

PPP Case Studies (Nigeria)

Project Name:	Case Study 1: Domestic Terminal At Murtala Muhammed Airport, Lagos
Country:	NIGERIA
Sector:	Transportation
Sub-sector:	Airports
Type of PPP:	Concession/BOT
Status:	Operations
Project Concept:	Following the destruction of the domestic terminal in a fire in 2000, the project involves the design, construction, and operation of a new domestic terminal and ancillary facilities at the Murtala Muhammed Airport in Lagos. The new terminal, Murtala Muhammed Airport Two (MMA2), has a land area of 20,000m ² and comprises a terminal building, a multi-storey car park, and an apron.
Procurement Details:	In 2003, the Ministry of Aviation advertised for bids for the project. Among the bidders were Royal Sanderton Ventures Limited and Bi-Courtney Limited. Initially, Sanderton was awarded the contract. However, after no significant construction had started six months into the contract signing, the government decided to revoke Sanderton's mandate and award the contract to Bi-Courtney following direct negotiations with the company. The contract was awarded for a period of 12 years and subsequently extended to 36 years. The Nigerian contracting entities are the Federal Government, represented by the Minister of Aviation, and Federal Airports Authority of Nigeria (FAAN), the Nigerian Airports Authority.
PPP Company:	Bi-Courtney Limited, a Nigerian firm, is the parent company of Bi-Courtney Aviation Services Limited.
Project Funding:	The estimated cost of the project was US\$200m for investments in physical assets. The project was part-financed with a loan of US\$150m from a consortium of six banks — Oceanic Bank International Plc, Zenith Bank Plc, GT Bank Plc, First Bank Plc, First City Monument Bank Plc and Access Bank Plc.
Other Stakeholders:	n/a
Project Outcome:	MMA2 is the first major BOT infrastructure project to be completed by a Nigerian company. While the airport has been in operation since 2007, the project has encountered various difficulties. These include: (i) after being awarded the contract, Bi-Courtney faced significant challenges in securing financing and had to start construction without a long-term financing agreement in place. The company proceeded with the project with support from Oceanic Bank International Plc. It was only in March 2007 that it secured a US\$150m part-financing from a consortium of six banks for the completion of MMA2; (ii) on the operations side, some airlines were reluctant to move from the International Terminal; (iii) FAAN reopened the old terminal General Aviation Terminal (GAT) for some airlines because the apron at

Key Lessons Learned	MMA2 was not able to accommodate the growth in domestic services; (iv) there have been disputes by the parties and claims of breach of contractual rights. Key lessons include: (i) the importance of having an agreed financial model and long term financing in place at the outset of the project; (ii) the initial bidding process also points to the importance of managing politicians’ expectations and setting realistic goals regarding timelines; (iii) revoking a contract and re-awarding it to a different company not only delayed the project but also triggered doubts in private participants’ minds about whether such changes were spurred by political rather than economic issues; (iv) the difficulty of enforcing contractual agreements in some developing countries where institutions are competing interests (e.g. while the contract has a clause assuring that all scheduled domestic flights in and out of FAAN’s airports in Lagos shall operate from the new terminal during the concession period, FAAN continues to operate the old domestic terminal (GAT); and (v) any conflict of interest faced by the Government puts significant pressures on the ability of the private sponsor to recover its investments and thus placed the financial viability of the project at risk.
Project Name:	Case Study 2: Lekki Toll Road Concession Project, Lagos Area
Country:	NIGERIA
Sector:	Transportation
Sub-sector:	Roads
Type of PPP:	Concession/BOT
Status:	Construction
Project Concept:	The project is proposed to be implemented in two phases. Phase I involves upgrading and maintenance of approximately 50 km of the Lekki-Epe Expressway on a BOT basis. The concession period for Phase I is 30 years. Phase II of the project involves construction of approximately 20 km of the Coastal Road on the Lekki Peninsular.
Procurement Details:	The Concession was awarded to Lekki Concession Company Limited (“LCC”)
PPP Company:	Lekki Concession Company Limited (“LCC”) is an SPV formed by the ARM Group of Companies for the execution of this project.
Project Funding:	The project cost was funded, using a mix of debt and equity with some support from the State and the Federal Government of Nigeria. The various sources of funding included DFI soft loans, Federal Government loans/grants, and private sector finance. The major shareholders in the project include Macquarie Bank and Old Mutual of South Africa through the African Infrastructure Investment Fund. The project was able to raise the first ever 15-year tenured local-currency debt financing in Nigeria from Standard Bank. Support from the State Government of Lagos has been received in the form of a mezzanine loan.
Other Stakeholders:	n/a
Project Outcome:	The UN has forecast a population of 20 million in 2020 for the Lagos State. Given the population of the state, it is estimated that approximately one million motor vehicles are stationed in Lagos today with a daily traffic flow between the Lagos Mainland and the Lagos Island of about 5,000,000 vehicles. The poor condition of the roads in Lagos, characterized by crumbling sidewalks, badly pot-holed road surfaces, non-functional traffic lights, poor signage, and blocked or non-existent drainage systems

