



ICA

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



Annual Report



2007

About the ICA

The Infrastructure Consortium for Africa (ICA) was launched at the G8 Gleneagles summit in 2005. Leading African organisations and aid donors attended the inaugural meeting in London on 6 October 2005.

The Consortium's mission is to help improve the lives and economic well-being of millions of people across the African continent through support to scaling up investment for infrastructure development from both public and private sources. Many African countries lack the essential building blocks of economic progress – roads and railways (which are well maintained), access to electricity, the internet and mobile phones and water for drinking and production and sanitation.

The ICA also works to help remove some of the technical and political challenges to building more infrastructures and to better coordinate the activities of its members and other significant sources of infrastructure finance, such as China, India and Arab partners.

The ICA is supported by a small secretariat hosted by the African Development Bank. Members include the G8, World Bank Group, African Development Bank Group, European Commission, European Investment Bank and Development Bank of Southern Africa.

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Infrastructure Consortium for Africa (ICA) Annual Report, 2007

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Acronyms

| | | | |
|--------------|------------------------------------------------------|-----------------|-----------------------------------------------------------|
| AfDB | African Development Bank | JICA | Japan International Cooperation Agency |
| ADF | African Development Fund | JBIC | Japan Bank for International Cooperation |
| AER | Aid Effectiveness Review | KfW | Kreditanstalt für Wiederaufbau |
| AFD | l'Agence Française de Développement | LIBOR | London Interbank Offered Rate |
| AICD | Africa Infrastructure Country Diagnostic study | MCC | Millennium Challenge Corporation |
| AUC | African Union Commission | MDG | Millennium Development Goal |
| CAR | Central African Republic | NBI | Nile Basin Initiative |
| CDB | China Development Bank | NEPAD | New Partnership for Africa's Development |
| CDC | Central Development Corridor | ODA | Official Development Assistance |
| CDF | Comprehensive Development Framework | OECD | Organisation for Economic Co-operation and Development |
| CEMAC | Economic and Monetary Community of Central Africa | OMVG | The Gambia River Basin Development Organisation |
| CPIA | Country Policy and Institutional Assessment | PFI | Private Finance Initiative |
| DAC | Development Assistance Committee (OECD) | PPI | Private Participation in Infrastructure |
| DBSA | Development Bank of Southern Africa | PPIAF | Public-Private Infrastructure Advisory Facility |
| DFID | Department for International Development | PPP | Public-Private Partnership |
| DRC | Democratic Republic of Congo | PROPARCO | Promotion et Participation pour la Coopération économique |
| EASSy | Eastern Africa Submarine System | REC | Regional Economic Community |
| EC | European Commission | SADC | Southern African Development Community |
| ECOWA | The Economic Community of West African States | SSA | Sub-Saharan Africa |
| EDF | European Development Fund | SSATP | Sub-Saharan Africa Transport Programme |
| EIB | European Investment Bank | TWRM | Transboundary Water Resource Management |
| EPA | Economic Partnership Agreement | UAE | United Arab Emirates |
| EU | European Union | UDEAC | Union Douanière des Etats d'Afrique Centrale |
| EXIM | Export-Import | UEMOA | West African Economic and Monetary Union |
| GDP | Gross Domestic Product | UK | United Kingdom |
| GEF | Global Environment Facility | UN | United Nations |
| GtZ | Gesellschaft für Technische Zusammenarbeit | UNCTAD | United Nations Conference on Trade and Development |
| IBRD | International Bank of Reconstruction and Development | UNICEF | United Nations Children's Fund |
| ICA | Infrastructure Consortium for Africa | USA | United States of America |
| ICT | Information and Communication Technology | US\$ | United States Dollar |
| IDA | International Development Association | WHO | World Health Organisation |
| IFC | International Finance Corporation | | |
| ITU | International Telecommunication Union | | |

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OVERVIEW

i. Good infrastructure plays a leading role in economic development. Most African countries recognise the need for good and efficient infrastructure and are increasingly allocating more of their domestic budgets to roads, railways, power generation, airports, water storage and distribution and cables that allow access to the internet.

ii. The Africa Country Infrastructure Diagnostic (AICD) study estimates that annual infrastructure investment needs in Africa to be in the region of \$40 billion per year, with maintenance and operating costs also costing a further \$40 billion per year.

This 2007 ICA Annual Report has six main chapters:

iii. **Chapter 1 *Africa's Infrastructure Needs*** looks at the investment needs, current trends and key policy issues in each of the infrastructure sub-sectors. In the water sector the report finds a shortage of well prepared river-basin water resource projects ready for financing and few well functioning cross-border water institutions. Progress against the UN Millennium Development Goal of halving the proportion of people without access to water and sanitation remains severely off track in many countries.

iv. Introducing greater efficiencies into the existing transport network is important to help mitigate against the full impact of high fuel prices and to improve trade and regional integration. Effective institutions and reform are as important as new in-

frastructure to ensuring better maintenance of networks and to stimulating more private sector investment.

v. Africa is in the midst of an energy crisis with a chronic shortage of electricity supply in at least 25 countries in Sub-Saharan Africa. Investment needs in the sector are around \$25 billion per year (around 60% of total needs across all sectors). Removing borders through expansion of international transmission lines, greater trade and stronger regional bodies, will expand generating capacity and help to reduce overall capital and operating costs. The inefficiency of many of Africa's energy utilities generates substantial hidden costs - tackling this issue must be the highest priority in national energy programmes.

vi. There is not a major public or private funding gap to allow greater access to mobile telephones and to lay cables between countries to enable access to the internet. Governments need to provide the necessary policy framework for the private sector to meet its full potential.

vii. **Chapter 2 *ICA Member Support in 2007*** reports that total commitments by ICA members to infrastructure projects in Africa reached **\$12.4 billion in 2007** – this was an increase of 61% over the \$7.5 billion committed in 2006.

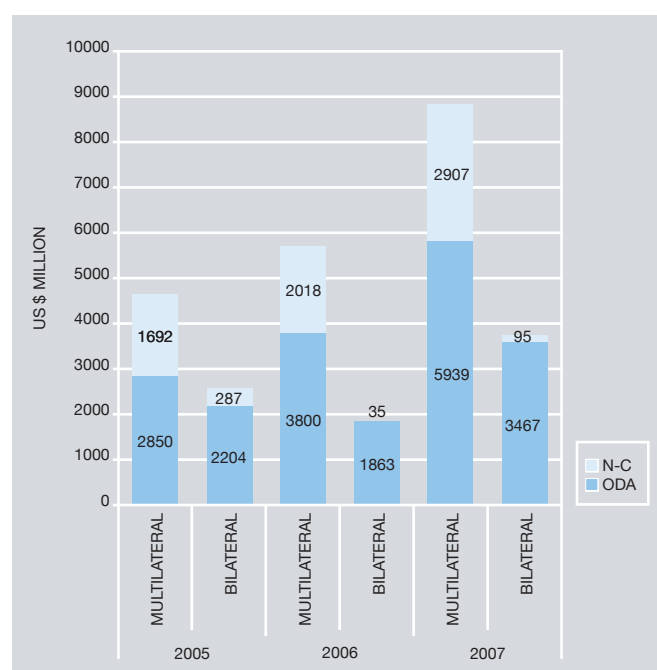
viii. Multilateral commitments increased by 50%, whilst bilateral commitments rose by 86% from \$1.9 billion in 2006 to \$3.56 billion. Multilaterals are still responsible for the majority of ICA commitments - 71% (75% in 2006)

ix. Official Development Assistance (ODA) commitments to infrastructure in sub-Saharan Africa increased by 59% to reach \$8.17 billion.

x. Record replenishments of multilateral funds (IDA, ADF and EDF), along with the launch of the EU-Africa Infrastructure Trust Fund in 2007 will guarantee that the upward trend in ICA commitments to the sector will continue.

xi. **Chapter 3 *Distribution of ICA member support*** analyses the distribution of commitments towards regional infrastructure and the water, energy, transport and ICT sectors. ICA support to projects which are regional in nature is strong and a growing. \$2.8 billion¹ represents a 23% share of total ICA commitments and an increase of \$1.9 billion from \$900 million in 2006.

xii. Total ICA commitments to the water sector were \$2.9 billion in 2007, an increase of 60% from the \$1.8 billion committed in 2006. Commitments to sub-Saharan Africa increased substantially from \$1.4 billion in 2006 to \$2.2 billion in 2007 – a rise of 58%.



ICA commitments to infrastructure projects in Africa 2005 – 2007 (US\$ million)



The big picture - minimum external financial support to African infrastructure in 2007

xiii. ICA members, led by the World Bank and the African Development Bank, have responded to Africa's energy crisis – the sector receives the most amount of ICA finance. Total ICA commitments to the energy sector were \$3.9 billion in 2007, a rise of around 60% from 2006. \$3 billion of those commitments were concentrated in SSA.

xiv. The transport sector received \$3.6 billion an increase of \$400 million from the \$3.2 billion committed in 2006. Multi-lateral commitments dominated - \$2.8 billion (78%) in 2007, with the EU and World Bank were the most significant with commitments of around \$1 billion each.

xv. **Chapter 4** focuses on the role being played *China, India and Arab Partners* in Africa's infrastructure development. Commitments by China, India and Arab partners are estimated at \$4.5 billion, \$700 million and \$2.6 billion respectively in 2007.

xvi. Large scale rail and hydropower projects dominate China's portfolio and are therefore complimentary to support from ICA members, which in the road and water sectors are more concentrated on roads and water and sanitation projects.

xvii. Coordination with China, India and Arab partners is a growing area of activity for the ICA. Staff exchanges and work on joint projects are underway between the World Bank and China EXIM Bank and between the AfDB and China Development Bank.

xviii. **Chapter 5 Private Sector Investments** reports that Africa received a minimum of \$20 billion from the private sector in 2007. Although around 50% of these investments will have been in North Africa and many more in South Africa the trend for the continent is upwards.

xix. There is a growing trend towards the use of Public-Private Partnerships (PPPs) with several governments setting up specialist units. A clear policy framework, a legal system that ensures contracts are effective and enforceable, a long-term investment plan are all critical factors to ensuring a successful PPP programme. All of this needs strong political commitment over the long-term with civil servants with the right skills to set up and monitor programmes. Given these conditions a significant rise in the number of PPPs should not be expected in the short-term.

xx. African countries can attract and use more private money if they significantly reduce red tape and other regulatory impediments to private sector activity. Although progress has been made in recent years, sub-Saharan Africa still lags behind other parts of the world.

xxi. Raising debt and equity capital to finance projects in Africa remains a challenge. With few exceptions, local capital markets in Africa are currently not suited to financing infrastructure although they offer the best solution to long-term sustainable infrastructure financing.

xxii. **Chapter 6 Trends** considers the impact and opportunities of rising economic growth rates, higher levels of external finance, high demand for commodities, increased fuel and food prices, changing weather patterns and population growth and urbanisation. It finds that Africa is receiving in excess of \$40bn per year for infrastructure from external sources.

