Impact Assessment
ADF	African Development Fund	ESMAP	Energy Sector Management Assistance Program
AEEP	African-European Union Energy Partnership	EWBJF	European Western Balkans Joint Fund
AEF	Access to Energy Fund	FIRII	Fund for Integration Infrastructure
AESNP	AES Nile River Limited	FMO	Development Bank of the Netherlands
AFC	Africa Finance Corporation	G20	Group of Twenty
AfDB	African Development Bank	GDP	Gross domestic product
AFFI	Arab Financing Facility for Infrastructure	GEF	Global Environment Facility
AGM	Annual General Meeting	HLP	High Level Panel
AsDB	Asian Development Bank	IBRD	International Bank for Reconstruction and Development
ASEAN	Association of Southeast Asian Nations	ICGLR	International Conference on the Great Lakes
BEL	Bujagali Energy Limited	ICT	Information and communication technology
BNDES	Brazilian Development Bank	IDA	International Development Association
BNSF	Burlington Northern Santa Fe Railroad Company	IDB	Inter-American Development Bank
BOOT	Build-Own-Operate-Transfer	IFC	International Finance Corporation
BOT	Build-Operate-Transfer	InfraVentures	Global Infrastructure Project Development Fund
CDM	Clean Development Mechanism	IP	Inspection panel
CEB	Council of Europe Development Bank	IPA	Instrument for Pre-Accession
CEPGL	Economic Community of the Great Lakes Region	IPF	Infrastructure Project Facility
CLSG	Côte d'Ivoire, Liberia, Sierra Leone and Guinea	IPPF	Infrastructure Project Preparation Facility
COMESA	Common Market for Eastern and Southern Africa	IsDB	Islamic Development Bank
DBSA	Development Bank of Southern Africa	ITF	Infrastructure Trust Fund
DEG	German Investment and Development Company	JASPERS	Joint Assistance to Support Projects in Eastern Europe
DevCo	Infrastructure Development Collaboration Partnership Fund	JDA	Joint Development Agreement
DFI	Development Finance Institutions	JIC	Joint Implementation Committee
DFID	Department for International Development	JICA	Japanese International Cooperation Agency
DG	Directorates-General	KEPCO	Korean Electric Power Corporation
EBP	Estruturadora Brasileira de Projetos	KfW	Kreditanstalt für Wiederaufbau
EBRD	European Bank for Reconstruction and Development	KTMB	Malaysian Railways
EC	European Commission	LIC	Low-income country
ECOWAS	Economic Community of West African States	MDB	Multilateral development bank
EDF	European Development Fund	MIC	Middle-income country
EE	Energy efficiency	MIGA	Multilateral Investment Guarantee Agency
EGL	Energie des Grand Lakes	MoU	Memorandum of Understanding
EIB	European Investment Bank	NEPAD	New Partnership for Africa's Development
EIRR	European Internal Rate of Return	NIF	EU Neighbourhood Investment Facility
EIS	Environmental Impact Statement		

<b>Abbreviation</b>	<b>Description</b>	<b>Abbreviation</b>	<b>Description</b>
NORAD	Norwegian Agency for Development Cooperation	RITES	Rail India Technical and Economic Services
NSRF	National Strategic Reference Framework	SA	Sponsoring Authority
ODA	Official Development Assistance	SADC	South African Development Community
OE	Owner's Engineer	SCADA	Supervisory Control and Data Acquisition
OMVG	Gambia River Basin Development Organisation	SECCI	Sustainable Energy and Climate Change Initiative
PDF	Portable Document Format	SINELAC	Société Internationale d'Electricité des Pays des Grands Lacs
PIAC	Pacific Insurance Advisory Center	SME	Small and medium-size enterprise
PIDA	Programme for Infrastructure Development in Africa	SNEL	Société nationale d'électricité
PIDG	Private Infrastructure Development Group	SNTA	Subnational Technical Assistance
PIU	Project Implementation Unit	SPC	Special purpose company
PPDF	Project Preparation and Development Facility	SPV	Special purpose vehicle
PPFS	Project Preparation Feasibility Study	TA	Technical assistance
PPIAF	Public Private Infrastructure Advisory Facility	TAF	Technical Assistance Facility
PPP	Public-private partnership	TLIS	Transmission Line Implementation Strategy
PPTA	Project or programme technical assistance	TMSA	TradeMark Southern Africa
PPTAF	Project Preparation Technical Assistance Facility	ToRs	Terms of reference
PROPEF	Project Preparation and Execution Facility	UETCL	Uganda Electricity Transmission Company Limited
RE	Renewable energy	UMNO	United Malays National Organization
REC	Regional economic community	USAID	U.S. Agency for International Development
RECP	Renewable Energy Cooperation Program	USTDA	U.S. Trade and Development Agency
		WAPP	West African Power Pool
		WB	World Bank
		WBG	World Bank Group
		WBIF	Western Balkans Investment Framework

## Notes

<sup>1</sup> Percentages are of total number of grants awarded between 2009 and 31 December 2011.

<sup>2</sup> The residual 10% is with the GoU.

<sup>3</sup> Built in 1958; owned by the DRC and operated by the public utility SNEL.

<sup>4</sup> Built in 1988–1989; owned jointly by DRC, Rwanda and Burundi (via CEPGL), and operated by SINELAC. Ruzizi I and II will be rehabilitated by support from EIB and KfW in a process independent of but parallel to the development of Ruzizi III.

<sup>5</sup> The proof is only evident at financial close.

<sup>6</sup> AFC were a late arrival to the project development process but negotiated this status plus an equity position.

<sup>7</sup> The first contract was in 2006 but the joint development agreement was not in place until 2007.

<sup>8</sup> Such as the concession SITARAIL, between Côte d'Ivoire and Burkina Faso, and TRANSRAIL between Senegal and Mali.

<sup>9</sup> AfDB., (September 2009)., Dar Es Salaam-Isaka-Kigali / Keza-Musongati Railway Project Study.

<sup>10</sup> See AfDB. 2011. Trans-Gambia Corridor Phase 1, Construction of a Trans-Corridor Bridge and Cross-Border Improvement, Project Appraisal, November.

<sup>11</sup> For commercial viability at forecast traffic levels, the private sector would have retained 100% of toll revenues for provision of 20% of capital. See AfDB. 2011. Kazungula Bridge Project, Multinational Project Appraisal Report (October).

<sup>12</sup> See Nippon Koei Co Ltd and Oriental Consultants Co Ltd. 2003. 'The Feasibility of the Proposed Bridge over the Zambezi River between the Republic of Botswana and the Republic of Zambia.'