lead to traffic congestion and high journey times, high fuel consumption, and low productivity. Improved road conditions will help in solving all the above-mentioned problems and result in time-saving and increased productivity of the citizens. Fuel would also be saved and thus the costs for both motor car owners and the Government would reduce, resulting in rapid development of the nation.

Key Lessons Learned

Lessons learned to date include: (i) the importance of stakeholder consultation in the early phases of the project (during feasibility study) as during the construction phase, communities living along the Lekki-Epe corridor began to protest about having to pay tolls and, as a result, tolling was suspended; (ii) the need for a strong contract management function within the Government team; (iii) the importance of managing public and investor perceptions during project implementation, as the project has been delayed resulting in commuter frustration with the perceived lack of progress; (iv) the need for agreed performance standards that are backed by an effective penalty regime; (v) the need for LASG to have its own financial model to ensure that the project was affordable and provided Value-for-money and as a bid evaluation tool; and (vi) the need for LASG to have a transaction advisory team.

PPP Case Studies (Africa-wide)

Project Name: **Case Study 3: Dar es Salaam Water Distribution Project**

Country: **TANZANIA**

Sector: **Water and Sanitation**

Sub-sector: **Water utility with sewerage**

Type of PPP: **Lease Contract**

Status: **Construction**

Project Concept: The project involved the leasing of Dar es Salaam's Water and Sewerage Authority's (DAWASA's) infrastructure for water distribution to a private consortium for operation. The private company was responsible for billing, collecting revenues from customers, making new connections, and performing routine maintenance. Ownership of the infrastructure was still in the hands of DAWASA. Alongside the lease contract, there were contracts to install or refurbish pumps at treatment plants, repair transmission mains, supply customer meters, and manage 'Delegated Capital Works.'

Procurement Details: Initially, there were three bidders for the project – two French companies and the winning bidder, City Water. While the bid criterion was to be the lowest tariff, the two French companies did not submit their final tender and therefore City Water was awarded the contract. In addition to the main lease contract, two ancillary contracts for priority works were also awarded to City Water, including the refurbishment of pumps at treatment plants and repairs of transmission mains. The contract was awarded for a period of 10 years, commencing August 1, 2003. However, it was terminated within two years of operation. The Tanzanian contracting entity was the Republic of Tanzania, represented by DAWASA.

PPP Company: The private consortium was led by Biwater, a UK-based water company with a 26% share, along with the Tanzanian local company Super Doll Trailer Manufacturer Company (SDT) with a 49% share and H.P. Gauff Ingenieure GmbH Co, a German company with 26% share.

Project Funding: US\$8.5m of investments in physical assets and payments to the Government under the lease contract. Significant further investment was to be undertaken under the ancillary contracts.

Other Stakeholders: The project received multilateral support from the World Bank, AfDB and EIB (total loan amount of US\$140m). DFID also provided support, with the funding of a consultancy contract to publicise the project.