¹ This figure is an underestimate since the EC could not fully report on commitments to regional projects for 2007

1. AFRICA'S INFRASTRUCTURE NEEDS

Drawing upon data from the Africa Infrastructure Country Diagnostic (AICD), a study being undertaken by the World Bank for the ICA, and other publications, this chapter reports on investment needs, current trends, and key policy issues. It is not intended to provide an in depth and thorough analysis of each of the infrastructure sub-sectors.

In order for Africa to become competitive, or realise its productive potential, massive improvements in infrastructure are needed. Good infrastructure has always played a leading role in economic development and is a precondition for, and an enabler of growth for private sector development and for trade. Building roads and railways which are well maintained boosts output and jobs. Countries with reliable energy and electricity services and low transport costs find it easier to trade and therefore achieve faster growth. Clean water and sanitation are essential for health which in turn is needed for labour productivity.

Most African countries recognise the need for good and efficient infrastructure and are increasingly allocating more of their domestic budgets to roads, railways, power generation, airports, seaports, water storage and distribution and cables that allow access to the internet.

The geographical, political and socio-economic challenges to providing effective infrastructure in Africa are often underestimated or mis-interpreted. For example, operation and maintenance costs will always be high in some regions due to high precipitation (93% of Africa is in the tropics); only around 20% of its people live within 100km of the coast (cf. 69% OECD & 42% Latin America); and colonialisation has left a high number of landlocked countries and small island developing states (SIDS).

There have been many recent estimates on the infrastructure investment needs in Africa. Perhaps the most referenced is the report of the Commission for Africa in 2005. The report estimated the continent's needs at \$20 billion a year investment. The estimate was based on World Bank calculations that infrastructure investments in sub-Saharan Africa should exceed 5% of GDP to achieve the UN Millennium Development Goals and an additional 4% of GDP should be added for operation and maintenance to ensure sustainability of infrastructural investment.

A more recent and comprehensive study based on the collection of country-level data – the AICD - will deliver its final report in late 2008. The report will show annual infrastructure investment needs in Africa to be in the region of \$40 billion per year, and maintenance and operating costs of the same magnitude, fourfold of the Commission for Africa estimate.

This should be set in context of what is happening in key emerging economies around the world. In 2007 Brazil launched a four year plan worth \$300 billion to modernise roads, power plants and ports. India plans to spend around \$500 billion over the next 5 years.

Table 1.0 Overview of Africa's infrastructure financing needs

| | CAPITAL EXPENDITURE | | OPERATING EXPENDITURE | |
|--------------|---------------------------|----------------|---------------------------|----------------|
| | US\$ BN. PA OVER 10 YEARS | PERCENTAGE GDP | US\$ bn. pa over 10 years | PERCENTAGE GDP |
| ICT | 0.8 | 0.1 | 1.1 | 0.2 |
| IRRIGATION | 0.7 | 0.2 | – | – |
| POWER | 23.2 | 4.2 | 19.4 | 2.4 |
| TRANSPORT | 10.7 | 1.7 | 9.6 | 1.5 |
| WSS | 2.7 | 0.4 | 7.3 | 1.2 |
| TOTAL | 38.1 | 6.6 | 37.4 | 5.3 |

Source: Africa Infrastructure Country Diagnostic (AICD), preliminary results, 2008

Water

Demand on water supplies is growing exponentially with population increase and economic activity. At the same time Africa's weather is changing. Some countries are experiencing long periods of drought, others have more rainfall falling over shorter periods of time, and higher average annual temperatures are occurring. Given these factors managing the continent's water resources in a sustainable way has become an important issue. Understanding and using scarce water resources wisely is vital.

Millions of people in Africa still have to rely on unsafe water and domestic consumption competes with water for commercial, agricultural and industrial activities. For example, the production of one kilogramme of wheat requires about 1,000 litres of water whilst it takes on average 16,000 litres to produce one kilogram of beef²; in the UK about 50% of all water use is for cooling power stations³. Achieving water access and enabling economic growth in Africa requires the construction of a wide range of water infrastructures: from dams to irrigation systems, toilets to water treatment plants, wells to distribution pipes and water monitoring systems to schemes to predict rainfall patterns and help protect biodiversity.

Sharing water – the need to adapt to climate variability

Transboundary Water Resource Management (TWRM) is the term most often used to describe the process of neighbouring countries working together to manage shared water resources. It begins at the river basin level and encompasses storage, containment, ecological balances, water conservation, flood management, drought mitigation, irrigation, navigation, hydro-power development and water for consumption. The continent has a number of river basins that cut across country borders. Understanding, monitoring and using water resources (both surface and groundwater) in a sustainable way and with good ecological and environmental safeguards is critical in order to:

- better understand what is happening to Africa's changing climate patterns;
- develop water storage facilities to protect people and assets against floods, drought and erosion;

- optimise the development of human activities amongst neighbour countries;
- make common plans for times of water scarcity.

The negative effect of flooding, soil erosion and drought is particularly severe for poor people, who have the least adaptive capacity and are the most vulnerable to climate change. These effects can already be seen:

- Droughts and floods over the period 1997 to 2000 in Kenya are estimated to have cost the country \$4.8 billion in infrastructure damage and lost agricultural production, representing 22% of GDP.
- Lake Chad surface declined from 22 902 km² in 1964 to a meagre 304 km² in 2001, mainly because of non-sustainable human activities adapted to climate variability.
- A recent analysis⁴ of long-term trends (1900 to 2005) indicates rising temperatures in Africa as a whole, and drying or decreased precipitation in the Sahel⁵, the Horn of Africa and Southern Africa.

Sub-Saharan Africa (excluding South Africa) has the world's lowest water storage capacity at around 43m³ per person per year and has developed less than 7% of its hydropower potential. North America, on the other hand, has a water storage capacity of 6150m³ per person per year and has developed 60% of its hydropower potential. Using the water storage capacity of South Africa (750 m³ per person per year) as a guide to other African countries, the World Bank estimates that Nigeria and Ethiopia alone have investment storage requirements of \$67 billion and \$46 billion respectively.

Monitoring stations, along with dams, reservoirs, and other water storage facilities are needed now if Africa is to adapt to increased climate variability.

Support to River Basin Organisations (RBOs)

With the exception of SADC and ECOWAS, the establishment of regional coordinating mechanisms for water resources at the level of the Regional Economic Communities (RECs), has not been achieved in the other sub-regions of Africa. Further work is required by RECs as the African Union's regional nodes of implementation.

² <http://www.waterfootprint.org>

³ South East England Development Agency – Taking Stock Fact Sheet 4: Energy and Water. http://www.takingstock.org/Downloads/Fact_Sheet4-energy.pdf

⁴ IPCC – Intergovernmental Panel on Climate Change, 2007.

⁵ The border of the Sahara desert - the transition between the Sahara desert to the north and the more fertile region to the south.

With so much of Africa's natural resources shared between countries, effective institutions that help to ensure equal benefits from cooperation are important. Only a few basin organisations (Nile Basin Initiative, Niger Basin and Senegal Basin) are currently implementing TWRM. These basins are preparing investment plans with similar plans in the pipeline for the Gambia and Volta basins. Many other river basins still suffer from lack of resources and above all of governance issues, for example on-going conflicts and the primacy of national agendas at the expense of regional cooperation.

Though support for transboundary water cooperation has significantly increased since 2002 only 17 out of the 59 sub-Saharan transboundary basins currently receive donor support⁶. Recently, donors pledged a total of \$1.4 billion to projects along the Niger River, including hydropower dams and irrigation. The donor conference was convened by the Niger Basin Authority. The Niger River is the third longest river in Africa, with a basin covering 1.5 million square kilometres. Similarly, the Nile Basin has been supported (about \$300 million) with sectoral investments in irrigation, power inter-connection and capacity building.

With the exception of the above leading examples, there is a shortage of well prepared river-basin water resource infrastructure projects ready for financing.

Water supply and Sanitation

At the current rate of progress, Sub-Saharan Africa (SSA) will miss the Millennium Development Goal (MDG) of halving by 2015 the proportion of people without access to safe water and sanitation by an entire generation for water and by more than two generations for sanitation⁷.

Water supply and sanitation (WSS) address the needs of the people where they live. The focus is therefore on access to water in terms of quantity, quality, affordability, and on the wastewater treatment. Preliminary results from the AICD study estimate the needs in the water supply and sanitation sector in Africa to \$10 billion per year over the next 10 years, 25% going to investment and the rest to maintenance and operating expenditure.

Water supply

SSA is the region of the world where, over the period 1990–2004, the number of people without access to drinking water increased by 23% - this was the finding of a comprehensive analysis by UNICEF and the WHO designed to assess the progress being made towards the water MDG⁸.

Although access to improved drinking water sources increased by 7% between 1990 and 2004 in SSA, the actual number of people without access to drinking water from an improved source increased by around 60 million – a result explained by lack of investment in new infrastructure and population growth. A more recent water supply and sanitation coverage assessment⁹ showed that only 56% of the population of Sub-Saharan Africa has access to safe water leaving approximately 340 million people without any access at all.

The picture is mixed across the continent with some countries making better progress than others – in general, access in rural areas still lags far behind urban areas – see table 1.1. More efforts are needed to decrease the backlog of rural people who remain unserved and reduce the health risks associated with the lack of improved drinking water infrastructure

Table 1.1 Water supply coverage in 1990 and 2004 in sub-Saharan Africa

| | 1990-POPULATION (THOUSANDS) | | | | 2004-POPULATION (THOUSANDS) | | | |
|--------------|-----------------------------|---------|------------|----------|-----------------------------|---------|------------|----------|
| | TOTAL | SERVED | NOT SERVED | % SERVED | TOTAL | SERVED | NOT SERVED | % SERVED |
| URBAN | 144 992 | 119 508 | 25 484 | 82 | 267 516 | 215 121 | 52 395 | 80 |
| RURAL | 372 259 | 135 527 | 236 732 | 36 | 467 135 | 197 169 | 269 956 | 42 |
| TOTAL | 517 251 | 255 035 | 262 216 | 49 | 734 641 | 412 290 | 322 351 | 56 |

Source: WHO/UNICEF JMP, 2006

⁶ Donor Activity in Transboundary Water Cooperation, GTZ 2007

⁷ Calculation based on UNICEF 2006

⁸ UNICEF and WHO Joint Monitoring Report 2006

⁹ UN MDG Africa Working Group, 2008

in these areas. Most city dwellers who do not obtain their water from a utility get it from wells and boreholes.

