

INFRASTRUCTURE FINANCING TRENDS IN AFRICA – 2014





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I have the pleasure of presenting to you the sixth edition of the ICA annual report, Infrastructure Financing Trends in Africa 2014. Over the years the report has served as a unique document monitoring the flow of resources to Africa's infrastructure.

In line with our continuous efforts to provide ever broader and more granular analysis of Africa's infrastructure financing, this year's report includes data and discussions on domestic resource mobilisation for infrastructure from central and local government budget allocations, state utility contributions and the private sector.

The report examines how some economies are already substantially mobilising their own resources, rather than relying on investment, loans, grants or remittances received from external sources. However, external support remains a much needed catalyst for infrastructure development in many locations. In this context, the role and activities of ICA members remain crucial.

Infrastructure Financing Trends in Africa 2014 shows that ICA members are mobilising their resources, with a record level of \$13bn of disbursements, an increase of more than 14% compared with 2013. Commitments reported by ICA members in 2014 are less than those reported in 2013, standing at \$18.8bn compared with \$25.3bn in the previous year. However, without the exceptional \$7bn contribution from the US presidential Power Africa initiative reported in 2013, levels of commitments in 2014 are slightly up on the previous year on a like-for-like basis with broadly similar organisations' reporting.

An 80% increase in commitments to Central Africa's transport infrastructure, to \$1.8bn in 2014, provided a larger sum than was committed to any other region in that sector. This was particularly encouraging among ICA members' activities.

Key trends among ICA members include an increasing deployment of resources in multi-sector projects, with disbursements up by 14% and commitments by 11% in 2014. Information and communications technology (ICT) appears to be attracting more interest, with Central and East Africa seeing double the funding in 2014 over the previous year. The 2014 report reveals that, for ICA members, energy is once more the most attractive sector with \$9.2bn or 48% of all commitments.

To obtain a clearer picture of resource mobilisation, we have increased the coverage of central government financing from 20 countries in 2013 to 42 countries. Identified budget allocations from these countries indicate that transport is a big priority for central governments, with allocations of \$17.6bn or 57% of total allocations to the sector. An additional \$8.4bn was added to that total by Egyptian citizens who bought investment certificates to fund work, now completed, to make the Suez Canal a two-way waterway.

This year's report begins to look at the important role subnational financing plays in some countries' infrastructure spending. Analysis reveals that finance raised and supplied by local governments and state utilities is substantial in some jurisdictions, including Morocco, Nigeria and South Africa. State utilities from Namibia's port operator Namport to Morocco's Office National des Chemins de Fer are part-funding major projects alongside their governments and a wide range

of development partners. Government and subnational bonds are being mobilised alongside revenues from state utilities and tax revenues from individuals and companies.

The private sector is increasingly playing an important role in resource mobilisation, with banks and institutional investors channelling funds for public investment in infrastructure, including roads, power plants and water facilities. Of the 69 respondents to the ICA's African Infrastructure Investment Survey 2014, more than 50% of investors said they would invest more in the sectors in which they already participate, while 88% of energy investors said they intend to increase their commitments in that sector.

Infrastructure-focused investment houses based in Africa and owned by or focused on deploying capital on behalf of banks and institutional investors now have portfolios worth at least \$3.7bn. The private sector participated in projects with a total value of \$5.1bn according to the Private Participation in Infrastructure (PPI) Project Database, jointly produced by the World Bank's Infrastructure Economics and Finance Department and the Public-Private Infrastructure Advisory Facility (PPIAF).

The 2014 survey – while confirming the usual constraints of bureaucracy delays, policy uncertainty, transparency and lack of institutional capacity – illustrated that identifying bankable projects was a challenge for the private sector. To respond to the project preparation challenge, ICA members are involved in initiatives and programmes to improve project origination, as well as early stage project development and financing, with the ultimate aim of increasing flows through the project pipeline.

The report includes interviews with ICA members to help understand the processes and dynamics of developing Africa's infrastructure, as well as the challenges. ICA members showed a strong preference for multi-sector and regional schemes, but some were frustrated at the lack of private sector appetite for regional projects.

The new Global Infrastructure Facility was launched in 2014, holding the potential to unlock billions of dollars for infrastructure in the developing world. The GIF is designed to tap into expertise from within and outside the WBG to deliver complex public-private infrastructure projects that no single institution could address on its own. This potentially powerful tool joins forces with emerging instruments, including the innovative Africa50 fund, that will help the continent to develop transformative and bankable projects, while supporting project financing with money raised from regional and non-African pension funds, insurance groups, sovereign wealth funds and institutional investors.

The ICA vision is that all Africans should have access to sustainable and reliable infrastructure services, including energy, transport, water, and ICT. We hope this report will inform and assist the mobilisation of resources needed to achieve that vision.

MOHAMED H HASSAN
Coordinator, ICA Secretariat

The Infrastructure Consortium for Africa's mission is to help improve the lives and economic well-being of millions across the continent, by supporting the scaling up of investment in project development from public and private sources.

With a focus on regional programmes and projects, in addition to country-specific initiatives, the ICA helps to facilitate infrastructure development in the water, transport, energy and ICT sectors. This is in recognition of the fact that many African countries lack the essential building blocks of economic progress, such as well-maintained roads and railways, access to electricity, the Internet, water and sanitation.

Not a funding agency, the ICA is intended to catalyse and facilitate the financing of infrastructure projects and programmes; it also works to overcome technical and political challenges to building more infrastructure. Under this mandate the ICA – in partnership with the AfDB, and at the request of the AUC, NPCA and Regional Economic Communities (RECs) – published a PIDA Financial Structuring Plan in December 2014 to help mobilise

resources for landmark regional projects (see page 57).

To address problems associated with project preparation, ICA established in 2014 a Project Preparation Facilities Network (PPFN), in accordance with the recommendations of a study requested by the G20. ICA in 2015 completed a study on best practice and lessons learnt in co-ordinating PPFN project co-financing, information-sharing and resource mobilisation.

The ICA Secretariat in the last two years has organised training workshops for 24 African countries on enhanced PPA negotiation skills, with an emphasis on renewable energy (see page 33).

The ICA publishes key knowledge products, which include the annual flagship report, Infrastructure Financing Trends in Africa, which monitors resource flows to infrastructure.

ICA has established a Knowledge Center as an information-sharing database, holding and publishing documentation in the key areas of

energy, transport, water, ICT and general infrastructure.

In line with its commitment to information sharing, ICA, in conjunction with NEPAD and AfDB, and with financing from JICA, is updating its One-Stop Border Posts Sourcebook to include current best practices and lessons learned since the first edition was published (see below).

The ICA has strong backing. Its bilateral members include the G8 countries: Canada, France, Germany, Italy, Japan, Russia, the UK and US. Membership is open to all members of the G20 – the Republic of South Africa became the first non-G8 G20 member of the ICA in December 2013. Multilateral members include the AfDB Group, EC, EIB, DBSA and WBG.

Increasingly, the ICA is working to improve co-ordination among members, as well as between members and other significant sources of infrastructure finance, who include China, India, the Arab and Islamic financiers (who form the ICA's Arab Co-ordination Group), African regional development banks (RDBs) and the private sector. ■

Facilitating trade: One-Stop Border Post Source Book

One-Stop Border Posts are one of the continent's highest priorities. The OSBP Sourcebook is being revised and updated by ICA, NEPAD and AfDB, with financial support from JICA, to include current best practices and lessons learned since the first edition was published in 2011.

Africa has five of the world's top ten fastest growing economies, according to the World Bank. But WTO data show the continent's share of global trade has remained relatively low, at 3% in 2014, with Intra-African trade (at 16%) lagging behind other regions, such as Europe (69%), Asia (53%), North America (49%) and South and Central America (27%) (2014). With 54 countries, 16 of them landlocked, Africa has struggled to increase its rate of intra-regional trade for several decades.

Many studies in the last decade have attempted to identify the impediments to trade in Africa. Among problems is that while road transit can be relatively fast, time is lost at ports, borders and numerous official and unofficial checkpoints. One recent study suggests that reducing supply chain barriers could increase global GDP by up to six times more than by removing import tariffs. Other studies have shown that a one day decrease in travel time in sub-Saharan Africa can lead to a 7% increase in exports, while a 10% reduction in exporting costs through improved facilitation could increase exports by 4.7%.

OSBPs are a means of tackling such impediments by reducing the time and cost in cross-border transactions. OSBPs provide the legal framework, facilities and associated procedures within one facility, that will enable faster clearance when vehicles exit one state and enter another. Further, OSBPs increase public safeguards and revenue collection at borders.

Africa's first OSBP at Chirundu, between Zimbabwe and Zambia, opened in 2009. With the support of development partners, the concept and development of OSBPs have expanded rapidly, helping to tackle impediments to African trade by reducing the time and cost of cross-border transactions.

In 2012, the AU adopted PIDA/PAP, which was formulated by the AUC, NEPAD, UNECA, AfDB and Regional Economic Communities (RECs), prioritising continental infrastructure programmes and projects to assist in addressing the infrastructure deficit that severely hampers Africa's competitiveness. PIDA/PAP included 21 priority transport programmes and projects, which were broken down into 273 sub-projects in an AfDB study in 2014. Of these, 75 are identified as OSBPs. In 2014, ICA and JICA identified 27 OSBPs at various stages of construction. ■

Definitions

Budget Data

Budget allocations: Total approved government budget for the respective item.

Total infrastructure budget: Sum of energy, water and sanitation, transport, and ICT budget allocations. Where available, significant multi-sector or other infrastructure allocations are indicated separately.

ICA Members

AfDB, DBSA, EC, EIB, G8 countries, Republic of South Africa and the World Bank Group. In 2011 all G20 countries were invited to join the ICA. The AU Commission, NEPAD Secretariat and Regional Economic Communities participate as observers at ICA meetings.

Infrastructure

Total infrastructure budget: Sum of energy, water and sanitation, transport, ICT, and multi-sector infrastructure budget allocations.

Hard infrastructure: Physical infrastructure.

Soft infrastructure: Measures to support or accompany the production of physical infrastructure outputs, including research, enabling legislation, project preparation and capacity building.

Project preparation: The undertaking of all project preparation cycles or development activities necessary to take an infrastructure

project from identification through concept design to financial close. This includes feasibility testing and financial and legal structuring, as well as raising capital.

Funding

Commitments: Direct funds approved in a given year to projects over their lifetime.

Disbursements: Money outflow going to infrastructure projects during a given year.

ODA – official development Assistance: Grant or loan with public concessional modalities administered by donor government agencies.

Non ODA: Non-concessional funding from public or private sources.

Regional project: Projects with direct beneficiaries in more than one country. These can either be cross-border projects or other regional integration projects involving a minimum of two countries or national projects.

Location

North Africa: Algeria, Egypt, Libya, Mauritania, Morocco, Tunisia.

West Africa: Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea Bissau, Côte d'Ivoire, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo.

Central Africa: Burundi, Cameroon, Central African Republic (CAR), Chad, Congo, Democratic Republic of Congo (DRC), Equatorial Guinea,

Gabon, Rwanda, São Tomé and Príncipe (STP).

East Africa: Djibouti, Eritrea, Ethiopia, Kenya, Seychelles, Somalia, South Sudan, Sudan, Tanzania, Uganda.

Southern Africa excluding RSA: Angola, Botswana, Comoros, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Swaziland, Zambia, Zimbabwe.

RSA: Republic of South Africa.

Regional Development Banks

Central African States Development Bank (CASDB), DBSA (an ICA member), EBID, EADB, West African Development Bank (BOAD).

Sector

Transport: Airports, ports, rail, road.

Energy: Generation, transmission and distribution of electricity and gas (including pipelines, and associated infrastructure).

Water and sanitation: Sanitation, irrigation, (trans-boundary) water resource infrastructure, water supply, waste (solid & liquid) treatment and management.

ICT: Information and communication technology, including broadband, mobile network, satellite.

Multi-sector: Not sector-specific or cross-cutting projects. This could include implementation of a PPP unit or capacity building programmes.

Acronyms

ADF – African Development Fund
ADFD – Abu Dhabi Fund for Development
AFC – Africa Finance Corporation
AFD – Agence Française de Développement (France)
AfDB – African Development Bank
AFESD – Arab Fund for Economic and Social Development
AMCOW – African Ministers Council on

Water
AU – African Union
AWF – African Water Facility
AUC – African Union Commission
BADEA – Arab Bank for Economic Development in Africa
BDEAC – Banque de Développement des Etats de l'Afrique Centrale
BIDC – Banque d'Investissement et de

Développement de la CEDEAO (EBID)
bn – 1 billion = 1,000,000
BIO – Belgian Investment Company for Developing Countries
BOAD – Banque Ouest Africaine de Développement
BOOT – build-own-operate-transfer
BNDS – Banco Nacional de Desenvolvimento

BTMU – Bank of Tokyo-Mitsubishi	ICA – Infrastructure Consortium for Africa	PPDU – ECOWAS’ Project Preparation and Development Unit
CA CIB – Crédit Agricole Corporate and Investment Bank	ICT – Information and Communications Technology	PPFN – Project Preparation Facilities Network
CADF – China-Africa Development Fund	IDA – International Development Association (World Bank Group)	PPIAF – Public-Private Infrastructure Advisory Facility
CAGR – compound annual growth rate	IDB – Islamic Development Bank	PPIU – COMESA’s Project Preparation and Implementation Unit
CAR – Central African Republic	IDC – Industrial Development Corporation of South Africa Ltd	PPP – public-private partnership
CASDB – Central African States Development Bank	IFC – International Finance Corporation	Proparco – AFD’s private sector arm
CIF – Climate Investment Fund	IPO – initial public offering	PTA Bank – Preferential Trade Area Bank
COFIDES – Spanish Development Funding Company	IPP – independent power producer/project	PV – photovoltaic
COMESA – Common Market for Eastern and Southern Africa	IPPF – Infrastructure Project Preparation Facility	RAPs – resettlement action plans
CSP – concentrated solar power	ITF – Infrastructure Trust Fund	RDB – regional development bank
DBSA – Development Bank of Southern Africa	JBIC – The Japan Bank for International Cooperation	RECs – Regional Economic Communities
DEG – Deutsche Investitions- und Entwicklungsgesellschaft (KfW Group)	JICA – Japan International Cooperation Agency	RSA – Republic of South Africa
DFI – development finance institution	KFAED – Kuwait Fund for Arab Economic Development	SADC – Southern African Development Community
DFID – Department for International Development (UK)	KfW – KfW Development Bank (Germany)	SEFA – Sustainable Energy Fund for Africa
DRC – Democratic Republic of Congo	LIC – low-income country	SFD – Saudi Fund for Development
EAC – East African Community	m – 1 million = 1,000,000	SG – Société Générale
EADB – East Africa Development Bank	MD – Moroccan dirham	SMBC – Sumitomo Mitsui Banking Corporation
EAIF – Emerging Africa Infrastructure Fund	MDB – multilateral development bank	SME – small- and medium-size enterprise
EAPP – Eastern African Power Pool	MCC – Millennium Challenge Corporation	SMTB – Sumitomo Mitsui Trust Bank
EBID – ECOWAS Bank for Investment and Development	MDB – Multilateral development banks	SSA – Sub-Saharan Africa
EC – European Commission	MIGA – Multilateral Investment Guarantee Agency (WBG)	SWF – sovereign wealth fund
ECA – export credit agency	MoU – memorandum of understanding	TA – technical assistance
ECOWAS – Economic Community Of West African States	MW – megawatt	UEMOA – West African Economic and Monetary Union
EDFI – European DFIs	NEPAD – New Partnership for Africa’s Development	UNECA – United Nations Economic Commission for Africa
EDF – European Development Fund	NTF – Nigeria Trust Fund	UAE – United Arab Emirates
EIB – European Investment Bank	Norfund – Norwegian Investment Development Fund for Developing Countries	UK – United Kingdom of Great Britain and Northern Ireland
EPC – engineering, procurement and construction	NPCA – NEPAD Planning and Coordinating Agency	US – United States
EU-AITF – European Union-Africa Infrastructure Trust Fund	O&M – operations and maintenance	\$ – US dollar
EXIM Bank – The Export-Import Bank of the United States	OCGT – open cycle gas turbine	USAID – United States Agency for International Development
FMO – Netherlands’ Development Finance Company	ODA – official development assistance	USTDA – US Trade and Development Agency
G8 – Group of Eight (Canada, France, Germany, Italy, Japan, Russia, UK, US)	OeEB – Development Bank of Austria	WACDEP – Water, Climate & Development Programme
G20 – Group of 20 (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, UK, US and the EU)	OFID – Organisation of the Petroleum Exporting Countries [OPEC] Fund for International Development	WAPP – West African Power Pool
GIF – Global Infrastructure Facility	OPIC – Overseas Private Investment Corporation (US)	WBG – World Bank Group
GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit	% – per cent	WP – Water Platform
IBRD – International Bank for Reconstruction and Development	PIDA – Programme for Infrastructure Development in Africa	WSP – Water and Sanitation Programme
	PIDA/PAP – PIDA Priority Action Programme	ZAR – South African rand
	PPA – power purchase agreement	

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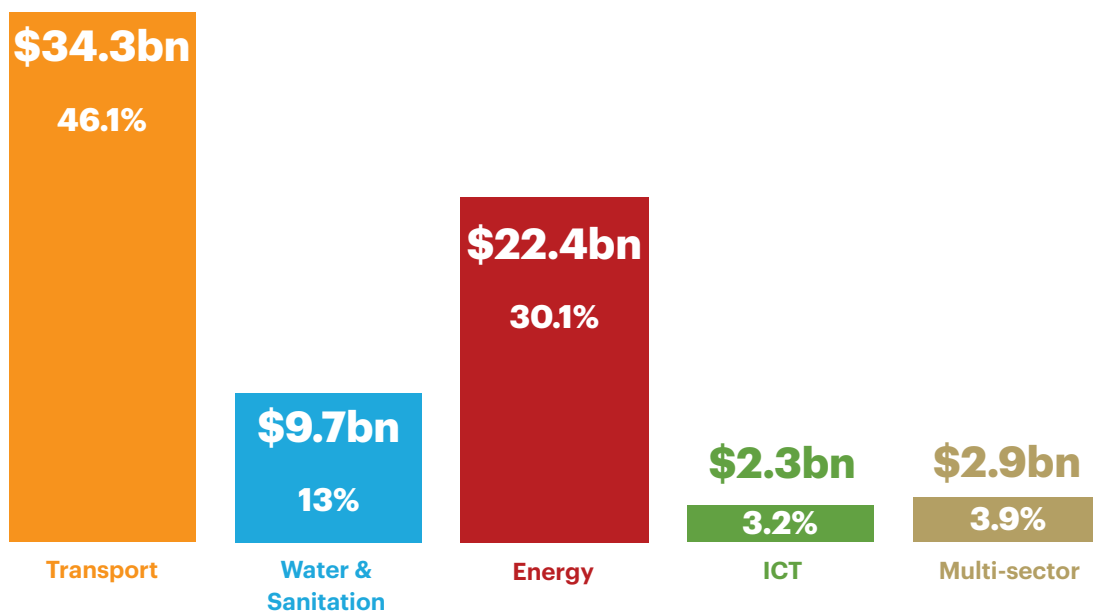
Total Funding in 2014



of Which:



Total Funding by Sector

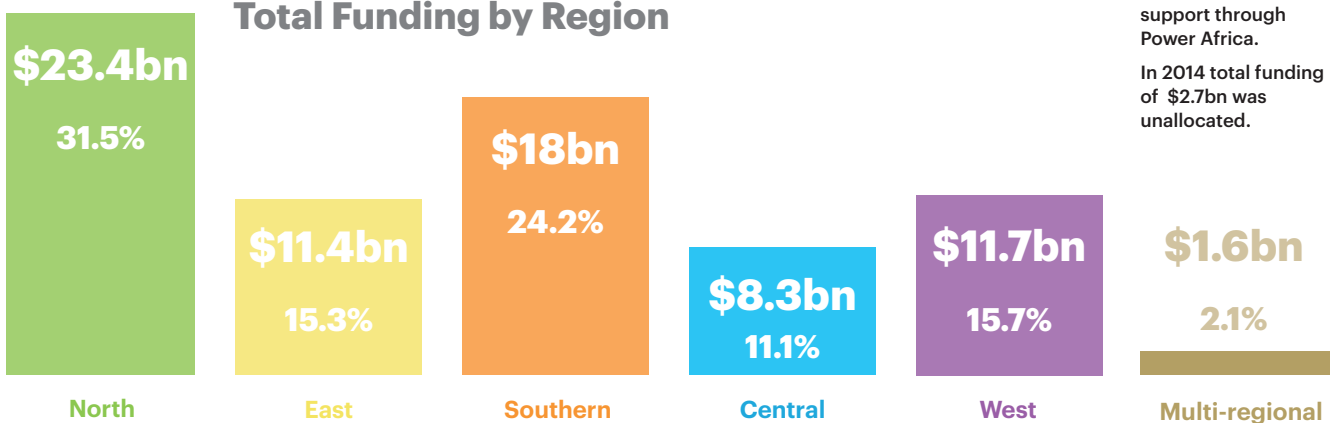


Data note:

2014 figures do not include US commitments. In 2013 US commitments for the energy sector included \$7bn support through Power Africa.

In 2014 total funding of \$2.7bn was unallocated.

Total Funding by Region



1.2 Key Messages and Findings

A total of \$74.5bn was committed to Africa's infrastructure in 2014, based on reported ICA member data, identifiable commitments made by 42 African national governments, non-ICA member external public sector funders and the private sector.

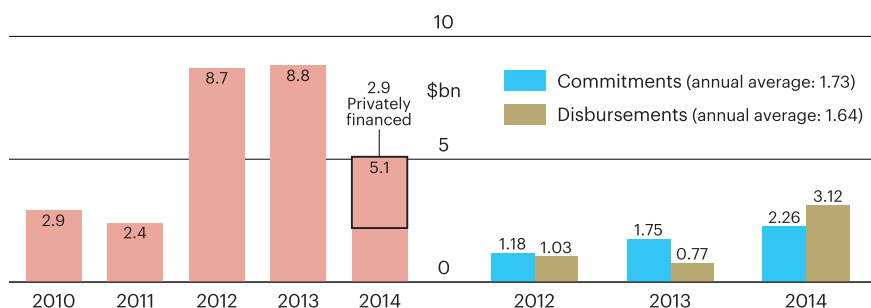
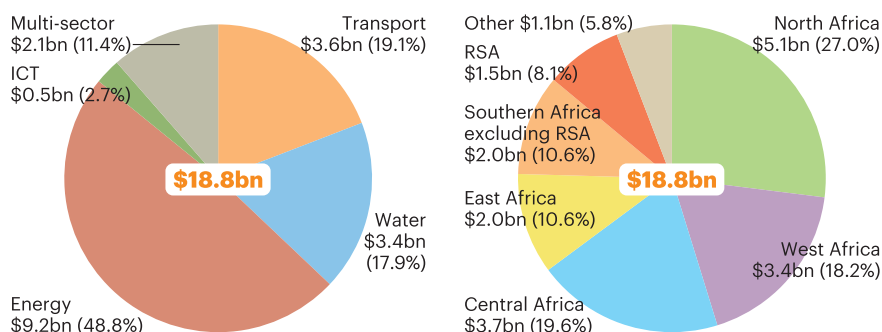
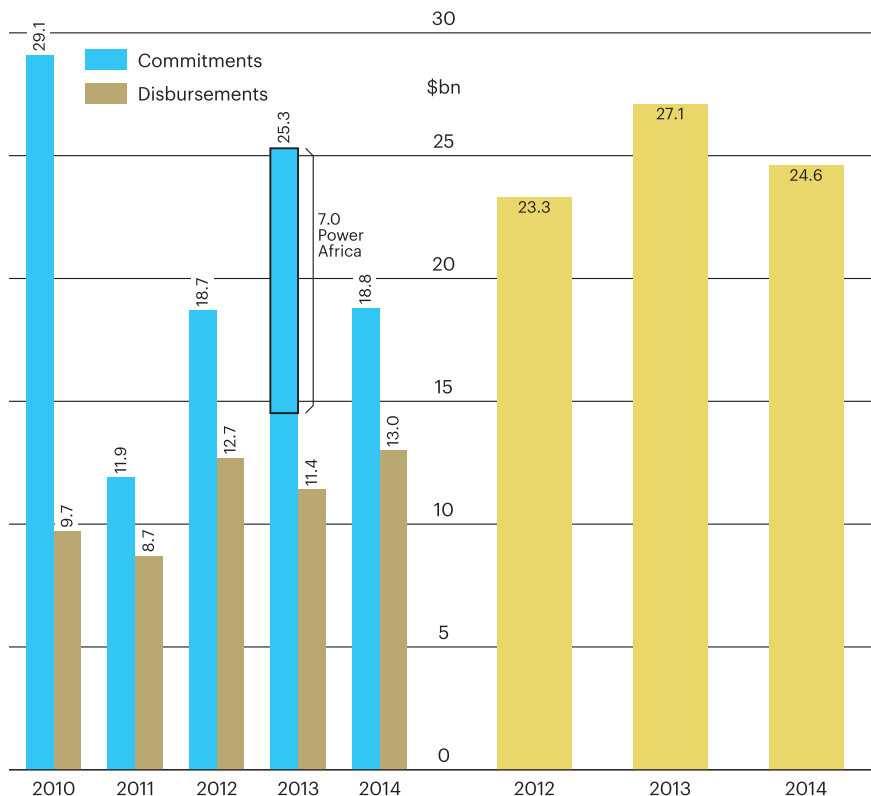
This is less than the \$99.6bn reported in 2013. This is largely due to a sharp fall (from \$13.9bn to \$3.09bn) in Chinese commitments, as Beijing recalibrates its position in Africa's infrastructure financing; the inclusion in 2013 of an exceptional \$7bn of commitments from the US presidential Power Africa initiative; a slow-down in private sector commitments to the transport sector; and a more rigorous approach to reporting of central government budget allocations.

ICA members in 2014 reported commitments of \$18.8bn. This was less than the \$25.3bn reported in 2013, but demonstrates a steady underlying trend: ICA members' 2013 commitments without the exceptional \$7bn US contribution totalled \$18.3bn. On a like-for-like basis with reporting by broadly similar organisations, ICA members' annual commitments for 2012-14 respectively were \$18.7bn, \$18.3bn and \$18.8bn.

Disbursements by ICA members are holding steady, edging to a record peak of \$13bn in 2014, compared with \$12.7bn in 2012 and \$11.4bn in 2013.

Key trends observable from ICA members' data for 2014 include a shift towards multi-sector projects, growing attention to Central Africa, the energy sector's continued dominance in attracting commitments and a very sharp decline in commitments to regional projects, including PIDA/PAP.

Identified central government budget allocations provided 2014's largest category of commitments to infrastructure development, totalling \$34.5bn. Data



Figures 1-5

ICA members' commitments and disbursements, 2010-2014 (top left); National government (control group) infrastructure budget allocations, 2012-2014 (top right); ICA members' commitments by sector and by region, 2014 (middle); Private Participation in Infrastructure (PPI) project investments 2010-2014 (bottom left) ICA members' soft infrastructure commitments and disbursements 2012-2014 (bottom right)

was obtained from 42 countries (up from 20 in the 2013 report) yet the total value of commitments is lower in 2014 compared with the \$46.7bn reported for 2013. This was due to a more rigorous analysis of budget spending and external funding. However, the potential for double counting remains.

Central government budget allocations for infrastructure grew between 2012 and 2014, according to analysis that uses a more rigorous methodology applied to the 2012 and 2013 budgets of a control group of 20 countries (who generally report data in a consistent manner). In 2014, this group's allocations totalled \$24.6bn, compared with \$27.1bn in 2013 and \$23.3bn in 2012.

Substantial commitments may also be made to infrastructure at a subnational level – by local governments, utility companies and other institutions. This recognises that national government allocations do not reflect a country's total public sector spending.

Africa's regional development banks committed nearly \$1.6bn to infrastructure projects in 2014. This is a decrease on their \$2.2bn commitments across the continent in 2013.

\$16.5bn (88%) of the total \$18.8bn ICA member commitments were directed to hard infrastructure in 2014.

\$2.3bn (12%) of ICA member commitments went to soft infrastructure. Two-thirds (\$1.4bn) of soft commitments went to capacity building, some 16% was directed at project preparation and around 5% at research and evaluation. Another 16% of commitments were aimed at other soft infrastructure projects and programmes.

ICA members used conventional financing instruments the most. Loans accounted for \$14.3bn (75%) and

grants for \$2.7bn (14%) of financings in 2014. This marks a distinct shift in the emphasis of members that consistently report data to ICA. In 2013 they reported that loans and grants provided \$10.8bn (37%) and \$7.4bn (25%) of funding respectively.

Transport operations attracted the most financial commitments of any sector in 2014, taking all sources of finance into account. This was largely due to \$17.6bn in national government budget allocations and the \$8.4bn of investment certificates for Egypt's Suez Canal expansion.

Chinese funding for transport infrastructure fell away significantly in 2014, having catalysed some very substantial road and rail projects in recent years.

Commitments from non-ICA member countries included Brazil (\$503.4m), India (\$423.9m) and South Korea (\$206m). Non-member European bilaterals committed \$876.8m, a substantial increase compared with \$189m in 2013.

The private sector concentrated its investments mainly on energy in 2014, having showed substantial interest in port expansions in 2013.

There was a decline in the number of projects with private sector participation reaching financial close, as recorded in the Private Participation in Infrastructure (PPI) Project Database. This was down from \$8.8bn in 2013 to \$5.1bn in 2014. Of this, \$2.9bn was financed by the private sector with the remainder from DFIs.

Energy once more dominated ICA members' commitments with a 49% share (54% in 2013). It was followed by transport at 19% (22% in 2013) and water & sanitation at 18% (17%). ICT received just 2.7% of total commitments.

The trend towards ICA members backing multi-sector projects is gaining momentum. In 2013 they

attracted twice the share reported in 2012, registering 5% of all commitments, and in 2014 this rose to more than 11% of the total.

North Africa has overtaken West Africa as the region that received the highest commitments from ICA members in 2014, with 27% of the total (\$5bn).

ICA members' commitments to Central Africa reached their highest point in 2014 for five years, with commitments of \$3.7bn. This made the region the second highest recipient of 2014 commitments after North Africa.

More than 50% of private sector investors said they would invest more in the sectors where they already participate, while 88% of energy investors said they intend to increase their commitments, according to the 69 respondents to ICA's African Infrastructure Investment Survey 2014. Respondents said Kenya and South Africa provided the most favourable investment locations followed by Nigeria.

Constraints such as bureaucratic delays, policy uncertainty, lack of transparency and insufficient institutional capacity remain a challenge, private sector respondents and ICA members agreed.

The shortage of adequately prepared or bankable projects was a much bigger challenge than finding project finance, members and operators agreed – although this registered as much less of an issue for private capital than in previous years.

Private sector investments focused on just a few large-scale projects in 2014, while participation in regional projects appears too challenging for most private sector investors and developers. ■

2. Financing Trends



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2.1 Overview

Overall commitments for African infrastructure from all sources identified in this year's report stand at \$74.5bn, 25% down (\$25bn) on the \$99.6bn commitments reported in 2013.

The three main reasons for this downturn are as follows:

- Chinese lending to African infrastructure projects in 2014 of \$3.09bn was substantially lower than the average \$13.9bn reported in each of the previous three years;
- ICA member commitments in 2013 included the exceptional contribution of \$7bn from the US presidential Power Africa initiative; and
- budget allocations by African national governments are lower, but this is due to a more rigorous approach to analysing data that makes efforts to remove double counting and revenue spending.

Infrastructure financing trends tend to be substantially driven by mega-investments. China's very high numbers in the previous three years were due to very large transport commitments made by Beijing across the continent.

Project-level detail provided by ICA members confirms that a few large projects, particularly in the energy sector, account for a very significant proportion of member commitments.

ICA's strategy is to continue with the granular collection of project-level detail that will provide the information necessary to determine whether very large projects continue to drive up or pull down the levels of commitments and disbursements.

As the body of aggregated data grows, so we will better understand the drivers of change within the sectors whose development is promoted by ICA.

Underlying trends, where sufficient detail is available to analyse them, appear to be more even and stable than the headline figures might suggest in this 2014 and previous years' reports.

A control group of 20 countries that consistently report national budget allocations on a like-for-like basis has been identified. This group's allocations increased from \$22.7bn in 2012 to \$24.5bn in 2014, with a peak of \$26.9bn in 2013.

ICA members' commitments and disbursements have remained remarkably similar for the past three years, when Power Africa's exceptional contribution to the 2013 data is excluded.

Very large schemes or groups of projects – such as those clustered around bidding rounds including South Africa's Renewable Energy IPP Procurement (REIPPP) programme –

Known Unknowns: New Forms of Finance Are Quietly Emerging Across Africa

Sovereign Bond Issues

South Africa, Angola, Côte d'Ivoire, Gabon, Ghana, Namibia, Nigeria, Rwanda, Senegal, Seychelles, Zambia and Kenya have all been able to raise funds in international debt markets.

Internally Generated Budget Funds

Johannesburg internally generated funds of \$294m for its 2014 capital expenditure budget, of which 45% goes on infrastructure spending.

Subnational Government Bonds

A Lagos State Government Bond in 2013 raised \$561m, much of which was intended for infrastructure spending.

Subnational Utility Investments

Morocco's rail operator, Office National des Chemins de Fer, is putting \$572m into high-speed rail infrastructure, while Namport said it would tap its cash reserves to contribute \$19.45m towards the container terminal at Walvis Bay in Namibia.

Sources of infrastructure financing interrogated in Infrastructure Financing Trends in Africa 2014 go beyond those contemplated in previous years' reports, and suggest that more trends should be examined.

Historically, several sources have not been included in the ICA's reporting due to concerns over double counting. However, this may mean that substantial funds flowing into Africa's infrastructure are not captured in the data. These include investments made from cash reserves or forays into the financial markets by state utilities and local governments. Some funds that receive only marginal support from financiers, including ICA members, whose activities are recorded elsewhere in the ICA's database may also be significant contributors to Africa's infrastructure development. ■

also substantially drive private sector commitments, as reported on the PPI Project Database.

To date, only a handful of schemes (as per the ICA definition of infrastructure projects) have been recorded each year on the database – which thus responds with some volatility to the appearance or disappearance of just a few projects. The underlying trend points to very little investment from the private sector, as reported on the PPI Project Database, the exceptions coming from a handful of very large projects.

New mechanisms for collecting data on smaller projects may be needed – these are an increasing feature of energy sector investments, for example in small-scale renewable technologies, which are developing rapidly.

An encouraging trend is the continued enthusiasm for investing in Africa's infrastructure articulated by the 69 respondents to the African Infrastructure Investment Survey

2014. This group appears enthusiastic, with some qualifications, on prospects for PPPs, and continues to be most attracted to investing in Kenya and South Africa, followed by Nigeria.

From interviews with ICA members and the inclusion of new questions in the private sector survey, originating or locating investable projects emerged a significant issue. Meanwhile, finding finance for investments is becoming less of an issue, in some quarters at least, based on responses from the private sector.

Both public and private sector actors who responded to our questions expressed frustration at having finance available to invest, but either not having the projects to invest in or not being able to make progress in projects.

While finding finance for more developed projects may become less of an issue, securing funds for early stage project development, or establishing mechanisms to provide sufficient returns on early stage

project investments, remain significant issues for stakeholders.

The anticipated emergence of new funding streams, including Africa50, the Global Infrastructure Fund and New Development Bank (formerly BRICS Development Bank), should help to expand the pool of funding, thus increasing the ratio of finance available to investable projects.

Continued trend analysis of the ratio of available finance to investable and/or bankable projects is clearly desirable.

There were otherwise few surprises in the causes of delays to projects reported either by ICA members or private sector respondents.

Both private and public sector sources said the core obstacles under the broad heading of 'lack of institutional capacity' were the creditworthiness and skills shortages – technical, financial, legal and managerial – that still plague many institutions, including many of Africa's state utilities. ■

2.2 Who Is Financing Africa's Infrastructure?

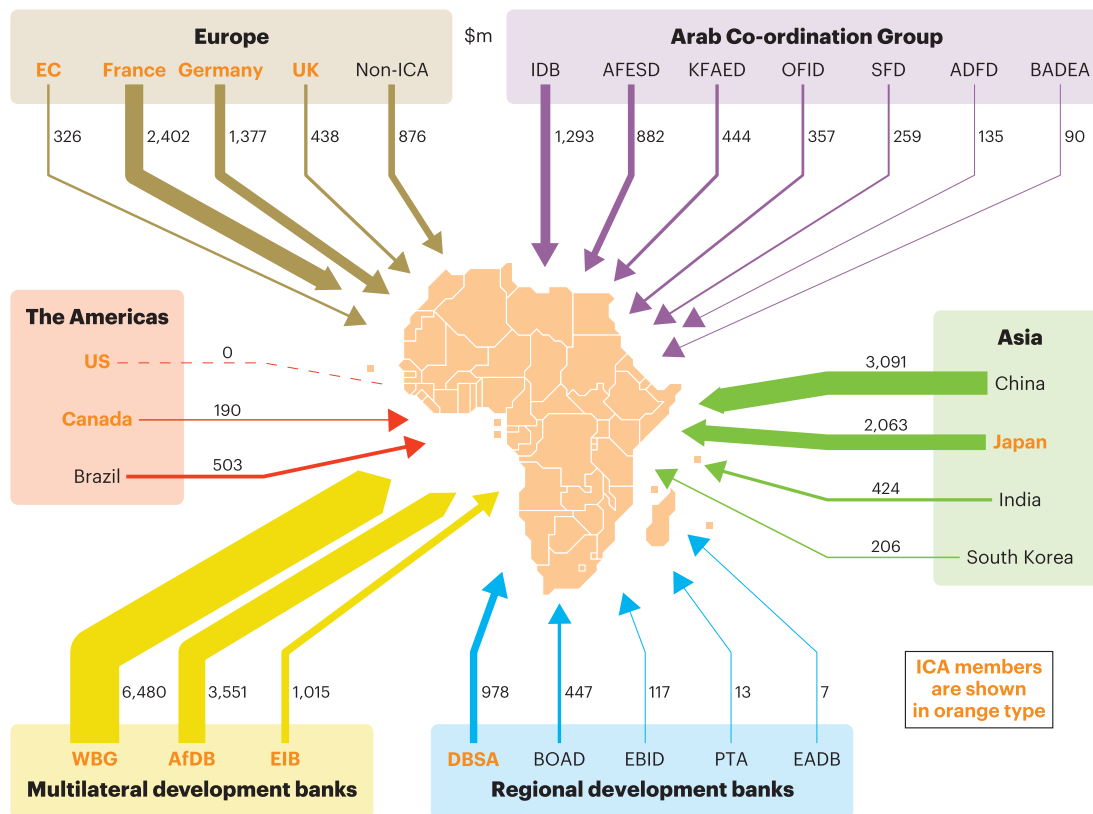


Figure 6
Reported and identified financing flows into Africa's infrastructure, 2014

Substantial shifts in sources of funds in 2014 included a \$10.3bn decline in Chinese commitments. This cut the amount committed by non-ICA public sector funders to \$9.1bn in 2014, from \$18.9bn in 2013.

Otherwise funding was broadly constant from this group, which includes the Arab Co-ordination Group (ACG), non-ICA member European DFIs and regional development banks, as well as commitments reported from Brazil and identified from India and South Korea.

Multilateral development banks committed \$11bn in 2014, nearly \$2bn up on the previous two years and nearly double the \$5.9bn committed in 2011. Commitments from regional development banks declined from \$2.2bn in 2013 to \$1.6bn in 2014.

Private sector funding was also down, by around \$3bn at \$5.1bn. Private sector investments of around \$8.7bn in 2012-13 largely comprised just a

few large port and energy (notably South Africa's REIPPP programme) projects. A fourth bidding round for REIPPP was planned for 2014, but postponed to 2015.

Commitments from Europe totalled \$5.4bn, compared with a \$5.1bn annual average in 2011-13. ACG commitments in 2014 were broadly constant, at \$3.5bn, having averaged \$3.4bn in 2011-13. Funding from the Americas was down by around \$7bn, reflecting the exceptional Power Africa contribution in 2013.

Subnational funding is reported for the first time this year (see page 65). The total recorded subnational financing of \$9.1bn is largely accounted for by the \$8.4bn raised by the Egyptian bonds issued to finance the Suez Canal expansion; it also includes smaller commitments for Moroccan rail and Namibian port projects. The Suez Canal project may prove exceptional, but our analysis suggests levels of subnational investment from local

governments and public utilities are likely to be higher than so far captured in ICA data.

Also not yet captured in ICA data is the increased interest from private equity (PE) houses. Global asset manager Blackstone in 2014 joined with Africa-focused Black Rhino to develop, finance, build and operate big Sub-Saharan infrastructure projects. Blackstone and Nigeria's Dangote Industries then announced a commitment by Black Rhino to jointly invest up to \$5bn over five years in energy projects. Blackstone's Sithe Global subsidiary is lead investor, with the Aga Khan Fund for Economic Development, in Uganda's 250 MW Bujagali hydro-power plant.

