

# PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

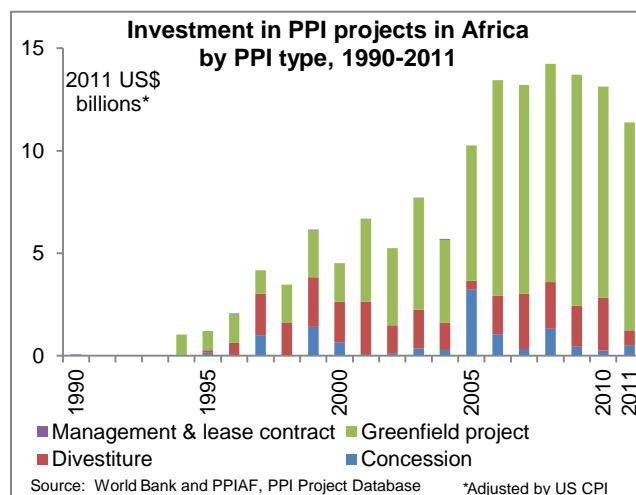
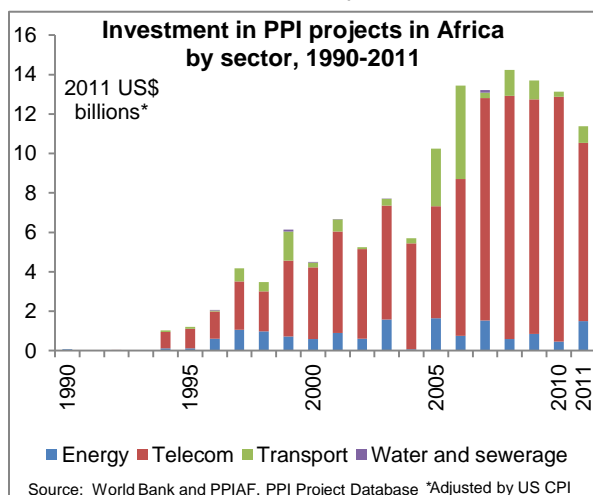
PPI data update note 79

September 2012

## Private activity in infrastructure in Sub-Saharan Africa falls to 6-year low

In 2011, there were 18 infrastructure projects that reached financial or contractual closure in 12 low and middle income countries in sub-Saharan Africa: Botswana (1), Kenya (2), Malawi (1), Nigeria (1), Rwanda (1), Sierra Leone (1), South Africa and Zimbabwe (1), South Sudan (5), Tanzania (3), Togo (1), Zambia (1).<sup>1</sup> This number is in line with the last three years, but much lower than the number of projects closed during the peak year of 2005, when 42 projects closed.<sup>2</sup>

Total investment commitments (hereafter, *investment*) in all infrastructure projects in the Africa region reached US\$11.4 billion. This was a 13% decrease in real terms (2011 US dollars) compared to the investments attracted the previous year, and 20% lower than the peak in 2008. Only about US\$2 billion was invested in the 18 new projects; the remaining \$9.4 billion came from new investments in existing projects (projects that had already reached financial or contractual closure before 2011). About 80% of all private investment (US\$9 billion) in infrastructure projects in Africa went to the telecom sector. (See also Note 74 in this series on the global PPI activity in the telecommunications sector in 2011.) The energy sector attracted about US\$1.4 billion in investments, while the transport sector attracted US\$850 million.



### Sector focus

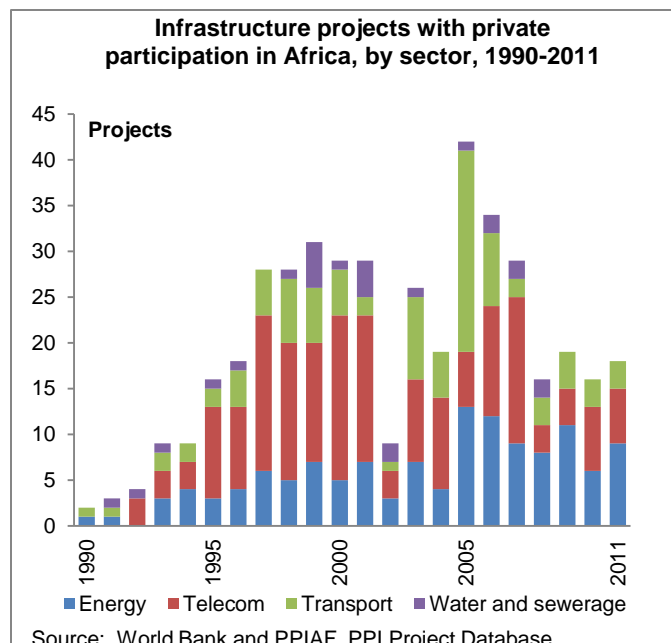
While the number of projects in Africa has been on a steady decline, the picture varies by sector. The **energy** sector in Africa attracted US\$794 million for nine new projects. The total amount invested in this sector,