Millions of women and children can travel long distances each day to fetch water in Africa. This is both a physical burden on women, and an economic burden on the countries concerned, as women do not then have time for more productive activities and children miss out on vital education.

Good policy, new investments in water-related infrastructure, the collection of bills, and efficient operators are common success factors of the countries most advanced in achieving water MDG target.

Sanitation

According to the findings of the AICD, nearly all countries in Sub-Saharan Africa are likely to miss the Millennium Development Goal for access to improved sanitation.

Every day, it is estimated that 2000 children under five years of age die from diarrhoeal diseases in Africa¹⁰. Sanitation, vital for human health, generates economic benefits and contributes to dignity and social development. Over the period 1990–2004 UNICEF and the WHO report that the number of people without sanitation in SSA increased by over 30%. If the trends continue up to 2015, sub-Saharan Africa will end up with 91 million more unserved people than in 2004.

With an average coverage in developing regions of 50%, sub-Saharan Africa has the lowest coverage at 37%, followed by Southern Asia (38%) and Eastern Asia (45%) – see table 1.2. Coverage varies from 53% in urban areas to 28% in rural areas. The MDG target for 2015 is 66% coverage.

Urban sanitation is a particular challenge in slum areas. The problem is complex because of high population density, poor urban infrastructure and lack of secure land tenure and habits such as open defecation.

The Second African Conference on Sanitation and Hygiene held in South Africa in February 2008 resolved to put sanitation and hygiene at the top of the development agenda. An Action Plan was agreed upon that spells out the critical actions to be undertaken by 2010 in order to meet the sanitation MDG.

Communities have an important role to play to implement and waste disposal processes with cheap, local and sustainable solutions, which teach about the importance of basic hygienic. More support is needed to incentivise and to educate these communities.

There are successful examples of the public partnering with the private sector to deliver water and waste management services in Senegal, Morocco, Niger, and Algeria.

Table 1.2 Sanitation coverage in 1990 and 2004 in sub-Sahara Africa

| | 1990-POPULATION (THOUSANDS) | | | | 2004-POPULATION (THOUSANDS) | | | |
|--------------|-----------------------------|---------|------------|----------|-----------------------------|---------|------------|----------|
| | TOTAL | SERVED | NOT SERVED | % SERVED | TOTAL | SERVED | NOT SERVED | % SERVED |
| URBAN | 144 992 | 75 757 | 69 235 | 52 | 267 516 | 142 241 | 125 275 | 53 |
| RURAL | 372 259 | 88 609 | 283 650 | 24 | 467 135 | 129 192 | 337 933 | 28 |
| TOTAL | 517 251 | 164 366 | 352 885 | 32 | 734 641 | 271 433 | 463 208 | 37 |

Source: WHO/UNICEF JMP, 2006

¹⁰ UNICEF and WHO Joint Monitoring Report 2006

Transport

The poor and inadequate state of much of Africa's transport network is holding many countries back from competing effectively on the global market. In East Africa, for example, where most goods and products are moved using surface transport, physical and non physical barriers contribute to about 40% of value of goods imported to Uganda and the other landlocked countries in the region.

Roads

Production, trade and daily life require the movement of goods and people. In Africa roads are the most important mode of transport. They carry 80 to 90% of the region's passenger and freight transport and provide the only form of access to most rural communities. Transport costs can comprise as much as 77% of the value of African exports for some of the continent's poorest countries.

Rural

Most African countries have a good network of rural roads – the problem is improving and maintaining their quality over time¹¹. Rural roads carry only 20% of the total motorised traffic, but provide access to the majority of population in Sub-Saharan Africa countries¹². Most local rural transport involves walking or carrying and moving people and goods distances of around 20-50 km can be particularly difficult. The impact on women is particularly profound.

Management and financing arrangements for rural roads are often unclear with too many agencies involved with inadequate financial and human resources.

Urban

Transport in the urban areas of many African countries is characterised by declining standards of public transport, massive growth in the use of private vehicles (minibus, cars and motorcycles), inadequate and deteriorating infrastructure, and poor facilities for pedestrians and cyclists.

In 2000, one in three Africans lived in a city; by 2030, one in two will do so. In most cities, authorities are having difficulty meeting the service demands of new urban residents, particularly the poor. Expanding cities often managed by different local governments greatly complicates the task of planning, regulating, and operating urban transport services¹³.

Missing regional links

Proximity to markets, goods that arrive on time, competitiveness of logistics services, efficiency of cross-border operations, are all issues that govern the ability of any given country to benefit from trade growth in the global economy. This is particularly true in Africa which is home to half of the world's landlocked developing countries, and where the need to facilitate greater intra-African trade and international trade is acute.

UNECA and the AfDB estimate that a total funding requirement for the completion of key missing transport links is around \$4.3bn.

Facilitating Trade and Regional Integration

Africa's geography and its fragmented markets make regional integration a development imperative; and a key prerequisite for trade and increased competitiveness. In addition to developing well functioning road and rail corridors linking sea ports to the landlocked hinterland, making the existing transport network more efficient is essential.

The Aid for Trade initiative led by the World Trade Organisation helping to put in place 'trade-related infrastructure in Africa. This includes transport corridors and information systems and modern customs facilities at borders. The Aid for Trade initiative provides new opportunities to operationalise the Almaty Programme of Action (APoA) for landlocked countries that is coordinated by the United Nations.

Institutions

Whilst there is a renewed momentum for a more pragmatic approach to regional integration the importance of transport

¹¹ AICD 2008

¹² SSATP 2007

¹³ *Stuck in traffic: Urban transport in Africa*, Ajay Kumar and Fanny Barrett, AICD, 2007

¹⁴ *Corridors can be defined as a collection of routes linking several economic centres, countries and ports. While some are only road transport corridors, most of them include more than one mode of transport*

corridors¹⁴ to enhancing interconnectivity and increasing trade in Africa is now widely accepted by governments and development partners.

Some of the contributory factors to the problems faced along corridors can be traced to the absence of appropriate institutions which are able to help remove obstacles to the movement of people and goods. Corridors with corridor management institutions have shown significant improvements in their operations. The institutions have been instrumental in facilitating dialogue between corridor stakeholders and harmonising procedures and documentation used in transport and transit operations along the corridor, resulting in reduced transit time and cost¹⁵.

One-stop-border posts

Many road and rail passengers and transporters of goods reaching frontier crossings in Africa are plagued by congestion, duplicated efforts and delays in the processing of goods and people. At the Chirundu crossing between Zambia and Zimbabwe average transit times for trucks for north bound traffic range from 26 hours to 46 hours¹⁶. The border has over 15 government agencies in total for both governments enforcing various pieces of legislation.

In southern Africa the Regional Trade Facilitation Programme (RTFP) is one strategic response to the challenge of improving trade performance. One Stop Border Posts (OSBP) are a key feature of the programme. For example, harmonising customs clearance procedures between two different juxtaposed facilities at the border crossing point and incorporating agencies between two countries within an integrated facility will reduce the time spent on border procedures. Chirundu OSBP is a pilot programme for the southern region with others to follow. In East Africa an OSBP at Malaba between Kenya and Uganda aims at increasing the efficiency of rail traffic on this the busiest intersection on the Northern Corridor¹⁷. Burkina Faso/Ghana, Mali/Burkina Faso and Senegal/Mali have also all signed OSBP agreements.

Operation and Maintenance

Road infrastructure has experienced a huge backlog of deferred maintenance giving rise to increased major rehabilitation and at times total reconstruction. Too often the same roads end up being rebuilt over and over again. Poor road

quality leads to slower vehicle operating speeds and higher costs of vehicle maintenance.

Under the Road Management and Financing theme (RMF) of the Sub-Saharan Transport Policy Program (SSATP) around 30 countries in SSA have established Road Funds with funding provided by fuel levies dedicated for road maintenance managed by a board including representatives of road users (so called second-generation road funds). On average, however, these funds only cover about half of the requirements with continuing reliance on public funds needed. With improved fiscal situations in many African countries, providing for road maintenance could become less of an issue in terms of budget allocations and/or increases in fuel maintenance levies to meet network needs, although much effort is still necessary to sustain the gains made. AICD's cross country analysis¹⁸ has shown that, in addition to establishment of a road fund, creation of a specialised road agency increases the coverage of road maintenance as well as the percentage of roads in good condition.

Output-based maintenance systems where companies are paid to maintain roads to agreed contractual standards are gaining pace with about a dozen countries either experiencing, or about to engage in these new, innovative contracts.

Roadblocks

Multiple barriers, long delays, and illegal payments at road blocks continue to increase transport costs and hinder trade in some parts of the continent, in particular in West and Central Africa. In the West Africa region ECOWAS and UEMOA¹⁹ are leading efforts to resolve the problem of informal payments at roadblocks. Together they found that in Senegal for every 100 kilometres travelled, drivers paid on average \$19 in bribes to get past more than seven checkpoints. The 900km drive from Ouagadougou, Burkina Faso to Bamako, Mali, was the most expensive in the region. Drivers reported paying on average \$128 in bribes at 25 checkpoints. In East and Central Africa new regional projects for facilitating transit transport have started and are expected to lead to the removal of roadblocks and an overall reduction in transit times and costs.

¹⁵ *Institutional Arrangements for Transport Corridor Management in Sub-Saharan Africa, SSATP, 2007*

¹⁶ *Regional Trade Facilitation Programme, 2007*

¹⁷ *The Northern Corridor is a rail and road network that links Kenya to the Great Lakes countries of Uganda, Rwanda, Burundi, Southern Sudan and the Democratic Republic of Congo.*

¹⁸ *African Infrastructure Country Diagnostics (2008), Presentation at 4th ICA annual meeting in Tokyo*

¹⁹ *Study funded by USAID's West Africa Hub*

Road Safety – Africa's Hidden Epidemic

Africa has the world's most dangerous road network.

In Kenya more than 75% of road traffic casualties are amongst economically active young adults while pedestrians and passengers in mass transportation account for 80% of all fatalities. The economic impacts alone are striking – estimated to be 5% of GDP in Kenya, 1% in South Africa and 2.3% in Zambia and Botswana. The Commission for Global Road Safety forecast that road traffic fatalities will increase by 80% by 2020 in Sub-Saharan Africa by which time it will be the **second leading cause of death for the 5 to 44 age group**.

Measures to improve road safety have not kept pace with rapid motorisation. In most countries the institutional framework is weak and where National Road Safety Councils exist, they are dysfunctional. Around 16 African countries²⁰ have established lead institutions but most are yet to register sustainable reductions in road crashes. Ministers for Transport and Health meeting at the African Road Safety Conference in Ghana, February 2007, adopted the Accra Declaration. The declaration contains a number of objectives aimed at reducing road traffic fatalities by half by 2015.