Among other PE deals, in Ghana, Denham Capital's portfolio company Endeavor Energy and PE house Eranove, with General Electric and Sage Petroleum, agreed in 2014 to develop the 1,300MW Ghana 1000 gas-to-power project. ■

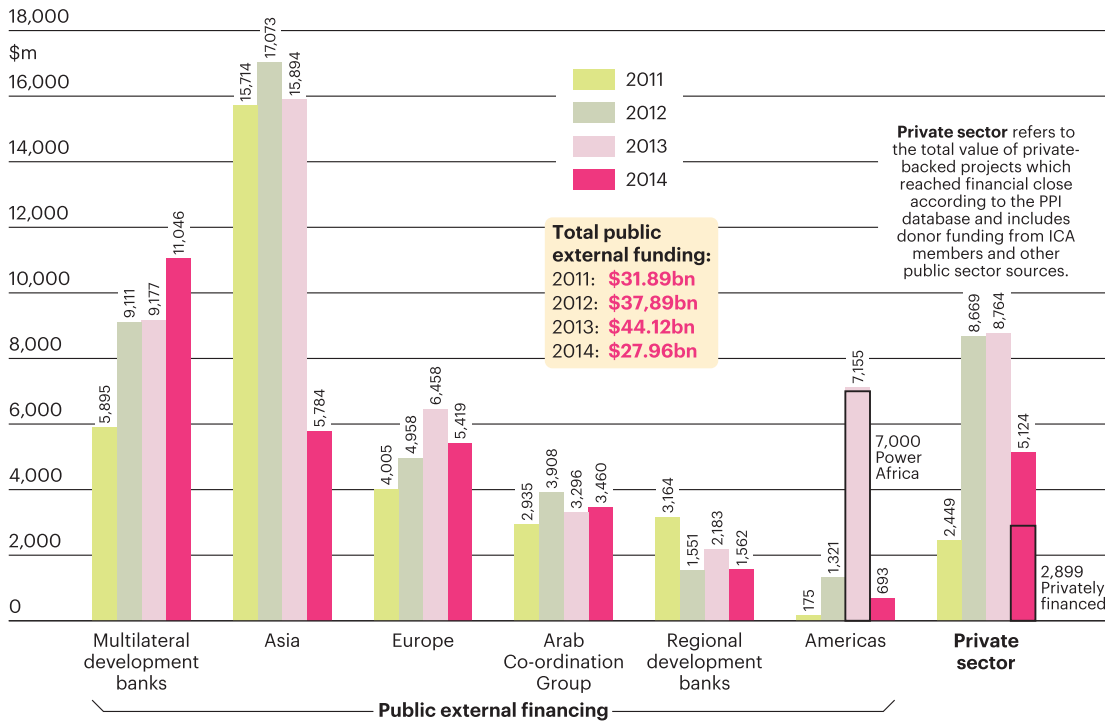


Figure 7
Sources of finance 2014, public external and private

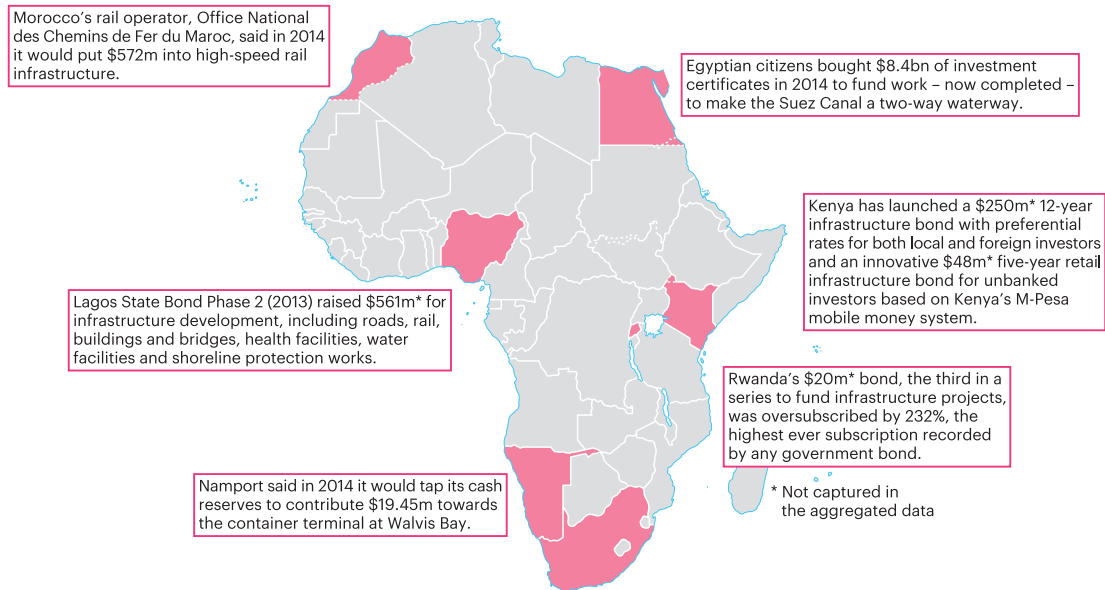


Figure 8
Other national and subnational sources of finance: selected projects

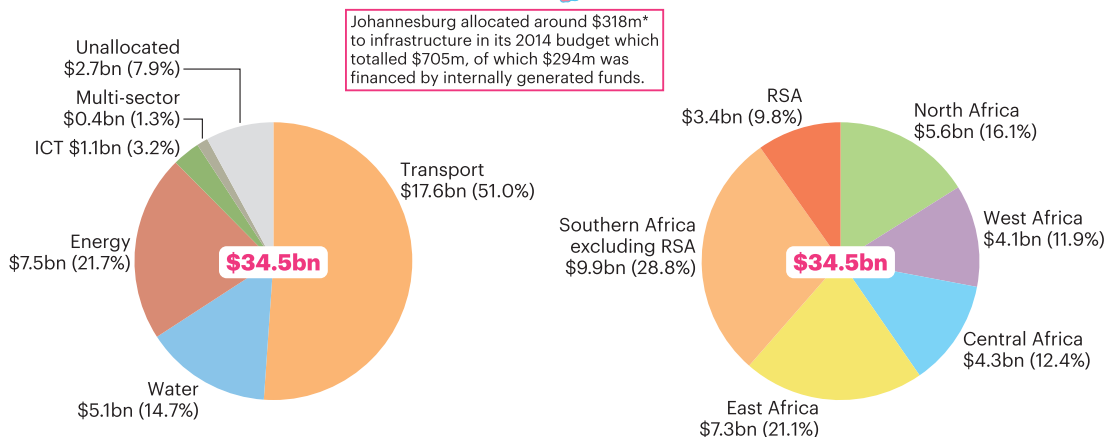


Figure 9
Identified central government budget allocations by sector and region, 2014

3. Sectoral Analysis



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3.1 Overview

Transport operations attracted the most financial commitments of any sector in 2014, totalling \$34.4bn taking all sources of finance into account. This was largely due to the sustained priority accorded to transport by national governments.

National government budget allocations for transportation stood at \$17.6bn in 2014, which was more than the combined commitments to water, energy, ICT and multi-sector projects in the total of \$34.5bn allocated to infrastructure by governments in 42 African countries.

In addition, \$8.4bn was raised from investment certificates sold to Egyptian citizens for the Suez Canal expansion, pointing to an alternative model for future financing.

Of ICA members that reported data for 2014, commitments for transport amounted to \$3.6bn, a decline of 32% from the previous year. Transport was top priority for non-ICA bilateral and multilateral agencies, but data also show a decline in 2014 (68%) for this category of support.

Chinese funding for transport infrastructure – which has catalysed big road and rail projects in recent years – fell away in 2014 as Beijing reassessed its economic priorities.

ICA member commitments to ICT projects increased substantially from \$396m in 2013 to \$506m in 2014, continuing an upward trend since 2011. However, ICA member financing of water and sanitation infrastructure declined by 33%. Commitments from non-ICA bilaterals and multilaterals to water and sanitation projects rose from \$1bn to \$1.1bn, but funding to other sectors from this group declined.

\$9.2bn was committed by ICA members to the energy sector. Based on data reported on a like-for-like basis, and excluding the exceptional \$7bn US Power Africa contribution of 2013, commitments increased by 61% in 2014.

Private Energy Finance

The private sector financed \$2.5bn of energy projects, accounting for 86% of total private participation in African

infrastructure projects during 2014.

The 1,386MW coal-fired power plant at Safi in Morocco was one headline energy project in 2014. This \$2.6bn project was financed substantially by the private sector, led by France's GDF Suez and including support from Japan Bank for International Cooperation (JBIC).

Multi-Sector Projects

Multi-sector projects saw the single largest increase in funding during 2014. National government budget allocations increased substantially to \$444m, while commitments from ICA members rose by 43%, from \$1.5bn in 2013 to \$2.2bn in 2014.

Multi-sector disbursements made by ICA members more than quadrupled from \$419m in 2013 to \$1.8bn in 2014, while disbursements made to transport, water, energy and ICT operations remained largely similar in each of those years. ■

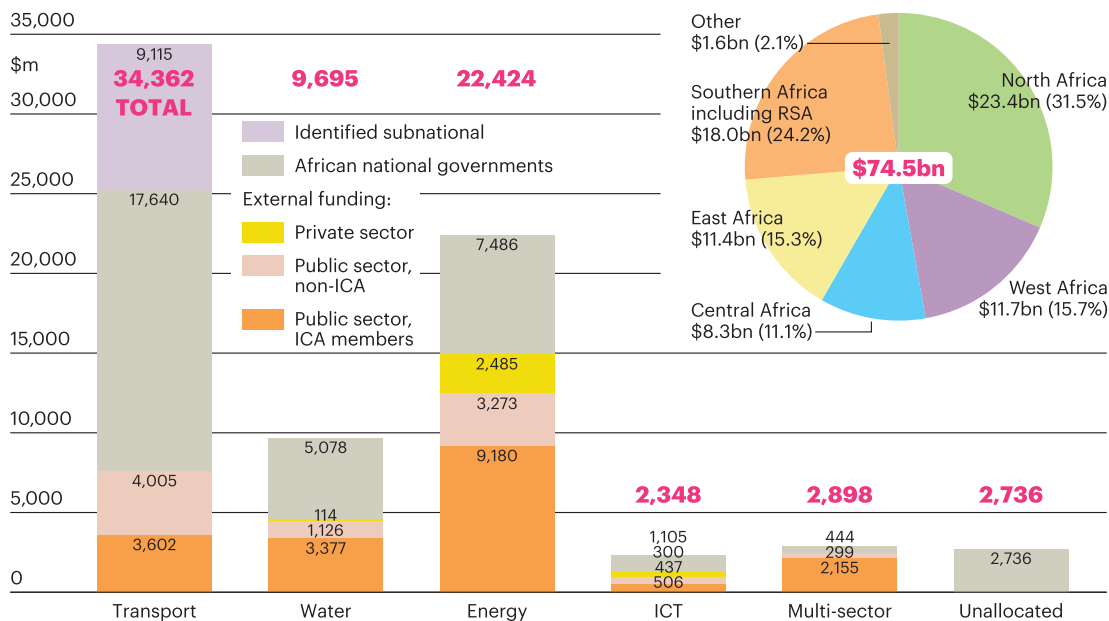


Figure 10
Total infrastructure commitments by sector and region, 2014

Multi-Sector Commitments Increase Substantially

ICA member commitments to multi-sector infrastructure projects increased substantially in 2014, to \$2.2bn. However, commitments to North and Southern Africa declined.

The largest recipients of ICA funding in 2014 were projects in South Africa, which saw commitments rise from \$215m in 2013 to \$842m. Commitments to Central Africa are a massive twelve times higher, at \$225m in 2014 (\$18m in 2013). East and West Africa also saw increases in 2014, rising by 45% (to \$45m) and 39% (\$167m) respectively.

Just over \$695m of total ICA commitments in South Africa were provided by DBSA. Projects receiving DBSA funding included R1.6bn (\$149m) for the City of Tshwane Municipal Support Programme, which is aimed at enhancing the greater metropolitan area's socio-economic development, and a R1.5bn (\$139m) long-term loan to support capital expenditure by eThekweni Municipality.

Commitments by ICA members to multi-sector projects in 2014 included €359m (\$479m) from AFD and ¥30.7bn (\$292m) from Japan's JBIC/JICA, the latter being substantially up on 2013 commitments, comprising the Japanese pledge for the continental Fifth Private Sector Assistance Loan.

Disbursements from ICA members also rose substantially in 2014, to \$1.8bn. The total value of financing disbursed to

multi-sector projects in all regions increased. South Africa (RSA) was again the single largest recipient of ICA disbursements. RSA and supra-regional projects together received almost 71% of ICA disbursements in 2014.

Major recipients of ICA member financing included a number of large funds, such as the IFC-backed Africa Infrastructure Investment Fund II (a Macquarie company operated by South Africa's Africa Infrastructure Investment Managers, which has been established to finance private sector projects throughout Sub-Saharan Africa) and the Pan African Infrastructure Development Fund; both of these funds were heavily funded by DBSA in 2014.

ICA members who disbursed substantially more to multi-sector projects than transport, water and ICT included JBIC/JICA and DBSA.

Despite a significant increase in commitments from non-ICA European bilaterals – whose financial contribution rose from \$29m in 2013 to \$256m in 2014, total non-ICA commitments to multi-sector operations fell to \$299m.

Commitments from Brazil were \$36.9m in 2014, headlined by an export credit agreement for the Kwanza Sul Village project in Angola. Commitments from the Arab Coordination Group stood at \$6.5m, with co-financing for the Perseverance Island Infrastructures Project's second phase in the Seychelles. No financial commitments were made to multi-sector initiatives by China, India or RDBs (with the exception of DBSA) in 2014.

The 2014 data show that ICA members remain the driving force behind financial commitments to developing multi-sector infrastructure projects in Africa. ■

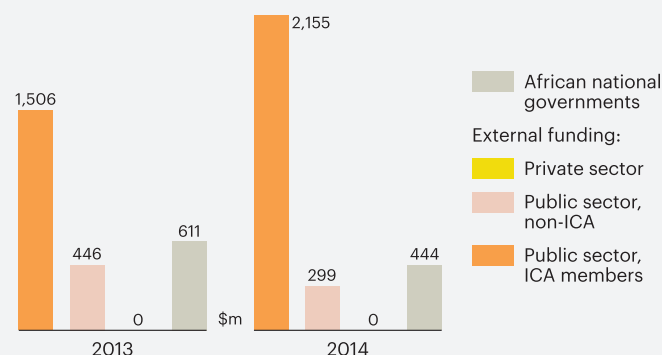


Figure 11
Sources of multi-sector commitments, 2013 and 2014

3.2 Transport



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Total identified investments in transport infrastructure during 2014 stood at \$34.4bn – a little down on the \$37.5bn-worth of commitments in 2013. Projects were financed predominantly by national governments (based on analysis of the budget allocations of 42 countries), while investment from multilaterals, bilaterals and the private sector fell significantly.

Following two years of sustained and substantial financial commitments to the transport sector, ICA member commitments decreased significantly from \$5.3bn in 2013 to \$3.6bn in 2014. ICA commitments to Central Africa followed previous years' trends and increased again; the infrastructure-deprived region was the single largest recipient of ICA commitments in 2014, which at \$1.8bn was almost a two-fold increase compared with 2013.

Funds pledged to projects in East Africa by ICA members – the largest recipient of commitments in 2013 – declined by over 70% to just \$488m in 2014. Commitments to transport in

Southern Africa also dropped substantially, to \$168m, which came after a substantial rise, to \$1.1bn, in 2013. West African commitments declined from \$1.27bn to \$569m.

Some very large investments were made by African governments. Their support for infrastructure was complemented by substantial – and potentially very significant – fund-raising from investment certificates sold to Egyptian citizens for the \$8.4bn Suez Canal expansion and government-led financing for high-speed rail networks and motorway programmes in Morocco. In sub-Saharan Africa, Senegal launched a programme to attract PPPs, several of which are in the transport sector.

Of ICA member commitments, multilaterals were again the primary source of funds committed to transport infrastructure, with WBG and AfDB committing \$1.6bn and \$1.4bn respectively in 2014. Central Africa was the AfDB's geographic focus: its single largest 2014 commitment in the sector was to support the Batchenga-

Ntui-Yoko-Tibati-N'Gaoundere road in Cameroon. East Africa received the largest portion of disbursements that helped 12 AfDB-backed projects reach completion in 2014, including Gabon's ambitious road programme, which will enhance regional integration as defined in the Central African Consensual Transport Master Plan.

Some \$1.58bn of the WBG's total African infrastructure commitments of \$6.48bn (including IFC) was aimed at the transport sector. Central Africa was the largest recipient at \$1.2bn. Major commitments included \$270m for Tanzania's Intermodal and Rail Development Project, and \$215m for Uganda's North Eastern Road-corridor Asset Management. Over one-third of the WBG's \$3bn of disbursements in 2014 was channelled into transport projects.

The EIB committed €53m (\$71m) to transport infrastructure projects, representing just over 10% of total commitments in 2014. Around €21m (\$28m) was committed to projects in each of the West and Southern Africa

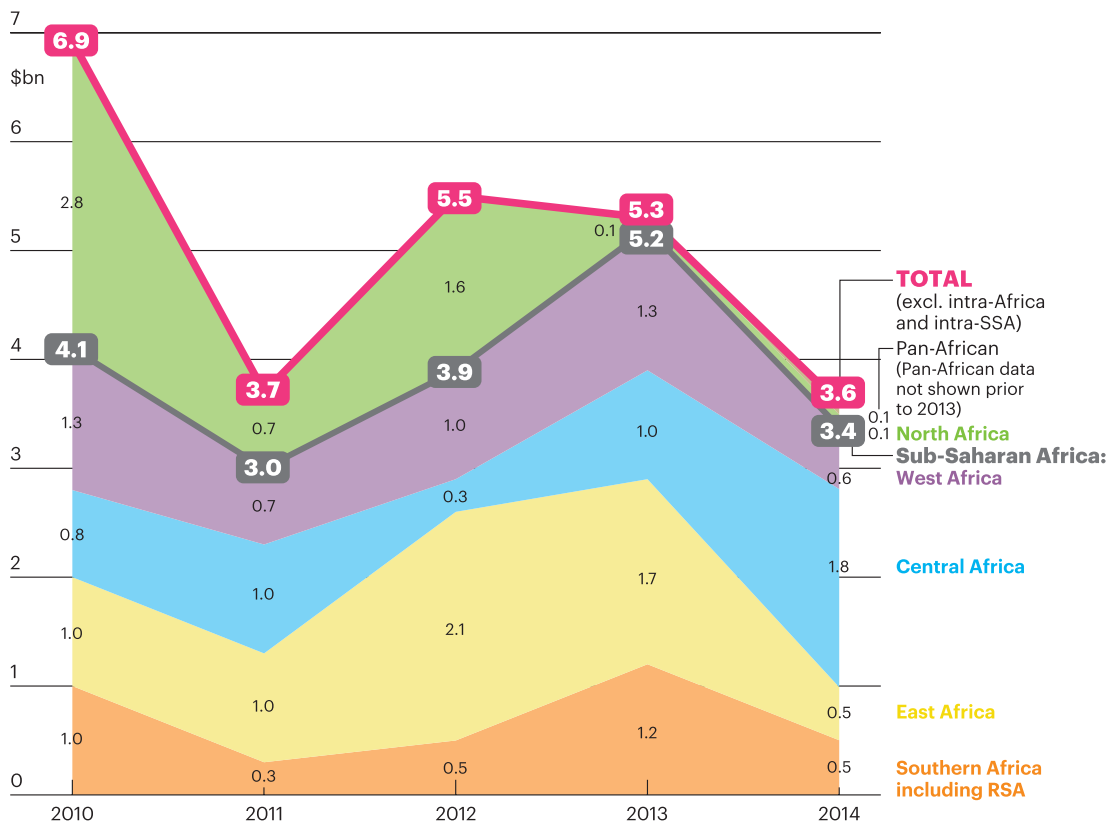


Figure 12
ICA member commitments to the transport sector, 2010-2014

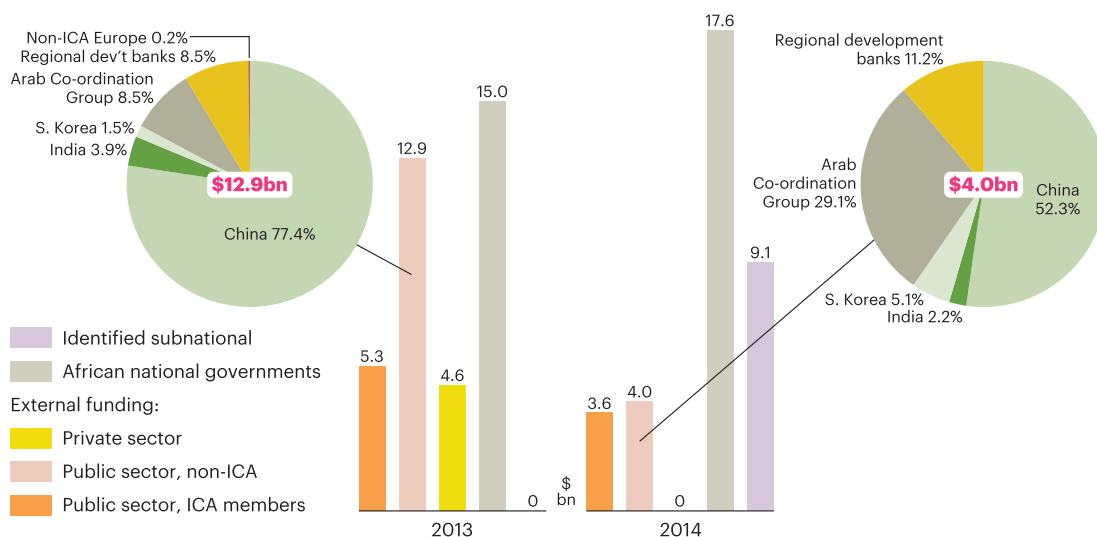


Figure 13
Total commitments to the transport sector, 2013 and 2014

regions. EIB disbursements in 2014 stood at €203m (\$271m), representing just under 25% of total funds disbursed by the Luxembourg-based multilateral in 2014. Of this, €182m (\$243m) funded projects in North Africa. A €40m loan (\$53m) was committed to Tanger Med container port's €220m (\$293m) expansion of transshipment facilities in Morocco.

EC commitments for the year stood at €244m (\$325m), however only €23m (\$32m) was directed at the transport sector. At €496.7m (\$662m), over half of the EC's €909m (\$1.2bn) of disbursements flowed to the transport sector, with West Africa the single greatest beneficiary. Among the major EC-funded projects completed in 2014 was the 243km Bitumie Ayrou-Gao

road in Mali, at a total project cost of €82.2m (\$110m).

France pledged the largest bilateral share among ICA members, with €180m (\$240m) going to transport infrastructure (equivalent to around 10% of its total commitments). This focused largely on Central and East Africa. AFD disbursed €454m (\$606m) to transport infrastructure projects in

2014, €214m (\$285m) of which financed projects in West Africa.

A ¥2.8bn (\$27m) commitment to finance improvements at the Port of Bujumbura was among Japan's transport infrastructure activities in 2014. Its total commitments to the sector of ¥12.3bn (\$117m) was nearly 80% down on 2013, and focused heavily on pan-African projects. Disbursements to projects in East and North Africa included the completion of the ¥5.9bn (\$56m) Nampula-Cuamba Road Upgrading Project in Mozambique.

Other ICA member commitments in 2014 include \$12.7m from Canada. It agreed \$12.6m for farm-to-market roads in South Sudan.

The pan-African, multi-sector transport-water ADF 13th Replenishment-I fund received most

transport disbursements.

The UK made bilateral commitments of £27m (\$45m) to the transport sector (outside contributions to and investments in multilaterals such as AfDB and WBG); this represented just over 10% of total commitments. Funds disbursed in 2014 stood at £49m (\$81m), £21m (\$35m) of which went to projects in East Africa.

Non-ICA member commitments to Africa's transport infrastructure fell considerably, largely due to the decline of Chinese financing, which dropped by 80% from \$10bn in 2013 to just \$2bn in 2014.

Commitments from Arab funds increased, from \$1.1bn to \$1.2bn. As in previous years, the Arab Co-ordination Group focused heavily on North Africa, contributing \$226.8m to the development of Sharm El-Sheikh

International Airport in Egypt and \$141m to rural roads in Tunisia. However ACG financing of West African projects surpassed this, reaching a total of \$554m. The largest commitment in the region was \$183.6m for the Olama-Kribi road's Olama-Bingambo section in Cameroon.

RDB commitments (excluding DBSA) totalled \$492.4m, the majority financed by BOAD (\$362.9m). Among the many projects financed by BOAD in 2014 was a \$69m commitment to highway projects in Côte d'Ivoire. Even so, RDB commitments declined from \$627.1m in 2013.

African national government budget allocations identified in 42 countries amounted to \$17.6bn, an increase of 20% from \$15bn recorded the previous year. ■

Landmark Projects Ease Traffic Flow at Stress Points

Suez Canal, Egypt

As many as 374 vessels sailed through the Suez Canal, for the first time in both directions, during the week after the official opening of the New Suez Canal on 6 August 2015. The increased flow of ships – including larger carriers – confirmed that one of the largest infrastructure financings of 2014 has already started to achieve its goals.

At a cost of around £60bn (\$8.4bn), the project was initially to be financed through a Cairo Stock Exchange initial public offering, which would have introduced private capital to the state-owned asset. But Cairo changed its financing strategy, offering only resident Egyptian citizens investment certificates – which were priced at generous interest rates but carried no ownership rights.

Priced so that even students could afford them, at £10 (\$1.41), £100 (\$14.10) and £1,000 (\$141), the five-year, non-transferable certificates issued by the Suez Canal Authority (SCA) carried a 12% interest rate, around 1.5% higher than similar certificates issued by Egyptian banks. Investors could borrow up to 90% from selected banks.

The investment certificates sold out in just eight working days. The Ministry of Finance has guaranteed the certificates and has reserved funds to make quarterly interest payments of £1.9bn. The investment certificates will ultimately be repaid from SCA revenues, which are expected to increase from around \$5bn a year to perhaps more than \$10bn a year, according to some estimates. Ship waiting times should fall from 11 hours to three, and the canal's capacity has increased from 49 to 97 ships a day. ■

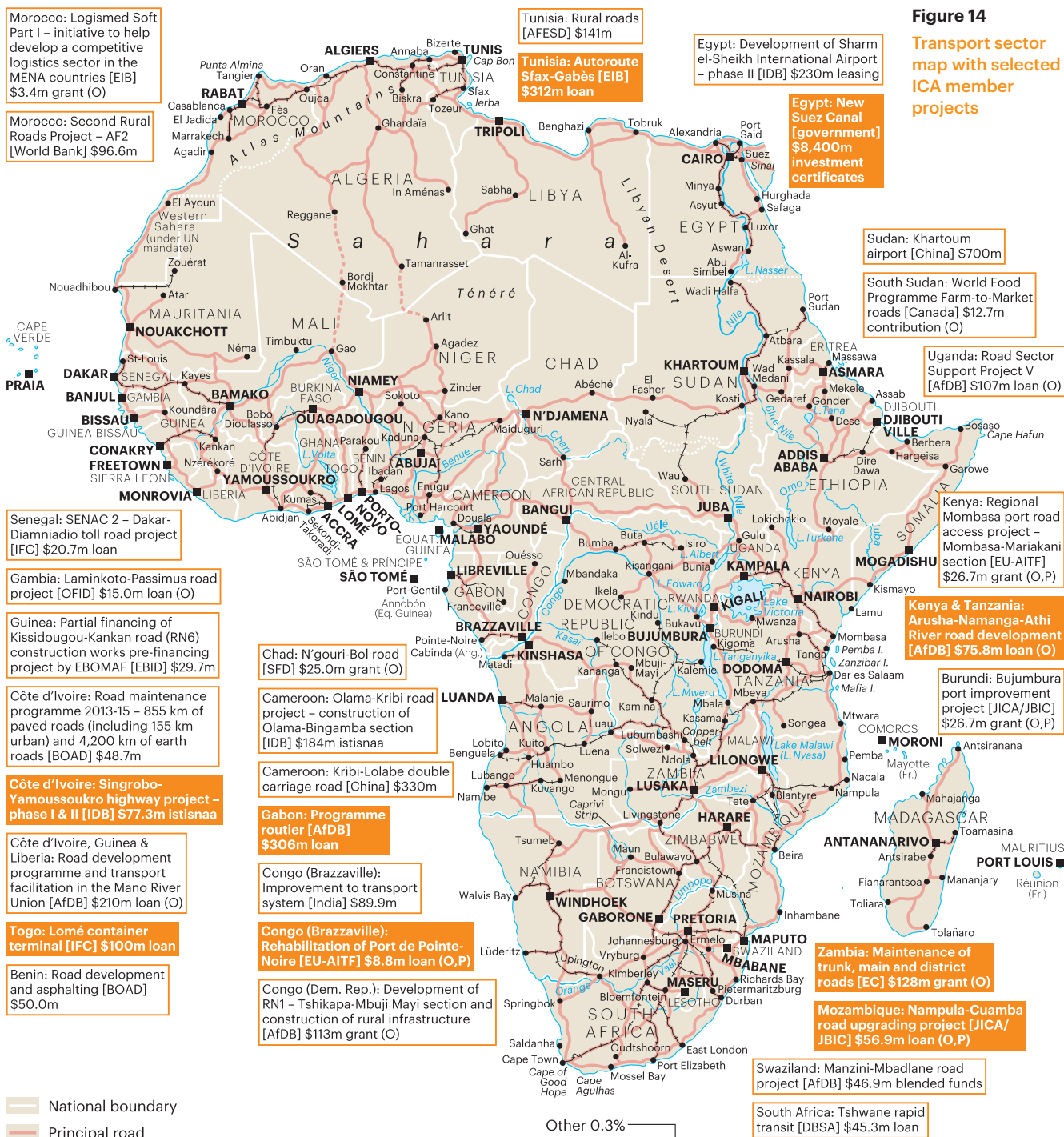
Henri Konan Bédié Bridge, Côte d'Ivoire

Officially opened in December 2014, the Henri Konan Bédié (HKB) Bridge, in the Ivorian capital of Abidjan, is described by the AfDB as "an embodiment of the promise for the country's infrastructure. And, looking further afield, for the whole of Africa". The new bridge links the north and south of the commercial capital, bringing Riviera and Marcory districts closer together, cutting journey times and carbon emissions. The journey from Riviera to Marcory is now 10km shorter and 30 minutes quicker than previous routes, cutting driving times for commuters by 260 hours a year.

The €232m (\$309m) project was built in a public-private partnership, with the participation of DFIs that included the AfDB, BOAD, the ECOWAS Bank for Investment and Development and FMO; private sector investment from the AFC (backed mainly by Nigerian investors) and Pan African Infrastructure Development Fund (PAIDF – with solely African investors); and bank support from Morocco's BMCE Bank. The project was underpinned by Multilateral Investment Guarantee Agency (MIGA – WBG) guarantees.

The so-called Third Bridge, which spans 1.5km, is part of a new 6.7km expressway that includes an interchange, two stretches of motorway and a 21-lane toll plaza. Bouygues Travaux Publics (BTP) and other subsidiaries of France's Bouygues Construction built the infrastructure. As the lead firm in Socoprim, the company created to establish and manage the project, BTP will operate and maintain the expressway for 30 years. Socoprim's shareholders are BTP, Total CI, PAIDF, Banque Nationale d'Investissement and the government of Côte d'Ivoire. ■

African Transport Map



Building a First-Class Transport Network



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Morocco already has one of the most extensive railway networks in Africa. But growth in tourism and the country's increasing role as an export and manufacturing gateway from Europe to North Africa, and as a route from the Middle East to both Europe and Sub-Sahara Africa, are among factors that have placed strain on existing capacity – especially as bigger flows of cargo are being generated by the recent expansion of ports and large-scale industrialisation of the north.

The number of railway passengers has doubled over the past decade, and is expected to rise from 36m in 2012 to 133m by 2030, according to state-owned railway operator Office National des Chemins de Fer (ONCF). Even at current freight volumes, ONCF had to limit cargo traffic to night time given rising demand.

It is in this challenging context that

ONCF is implementing an ambitious MD32.8bn (\$3.9bn) modernisation and expansion plan. A priority has been the construction of the 200km high-speed Tangier-Rabat-Kenitra line – which will be Africa's fastest railway line, significantly reducing journey times.

The €1.8bn line was initially expected to be operational by end-2015, but difficulties completing land acquisition have caused delays. It is now expected to open in spring 2018, at 10%-15% over the original budget. Much of the financing has come from Gulf Arab states – with whom the kingdom has close and enduring relations – and France, one of its largest trading partners. AFD has provided a loan of €230.2m (\$307m), KFAED €149.8m (\$200m), the Hassan II Fund for Economic and Social Development €92.5m (\$123.4m), AFESD €90.7m (\$121m) and ADFD €74.7m (\$99.6m).

The French government will also provide a grant for €78.5m (\$104.7m) and loans and credit facilities totalling €654.2m (\$872.5m). The remaining project costs are being met by the Moroccan government through ONCF.

In 2010, ONCF placed a €400m (\$533.5m) contract with France's Alstom for 14 TVG Duplex trains for the high-speed line; the first two have been delivered. Plans are also being drawn up to extend the line to Agadir and to create a second high-speed line between Casablanca and Oujda, capital of Morocco's Eastern region.

ONCF is also investing around €1.1bn (\$1.47bn) to upgrade existing infrastructure and double sections of the single-line Settat-Marrakech connection. It will also install a third line, dedicated solely to cargo, on the busy Casablanca-Kenitra route, which accounts for almost 50% of cargo volumes and 70% of passengers.

Kingdom Investing in Infrastructure Across All Sectors

Morocco has witnessed major investments across all infrastructure sectors in recent years, funded heavily by national and subnational government departments, Gulf states and other bilateral sources, international donors and the private sector.

The private sector is playing a significant investment role in developing energy infrastructure. In 2014, the multi-billion dollar Safi 1.36GW coal-fired BOOT IPP reached financial close. Led by a consortium of the local Nareva Holding, Mitsui & Company and Engie (formerly GDF Suez), the \$2.6bn project attracted support from JBIC and IDB (see below). The project has a 30-year PPA with Morocco's state utility Office National de l'Electricité et de l'Eau Potable (ONEE).

Morocco is aiming to diversify its energy mix through the inclusion of renewables, especially wind and solar, to reduce its dependence on thermal generation. Some 2GW of wind and 2GW of solar power is planned to meet the objective of 42% of installed capacity operating using renewables by 2020. Real progress is being made to meet this goal thanks to investment from the Gulf, France and other DFIs.

In December 2014, Engie (GDF Suez) and Nareva began commercial operation of the Tarfaya wind farm, which at 301MW is Africa's largest to date. The €450m project was built on a BOOT basis to supply ONEE. It was funded with a blend of equity and €360m of local debt, provided by a consortium of Attijariwafa Bank (AWB), Banque Centrale Populaire (BCP) and BMCE Bank.

Private operators are developing wind power for ONEE and industrial operators who can build their own generation units.

Nareva subsidiary Energie Eolienne du Maroc plans to double capacity at its Akhfenir wind farm to 202MW. MD1.8bn (\$215m) of financing is being put in place, including MD1bn (\$119.5m) arranged by local banks led by BCP, AWB and BMCI, with equity coming from Nareva and public pension fund CIMR. A further 850MW of wind power is in the pipeline for ONEE. Commissioning of \$1.7bn of new wind power is expected between 2017 and 2020.

Huge solar plants are being built. Saudi-based ACWA Power has set the pace with the 160MW Noor I CSP plant at Ouarzazate built for the Moroccan Solar Agency (Masen). Despite problems during the construction phase, Noor I is due to be commissioned in Q4 2015.

ACWA and Spanish partner Sener Grupo de Ingeniería have reached financial close on two more plants for Maesen, Noor II and III, at a total cost of more than \$2bn. Noor II and III are funded on an 80/20 debt/equity basis. A MD17bn (\$2bn) debt package has been put together by Masen, mobilising funds from DFIs including the World Bank (\$400m), AfDB (€100m – \$133m), AFD (€50m – \$67m), Clean Technology Fund (\$238m), EC (grant from the EU's Neighbourhood Investment Facility), EIB and KfW. Noor II and III are expected to start generating in 2017, with Masen planning to bring the Ouarzazate complex's capacity up to 500MW with the 50MW Noor IV unit thereafter.

ONEE has also been preparing tenders for the construction of 400MW of solar PV power, including the World Bank-sponsored 75MW Tafilalet project. Meanwhile, Spanish energy and water company Abengoa has closed financing on its \$114m water desalination project at Agadir. ■

Safi Coal IPP Financing

Tranches - all have 18-year tenor	Tranche currency	US\$m equivalent	Lenders
Local	MD	510	Attijariwafa Bank & La Banque Centrale Populaire*
JBIC Euro	Euro	200	JBIC
JBIC US\$	US\$	720	JBIC
NEXI Covered**	Euro	510	BNP Paribas, BTMU, CA CIB, Mizuho Bank, SCB, SG, SMBC, SMTB
International Uncovered	Euro	100	BNP Paribas, CA CIB, SCB, SG
Islamic	Euro	70	IDB
Total		2,110***	

* Initial mandated lead arrangers ** Includes commercial risk and PRI cover. *** The remaining finance will be provided through equity.

Morocco has also witnessed the rapid development of urban transportation.

Tramway services in the Rabat-Salé metropolis started operations in 2011 at a cost of MD4.7bn (\$561.5bn), of which the Hassan II bridge linking the twin cities cost MD1.2bn (\$143.4m). The project was financed

by Société du Tramway de Rabat-Salé (MD690m – \$82.4m), Agency for the Development of the Bouregreg Valley (MD1.25bn – \$149.4m) and the EIB (MD1.88bn – \$224.6bn). Veolia Transdev operates the service under a six-year management contract worth MD792m. Two further lines are also at the planning stage.

Investment in roads contributed to Morocco's highways network expanding to 1,511km in 2014, connecting 80% of industrial and 76% of tourist zones. Once completed, motorways operator Autoroutes du Maroc plans to have invested some \$6.6bn in expanding the network to 1,800km. ■

3.4 Water and Sanitation



Copyright: KfW Photo Archive / Kirsten Milhahn

The total value of financial commitments to African water infrastructure projects declined from \$11.2bn in 2013 to \$9.7bn in 2014. However, the financial close of a \$114m desalination plant being developed by Spain's Abengoa in Morocco contributed to an increase in identified private sector funding.

The Spanish water and energy company's wholly privately-financed project in Morocco signals a step towards greater private sector participation in this sector. In 2013, not one private-sector water project reached financial close, according to the PPI database.

Other countries are contemplating private sector water investments, including in Senegal, where a commercial operator is already involved in water distribution and the authorities in Dakar are now looking to private developers to install desalination plants.

ICA member disbursements to the sector in 2014 were up on the previous year – to \$2.6bn compared with \$2.4bn – but commitments decreased from \$5bn to \$3.4bn over the same

period. The trend set in 2013, when West African projects emerged as the prime beneficiaries of water sector funding commitments continued, with the region receiving \$1.5bn of the 2014 total. This figure was on a par with the previous year; it was twice as much as pledges to the next most funded region, Central Africa.

The total value of ICA member commitments to North Africa almost halved to \$557m, the lowest since 2009 (following years of sustained investment at around the \$1bn mark). Financing of projects elsewhere also dropped considerably: commitments to Central Africa were down by 30% to \$772m (although this is still above the pre-2013 figure) and East Africa fell by 54% to \$375m. ICA member commitments to Southern Africa fell by almost two-thirds, from \$621m in 2013 to \$214m.

ICA member WBG made substantial commitments to the water sector, at \$1.9bn (up from the \$1.3bn committed in 2013). WBG's largest commitments in 2014 were for Nigeria – a \$347m mixed funding package to transform irrigation management and \$215m for

\$11.2bn

2013

\$9.7bn

2014

Total commitments to the water sector

the National Urban Water Sector Reform programme.

Nigeria was also a major focus of the AfDB, notably in its commitment to the Urban Water Sector Reform and Port-Harcourt Water Supply and Sanitation projects. AfDB commitments totalled \$443m in 2014, down from \$547m the previous year. Some \$378m was disbursed by the AfDB. A number of projects backed by the Abidjan-based multilateral were completed in 2014, including the \$66.4m Rural Water Supply and Sanitation Programme in Ethiopia.

Commitments from France's AFD reached €315m (\$421m), making it

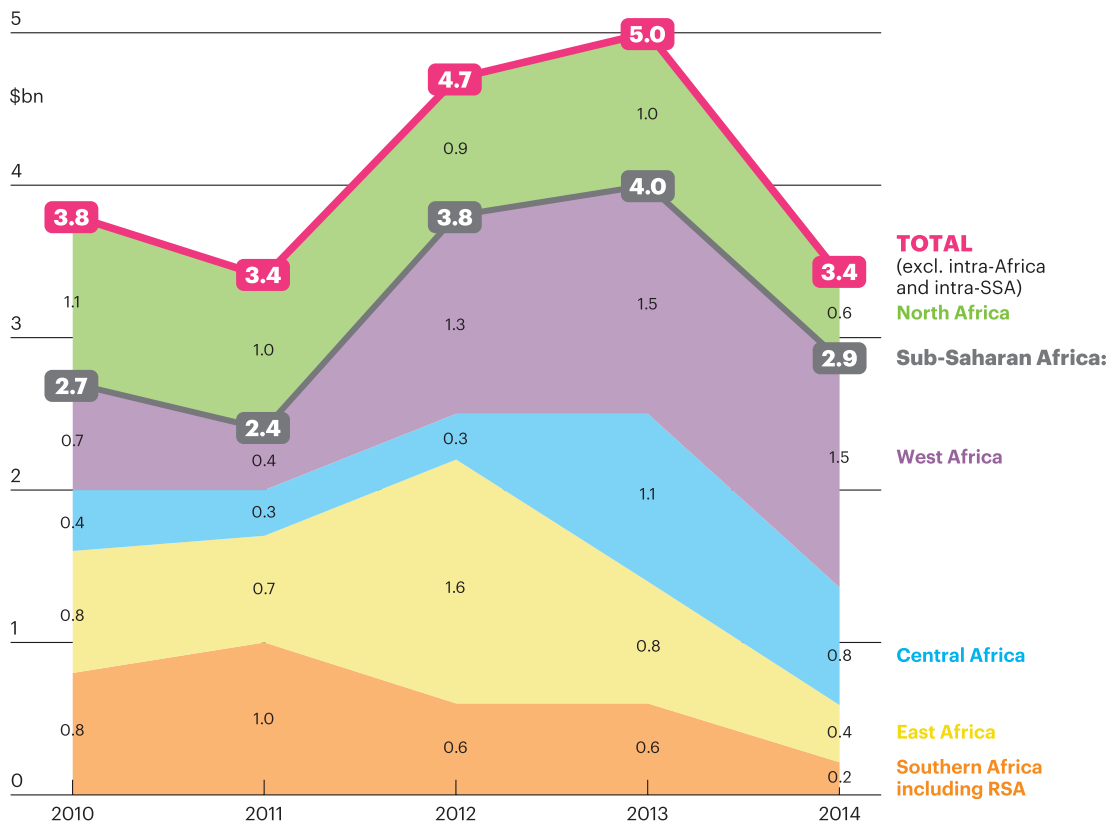


Figure 16
ICA member commitments to the water sector, 2010-2014

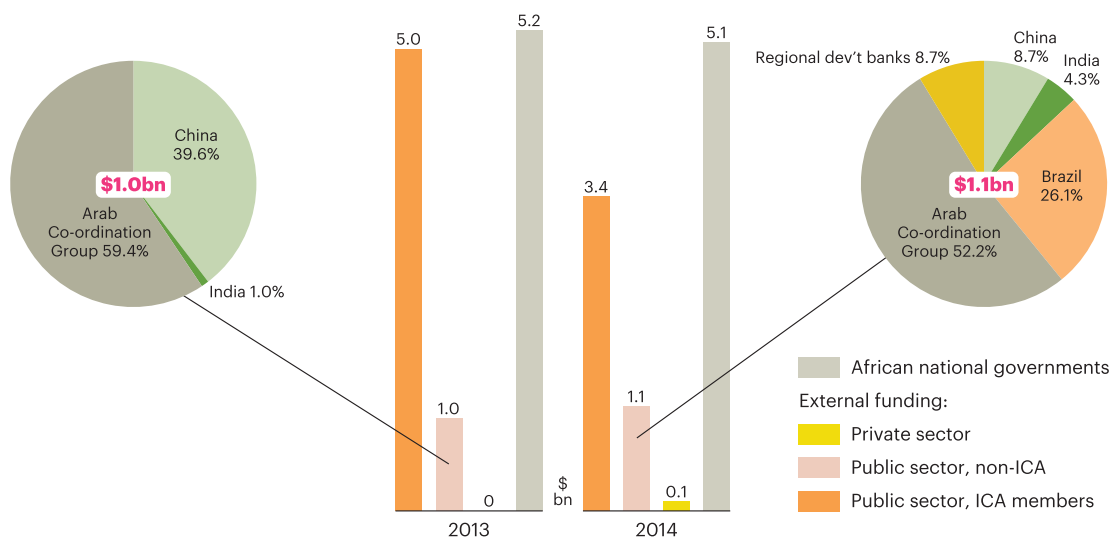


Figure 17
Total commitments to the water sector, 2013 and 2014

the biggest bilateral contributor to water projects for the second year running. KfW's commitments of €140m (\$187m) focused on Egypt, Kenya, Uganda and DRC. The UK's disbursements increased significantly, reaching £153m (\$252.7m).