Project Outcome: The contract was cancelled after two years, followed by complex arbitrations between the Government of Tanzania and City Water under the lease contract, and between the Government of Tanzania and Biwater Guaff (Tanzania) under international law. The lease contract arbitration was awarded in favour of the Government of Tanzania, and Biwater's claims for damages under the UK-Tanzania Bilateral Investment Treaty were dismissed. It was determined that City Water did not perform as (i) revenue collection targets were not met, (ii) improvements to the water distribution system (e.g., introduction of a new billing system) were not introduced, (iii) City Water stopped paying its monthly fee for leasing DAWASA's piping and other infrastructure in July 2004, less than a year into the contract, (iv) there were internal management problems within the consortium with SDT refusing to put in more equity without a greater share in the management, and (v) City Water had a social obligation to contribute to a fund for first-time connections, which was never created.

Key Lessons Learned The overall lesson was that given the difficult operating environment, considerable care needs to be applied in structuring a PPP transaction, with appropriate risk mitigation measures in place to ensure the financial viability and success of the transaction. More specifically, (i) the Government and its donors failed to ensure that DAWASA had a capable team of advisors to monitor City Water's performance adequately, (ii) only City Water submitted a proposal at the final tender stage, so there was no comparator to evaluate bids on a least cost basis, (iii) the contract needs to be viewed against available private expertise as there were assessments suggesting that Biwater did not have the experience of running a huge management operation before and that the project team was inexperienced, and (iv) the negotiations were undertaken in the run-up to the elections in Tanzania, and the Government was under pressure to 'resolve' the contract suitably.

Project Name:

Case Study 4: Kenya-Uganda Railways

Country:

KENYA AND UGANDA

Sector: Transportation

Sub-sector: Railways

Type of PPP: Concession

Status: Operations

Project Concept: With an objective of improving overall performance, the concessionaire is responsible for the rehabilitation, operation, and maintenance of the railways systems in both countries, which were previously run by the government (the Kenya Railways Corporation and the Uganda Railways Corporation), The concessionaire also provides freight services in both the countries and passenger services in Kenya for at least five years.

Procurement Details: While the two concessions for the Kenyan and Ugandan parts of the rail network are legally separate, the tendering process was undertaken jointly by the two governments and the contracts are fundamentally identical. The concession was awarded through an international, competitive bidding process and the bid criterion was the highest price paid to the government. From the two groups that bid for the project, the Rift Valley Railways (RVR) Consortium was awarded the concession. The concession was granted for 25 years and the concessionaires took over in December 2006.

PPP Company: When RVR was first awarded the concession, it was led by South Africa's Sheltam Rail Company (61%), with the remaining participants being Prime Fuels (Kenya, 15%), Comazar (South Africa, 10%), Mirambo Holding (Tanzania, 10%), and CDIO Institute for Africa Development Trust (South Africa, 4%). In March 2009, ongoing difficulties forced the parties into a further restructuring of the consortium whereby Sheltam's share was diluted from 35% to 10%, and the difference was taken by TransCentury and its partners.

Project Funding: The project was expected to cost US\$404m of which US\$4m was made in payments to the governments and the remaining balance for investment commitments in physical assets. Of the US\$404m, US\$111m was estimated to be the cost for the first five years of the project, of which US\$47m would be contributed to by the consortium in the form of direct equity and internal cash generation. The balance would be funded by loans from international organisations. Overall, the debt-to-equity ratio of the project was envisaged to be about 70:30.

Other Stakeholders: The original deal envisaged IFC and KfW providing loans worth US\$32m each. IFC/DevCo and Canarail acted as advisors to the governments of Kenya and Uganda respectively. PwC provided assistance to the concession operators. PIDG provided support to DevCo, and additional grants were also obtained through the Technical Assistance Facility. In addition, the World Bank provided Partial Risk Guarantees (PRG) of US\$45m for Kenya and US\$10m for Uganda. An IDA credit for US\$44m was made to fund labour retrenchment in Kenya.