Recognising the scale of the problem the World Bank has created the Global Road Safety Facility. It began operations in 2006 with initial funding of \$5m each from the World Bank and the Fédération Internationale de l'Automobile (FIA) Foundation. At the ICA's 'Financing Transport for Growth Meeting' Tunis, December 2007, the Commission for Global Road Safety referred ICA members to the recommendation from their recent 'Make Roads Safe' report to allocate a minimum 10% of all road infrastructure investments to safety.

Rail

Rail traffic has been declining for decades due to poor management and marketing, old and dilapidated lines and equipment through lack of investment. The total rail network - made up of a little over 89,000km on a continent with a surface area of about 30 million square km - gives sub-Saharan Africa a rail system with a mean density of 2.9 km per 1,000 square km - one of the lowest in the world. Sixteen African countries do not have railway lines at all or sections of international lines. It is neverthe-

less very important in regions that rely completely on rail such as Southern and Western Sudan (where there are no roads).

Railway concessioning, in an attempt to attract the private sector, has had mixed results since the mid-1990s. This reflects the complexity, cost and risk of attracting the private sector to SSA. The poor state of many national railways has acted as a deterrent to the small field of qualified bidders. In addition, as a result of deregulation in some countries railways have lost the ability to compete with flexible and more cost-effective road freight operators – making up ground will be difficult.

Concessioning is now gathering pace again, largely with freight rather than passenger services. However the Kenya-Uganda railway concession concluded in 2007 is already showing signs of stress. That the extent of traffic increase has not materialised illustrates the problems remaining in the sector.

Substantial new investment from Asian countries has already emerged in Angola, Nigeria, Sudan, Ghana and Zambia, though on the downside this can lead to non-competitive government to government contract awards. It remains to be seen what impact, if any, this substantial new investment will have on regional inter-connectivity, where except in Eastern and Southern Africa, railway networks are mostly independent.

Ports and Maritime

The international shipping container business is growing. A fundamental obstacle inhibiting further growth and efficiency in this sector is the lack of port infrastructure capacity. This is a problem common to major ports in Asia, the US, Europe and Africa. Southern Africa has experienced a + 431% change in general cargo ('000 tonnes) since 2005, West Africa around + 164%²¹. Port congestion is common in African ports and a roadblock to progress. Increased capacity and greater efficiency are the two solutions.

A study on 73 ports in SSA as part of the Africa Infrastructure Country Diagnostic has concluded that capacity additions and institutional reform must be fast-tracked to realise potential. Only two countries have adopted the internationally favoured Landlord Port Model which aims to strike a balance between public (Port Authority) and private (port industry) interests. Whilst some countries are undertaking new National Port Masterplans not all address institutional reform and there is no evidence of independent regulation. Institutional reform is a prelude to private sector investment – without it the risk profile is perceived to be too high.

²⁰ Ghana, Eritrea, Ethiopia, Cote D'Ivoire, Rwanda, Zambia, Malawi, Mozambique, Niger, Benin, South Africa, Tanzania, Botswana, Nigeria, Uganda and Kenya

²¹ ICA Meeting on 'Financing Transport for Growth', Tunis December 2007

New developments must also be coordinated as any port is only as good as its interfacing infrastructure. South Africa is the only country in SSA to benefit from developed road and rail.

In North Africa the Tunisian Government intends to construct a deep seaport at Enfidha in the form of a full Build Operate Transfer (BOT) to take advantage of the growth of container trans-shipment traffic in the Mediterranean basin. A call for expression of interest was published in December 2007.

Africa's inland waterways have long been mooted as part of the solution to the continent's transport woes. Navigable rivers and lakes have need of far less investment and infrastructure. Yet relatively little effort has been put into making the most of this African natural resource over the past 40 years.

The governments of Zambia, Malawi and Mozambique signed an agreement in 2007 to promote shipping on the Zambezi-Shire water system. COMESA and the EC have agreed to fund a full feasibility study of the project. The project will examine re-opening of the Shire and Zambezi Rivers to navigation in order to provide a direct waterway transport system between Nsanje in Malawi and the port of Chinde at the mouth of Zambezi on the Indian Ocean a distance of approximately 238 km – most goods from Malawi currently travel 1,200km. In addition, the project will provide a multi modal inland transport linkage for Malawi and within the region.

Air Transport

Some African airports are seeing record levels of investment. In Egypt, Aéroports de Paris Management Group (ADPM) recently took over the management of Sharm El Sheikh-Ophira Airport's new 4.5 million passenger-per-year capacity terminal. In 2007 the Turkish company TAV won the contract to build and operate a new 5.5 million passengers-per-year airport in Enfidha, Tunisia. In Senegal a consortium of companies recently won a 25-year operating contract for the planned new 5 million passengers-per-year capacity airport in Dakar, Senegal. Some airlines are also thriving – Ethiopian Airlines has doubled passenger numbers from 1 to 2 million over the past 3 years, with revenue growing from \$350 million to \$800 million over the same period.

Although countries in Africa vary widely in their needs in the air transport sector air safety and security concerns remain general constraints to growth in many countries – infrastructure is not at the heart of the problem. Africa's share of the world air

traffic is only 4.5 %, but its share of the accidents was 25% in 2005²². The safety problem is more one of pilot capability, safety administration and air traffic facilities. Making Africa's airports and airlines safe is a big issue. In 2006, the European Union announced an aircraft 'black list.' It banned 74 African airlines (from international list of 91) from landing at European airports, after declaring them unsafe against international standards. In an important effort to improve performance the African Civil Aviation Agency was set up in 2007 specifically to improve safety in the industry. A major challenge will be to harmonise regulation on the continent.

Just as many of Africa's roads and railway do not encourage cross-border trade national air carriers too have largely failed to adequately connect the continent's main cities. African countries have been pursuing liberalisation of intra-African air transport as stipulated in the AU's Yamoussoukro Declaration since 1999 but despite repeated attempts, progress with implementation has been slow because of the desire to protect individual country interests. While the Yamoussoukro Declaration is far from being implemented, the kind of cross-border competition that had previously been envisaged for the continent will not take off.

African airlines are modernising their fleets. At the end of 2007, there were around 150 aircraft on order for African airlines, the highest figure for many years. This is partly the result of a desire to meet increasingly stiff international safety regulations²³. New aircraft, a rise low cost airlines flying to the continent, and the launch of new services will help to create a more comprehensive network of air travel across Africa.

Investment Needs

The total requirements for Africa (to cover both investment and maintenance costs) are estimated to be \$14.2bn per year²⁴. Rural connectivity represents the largest portion (about 50%) of the total expenditure requirement in transport infrastructure with predictions based on raising the Rural Accessibility Index²⁵ to 50% (from current 34%) – see table 1.3.

²² OECD & AfDB (2006), *African Economic Outlook*

²³ *Africa Business*, March 2008

²⁴ AICD study, 2007

²⁵ RAI = percentage of rural population living within 2km of an all season road

Table 1.3 Financing requirement for transport infrastructure

| TITLE | | | | | | |
|-----------------------|-----------------------|-----------------------|--------------------|--------------------|-----------------------------|---------|
| US\$ MILLION PER YEAR | REGIONAL CONNECTIVITY | NATIONAL CONNECTIVITY | RURAL CONNECTIVITY | URBAN CONNECTIVITY | AIRPORT, PORTS AND RAILWAYS | TOTAL |
| BENIN | 25.5 | 25.2 | 85.4 | 14.6 | 26.7 | 177.4 |
| BURKINA FASO | 40.6 | 37.9 | 197.6 | 11.8 | 13.3 | 301.2 |
| CAMEROON | 78.8 | 62.2 | 281.1 | 12.5 | 52.5 | 487.1 |
| COTE D'IVOIRE | 47.6 | 124.6 | 155.1 | 24.4 | 72 | 423.7 |
| CONGO-DRC | 155.8 | 196.3 | 968.7 | 29.6 | 70.5 | 1 420.9 |
| ETHIOPIA | 89.2 | 66.7 | 457.7 | 38.1 | 27.4 | 679.1 |
| GHANA | 53.6 | 65.7 | 173.5 | 41.8 | 58.4 | 393 |
| KENYA | 71.9 | 80.5 | 215.3 | 72.4 | 133 | 573.1 |
| LESOTHO | 0.1 | 24.3 | 8.3 | 2.6 | 29.7 | 65 |
| MADAGASCAR | 62.3 | 90.1 | 490.4 | 16.9 | 31.2 | 690.9 |
| MALAWI | 30 | 38.8 | 70.2 | 10.2 | 21.6 | 170.8 |
| MOZAMBIQUE | 97.1 | 49.8 | 383.6 | 22 | 67.2 | 619.7 |
| NAMIBIA | 91.8 | 25.3 | 250.9 | 3.3 | 59.5 | 430.8 |

Source: Africa Infrastructure Country Diagnostic, 2007 (preliminary findings)

Box 1: Transport – The CEMAC Trade Corridor Project

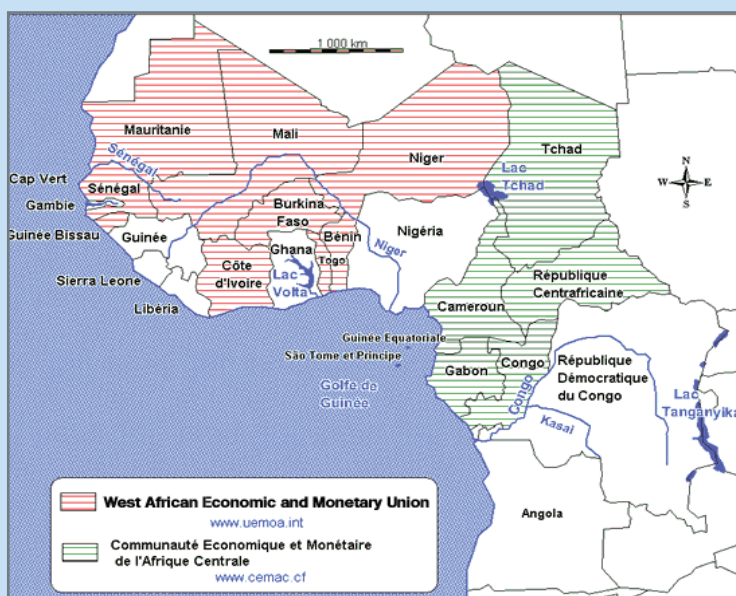
Background

To improve the efficiency of trade and transport activities in the CEMAC²⁶ region the CEMAC Trade Corridor project was approved by member states in 2006. Transport costs in central Africa are among the highest on the African continent²⁷. For Chad and Cameroon, these costs represent approximately 52% and 33% of the value of exports respectively. Before the CEMAC Transport and Trade Facilitation project freight transport from Douala in Cameroon, the main port and regional gateway, took 15 days to N'Djamena in Chad and 10 days to Bangui, Central African Republic. Port delays could add up to an additional 28 days.