Other institutions whose water and sanitation commitments declined in

2014 included the EC – down from €221m (\$302m) in 2013 to €100,000 (\$133,000). The EIB commitment of \$170m compared to \$386m pledged in 2013.

Japanese commitments fell by over half, from \$356m to \$134m; North Africa was the largest recipient of JBIC/JICA funding, with the Mejerda

River Flood Control project in Tunisia receiving a ¥10.3bn (\$100m) loan from Japan.

Financial commitments from the Arab Co-ordination Group remained stable at \$621m, but Chinese funding dropped from \$361m in 2013 to \$108m.

RDBs and India each increased commitments to the water sector. ■

ICA Water Activities

The ICA Water Platform (WP) was established in 2011. It is championed by Germany, which provides financial support and an infrastructure expert from KfW to supervise implementation.

The WP has the following objectives:

- to increase financing for sustainable water infrastructure in Africa from public and private sources;
- to identify and promote bankable water-related projects, with a special focus on regional projects;
- to facilitate dialogue on financing between African stakeholders, development partners and the private sector to promote best practices; and
- to foster greater cooperation (in alignment with African priorities such as Africa Water Vision 2025 and the Sharm-El Sheikh Declaration).

In 2014, the WP supported the Global Water Partnership to implement the Water Climate and Development Programme (WACDEP) approved by

the African Ministers' Council on Water. The WACDEP supports the integration of water security and climate change adaptation into development planning processes and the design of financing and investment strategies.

ICA helped facilitate project preparation and resource mobilisation for identified climate-resilient projects in eight countries (Burkina Faso, Burundi, Cameroon, Ghana, Mozambique, Rwanda, Tunisia and Zimbabwe) and five Basins (Kagera Basin, Lake Chad Basin, North West Sahara Aquifer System, Limpopo Basin and Lake Volta Basin).

Of 13 early-stage project preparation activities (concept notes and prefeasibility), nine were national projects; others were targeted at distinct, transboundary African river basins. Not only did each country or region prepare a project concept, a financing and a bottlenecks review, the capacity-building components built into the 16-month programme ensured that bankable project

preparation skills were embedded in partner institutions through the training and mentoring of senior planning officials in the ministries of environment, water affairs, energy, agriculture, transport, planning and finance.

The WP also financed a study on the Nexus approach, commissioned by the International Water Association. Nexus is a process used to allocate and use resources to ensure water, energy and food security for an ever-growing population at a time of changes in climate and land use, economic diversification and the need to make development pay.

The study focuses on, but is not limited to, the Volta and Lake Victoria basins; it will provide an overview of selected regional challenges and opportunities. A Rapid Assessment Framework will then be crafted to assess how current and future infrastructure projects deal with Nexus challenges. The outcomes will be available in the fourth quarter of 2015. ■

Landmark Projects: Improving services in East Africa

Lake Victoria Initiative

The Lake Victoria Water and Sanitation (LVWATSAN) initiative is designed to improve the water and sanitation services in 15 selected towns in the Lake Victoria Basin with a total population of 575,000.

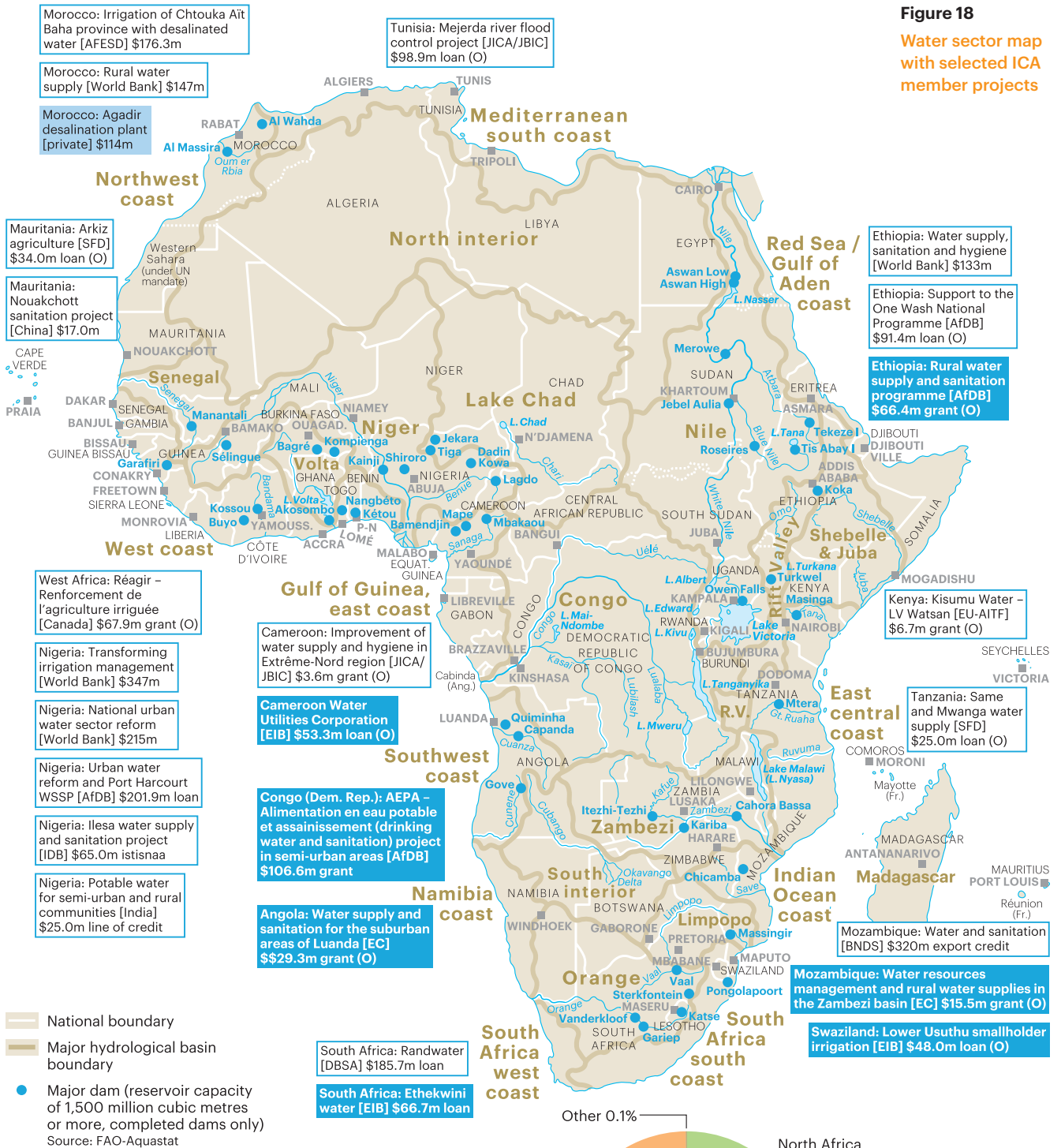
As a major trans-boundary natural resource that is heavily utilised by its bordering countries for fisheries, transportation, tourism, water supply and waste disposal, the reversal of the lake's deterioration is seen as a priority by the East African Community (EAC). Priorities include tackling the challenges presented by rapid urbanisation in the basin, the exploitation of its natural resources and the lake's relationship to livelihoods and poverty.

The AfDB-backed initiative aims to support water and sanitation investments, build institutional and human resource capacities at local and regional levels for the sustainability of improved water and sanitation services, facilitate the benefits of upstream water sector reforms to reach the local level, and help reduce the environmental impact of urbanisation in the Lake Victoria basin.

The catalogue of socio-economic benefits in the programme includes increased access to sufficient clean water supplies at 200m properties and a reduction in water collection distances for local populations, who may have to walk kilometres to obtain this basic resource. This will particularly benefit women, children and especially girls, who mostly bear the burden of fetching water. The reduced workload will give girls more time to attend school and women greater opportunities to engage in other economically beneficial activities.

There has been progress in this major initiative. Construction of the Kampala water component – funded by a consortium of AFD, EIB, KfW and the EU-AITF, alongside the Ugandan government and National Water and Sewerage Corporation – started in 2014 with work to restore the Ggaba Water Treatment Complex's treatment capacity to 232,000m³/day from the current 170,000m³/day. In Tanzania, work started on water and sewerage programmes under LVWATSAN in the Geita, Sengerema and Ukerewe districts of Mwanza. ■

Water and Sanitation Map



3.5 Energy



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Africa continues to face the challenge of poor access to electricity and insufficient generation capacity, particularly in the Sub-Saharan region. The energy sector once again received the greatest attention from ICA members in 2014 with commitments reaching \$9.2bn. This figure is down by almost 30% from the 2013 headline amount. However, the energy sector saw a substantial increase in actual commitments in 2014 when the previous year's inclusion of USAID's \$7bn long-term pledge to the Power Africa initiative is excluded.

The trend of extreme fluctuations in ICA members' investment in North African energy continued in 2014, when commitments reached \$4.1bn – representing 80% of total ICA commitments to the region. This was a substantial increase on the \$1bn committed in 2013, and the highest since 2010.

After West and East Africa enjoyed major commitments to energy infrastructure projects in 2013, ICA member pledges declined in 2014. Commitments to projects in West

Africa fell from \$5.5bn in 2013 to just \$1.1bn, a decline of 80%, while East Africa received only \$1bn in 2014, down 77% from \$4.4bn the previous year. Central Africa attracted substantially more commitments, of just under \$792m, compared with \$276m in 2013 – but the region continues to attract less funding than its neighbours. Southern Africa energy commitments rose from \$638m to \$1.6bn, but disbursements of just \$231m were reported.

Multilaterals led the way in 2014, with WBG committing \$2.3bn to energy projects including the Noor Ouarzazate Concentrated Solar Power (CSP) project in Morocco (*see page 23*). The WBG was also the lead disburser of funds to energy, releasing \$880m. AfDB's commitments of \$1.7bn included \$1bn for Angola's Power Sector Reform Support Programme.

EIB commitments for 2014 stood at €374m (\$498.8m), of which €150m (\$200m) was a loan to support the Noor Ouarzazate CSP project. The bank's disbursements reached €460m (\$613.5m) on projects such as the €185m (\$246.7m) upgrade of Tunisia's national electricity transmission

network, for which EIB provided a €15m (\$20m) loan.

EU-AITF commitments for 2014 stood at €33.6m (\$45m); disbursements reached €36m (\$48m), including a €25m (\$33m) equity investment in UK developer Aldwych's Lake Turkana IPP wind power project in Kenya. The EC committed €200m (\$267m) and disbursed €193m (\$257m) to the energy sector in 2014.

Japan's commitments of \$1.5bn were nearly treble the \$584m committed in 2013. They included \$361m for the Rades gas-fired power plant in Tunisia and \$165m for the Maputo gas-fired power plant in Mozambique.

KfW also substantially increased its commitments, from \$352m in 2013 to \$1.2bn in 2014. The German DFI's headline investment was also in Morocco's Ouarzazate solar complex. France's AFD raised its commitments by just under 30%, to \$1.2bn. North Africa received 44% of AFD's total commitments, followed by East Africa with 29%. The UK's DFID increased its commitments to energy infrastructure almost ten-fold from \$29m to \$223m.

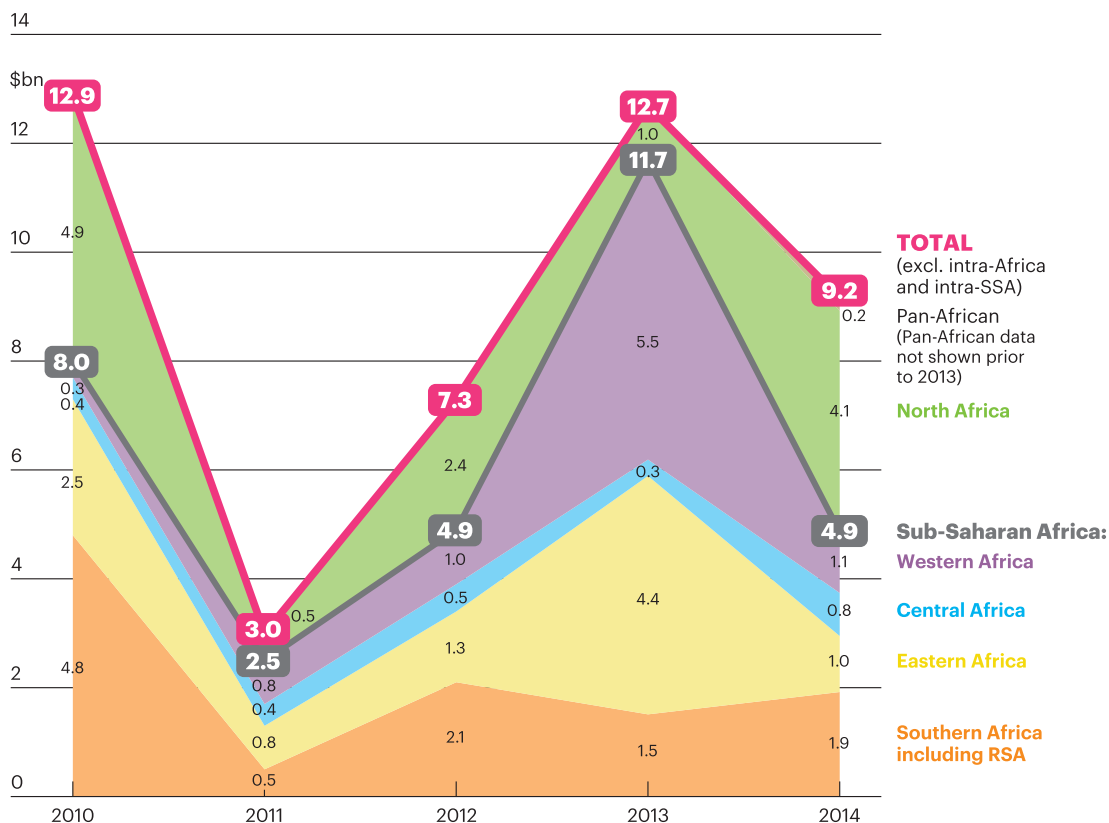


Figure 20
ICA member commitments to the energy sector, 2010-2014

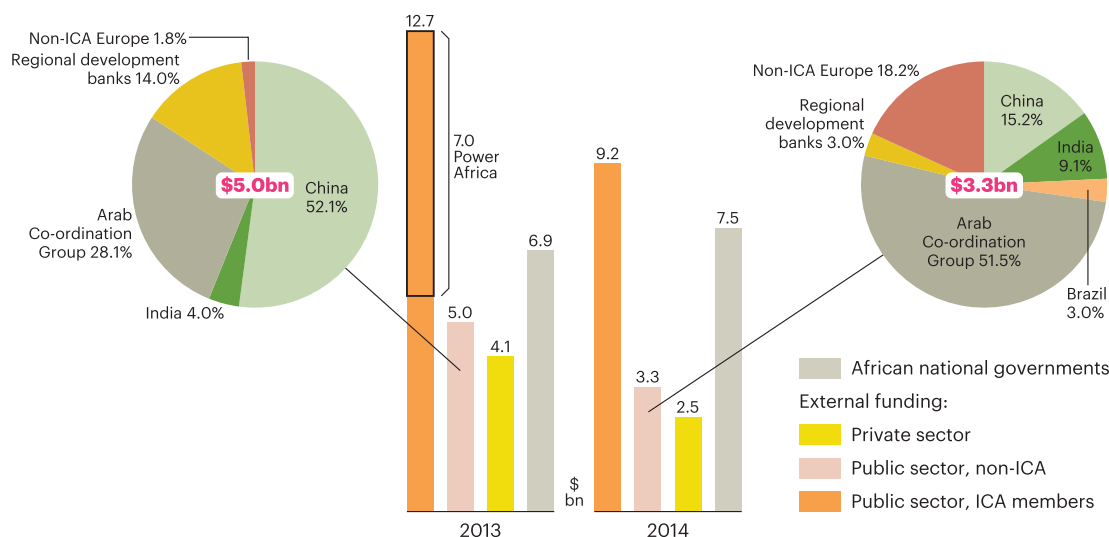


Figure 21
Total commitments to the energy sector, 2013 and 2014

Canadian government commitments fell slightly to \$343,987. DBSA also saw a decline, with commitments down from \$556m in 2013 to \$189m.

Despite increased activity and interest in Africa's energy sector, non-ICA commitments fell from \$5bn in 2013 to \$3.3bn in 2014. The most noticeable

decline was in Chinese funding, which dropped by over 80% to just \$500m. Commitments from the Arab Co-ordination Group increased from \$1.4bn to \$1.7bn, part of which went to the Safi coal-fired IPP in Morocco.

Energy sector projects dominated private sector financing, accounting

for 85% of total commitments in 2014. The Safi and Lake Turkana schemes were the major projects with private sector participation to reach financial close, as North and East Africa once again took centre stage – although two thermal generation projects in Senegal received \$670m and \$113m of private sector financing. ■



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South Africa, Rwanda Set Benchmarks for Renewables Development

By the end of 2014, South Africa had added 1,512.72MW to its electricity grid using renewable technologies at costs that were increasingly competitive with coal-fired power. In less than three years RSA had mobilised over R100bn (\$7.7bn) in renewable energy investment, largely from the private sector.

Projects supported by DFIs across the continent have become benchmarks, providing value beyond their generation capacity as they demonstrate new concepts and prove that renewable power can be developed on time and on budget.

These schemes have tended to result from direct bilateral negotiations between private developers, their DFI backers and national governments or utilities. The PPAs essential to bring projects to 'bankability' are signed after sometimes long periods of negotiation and project development. Many complex projects take years to take off, or fail.

The industry's spotty record of development makes projects such as US-owned, Dutch-based developer Gigawatt Global's 8.5MW Agahozo-Shalom Youth Village solar PV facility in Rwanda's Rwamagana District particularly important. This \$23.7m project – Rwanda's first commissioned IPP – began commercial operations in September 2014. It was financed by a consortium of equity partners and debt providers. Dutch development bank FMO and London-based EAIF were senior lenders, with mezzanine debt provided by Norfund.

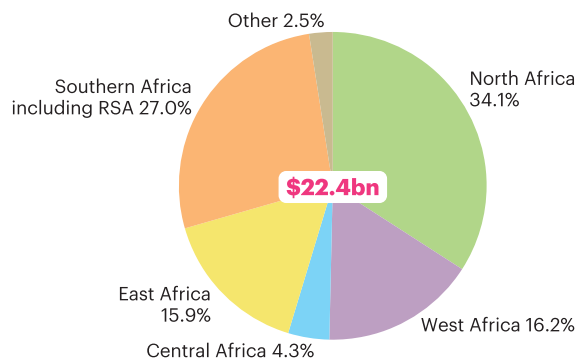
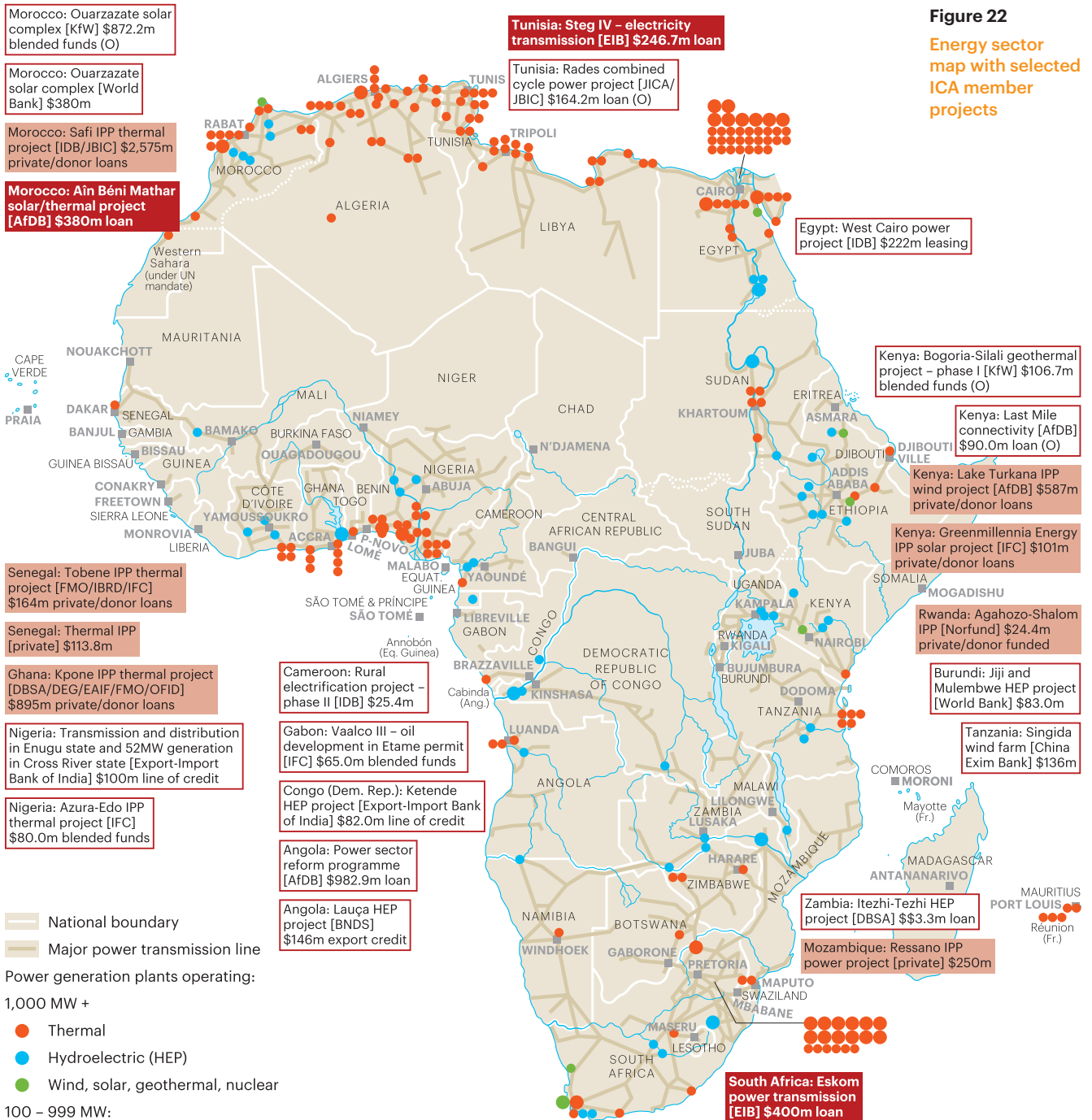
Norway's Scatec Solar is lead equity investor, EPC contractor, and O&M provider. There was also equity from Norfund and KLP Norfund Investments (KLP is Norway's largest pension fund). Grants came from the OPIC Africa Clean Energy Finance programme and from the European Energy and Environment Partnership Programme of Southern and East Africa.

Agahozo-Shalom's developers call the plant a reference project for others to follow. It combined private capital and development finance to bring megawatts to the grid quickly, while showcasing the benefits of renewable technologies for developing countries.

The technology is simple and does not involve a complex supply chain or logistical infrastructure. Construction is comparatively uncomplicated, which means a greater role for local construction companies and workers.

The modular nature of solar and wind power plants makes them flexible in terms of size and siting – plants can be built wherever the sun shines or wind blows. This means that project risk is expected to drop substantially as the continent develops its portfolio of projects.

Construction risk is already low: very few projects have experienced major construction delays.



Several projects on a similar or smaller scale to Agahozo-Shalom reached major milestones during the year. Projects included Tauber Solar and Sarako's Bambous solar power scheme in Mauritius (the island's first) and a 10MW project in Rwanda being developed by the Goldsol II consortium, while a MoU was signed by Gigawatt Global for a 7.5MW solar PV project in Burundi.

In Equatorial Guinea, MAECI Solar, GE Power & Water and Princeton Power Systems won a contract in June 2014 to provide a complete 5MW solar microgrid system on Annobon Island. Using a solar plant and battery-based storage system, it is expected to provide 24-hour power to 5,000 people.

In the same month in Burkina Faso, Windiga Energy signed an agreement for a 20MW solar project. The Canadian renewable power developer hopes to bring more projects to West Africa, where similar schemes have often failed to find backing. These projects promise to provide a stock of experience to inform future investments and bring down the cost of financing renewables projects.

Larger markets also saw some major developments during 2014 in response to domestic power crises, with renewables increasingly seen as essential tools for restoring the demand-supply balance.

The sophisticated institutional capacity available to design and run procurement programmes and the attraction of luring private capital into the country was demonstrated with surprising effect in Egypt, as it issued a request for qualification from developers on 20 October 2014 for 4,300MW of renewable generation.

The Egyptian programme utilises a feed-in tariff set-up; in January 2015, 110 projects prequalified to take part in procurement. Of these, 69 were for large solar PV plants of 20MW-50MW, 28 were for large wind plants of

Geothermal Risk Mitigation Facility

The AUC, German Federal Ministry for Economic Cooperation and Development and EU-AITF via KfW agreed in 2012 to establish the Geothermal Risk Mitigation Facility (GRMF) to fund geothermal development in East Africa.

The programme co-finances surface studies and drilling projects, as a major contribution towards developing this largely untapped indigenous and renewable energy resource. The GRMF programme initially had €50m (\$67m) available for funding, comprising €20m (\$27m) from Germany and €30m (\$40m) from the EU-AITF.

In 2014, GRMF launched its third application round, which attracted 16

expressions of interest for ten surface studies and six drilling programmes. Submissions were received from Djibouti, Eritrea, Ethiopia, Kenya, Tanzania and Uganda; they were submitted by private as well as public entities. Seven applicants requested support to upgrade infrastructure.

In March 2015, GRMF announced that the UK's DFID would also provide support alongside the two original funders. DFID is making an initial contribution of £10m (\$16.5m); it will make additional contributions of up to £37m (\$61.1m) if developers show continued interest in geothermal and the GRMF demonstrates it can support more projects that lead to geothermal investment. ■

Menengai Geothermal Development Project, Kenya

Sources of finance	Amount (\$ m)	Instrument
African Development Bank	120	Loan
SREP Loan through AfDB	7.5	Loan
SREP Grant through AfDB	17.5	Grant
World Bank	100	Loan
SREP through World Bank	15	Loan and Grant
Agence Française de Développement	166	Loan
European Investment Bank	36	Loan
Geothermal Development Company Government of Kenya	284	Equity
Total Project Cost	746	

similar size, and 13 for small-medium solar PV plants of less than 20MW. Many of the world's most significant renewables developers were involved, and a number of contracts have since been signed with developers.

In South Africa, the financial crisis at national utility Eskom delayed the announcement of a fourth round of the Renewable Energy IPP Procurement (REIPPP) programme in 2014. But in 2015, the government announced that not only would a further 1,000MW be

allocated to the fourth REIPPP round, but an additional round to install 1,800MW would be held later in the year. Private sector finance is playing a crucial role in these programmes, and development finance remains an important facilitator.

Menengai Project

Major renewable projects in which ICA members disbursed money in 2014 included the Menengai Geothermal Development Project in

Training Workshop on PPAs in Renewable Energy

A five-day training workshop was organised by the ICA Secretariat and African Legal Support Facility (ALSF) for 55 senior officials representing finance, energy and infrastructure institutions, and regulatory agencies, to meet a number of African countries' need to enhance their power purchase agreement (PPA) negotiation skills.

Participants attended from 11 French-speaking countries (Benin, Burundi, Cameroon, Republic of Congo, Côte d'Ivoire, Djibouti, DRC, Morocco, Mauritania, Tunisia and Senegal).

A similar workshop was held for nine Anglophone African countries in

January 2014, in Nairobi, Kenya.

The workshop was designed to give participants a better understanding of the PPA process, in particular for renewable energy (RE) technologies. It included such critical factors as:

- identifying and allocating the risks of a project and reflecting them clearly in documents such as the PPA, fuel supply contracts and concession agreements;
- assisting African governments and institutions involved in RE PPAs, especially with the institutional, legal and contractual issues arising from the preparation, development and management of a PPA;

- identifying ways to overcome the major constraints and challenges that impede or delay projects from achieving financial close; and

- finding sustainable ways to improve skills related to energy agreements.

The training sessions were based on exchanges, practical exercises, group presentations and the review of previous and existing projects.

Participants gave positive feedback, expressed by one who said: "This will allow me to have a better approach to the allocation of risk in practice." ■

Landmark Energy Projects

Kenya. According to the World Bank SE4ALL database, Kenya's electrification rate was just 23% in 2010. This project will enable electricity generation equivalent to the consumption needs of up to around 500,000 households – including 70,000 in rural areas and 300,000 small businesses – as well as 1,000 GWh of energy to businesses and industries. The project aims to develop the Menengai geothermal steam field to produce enough steam for 400MW of power that will be generated by IPPs.

Target completion date for the Menengai geothermal project is December 2016, with final disbursement due in June 2017. At a total cost of \$746m, and with an anticipated financial internal rate of return of 8.3% and an economic internal rate of return of 16.7%, the project provides an example of funders working with a national government to release untapped energy potential (*see table opposite, page 32*). ■

Azura-Edo IPP in Benin State, Nigeria

Investors are watching the \$900m Azura-Edo IPP closely in anticipation that an industry standard-setting project will emerge and open the path for increased private sector participation in Nigeria's electricity supply industry.

Located in Benin State, the project took some important steps forward in 2014 and appeared to be edging towards financial close following the signing of a WBG Partial Risk Guarantee in 2015.

The project is financed through \$220m of equity and \$530m of debt. Led by Azura West Africa, a partnership of Mauritius-based Amaya Capital and American Capital Energy & Infrastructure fund, it is also backed by Africa Infrastructure Investment Managers, Nigeria's Asset and Resource Management Ltd, the Netherlands' FMO and Aldwych International of the UK.

The US' OPIC has approved up to \$50m in direct financing, IFC is providing \$80m of debt, and MIGA is providing political risk insurance. ■

Kpone IPP at Tema, Ghana reached financial close

The financial close of Cenpower's \$900m gas-fired Kpone independent power plant marked an important step towards harnessing gas to meet the region's growing power demand. The 350MW plant is due on stream in 2017 and will be Ghana's largest private power scheme, accounting for some 10% of total installed capacity and 20% of available thermal capacity. The plant will provide low-cost thermal power to the deregulated Ghanaian market. It will become one of the main off-takers of Nigerian gas via the West African Gas Pipeline.

The project's \$425m debt is funded by a group including FMO, DEG, OPIC, EEIF, DBSA and RSA's Industrial Development Corporation. Loans from a consortium of South African banks (including Rand Merchant Bank, Nedbank and Standard Bank) are backed by export credit cover from South Africa's ECIC.

Equity is provided by a consortium consisting of lead project developer AFC, Sumitomo Corporation, AIIM, Cenpower Holdings and FMO. ■

3.6 Information and Communications Technology

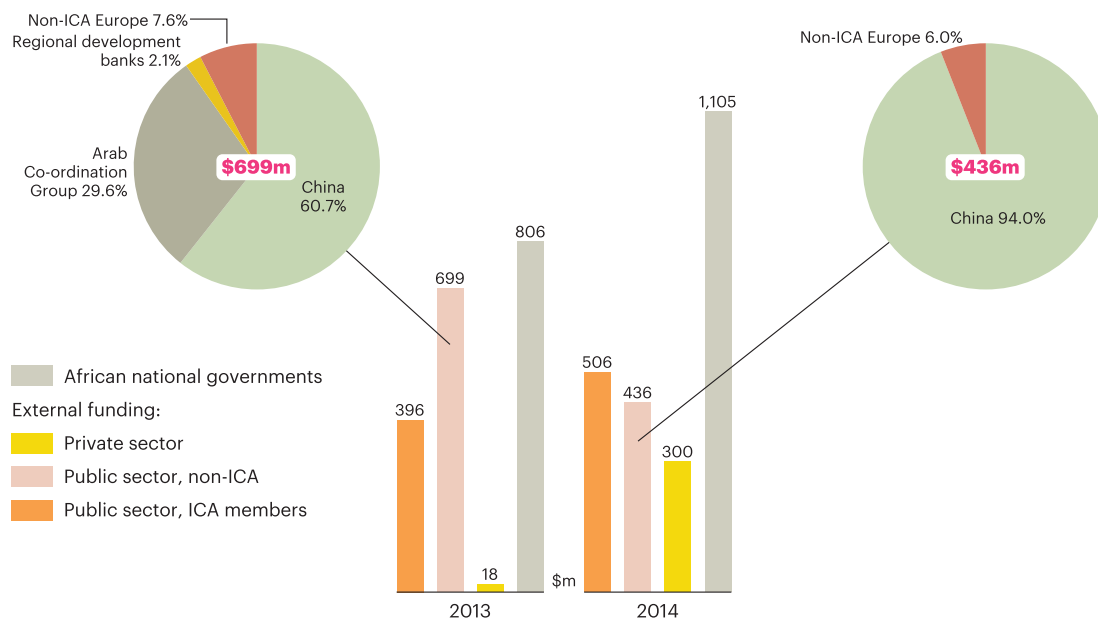


Figure 24
Total commitments to the ICT sector, 2013 and 2014

Total identified investment in ICT infrastructure in Africa rose from \$1.8bn in 2013 to \$2.4bn in 2014. This growth was substantially boosted by private sector investments in mobile telephony. ICA member commitments increased to \$506m – up 28% from the previous year – continuing the upwards trend sustained since 2011. However, this figure is still eclipsed by the huge amount of investments committed by ICA members in 2009.

ICA commitments to Central Africa rose from \$39m in 2013 to \$132m in 2014, making the region the single largest destination for members' ICT financing.

ICA members also reported a significant increase in commitments to North Africa, which rose five-fold to \$100m. Commitments in East Africa also increased to \$55m in 2014, from \$16m the previous year.

However, West and Southern Africa recorded lower commitments to ICT projects. West Africa, the largest recipient of ICA member financing in 2013, saw commitments fall from \$163m to \$79m. ICT infrastructure projects in Southern Africa received \$23m, down from \$37m in 2013.

The World Bank Group contributed the majority of ICA member commitments in 2014, having pledged \$331m, almost double the amount committed the previous year. The IFC's headline commitments to ICT in 2014 included \$85m in loans and other financing for the expansion of IHS's mobile network towers in Nigeria, Rwanda and elsewhere in Sub-Saharan Africa.

Commitments from France's AFD increased substantially from \$44m in 2013 to \$97m in 2014. DBSA reported a 33% increase in its ICT commitments, to \$20m, which included \$10m to O3b Networks across the continent.

Commitments from the UK's DFID dropped slightly from \$30m to \$27m, while Germany's KfW did not commit financing to any projects in 2014 following a busy year in 2013 when it committed \$63m.

Three major private sector deals reached financial close in 2014. Viettel concluded a deal to become the third mobile network operator in Cameroon. Smart Telecom finalised its \$300m launch in Tanzania and Uganda; the mobile operator also plans for expansion into Burundi.

Non-ICA public sector contributions to the sector fell considerably, from \$699m in 2013 to \$436m in 2014. Chinese commitments held up at \$410m, but the substantial amount of financing committed by Arab Co-ordination Group members in 2013 was not replicated, with no financial commitments in 2014). Regional development banks increased their commitments by 33% to \$20m, which was provided exclusively by DBSA, but non-ICA European DFIs reported a halving of their financing of projects from \$53m down to \$26m.

African central government budgets (as identified in 42 countries) showed increased ICT investments, which reached \$1.1bn in 2014, up from \$806m the previous year.

ICT development drives economic growth, while promoting governance and accountability. This was highlighted by Nigeria's landmark presidential election, which in March 2015 used electronic voter ID cards. Developed during 2014, these were credited with preventing electoral fraud and allowing an opposition candidate to unseat the incumbent president through a popular vote for the first time in Nigeria's democratic history. ■

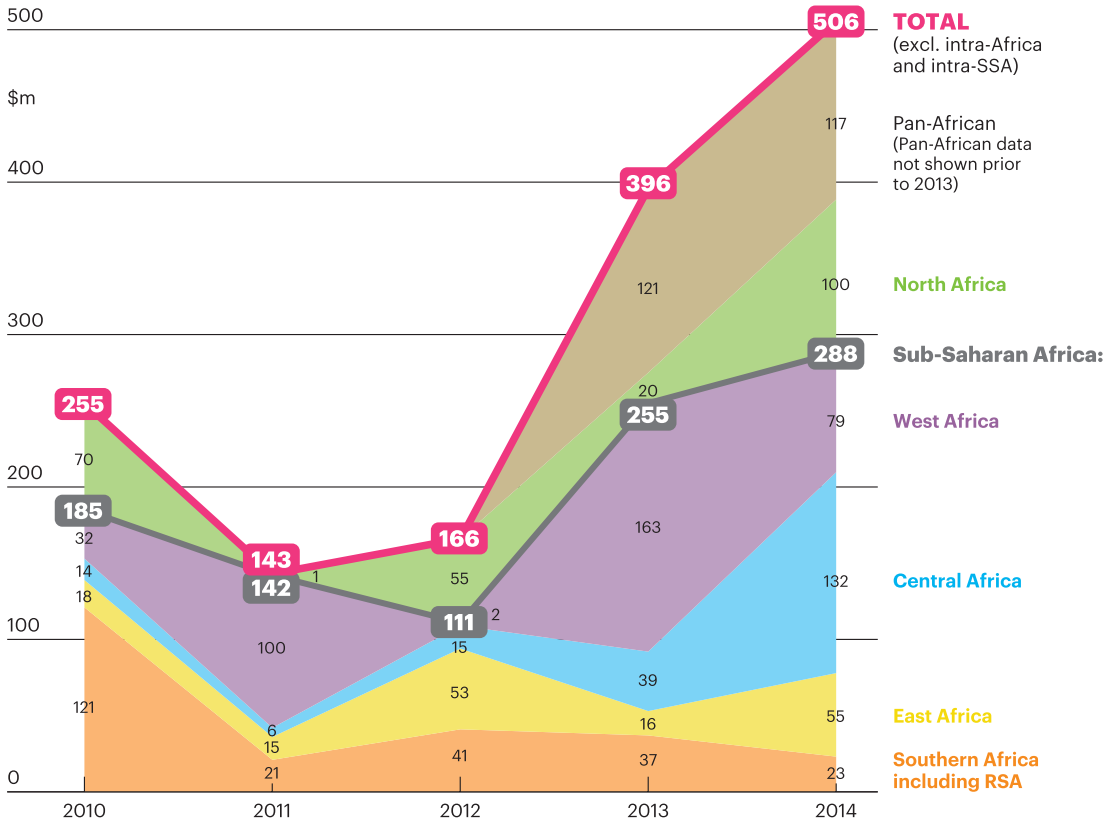


Figure 25
ICT member commitments to the ICT sector, 2010-2014

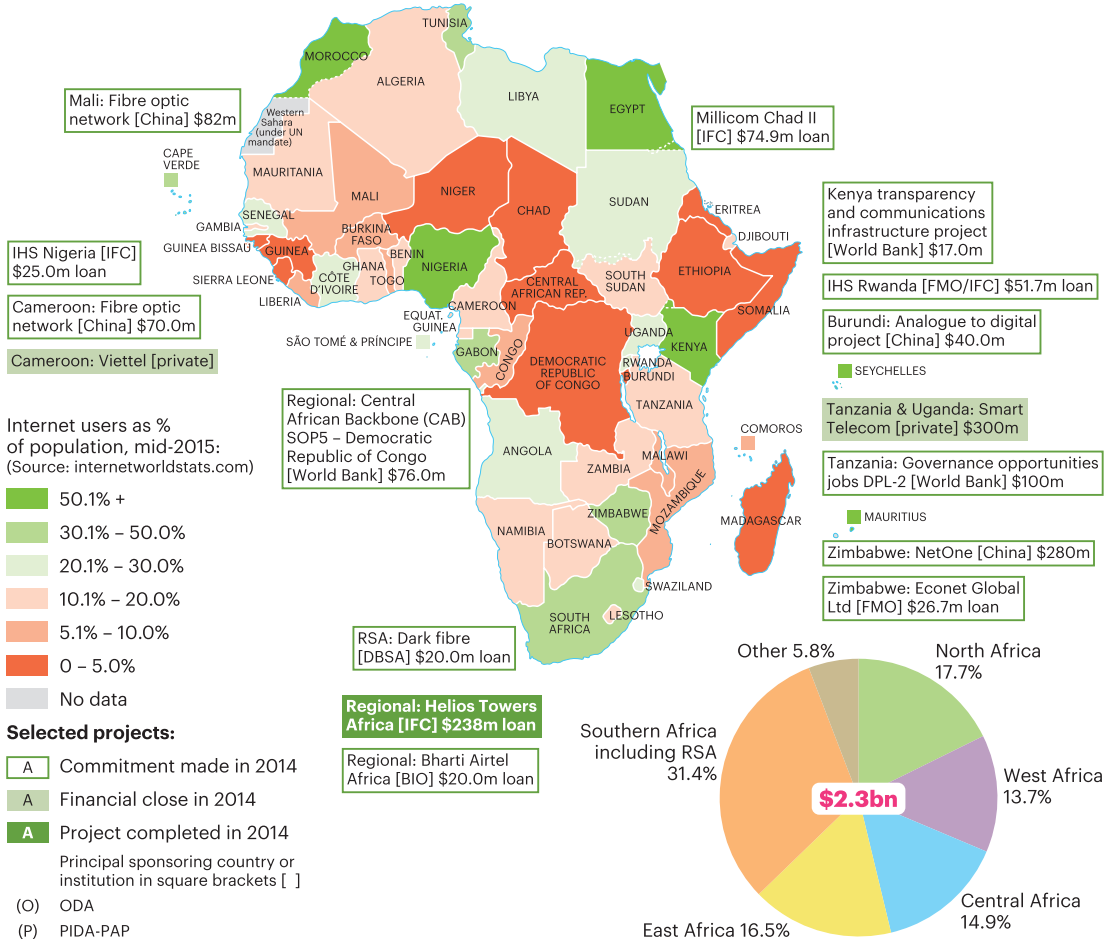


Figure 26
Selected ICT sector projects

Figure 27
Total ICT sector commitments by region, 2014

4. ICA Member Financing



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4.1 Overview

ICA members reported infrastructure financing commitments totalling \$18.8bn in 2014, against a challenging regional and global background. While this was 25.5% down on the \$25.3bn members' commitments reported in 2013, that figure had included an exceptional \$7bn pledge from the US presidential Power Africa initiative.