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<sup>1</sup> The PPI Project Database currently uses the World Bank's definition of low- and middle-income countries released in July 2010. Investment data are in 2011 US dollars, using the US CPI to adjust to 2011 values. This note discusses investments in the Africa region, which groups together the sub-Saharan African countries.

<sup>2</sup> Data on infrastructure projects with private participation include primarily medium-size and large projects in low and middle income countries as reported by the media and other public sources. Small-scale projects are generally not included because of lack of public information. More information is available at <http://ppi.worldbank.org/>.

including additional investment in previously implemented projects, was almost twice as much: US\$1.35 billion. This was almost three times as much the capital invested in 2010 and the highest amount since 2007.



There were three energy projects in Tanzania, two in Kenya, and one in Botswana, Rwanda, Sierra Leone, and Zambia. All projects were generation plants, which added 752 MW to African grids. Of the total, 135MW was renewable energy, valued at US\$260 million. Rental projects added 220 MW on a temporary base. There was one hydropower plant, Itzhi-Tezhi (120MW), and one biomass plant, the Addax Biomass plant (15MW).

Apart from these renewable energy plants, there were five diesel plants in Tanzania and Kenya, with a combined capacity of 427MW. Two gas-fired power plants, the KivuWatt methane plant in Rwanda and the KSE Orapa and Mmashoro plant in Botswana added another 190 MW. All generation projects had at least 50% foreign equity, coming from the United States, India, the United Kingdom and Turkey. The African

Development Bank (AfDB) was the dominant multilateral development bank in the region, supporting 4 of the 9 projects. Diesel was the predominant generation fuel.

Five existing power plant projects in the region were expanded, representing an additional US\$701 million in investment. These projects include three gas-fired power plants in Ghana and Côte d'Ivoire, as well as a co-generation plant in Uganda. The Ormat geothermal plant in Kenya was expanded for a second time, adding 36 MW to the existing 48 MW at a cost of US\$165 million. Financing was provided by OPIC, while the World Bank issued a Partial Risk Guarantee. A MIGA-guarantee issued earlier was extended. Foreign equity holders were active in 89% of the projects.

The African **telecom** sector attracted US\$9 billion of investments. Of this amount, US\$8.5 billion was invested in projects that had closed by the end of 2010. This was a four-year low, or 20% lower compared to 2010. Almost 85% of capital was invested into mobile access projects. The largest amounts were invested in South Africa (US\$1.7 billion) and Nigeria (US\$1.5 billion). Other key destination countries for investment were Kenya and Tanzania (>US\$500 million), DRC and Tanzania (>US\$400 million), and Côte Ivoire, Ghana, and Sudan (>US\$ 300 million). The region did see a record number of new projects: one new merchant fixed and mobile provider in Malawi (Celcom Ltd.), and five mobile access merchant projects in the world's newest country, South Sudan. The latter were operations spun off by large companies that had been servicing the entire Sudan (MTN, Sudani, Zain).

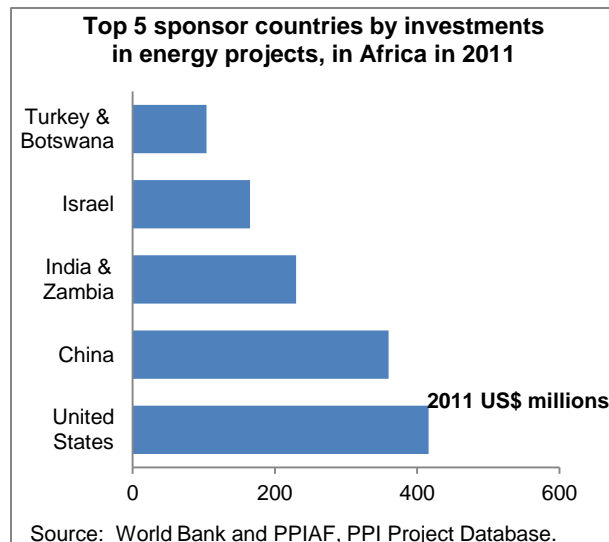
The total investments in the **transport** sector in Africa were US\$851 million in 2011. Three new projects in this region attracted US\$716 million, while the remainder was capital invested in preexisting projects. Nigeria and Togo each committed to building a seaport, while there was one cross-border highway project between Zimbabwe and South Africa, the Beitbridge Border Post.