Project Outcome: Outcomes included: (i) the Kenya-Uganda railway concession is a flagship transport sector PPP in East Africa and won Euro money’s Project Finance “Africa Transport Deal of the Year” award in 2006. However, the project has run into considerable operational and legal difficulties since then, which have seriously hampered its likelihood of success; (ii) contrary to the conditions governing the concession, the consortium has not undertaken any significant investment in structures or rolling stock. As a result, the US\$64m in loans from the IFC and KfW have not been released in full; (iii) the overall operational effectiveness of the project has been reduced as Kenyan freight traffic has not increased as stipulated in the Concession Agreement; (iv) there were funding shortfalls to finance the retrenchment of 6,200 employees in Kenya and 1,000 employees in Uganda; and (v) there have been restructuring of the consortium arrangements.

Key Lessons Learned The key lessons were: (i) the importance of attracting ‘competent’ private companies for the successful implementation of the contract, (ii) a cross-border project requires that the two governments take similar positions on issue, and (iii) greater political issues may alter the incentives of the parties involved and negatively impact the outcome of a transaction.

Project Name: **Case Study 5: National Referral Hospital**

Country: **LESOTHO**

Sector: Health

Sub-sector: Health

Type of PPP: Concession/BOT

Status: Construction

Project Concept: The project involves the replacement of Lesotho's main hospital, Queen Elizabeth II, an ageing facility with derelict infrastructure. The private company is responsible for designing, building, partially financing, fully maintaining and operating the new 390-bed public hospital. The project also features the refurbishment, upgrading and operation of three urban filter clinics.

Procurement Details: The Government of Lesotho undertook an internationally competitive bidding process for the project, and selected Tsepong (Pty) Limited, a consortium led by Netcare, as its preferred bidder. The PPP agreement between the Government and the consortium was signed in October 2008, and the contract was awarded for a period of 18 years.

PPP Company: The private consortium is led by Netcare (40%), a leading private health care provider that has operations in South Africa and the UK, and is listed in the Johannesburg Stock Exchange (JSE). The consortium also included Excel Health (20%), an investment company for Lesotho-based specialists and general practitioners (GP's); Afri'nai (20%), an investment company for Bloemfontein-based specialists and GP's; D10 Investments (10%), the investment arm of the Lesotho Chamber of Commerce; and WIC (10%), a Basotho women's investment company.

Project Funding: The project is expected to cost US\$100m. 80% of the capital costs will be provided by the Government and the remaining 20% will come from the private sector. The capital structure (excluding the government grant portion) has a debt-to-equity ratio of 85:15. All debt is provided by the Development Bank of Southern Africa (DBSA). 10% of equity is in the form of pure equity (40% provided by Netcare and 60% by the remaining consortium members) while 90% is in the form of loans (40% of which is a Netcare shareholder loan and 60% is a mezzanine loan/bridge finance from DBSA).

Other Stakeholders: The IFC acted as lead transaction advisor to Lesotho's Government. In addition, the Government has requested Partial Risk Guarantee (PRG) from the World Bank in order to provide the consortium, at their expense, with partial coverage against the Government's failing to make the unitary payment. The World Bank will also provide support to the Government with contract management. The Global Partnership for Output-based Aid (GPOBA) provided a grant of US\$6.25m, which is payable over the first five years of the project, to augment the unitary payment by the Government.

Project Outcome: This is a pioneering social sector PPP in Africa, which if successful, will have strong positive demonstration effects for future transactions. Expected outcomes include: (i) the project was structured such that the operating costs of the new facility would be

roughly equivalent to those at the existing referral hospital, and thus fit into the Government’s affordability envelope; (ii) since the cost of the services remains the same, patients will not need to pay extra to benefit from the higher level of medical services at the new hospital; (iii) the project won the 2008 “Social Infrastructure Deal of the Year” award from media outlet Africa-investor due to the pioneering nature of the deal and its ability to be replicated in other African countries, as well as for the project’s commitment to supporting local businesses and communities.