The 2014 figure represents a \$500m (3%) annual increase in ICA member commitments once this one-off allocation is excluded, and data is analysed on a like-for-like basis with reporting by broadly similar organisations.

The trend in disbursements shows steady improvement, reaching a record high in 2014 – 14% up on the \$11.4bn recorded in 2013. Disbursements were \$9.7bn in 2010

and \$8.7bn in 2011, before reaching the previous high of \$12.7bn in 2012.

Commitments of \$29.1bn in 2010 remain the largest total since ICA records began. However, the consistent reporting of disbursements in the \$11bn-13bn range over the last three years (which in most cases do

not reflect commitments made in the same year) suggests that the record commitments declared in 2010 may have involved projects that are proving difficult to progress.

Excluding the US Power Africa pledge, there was a substantial increase in actual commitments to

Multilaterals and Bilaterals

It is important to recognise the financial contributions made by bilateral ICA members to the multilateral development banks. For example, Canada, France, Germany, Japan, the UK and US contribute to the AfDB's African Development Fund and the WBG's International Development Association.

ICA members also support DFIs through allocations not captured in ICA data, such as those made by CDC.

According to CDC's annual review, the wholly-UK government-owned DFI made commitments to Africa of \$240.9m in 2014, of which \$100.6m was targeted on the energy sector either through direct investments or via funds. CDC manages capital provided entirely by DFID.

Of members who have reported in the previous three years, US agencies EXIM Bank, OPIC, USAID and MCC, and Germany's DEG and GIZ provided no data. ■

ICA Members' 2014 Commitments Matrix (\$m)

	Transport	Water	Energy	ICT	Multi-sector	Total Commitments
North Africa	116	557	4,064	100	241	5,078
West Africa	569	1,469	1,122	79	167	3,433
Central Africa	1,819	722	792	132	226	3,692
East Africa	488	375	1,032	55	45	1,994
Southern Africa	169	211	1,597	3	16	1,995
RSA	333	3	330	20	842	1,529
Other	107	12	243	117	618	1,098
Total Commitments	3,602	3,377	9,180	506	2,155	18,819

2014 in Context

The sheer destructiveness of the Ebola virus had the most dreadful impact on the people of Liberia, Guinea and Sierra Leone. As well as leaving more than 11,000 people dead and so many families bereft, the outbreak stretched public services to the limit, sapped government finances, disrupted the development agenda, caused investors to postpone plans and delayed projects, small and large alike. Other factors also made 2014 a challenging year for Africa's infrastructure development, including a decline in commodity prices and government revenues, especially in resource-oriented economies, and the slowdown of China's economy.

But alongside coping with delays in major projects such as the regional Côte d'Ivoire-Liberia-Sierra Leone-Guinea connection, ICA members are already planning to mitigate the short- to medium-term impacts of the Ebola crisis in initiatives such as the Mano River Union and AfDB's plans for priority projects in the region's energy, road, ICT and agricultural sectors. ■

the energy sector, to \$9.2bn, in 2014; this represents a 61% increase on the \$5.7bn committed in 2013.

Commitments to the transport and water sectors fell by around 30%. This decline was compensated, to some extent, by a substantial increase in multi-sector commitments, which rose by 43% from \$1.5bn in 2013 to \$2.15bn in 2014.

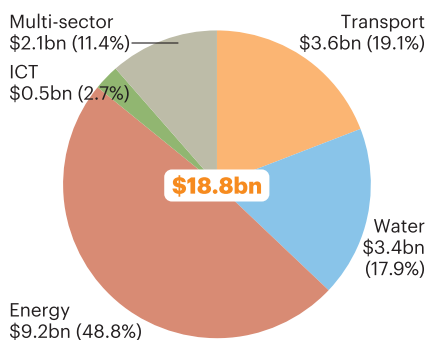


Figure 28
ICA members' commitments by sector, 2014

Although disbursements have remained broadly constant for the past three years, this masks some huge regional and sectoral variations. Significantly more funds were disbursed to West Africa across most sectors in 2014 compared with the previous year, while disbursements to RSA's transport sector and East and Southern Africa's ICT sectors all declined. ■

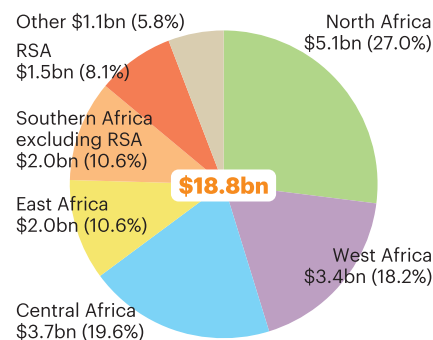


Figure 29
ICA members' commitments by region, 2014

4.2 Types of Funding

Conventional financing instruments remain the most frequently used by ICA members. Loans accounted for \$14.3bn (75%) and grants for \$2.7bn (14%) of financings. This marks a distinct shift in emphasis among members that consistently report data to the ICA. In 2013, members reported that loans provided \$10.8bn (37%) and grants \$7.4bn (25%) of funding.

Blended funding, reported for the first time in 2014, accounted for 7% of commitments, while guarantees and insurance amounted to 2.3% of commitments. The remaining 2% was financed through equity investment and other forms of financing.

No export credit financing was reported by ICA members in 2014; this followed the \$5bn reported in 2013 through US presidential initiative pledges.

ICA members continue to finance infrastructure projects according to their preferences for grants, loans and/or other finance, ODA and non-ODA funding, and with different proportions of their support directed towards soft and hard infrastructure projects.

Members' Funding

Total soft infrastructure commitments in 2014 stood at \$2.3bn compared with \$1.8bn in 2013. Hard infrastructure commitments in 2014 reached \$16.5bn compared with \$15.8bn in 2013.

This suggests little change in either the absolute values or proportion of soft and hard infrastructure commitments, although \$700m of commitments in the 2013 data were reported unallocated.

Canada, the EC and the UK provide exclusively grant funding, while EU-AITF provides mostly grants. Canada continues to support only soft

infrastructure projects. The UK has historically been one of the main providers of grant funding to soft infrastructure projects in Africa (while also focusing on hard infrastructure).

One of the most substantial commitments to soft infrastructure in 2014 was the AfDB's \$1bn support for the Angola Power Sector Reform Support Programme. Two-thirds of the AfDB energy unit's commitments in 2014 were directed at soft infrastructure, while its transport operations and private sector department provided less than 4% and 2% respectively to soft infrastructure.

In contrast, the AfDB's water and sanitation unit's commitments to soft infrastructure amounted to 27% of its allocations. This reflected the bank's focus on strengthening processes and systems in the sector (including budgeting, monitoring and reporting, coordination and the setting up of sustainability frameworks), and its support for the preparation of bankable projects – notably through the AWF – and the promotion of sanitation and hygiene.

DFID's traditional support for soft infrastructure was underlined in 2014, when some 38% of its total commitments were directed at soft infrastructure. The EU-AITF is a substantial supporter of soft infrastructure financing, allocating 25% of its 2014 commitments in this direction.

The EC's allocation to soft infrastructure projects remained at around 10% in 2014. France also allocated around 10% to soft infrastructure, which represents an increase on the 7% allocated in 2013.

The proportion of German and Japanese soft infrastructure allocations have remained at a constant 7% and 5% respectively over

the last two years. The WBG allocated a rather smaller proportion (5%) to soft infrastructure in 2014 than in 2013, allocating \$300m compared with \$357m in the previous year.

The DBSA provided funding for project preparation in 2014, the first time the bank has reported



Figure 30
ICA members' commitments by type of funding, 2014

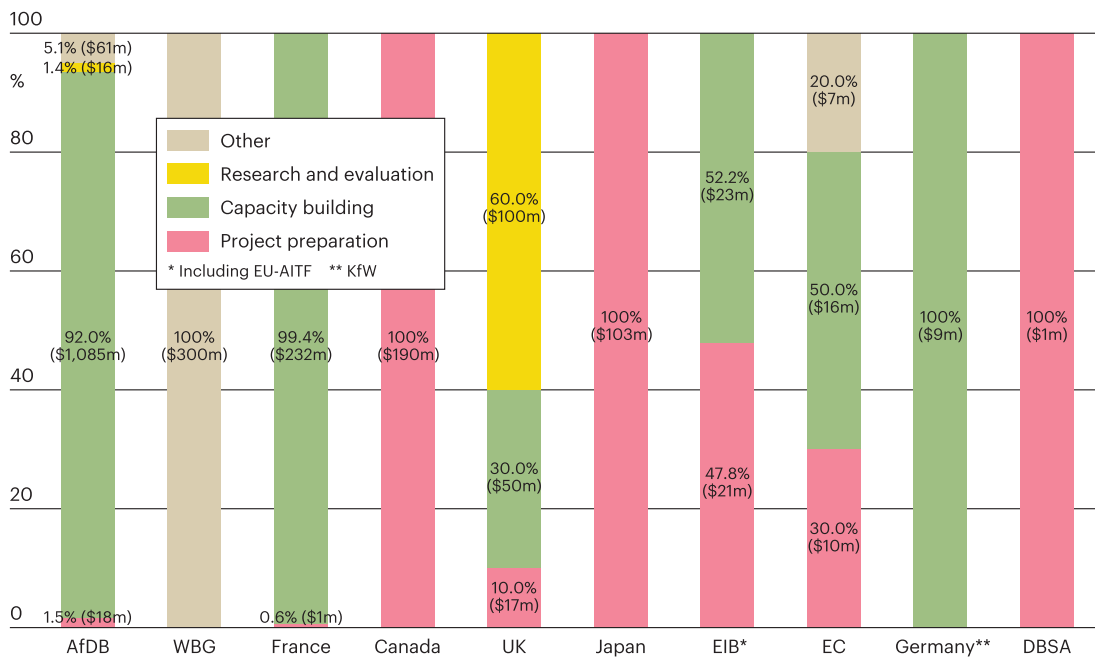


Figure 31
ICA members' soft infrastructure commitments by type, 2014

Data note
Japan's soft infrastructure commitments also include funding for capacity building and other soft infrastructure spending.

supporting soft infrastructure since becoming an ICA member. DBSA provides exclusively loan funding in its international and RSA operations.

Providers of only ODA finance include Canada, EC, EU-AITF, Germany, UK and the World Bank. Providers of exclusively non-ODA funding include DBSA and IFC.

The AfDB provides predominantly non-ODA funding. However, ODA finance accounted for more than half of all AfDB commitments to the water and sanitation sector and around one-third of those in its transport operations.

The IFC, which provides only hard infrastructure financing, offers one of the broadest ranges of funding options. In 2014 around 19% of its commitments were equity investments while some 38% were loans. Blended funding accounted for 25% and what IFC describes as quasi-loan/quasi-equity funding accounted for 18% of commitments.

The IFC's quasi-equity financing instruments, which exhibit both debt and equity characteristics, are aimed at supporting private sector projects in developing countries. Among other instruments, the IFC also provides convertible debt and subordinated loan investments, which impose a fixed repayment schedule. It also offers preferred stock and income note investments, which require less rigid repayment schedules. Quasi-equity investments are made available whenever necessary, to ensure that a project is soundly funded.

France, AfDB and WB all made commitments in the form of guarantees or insurance in 2014. AfDB used these financing methods in 8% of its commitments to the energy sector. The World Bank committed \$421m in guarantees or insurance.

Soft infrastructure support committed by the AfDB, France and the EC in 2014 focused on capacity building, with a smaller amount

directed towards project preparation. All of Canada's soft infrastructure commitments were directed at project preparation while Germany exclusively supported capacity building. Japan's soft infrastructure commitments were directed at both project preparation and capacity building.

The UK employed a varied approach to soft infrastructure financing in

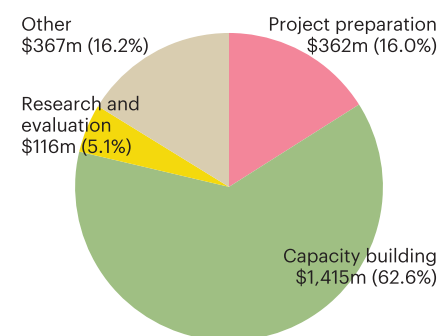


Figure 32
Soft infrastructure commitments by category, 2014

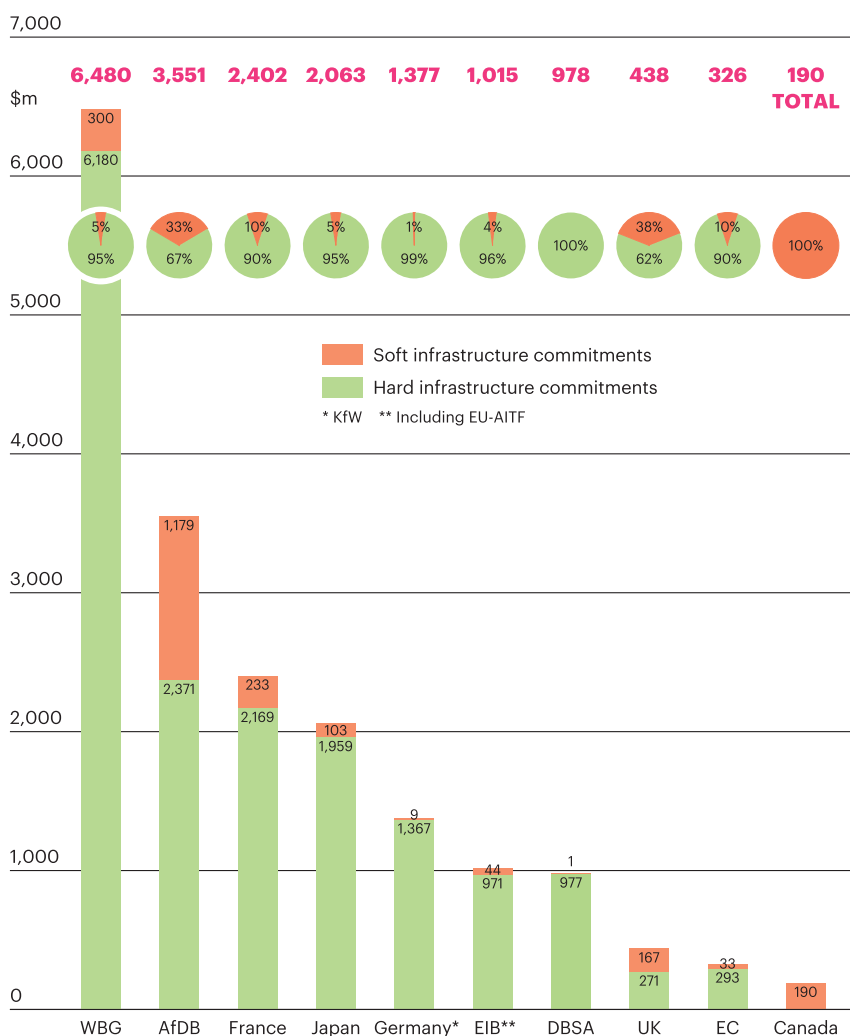


Figure 33
ICA members' hard and soft infrastructure commitments, 2014

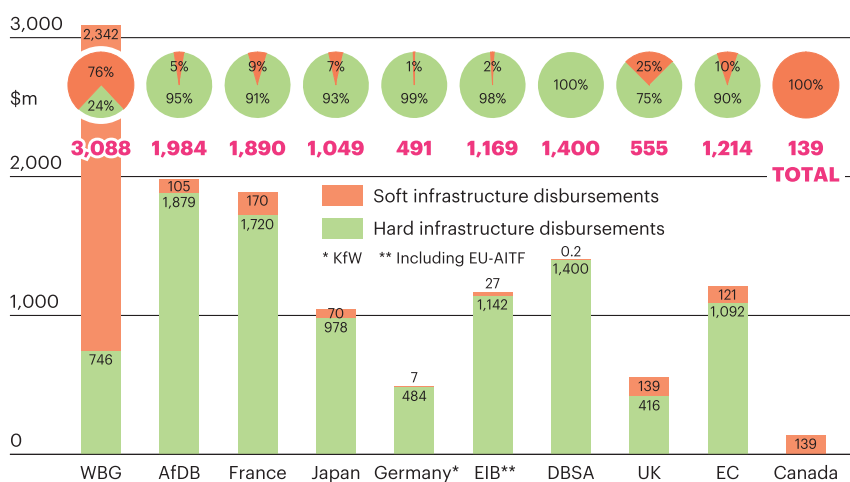


Figure 34
ICA members' hard and soft infrastructure disbursements, 2014

2014 with commitments split between research and evaluation, capacity building, and project preparation.

The EU-AITF and EIB take a balanced approach, with soft infrastructure commitments between project preparation (EU-AITF 53%, EIB 44%) and capacity building (EU-AITF 47%, EIB 56%).

Rise in Soft Infrastructure Disbursements

A substantial increase in soft infrastructure disbursements was recorded in 2014, up from \$777m in 2013 to \$3.1bn. With approximately \$4bn of disbursements in 2013 reported 'unallocated' (of which any proportion may have been intended for soft infrastructure), it is difficult to confirm a trend. However, it seems that soft infrastructure commitments are being effectively disbursed.

In 2012, when only a small amount of disbursements were reported unallocated, total soft infrastructure disbursements amounted to \$1bn.

A departure in the soft infrastructure figures is that in 2014, unlike previous years, disbursements were substantially higher than commitments. (However, it is important to note that commitments cannot be directly related to disbursements in any one year.)

One dynamic the data could point to is that levels of commitments to soft infrastructure need to be increased to sustain the flow of disbursements. On the other hand, the figures may also suggest a delay in disbursements anticipated for 2013.

Shifts in commitments

There has been a considerable shift in the application of soft infrastructure commitments in 2014, when the majority of funds were aimed at capacity building.

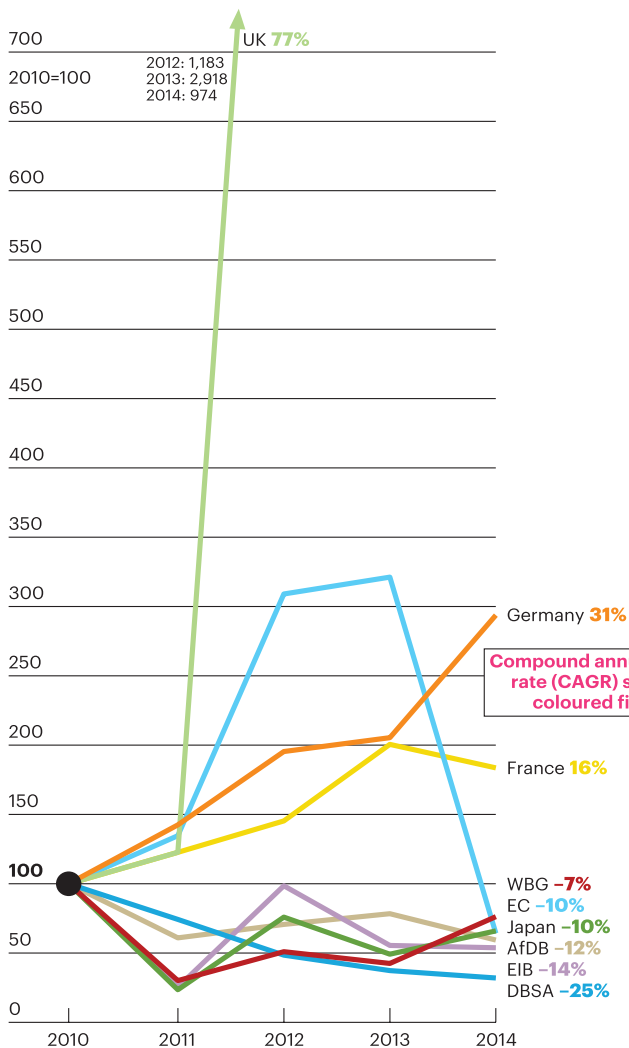


Figure 35
Index of ICA members' hard infrastructure commitment trends, 2010-2014

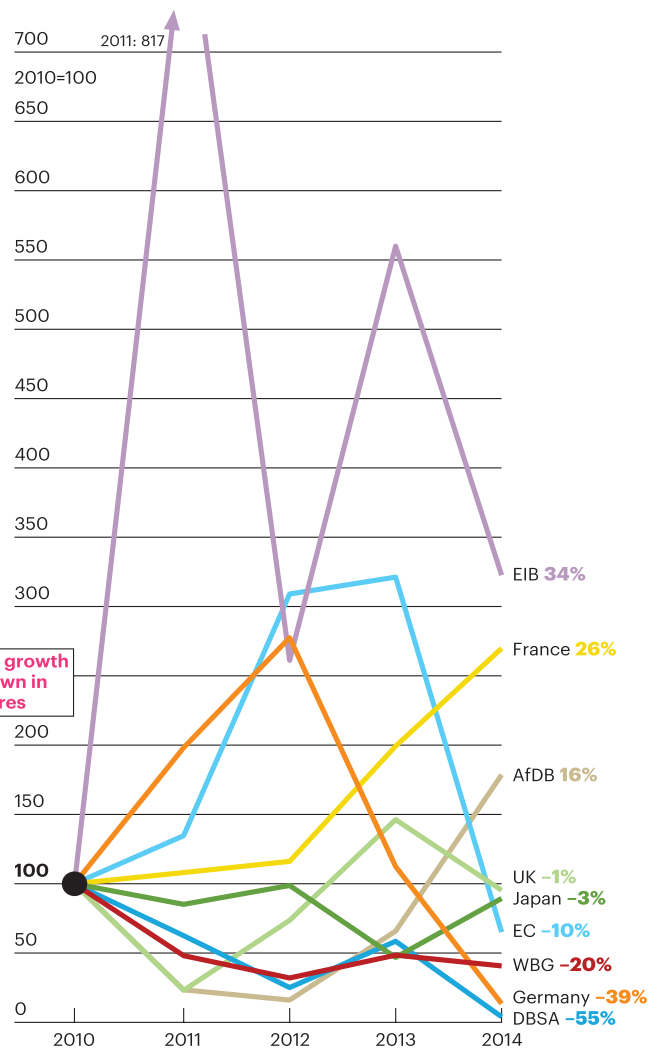


Figure 36
Index of ICA members' soft infrastructure commitment trends, 2010-2014

However, a decline in commitments for project preparation was reported. In 2013, 32% (\$560m) of soft infrastructure commitments targeted project preparation. In 2014, this figure reduced to 16% (\$362m) of total soft infrastructure commitments.

Commitments to capacity building meanwhile nearly tripled from \$493m in 2013 to \$1.4bn in 2014. This represented 29% of total soft infrastructure commitments in 2013, increasing to 63% in 2014.

A new category of soft infrastructure investment considered in this year's report is research and evaluation, for which ICA members reported commitments of \$116m.

'Other' soft infrastructure commitments amounted to 16% (\$367m) of all such commitments in 2014, compared with 23% (\$402m) in 2013. ■

Reported Soft Infrastructure Commitments and Disbursements (\$bn)					
	2012	2013	2014	Total	Annual average
Commitments	1.18	1.75	2.26	5.19	1.73
Disbursements	1.03	0.77	3.12	4.92	1.64

4.3 Trends in Commitments and Disbursements

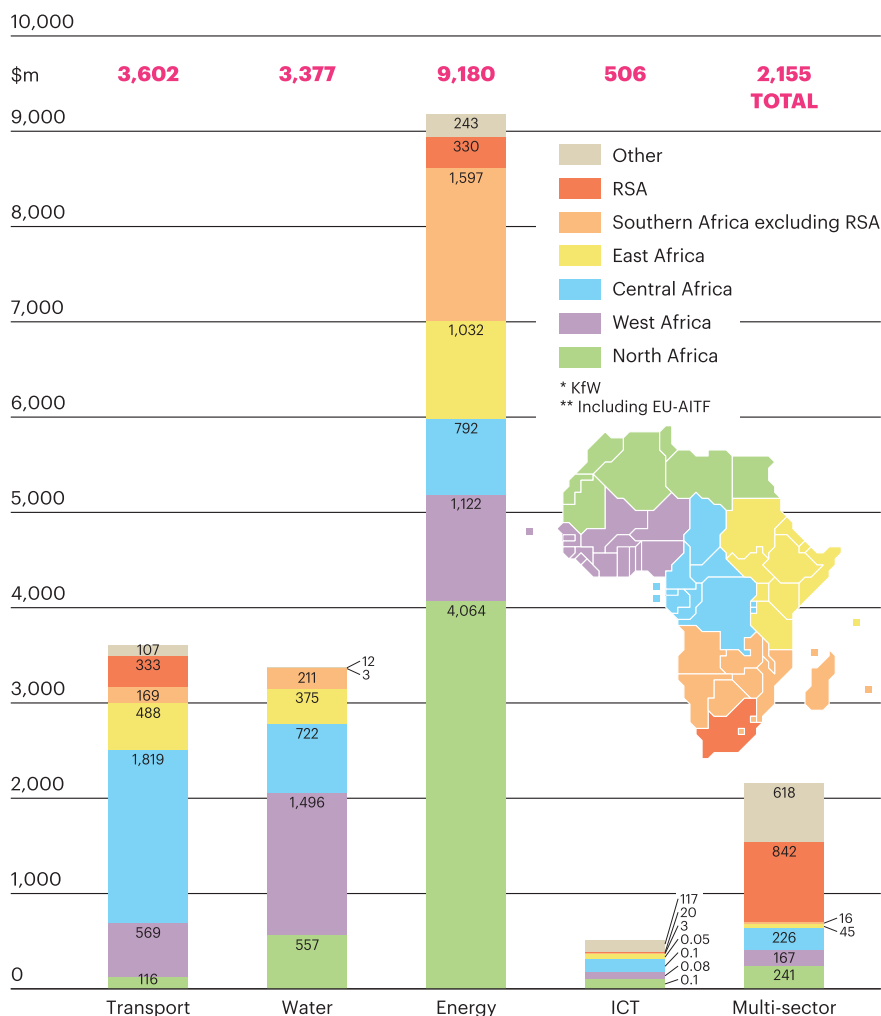


Figure 37
ICA members' infrastructure commitments by sector and region, 2014

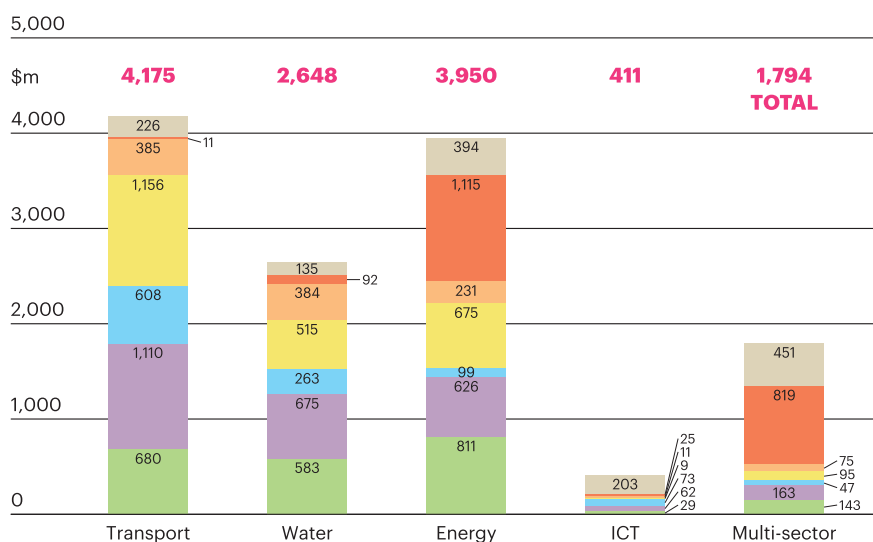


Figure 38
ICA members' infrastructure disbursements by sector and region, 2014

The trends reported in both commitments and disbursements in this section are based partly on aggregated data, reflecting the technical difficulties experienced by some ICA members in terms of disclosing disaggregated financial information from grouped data sets and evolving financial reporting systems.

Key trends observable from ICA members' data for 2014 and previous years include a shift towards multi-sector projects, growing attention to Central Africa, the energy sector's continued ability to attract commitments, and a very sharp decline in pledges to regional projects, including PIDA/PAP projects.

Multilateral and bilateral commitments were largely balanced in 2013, reported at \$14.1bn and \$15.4bn respectively. But there was a sharp swing in 2014, when at \$12.4bn, multilaterals provided two-thirds of all commitments.

Bilateral development institutions committed \$4.6bn. The apparent fall in bilateral commitments can again be explained with reference to the exceptional US Power Africa pledge in 2013. Without this contribution, the ratio of multilateral to bilateral financing has remained constant at around 2:1 in both years.

In 2014, the ratio between ODA and non-ODA funding was approximately 2:1. Overall, non-ODA commitment levels were up by more than 50% on the previous year, whereas ODA funding declined by \$1bn (7%).

Three institutions exclusively funded non-ODA projects during 2014: IFC, DBSA (for the second year running) and Japan (which had the highest share of non-ODA funding among bilateral members). The EIB, with no access to grant funding, reported a 64% non-ODA share, compared with 68% in 2013.

The sectoral distribution of ICA members' commitments in 2014 was similar to 2013. The energy sector received 49% of ICA commitments (2013: 54%), while transport sector received 19% (2013: 22%) and water & sanitation 18% (2013: 17%). ICT received just 2.7% of ICA commitments.

The trend towards multi-sector project commitments appears to be gaining momentum. In 2013, commitments to multi-sector projects doubled from the previous year to 5%, and in 2014 accounted for more than 11% of commitments.

North Africa received 27% (\$5bn) commitments in 2014 to become the largest recipient of ICA member funding. It overtook West Africa, which had received pledges worth \$8.5bn in 2013 (including a \$3.5bn contribution from Power Africa), equal to 29% of overall commitments. In 2014, West Africa received \$3.4bn in ICA commitments, a fall of 60%.

East Africa's share of commitments declined by 71% from \$6.7bn in 2013 (which also included a \$3.5bn pledge from Power Africa) to just under \$2bn in 2014. Excluding these exceptional contributions, commitments to both regions declined by around \$1.5bn.

Central Africa received 19.6% (\$3.7bn) of total commitments, more than a 50% increase on the \$2.4bn it received in 2013. Southern and East Africa each received fractionally less than 10.3% (\$2bn) of total commitments. Meanwhile, pledges of \$1.5bn to RSA totalled 8.1% of member commitments.

West Africa received the highest commitments from Canada, IFC, DFID and the AfDB's water and sanitation operations. North Africa received the highest commitments from EIB, JICA and KfW, while East Africa was the largest destination of financial commitments from AFD and EU-AITF.

AfDB's Private Sector Department and DBSA's 2014 commitments were

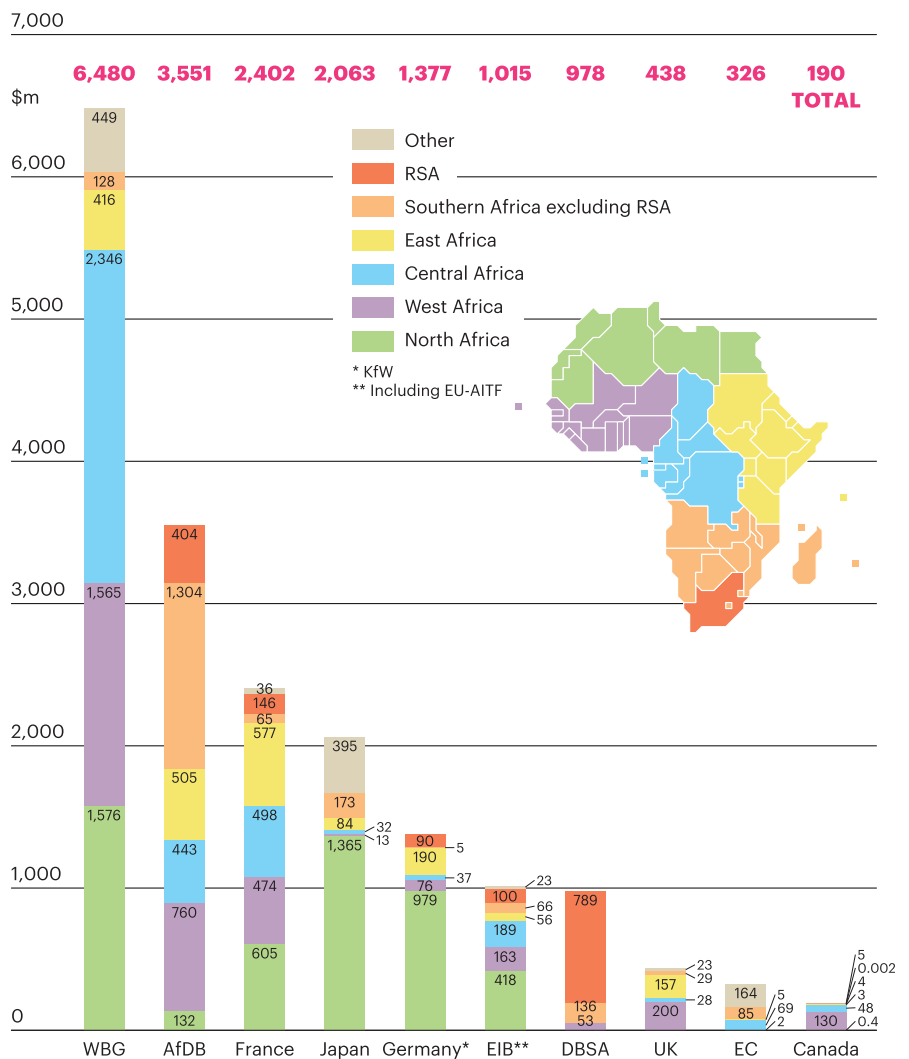


Figure 39
ICA members' infrastructure commitments by donor and region, 2014

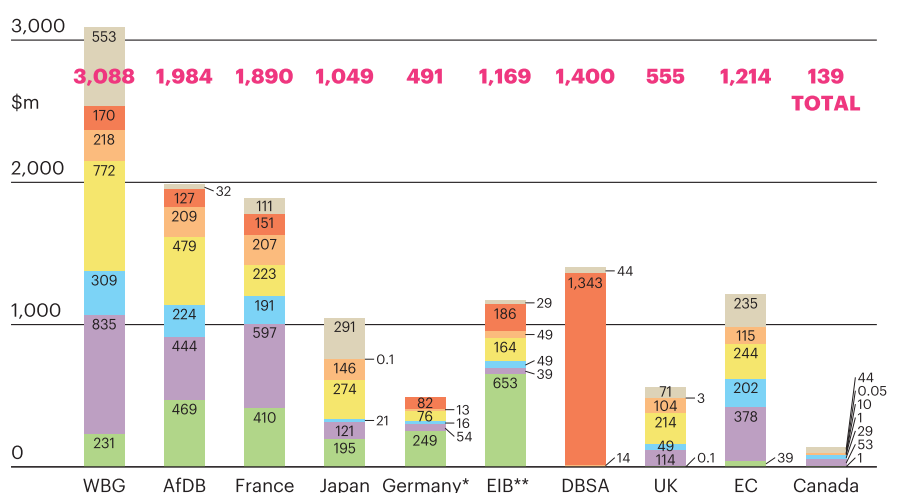


Figure 40
ICA members' infrastructure disbursements by donor and region, 2014

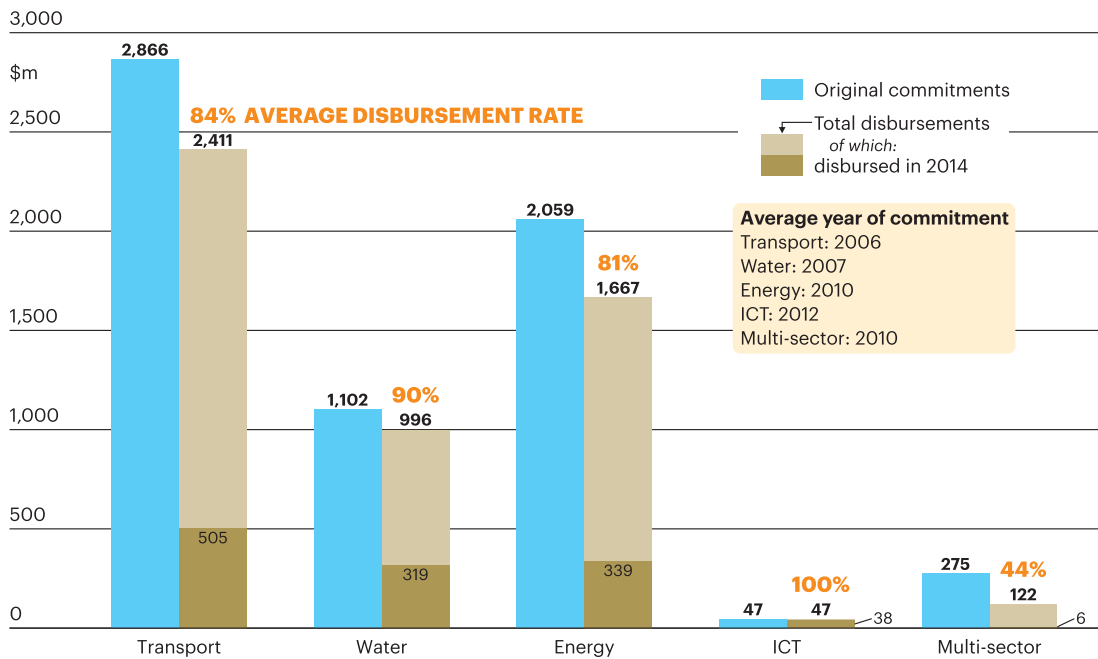


Figure 41
Disbursement rates per sector for projects completed in 2014

Disbursement Rates

Some 83% of commitments made to projects reported as completed by ICA members in 2014 were disbursed over the project lifetime, regardless of the year in which the original commitment was made. This is an increase on the 77% disbursed on projects completed in 2013.

However, disbursement rates for transport sector projects completed in 2014 slowed to 65%, compared with 77% in 2013. For the second year running, the sector had both the lowest

disbursement rate and the largest share of ‘commitments outstanding’. Disbursement rates in all other sectors stand much higher at 90% or more.

Disbursement rates are generally higher for ODA than non-ODA operations, with the exception of ICT activities (where a disbursement rate of 100% was achieved for non-ODA projects). At just 21%, non-ODA multi-sector projects appear to have a very slow disbursement rate. ■

dominated by projects in RSA, while DBSA’s international division and AfDB’s energy division’s investments had a significant focus on projects in Southern Africa.

Central Africa appears to be attracting more support from a number of financing sources, resulting in significantly more commitments in all but the region’s water sector. The region accounted for the highest commitments from WB and the AfDB’s transport operations; it was also the second highest recipient of investments from the EC.

Of the total \$18.8bn in ICA member commitments reported in 2014, \$16.5bn (88%) was directed to hard infrastructure, while \$2.3bn (12%) was aimed at soft infrastructure. Of the commitments to soft infrastructure,

two-thirds (\$1.4bn) went to capacity building, some 16% was directed at project preparation and around 5% at research and evaluation, with 16% of commitments aimed at other soft infrastructure projects.

Five-Year Trends

ICA member commitments have averaged \$20.8bn per year in the last five years, albeit with some very sharp fluctuations in distribution by sector and region.

The first decline in commitments in three years was registered in 2014, down to \$18.8bn from \$25.3bn in 2013. However, when the \$7bn contribution of Power Africa in 2013 is excluded, ICA members have reported a sustained high level of financial commitments for three years running – at \$18bn-19bn.

2010 remains the strongest year for commitments over the five-year period, while 2011 was the weakest.

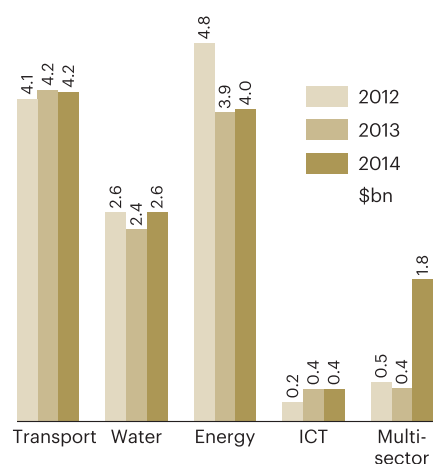
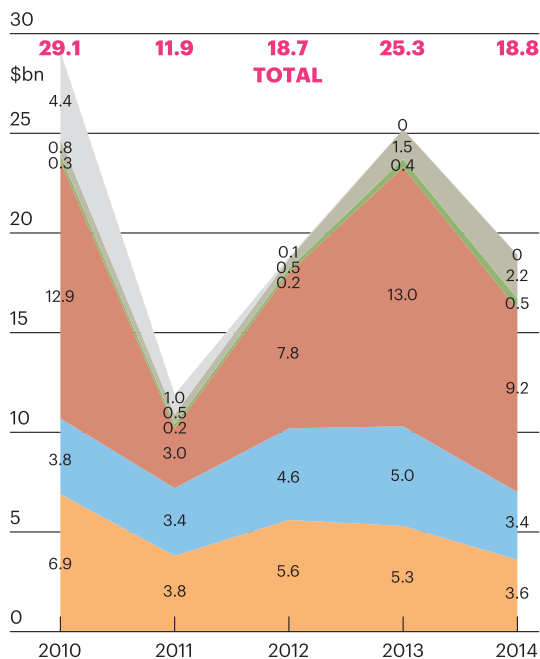


Figure 42
ICA members’ disbursements by sector, 2012-2014

BY SECTOR



BY REGION

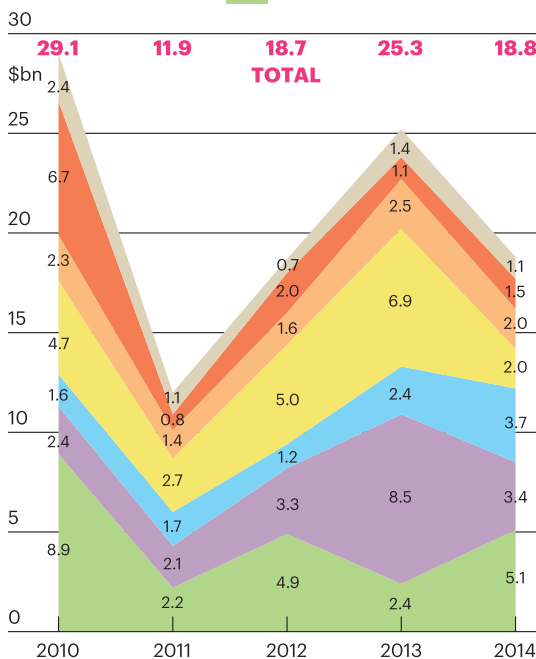


Figure 43
ICA members' commitments by sector and region, 2010-2014

A fall off in energy allocations was substantially responsible for the relatively low commitments of \$11.9bn reported in 2011. The energy sector has been the most significant contributor to the recovery in commitments, which, at \$18.3bn in 2013 were bolstered by the \$7bn contribution of Power Africa. Without any such contribution in 2014, energy commitments reached \$9.2bn – effectively a rise of around 50% from \$6bn when the 2013 Power Africa figure is excluded.