There hasn't been any activity in the Africa region in the **water and sewerage sector** since 2008.

## Sponsor focus

### Telecom

There were several predominant sponsor countries that invested in Africa: South African sponsors (17% of projects), Indian sponsors (14%), U.A.E. (12%), and France (9%). Large telecommunications companies active in Africa were South Africa's MTN (responsible for 21% of investments in the region in 2011), U.K.'s Vodafone (15%), Bharti Airtel of India (13%), France Télécom (11%), and Emirates (U.A.E., 5%).

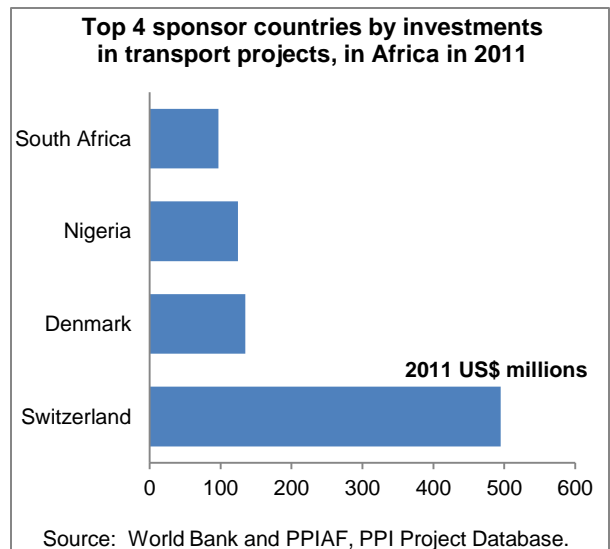


### Energy

13 energy projects saw investments in 2011, nine of which were new projects, closed in 2011. Of these projects, two had domestic investors only. The remaining 11 had a combination of foreign and domestic sponsors. By total project investment the top 5 sponsor countries were: United States (Contour Global and Symbion Power LLC), China (Shenzen Electric), India (Tata Enterprises) co-investing with Zambia (ZESCO), Israel (Ormat Turbines) and Turkey (TUTEN) co-investing with Botswana (Kalahari Energy).

### Transport

Six transport projects saw investments in 2011, three of which were new projects closed in 2011. Two of these projects had domestic investors, South African and Nigerian Investors, while the remaining three had a combination of foreign and domestic sponsors. By total project investment the top 4 sponsor countries were: Switzerland (Mediterranean Shipping Company), Denmark (AP Moller – Maersk Group), Nigeria (Eko Support Services Limited) and South Africa (Old Mutual, Nedbank Capital, Sanlam).



## **Featured project**

### **TATA Itezhi-Tezhi HPP (Zambia) | Electricity generation: Hydro | Greenfield BOT | PPP**

The Itezhi-Tezhi hydropower station is a 120 MW facility located in the Itezhi-Tezhi District. The Itezhi-tezhi dam, built as a storage reservoir for the existing Upper Kafue Gorge Hydro (UKGH) Power Station, is located on the Kafue River about 230 km upstream from the existing Station.

The Zambian government granted a 25-year power purchasing agreement to the Itezhi-Tezhi Power Corporation (ITPC), a joint-venture Company established by the state owned Zambia Electric Supply Corporation (ZESCO) and Tata Africa Holdings Limited (TATA). ITPC will build-operate-and-transfer a hydroelectric power plant with 2 x 60 MW at the Itezhi-Tezhi dam. The plant is scheduled to begin commercial operation in 2014. The EPC contract was awarded to Sinohydro on a turnkey basis. The turbine and generator units were supplied by the French company Alstom under a contract worth \$26.25 million. The PPA tariff was to be USD 8.51 cents/kWh, under a three-year multi-tariff framework.