The goal of the project is to facilitate efficient regional trade among CEMAC member states and improve access to world markets.

Role of involved parties

Good collaboration between donors was a key for effective project preparation. The project is funded through parallel financing arrangement by the African Development Bank (AfDB), the European Commission (EC), the Agence Française de Développement (AFD) and the World Bank (WB). At project preparation stage, AfDB and WB formed a joint framework to share and exchange technical expertise for the project design. An informal consultation group was formed and an MOU was prepared between these four donors. At regional level, the three participating countries, Cameroon CAR and Chad, formed a steering committee using the CEMAC framework for project coordination. At country level, a lead ministry was appointed to coordinate multi-sector issues with other line ministries and parastatals.



Funding and timelines

The project is at early stage of its implementation and only two donors have concluded funding agreements. In June 2007, the World Bank approved a \$201 million financial package for the three-country project. In February 2007, the AfDB signed \$67 million grant agreements with CEMAC and the Central African Republic and will to sign another loan agreement for \$76 million in 2008.

²⁶ Comprised of Cameroon, the Central African Republic, Chad, the Republic of Congo, Equatorial Guinea and Gabon

²⁷ www.worldbank.org

Energy

Africa's Power Crisis

There is a chronic shortage of electricity supply in at least 25 countries in SSA including highly publicised power outages in South Africa. At 68,000 megawatts (MW) the entire generation capacity of the 48 countries of Sub-Saharan Africa is no more than that of Spain.

As a result of under-supply 77% of households in SSA are without electricity depriving them of a host of basic services such as lighting and directly restricting progress on the MDGs – universal access on current trends is at least 50 years away²⁸. In rural areas the picture is worse with only 12% of households having access to electricity.

There is also a negative impact on economic growth. 48% of firms currently identify deficiencies in electricity infrastructure as one of the major obstacles to doing business (compared to 40% who identify corruption²⁹). Power outages in Africa are reported to occur, on average, 56 days per year which costs manufacturing companies 5% to 6% of their revenue, while the informal sector experiences about a 20% loss in revenue per year. The situation will get worse if rising urban demand is not met.

Electricity tariffs in most developing countries range from about US\$0.04 to US\$0.08 per kilowatt hour, however in SSA costs average of US\$0.13 per kilowatt hour; West Africa, a region without much access to hydropower, pays as much as \$0.20/kWh. Inefficient generation technology, badly maintained generators and high petroleum prices are all contributing factors to these high electricity costs.

A significant amount of this generating capacity is not in a suitable and usable condition and results in many firms having to operate their own diesel generators at extremely high costs of around \$0.40 per kilowatt hour. Around 20% of Africa's installed power generation capacity is now emergency generation.

The main causes of the crisis are lack of long-term lack of planning,, insufficient investment, poor maintenance, corruption, and the inefficiency of power utilities. In the short-term, high economic growth, droughts, conflict and rising oil prices have accelerated the pace of the problems.

In South Africa no tangible investments in generation capacity have occurred in the last 20 years. Increased demand for

electricity on the back of strong economic growth, increased mining activities, spurred on by rising commodities prices have resulted in supply problems. In neighbouring Mozambique, production and exports of aluminium will be lower this year due to the electricity shortages in South Africa.

To address the situation, the SAPP is presently in the process of implementing short-term generation projects that will add an additional 4,000 megawatt to the SAPP grid. Most of these projects are in South Africa and Zambia and should be completed before 2010. So far 1,185 megawatt has been commissioned in the region with annual average planned new generation capacity about 3,327 megawatt.

Nigeria is one of the countries most affected by the energy crisis despite the fact the country accounts for around 10% of global oil output and is important for economic growth of the region, A government committee is investigating why around \$10 billion of investment in the energy sector has failed to end power outages in the country. Natural gas that is currently flared up during oil production could by itself cover a substantial proportion of the country's power needs.

Drought has reduced power supply in hydro-dependent East Africa and conflict has damaged infrastructure across SSA.

Regional Power Trading

African borders limit market size through political and regulatory barriers to trade and through physical barriers. They also hinder the siting of generation capacity at lower cost and greener locations in countries with low energy demand. In doing so, borders push up generation costs and prices, reducing margins and incentives for investment. Removing borders through expansion of international transmission lines, greater trade and stronger regional bodies would expand generating capacity and reduce overall capital and operating costs. For example, electricity generation using fossil fuels could take place near ports considering that transmission of power is cheaper than transporting high volumes of coal in-land by road and rail. Regional power pools are improving cooperation and trading but progress is slow and they have not created the needed open competitive power markets.

The Economic Community of West African States (ECOWAS) has two main ongoing energy projects, namely the West African Power Pool (WAPP) that aims to connect all the

²⁸ *Africa Infrastructure Country Diagnostic, 2008*

²⁹ *UN MDG Africa Working Group, 2007*

electricity grids of member countries and the West African Gas Pipeline project (WAGPP) that aims at connecting three countries to Nigeria's natural gas supply. In addition, there is the West African Solar Energy Project (CILES) that undertakes several renewable energy projects in nearly all the countries in the Sahel.

Governments and companies from the Central Africa Power Pool (CAPP) countries are considering the options of strengthening power networks with the Inga site in parallel with the rehabilitation of existing power plants for recovering their full capacity. Development of the Inga hydropower sites has the potential to generate around 40,000MW in total (total current total installed capacity in SSA is around 68,000MW). Its great potential relies mainly on building new power plants and interconnection lines designated as 'power highways' originating from the Inga sites for supplying the various African sub-regions. Despite potential the development of Inga will take some considerable time as the project is fraught with political, security and institutional challenges.

Within the Eastern Africa Power Pool (EAPP) set up in 2005, Ethiopia with its abundant hydro resources is playing a significant role. Ethiopia's planned hydropower projects up to 2015 total additional capacity of about 3 600 megawatt against the current installed capacity of 810 MW³⁰.

The inter-connectivity of Southern Africa (SADC) is more advanced. The Southern African Power Pool (SAPP) is well established and some countries in the region benefit from power sharing arrangements.

Poor Utility Performance

The inefficiency of many of Africa's energy utilities generates substantial hidden costs. Mis-pricing, low rates of revenue collection, and losses in transmission due to ageing infrastructure and theft, can account for up to 4.5% of GDP³¹. With some countries spending a significant amount of their infrastructure budgets on power the result of these inefficiencies is that most expenditure goes on operating costs leaving no resources left over to invest in new generation capacity. Tackling these issues, which can bring rapid benefits in increased revenues and lower costs with minimal investments, must be the highest priority in national energy programmes.

Clean Energy

There are abundant and untapped energy resources across the continent, including hydropower and geothermal energy,

both carbon-free sources. Over 80% of Africa's electricity is produced from fossil fuels, in the north mainly gas and in the south, coal.

Africa currently exploits around only 8% of its possible gross hydropower. The Grand Inga project alone has the potential to add 40,000MW. But at an estimated \$50bn guaranteed demand through regional transmission capacity will be critical. The viability of hydro generation triples as the oil price triples.

Significant geothermal resources exist along the Rift Valley in Eastern Africa, roughly 3,700 miles in length and spanning Eritrea, Ethiopia, Djibouti, Kenya, Uganda, and Zambia. To date only Kenya has exploited the resource. Kenya's energy utility KenGen has built two plants, Olkaria I (45 MW) and Olkaria II (65 MW), with a third private plant Olkaria III (48 MW). Kenya hopes to get 20% of its energy from geothermal sources by 2017.

Several large-scale solar power facilities are under development in Africa including projects in South Africa and Algeria. Its greatest potential in Africa may be to provide power on a smaller scale and to use this energy to help with day to day needs such as small-scale electrification, desalination, water pumping, and water purification.

A growing market in carbon credits to cut greenhouse gas emissions may become a tool to help Africa's poor although currently the continent does not benefit. Under the Kyoto Protocol's Clean Development Mechanism (CDM), emissions by developed countries are capped, forcing them to fund cuts in poor countries through buying certified emission reduction permits to emit greenhouse gases. China and India dominate sales to rich nations. African organisations or individuals could develop projects to reduce carbon emissions, selling the emission cuts to governments or companies in developed countries. Doing this in a cost-effective way would involve a greater role for regional power pools.

Investment Needs

To achieve 35% electricity access by 2015, sub-Saharan Africa (excluding South Africa) would need to add about 3000 megawatts of new generation capacity and have to connect 3 million new households per annum.

This would require a total estimation cost of \$47.8 billion each year (shared almost equally between investment and operations and with about two-thirds of the cost from power

³⁰ *Ethiopian Electric and Power Corporation, EEPSCO, 2007.*

³¹ *AICD, 2007*

generation needs) equivalent to 6.7% of sub-Saharan Africa's GDP, which is greater than the current spending (an average 3% of GDP) on power.

Table 1.4 below shows estimated year by year power sector expenditure requirements until 2015, which is the MDG target.

Table 1.4 Annual power sector expenditure requirements to 2015

| US\$ BILLION PER YEAR | TOTAL | INVESTMENT | OPERATING EXPENDITURE | GENERATION | TRANSMISSION & DISTRIBUTION |
|-----------------------|-------|------------|-----------------------|------------|-----------------------------|
| CAPP | N/A | N/A | N/A | N/A | N/A |
| EAPP | 13.2 | 6.6 | 6.5 | 10 | 3.2 |
| SAPP | 17.7 | 9.4 | 8.3 | 11 | 6.7 |
| WAPP | N/A | N/A | N/A | N/A | N/A |
| TOTAL (EST.) | 47.8 | 24.7 | 23 | 32.4 | 15.3 |

Source: Preliminary results Africa Infrastructure Country Diagnostic, 2008

Box 2: Energy – Bujagali Hydro-power project ³²

Background

Uganda's macroeconomic performance is threatened by an acute electricity crisis which is affecting its rate of economic expansion. In 2006, only 5% of the population had access to electricity, resulting in one of the lowest per capita energy consumption rates in the world. The chronic power shortages are caused by increased demand, a prolonged period of drought, an unreliable distribution system and delays in commissioning additional generation capacity.

The Bujagali project aims to provide least-cost power generation capacity that will eliminate power shortages. The project will result in a 250 Megawatt hydropower facility on the Victoria Nile and will address both medium and long-term needs. In 2006 a doubling in the price of electricity was experienced in Uganda caused in part by the country's existence reliance on thermal power to alleviate current shortages. The Bujagali project involves the construction and maintenance of a run-of-the-river power plant at Dumbbell Island located eight kilometres north of the existing Nalubaale and Kiira power plants. The hydropower plant will re-use water flowing from these power plants to generate additional electricity.