ICA members reported fewer commitments in the transport sector in 2014 than in any of the last five years, with \$3.6bn committed.

Regional Commitments

Commitments to West Africa increased by 53% between 2010 and 2013, but ICA members reported a 60% decline in commitments in 2014, to \$3.4bn. This reflects a strong 2013, when commitments rose by 158% to \$8.5bn. Taking a five-year perspective, commitments reported for 2014 are

40% up on the pledges made to West Africa in 2010.

In 2013, East Africa was the second fastest growing region, with 44% CAGR; its commitments peaked at \$6.9bn before falling to \$2bn in 2014.

Commitments to Central Africa reached their five-year peak at \$3.7bn in 2014. This made it the second largest recipient of ICA commitments after North Africa, which was pledged \$5bn in 2014 (broadly on a par with 2012).

ICA commitments to Southern Africa declined by 20% in 2014, but pledges to RSA almost doubled from figures reported in 2013. RSA was the only region to witness an increase in commitments in 2014, pointing to a recovery in confidence. Alongside North Africa, RSA saw a significant decline in commitments in 2013, but the \$1.5bn committed in 2014 is still some way off the \$6.7bn committed in 2010.

Pattern of Disbursements

Comparing broadly like-for-like ICA member data, disbursements across sectors have been particularly even in terms of transport and water in 2013-14. Disbursements to projects in the transport sector fluctuated between a very narrow margin of \$4.1bn-4.2bn per year, and water between \$2.4bn and \$2.6bn during the period.

Energy disbursements of \$3.9bn in 2014 remained level with that reported in the previous year. This followed a decline from \$4.8bn in 2012.

Disbursements to ICT remained at \$400m in 2013 and 2014 (an increase from the \$200m reported as paid to projects in the sector in 2012).

Disbursements for multi-sector projects nearly quadrupled in 2014 to reach \$1.5bn, having grown to \$500m in 2013 from \$400m in 2012. ■

4.4 ICA Member Activities

African Development Bank

Central Africa features as the prime destination of AfDB funding for transport, receiving nearly one-half of the bank's 2014 commitments to that sector. Key AfDB transport sector project commitments in West Africa included a regional investment in the Mano River Union's programme to facilitate transport links within Cote d'Ivoire, Guinea and Liberia. The bank's largest commitment in the sector went to the Batchenga-Ntui-Yoko-Tibati-N'Gaoundere road project in Cameroon. Overall, the AfDB committed around 20% less to transport in 2014 than it did in 2013, while disbursements to the sector increased by 8%.

AfDB commitments to the energy sector are up by around one-third in 2014 compared with the previous year. Overall disbursements to the sector, however, showed a decrease of nearly 30%. The bank's energy unit focused strongly on Southern Africa, which received around three-quarters of all commitments in that sector in 2014, whereas in 2013, West Africa had received slightly more than half of the bank's pledges to energy projects.

A landmark announcement of 2014 was AfDB's \$1bn commitment to the Angola Power Sector Reform Support Programme, whose overarching objective is to promote inclusive economic growth by improving operational and cost efficiency in the sector and consolidating public financial management reforms. This was the bank's largest

commitment to the energy sector, which also saw support for projects to benefit Ghana, Burundi, Mauritius, Kenya, Morocco, Swaziland, Zambia and Zimbabwe.

The AfDB reported a 15% increase in commitments to the water sector in 2014 compared with 2013. More than half of this went to West Africa, where a single commitment – of a non-ODA loan of \$205m for the Urban Water Sector Reform and Port-Harcourt Water Supply and Sanitation Project in Nigeria – made up more than 40% of the bank's 2014 water sector commitments.

The Port-Harcourt project also has a focus on capacity building for effective maintenance and support to sector reforms. The project aims to provide residents of Port-Harcourt city in Rivers State with sustainable access to safe drinking water and sanitation, and to strengthen the federal government's capacity to reform and scale up water supply and sanitation service delivery across the country.

In 2013, the AfDB's private sector department focused on the energy sector, but commitments in 2014 were firmly fixed on the transport sector. Three non-ODA loans – for Lekki Tolorom Port in Nigeria, Transnet's expansion and the Xina Solar One Project, both in South Africa – account for much of the department's 2014 commitments. ■

Canada

Canada committed or disbursed grants or contributions to 141 projects in 2014, with nearly 60% of its commitments destined for water and sanitation projects. Multi-sector and ICT account for most of the remaining 2014 commitments.

West Africa benefits from nearly two-thirds of Canada's commitments. Canada's commitments are up around 30% compared with 2013, when multi-sector projects received

46% of commitments, and the water and energy sectors benefitted from around 26% and 18% respectively.

Canada disbursed some \$138.7m in 2014, more than half of which went to the water and sanitation sectors, while multi-sector and transport projects received around 26% and 19% respectively. In 2013, Canada disbursed \$201m, with water, sanitation and multi-sector projects benefitting from more than half of that amount. ■

Development Bank of Southern Africa

DBSA's international operations focused entirely on the energy sector, with 72% of commitments focused on Southern Africa and the remainder targeted at West Africa in 2014.

Countries benefitting from commitments in 2014 included Zambia and Ghana.

Disbursements were made to Zimbabwe for its transport sector and, at a regional level, network communications service provider, O3b Networks. O3b is building a satellite constellation aimed at connecting the world's 3bn as yet unconnected people in emerging markets to world-class mobile and Internet communications networks. Alongside DBSA, O3b's financial backers include HSBC and Google. The network launched its first constellation of eight satellites in 2013 and four more in 2014.

Non-ODA loan commitments by DBSA to RSA in 2014 focused on multi-sector projects implemented at city- or municipality-level. Major beneficiaries included the cities of Tshwane and Johannesburg. Disbursements in 2014 were made to several renewable energy projects, including mainly solar PV and some wind projects. Some 88% of DBSA's commitments to RSA went to multi-sector projects. Smaller amounts were committed to ICT and transport operations.

Conversely, DBSA's spending on project preparation facilities focused entirely on energy operations, suggesting a strong interest in future investments in this sector. Projects that received commitments in 2014 included the Ngonya Hydro facility in Zambia and the regional Mozambique-Zimbabwe-South Africa interconnector, which between them received commitments of \$1.78m. ■

European Commission

Disbursements increased by 15% year-on-year in 2014, when for the second successive year, transport sector projects and programmes received the largest disbursements, worth €497m (\$663m) (2013: €436m – \$581m). Water and sanitation operations received €219m (\$292m) (2013: €230m – \$307m), while the energy sector received €193m (\$257m) (2013: €139m – \$185m). EC disbursements to ICT rose around seven-fold on 2013, at €10.3m (\$13.7m).

Total EC commitments declined substantially in 2014, after relatively very large sums went to the transport and water and sanitation sectors in 2013. Transport received €23m (\$31m) and water and sanitation only €100,000 (\$133,000) in 2014 compared with €726m (\$968m) and €221m (\$295m) in 2013. The energy sector received €200m (\$267m) in 2014 (€246m in 2013). Commitments of €20m (\$27m) were made to ICT in 2014, whereas no funds were committed to this sector in 2013. ■

European Investment Bank

The EIB committed €701m (\$935m) in 2014, up from €660m (\$880m) in 2013. Levels of commitment were broadly the same over the two years in the transport sector at €53m (\$71m) in 2014 compared with €52m (\$69m) in the previous year. Commitments in the water and sanitation sector more than halved from €283m (\$377m) in 2013 to €122m (\$163m).

Energy sector commitments increased from €310m (\$413m) in 2013 to €374m (\$499m) in 2014. While the EIB committed no funds to multi-sector operations in 2013, the bank made commitments of €152m (\$203m) to these projects in 2014. No funds were committed to the ICT sector in 2014; that sector received commitments of €15m (\$20m) in 2013.

In 2014, the EIB disbursed €822m (\$1.1bn), 29% more than in 2013 (€637m – \$850m). This is substantially due to increased disbursements in the energy sector, which totalled €461m (\$615m) compared with €286m (\$381m) in 2013. Disbursements to the transport sector fell from €257m (\$343m) in 2013 to €203m (\$271m), while the water and sanitation sector saw an increase from €92m (\$123m) to €119m (\$159m) in 2014.

Notable activity included EIB participation in the LOGISMED initiative to develop the logistics sector in Mediterranean Partner Countries (some in North Africa). It envisages the creation of a network of Euro-Mediterranean logistics platforms to support the modernisation essential for the development of a Mediterranean free trade area. ■

European Union–Africa Infrastructure Trust Fund

Grants of €60m (\$80m) were committed in 2014, with most EU-AITF grant funding going to energy (€34m – \$45m), followed by transport (€21m – \$28m) and water and sanitation €5m – \$7m). All water and sanitation

commitments went to East Africa, where grants also went to transport and energy. Grants were also committed to transport and energy in Southern Africa; €15m was granted on a non-region specific basis. ■

France – Agence Française de Développement

AFD committed most to the energy sector in 2014, when North and East Africa received the most across all sectors. Around one-third of all AFD disbursements went to West

Africa, while around 22% went to North Africa, the region that received the most funding in 2013. AFD reported disbursements up by 67% in 2014 compared with 2013. ■

Germany – KfW Development Bank

Commitments by KfW increased by 57% in 2014, up from €636m in 2013 to €1bn. This was due to a more than threefold increase in commitments to energy operations, to €892m (\$1.2bn), from €216m (\$288m). Commitments to the water sector declined from €407m (\$543m) to €140m (\$187m) in 2013. KfW made no new commitments to other sectors.

KfW's largest commitment was €654m (\$860m), for two major energy projects in Morocco. Other commitments went to Benin, Burkina Faso, DRC, Egypt, Kenya,

Mozambique, RSA, Senegal, Togo, Uganda and Zambia.

KfW also substantially increased its disbursements in 2014, by around 55%. This was largely due to an increase in funds flowing to water and sanitation projects, up from €97m (\$129m) in 2013 to €169m (\$225m).

Support for the energy sector increased from €113m (\$151m) to €183m (\$244m) in 2014.

There were no new disbursements in 2014 to multi-sector projects, compared to €4m (\$5m) in the previous year. ■

International Finance Corporation

IFC's commitments and disbursements rose substantially, by 55% and 65% respectively, in 2014. The increase in commitments to \$621m was driven by \$397m allocated to the energy sector (up from \$293m in 2013) and the \$195m for ICT operations in 2014, which was more than double the \$62m committed in 2013.

Energy was key to the increased volume of disbursements at \$447m in 2014, up from \$262m in 2013. Over the same

years, there were increases in disbursements for the transport sector, from \$33m to \$79m, and for multi-sector operations, up from \$36m, to \$87m. ICT projects received \$87m in 2014, compared with \$36m in 2013.

Major projects that received IFC commitments in 2014 include five loans of \$50m-75m to energy projects in Nigeria, Gabon and North Africa. Regional ICT projects also featured, alongside commitments to Nigeria, Rwanda and Chad in the same sector. ■

Japan International Co-operation Agency

Japanese commitments increased by 43% over 2013, from ¥152bn (\$1.45bn) to ¥217bn (\$2bn), but with funds allocated to different sectors in each year. While ¥57bn (\$542m) was committed to transport and ¥36bn (\$342m) to water and sanitation in 2013, transport received ¥12bn (\$114m) and water ¥14bn (\$133m) in 2014. Conversely, energy commitments more than doubled in 2013-14, from ¥59bn (\$561m) to ¥160bn (\$1.5bn). Commitments to energy in 2014 were more than to all sectors in 2013.

Disbursements from Japan were, at ¥110bn (\$1.05bn), up nearly 20% on the amount disbursed in 2013. There were

substantial shifts in the sectoral pattern of disbursements: transport and energy operations received less than in 2013, while disbursements to the water sector rose from ¥12bn (\$114m) to nearly ¥16bn (\$152m) in 2014.

¥44bn (\$419m) went to multi-sector operations, which in 2013 received no disbursements. Japan's Fifth Private Sector Assistance Loan funds were channelled into the (Enhanced Private Sector Assistance) EPSA for Africa Initiative, signed by JICA and AfDB in September 2014. This ¥30.69bn (\$292m) loan is to support entrepreneurship, job creation and growth across the continent. ■

United Kingdom – Department for International Development

UK direct grant commitments for Africa's infrastructure reduced substantially from 2013 when, exceptionally, some £513m (\$847m) was made available for a range of critical, time-sensitive and high-value water programmes. In 2014, the value of grants committed to the sector amounted to just short of £24m (\$40m). Other sectors with fewer grant commitments in 2014 were transport at £27m (\$45m) (2013: £47m – \$78m), energy at £18m (\$30m) (2013: £135m – \$223m) and ICT at £16m (\$26m) (2013: £18m – \$30m). However, UK multi-sector commitments increased from £62m (\$102m) to £63m (\$104m).

Disbursements made by the UK declined from £407m (\$672m) in 2013 to £336m (\$555m) in 2014. This was largely due to fewer disbursements made to the transport, energy and ICT sectors. Disbursements to multi-sector, as well as to water and sanitation projects, remained broadly the same in 2013-14. Multi-sector projects received £79m (\$131m) in 2014 (2013: £81m – \$131m) and water £153m (\$253m) (2013 also £153m).

UK data for 2014 does not include any direct payments or commitments to the EU-AITF and IPPF. ■

World Bank

The World Bank reported substantial increases in both disbursements and commitments in 2014, when commitments rose by 42% from \$4.1bn to \$5.9bn, while disbursements increased by 28% from \$1.8bn to \$2.3bn.

The WB, which makes significant commitments and disbursements to Africa year after year, is keen to point out that almost all of its projects are characteristically multi-sectoral with a regional impact. According to its allocation to sectors and regions as defined by the ICA, it is clear that the bank's strategy is impacting positively across all sectors.

In 2014, WB commitments to transport more than doubled to \$1.55bn (from \$703m in 2013). Commitments increased to water and sanitation (by 40% from \$1.3bn to \$1.9bn), energy (by 56% from \$1.3bn to \$2bn) and ICT (by 32% from

\$103m to \$136m) as per ICA definitions.

By the same definitions, the WB's disbursements also increased across all sectors, with a doubling of disbursements to energy operations, to \$434m in 2014 from \$216m in 2013. For the second year running, the WB disbursed most to the transport sector. Central African transport projects received commitments of \$1.2bn, more than any other region.

In the water and sanitation sector, the bank made some very large commitments to Nigerian water supply, flood management, irrigation and drainage operations. But WB's largest commitment in 2014 was a \$500m loan to expand natural gas access to 1.5m Egyptian households in eleven governorates. ■

4.5 Strategic Issues

ICA members shared their views on a number of major strategic issues and concerns during the preparation of the Infrastructure Financing Trends in Africa – 2014 report

Early Stage Project Development and Financing

Early stage project development and financing are cited by ICA members as posing an important issue. Several identified the earliest stages as the most challenging time in a project's lifespan (although some members said they had experienced more difficulties in the development phase). Some members are assessing how early in the project preparation process they can provide support.

Concerns were expressed over the existing portfolio of project preparation facilities, in particular an apparent "disjoin" between some of these funds.

Members anticipated that the International Infrastructure Support System (IISS) will make a difference. Due online in 2016, IISS aims to provide public and private sector users with a platform to enable a consistent and systematic approach to early stage project development.

Some suggested capital markets could play a role, but conceded there is much work to do to harness this form of finance. As one member put it, "the huge challenge is engaging with and using capital markets and finding mechanisms to provide a decent rate of return for early stage investments." Members may become involved before projects are bankable, but not yet at the point where a potential project is what one member described as "a statement of need." ■

Organisational Differences

One particular set of dynamics was highlighted as a brake on arranging finance and implementing projects: the unsurprising and unavoidable fact that each party in a project may operate under different conditions. Each of the financiers and local stakeholders in a financial package has different requirements; there are as many sets of rules as there are financiers and stakeholders. And within the ICA, members observe that they sometimes have different mandates and cultures from their peers.

It is not easy to change procedures within and among large, tightly regulated institutions. Several development partners said they were continuing work to harmonise financing and procurement procedures – which has been on the agenda for many years. ■

Corridor Differences

Corridors are seen, in some quarters, as the 'holy grail' of infrastructure development, but some members questioned whether they can provide an effective catalyst. One pointed to the effective takeover of a state-owned railway by a natural resource company, which maintained the infrastructure sufficiently to serve its mineral extraction purposes but left the line all but unusable for other freight or passenger uses.

Another member said the success of corridor projects, particularly those with a natural resources-road and/or rail-port configuration, can be subject to the vagaries of commodity price fluctuations, which impact on initial and current costs. Conflicts of interest between different public sector and commercial entities, and summary decisions made in the boardrooms of multinational resource companies – for example to mothball assets – also cause problems. Infrastructure owned and operated by big commercial entities, known as 'anchors' – for example mining operations which own railways – pose risks to smaller businesses and local populations, who might also take advantage of such infrastructure, particularly if the anchor pulls out of business in that location.

The reality is that major projects even in mature markets take a long time to roll out. ■

Demand-driven Strategies

Members' operate under considerably different mandates. Thus, the EIB operates under the Cotonou Agreement, generally focusing on infrastructure initiatives that facilitate the development of small- and medium-sized enterprises, while JICA works under plans agreed between Japan and African states at the five-yearly Tokyo International Conference on African Development (TICAD). But whatever mandate members work under, there is clearly a recognised need to be demand-driven.

The 2014 Ebola virus prompted various projects, from the EIB's support for the urgent rehabilitation of energy infrastructure in Guinea and Liberia to JICA's provision of emergency relief goods such as generators and water purifiers to compensate for the lack of power and water in hospitals and clinics stretched to capacity. ■

Strategies for Implementing Regional Projects

Members consistently stressed a preference for regional projects. One bilateral emphasised that it takes a 100% regional approach in its operations, focusing exclusively on cross-border infrastructure. All members canvassed expressed a preference for regional initiatives, including national projects with a regional dimension.

Members all recognised the well-known catalogue of difficulties in implementing larger regional projects, notably cross-border political, technical, legal and regulatory differences. One recurring view is that some of the very large regional projects tend to involve countries where credit and political risks are perceived to be high, thus making it hard for donors to take more than a proportionally small amount of risk unless several donors are involved, which in itself compounds difficulties.

Some members found it useful to work with regional economic communities (RECs), power pools and other regional organisations, but navigating through the political environment in which these entities operate can be very challenging. However, one member said it was often more productive to work with RECs – and NEPAD especially – because it was easier to consult on and resolve issues with these entities than with local stakeholders. But the general view is that navigating the political landscape for regional projects is difficult; more focus is needed to convene and coordinate activities to bring stakeholders together to make ambitious projects a reality.

All members canvassed recognised that internal

challenges added to the difficulties inherent in putting together large regional projects. Some members reported facing challenges in aligning an increasingly regional approach with their own in-country representatives and local partners who are accustomed to operating on a country basis.

Suggestions for improving the chances of implementing regional initiatives included developing strategies for stakeholder ‘buy in’ to cross-border infrastructure development. Another approach suggested was to design and build complementary suites of ‘smart’ national projects linked by relatively small cross-border interconnection schemes. It was suggested that, to achieve financial close on large regional projects, national governments could be encouraged to acquire equity stakes, to cement relations and align objectives. However, this suggestion tended to be qualified by the notion that there is no pre-set formula for government equity stakes which can be applied across all projects.

It was recognised that enabling mechanisms for regional integration and trade, such as Trademark Africa and the One-Stop Border Post (OSBP) initiative, are useful in promoting the increasingly regional approach to infrastructure development. Concerns were expressed over an apparent lack of commitment to regional initiatives from donor-supported quasi-private sector investors, some of whom appear strongly focused on national projects with little or no regional impact. ■

Project Shortages

A lack of bankable projects is a major constraint, particularly for development partners deploying revolving funds or with sizeable minimum funding levels. Challenges include the creditworthiness of state-utilities that may be the ultimate beneficiaries of finance and a lack of local lawyers able to work on legal agreements drawn up to the standards required by international development partners.

A big issue for several members concerned utilities’ lack of financial stability, for example in the power sector where tariffs do not cover electricity production costs. Compounding this are the difficulties utilities face in retaining experienced technical and managerial staff. Some members are supporting initiatives to ameliorate this situation, for example by providing support for ‘training the trainer’ initiatives to ensure a sustainable supply of capable technicians.

In terms of development partnerships, there was some recognition that donors tend to work with each other and could perhaps focus more on bringing country representatives, local stakeholders and the private sector into the infrastructure development process. This calls for a more effective use of convening powers.

Several members suggested mechanisms to promote smaller projects, particularly in areas such as renewable energy, where a strong flow of small-scale projects could make a big difference as off-grid technologies become increasingly affordable and practical solutions. The effectiveness of the African Renewable Energy Fund (AREF) – launched in March 2014 with \$100m of committed capital to support small- to medium-scale IPPs – is being keenly watched by some members, who say momentum is gaining in small-sized, sometimes distributed, power solutions. Of the committed capital, the AfDB-hosted Sustainable Energy for Africa (SEFA) facility contributed \$20m. ■

Bilateral and Multilateral Financing

ICA members – notably the EC, Germany, Japan, South Africa, the UK and US – contribute to infrastructure spending in Africa both bilaterally and through their funding of multilaterals. Bilateral commitments are included in the Infrastructure Financing Trends in Africa 2014 report. However, their contributions to multilaterals are not included to avoid double counting.

Some ICA members make significant contributions to the African Development Fund (the concessional window of AfDB) and WBG, as shown in the tables below and opposite. France, Germany and the UK make up three of EIB's four largest subscribers alongside Italy.

Additionally, bilateral members support a wide variety of funds. The donors that support the EIB-managed, EU-AITF include the EC, France, Germany and UK, along with nine other European donors. Canada, Germany and the UK contribute to the NEPAD IPPF, which is hosted by AfDB, which alongside Denmark, Norway and Spain is also a contributor. Canada, France and the EU alongside 13 other donors contribute to the AWF.

Other vehicles used by bilateral donors include the wholly UK government-owned CDC, which in 2014 made commitments to Africa of \$240.9m, of which

\$100.6m targeted the energy sector either through direct investments or via funds. CDC manages capital entirely provided by DFID and now has an energy portfolio of nearly \$1.3bn. ■

Pledges by ICA Members and Other Contributors to the 13th Replenishment of the African Development Fund (\$m)

	Contribution	Percentage of total contributions
United Kingdom	995	15.9
Germany	618.7	10.5
United States	582	10
France	549.3	9.5
Japan	409.8	7.6
Canada	296.4	5.5
Saudi Arabia	35	0.6
South Africa	21.4	0.4
Brazil	15.5	0.3
Kuwait	11.8	0.2

WBG Funding From Sovereign Countries and EC (in \$m)

	Fiscal year 2013	Fiscal year 2014
United Kingdom	1,010	1,126
United States	424	626
European Commission	327	531
Norway	400	371
Australia	433	358
Germany	212	349
Netherlands	355	271
Japan	291	248
Sweden	270	231
Denmark	115	197
Switzerland	153	156
Canada	266	150
Other sovereign DPs	463	410
Total	4,719	5,024

Financing Mix

Members did not expect any significant changes in the mix of financiers of Africa's infrastructure in next year or so, but they are anticipating that funds from Africa50 and the Global infrastructure Fund (GIF) will make a difference to funding scenarios, when they start to flow.

It remains an open question whether these new sources of finance will eventually attract finance from institutional investors and private equity, either as investors in the funds themselves or as co-financiers alongside them. But private equity is already looking for investment opportunities, and competing for the few bankable projects that come into the market; pension funds are looking to invest in East Africa, according to members. The introduction of new funds without a significant improvement in early stage project development and financing may result in an even greater over-supply of funds for a relatively small number of projects.

Members also felt the private sector was often unaware of the offerings available to help them invest in Africa's infrastructure. There is a lack of structured information on what is available; development partners could consider engaging more with the private sector and improve the marketing of facilities. ■

5. Regional Projects



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5.1 ICA Members' Regional Trends

Disbursements to regional infrastructure projects by ICA members remained broadly constant at \$1.8bn in 2014 compared with \$1.9bn in 2013, sustained by the increasingly large sums committed to regional projects in 2012 and 2013 when commitments to the sector topped \$4bn each year.

The sustained level of disbursements is good news for the continent, and underlines ICA members' efforts to meet the clear demand for projects that promote social and economic growth on a regional basis.

There was however a decline in the amount of money committed to regional projects by ICA members in 2014, which appears to reflect the myriad challenges in maintaining momentum in the development of complex regional initiatives such as those in the Programme for Infrastructure Development in Africa Priority Action Plan (PIDA/PAP).

Overall regional infrastructure commitments declined in 2014 to \$1.8bn compared with \$4.2bn in 2013. The amount of money committed to PIDA/PAP in 2014 was \$161m compared with the \$1.3bn achieved in

2013. The amount disbursed to PIDA/PAP projects declined from \$688m in 2013 to \$501m in 2014.

The lower level of overall regional commitments appears to be due to several reasons: notably fewer commitments were made in 2014 by members responsible for the very substantial upwards drive in regional commitments of \$4.5bn in 2012 and \$4.2bn in 2013. In the previous three years, regional infrastructure commitments broadly followed the pattern of overall commitments.

Japan's regional commitments increased to \$591m in 2014 from \$553m in 2013, although still short of the \$1.1bn committed in 2012.

Comparing 2014 with the previous year, the WBG's regional portfolio shrank to \$449m, a 44% decline on the \$803m committed in 2013, which in itself was almost half of the \$1.5bn committed in 2012.

The AfDB's regional commitments peaked in 2013 at \$1.1bn but fell to \$288m in 2014. In the same years France's regional commitments fell from \$967m to \$195m.

Commitments to PIDA/PAP projects in 2014 included DFID's £5.5m (\$9m)

to energy projects (based on a sample of projects due to a lack of project level data), the EC's €64m (\$85m) to the same sector and €12m (\$16m) for transport projects, while the EU-AITF and JICA committed €21.2m (\$28m) and ¥3.7bn (\$35m) respectively to the transport sector.

The share of pledges to PIDA/PAP projects as a proportion of total regional project commitments in 2013 was 31% (\$1.3bn) but fell to 9% (\$161m) in 2014.

PIDA/PAP projects received 27.8% (\$501m) of total regional project disbursements in 2014, a decline from 36% (\$668m) in 2013.

In a mid-2014 survey of ICA members, several respondents expressed high levels of interest in PIDA/PAP and regional water and sanitation projects, however there were no PIDA/PAP commitments in that sector in 2014 although other regional commitments made by ICA members in the water and sanitation sector did come from AFD, EC, EU-AITF, AfDB, Canada and WBG. ■

Trends in Regional Infrastructure Portfolios

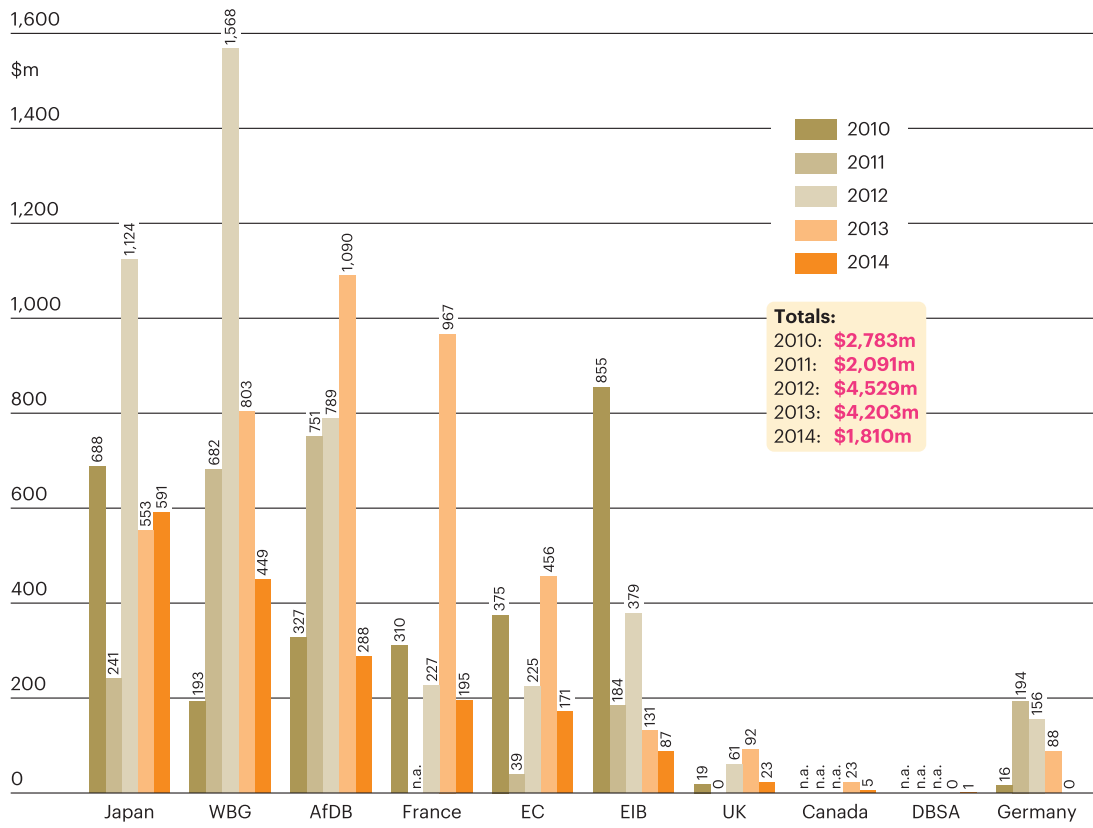


Figure 44
Trends in ICA members' regional infrastructure portfolios, 2010-2014

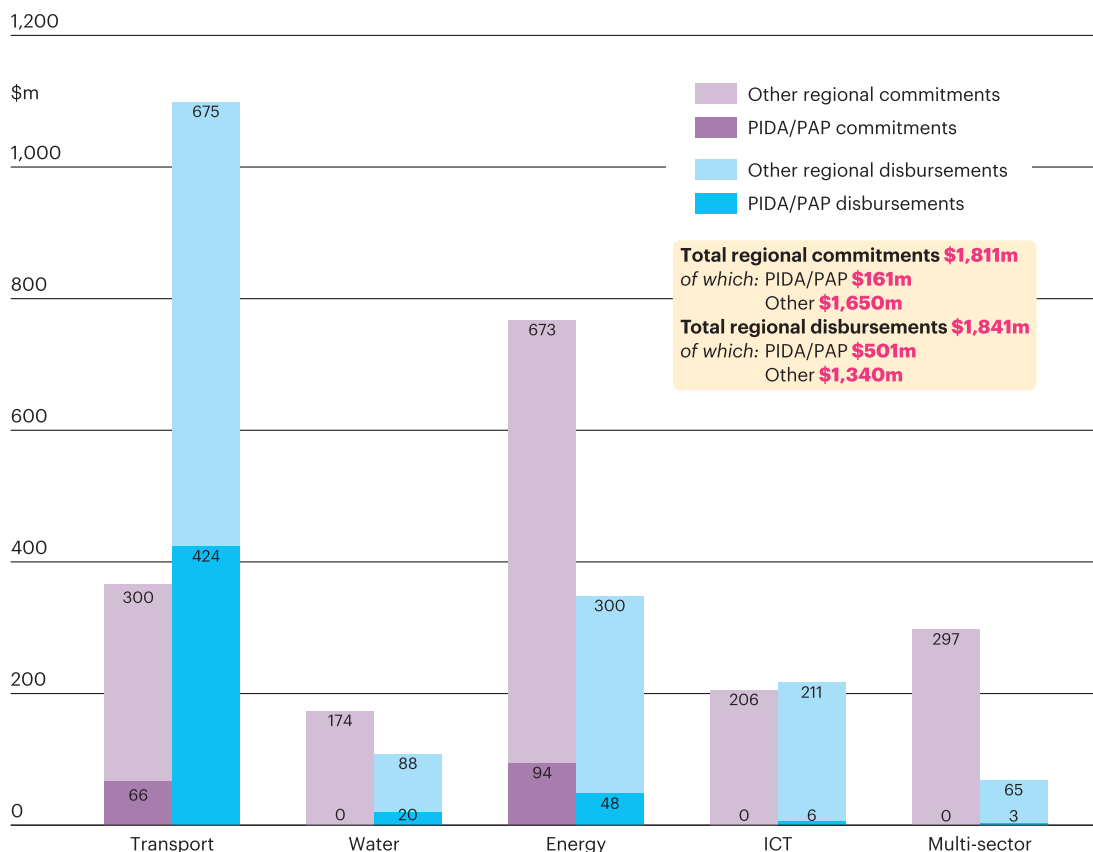


Figure 45
PIDA/PAP and other regional commitments and disbursements by sector, 2014

5.2 ICA Members' Regional Activities

ICA members continue to be active in regional initiatives. The AfDB made disbursements in 2014 to a variety of cross-border projects, including the Lake Victoria Water and Sanitation project and studies for the long-awaited Inga III hydro project.

The bank's private sector department made some sizeable disbursements to the Rift Valley Railway project and O3b, the satellite communications network that aims to connect emerging markets in Africa and beyond to mobile phones and the Internet.

Canada was active in regional projects across all sectors except energy in 2014, while DFID's bilateral regional activities focused mainly on energy. The EIB focused on transport and multi-sector operations while the IFC made its largest regional commitment to the ICT sector and also allocated funds to projects in the energy and transport sectors. Germany reported no new regional commitments in 2014 but disbursed €252,906 (\$338,302) in the water and sanitation sector.

Japan's support for PIDA/PAP projects in 2014 included commitments to improve the Port of Bujumbura in Burundi and the Tazara Intersection in Dar es Salaam, Tanzania. Disbursements, all in the form of grants, were made to a bridge rehabilitation project in the Republic of Congo and on four preparatory surveys on a road flyover construction project in Côte d'Ivoire, the expansion of the Port of Bujumbura, the Greater Kampala Road Network Improvement Project in Uganda and flood protection measures on Tanzania's central railway line.

The majority of the EC's commitments in 2014 were on regional projects across all sectors, but made no multi-sector commitments. It committed €13.8m (\$18m) to transport, €100,000 (\$133,371) to water and sanitation, €94.5m (\$126m) to energy and €20m (\$30m) to ICT.

One of the most substantial commitments of 2014 was \$141m from AfDB for a project to improve roads and facilitate transport connections with the Mano River Union, approved in December. The project will see the asphaltting of 276km of road – 140.6km in Côte d'Ivoire, 39.75km in Guinea and 96km in Liberia – as well as making space for fibre optic cables and alleviate pressure on border posts. After years of conflict, such regional initiatives anticipate an increase in traffic volumes as the region begins to move towards its economic potential as well as rehabilitate infrastructure which has fallen into disrepair or is not accessible in all seasons.

The intervention of multilaterals and bilaterals at an early stage can be crucial in moving large projects forwards. Multilaterals help establish the technical capacity of the implementing agencies as well as contributing to the enabling environment necessary for difficult transactions to take place.

2014 saw WB join AfDB in supporting the development of the 4,755MW Inga III hydropower plant in the DRC. The

hugely complex project will see part of the Congo river diverted via a 12km transfer canal into the Bundi tributary and a 100-metre-high roller-compacted concrete dam built across the Bundi valley and a 1,850km transmission line to the Zambian border via Kolwei in Katanga. The total cost is expected to be as much as \$11bn.

From ICA members, \$73m was committed to providing a range of technical assistance to the DRC government alongside funds from AfDB as well as support to developing mid-size hydropower plants in the country. Support for Inga III will include the preparation of complementary studies identified in the feasibility study funded by AfDB, transaction advice and procurement support, and institutional support and sector strengthening. Support for the development of mid-size hydropower plants will involve an analysis of the institutional, regulatory and legal framework and preparation of legal texts and regulations to go alongside the electricity law to regulate the private sector. ■

Regional and Local Dimensions

Data submitted by ICA members does not always reveal the sometimes very large extent to which several domestic projects have real regional significance. One important example in 2014 was the commitment of \$244m by WB to the \$380m Uganda North Eastern Corridor Road Asset Management project.

The project will finance a ten-year pilot Output and Performance based Road Contract (OPRC) for the 400km Tororo-Mbale-Soroti-Lira-Kamidini-Gulu transport corridor. This contract will cover the rehabilitation and upgrading of parts of the road, routine and periodic maintenance of the whole corridor, road safety and traffic management, and axle overload control.

Furthermore, a consultant will undertake technical and financial audits and a project manager will be responsible for the overall

administration and supervision of the contract. The project will also provide institutional support to Ugandan institutions.

The project is located entirely within Uganda but, as the main access route to northern Uganda, Kenya, south eastern DRC and South Sudan, and part of the route from Mombasa port to all three countries, it is expected to have substantial regional benefits by facilitating increased trade within the East Africa Community. As a result it will reduce the cost of doing business in some of the poorest regions of Uganda and its neighbours, improve access to services and markets – particularly for agriculture in the region – and reduce the cost of cross-border trade.

Tourism benefits are also expected by improving access to the Murchison Falls and Kidepo national parks. ■

Landmark Regional Projects: Rusumo Falls

As a result of very substantial regional commitments made by ICA members and others in recent years – notably in 2012 and 2013 – several major transnational projects are progressing. One of these is the \$469m Rusumo Falls transboundary hydroelectric power project, financed by a mix of multilaterals and bilaterals with construction slated to begin in 2016. The first phase of the project, an 80MW power plant in a run-of-river configuration designed to reduce social and environmental impacts, is due for completion in 2018.

AfDB and WB approved loans totalling \$340m and \$113m respectively to provide the majority of financing for the PIDA priority project. The International Development Association – WBG’s fund for the poorest countries which provides zero-interest loans and grants – is financing the construction of the power plant to be located on the Kagera River on the Rwanda-Tanzania border, some 2km downstream from the tripoint border with those two countries and Burundi. The project is the first operation under WBG’s Great Lakes Regional Initiative established in 2013 and will be prepared and implemented by the Nile Basin Initiative’s Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU).

The AfDB’s African Development Fund and the Nigeria Trust Fund (80.42%), EU-AITF (13.22%) and the governments of

Tanzania, Rwanda and Burundi (6.35%) financing associated transmission lines and substations. An additional \$16m has also been granted by the Sustainable Energy for All (SE4ALL) window of the EU-AITF to help finance the transmission line connecting Burundi to the power plant.

In order to help relieve the power deficit, the project will supply clean, sustainable, low-cost electricity equally to Tanzania, Rwanda and Burundi. At just over 26MW per country, this is equal to roughly half the current installed capacity in Burundi and a third of that in Rwanda.

The new transmission infrastructure will allow the import and export of electricity between the three countries and help improve the poor levels of electricity access – a defining constrain in the region – which as of 2012 stood at 16%, 18% and 6% in Rwanda, Tanzania and Burundi respectively according to AfDB. In addition, Rusumo Falls will promote renewable power, spur job-led economic development and pave the way for more dynamic regional cooperation.

The Rusumo Falls Hydroelectric Project is a successful case of cooperation leading to investment in transboundary water resource development and serves as a model project for activities in the WBG’s Cooperation in International Waters in Africa (CIWA) programme. ■

Mano River Union’s Ambitious Infrastructure Initiative

The Ebola virus wrecked much of the economic and social progress which had been made in three of the Mano River Union countries; Liberia, Guinea and Sierra Leone causing economic decline, with annualised GDP growth rates falling from 4.5% in Guinea, 5.9% in Liberia and 11.3% in Sierra Leone in early 2014 to an estimated 0.5% in Guinea and Liberia and 6.5% in Sierra Leone by December.

Short term measures to return the countries to their former levels of economic growth will also be taken by relaunching economic programmes, improving state revenue generation and restoring public investments.

The Mano River Union, with funding support from the AfDB, is looking further ahead with its ambitious infrastructure initiative. The projects span several infrastructure sectors and aim to give rise to a truly regional response to the crisis by developing closer ties between the countries as



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well as developing a strong basis for economic growth.

Priority projects have been identified in the energy, road, ICT and agricultural sectors. The active co-operation of international donors, governments, multilateral institutions and the private sector will be critical for the success of the initiative. With the Mano River Union and the AfDB already on board, discussions with the private

sector are underway to identify potential investors, drum up interest and work together to move the projects forwards. A range of different structures are being considered, including public private partnerships and build, operate, transfer schemes.

In energy, two large hydroelectric power projects have been identified. The 180MW Mano Kongo project will be based on the Mano River on the

border between Sierra Leone and Liberia. Mano Kongo has been on the table for some time and a feasibility study has already been completed, although it now needs to be updated. It is expected to cost \$450m to build and will be able to deliver 795GWh of electricity each year directly into a West African Power Pool (WAPP) line.

The second project is the 225MW Cavally dam on the Cavally River between Côte d'Ivoire and Liberia. This project is less well developed and no studies have yet been carried out. It is expected to cost \$610m, including

the cost of building a transmission line between Abidjan, San Pedro, Tiboto and Buchanan.

Electricity is a huge constraint on the economies of the Mano River states, particularly in those countries affected by Ebola. In Guinea, the national utility Electricité de Guinée's power plants are available only 68% of the time and in any case serve only 227,027 registered customers, although an estimated 100,000 more are connected illegally.

Sierra Leone has installed capacity of only 82.5MW – and around 20MW less

in the dry season – to serve its 6m inhabitants while procurement for the project to expand output at Liberia's 64MW Mount Coffee hydroelectric power plant to 80MW has been delayed for more than a year.

Mano Kongo and Cavally will help provide a long term solution to these problems, facilitated by the CLSG interconnection; a 1,360km 225kV transmission line connecting all of the Mano Rivers Union countries.

Transport is another critical sector targeted by the initiative and five

JICA's Contribution to Africa's Infrastructure Development as Part of TICAD V Commitments

Infrastructure development has been at the core of the Japanese government's development approach in Africa for over four decades. Since the early 1970s, flagship projects have included airport developments in Mombasa, Kenya and Addis Ababa, Ethiopia; telecommunications systems in Madagascar and Algeria, and the deepening and widening of the Suez Canal in Egypt.