Key Lessons Learned

Although the project is relatively new, some key lessons learned to date include: (i) the importance of robust political support for attracting competent bidders to a project; (ii) the possibility of structuring a financially attractive deal for the private sector without having to increase the charges imposed on users; (iii) a financial deal can also be made more compelling for the private sector by securing risk guarantees from various institutions against the failure of payments from the Government; and (iv) substantial involvement of local and regional stakeholders, as evidenced by the participation of Lesotho-based GPs and specialists, build long-lasting diverse support for a project.

PPP Case Studies (Worldwide)

Project Name:	Case Study 6: Panagarh-Palsit Highway Project
Country:	INDIA
Sector:	Transportation
Sub-sector:	Roads
Type of PPP:	Concession/BOT
Status:	Operational
Project Concept:	The project involves the design, construction, operation and maintenance of a 63km four-lane carriageway between Panaragh and Palsit, which forms part of the Delhi-Kolkata section of the ‘Golden Quadrilateral Project’ (main highway links between the major cities of India).
Procurement Details:	Initially, the National Highways Authority of India (NHAI) shortlisted six bids from a mix of international and domestic companies – Larsen & Toubro, Kvaerner Construction, Road Builder, IJM Berhard Corp, Reliance Industries, and Gamuda-WCT. The bid criterion was the lowest annuity amount that would be paid semi-annually by the NHAI to the private sponsor. However, the NHAI found the annuity amount quoted by the lowest bidder to be too high and decided to call for fresh bids from all six parties in a second round of bidding. Only Larsen & Toubro, Road Builder, and Gamuda-WCT participated in the second round, which Gamuda-WCT won. The contract was awarded for a period of 15 years, and the agreement between NHAI and Gamuda-WCT was signed in November 2001.
PPP Company:	Gamuda-WCT is a joint venture between Gamuda (70%) and WCT (30%), two Malaysian engineering and construction companies.
Project Funding:	The project’s estimated cost is US\$69m. The financing package has a debt-equity ratio of 2:1. As the annuity payments are considered to be a secure and stable source of funding by the financial community, annuity-based models tend to be financed with higher debt-equity ratios compared to typical toll-based projects.
Other Stakeholders:	Infrastructure Development Finance Company (IDFC) acted as the financial advisor to NHAI. IDFC was established in 1997 as a specialised financial intermediary to lead private capital to commercially viable infrastructure projects in India.
Project Outcome:	This was one of the first projects that were undertaken under the BOT-Annuity framework. The construction phase of the project was completed in June 2005, five months behind schedule. The delay was caused by land availability issues and

	<p>finalization of change of scope orders. The Comptroller & Auditor General of India (CAG) report on BOT road projects undertaken by the NHAI had the following findings related to the Panagarh-Palsit section: (i) cracks and patch repairs were found to be less than 5% implying good maintenance; (ii) one hundred and thirty-two locations were test-checked for roughness with only one location's roughness within the "desirable" level (the rest were "acceptable" as per the Concession Agreement); (iii) deflection values in 10 out of 12 test-checked sections were more than the "acceptable" level stipulated in the Agreement, which indicates that the selected sections of the road are structurally weak and require overlay; and (iv) in two out of the five test-checked pits, the combined thickness of wet mix macadam and granular sub-base layers did not comply with the specifications.</p>
Key Lessons Learned	<p>Key lessons learned include: (i) revenue risks put significant uncertainty on the private sector's ability to recover its investments and may discourage participation in toll-based road PPPs, but an annuity method removes the revenue risks for the private sector and makes the deal more appealing to the private sponsor; (ii) the annuity payments reflect a transfer of revenue risk from the private sector to the government and if the government encounters difficulties in setting up toll charges, the annuity payments may put a strain on its budget; and (iii) considerable attention needs to be given to the way the PPP agreement is structured in order to make sure that the private participant is sufficiently incentivized to deliver the project on time (e.g. the Panagarh-Palsit Agreement did not stipulate target dates for individual project milestones and consequent penalty for non-achievement of milestones)</p>
Project Name:	Case Study 7: Cross-Harbor Tunnel, Hong Kong
Country:	CHINA
Sector:	Transportation
Sub-sector:	Tunnel
Type of PPP:	Concession/BOT
Status:	Operational
Project Concept:	<p>The project involved the construction, maintenance and operation of a tunnel connecting Kowloon to Hong Kong Island. The 1.9km Cross-Harbour Tunnel (CHT) was Hong Kong's first underwater tunnel and formed the first road connection between the Island and Kowloon.</p>
Procurement Details:	<p>The procurement was done via reverse tender whereby the bids were evaluated on the basis of the lowest public sector subsidy required. On the basis of this criterion, the Cross-Harbour Tunnel Company Limited was awarded the contract. The contract was awarded for a period of 30 years, commencing in 1969.</p>
PPP Company:	<p>The company is a Hong Kong-based investment holding company with emphasis on</p>