Role of involved parties

The Industrial Promotions Services Ltd. (Kenya) and the US-based Sithe Global Power, LLC have come together to form a joint venture, Bujagali Energy Limited (BEL), tasked with the implementation of the project. The initiative is being financed by the Government of Uganda and the following World Bank institutions: IDA, International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA).

Funding and timelines

In July 2007, the Government of Uganda made available an advance of \$75 million to enable work on the project to commence while the donors put together the required finance. Financial closure for the project was reached in December 2007 with the World Bank group advancing a total of \$275 million in loans and political risk guarantees and the EIB providing a loan of up to \$136 million (EIB and the IFC are the two main lenders of the project). The total project cost is estimated at around \$875 million and involves a large number of donors, including also European bilateral agencies and the African Development Bank, along with private sector money (equity and commercial bank loans). The power plant is scheduled to be commissioned in 2011.

Lessons learned

Construction of the power plant was supposed to have begun in 1994. The project met with tough opposition from those who argued it would displace many people and submerge the Bujagali Falls, a popular tourist attraction and environmental asset. The key lesson learned is that multi-stakeholder dialogue to include civil society concerns should have started earlier



³² Map copyright of BBC 2007

Information and Communication Technologies (ICT)

The key development challenges for ICT infrastructure are to broaden access to ICT services to isolated areas within countries, and build-up an inter-continental and intra-regional fibre optic network to reduce the cost of international communications and in particular internet usage.

Mobile Telephones

Mobile phones are a success story in Africa where countries have registered the world's highest mobile phone growth, ranging from 50 – 400% in the last 3 years.

African countries already have made great strides in widening access to mobile phone services which have overtaken traditional fixed lines as the preferred method of communicating by telephone. The AICD study has calculated that 91% of the urban population in SSA have access to voice services. In rural areas, the figure is only 42%.

Most of Africa's rural poor live in areas where mobile phone services are still financially viable for participation by private operators, but where regulation prevents a competitive market from operating. The amount of public finance required to achieve near universal access in SSA is small as long as a suitable enabling environments are in place.

Broadband Internet Access

Lack of internet access is holding back growth. Less than 4% of African's have internet access, broadband penetration is below 1% and 70% of all continental traffic goes outside Africa, making it expensive³³. In addition, some countries continue to block or filter internet content, denying access to information.³⁴

Internet usage in most of African countries is concentrated in large cities. It is difficult to accurately determine the number of people with internet access however it is predicted that Africa has only around about 3.7% of world users³⁵. A few African countries such as Nigeria (8 million users), Morocco (6.1 million users), Egypt (6 million users), South Africa (5.1 million users), Sudan (3.5 million users), Kenya (2.8 million users) and Algeria (2.5 million users) dominate usage.

Low Internet usage is largely as a result of the inadequacy and poor quality of the telecommunications infrastructure and

the high cost of services. For inter-country communication, satellite and microwave links are mostly used. Sub-Saharan Africa suffers from very high prices in part by the technological limitations of the satellite services on which it relies; satellite has limitations when compared with undersea or overland cables which provide much higher bandwidth capacity at a much lower cost. In December 2007, Thales Alenia Space and RASCOMSTAR-QAF announced the launch of the first communication satellite dedicated to Africa. The satellite will provide telecommunication, direct TV broadcast and internet access services for a period of 15 years.

Backbone Infrastructure

Large transmission cables are commonly referred to as backbone infrastructure. High-capacity backbone networks within and between African countries are currently poorly developed. With regard to international connectivity, the fundamental issue is to complete the network of submarine cables surrounding the continent to ensure that all coastal countries have access to the inter-continental network.

At present, submarine cables exist for Western and Southern Africa although they do not yet provide full access to all countries. No submarine infrastructure is yet in place on the Eastern side of the continent -- though a cable serving Eastern Africa (EASSy) is expected to become operational in 2010.

In addition, there is a need for intra-regional backbones both to ensure that landlocked countries secure access to submarine infrastructure, and to facilitate communications within and across the main economic regions of Africa. There are fewer circuits interconnecting Africa with the rest of the world and most international traffic transits through Europe. As a result a significant portion of the revenue from international calls is used to pay the European network operators making it difficult for Africans to upgrade the infrastructure.

At the national and regional levels, there are significant efforts underway to now provide fibre-optic and microwave backbones. Egypt, for example, has a system that connects most of its cities to undersea fibre cables. In Nigeria a new national microwave backbone was recently constructed and in Southern Africa, the SADC Regional Information Initiative (SRII) programme aims to upgrade the links between countries in that region.

³³ *International Telecommunications Union, 2007*

³⁴ *Access Denied: The Practice and Policy of Global Internet Filtering (Cambridge, MIT) 2008*

³⁵ *Internet World Statistics, 2007*

Some of the national/regional backbone projects have taken advantage of electricity grids, railway lines and oil pipelines and right of passage to install fibre-optic cable. In Southern Africa, South Africa's Telkom has established links to Botswana, Lesotho, Namibia, Mozambique, Swaziland and Zimbabwe. In West Africa, the Volta River Authority, which distributes hydroelectric power from the Volta River, has been planning to install fibre cable along its grid. A fibre link between Mombassa and Nairobi in Kenya has been planned to take advantage of the planned EASSY landing points in Mombassa.

ICA members participated and contributed to the 'Connect Africa Summit' held in Kigali, Rwanda in October 2007. At the Summit, the International Telecommunication Union and the African Development Bank (AfDB) agreed to collaborate on interconnecting all African capitals and major cities with ICT broadband infrastructure and to strengthen connectivity to the rest of the world by 2012.

The World Bank expects to double its commitments to ICT in Africa to \$2 billion by 2012, the EU announced €6 million for regulatory reform initiatives and the AfDB has committed close to \$65 million to two key regional infrastructure projects – RASCOM satellite and a submarine cable in East Africa (EASSy).

Investment Needs

There is not a major public or private funding gap for SSA to meet its ICT development goals.

To ensure universal voice connectivity within Africa the AICD study estimates an annual need of \$646.7 million over the next eight years, which equates to an average of about 0.09% of combined GDP.

The estimated cost of the completion of the intercontinental infrastructure would be US\$1.8 billion, while intra-regional connectivity is estimated to amount to \$400 million, with the private sector playing a major role. The breakdown for each sub-region is presented in Table 1.5 below.

Despite the relatively modest investment needs governments need to provide the necessary policy framework, which include removing barriers to competition and creating a sound regulatory environment to enable the private sector to meet its full potential.

With countries such as Tunisia, Senegal and Rwanda trying to establish themselves as ICT centres of excellence on the continent it is important to recognise that in addition to the technological and infrastructure challenges, Africa, like the rest of the world, faces a huge skills shortage. Regulatory environments also have to enable companies to adapt their workforces to new opportunities and not be aligned with narrow nationalist agendas which preclude effective participation in the global economy.

Table 1.5 Investment requirements for expansion in intercontinental and intra-regional connectivity (US\$ million)

| INTERCONTINENTAL CONNECTIVITY | | | INTRAREGIONAL CONNECTIVITY | |
|-------------------------------|-----------------------|---------------------|--------------------------------------------------------------------------|---------------------|
| COLUMN HEADING | PROJECTS | REQUIRED INVESTMENT | PROJECTS | REQUIRED INVESTMENT |
| EAST AFRICA | EASSy | 260 | Connect main hubs within and between sub-regions and to submarine cables | 51 |
| SOUTHERN AFRICA | Infraco | 510 | | 117 |
| CENTRAL AFRICA | Infinity, GLO-1, WAFS | 1010 | | 75 |
| WEST AFRICA | | | | 144 |
| TOTAL | | 1780 | | 387 |

Source: Africa Infrastructure Country Diagnostic, 2007 (preliminary findings)

Box 3: ICT – The East African Submarine System (EASSy)

Background

In 2003 the NEPAD E-Africa Commission presented the proposed East Africa Submarine Cable System Project, deemed essential to providing broadband access to countries along the East African coast. Countries in that region have until now relied mostly on foreign-owned satellites for internet access. The EASSy will fibre-optic cable will link countries in the region to global and African networks.

The completion of the system will undoubtedly serve as an example of how African and global telecommunications companies can work with regional institutions to develop telecoms infrastructure. It will enable telecommunications operators to access growing markets in voice, mobile and internet communications and reduce their dependence on satellite. Ultimately, low cost of connectivity will mean that more consumers will have cheaper access to the internet. The high quality broadband offering will allow the region's industries and business to be more competitive in the global world economy.



Role of involved parties

The underwater cable is owned by the EASSy special purpose vehicle (SPV), as well as any investors in the SPV. The EASSy project will purchase capacity in the cable and will be entitled to sell capacity to other parties. The project has benefited from support from the DBSA, AfDB, EIB, AFD, KfW and the World Bank's IFC; international operators and Government and regulatory authorities. The EU-Africa Infrastructure Trust Fund and the NEPAD Infrastructure Project Preparation Facility (IPPF) made available grant funding to recruit early stage management capacity for the project.

Funding and timelines

The initial feasibility study was completed in 2005 and concluded that the construction of the cable would be financially viable. Environmental and social impact assessments, funded by KfW and AfDB, were also carried out. The African Development Bank, together with several African Governments, has pledged to provide funding. The EASSy project has been plagued by delays as it was originally scheduled to be operational by the end of 2006. Financial closure was reached in March 2007 and the total project cost is \$248 million. The project is expected to become operational in 2010.

Lessons learned

The initial timelines for the project were not maintained, mainly as a result of disagreements between various parties over the funding structure and ownership of the project. Political intervention resulted in disagreement between private investors, interested in make a profit, and government authorities, demanding low cost bandwidth access, resulting in the delays. Disagreements between South African and Kenyan government authorities regarding the cost of access to the fibre optic cable has been cited as another contributor to the delay. The numbers of participants to projects exponentially add to the complexity of running such projects and require a great deal of cooperation and communication to remain on track.

Infrastructure and the Millennium Development Goals (MDGs)

Economic infrastructure – essentially, transport, energy, ICT, water, sanitation and irrigation – is only specifically identified in the MDGs in respect to water and sanitation, telephones, personal computers and internet use. Investment in infrastructure is however an important enabling factor for Africa to meet all of the Millennium Development Goals Table 1.6 attempts to show some of the linkages between each main type of economic infrastructure and the various MDGs. In 2007 at the mid-point of the MDG process the UN Secretary General, Ban Ki Moon, set up an Africa Steering Group. As part of this process an Infrastructure Working Group was

set up with representatives from the EC, World Bank, AfDB and the ICA Secretariat. With Africa still lagging behind many others parts of the world on achieving many of the MDGs the task of the Infrastructure Working Group was to make recommendations to the Steering Group for action.