In 1993, the government hosted the first Tokyo International Conference on African Development (TICAD), inviting African heads of states and development partners to discuss key development issues. Four more conferences followed, the latest, TICAD V in 2013, hosted representatives from 51 African states (including 39 heads of state). Since the first TICAD, regional integration has been a main theme.

TICAD V aimed to promote investment as well as aid. Heads of state and partners reaffirmed the private sector's central role in boosting and sustaining economic growth in Africa, positioning ODA as a catalyst for more private sector investment.

At TICAD V, the Japanese government announced that it will contribute to African growth through ¥3.2trn (\$30.4bn) of public and private investment, including ODA of around ¥1.4trn (\$13.3bn). JICA is implementing various activities to support sustainable growth in Africa in line with these commitments.

One of the six priority areas of the TICAD V Yokohama declaration is "Accelerating Infrastructure and Capacity Development". Several initiatives support this:

- a) capacity building for 300 people in 20 countries to operationalise One Stop Border Posts (OSBPs) and to facilitate regional trade;
- b) financial assistance of around ¥650bn (\$6.2bn) using ODA and JBIC loans for infrastructure development;
- c) development of five clusters of economic growth corridors in each sub-region, and
- d) formulate 10 regional initiatives, or Strategic Master Plans for urban transport/infrastructure planning.

Strategic Master Plans (SMPs) announced at TICAD V are considered regional programmes that include suites of JICA technical co-operation studies, projects on development planning and capacity development in various areas ranging from infrastructure and agricultural development to community and local development. SMPs are essentially regional, providing policy assistance that contributes to private sector-led infrastructure development. They incorporate long-term development planning spanning 10 years or more to identify development potentials. They are also comprehensive, combining various sectors to aim for more synergy.

Eight master plans are so far being implemented or prepared. In East Africa, JICA is supporting development of the Northern Corridor, focused on the formulation of master plans along the corridor and developing Mombasa port at its gateway. JICA is also conducting a feasibility study on flood countermeasures for the central railway line and assisting in the construction of OSBP facilities at the Rusumo border between Rwanda and Tanzania. In East Africa, JICA also supports geothermal development in the Great Rift Valley.

In South-east Africa, JICA supports the Nacala Corridor, taking a comprehensive approach and implementing various projects. Highlights include projects at Nacala Port and roads extending inland to Malawi that are co-financed with AfDB. JICA is also implementing an agriculture development project to unlock the area's agricultural potential.

In West Africa, JICA supports what it calls the West Africa Growth Ring which aims to unlock potential along the corridors through Cote d'Ivoire, Burkina Faso, Ghana, Togo, and the Lagos-Abidjan corridor.

In the run up to TICAD VI, JICA will focus on continuing to contribute to increasing the quantity as well as the quality of infrastructure developments that are resilient, long lasting, and match the needs of governments. In the transport sector, JICA will build on its strengths, which include port development, bridges, urban transport, urban planning, climate resilient infrastructure, geothermal power generation, power network systems, and capacity development. ■

PIDA Financial Structuring Plan

Within the context of the significant mobilisation of resources required for PIDA/PAP, and in alignment with its mandate of resource mobilisation for infrastructure development in Africa, the ICA in partnership with the AfDB, at the request of the AUC, NPCA and the RECs, commissioned the PIDA Financial Structuring Plan with the following objectives:

A. To develop a PIDA financial resourcing plan that will assist the RECs, national governments of member countries and other project sponsors such as power utilities to access finance for the PIDA/PAP;

B. To identify existing and planned financing vehicles and sources (including private and public sector, international and local, and regional development banks) in and for each region that could be eligible for regional PIDA/PAP projects;

C. To recommend the optimum financing structure(s) for the identified PIDA/PAP projects for both public and private sector financing arrangements; and

D. To provide advice on the various infrastructure financing and regulatory frameworks in the countries where PIDA/PAP projects are to be implemented, and recommend the optimum enabling environment (legal, financial, etc).

The Plan is meant to serve as a blueprint to inform governments, state agencies/utilities and private project sponsors as well as prospective lenders/investors of:

- Which financing structures/forms have been applied to transnational infrastructure investments (preferably in Africa) and their key features in terms of investment volumes, financing sources and the financing capacity of operators; and what structures should be applied for PIDA/PAP;
- What challenges (regulatory and/or financing) arise regarding such transnational infrastructure projects; and

- The key success factors; for example, which regulatory measures and financing options/instruments should be implemented.

The Plan's Key Recommendations Include

1. De-risking projects – including the unbundling/phasing of projects where appropriate, effective and thorough project preparation, adequate inter-governmental agreements for cross-border projects and the establishment of independent implementing authorities;

2. Improving the availability of public sector financing – the establishment of national infrastructure funds, the design and use of effective blending mechanisms and, where appropriate, the establishment of Viability Gap Funding; and

3. Mitigating private sector risks – through the use of credit guarantee instruments, political risk insurance and currency/inflation risk mitigation instruments. Specific recommendations for PIDA projects were establishing a PIDA Guarantee Facility and Regional Power Deposit Facilities, with the sub-regional development banks acting as credible off-takers for regional power generation projects.

The Plan concludes with recommendations for the structuring of five showcase PIDA/PAP projects:

1. Abidjan-Lagos Highway
2. Trans-Saharan Gas Pipeline
3. Batoka Gorge Hydropower Project
4. Zambia-Tanzania-Kenya Power Transmission Line
5. Inga III Hydropower Project

The report can be downloaded from the ICA website at icafira.org/en/knowledge-publications ■

priority road interconnection projects have been picked out for investment.

The first, a 130km link from Guinea to Sierra Leone will connect Kailahun, Koindu, Nongoa and Guekedou at a cost of \$125m. Another will cross Liberia and Sierra Leone, covering 284km at a cost of \$383m to connect Gbarnga, Zorzor, Voinjama and Mendikoma. The third, expected to cost \$180m, will run 150km from Liberia to Côte d'Ivoire via Ganta, Tapita, Tobli and Toupleu. A further 145km road connecting Guinea to Côte d'Ivoire will pass through Mandiana, Saladou, Minignan and Odienné.

The final priority project will pass from Guinea to Liberia, running 85km between N'Zérékoré, Youmou and Gbanta.

Better road connections are intended to improve trade between Mano River Union states, allowing the free movement of people and goods in order to support the economy of the union.

A broader sub-regional road interconnection programme was agreed during the 22nd Summit of Heads of State and Government in April 2013 in Monrovia, the Liberian capital. The programme envisages 2,492km of new roads – including the Ebola recovery priority projects above – built at a cost of \$2.7bn.

In ICT, the Mano River Union and AfDB initiative is prioritising the development of a sub-regional fibre optic backbone, built at a cost of \$346.6m, of which \$343.5m would be spent on the physical interconnection of national networks while the

remaining \$2.6m will build a centre of excellence. ICT is increasingly important in Africa and is being viewed not only as an economic necessity, but as central to having a better informed and better connected populace.

Improving electricity access will provide the region with the power needed to restore and improve essential services and stimulate social and economic growth.

Better transport links will enhance prospects for intertrade within the region and open up business opportunities beyond, a process that can only be enhanced once the people and businesses of the Mano River Union countries are connected to the wider region and the world via robust and reliable ICT linkages. ■

6. Other Public Sector Financing



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6.1 Overview

A total of some \$52.8bn of non-ICA public sector funding has been identified as commitments made in 2014 to develop Africa's infrastructure. Of this total, 65% of the commitments identified are budget allocations made by African national governments in 42 countries.

Double counting may be an issue where allocations contain external funding from infrastructure financiers, including ICA members and others, or may partially fund activities that fall beyond the ICA definitions of infrastructure. Conversely, the national government allocations do not present a country's total public sector budget allocations if these are made at a subnational level by, for example, local governments or state utilities.

Commitments from China reduced substantially in 2014, largely due to the absence of large-scale road and railway projects, which attracted

significant financial commitments in previous years. Fewer Chinese commitments may also reflect China's repositioning among African infrastructure financing entities. The Chinese economic slowdown and lower commodity prices may also have slowed the pace of Chinese investments.

Support from non-ICA member European DFIs appears to be strengthening while significant public sector commitments to Africa's infrastructure in 2014 were seen from Brazil, India and South Korea. The Arab Coordination Group (ACG) continues to support infrastructure development with \$3.5bn of commitments in the year.

While this report captures ACG data, additional commitments are reported in the media from Gulf countries for projects or programmes, for example in Egypt and the Seychelles, that cannot be verified sufficiently for inclusion in the report.

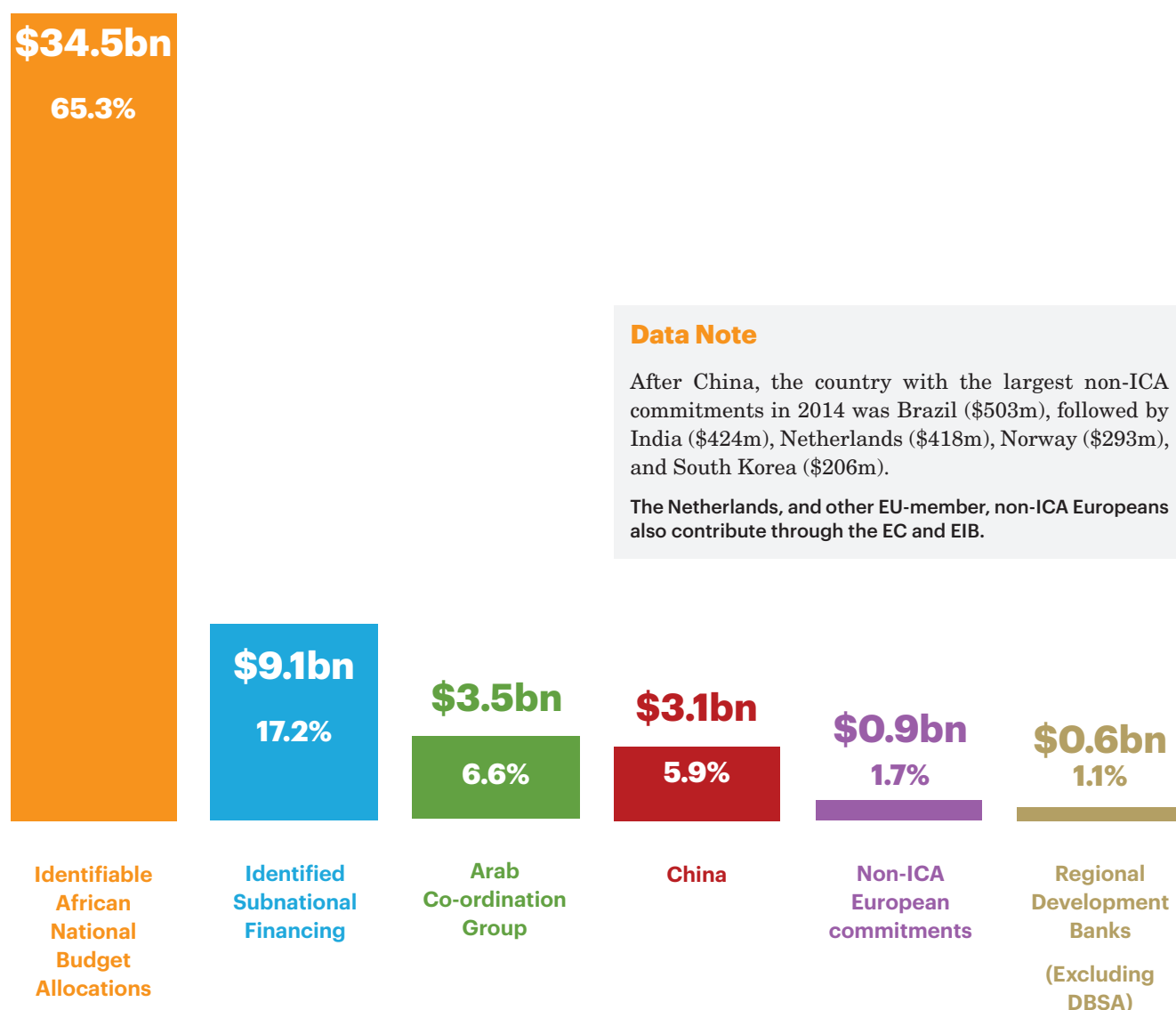
Included in the total non-ICA member commitments of \$52.8bn is the \$8.4bn raised by Egypt from its own citizens to fund the Suez Canal expansion. Resident Egyptian citizens financed the scheme to enable, for the first time, two-way traffic of ships up and down the canal. Egyptians bought investment certificates carrying preferential interest rates to raise the funds in just a few weeks (*see page 20*).

This chapter opens up some of the complexities of capturing infrastructure financing data using only aggregated data. For example, Morocco's 200km €1.8bn (\$2.4bn) Tangiers-Rabat-Kenitra high-speed train line comprises financing of €1.3bn (\$1.7bn) from both ICA members and Arab Co-ordination Group (ACG) funds that should appear in aggregated data submitted by ICA or ACG members, but cannot be verified without project level data. We have captured however the €92.5m (\$123.4m) from the Hassan II Fund for Economic and Social

Total Non-ICA Public Sector Funding in 2014

\$52.8bn

of Which



Data Note

After China, the country with the largest non-ICA commitments in 2014 was Brazil (\$503m), followed by India (\$424m), Netherlands (\$418m), Norway (\$293m), and South Korea (\$206m).

The Netherlands, and other EU-member, non-ICA Europeans also contribute through the EC and EIB.

Development in this report and the estimated €429m (\$572.2m) contribution of costs to be met by the government of Morocco through rail operator Office National des Chemins de Fer du Maroc. Similarly, Namport said it would tap its cash reserves to contribute \$19.45m towards the

container terminal at Walvis Bay: the port operator's commitment would not have been included in any single source of aggregated infrastructure investment financing.

There may well be other projects on the continent where off-national budget public sector financing

features in a country's total infrastructure spending. This may be the case, as discussed later in this chapter, especially in economies where substantial amounts of infrastructure spending are devolved to subnational entities, including utilities and local governments. ■

6.2 African National Budgets for Infrastructure



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The total amount of identifiable infrastructure allocations from 42 African countries in 2014 amounted to \$34.5bn. The majority (27 countries) allocated most to transport spending. Allocations to this sector, at \$18.7bn, represented 57% of the total infrastructure spending budgeted for 2014. Seven countries put water at the top of their agenda, including Botswana, DRC, Liberia, Madagascar and Mozambique, all of which committed more than 50% of allocations to that sector.

Five countries allocated most in favour of energy spending, with Algeria, Angola, Kenya and Tanzania each investing more than \$500m in this sector. In line with ICA members' commitments, there has been a substantial increase in government allocations to multi-sector projects over the last three years.

In the transport sector, roads received the most allocations based on data in

budgets that named individual projects. Ethiopia, which allocated nearly \$1bn in transport spending in 2014, invested in nearly 300 road and bridge projects, with the remaining commitments going to the aviation sector.

Transport allocations were also significantly bolstered by major projects such as the container terminal at Walvis Bay. AfDB is providing a \$335m loan for the project (as well as a \$1.5m grant for logistics and capital building), the Namibian government is providing \$28m, while port operator Namport is putting up \$19.45m from its own cash reserves.

Renewable energy endeavours were noticeable in several countries' allocations. Tanzania for example dedicated around 40% of its \$549m energy budget to renewables.

With the largest of all central government budget allocations to energy, Angola is focused strongly on

developing its power sector. Some \$3bn (40%) of its 2014 budget allocations go to this sector. Angola's Energy and Water Sector Action Plan for 2013-17 estimates financing needs of \$23bn to implement ambitious reforms and investments in the power sector, which the government's own resources will not be sufficient to meet. Accordingly, Angola has secured from AfDB, budget support in the

Methodology

The 2014 data for budget allocations of 42 African countries is based on the analysis of published allocations identifiable as infrastructure spending as per the ICA definitions. Data is primarily sourced from finance ministries as well as central banks and personal enquiries at relevant ministries and embassies. Of the 42 countries, three years of data has been collected for 28 countries. For five countries two years of data was collected while for nine countries data was acquired for one year.

form of a \$1bn loan which the bank says will enable the country to move away from expensive bilateral export credit lines which do not provide longer term financing.

Botswana allocated more than 50% of its infrastructure budget to the water sector, providing particular support for its long-running Water Planning and Development Programme of 1.38bn pula (\$133m).

Allocations by national governments to the ICT sector were almost all for soft infrastructure such as e-government programmes or training and capacity projects.

Three-Year Trend Analysis

Although overall allocations have remained constant, there is a very wide annual variation in budget allocations to infrastructure in each country. Countries with the highest CAGR over the period were Tunisia (187%), Angola (59%), Uganda (69%), Tanzania (43%) and Cote d'Ivoire (29%). Angola, with an annual average spend of \$7.5bn between 2012 and 2014 reported the highest overall allocations, suggesting a much greater use of centralised infrastructure spending than other large economies such as Nigeria and South Africa where subnational financing plays a large role.

Angola committed 40% of infrastructure allocations to the energy sector while 37% was allocated to transport infrastructure. Most countries committed the majority of their budgets to the transport sector. South Africa allocated 73% (\$2.5bn) of its \$3.4bn budget in 2014 to transport.

Although double counting and the capture of recurrent spending in the data may inflate the figures for African national government spending on infrastructure, because of subnational spending the figures may well be under-reported.

In addition to the absence of subnational financing data, there are

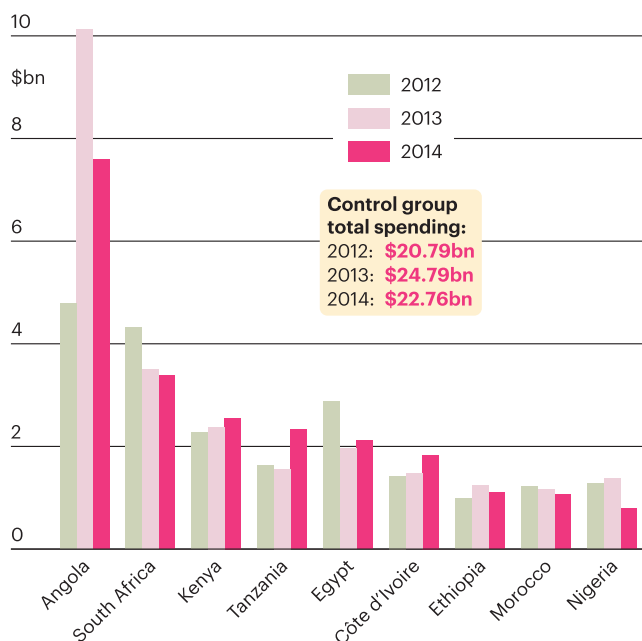


Figure 46
African national budget allocations government control group (larger economies), 2012-2014

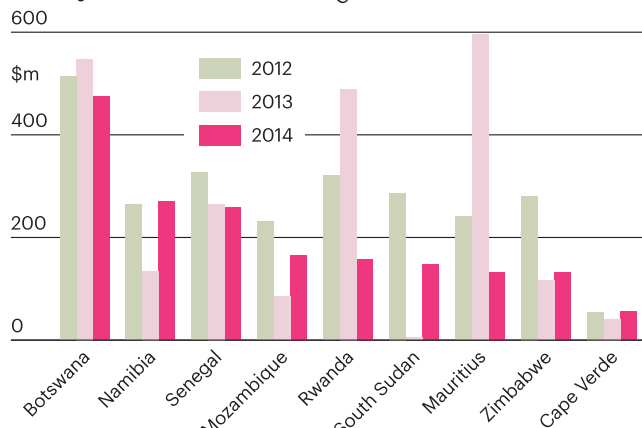


Figure 47
African national budget allocations government control group (smaller economies), 2012-2014

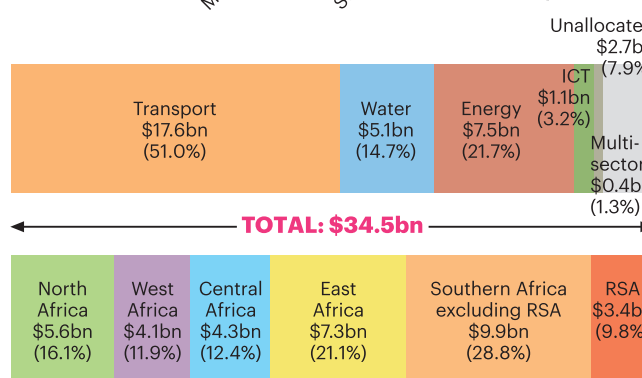


Figure 48
Identifiable African national budget allocations by sector and region, 2014

unique bilateral arrangements by which external governments fund specific infrastructure projects or programmes, not all of which are captured in official budgets.

The Gulf states for example pledged

billions of dollars to Egypt in 2014 for a sovereign fund to finance infrastructure projects. In a much smaller economy, the UAE has provided the Seychelles with nearly \$54m of financial aid over the past 10 years. ■

Internal and External Funding

The methodology for establishing African national budgets has been refined compared with previous years to reduce – but not entirely remove – double counting and recurrent spending whenever possible.

This process allows some light to be shed on the balance between internal domestic funding and external

funding where data was provided. Based on allocations from four countries, the following table suggests wide variations in the balance of internal and external funding in different countries.

External funding is not always necessarily double counted: for example, some loans or grants allocated by financiers are not captured

elsewhere in the report.

Capital expenditure is clearly identifiable in around half of the countries analysed. However, where capital expenditure could not be identified, total budgets for the relevant departments for each ICA-defined infrastructure sector were used. External funding was removed where possible. ■

Country	Number of allocations	100% internal funding	100% external funding	Mixed funding	Range of internal funds in mixed funding	Notes	Average percentage of internal funding (all projects)
Tunisia	11	0	4	10	18-88%	Entirely water sector allocations	33.6%
Mozambique	16	7	0	9	8-88%	Allocations to all sectors	64.1%
Uganda	11	6	0	5	49-77%	Allocations to all sectors	84.1%
Ethiopia	22	18	0	4	14-72%	Water and energy sector allocations	90.1%

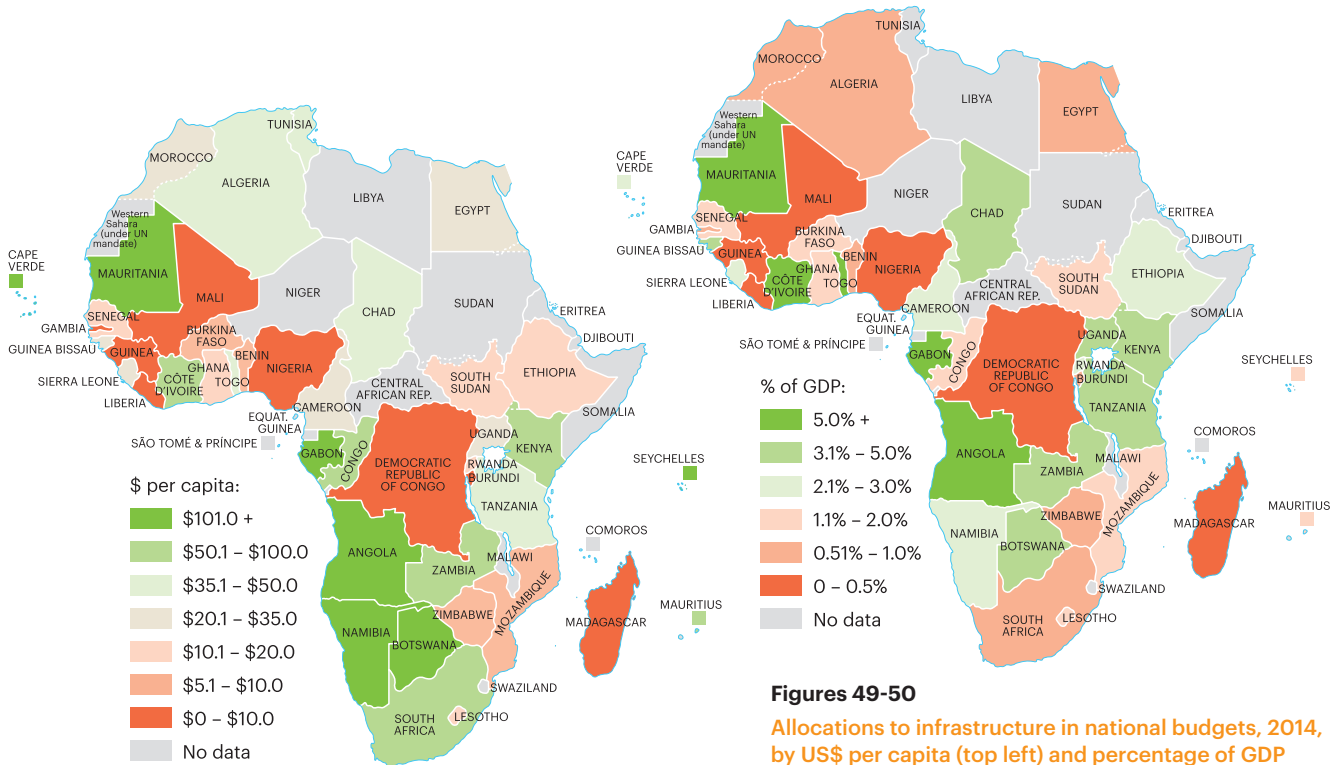
Identifiable African National Budget Allocations (\$m)

The following figures represent African national budget capital expenditure allocations that identifiably fit within the ICA definitions of infrastructure. While revenue spending has in most cases been removed from the figures, there may be amounts included in the figures that are not allocated to capital expenditure.

Countries for which no data was available or in which there were no identifiable budget allocations to infrastructure were:

Central African Republic, Comoros, Djibouti, Equatorial Guinea, Eritrea, Libya, Malawi, Niger, São Tomé and Príncipe, Somalia and Sudan. ■

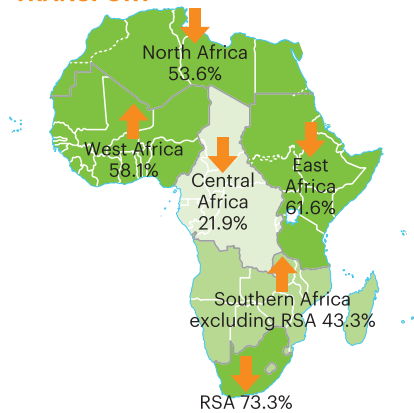
North Africa		East Africa		West Africa	
Algeria	1,395	Ethiopia	1,098	Benin	53
Egypt	2,117	Kenya	2,553	Burkina Faso	176
Mauritania	459	Seychelles	21	Cape Verde	56
Morocco	1,069	South Sudan	148	Gambia	7
Tunisia	520	Tanzania	2,324	Ghana	430
Southern Africa		Uganda	1,121	Guinea	0.12
Angola	7,597	Central Africa		Guinea Bissau	39
Lesotho	34	Burundi	22	Côte d'Ivoire	1,834
Madagascar	29	Cameroon	698	Liberia	0.02
Mauritius	133	Chad	454	Mali	19
Mozambique	166	Congo	242	Nigeria	788
Namibia	271	DRC	11	Senegal	259
South Africa	3,384	Gabon	2,688	Sierra Leone	136
Zambia	1,090	Rwanda	158	Togo	324
Zimbabwe	132				



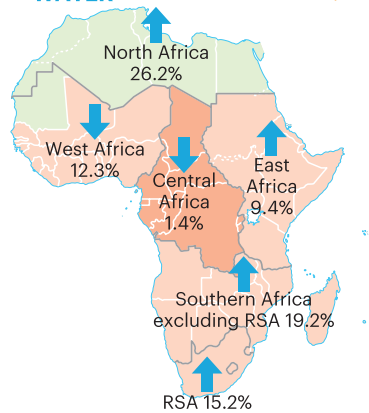
Figures 49-50

Allocations to infrastructure in national budgets, 2014, by US\$ per capita (top left) and percentage of GDP (top right); Percentage of infrastructure allocations by sector, 2014 (below)

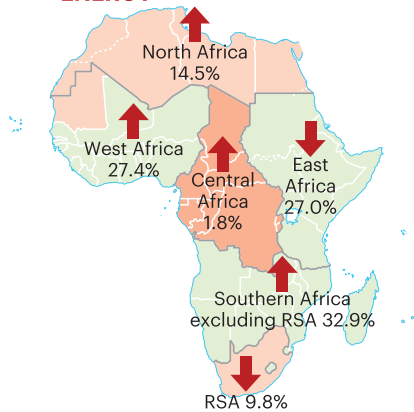
TRANSPORT



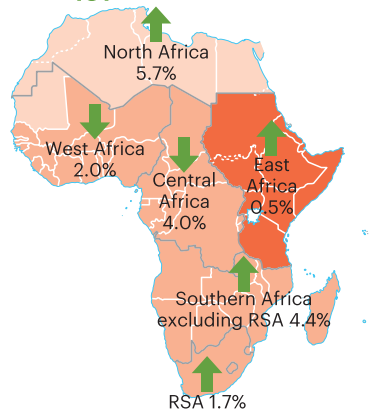
WATER



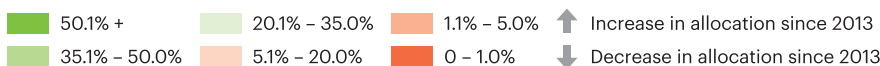
ENERGY



ICT



% of total infrastructure budget:



Per capita & GDP analysis

Absolute capital expenditure allocations vary significantly between Africa's largest and smallest economies. For this reason, approximate national government budget allocations for infrastructure are shown on an allocation per capita basis and as a percentage of GDP to indicate the relative amounts national governments allocate to infrastructure as a proportion of their population and economy.

South Africa for example makes modest national budget allocations to infrastructure on a per capita basis and as a proportion of GDP based on national government data, but this ignores most of the country's total public spending on infrastructure at the subnational level, which is discussed in the following section.

Conversely, external funding may substantially increase the proportion of infrastructure spending on a per capita basis and as a proportion of GDP. Togo's road development programme for example has been supported by BOAD, Kuwait and China while Mauritania received significant commitments from ICA members in 2014 for the Banda gas-to-power project.

PPPs to Bolster Zambia's Budget Allocations

Infrastructure development is one of the Zambian government's priority areas, and is specifically addressed in both the Sixth National Development Plan (SNDP) and the National Vision 2030. But the government recognises that there is a huge infrastructure financing gap and is aware that resources from the public sector and development partners are limited and can only cover part of the financing needed.

Figure 46 (right) shows the government's estimated need for infrastructure finance (including spending beyond ICA definitions of infrastructure, including healthcare and housing) of 60.196bn Zambian Kwacha (K60.196bn – \$7.2bn at average end-2013 exchange rates). Given that the government expects to allocate 27% or K16.3bn (\$2bn); DFIs

and bilaterals 17% or K10.4bn (\$1.25bn), and the private sector 4% or K2.2bn (\$260m) during the period covered by the SNDP, leaving a financing gap of 52% or K31.26bn (\$3.7bn).

The government recognises the need to mobilise private sector financing to support public infrastructure development through PPPs as an alternative financing for infrastructure development, and is now facing the challenge of introducing PPPs into the infrastructure financing mix. This challenge is being addressed by Zambia's ministries with support from the British Council in terms of training while the WBG is working with the ministry of agriculture and livestock on PPP arrangements for three irrigation infrastructure

projects in Zambia. The three projects are part of the Zambian government's aim to attract private resources and expertise into irrigation development and management for the benefit of smallholder farmers. ■

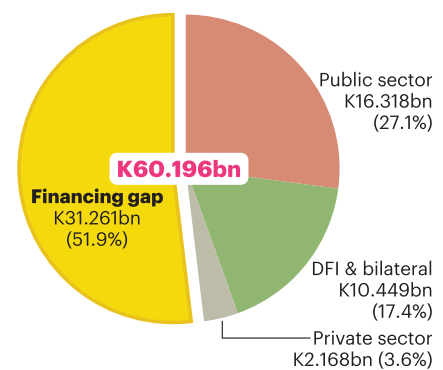


Figure 51
Financing of Zambia's infrastructure needs

Tanzania's Budget Allocations to Boost Power Sector

In 2013/14 Tanzania increased its budget allocations to the energy and minerals sectors by 78% from the previous year to 1.3trn Tanzanian shillings (TShs. 1.3trn – \$790m). Around three-quarters of this was destined for energy projects:

- TShs. 339.9bn (\$210m) has been allocated to the Rural Energy Agency and Rural Energy Fund to facilitate distribution of power to District Headquarters and other rural areas;
- TShs. 19.8bn (\$12m) is set aside for rehabilitation of power transmission and distribution lines in order to improve power supply reliability in Dar es Salaam;
- TShs. 20.0bn (\$12.1m) was committed to facilitate the

implementation of Kiwira Coal Mines and construction of power plants totalling 200MW;

- Tshs. 3.1bn (\$1.9m) is budgeted for development of the Liquid Bio-Energy Policy and procurement and installation of equipment and materials to facilitate the promotion of new and renewable energy sources;
- Tshs. 12.5bn (\$7.6m) was spent on the construction of a 220kV power transmission line from Makambako to Songea;
- TShs. 5.4bn (\$3.3m) is allocated for construction of a 400kV power transmission line from Iringa to Shinyanga and the expansion of four grid substations in Iringa, Dodoma, Singida and Shinyanga;

- TShs. 22.2bn (\$13.5m) has been allocated for the construction of power distribution lines in Shinyanga and Mwanza;
- TShs. 8.9bn (\$5.4m) has been set aside for the rehabilitation of the Hale Hydro Power Plant;
- TShs. 22.0bn (\$13m) for implementing the Rusumo Falls Hydro Electric Project;
- TShs. 109.9bn (\$66m) and 208.0bn (\$126m) has been allocated for the construction of the 240MW Kinyerezi and 150MW Dar es Salaam gas fired power plants; and
- TShs. 273.2bn (\$166m) has been allocated to TANESCO to facilitate power generation. ■

6.3 Subnational Financing

In parts of Africa, as the examples from Nigeria, Morocco and South Africa in the following discussion show, resources are being successfully mobilised at a subnational level by local governments. Revenues for subnational infrastructure may be internally generated, from power, water and sewerage tariffs, transportation fares or tolls, property taxes and business taxes. South Africa has for years deployed borrowings for municipal and other local-level financing, drawn from several sources including municipal bonds, commercial papers, and medium-term notes.

But the difficulties of mobilising municipal borrowings have been underlined over recent months by the postponement of the city of Dakar's plans to launch its inaugural \$41.8m

municipal bond in 2015 and its ambitions of becoming the first city in francophone West Africa to tap capital markets to provide urban infrastructure due to concerns raised by Senegal's finance ministry. Elsewhere in Africa, other governments appear reluctant to encourage sub-national debt.

At a national level, bond issues for African infrastructure appear successful enough. Rwanda's \$20m bond, the third in a series to fund infrastructure projects, was oversubscribed by 232%, the highest ever subscription recorded by any government bond, while demand for Kenya's latest 12-year infrastructure bond was double the \$177m offered according to the Central Bank of Kenya.

Yet municipal debt appears to be more

difficult from several perspectives, notably in respect of sovereign guarantees required by international financial institutions. Clearly, a subnational entity and its government need to be thinking along the same lines for as long as such guarantees are required, which can be a challenge if policies, strategies and priorities are different at the central and subnational levels.

Nevertheless, with increasing urbanisation across Africa and the huge demand for infrastructure to sustain its fast-growing mega-cities, the challenge of mobilising resources at the subnational level by entities that are in touch with and focused on local infrastructure needs would seem to be a challenge worth rising to. ■

South Africa

In 2013, South Africa's finance minister, Pravin Gordhan said the country would invest R827bn (\$81bn at average 2013 exchange rates) over three years from 2013/14, implying an average annual infrastructure spend of R276bn (\$27bn).

These investments go beyond infrastructure as per the ICA definition, including, for example, healthcare facilities and schools, while the depreciating rand over the last two years will have diminished the value of annual commitments when converted into US dollars. Despite this it is safe to assume that the overall annual capital expenditure on ICA-defined infrastructure sectors announced by

South Africa is much higher than the R36.5bn (\$3.4bn at average 2014 exchange rates) identified in South Africa's national budget.

Subnational financing means the figures for national government budget allocations do not capture the budget allocations of entire countries. In South Africa for example, where tax raising powers are devolved to local governments and infrastructure is managed at a sub-national level (by cities, municipalities, provinces and state utilities), the total funding deployed is not purely sourced from central government. The following table shows sources of funding for the city of Johannesburg's capital expenditure according to its original 2014 budget.

The largest proportion of Johannesburg's capital expenditure is sourced from internally generated funds, which, when topped up by public contributions and donations, means that approaching half of the city's budget revenue is generated within Johannesburg, and is not included in national government data. The city's revenues come primarily from power, water and sewerage tariffs, property taxes and business taxes.

Applying the proportion of funds allocated to infrastructure from internally generated revenue at the subnational level in Johannesburg would increase South Africa's total public sector budget allocations for the year by R3.2bn (\$297m). The same

South Africa: Sources and Application of Infrastructure Funds, Johannesburg, 2014 (R '000s)

Infrastructure expenditure as per ICA definition	Other capital expenditure	Total capital expenditure
3,419,920 (\$318m) (45% of total capital expenditure)	4,175,153 (\$388m) (55% of total capital expenditure)	7,595,073 (\$705m)
Funded by:	Amount (% of total capital expenditure)	
National government	2,524,734 (33%) (\$234m)	
Public contributions and donations	448,870 (6%) (\$42m)	
Borrowing	1,458,631 (19%) (\$135m)	
Internally generated funds	3,162,829 (42%) (\$294m)	

Source, Johannesburg Original Budget, 2014

Subnational Financing

calculations could be applied using public contributions and donations to Johannesburg's budget.

In other areas of the country the funding mix varies considerably. In the city of Tshwane's original 2014 budget, national government contributions accounted for 47% of its capital expenditure requirement while internally generated funds amounted to only 13% of the requirement.

Subnational borrowings – which

accounted for 37% of Tshwane's and 19% of Johannesburg's capital expenditure requirements – are extended to South African subnational infrastructure developers by some ICA members, notably DBSA, opening up the risk for double-counting when assessing total spending. Johannesburg has also looked to bond markets for infrastructure funding with support from DBSA and IFC for water and wastewater, electricity and roads projects.

Subnational spending among South Africa's utilities is also significant, although again some funding comes from government and ICA members. Eskom's accounts for 2014 indicate capital expenditure of around R60bn (\$5.6bn) per annum for the three years to March 2014. Transnet's 2014 accounts indicate capital investment of R31.8bn (\$3bn) in the year, of which 77% went to South Africa's rail infrastructure. ■

Nigeria

Nigeria's states also play a significant role in the provision of infrastructure, although a substantial amount of state funding still comes from the federal government.

At end 2013 federal transfers to the states accounted for more than 80% of the revenue for 32 out of 36 states.

While the federal government is the major source of raising revenue, predominantly through oil receipts, the state governments have substantial autonomy in infrastructure spending. State budgets are formulated and implemented without approval of the federal government.

Lagos state, with an estimated

population of 21m – 85% of which live in Africa's largest metropolis – spent around 1.1bn naira (\$700m) a year on infrastructure over the last eight years according to State Commissioner for Budget and Economic Planning, Ben Akabueze. With a disbursement rate of around 80%, this is consistent with the state's 2014 budget, which allocates the

Nigeria's Use of Municipal Bonds for 2013 and 2014

State/Local Government	Amount in millions of naira (approx \$m equivalent)	Year of issue	Year of maturity	Coupon rate	Project
Lagos State Government Bond Series 2	87,500 (\$561)	2013	2020	13.5%	Infrastructure developments: roads, rail, buildings and bridges, health facilities, construction of Adiyen Water Project Phase II and shoreline protection works.
Niger State Government Series 1	12,000 (\$77)	2013	2020	14.0%	For the construction of roads, completion of Shiroo Bridge, development of the Garam site & services Scheme, construction of an international market and the completion of Three Arms Zone
Nassarawa State Government Series 1	5,000 (\$32)	2013	2021	15.0%	For various development and infrastructural projects of the State- Education Project and Market Development Project.
Kogi State Government Series 1	5,000 (\$32)	2013	2020	15.0%	To finance infrastructure projects including water works, housing units, multi-lane carriageway, construction of hospitals, development of Kogi House and car parks.
Ekiti State Government Series 1	5,000 (\$32)	2013	2020	14.5%	For bridge and road construction, rehabilitation of Ire Burnt Bricks Limited and the construction of of Ekiti-Kete Pavillion
Bauchi State Government Series 1	15,000 (\$96)	2014	2021	15.5%	Part financing of Bauchi Specialist Hospital , completion of Sir, Abubakar Tafawa Balewa International Airport and refinancing of bank loan

Source: Securities and Exchange Commission, Nigeria

equivalent of around \$850m to infrastructure projects. However, a portion of the \$474m allocated as capital expenditure to Lagos Office of Infrastructure may fall beyond the ICA's definitions, but the remaining \$376m pertains to ICA-defined infrastructure projects.

State governments have historically tapped what is the largest municipal and subnational bond market in Africa, however, only one such bond

was issued in 2014. In 2013, the Lagos State Government Bond – Series 2 propelled Nigeria into the number one position of African countries tapping this market. The table opposite (*page 66*) shows Nigeria's use of municipal bonds for 2013 and 2014.

Other subnational infrastructure investors in Nigeria include Africa Finance Corporation (AFC), owned by the Central Bank of Nigeria and a

group of, mainly Nigerian, banks and institutional investors. In 2014, AFC committed to investments in Main One – Tier III Data Centre in Lagos. The \$52m data centre caters for growing local demand for cloud, colocation and disaster recovery services for high growth SMEs and large multinational corporations operating in the region. AFC also invested in the construction of the Henri Konan Bedie Bridge, in Côte d'Ivoire. ■

Morocco

The advanced regionalisation initiative promoted by King Mohammed VI and endorsed in Morocco's 2011 constitution sets out ambitious plans to rebalance the relationship between central government and several levels of local administration. Reforms have emphasised local government promotion of private enterprise and public investment in critical sectors including water and energy management, transportation, environmental improvements, education and health.

Central government views advanced regionalisation as a tool of economic growth. Morocco had already embraced the concept of subnational government financing and mechanisms for subnational infrastructure funding through structures such as the Fonds d'Équipement Communal (FEC), which provides loans for specific investment projects and lines of credit for financing longer-term development programmes. Credit lines have proved attractive to borrowers because they provide flexibility in terms of multi-year distribution.

Some of FEC's financing activities target infrastructure as defined by the ICA, as it supports basic services that meet citizens' daily needs, including drinking water and electricity, liquid

and solid waste purification, communal roads and urban transport, including the construction of roads and public lighting. Borrowers include prefectures and provinces, regional bodies known as *collectivités territoriales*, metropolitan and autonomous (sectoral) authorities.