The US\$239.5 million project cost, split between \$71.7 million in equity and \$167.8 million in debt. The debt will be supported by a US\$29.04 million loan from Exim Bank of India agreed in 2010, the remaining \$138 million in debt is divided equally between the AfDB (lead bank), PROPARCO, FMO, and the Development Bank of Southern Africa (DBSA) in 2011, of \$34.57 million each. A single EPC contract has been signed with Chinese contractor Sinohydro, after a competitive international bidding process. Equity was contributed by TATA (\$35.86 million) and ZESCO (\$35.86 million). ZESCO's equity was funded via EIB and ADF (\$17.8 million each). Project has an IRR of 16.2%. Average operating costs were USD 2.7 cents/kWh, for ZESCO in general.

**Table 1 – Projects with private participation reaching financial or contractual closure in Africa in 2011**

Energy						
Country	Project Name	Type of PPI	Subtype of PPI	Segment	Total Investment (US\$ millions)	Sponsors
Botswana	KSE Orapa and Mmashoro IPP	Greenfield project	Build, lease, and transfer	Electricity generation	104	Kalahari Energy (50% / Botswana), TUTEN (50% / Turkey)
Kenya	Aggreko Westen Kenya Temporary Power Station	Greenfield project	Rental	Electricity generation	4.7	Aggreko Plc (100% / United Kingdom)
Kenya	Thika Thermal Power Project	Greenfield project	Build, own, and operate	Electricity generation	150	Others (100%)
Rwanda	KivuWatt	Greenfield project	Build, own, and operate	Electricity generation	142	ContourGlobal (100% / United States)
Sierra Leone	Addax Biomass Plant	Greenfield project	Build, own, and operate	Electricity generation	30	Addax & Oryx Group (100% / United Kingdom)
Tanzania	Aggreko Ubungo and Tegeta Temporary Power Station	Greenfield project	Rental	Electricity generation	0	Aggreko Plc (100% / United Kingdom)
Tanzania	Symbion Dodoma Power Plant	Greenfield project	Rental	Electricity generation	4.7	Symbion Power LLC (100% / United States)
Tanzania	Symbion Rental Ubungo Power Plant	Concession	Rehabilitate, operate, and transfer	Electricity generation	129.4	Symbion Power LLC (100% / United States)
Zambia	TATA Itezhi-Tezhi HPP	Greenfield project	Build, operate, and transfer	Electricity generation	230	Tata Enterprises (50% / India), Zambia Electric Supply Corporation (ZESCO) (50% / Zambia)

Telecom						
Country	Project Name	Type of PPI	Subtype of PPI	Segment	Total Investment (US\$ millions)	Sponsors
Malawi	Celcom Limited	Greenfield	Merchant	Fixed and mobile access	370	Celcom Limited (100% / South Africa)
South Sudan	Gemtel (GreenN)	Greenfield	Merchant	Mobile access	..	Libya Africa Portfolio for Investments (LAP) (100% / Libya)
South Sudan	MTN South Sudan	Greenfield	Merchant	Mobile access	..	MTN Group (100% / South Africa)
South Sudan	Sudani South Sudan	Greenfield	Merchant	Mobile access	..	Sudatel Group (100% / Sudan)
South Sudan	Vivacell (Network of the World)	Greenfield	Merchant	Mobile access	..	Fattouch Group (75% / Lebanon)
South Sudan	Zain South Sudan	Greenfield	Merchant	Mobile access	60	Zain (100% / Kuwait)

Transport						
Country	Project Name	Type of PPI	Subtype of PPI	Segment	Total Investment (US\$ millions)	Sponsors
Nigeria	Bullnose Port Facilities	Concession	Build, rehabilitate, operate and transfer	Channel dredging and terminal	124.4	Eko Support Services Limited (100% / Nigeria)
South Africa and Zimbabwe	Beitbridge Border Post	Concession	Build, rehabilitate, operate and transfer	Highway	97	Old Mutual ( South Africa), Nedbank Capital ( South Africa), Sanlam ( South Africa)
Togo	Lome Container Terminal	Greenfield	Build, operate and transfer	Terminal	495	Mediterranean Shipping Company ) (100% / Switzerland)

**[In the water and sanitation sector, there were no projects with private participation that reached financial closure in 2011]**

Note: .. denotes missing data; N/A means not applicable. Investment commitments include payments to the government and investment in physical assets. \*in 2011 US\$ millions.

Source: World Bank and PPIAF, PPI Database 2011.