	transport infrastructures, such as tunnel operation, tunnel management, operation of driver training centres, and operation of electronic toll collection systems.
Project Funding:	The financing package had a debt-equity ratio of 64:36. Royalty payments amounted to 12.5% of operating receipts.
Other Stakeholders:	n/a
Project Outcome:	Construction work commenced in September 1969 and the tunnel became operational ahead of schedule in August 1972. It successfully reached the end of its 30-year concession period and its control was transferred to the government in 1999. Other outcomes include: (1) CHT is the first BOT project in Hong Kong that did not need to be re-negotiated and is widely considered to be a success story; (ii) despite facing competition from an effective and cheap ferry service, the tunnel proved to be very popular and began to make profits four years after its opening, and had repaid all debts by 1977; (iii) at the time of its construction, CHT was at the forefront of tunnel engineering as the harbour's deep waters made a conventional underground tunnel impractical, so engineers devised an estuarine tube tunnel that would sit on the sea bed and, at the time, was the longest immersed tube tunnel ever constructed; (iv) two more cross-harbour tunnels have been built since CHT became operational but CHT continues to be the most popular, with more than half the cross-harbour traffic passing through it; and (v) successful factors included that the private company had the necessary skills for undertaking the project, it was first and therefore occupied strategically the best location for harbour crossing, and the concession period coincided with Hong Kong's rapid economic development.
Key Lessons Learned	Lessons learned include: (i) the importance of strong political support for successful completion of a project and a major tunnel project involved massive effort by the government through the planning and implementation stages; (ii) the importance of structuring the PPP transaction in an appropriate way in order to attract capable private sponsors; (iii) the government can transfer much of the operating risk to the private company by choosing a central location for the tunnel and thus ensuring a steady flow of traffic; (iv) with the right project characteristics and a strong government counterpart agency the government does not necessarily have to provide direct guarantees to sweeten the deal for the private sector, and that alternative incentives can be found that make the deal attractive to the private participant without increasing the risk that the government needs to assume.
Project Name:	Case Study 8: Hamburg International Airport
Country:	GERMANY
Sector:	Transportation
Sub-sector:	Airport