Borrowers from FEC must fulfil certain conditions, including a debt ratio of less than 40%; they must have identified sufficient revenue improvements or expenditure controls to service the debt, and should normally participate by financing 20% of the project's cost (although FEC can finance up to 100% of the project costs for some rural drinking water, roads and electrification programmes). Fixed or variable interest rates start from 6.25%, on loans of up to 15 years tenor.

FEC has held bank status since 1996, so it can act as a financial intermediary between the borrower and financial markets. The bank is financed through credit lines, bonds and certificates of deposit. It can also operate beyond banking activities in some infrastructure areas and has a Support Fund to mobilise expertise for urban transport, ICT and solid waste management projects.

Morocco's commercial metropolis, Casablanca, has obtained a MD930m (\$100m) FEC credit line to help fund its ambitious 2015-20 development

plan. The bulk of this will go to the second tramway (MD336m – \$35m) and MD317m (\$33m) for roads, notably work to convert the 45km Mohammedia-Berrechid road dual carriageway (half funded by the region and half by the Ministry of Infrastructure). The rest of the FEC funding is allocated to spending on infrastructure and other needs in 72 less-developed areas of Casablanca, including linking main roads, electricity, potable water and sewage connections to marginalised neighbourhoods.

Casablanca has been looking to other sources, including the World Bank, to part-finance its 2015-20 development plan. The Urban Commune of Casablanca has requested a \$200m loan from WB, to be complemented with around \$350m from its own funds.

Moroccan utilities have long been the responsibility of local administrations, with some major services concessioned to private operators, such as the Casablanca power, water and sewerage company Lydec – which manages a large investment budget – or its counterparts in Rabat, Tangier and Tetouan. Others regions have successfully managed their services via autonomous local agencies, for example in Fes and Marrakech. ■

6.4 China

At \$3.1bn, Chinese lending to African infrastructure projects in 2014 was substantially lower than in each of the previous three years, when it averaged \$13.9bn. The significant reduction in China’s commitments may indicate a recalibration of Chinese investments in Africa’s infrastructure.

One significant shift in China’s investment strategy was noticeable in May 2014 when the AfDB and the People’s Bank of China (PBOC) entered into an agreement to establish the \$2bn co-financing Africa Growing Together Fund (AGTF). The then President of the African Development Bank Group, Donald Kaberuka, commented that “the AGTF will operate within the strategic framework, policies and procedures of the AfDB, including its integrated safeguards, thereby leveraging on the AfDB’s strengths.”

Resources from the AGTF are now being used alongside the AfDB’s own resources to finance eligible projects

in Africa. For example, in 2015 a \$44.3m AGTF loan has been approved alongside a \$97.4m loan from the AfDB market window to support Tanzania’s efforts to ease congestion in the city of Dar es Salaam via the second phase of the Bus Rapid Transit (BRT) project.

Consistent with 2012 and 2013, a substantial share of China’s total commitments went to transport projects. China, primarily through its Export-Import Bank, committed \$2.1bn to transport, representing almost 68% of its total lending for the year. As a percentage share, this figure is consistent with previous years’ lending.

In 2013, China lent \$10bn to African transport infrastructure projects, just over \$7bn of which went to rail projects in Kenya and Ethiopia.

However, the two largest Chinese commitments in 2014 did go to transport projects. These were an \$875m loan for the expansion of Côte

d’Ivoire’s Autonomous Port of Abidjan and a \$700m loan to finance construction of a new airport in Khartoum, Sudan.

China committed \$477m to energy projects – about 15.4% of its total commitments in 2014. This figure is far lower than both 2013 and 2012, when China lent \$2.6bn and \$5.2bn respectively. It included a \$41m loan to the Zambian government to construct electricity transmission lines and a \$136m loan to the Tanzanian government for the construction of the 50MW Singida wind farm project. The largest loan, \$299m, went to the Jerada coal-fired power plant in Morocco.

At \$411m, just over 13% of total Chinese commitments were committed to ICT projects. This is consistent with 2013, when \$424m was committed, but a substantial increase on 2012, when China lent only \$148m.

In 2014, China lent just \$108.5m – 3.5% of its total lending – to water

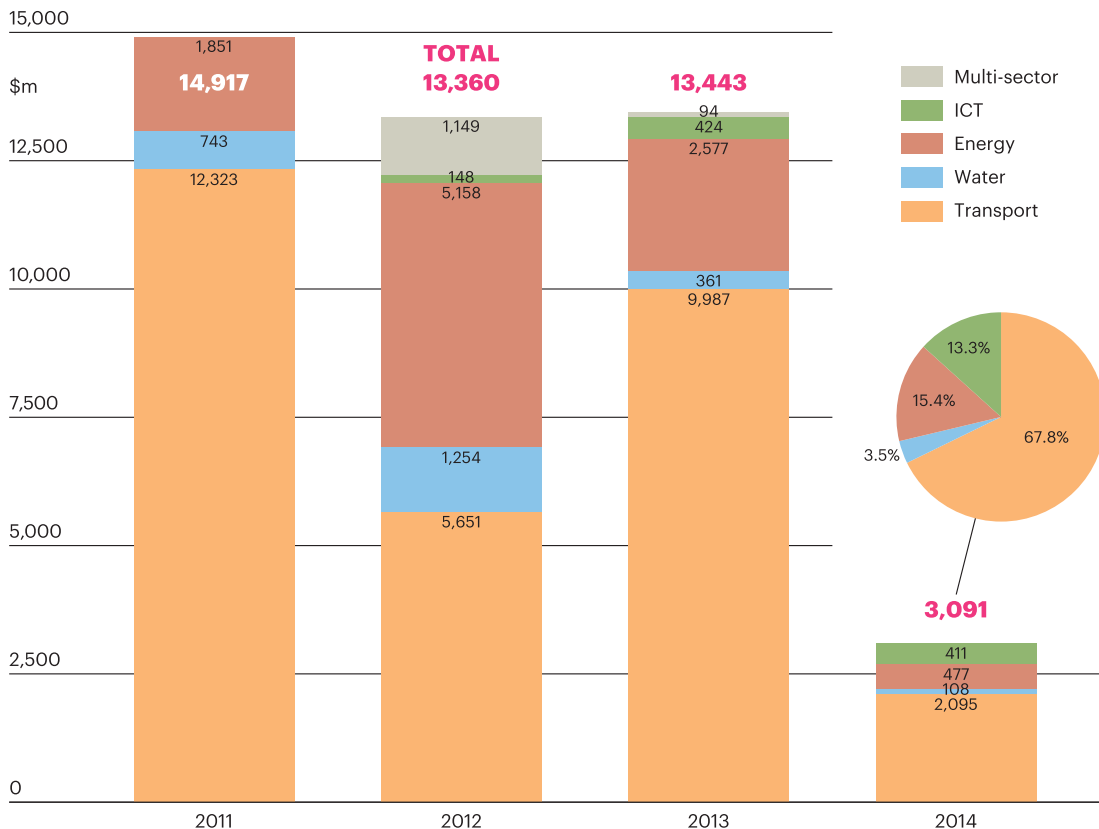


Figure 52
Chinese commitments by sector, 2011-2014

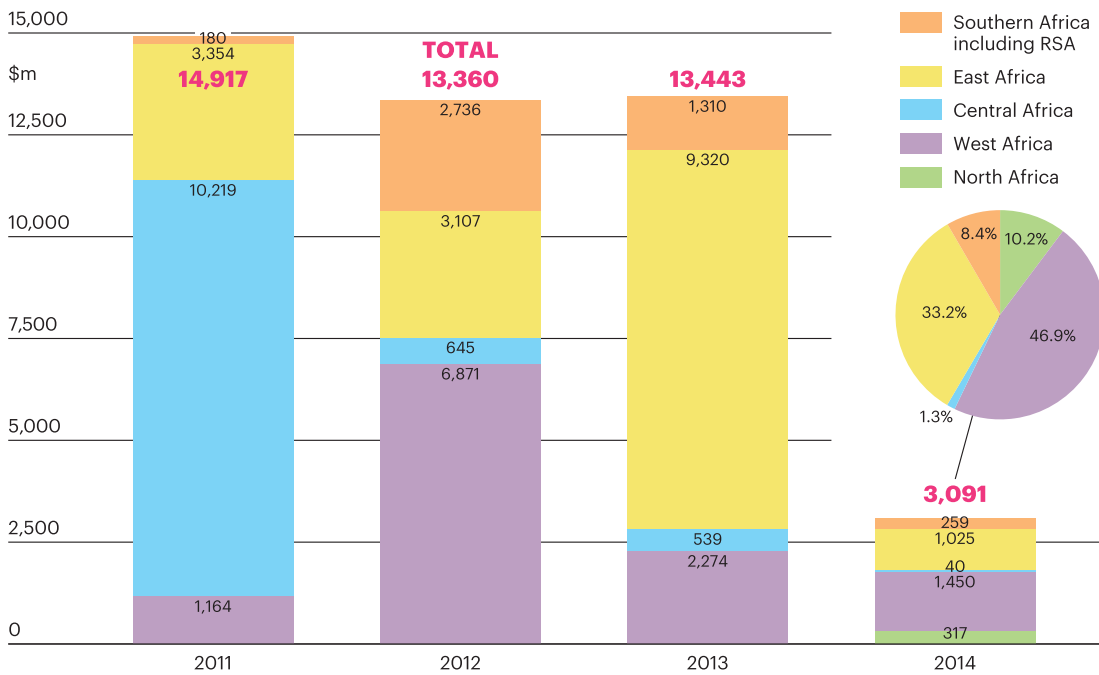


Figure 53
Chinese commitments by region, 2011-2014

projects. During the past several years, water projects on the continent have not been a priority for Chinese lending, and the 2014 figure is substantially lower than 2013's \$361m, and 2012's \$1.3bn.

At \$1.5bn West Africa accounted for the greatest share (47%) of Chinese infrastructure commitments in 2014. This was followed by East Africa, which received almost a third of total commitments with approximately \$1bn. Southern Africa received some \$259m (8%), while only \$40m went to Central Africa.

In 2014, China financed projects in North Africa whereas in the preceding two years there were no Chinese investments in the region. Aside from the Jerada power plant, Chinese investments in North African projects included \$17m to a water project in Nouakchott, Mauritania.

Notably absent as investment destinations in 2014 were the larger resource-rich countries of Angola, DRC and Nigeria, which have previously been a focus for Chinese financing in Africa. Instead, Cameroon and Côte d'Ivoire, which

received \$401m and \$966.5m respectively, benefited heavily from Chinese lending.

On an official visit to Ethiopia in May 2014, Chinese premier Li Keqiang said in Addis Ababa that China would increase loans to African countries by \$10bn, on top of the \$20bn already pledged, and that the China Africa Development Fund would be

expanded from \$3bn to \$5bn.

Keqiang also explicitly pledged to increase investment in road, rail, telecommunications and power projects, and said that Chinese companies would be urged to work more closely with African governments and companies in developing the continent's aviation industry. ■

OMVG Electricity Access Project

China is working with several development partners in the multi-donor \$1.25bn Organisation de Mise en Valeur du Fleuve Gambie (OMVG – Gambia River Basin Development Organisation) Project to improve electricity access and provide renewable, clean and affordable energy in the region. Export-Import Bank of China is supporting the project alongside AFD, AfDB, BOAD, EIB, IDB, JICA, KFAED, WBG and the governments of Gambia, Guinea, Guinea-Bissau and Senegal.

Electricity supply in the OMVG region is limited, unreliable and costly according to AfDB. It says access rates vary from 12% in Guinea, 19% in Guinea-Bissau, 35% in Gambia to 60% in Senegal,

placing a huge burden on consumers in places with high unemployment and limited prospects for growing new electricity-dependent businesses. The objective of the project according to the bank is, by 2020, to raise electricity access rates to 20% in Guinea, 42% in Gambia, 65% in Guinea Bissau, and 75% in Senegal.

This project aims to help establish the backbone infrastructure necessary, not only for the OMVG region's power industry, but also for the wider West African region. The progressive integration of isolated national grids into a unified interconnection system aims to help make electricity more accessible, reliable and affordable for those living in the region. ■

6.5 Arab Co-ordination Group

Members of the Arab Co-ordination Group (ACG) have consistently reported data for the ICA's reports, notably the Islamic Development Bank, OPEC Fund for International Development and the Saudi Fund for Development. The data, which provides clear insights about the group's activities each year, is a rich addition to the store of data on Africa's infrastructure financing and is gratefully received by the ICA Secretariat.

The group committed almost \$3.5bn to African infrastructure projects in 2014, compared to \$3bn in 2013. Consistent with previous years, the IDB was the biggest lender to infrastructure projects, committing almost \$1.3bn, or about 37.4% of the group's total to infrastructure. In 2012, the IDB's commitments amounted to some 31% of the group's total, and in 2013, this figure was around 49%.

The IDB only made commitments to projects in West and North Africa. The

split was weighted marginally in favour of North Africa, which received just under \$669m. West Africa received about \$624m (48.3% of total funding).

In terms of sectors, the IDB committed some \$635.3m to energy projects (just over 49% of total funding), \$599.3m to transport projects (46.3%) and \$58.3m to water projects (4.55%).

In 2014, the AFESD was the second biggest funder, making \$881m of commitments, equivalent to 25% of the ACG's total. The AFESD made six loans, all larger than \$100m. Consistent with previous years, the institution lent only to projects in North Africa.

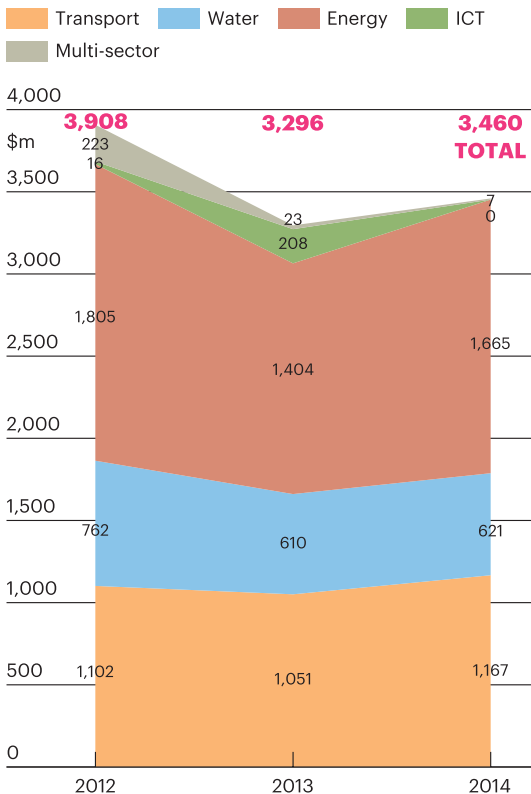
Overall, North African projects received the majority of funding from the ACG, with just over \$2bn, or 58.4% of the group's total. This is consistent with previous years: \$1.6bn in 2013 and \$2.6bn in 2012.

West Africa received \$908m, just over 26% of the group's total, and East Africa received \$362m (10.5%). East and West Africa have received substantial commitments from the group in previous years.

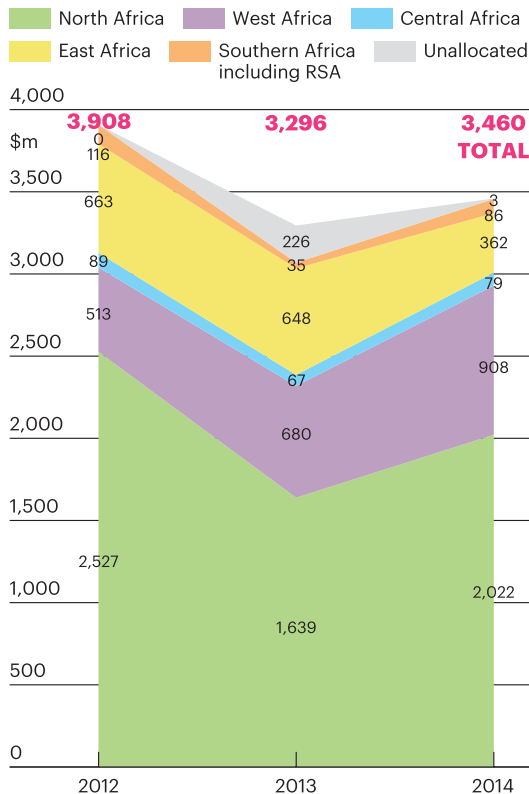
Commitments from the group to Central and Southern Africa were \$79.2m and \$85.7m respectively, representing a commitment of about 2.5% of the group's total. This is substantially less than the same regions received during the previous two years.

In terms of lending to sectors, energy projects received the most in 2014, with \$1.6bn (48.1%). Historically, the power sector has been a major focus for lending from the ACG. During 2013 and 2012, energy projects also accounted for the largest amount of Arab financing with 42.6% (\$1.4bn) in 2013 and 46.2% (\$1.8bn) in 2012. In part, this is a consequence of Arabian private sector interest in Africa, with companies such as Saudi-based

BY SECTOR



BY REGION



Arab Co-ordination Group Members

Arab Fund for Economic and Social Development, Islamic Development Bank, Kuwait Fund for Arab Economic Development, Abu Dhabi Fund for Development, OPEC Fund for International Development, Arab Bank for Economic Development in Africa, and Saudi Fund for Development.

Figure 54
Arab Co-ordination Group (ACG) commitments 2012-2014, by sector and region

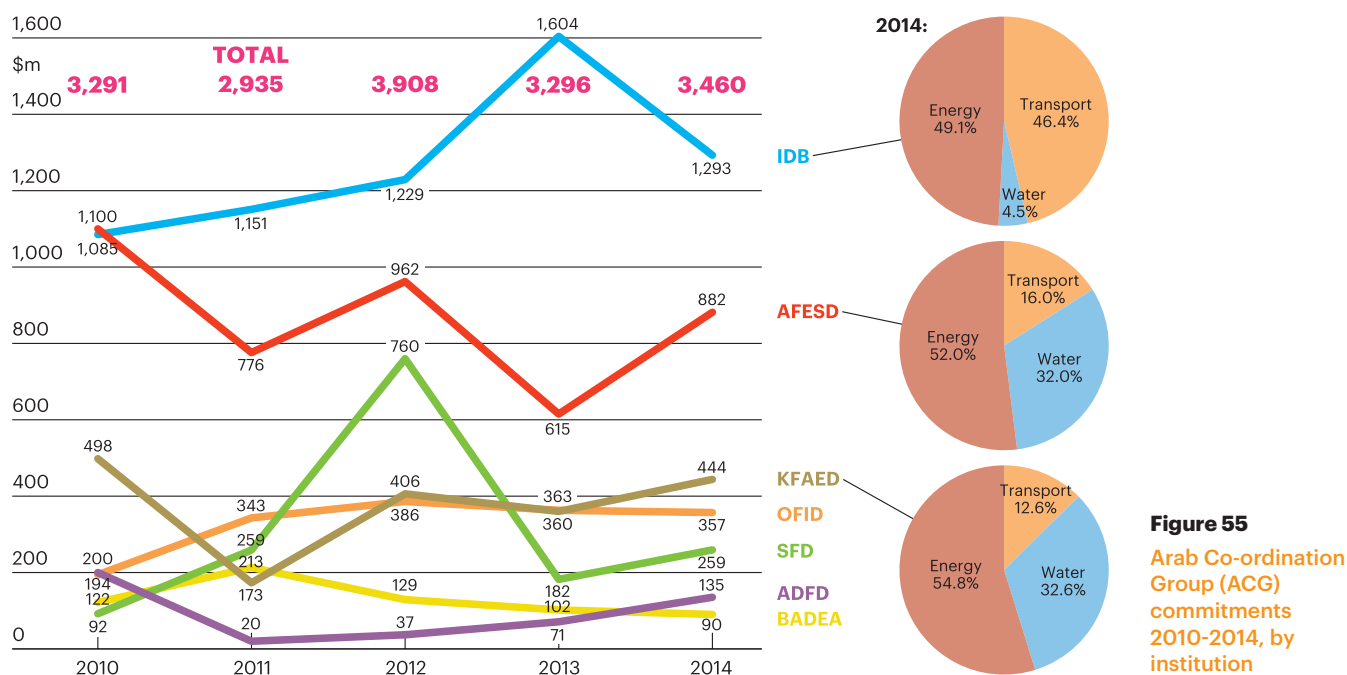


Figure 55
Arab Co-ordination Group (ACG) commitments 2010-2014, by institution

ACWA Power undertaking substantial power generation projects on the continent.

Transport projects received the next largest amount, at \$1.2bn, or 33.7% of total commitments. This was followed by water projects, which received \$621.4m (around 18%). These figures are consistent with those in 2012 and 2013, when the group committed 28.2% and 31.9% of the totals respectively. Water accounted for 19.5% in 2012 and 18.5% in 2013.

Conversely, and notwithstanding Arabian private sector investments in African telecommunications, ICT has never featured prominently in the group's lending to the continent. In 2014, the group made no commitments to African ICT projects. Only \$207m was committed in 2013, and \$15.6m in 2012.

The funding focus of the ACG continues to expand beyond the North African countries with which it has cultural and linguistic ties. West and East Africa have now emerged as major focus points. ■

Arab Co-ordination Group Selected Commitments 2014

Project	Institution	Country	Sector	Commitment (\$m)
Development of Sharm El-Sheikh Int'l Airport (Phase I)	IDB	Egypt	Transport	226.8
Assiut (El-Walidia) Thermal Power Plant Project	OFID	Egypt	Energy	220
Asioud Power Station	AFESD	Egypt	Energy	193.9
Olama-Kribi Road Project – Olama-Bingambo Section	IDB	Cameroon	Transport	183.6
Actouka Ait Baha Irrigation	AFESD	Morocco	Water	176.3
Egypt-Saudi Arabia Power Interconnection	AFESD	Egypt	Energy	158.7
Maria Gleta Power Plant	IDB	Benin	Energy	157.9
Nouakchott Solar Power Plant	AFESD	Mauritania	Energy	105.8
Expansion of Cairo West Thermal Power Station	KFAED	Egypt	Energy	105.8
Financing of Assiut (Walidia) Thermal Power Station	KFAED	Egypt	Energy	105.8
Road projects in Amhara and Oromia Regions	ADFD	Ethiopia	Transport	96.4
Upgrading of Kantchari-Diapaga-Benin Border Road	IDB	Burkina Faso	Transport	84.4

6.6 Non-ICA Member European Sources



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Investment by non-ICA member European bilaterals in Africa was substantial in 2014 at more than \$1.3bn, around \$300m of which was invested in funds. Of total investment, 66.6% (\$876.8m) was committed to infrastructure projects.

Investment in infrastructure was not evenly spread across sectors, with energy again the focus having accounted for 68% of infrastructure spending, while only 3% was committed to ICT projects, down significantly from the previous year. The remaining 29% was committed to multi-sector projects, a significant increase from the previous year. Like 2013, no investments were made in water projects by non-ICA member European countries in 2014, while transport also did not attract any investment.

West Africa attracted the greatest amount of financing from non-ICA bilaterals in 2014, which at 20.2% was significantly up on the previous year. Both East and Southern Africa saw 10-11% of commitments, while very little was invested in Central Africa

(3.8%). Investments in North Africa were minor at less than a percent, while there was no investment made in South Africa.

Some 54.7% of investments were made in Pan-African projects including Netherlands development bank FMO's investments in regional funds Investec Africa Private Equity (\$35m) and Emerging Africa Infrastructure Fund (\$25m). A major regional investment saw Norfund and British development finance institution CDC take control of Africa-focused UK power developer Globeleq from private equity investor Actis Infrastructure II Fund with CDC taking a 70% stake and Norfund 30% following a \$285.6m equity investment from the Norwegian DFI.

Among Globeleq's portfolio is its recently acquired 216MW Kribi and 88MW Dibamba power plants in Cameroon. It has 1,095MW generation capacity across Cameroon, Côte d'Ivoire, Kenya, South Africa and Tanzania.

The Netherlands and Norway dominated investments in

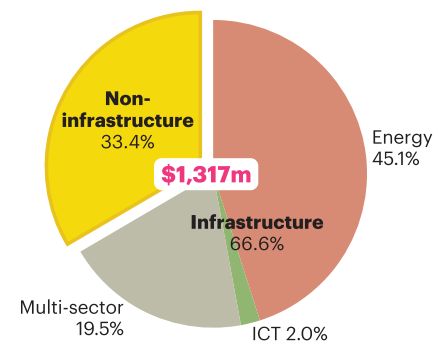


Figure 56
Non-ICA member European commitments by sector, 2014

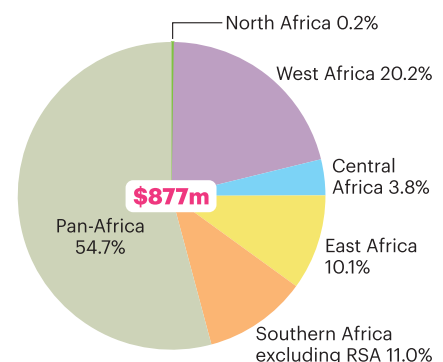


Figure 57
Non-ICA member European commitments by region, 2014

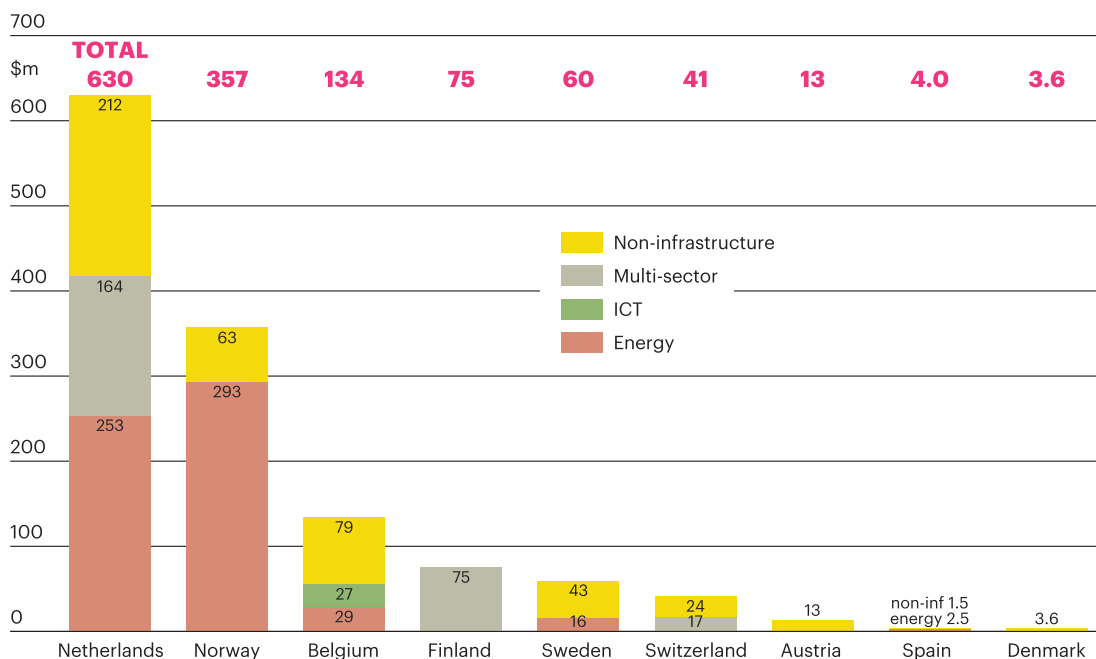


Figure 58
Non-ICA member European commitments by country and sector, 2014

infrastructure projects in 2014, accounting for 48% and 33% respectively. Finland's FinnFund committed \$75m (9%), while BIO-Invest of Belgium accounted for 6% of infrastructure investments, all within the energy and ICT sectors. Belgian commitments included Bharti Airtel Africa and a \$13.3m investment in the Africa Renewable Energy Fund.

Investments in energy in 2014 mainly comprised a small number of large projects. 19 investments in energy projects were made with an average size of \$28.9m, compared with an overall average of \$13.2m.

DFIs have assumed an increasingly important role in supporting groundbreaking projects intended to set precedents in the energy sector, with three particularly important projects committed to in 2014. FMO provided \$35m to the 300MW Lake Turkana wind power project in Kenya (see page 85), alongside \$4.7m committed to the project through the Interact Climate Change Facility.

The DFI also committed \$40m to the 450MW Azura-Edo gas power plant in Nigeria, a project which is showing

the path for future power plant developments in the country. It is supported by an impressive range of private sector and DFI sponsors, including Nigerian-led Amaya capital, US investment fund American Capital Energy & Infrastructure, Macquarie Group, Old Mutual's African Infrastructure Investment Fund 2, UK-based developer Aldwych International, Nigeria's Asset and Resource Management Ltd and the Edo State government. The World Bank approved two partial risk guarantees for the project.

Belgium's BIO-Invest is investing \$14.3m in a greenfield hydropower project in Uganda which is expected to produce 28GWh each year. The dam will cross a narrow valley and create a number of local jobs. As one of the first privately owned power developments in the country, the project will play an important role in increasing the flow of private investment into the sector by providing proof of concept.

Only a small number of investments were made in the ICT sector in 2014. FMO invested \$20m a piece in Econet Global Ltd in Zimbabwe and IHS Rwanda Ltd. The financing provided

to Econet will be used to expand two of Econet's subsidiaries in Zimbabwe, EcoCash and Solarway, while the investment in IHS Rwanda will go towards rehabilitating and expanding a large number of cellular telecoms towers and rooftop antennas purchased from MTN Rwandacell.

The DFI is also contributing \$6.6m to the expansion of the mobile phone tower network in the DRC. Around 60% of the new sites will be located in rural areas, making the project an important step forward in rural development. ■

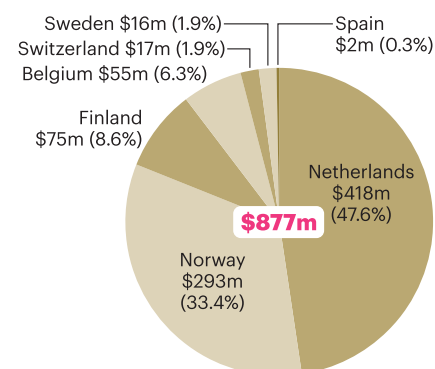


Figure 59
Non-ICA European commitments by country, 2014

6.7 Regional Development Banks

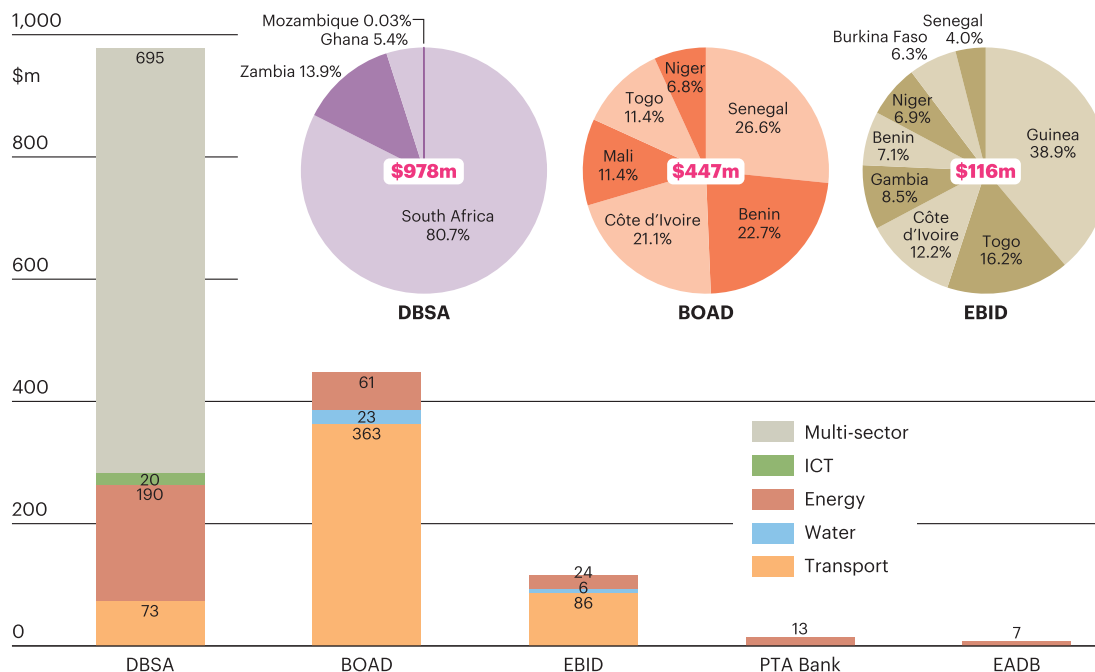


Figure 60
Regional development bank commitments, 2014

Africa's regional development banks committed \$1.6bn to infrastructure projects across the continent in 2014. This is a decrease on 2013's \$2.2bn.

The biggest contribution from an African regional development bank came from the DBSA, which committed a total of \$978m in 2014. The biggest chunk of this (\$789m) was directed towards projects in RSA, while the remaining \$189.2m was committed to projects elsewhere in Southern Africa (\$136.2m) and West Africa (\$53m).

DBSA's pan-African outlook is demonstrated in its commitments and disbursements in 2014 such as its project preparation funds for infrastructure development or project preparation in Zambia, Mozambique, Zimbabwe, DRC, Rwanda and Burundi.

In 2014, the EADB emerged as a funder of the Lake Turkana Wind Project (LTWP), providing \$6.7m of mezzanine finance to what will be Africa's largest wind farm. The EADB committed \$38.8m to infrastructure projects in 2013.

PTA Bank, which in 2014 became a new institutional member of the International Development Finance

Club, committed \$13.3m of senior debt and \$13.3m of mezzanine finance to LTWP. In November 2014, PTA Bank concluded a milestone international syndicated loan with leading international banks. Launched in Frankfurt with a target of \$200m, the facility closed at \$320m, 1.6 times oversubscribed, and yielding more than double the \$150m raised in the bank's 2012 debut facility. The facility was priced about 25% below the 2012 issue, reflecting the bank's improved creditworthiness.

The bank's international syndicated loans and Eurobond issues are part of its wider resource mobilisation thrust that entails short to medium-term fundraising from international capital markets for cross-border and other trade as well as longer term funding from specialised development financing partners for high impact development financing in areas such as renewable energy and cross-border power and transport infrastructure.

On the back of its syndicated loan, PTA Bank closed a new and substantial funding partnership with the EIB to promote private sector lending. The EIB and PTA Bank will each provide €80m (\$109m) for the new initiative

that represents the largest single private sector lending scheme ever backed by the EIB in Africa.

In January 2014, German development bank KfW and PTA Bank signed an agreement under which KfW will provide PTA Bank with a \$60m loan to help the latter fund companies in the COMESA, SADC, and EAC member states to help them finance climate-friendly investments in renewable energy and energy efficiency measures.

BOAD, with total commitments of \$447m, committed \$363m or 81% of its infrastructure financing to the transport sector. Around \$61m (17%) was committed to energy projects, while some \$23m (6.3%) was committed to water projects. BOAD made no commitments to ICT projects during the year under review.

The ECOWAS Bank for Investment and Development (EBID) committed \$76.6m to West African infrastructure projects in 2014. Of this, some \$56.6m (74%) went to transport projects, and almost \$16m (21%) went to energy projects. The bank made just one commitment of \$4m (5.2%) to water projects. ■

6.8 Other Sources of Finance

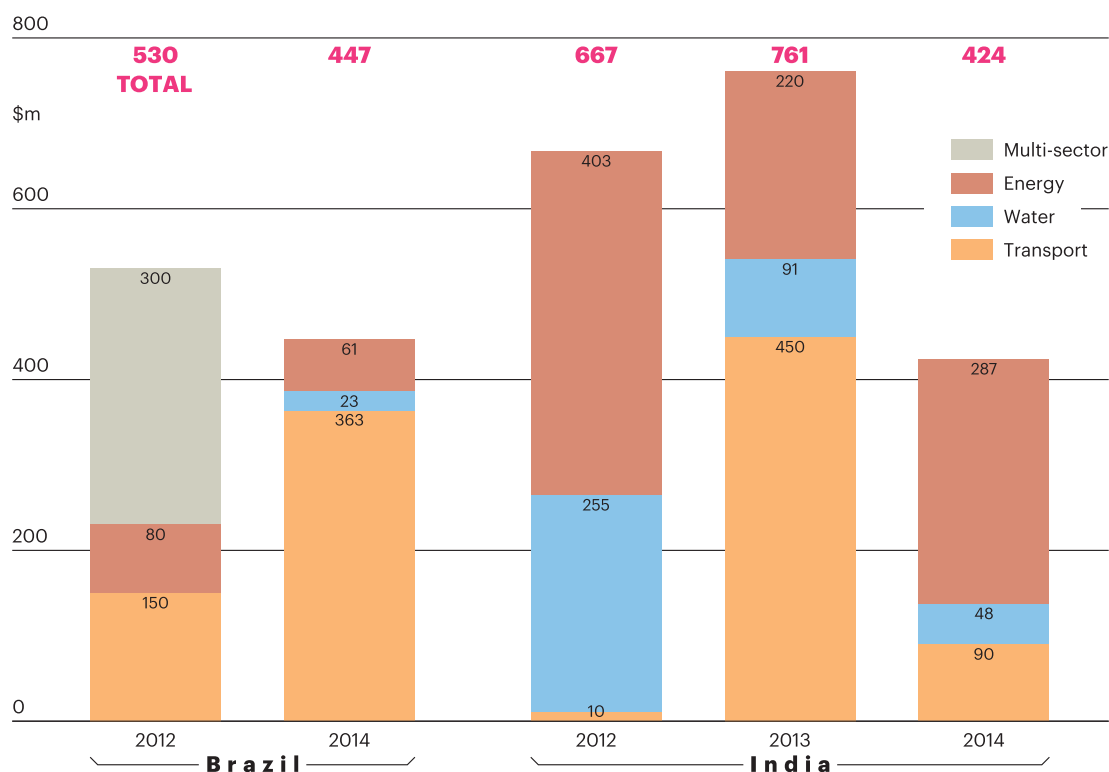


Figure 61
Commitments by Brazil (2012 and 2014) and India (2012-2014)

India

In 2014, Indian loans to African infrastructure projects, all of which are extended via lines of credit from the country's Export-Import Bank, amounted to \$423.9m, substantially less than in 2013 and 2012, when it extended \$761m and \$667m respectively.

Indian funds went only to Central and West African countries, which received \$171.9m (40.6%) and \$252m (59.5%) respectively.

Exim Bank extended eight lines of credit in 2014. The largest of these was \$100m for power infrastructure in Nigeria. It also extended an \$89.9m line of credit aimed at improving the transport system in Republic of Congo.

Consistent with Indian lending in 2012, when Africa's energy sector received the majority of funding, energy projects benefited from \$286.5m in lines of credit in 2014. Transport projects, which had received the lion's share (\$450m) in 2013, received just \$89.9m. Water

projects received \$47.5m in lines of credit during 2014.

The Indian government had planned an India-Africa Summit in New Delhi for December 2014, but the event was postponed due to concerns about the spread of the Ebola virus. The summit, which included a number of African heads of state, was held in late October 2015.

Brazil

Brazilian development bank Banco Nacional de Desenvolvimento Econômico e Social (BNDES) committed \$503.4m to African infrastructure projects in 2014. The bank made no commitments in 2013, but lent \$530m in 2012.

BNDES's 2014 figure was comprised of three fairly large individual loans: a \$146.5m export credit facility to the government of Angola for the 2,067MW Lauca hydropower project, a \$36.9m export credit facility for Angola's Kwanza Sul rural development project, and a \$320m loan for Mozambique's Moamba-Major hydro project.

Consistent with 2012's lending, BNDES extended finance only to Lusophone countries, where the majority of Brazil's private sector investment is focused.

South Korea

South Korea's Export-Import Bank made loans to African infrastructure projects via its Economic Development Co-operation Fund.

In 2014, it committed some \$206m in the form of two loans: almost \$115m for the modernisation of Egypt's railway signalling system, and \$91m for the construction of Selander Bridge in Dar es Salaam, Tanzania.

The 2014 figure is higher than the \$175.4m (two loans) committed in 2013, but significantly lower than the \$677m committed in 2012.

South Korea has consistently targeted transport projects, with its 2013 loans going to road projects in Mozambique and Ethiopia. ■

7 Private Sector Financing



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7.1 Overview

The number of projects with private sector participation reaching financial close as recorded in the Private Participation in Infrastructure (PPI) Project Database, a joint product of the World Bank's Infrastructure Economics and Finance Department and the PPIAF, declined from \$8.8bn in 2013 to \$5.1bn in 2014. Of this, \$2.9bn was financed by the private sector with the remainder financed by development finance institutions.

Contributing to the decline are two factors: the absence of large port investments in Nigeria reported in 2013 and the postponement until 2015 of the fourth bidding round of South Africa's Renewable Energy Independent Power Producer Procurement programme, scheduled for 2014.

However, the attractiveness of power projects held up, with the energy sector the major recipient of finance for infrastructure projects closed in 2014. Total investments reaching

financial close in the sector grew slightly from \$4.5bn in 2013 to \$4.8bn in 2014.