The MDG Africa Steering Group has identified a list of concrete opportunities to implement and scale-up interventions in support of the MDGs. These include making critical investments in infrastructure to raise productivity, lessen the time burden of household activities on women and young girls,

Table 1.6 Role of Infrastructure in the MDGs

| | ENERGY | ICT | TRANSPORT | WATER & SANITATION |
|--------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MDG 1: Eradicate extreme poverty | Energy increases productivity of firms | ICT improves productivity of firms | Transport facilitates trade of goods | Enables greater workforce participation |
| MDG 2: Achieve universal primary education | Lighting facilities for reading and studying at home | Improved access to educational material | Ensures access to educational facilities | Reduces burden of domestic work on children |
| MDG 3: Promote gender equality and empower women | Energy facilitates domestic work | | | Reduces burden of domestic work |
| MDG 4: Reduce child mortality | Modern energy reduces respiratory illness | Improved access to public health messages | Ensures access to health facilities | Improved water and sanitation reduces the risk of waterborne diseases |
| MDG 5: Improve maternal health | Energy improves quality of health care | Improved access to public health messages | Ensures access to health facilities | Improved water and sanitation reduces the risk of waterborne diseases |
| MDG 6: Combat HIV/AIDS, malaria and other diseases | Modern energy reduces respiratory illness | Improved access to public health messages | Ensures access to health facilities | Clean water, sanitation and hygiene are significant elements of health programs including HIV/AIDS. Proper drainage contributes to control of malaria and other waterborne diseases. |
| MDG 7: Ensure environmental sustainability | Use of modern energy sources reduces the pressure on deforestation | | | Access to improved water and sanitation is one of the targets of this MDG. |
| MDG 8: Develop a global partnership for development | | | | |

Source: UN-Africa Working Group, 2007

enable low-cost service delivery, and integrate Africa into the global economy.

The specific recommendations of the Steering Group are as follows³⁶:

1. Launch a "New Deal" for the energy sector to plan and build transformational generation and transmission facilities across Africa, and improve the performance of power utilities.
2. The international community should assist in financing regional infrastructure (e.g., road corridors, power pools, multi-purpose water infrastructure, information and communications technology), as outlined in the African Union NEPAD Infrastructure Short-Term Action Plan and other regional plans.
3. The international community needs to support African countries in implementing national strategies to achieve the water supply and sanitation targets.
4. ODA for infrastructure in Africa, including for water and sanitation facilities, needs to be at least doubled by 2010. All infrastructure investments in Africa need to be systematically climate-proofed.
5. The Enhanced Integrated Framework and Aid for Trade are important mechanisms for supporting country efforts to develop their trade capacity and performance. They need to be fully operationalised.

6. Multilateral and bilateral donors should increase the use of public-private partnerships (PPPs) to leverage public financing and strengthen collaboration with non-DAC donors and other partners through project co-financing.

7. The Infrastructure Consortium for Africa (ICA) should be strengthened to support the monitoring of infrastructure results, particularly in the transport and power sectors. The ICA could be used to support the coordinated syndication of financing for national infrastructure strategies.

The report of the MDG Africa Steering Group was officially launched in July 2008 at the African Union Summit held in Egypt. The report identifies specific financing gaps in each sector and represents a consensus among the major multilateral development organisations working in Africa for action to achieve the MDGs. The next steps include a special high-level event on the MDGs to be convened by the Secretary General of the UN together with the President of the General Assembly in September 2008 in New York. This gathering will bring together world leaders, representatives of the private sector and civil society partners to discuss specific ways to increase efforts towards meeting the MDGs.

³⁶ Full text of recommendations to be found at <http://www.un.org/millenniumgoals/afrsteering.html>

2. ICA MEMBER SUPPORT IN 2007

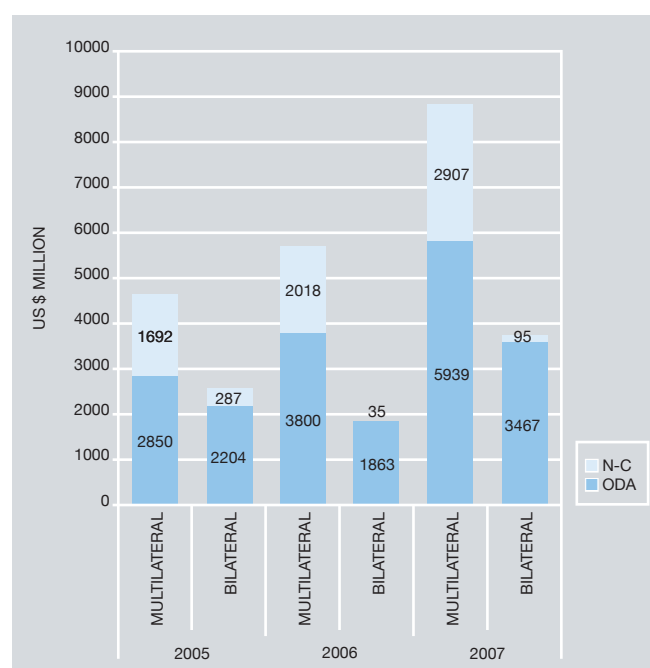
Aid Volumes

Total commitments by ICA members to infrastructure projects in Africa reached \$12.4 billion in 2007

- 2007 commitments (\$12.4 billion ³⁷) are an increase of 61% over the \$7.5 billion committed in 2006.
- Multilateral commitments increased by 50%, whilst bilateral commitments almost doubled – see table 2.1.
- Multilaterals are still responsible for the majority of ICA commitments - 71% in 2007 (75% in 2006)
- Official Development Assistance (ODA) commitments to sub-Saharan Africa increased by 59% to reach \$8.17 billion.
- Record replenishments of multilateral funds (IDA, ADF and EDF), along with the launch of the EU-Africa Infrastructure Trust Fund in 2007 will guarantee that the upward trend in commitments to the sector will continue.

Chart 2.0 shows the distribution of funding between multilateral ICA members and G8 countries from 2005 to 2007 ³⁸. Tables 2.1 and 2.2 provide more detailed analysis.

Chart 2.0 – ICA commitments to infrastructure projects in Africa 2005 – 2007 (US\$ million)



³⁷ ODA and non-concessional funding

³⁸ 2005 data is based on OECD data before the ICA was operational whilst 2006-7 is based on data supplied by ICA members.

Table 2.1 – ICA commitments to infrastructure projects in Africa 2005 – 2007 (US\$ million)

| | NORTH AFRICA | | SSA – SA ³⁹ | | SOUTH AFRICA | | ALL AFRICA | |
|---------------------|--------------|------|------------------------|------|--------------|-----|------------|------|
| | ODA | N-C | ODA | N-C | ODA | N-C | ODA | N-C |
| 2005 | | | | | | | | |
| MULTILATERAL | – | 1047 | 2850 | 410 | 0 | 235 | 2850 | 1692 |
| BILATERAL | 704 | 220 | 1500 | 7 | 0 | 60 | 2204 | 287 |
| TOTAL | 704 | 1267 | 4350 | 417 | 0 | 265 | 5054 | 1979 |
| 2006 | | | | | | | | |
| MULTILATERAL | – | 1388 | 3800 | 255 | 0 | 375 | 3800 | 2018 |
| BILATERAL | 538 | – | 1325 | 35 | 0 | – | 1863 | 35 |
| TOTAL | 538 | 1388 | 5125 | 290 | 0 | 375 | 5663 | 2053 |
| 2007 | | | | | | | | |
| MULTILATERAL | 334 | 1220 | 5605 | 1185 | 0 | 502 | 5939 | 2907 |
| BILATERAL | 684 | 0 | 2566 | 95 | 218 | 0 | 3467 | 95 |
| TOTAL | 1018 | 1220 | 8171 | 1279 | 218 | 502 | 9406 | 3001 |

Source: 2006 and 2007 data is ICA, 2005 data comes from the OECD

Table 2.2 ICA commitments to infrastructure projects in Africa in 2007 (US million)

| ICA MULTILATERAL | NORTH AFRICA | | SSA – SA | | SOUTH AFRICA | | ALL AFRICA | | |
|-----------------------|--------------|-----|----------|-----|--------------|-----|------------|-----|-------|
| | ODA | N-C | ODA | N-C | ODA | N-C | ODA | N-C | TOTAL |
| CANADA | | | 40 | | | | 40 | | 40 |
| FRANCE | 169 | | 511 | 67 | 207 | | 887 | 67 | 954 |
| GERMANY | | | 141 | 27 | | | 141 | 27 | 169 |
| ITALY | | | 25 | | | | 25 | | 25 |
| JAPAN | 253 | | 873 | | 4 | | 1130 | | 1130 |
| UK | 2 | | 325 | | 3 | | 330 | | 330 |
| USA (MCC, TDA) | 262 | | 651 | | 1 | | 914 | | 914 |
| TOTAL | 686 | 0 | 2566 | 95 | 216 | 0 | 3467 | 95 | 3562 |

| ICA MULTILATERAL | NORTH AFRICA | | SSA – SA | | SOUTH AFRICA | | ALL AFRICA | | |
|----------------------------|--------------|------|----------|------|--------------|-----|------------|------|-------|
| | ODA | N-C | ODA | N-C | ODA | N-C | ODA | N-C | TOTAL |
| SOURCES: | | | | | | | | | |
| AfDB | 3 | | 1248 | | | | 1252 | | 1252 |
| AfDB | | 120 | | 184 | | 500 | | 804 | 804 |
| DBSA | | | 3 | 412 | | | 3 | 412 | 415 |
| EC | | | 1087 | | | | 1087 | | 1087 |
| EIB | 5 | 883 | 67 | 213 | | | 72 | 1096 | 1168 |
| IFC | | | | 376 | | 2 | | 378 | 378 |
| WB (IDA, IDF, IBRD) | 325 | 217 | 3200 | | | | 3525 | 217 | 3742 |
| TOTAL | 334 | 1220 | 5605 | 1185 | 0 | 502 | 5939 | 2907 | 8846 |

Sub-Saharan Africa (excluding SA)

Total⁴⁰ multilateral commitments to the region were \$7,293 million. The launch of the World Bank's Infrastructure Action Plan in 2003 has led to a steady rise in commitments since that time and is been responsible for increased interest to the sector from other leading multilaterals.

Significant increases in commitments from the US, Japan and France contributed to a doubling of bilateral ODA to the region in 2007.