Type of PPP:	Concession
Status:	Operational
Project Concept:	The project involved the construction of a new terminal with large commercially usable real estate, extension of parking areas, and establishment of connectivity of the Hamburg International Airport to the suburban rail network. The project is part of a country-wide initiative to support further development of airports by extending their capacities in all functions in line with the demand for overall airport services.
Procurement Details:	An EU-wide tender procedure was held and the contract was awarded, with the Senate of Hamburg's approval in July 2000, to a consortium Hamburg Airport Partners formed by Hochtief AirPort GmbH and Aer Rianta International GmbH, a subsidiary of the Irish airport operating company.
PPP Company:	Flughafen Hamburg GmbH (FHG) was the original company responsible for the operations of the Hamburg International Airport. FHG was originally owned by City State of Hamburg (64%), FRG (26%), and State of Schleswig-Holstein (10%). Post tendering, the private sector consortium formed by Hochtief AirPort GmbH and Aer Rianta International GmbH owns 40% stake in FHG and the remaining stake is owned by City State of Hamburg and other government agencies.
Project Funding:	The construction and the extension of the Hamburg International Airport required capital investment to the extent of €350m. This was funded by means of a 36% stake sale in FHG to the private sector consortium of Hochtief AirPort GmbH and Aer Rianta International GmbH for €296m and through a €220m loan support from EIB, received through a local bank.
Other Stakeholders:	The project received support from EIB in the form of a loan through a local bank of €220m.
Project Outcome:	The project is one of the first airport projects in Germany to be undertaken through the PPP route. The capacity augmentation of the Hamburg International Airport has provided quality airport infrastructure, solving the problem of capacity bottlenecks and resulting in higher revenues and increased profitability for all the stakeholders.
Key Lessons Learned	<p>The Hamburg International Airport case shows that major PPP projects in airport construction can be successfully realized if the needs of all parties are integrated. Airports present particular environmental and social issues but these can be successfully addressed. The case shows that:</p> <ul style="list-style-type: none"> ▪ Compensations like advanced noise protecting programs or noise quota systems can be established contractually and financially integrated. ▪ It is possible that private and business customers benefit from sophisticated contractual instruments like price-cap regulations. ▪ A right of veto in cases of conflict, granted to each of the partners within the

	partnership agreement, acts as a central instrument of risk management strategy.
Project Name:	Case Study 9: Point Lisas Desalination Plant
Country:	TRINIDAD AND TOBAGO
Sector:	Water and Sanitation
Sub-sector:	Bulk Water Supply
Type of PPP:	Concession/BOO
Status:	Operational
Project Concept:	The project includes the financing, construction, and operation of an 110,000 m ³ /day capacity desalination plant to service the industrial park at Point Lisas on the west coast of Trinidad. Trinidad’s Water and Sewerage Authority (WASA) is the sole purchaser of the treated water and on-sells to industries located in Point Lisas and pumps the excess into the potable supply.
Procurement Details:	In 1999, a selection committee acting on behalf of the Government awarded the contract for the plant to a joint venture named the Desalination Company of Trinidad and Tobago (Desalcott). The contract was awarded for a period of 20 years.
PPP Company:	Desalcott is a joint venture between the local company Hafeez Karamath Engineering Services Ltd. (60%) and Ionics Inc. (40%), a US-based company specialising in desalination, water reuse and recycling, and industrial ultrapure water services. Ionics was bought by General Electric (GE) in 2004.
Project Funding:	The estimated cost of the project is US\$120m.
Other Stakeholders:	Initially, Desalcott attempted to raise financing for the project through the Overseas Private Investment Corporation (OPIC), a US government agency that helps US businesses invest overseas. Eventually, OPIC dropped out of the project as a result of the difficulties in securing government guarantees for the project.
Project Outcome:	<p>The plant became fully operational in 2002 and was subsequently expanded in 2004. Water from this plant accounts for more than 10% of the total water production in the country and it is the largest seawater reverse osmosis system in the western hemisphere. The plant was originally designed for 50% overall recovery but by 2006, it was already operating at around 62% recovery with significantly lower-than-expected chemical consumption. The plant operates extremely reliably with an availability of over 95%.</p> <p>Despite the positive operational performance, public opinion of the desalination plant has been mixed. The water supply system in Trinidad is quite unreliable and even though the plant has made significant improvements in water supply to the industrial area, there is widespread conviction that WASA is giving foreign-owned companies</p>