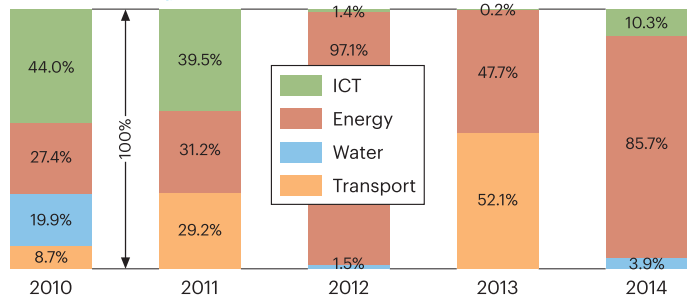
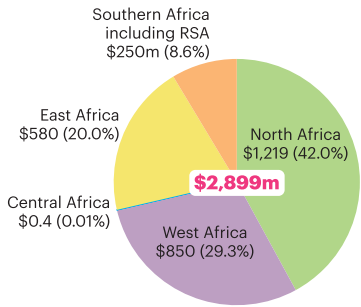
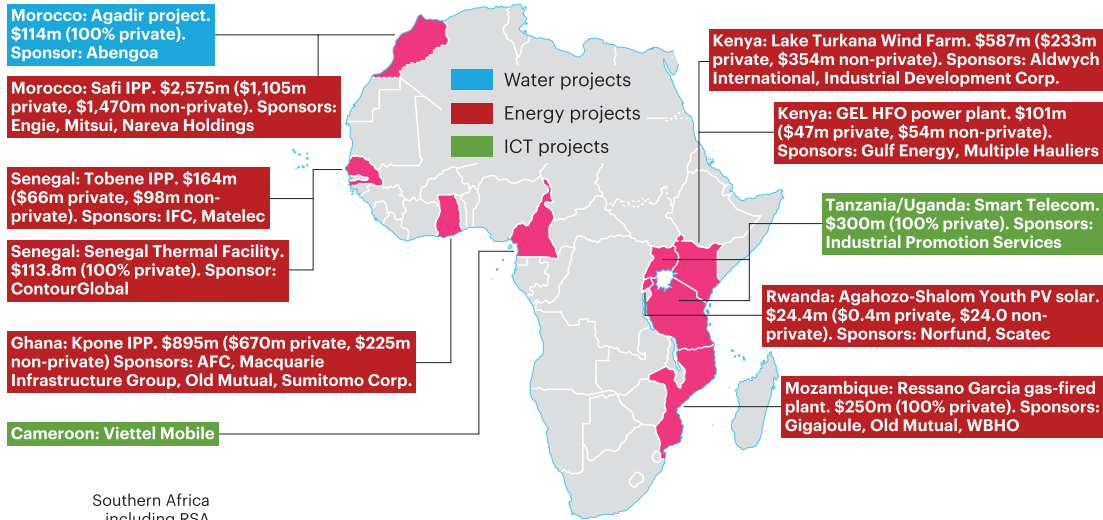
There was a resurgence in ICT projects in 2014, with Viettel starting operations in Cameroon, and Kenya's Aga Khan Fund for Economic Development-backed and Industrial Promotion Services (IPS)-owned Smart Telecom opening subsidiaries in Tanzania and Uganda as part of its \$300m East Africa expansion, according to IPS. This figure, however, was not entered in the PPI database.

Of the power projects involving private capital that dominated infrastructure investment in 2014, the largest single investment was in Morocco's 1.3GW coal-fired IPP at Safi, which is estimated to cost \$2.6bn. Project owner Safi Energy, whose equity is owned by Japan's Mitsui, France's Engie (formerly GDF Suez) and Morocco's Nareva Holding, raised private debt finance through a number of Japanese and Moroccan banks supported by donor funding from the IDB and JBIC.

Japanese commercial banks also helped finance Cenpower's 340MW Kpone IPP in Ghana. Sumitomo Corporation is a major shareholder in the \$900m greenfield project, alongside Lagos-based AFC, Australia's Macquarie Infrastructure Group and South Africa's Old Mutual.

According to the PPI database, eight power projects reached financial close, half of them in East Africa. Gigawatt Global closed a \$23.7m financing in February 2014 for the 8.5MW solar PV plant at the Agahozo-Shalom Youth Village in Rwanda, with commissioning of the plant achieved in a record 12 months. Private debt was provided by FMO and London-based Emerging Africa Infrastructure Fund. Finance from Norway played a primary role in the project, with Norfund providing mezzanine debt and equity investment. Other investors included EPC contractor Scatec Solar and Norway's largest pension fund KLP through a joint venture with Norfund. Grants were received from OPIC's Africa Clean Energy Finance Initiative and from

PPI Projects Database



Figures 62-64
Private sector projects reaching financial close in 2014 (top); Private sector financing by region, 2014 (left); Private sector financing trends by sector, 2010-2014 (right)

Finland's Energy and Environment Partnership.

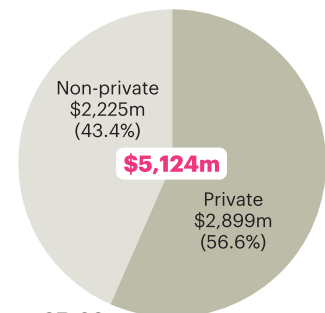
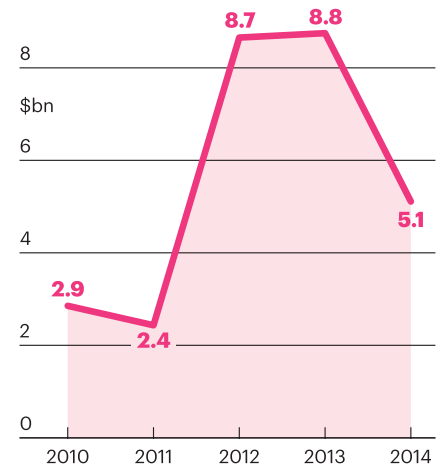
After years of development, the Aldwych International-led 300MW wind farm project at Lake Turkana in Kenya finally closed at €623m. (see page 85). Kenya also saw the year's only wholly domestically owned power plant reach financial close. Local companies Gulf Energy Limited (GEL) and Multiple Hauliers secured \$95.5m, according to the PPI database, to build, own and operate an 80MW heavy fuel oil plant on the Athi River, 25km from Nairobi. The greenfield project was awarded a 20-year PPA and obtained a €20.7m (\$27.6m) loan from the IFC which arranged a further €20.7m (\$27.6m) loan from Standard Bank.

Gigawatt Moçambique's 100MW gas-fired power plant at Ressano Garcia closed at \$212m, with equity ownership from South Africa's Gigajoule, Old Mutual and construction company WBHO.

Senegal was the location of choice for ContourGlobal, which closed a 53MW gas-fired project at \$172m, while Lebanon's Matelec closed the 96MW Taiba Ndiaye power plant at €123m with the help of the equity holder IFC InfraVentures and IBRD.

Only one water infrastructure project on the PPI database reached financial close in 2014. Spanish energy and water outfit Abengoa's \$114m desalination plant at Agadir in Morocco was financed alongside local partner InfraMaroc (part of the CDG Capital Infrastructures group) and with €82m (\$109.4m) of debt raised from a consortium of local banks led by Banque Marocaine du Commerce Extérieur. The project will be operated on a 20-year build, own, transfer basis. ■

*The PPI database was used for project identification, however technical and financial details were sourced, where possible, from project participants' data in an endeavour to be accurate and as consistent as possible with data presented elsewhere in the report.



Figures 65-66
Total value of projects with private sector participation, 2010-2014 (top); Sources of financing of projects with private sector participation, 2014 (bottom)

7.2 Private Sector Survey: Investment Considerations

This is the third year the ICA African Infrastructure Investment Survey has sought to gauge the views of the private sector towards investing in infrastructure projects in Africa. A total of 69 respondents participated in the survey.

Investment Destinations

Kenya and South Africa ranked joint first as the most attractive destinations for private capital in Africa's infrastructure. The two countries have occupied two of the top three slots for three years now, with South Africa consistently top of the rankings while Kenya has traded places with Nigeria for second.

Nigeria maintained its high average ranking, but fell to third most attractive country for investment, with other established markets such as Botswana and Tanzania appearing in the top ten. Signifying the appeal of East Africa, Ethiopia again ranked highly, while Uganda re-entered the top ten in 2014 after an appearance in 2012 and an absence in 2013.

Ghana, which ranked third in 2012 and fourth in 2013, dropped down the order slightly. Both Rwanda and the rapidly recovering Egypt, which is

seeing ever increasing levels of foreign investment, continue to rise in the opinions of private investors, and appear to be contenders to break into the top ten in the coming years.

Challenges

When asked to rank their top considerations when deciding to invest, respondents continued, as they did in 2013, to rank project feasibility and risk as their top considerations, while country and political risk was once again in the top three.

In naming the greatest challenges facing private sector investors, respondents to the 2014 survey continued to rank political will and policy uncertainty (17.4%) and corruption and transparency (15.1%) in their top three. However, the difficulties of obtaining finance was no longer their greatest concern, which at only 6.9% dropped out of the top four, perhaps indicating an increasing availability of finance for African infrastructure projects.

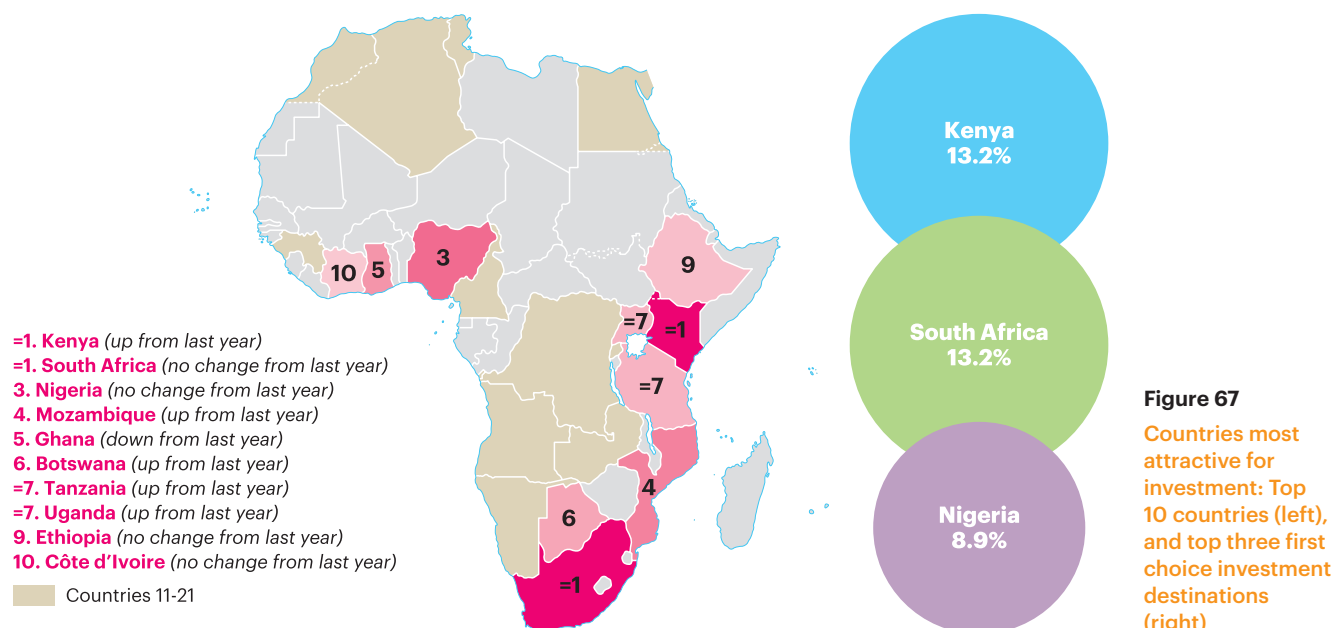
The majority (19.5%) considered bureaucracy and delays the single greatest challenge, a significant increase from the previous year when only 9.9% ranked this as their main

concern. A lack of institutional capacity was deemed the fourth greatest challenge.

Consistent with 2013, credit and payment concerns remained the greatest risks in 2014 for private investors to mitigate in order to ensure financing. Corruption and lack of transparency was deemed the second greatest risk in need of mitigation, having ranked fifth last year.

Despite the need to mitigate credit and payment risk, sometimes this is not possible. Respondents to the survey provided examples of a range of risks that could not be mitigated, from sourcing finance to the paying of penalties.

One respondent called for a rethink of how lenders look at Africa if access to finance is to become easier. "Perceptions by international and multilateral agencies tend to make African projects even more costly to fund, particularly the debt funding for project finance of an SPV," the respondent said, and suggested that, "the solution was to increase participation of local investors to help reduce risk perceptions and allay fears." But another private investor said that the "lack of local expertise



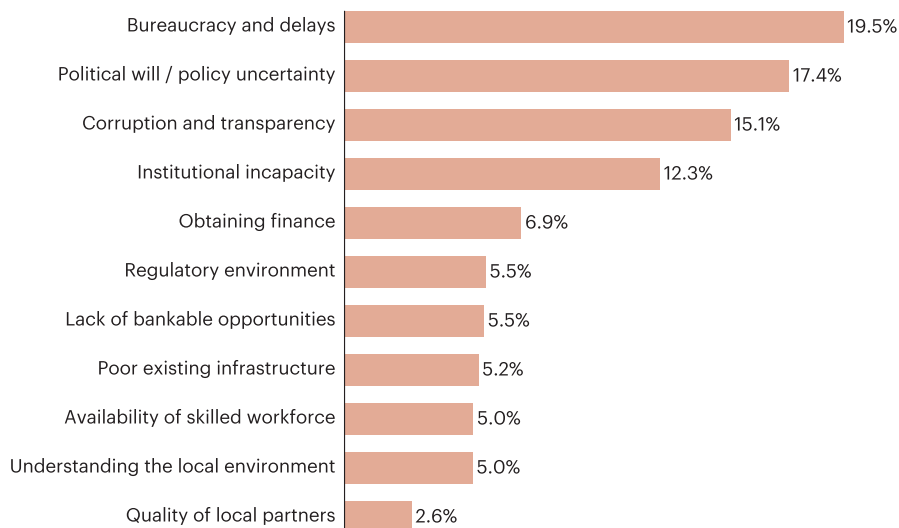


Figure 68
Greatest challenges facing private sector participants in African infrastructure projects

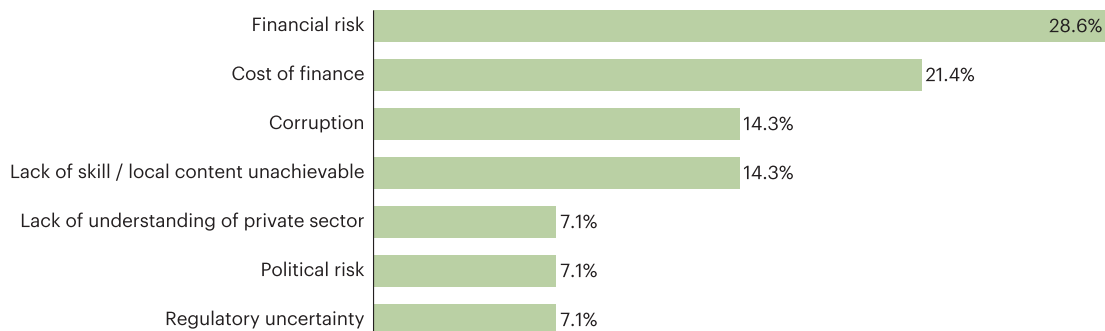


Figure 69
Risks which investors were unable to mitigate

coupled with local content demands are unachievable.”

Delays outside of the private sectors’ control are a major challenge. “We end up paying penalties under the Power Purchase Agreement if the Commercial Operation Date is extended beyond what was agreed in the PPA,” one respondent said. “Currency fluctuations impact negatively on long term equity investments,” according to another respondent.

Despite the challenges faced by the private sector when it comes to investing Africa’s infrastructure which cannot be overcome, most survey respondents said that these risks were not deal breakers, and instead factored them in to the project costs.

Project Delays

Almost half of respondents to the survey reported delays in projects of over one year, with less than 3%

saying they had experienced no delays. While some private sector investors said delays are not unusual in infrastructure projects, many causes were given reflecting the common challenges facing Africa. These range from mismanagement and corruption, to a lack of government will and insufficient institutional capacity, leaving private sector players with the additional challenge of “educating local participants in the requirements for successful project development”.

With infrastructure investment requiring input from so many public and private sector parties, the aligning of interests continued to be a frequent cause for delays in the implementation of projects in 2014. Political support for a project continues to be crucial if it is to progress sufficiently smoothly and efficiently to meet set timeframes.

One investor was particularly frustrated by the lack of support for projects not deemed a ‘priority’, saying “project progress tends to be contingent upon political support, rather than simply institutional capacity. Priority projects get done, lower priority projects don’t even get permitted.” ■

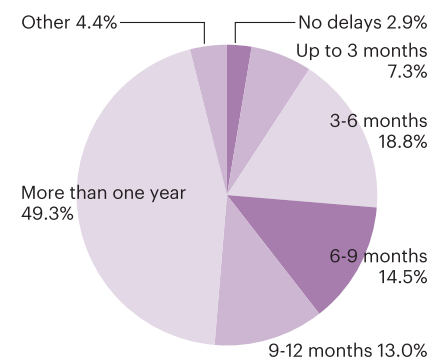


Figure 70
Delays experienced in African infrastructure projects

7.3 Private Sector Survey: Public Private Partnerships

Public Private Partnerships (PPPs) are becoming increasingly viewed as an effective way to mitigate some of the risks associated with purely privately backed projects in Africa. By involving public sector partners, some of the bottlenecks leading to delays and difficulties can be unblocked.

Some 40% of respondents to the 2014 African Infrastructure Investment Survey revealed they have participated in PPP infrastructure projects in Africa. Encouragingly, the majority (66%) of this group described their participation in PPPs as “a positive experience.” Some 24% described their PPP experience as being mixed, while only less than 10% felt their circumstances in PPPs were less than ideal. Despite this generally positive view, some private sector participants described a wide range of experiences. “Some have been very positive, others challenging to the point of being incapable of execution,” one respondent said.

Respondents to the survey certainly agreed that obtaining public sector support helps expedite a private sector-backed project, however a lack of political will or policy uncertainty was the number one barrier in the implementation of PPPs (see Figure 71). Major constraints identified by respondents included establishing a “clear distinction of roles and responsibilities”, “poor government reaction”, and a “lack of mutual trust”. One respondent highlighted “getting all interests aligned, particularly between public and private sectors” as a major barrier in progressing and establishing a successful PPP project.

A lack of institutional capacity featured high on the list of private sector concerns. “Unrealistic government expectations”, a “lack of

skilled manpower”, and a “lack of understanding of risk allocation between both the private and public sector” were given as constraining factors by respondents, with one private sector investor arguing that “building institutional capacity in government is key” to resolving this concern.

Reaching common ground and understanding the financing structures in projects are also challenges.

“Government understanding of the fiscal implications of a PPP model – for example a public sector comparator”— a tool used by governments to determine an appropriate service provider for a public sector project estimating the cost the government would pay if it delivered a service itself – was “particularly important to get projects moving.”

Financial risk was the third greatest challenge faced by private investors in PPPs according to survey respondents. Lack of financial support from government along with, typically, a “lack of a suitable currency for the financing to match the currency of income from the project” were frequently noted as major concerns. The precarious financial state of some African public sector utilities and uncertainty over receipt of payments are also factors that need to be addressed for investors to become sufficiently confident they will get a return on their investment.

The regulatory environment and corruption and transparency were of less of concern to investors in PPPs while bureaucracy – often viewed as a serious challenge to private sector investors in Africa – was of least concern in PPPs compared to other factors according to survey responses.

Main Factors Affecting PPP Success or Failure:

“Uncertainty that the projects will be ring-fenced by the government, i.e. no change in policy towards the project by new policy makers”

“Taking the right amount of time to structure a deal”

“Governments can be over-ambitious and the projects become too complicated and do not succeed”

“Sustainable and long-term agreements are crucial”

“The need for financially sound off-takers”

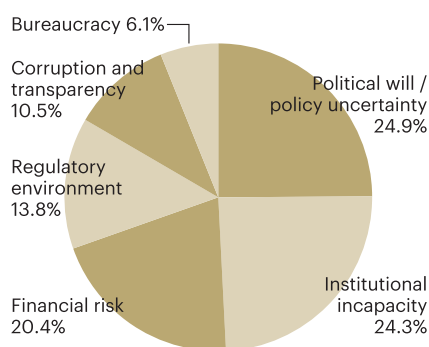


Figure 71

Main factors affecting implementation of PPPs

According to the majority of respondents, “realism”, “honesty” and “transparency” are the most important qualities they expect from public sector partners. The “appetite to execute” and for “projects to not be politically controlled” also featured prominently. “Predictability” and “consistency” were unsurprisingly also common demands. ■



Figure 72

Experience of participating in PPPs according to survey respondents

7.4 Private Sector Survey: Market Trends

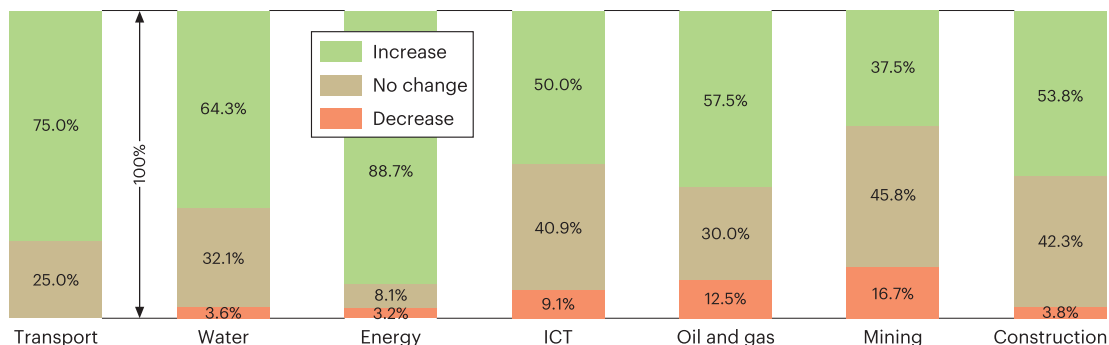
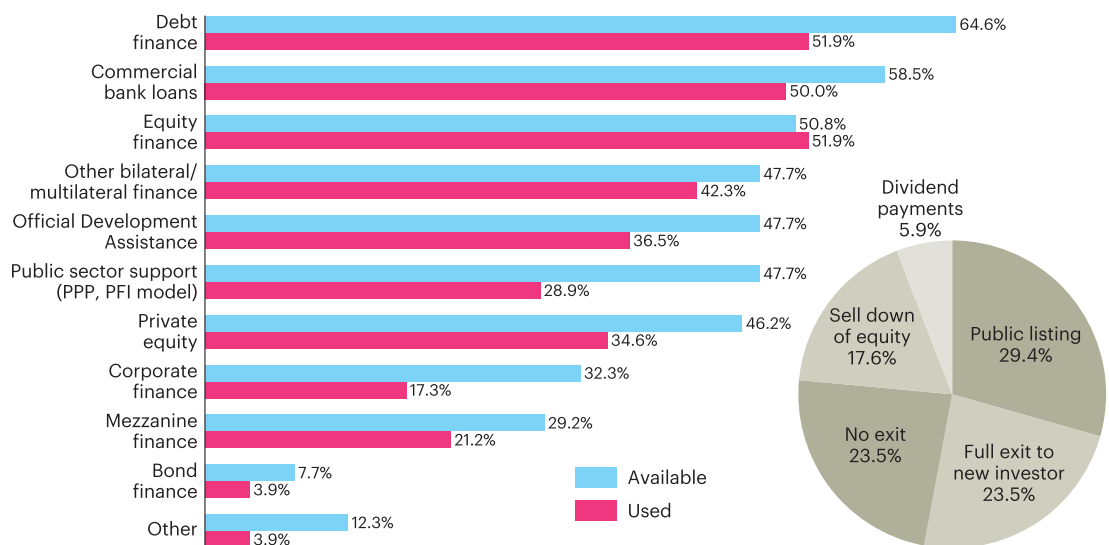


Figure 73
African portfolio intentions over the next two years



Figures 74-75
Sources of project finance (left); Equity exit strategies (right)

Figure 76
Internal rate of return on African infrastructure investments (below)

The 2014 African Infrastructure Investment Survey provides insights into potential trends of private capital flows to the various infrastructure sectors over the next two years. The energy sector looks set to continue as the major area of activity with 88.7% of respondents saying they intend to increase their commitments in that sector, while 75% also said they would invest more in transport.

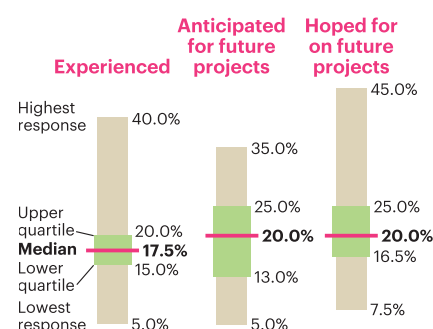
Of the remaining two ICA-defined sectors, 64.3% of respondents said they would invest more in water and sanitation and 50% intend to increase spending on ICT. Few investors intend to be less active – just 9.1% of respondents said they would invest less in ICT while fewer than 5% plan to decrease investments in water and energy operations. No respondents said they expected to reduce spending in transport.

In line with 2013 findings, debt/equity and corporate finance remain the greatest sources of financing for private sector projects, although bilateral/multilateral and official development assistance was both available to and used by many private sector investors. Public sector support was readily available to a large percentage, but only two-thirds took up this option.

Almost one quarter of respondents said they intended to remain in their investments for the long run and had no exit strategy planned. However, the most popular exit strategy among survey respondents was an initial public offering on a stock exchange. Some 23% looked to exit fully to a new investor, while 18% planned a gradual sell down of equity.

Investors continue to experience similar internal rates of return (IRRs) as they did in 2013. The majority of

investors report experienced IRRs as between 15-20%. The average expected IRR for future projects is 20%, slightly higher than experienced and equal to the percentage anticipated by respondents in last year's survey. However, the range between the lower and upper quartile in terms of anticipated IRRs has widened slightly to between 13-25%. Respondents were also asked for their ideal IRRs on future projects, which, at an average of 20%, interestingly matched the rates they anticipate on projects in their current portfolio. ■



Harnessing Public-Private Partnerships

Public-private partnerships (PPPs) are central to Senegal's endeavours to establish and sustain an investment environment conducive to private investors and DFIs participating in the country's ambitious \$25bn infrastructure development programme. Comprising road, rail, energy and water projects, it aims to sustainably double economic growth from an annual 3.5% in 2013 to an average of 7% in the period 2014 to 2035, and create 600,000 formal jobs.

To attract investors to around two dozen major infrastructure projects, Senegal has made substantial reforms, including the enactment in 2014 of a law on PPPs. This led to the creation of a Directorate of Funding and PPPs and a National PPP Committee, both falling under the auspices of the new Ministry of Investment Promotion and Partnerships. The Investment Promotion Agency is located in the same ministry.

Senegalese officials anticipate that one of the first PPPs to be implemented under the new law will be a desalination facility just outside Dakar, which should attract a combination of DFI and private funding. The facility has targeted a capacity of at least 50,000m³ per day against a current estimated supply gap of 18,000m³ per day in Dakar. Production of up to 88,000m³ per day is anticipated by 2020, even with no additional investment. The government is selecting a potential site with the support of external consultants funded by the World Bank. Senegal aims for the new plant to be on line by 2019. This should prove attractive to investors, as large

water equity investments have an average 35% return, according to a Senegalese official.

National water company Société Nationale des Eaux du Sénégal (SONES) undertook a preliminary market sounding and the response was positive, with many expressions of interest.

Senegal already has a model PPP in its water sector with Sénégalaise des Eaux (SDE). The company does not own the water system but produces and distributes potable water under a lease granted by the government in 1996. Senegal has a relatively high level of water access for sub-Saharan Africa, and the PPP is seen by the World Bank as “a model of public-private partnership in sub-Saharan Africa”.

A track record in establishing PPPs should stand Senegal in good stead in its search for private sector partners. In 2013, the Dakar-Diamniadio toll road became the first highway funded under a PPP arrangement in sub-Saharan Africa. The PPIAF provided technical assistance to the government and played a decisive role in the financing and execution of the highway project. Several other PPPs are up and running in the ports, aviation and road management sectors.

Regional PIDA Dimensions

Senegal's current raft of around 18 prospective PPP projects aims to fulfil national objectives and fit with regional and pan-African ambitions. A new Dakar-Bamako southern railway line is part of a PIDA project, the Dakar-Niamey Multimodal Corridor. It aims to facilitate the movement of people and goods across the borders of Senegal, Mali, Burkina Faso and Niger, and will assist in the

modernisation of the multimodal African Regional Transport Infrastructure Network (ARTIN) Corridor in West Africa. ARTIN's purpose is to link large African centres of consumption and production with the rest of the world via modern and efficient regional transport infrastructure networks and gateways. The project falls within the scope of the ECOWAS.

From a continental perspective, the Dakar-Bamako southern railway project fits NEPAD's objective to improve landlocked countries' access to seaports to increase intra-African trade and regional integration. At a regional level, it aims to increase the use of railways as a proportion of all means of transportation in order to reduce transport costs and improve the region's competitiveness.

For Senegal, the railway is part of an integrated railway-port-mining project that aims to enable the exploitation of 2m tonnes per year of phosphates and 15m tonnes per year of iron ore in Eastern Senegal. The railway would transport mined materials to a greenfield multi-commodity bulk port in Bargny-Sendou, south of Dakar. Senegal has prioritised the port development to increase its import capacity for bulk materials including coal for energy generation, and to serve as the export terminal for the future development of phosphate reserves in Senegal and bauxite reserves in Mali. The railway may eventually run deeper into the continent to enable bauxite from Guinea to reach the bulk port.

The West African Economic and Monetary Union (WAEMU) is committed to financing preliminary



Figure 77
Senegal's existing and proposed rail infrastructure

studies, and two round tables of investors were organised by WAEMU in Dubai in September 2014 and in Dakar in February 2015. Senegal and Mali are also discussing proposals for collaboration and funding with private companies. Senegalese officials hope that a PPP model can be employed to realise the project.

A PPP model is also envisaged for a new Bus Rapid Transport system in Dakar with two intersecting lines.

Also in the transport sector, Senegal is looking for investors for its Rapid Regional Train system that will provide a semi-direct service between Dakar and the new Blaise Diagne International Airport. The project includes the renovation and construction of infrastructure.

Renewable energy projects leveraging private capital are emerging in Senegal too. American Capital Energy

& Infrastructure (ACEI) has announced a landmark commitment to invest in Senegal's first industrial-scale wind power project, producing 151.8MW of electricity. The facility at Taiba Ndiaye, 75km from Dakar, is the largest wind farm planned in West Africa. Total capital cost is estimated at €305m, with ACEI anticipating an equity investment of €76m and the remainder expected from senior and mezzanine lenders.

InfraCo Africa is also developing two wind farms in Senegal, each with a nominal capacity of 50MW. The electricity will be sold to national public utility SENELEC. The approximate cost of the project is \$150m, with capital provided by the World Bank alongside development agencies in Austria, Ireland, the Netherlands, Sweden, Switzerland and the UK. ■

PPP Model : New Bus Rapid Transport System, Dakar				
Estimated Investment Costs (\$ m)				
	Red Line (19km)		Green Line (34km)	
	Low Estimate	High Estimate	Low Estimate	High Estimate
Infrastructure & Equipment (State)	125	182	163	250
Rolling Stock (Private Operator)	46	67	54	83

Investing in Innovative Renewables Projects and Off-Grid Solutions



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Kenya is adding extra generation capacity to its power sector with some landmark large-scale renewable energy projects. With only 5% of the rural population able to access electricity, a steadily growing portfolio of – often innovative and locally created – off-grid solutions are also playing a key role in Kenya’s renewables programme.

Currently, Kenya’s energy mix relies heavily on climate-dependant, therefore erratic, hydro (48%) to produce much of the nation’s electricity. Fossil fuels account for an additional 38%, while geothermal provides 12%, bagasse 2% and wind 0.3%, according to the Kenya Renewable Energy Association.

This mix will change substantially when a raft of landmark projects come online, including the Lake Turkana Wind Project (*see right*), which in 2014 reached financial close.

Other recent landmarks include a \$2.2bn agreement to develop solar projects with combined capacity of 1GW. The deal between Canada-based SkyPower and the Kenyan Ministry of Energy is structured in four phases to be rolled out over the next five years. Social and economic impacts are critical components: the deal aims to

create more than 25,000 total job years and includes 200MW of fabrication and assembly facilities. SkyPower will also donate – under the Kenyan government’s guidance – 2m home solar kits comprising a solar panel and inverter, as well as LED bulbs, a fan, USB-charging capabilities and a radio. The agreement includes a \$173m commitment to education, training, and research and development.

General Electric Africa has signed up to a \$155m deal with Kipeto Energy Ltd to develop a 100MW wind farm in Kajiado County, 50km north of Nairobi. Kipeto Energy will build, own and operate the plant under the terms of a PPA signed with national utility Kenya Power. GE will provide 60 wind turbines and has signed a 15-year service agreement. Kipeto is owned by Africa Infrastructure Investment Managers, Craftskills Wind Energy International, the International Finance Corporation and the Maasai community of Kipeto. OPIC is the sole lender, agreeing to provide \$233m.

OPIC is providing a \$950,000 grant to Kenya-based renewable energy development company Akiira One Ltd to finalise preparation for a geothermal power project with an initial

generation capacity of 40MW. The project, to be sited next to the Olkaria geothermal fields, could ultimately produce up to 140MW. The grant will facilitate the procurement of consultants to complete technical and legal work required ahead of drilling.

In late 2014 Kenya Electricity Generating Company (KenGen) said it had added another 70MW of energy to the grid from the Olkaria geothermal project, as part of plans to increase output by 280MW during the year. A first 70MW was added in July, another in August and a third in September. Unit 5, the last phase of the single largest geothermal project in Africa, was commissioned in December 2014 and is now adding 140MW to the national grid according to KenGen.

KenGen said in its 2014 annual report that it planned to develop 700MW of geothermal power, plus two wind farms in Ngong and Meru with a total capacity of 120.4MW. Aeolus Kenya has contracted Iberdrola Ingeniería y Construcción to build a 61MW wind farm at Kinangop.

Kenya, through its rural electrification programme, is working to implement both grid extension and off-grid systems solutions.

Lake Turkana Wind

In July 2015, Kenya's President Uhuru Kenyatta officiated at the ground-breaking ceremony for the 310MW Lake Turkana Wind Power (LTWP) project, which stood out as one of the most impressive financial closes of 2014. The LTWP project company said in a statement that between 50MW and 90MW of capacity would be ready for commissioning by September 2016, with full commercial operation by June or July 2017.

Evacuation of power from the €623m (\$690m) project is dependent on the completion of a 428km 400kV transmission line being built by KETRACO using €110m (\$146.7m) concessional funding from the Spanish government and €32m (\$42.7m) from the Kenyan national budget. Power will be sold to the grid at 8.42c/kWh. (\$11.23USc/kWh)

The UK's Aldwych International, which will oversee construction and operation of the facility, is co-developer of the project as well as investor.

Businesses near the wind farm are expected to receive cheaper electricity tariffs similar to those for companies near the Olkaria geothermal sites. ■

Kenya plans to generate at least 5,000MW from hydro, geothermal, solar, wind and coal by 2016. The 2014-15 budget has allocated KSh43.6bn (\$497m) for more geothermal power, new transmission lines and rural electrification. According to finance minister Henry Rotich, KSh10bn (\$114m) has been allocated for development of geothermal energy, KSh23bn (\$262m) towards investment in power transmission to reduce technical losses, and KSh10.6bn (\$121m) to expand access to power in rural areas.

Among smaller-scale innovative solutions, Tropical Power Energy Group has brought online what it says is Africa's first grid connected biogas facility fed by gas from an anaerobic digester plant. The \$6.5m Gorge Farm facility, with installed capacity of 2.2MW, took less than 12 months to

Lake Turkana Financing	
Senior Debt	€436m (\$582m), of which
Tranche A – AfDB	€115m (\$153m)
Tranche B – ECA facility covered	€20m (\$27m)
Tranche B – ECA facility uncovered	€100m (\$133m)
EIB senior loan A	€50m (\$67m)
EIB senior loan B	€50m (\$67m)
Tranche C – DFI facilities: FMO (€35m – \$47m), Proparco (€20m – \$27m), ICCF (€30m – \$47m), PTA Bank (€10m – \$13m), Tridos (€6m – \$8m)	€101m (\$135m)
Mezzanine Finance	€62m (\$83m), of which
Subordinated debt: DEG (€20m – \$27m), EADB (€5m – \$7m), PTA Bank (€10m – \$13m), AfDB (€2m – \$3m)	€37m (\$49m)
ITF preference share	€25m (\$33m)
Equity	€125m (\$167m), of which
Aldwych	€38m (\$51m)
KP&P	€31m (\$41m)
IFU	€7.5m (\$11.3m)
Norfund	€16m (\$21m)
Finnfund	€16m (\$21m)
Vestas	€16m (\$21m)
Sandpiper	€0.5m (\$0.7m)
Total	€623m (\$831m)

construct, and the developer estimates its payback period to be around five and a half years.

Projects supported by the US Power Africa initiative's Beyond the Grid programme are emerging. The programme's Off-Grid Energy Challenge – a GE, USAID and US African Development Foundation initiative – offers \$100,000 grants to small-scale renewables projects in Power Africa's target countries. Eight Kenyan start-ups have now each received support for their projects.

Such programmes may be critical in providing the small-scale solutions required to improve Kenyans' access to electricity. With a national electrification rate of around 23%, access to electricity in rural areas is estimated at just 5%, which means that the vast majority of rural households cook with biomass or coal,

often with serious health impacts.

The government, in collaboration with development partners and the private sector is promoting the use of sustainable wood and biomass resources for cooking, and is also working on strategies for substituting renewable energy for kerosene in lighting applications.

Mibawa Suppliers provides pay-as-you-go lighting in rural western Kenya, supplying solar kits to Kenyans at a cost of KSh6,500 (\$74), which can be paid in instalments. The solar kits can also charge small electrical appliances such as mobile phones.

Afrisol Energy is developing biogas digesters in Nairobi's slums. The company has constructed one facility that converts faecal sludge into electricity for a primary school and around 30 households. ■

Annex 1 – Data Notes

1. General Remarks

ICA member commitments and disbursements should be viewed in perspective given the very different strategies and purposes of each member. While, for example, DBSA provides nearly 100% non-ODA loan-based funding, Canada, the EC, the EU-AITF, and the UK are pure ODA grant funders which means that their funding volumes are naturally much lower.

In describing the way ICA members deploy funds the distinction should be made between donor support that is attributed to them in this report and the considerable support bilaterals provide to multilaterals, which is not attributed to them in this report. For example, ICA Members such as UK, Canada, France, Germany, Japan and the US contribute to the AfDB's African Development Fund (ADF) and the World Bank's International Development Association (IDA).

Other contributions not captured in the report include those made by CDC, the UK's wholly government-owned DFI. According to CDC's annual review, its 2014 commitments to Africa were \$240.9m of which \$100.6m targeted the energy sector either through direct investments or via funds. CDC manages capital entirely provided by DFID.

This year's report covers data from the AfDB, DBSA, EU-AITF, EC, EIB, France, Germany, IFC (which together with the World Bank is described as the World Bank Group (WBG)), Japan, UK, and WB.

For the 2014 report, no data was received from the US, Germany's GIZ and DEG, all of which have provided data in one or more of the last three years.

2. Exchange Rates

The exchange rates used for conversions into US Dollars when contemplating 2014 data are the

averages of the respective currency of the year 2014 as reported in the publicly available African Development Bank Financial Information (<http://www.afdb.org/en/documents/financial-information/exchange-rates/>).

For ICA members the following exchange rates were used:

1\$ = 0.65652 AfDB Unit of Account (UA)

1\$ = 0.74979 Euro (€)

1\$ = 0.60536 British Pound (£)

1\$ = 1.09852 Canadian Dollar (C\$)

1\$ = 0.76775 South African Rand (R)

1\$ = 105.12881 Japanese Yen (¥)

3. Soft Infrastructure

As mentioned by some ICA members, the distinction between hard and soft infrastructure is sometimes difficult to make and might therefore not be fully accurate. Also the judgement of whether a part of the project is dedicated to capacity building or project preparation can sometimes be a challenge.

4. Project Specific Information

Information on projects completed in 2014 was provided by the AfDB, Canada, the EC, the EIB, the EU-AITF, France, Germany, the IFC, and Japan.

Project-level information about commitments and disbursements in 2014 were provided by the AfDB, Canada, the DBSA, the EIB, the EU-AITF, Germany, the IFC, and Japan.

5. Strategic Perspectives

The strategic perspectives provided in section 4.5 are based on interviews with selected ICA members.

6. Other Specific ICA Member Data Notes

AfDB

Overall AfDB data consists of data gathered from the Energy, Environment and Climate Change Department (ONEC), the Transport & ICT Department (OITC), the Private Sector Department (OPSM) and the Water & Sanitation Department (OWAS).

ONEC data reported includes the Transition Support Facility (TSF), the Nigeria Trust Fund (NTF), and the Middle Income Country Technical Assistance Fund (MIC TAF).

OWAS data includes RWSSI Trust Fund (RWSSI-TF), the African Water Facility (AWF) Trust Fund, the Multi Donor Water Partnership Program (MDWPP), the Nigerian Trust Fund, the Fragile States Facility (FSF), the Middle Income Countries (MIC) Fund, and the OPEC Fund.

OPSM data includes a Dutch Grant, the Clean Technology Fund, and the Funds for Africa Private Sector Assistance (FAPA).

DBSA

DBSA data includes South African operations, International Finance data, and data from the AFD/DBSA Project Preparations and Feasibility Studies Fund (PPFS).

EC

EC data consists of data from the European Development Fund (EDF, for sub-Saharan Africa countries) and from the Development Cooperation Instrument (for Northern Africa countries).

The EC stated that the consolidation of their interventions in 2014 is not yet fully approved by management. In consequence small discrepancies may appear between the figures in this report and figures in the EC's yearly report.

France

French data consists of data from AfD, Proparco and the Fonds Français pour

l'Environnement Mondial.

Germany

This year, German data consists only of KfW data whereas in the 2013 report data was also provided by DEG and GIZ. Since KfW stated that the figures provided by them do not include funds which are managed on behalf of other donors under delegated cooperation agreements, their contribution is likely underestimated.

Japan

Japanese data includes data from JICA (ODA portion) and JBIC (non-ODA portion).

Japan's soft infrastructure commitments also include funding for capacity building and other soft infrastructure spending.

EIB

The EIB stated that in the ACP region the Investment Facility managed by EIB is used to finance operations alongside EIB own resources.

WBG

Overall WBG data consists of data gathered from the WB and IFC.

WB figures comprise data from IDA/IBRD, Guarantees, the Global Environment Project, Carbon Offset, Special Financing, Recipient Executed Activities, and the Institutional Development Fund.

7. African National Government Budget Allocations

Data used for the 2014 budget allocations by 42 African countries is substantially drawn from official budget statements or expenditure frameworks or other official government documents. Figures for Egypt and Morocco are derived from a mixture of official documents and personal enquiries of government officials while data for Algeria was obtained entirely by personal enquiries of government officials.

The data reflect budget allocations not

outturns so the figures represent intended rather than actual spending on infrastructure. The choice of allocations rather than outturns is partly a matter of expediency given the relative lack of availability of outturn figures for 2014 and partly because budget allocations are essentially commitments and treated as such in this report.

There is significant potential for double counting in the data for budget allocations by African countries due to levels of support from sources whose commitments are reported elsewhere in this report.

Where possible, external funding has been excluded from budget allocations, but this has not been possible for every country's projects. Wherever possible, only capital expenditure has been captured and recurrent expenditure has not been included in the data. ■

Annex 2 - Credits and Acknowledgements

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African Infrastructure Investment Survey 2014

The ICA would like to thank the following organisations for their support and co-operation in promoting the 2013 ICA Survey of Private Sector Investors:

African Energy

www.africa-energy.com

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www.bcafrica.co.uk

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Norwegian-African Business Association –

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www.uschamber.com/africa