	<p>preferential treatment at the expense of the general public.</p> <p>The project has also been subject to corruption allegations. The probe began in 2002 after the new Government promised an investigation into the contract which was entered into by the previous administration. It is claimed that the bid process was rigged and that payments to certain Trinidadian officials were made to make sure that Desalcott would be awarded the contract. In 2006, Desalcott’s executive chairman Hafeez Karamath was arrested on fraud charges.</p>
Key Lessons Learned	<p>Lessons learned include: (i) operational success does not necessarily guarantee public support, and that it may be beneficial to undertake an effective public relations campaign to inform the general public of the benefits of the project; (ii) implementing PPPs in developing countries’ water sector may be particularly difficult as increasing water tariffs tends to be a highly political issue and the inability to increase tariffs may put a serious strain on the financial viability of the project; (iii) a government’s reluctance to grant tariff increase sets a bad precedent in enforcing the overall rule of law in some developing countries; (iv) during the tender process, significant attention needs to be paid to the ability of the private sector to raise financing for the project; and (v) companies should not partake in corrupt practices to win a tender – it is never worth it in the long-run.</p>
Project Name:	Case Study 10: Tala Transmission Project
Country:	INDIA
Sector:	Energy
Sub-sector:	Transmission
Type of PPP:	Concession/BOT
Status:	Operational
Project Concept:	<p>The project is to build, operate and maintain five 400kV and one 220kV double circuit electricity transmission lines of approximately 1,200 km, with a maximum load capacity of about 3,000MW. The new transmission system has been undertaken to transmit power from the Tala Hydro Project in Bhutan and carry surplus electricity from North-Eastern India to the power-deficient Northern Indian belt.</p>
Procurement Details:	<p>As a result of an international competitive bidding process, Tata Power was awarded the contract. The only other pre-qualified bidder was National Grid of the UK. The contract was awarded for a period of 30 years, and reached financial closure in April 2004. The Indian contracting entity was the federal government.</p>
PPP Company:	<p>The project is undertaken by Tala-Delhi Transmission Limited (TDTL), a joint venture between Tata Power (owning 51% of TDTL) and the Government of India’s Power Grid Corporation of India Limited (PGCIL) which owns 49% of TDTL. Tata Power’s main line of business is the generation, transmission and distribution of electricity. It is the country’s</p>

	largest private power utility.	
Project Funding:	The estimated cost of the project is US\$269m. The amount will be spent on investments in physical assets. The financing package consists of 30% equity and 70% debt. State Bank of India and IDFC provided term loans.	
Other Stakeholders:	The project received support from the IFC in the form of a US\$75m loan. The Asian Development Bank also extended a US\$62.24m private sector loan to the project.	
Project Outcome:	The Tala transmission project is India’s first inter-state transmission project undertaken via PPP. It is also the first BOT electricity transmission line outside Latin America and the Caribbean region. The construction phase was completed within schedule and the project has been operating commercially since September 2006. In its first year of operation, the transmission line was able to ensure exchange of about 3,500 million units of surplus energy from the eastern to the northern regions.	
Key Lessons Learned	<p>The Tala case highlights the importance of structuring the PPP transaction in an appropriate way so as to make the project more attractive for the private sector. In this particular example, interest from private parties was initially limited as the returns on the project were deemed too low due to the tariff structure adopted by PGCIL. As a result of a petition filed by National Grid, the Central Electricity Regulatory Commission (CERC) of India decided to allow private transmission players a 10% mark-up on equity over that offered to PGCIL, which raised the internal rate of return for the private participants by 4.5% on the Tala project.</p> <p>The Tala case also points to the importance of introducing risk mitigation measures in the PPP structure to secure private sector interest. More specifically, as state electricity boards in India have poor payment records, it was necessary for PGCIL to assure 100% payment to private sponsors for transmitting power to the state boards and making the project financially viable for the private sector.</p> <p>While the presence of a government-owned shareholder may make it easier to overcome bureaucratic hurdles, it may make private investors worry about the potential balance of power issues. In the Tala case, such concerns were mitigated by both the shareholding structure, which gave the majority stake to the private participant, and the way the management positions were nominated.</p>	