Interestingly bilateral commitments to the sector in 2006 would have shown a decrease had it not been for high commitments from the US – see Chart 2.1. This decrease was due mostly to large debt relief programmes that were underway. In 2007 net ODA to SSA increased by 10%⁴¹ (excluding debt relief). The infrastructure sector has benefited strongly from this increase.

Chart 2.1 – Bilateral ICA commitments in sub-Saharan Africa (excluding South Africa) 2000-2007 (US\$ million)

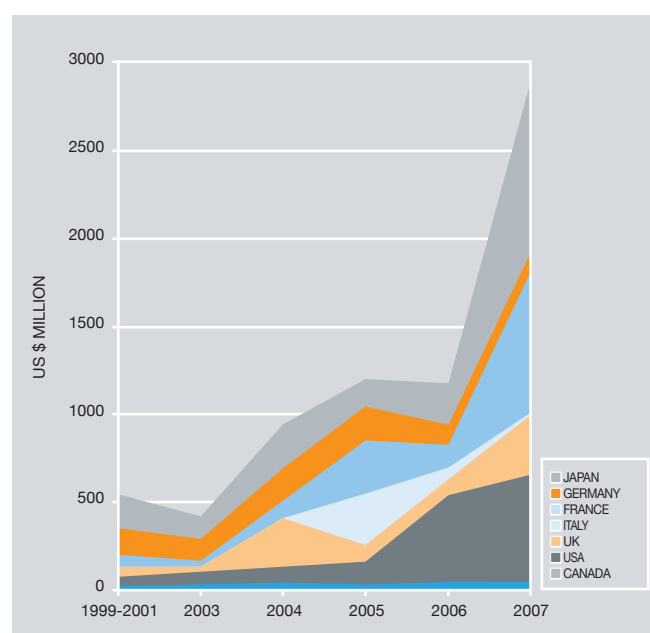
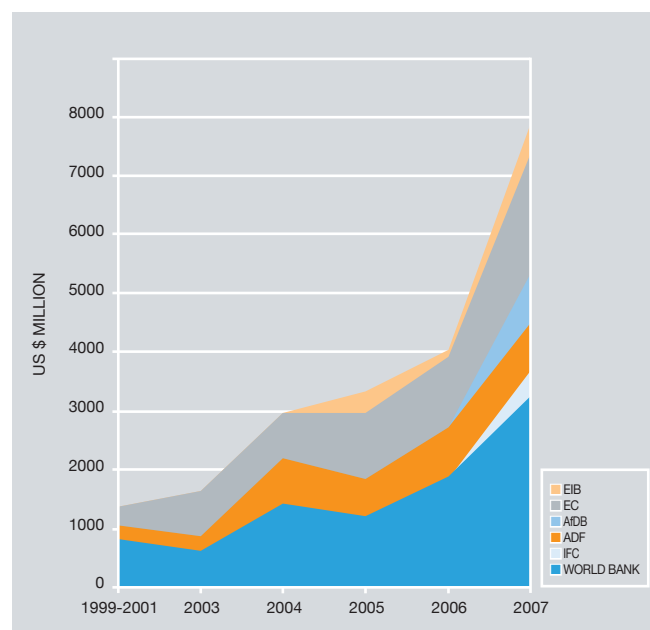


Chart 2.1 – Bilateral ICA commitments in sub-Saharan Africa (excluding South Africa) 2000-2007 (US\$ million)



⁴⁰ *httpODA plus Non-concessional lending*

⁴¹ *OECD DAC, 2008*

North Africa

ODA commitments to the region in 2007 remained approximately the same as 2006 with almost all commitments coming from bilateral agencies. There was a big increase in commitments from the USA (due to agreement with Morocco), and sharp falls in the level of support from Germany and the EC.

Conversely all ICA non-concessional ICA funding was provided by just 2 multilateral agencies, namely the EIB and the World Bank group – charts 2.3 and 2.4.

Chart 2.3 – Bilateral ICA commitments in North Africa in 2007 (US\$ million)

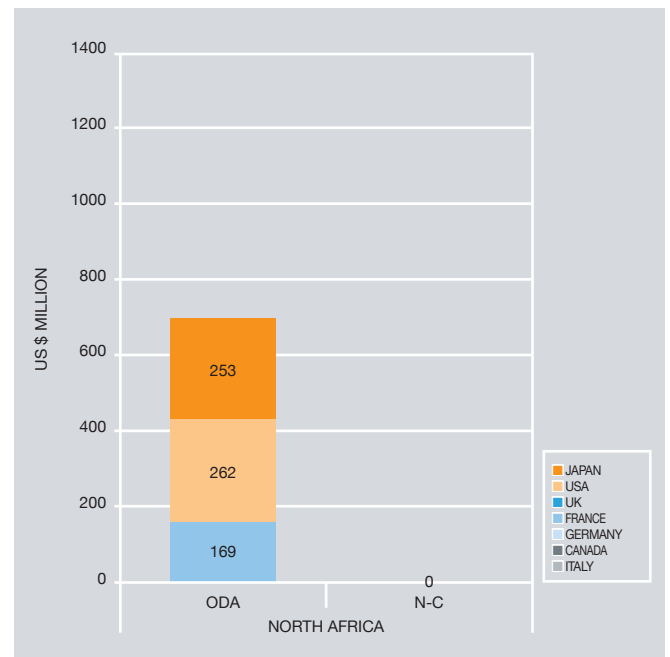
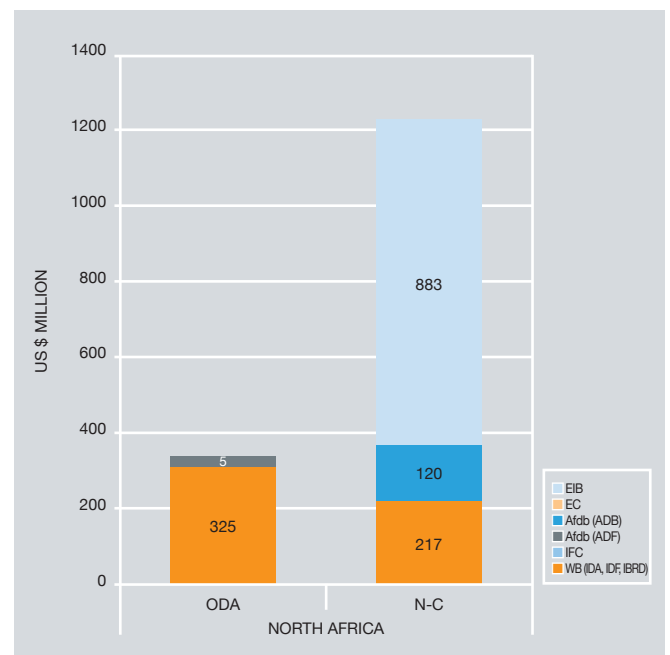


Chart 2.4 – Multilateral ICA commitments in North Africa in 2007 (US\$ million)



Multilateral Commitments

Multilateral commitments were \$8.8 billion in 2007 - 71% of total ICA commitments.

- The World Bank together with the IFC committed \$3.58 billion in the region. This represents almost 40% of total commitments by multilateral agencies in 2007 and 29% of total overall commitments of ICA members. Transport and energy dominate WB commitments whilst IFC's activities are currently focussed on the ICT sector.
- The African Development Bank Group (African Development Fund and the African Development Bank) committed around \$2 billion, 23% of the total commitments by multilateral agencies and 17% of total ICA commitments. A large part of the AfDB's non-ODA commitments were focused towards the energy sector in sub-Saharan Africa.
- The European Commission (EC) committed around \$1 billion, 12% of total funding by multilateral agencies and 9% of total ICA commitments. The EC maintains a strong supporter of the transport sector – over \$900 million in 2007.
- Commitments by the EIB reached almost \$1.2 billion with a focus on the water and energy sectors.
- The DBSA committed \$415 million. This included contributions of \$140 million to equity funds in the region focussed on the energy sector.

Table 2.3 Multilateral ICA commitments in 2007 (US\$ million)

| ICA MULTILATERALS | ODA | N-C | TOTAL |
|---------------------|-------------|-------------|-------------|
| AfDB (ADF) | 1252 | | 1252 |
| AfDB (ADB) | | 804 | 804 |
| DBSA | 3 | 412 | 415 |
| EC | 1087 | | 1087 |
| EIB | 72 | 1096 | 1168 |
| IFC | | 378 | 378 |
| WB (IDA, IDF, IBRD) | 3525 | 217 | 3742 |
| TOTAL | 5939 | 2907 | 8846 |

Source: ICA, 2008

Replenishments of Multilateral Funds

Record replenishments of IDA, EDF and ADF occurred in 2007.

- European Development Fund (EDF) 10 (2008-2013) is expected to commit \$8.6 billion to SSA over the period and a 50% increase over EDF 9 (2002-2007).
- Infrastructure financing is predicted to reach more than \$5 billion under African Development Fund (ADF) 11 (2008-2010). In addition the amount available to be committed to regional projects will increase from 15% to 17.5% of total funding.

- International Development Association (IDA) 15 was a record replenishment of around \$40bn representing a 30% increase over IDA 14. Around \$9 billion (\$3 billion per year) will go infrastructure under IDA 15% (half of all finance dedicated to SSA).

G8 Bilateral Commitments

**Commitments by G8 bilateral countries were \$3.6 billion in 2007
– 29% of total commitments.**

- Bilateral commitments rose by 86% from \$1.9 billion in 2006 to \$3.56 billion in 2007. These increases were largely a result of scaled-up contributions from the USA, Japan and France.

- Bilateral members of the ICA do not share the same approach to supporting Africa's infrastructure. Some are very active on bilateral project financing (France, Japan, USA), others (like UK-DFID) prefer to channel most of their support for physical infrastructure through multilateral aid channels

and through budget support at the country-level. It is therefore difficult to make comparisons between countries⁴².

- Japan committed \$1.1 billion, around 10% of the overall ICA commitments. Japanese commitments are particularly directed towards transport corridors. A co-financing scheme between Japan (JBIC) and the AfDB's under their joint initiative called "Enhanced Private Sector Assistance (EPSA)" for Africa contributes to Japan's increased commitments.

Table 2.4 Bilateral ICA commitments in 2007 (US\$ million)

| SOURCES | ODA | N-C | TOTAL |
|-----------------------|-------------|-----------|-------------|
| CANADA | 40 | | 40 |
| FRANCE | 887 | 67 | 954 |
| GERMANY ⁴³ | 141 | 27 | 169 |
| ITALY | 25 | | 25 |
| JAPAN | 1130 | | 1130 |
| UK | 330 | | 330 |
| USA (MCC, USTDA) | 914 | | 914 |
| TOTAL | 3467 | 95 | 3562 |

Source: ICA, 2008

- The US committed \$900 million in 2007. Grant agreements signed between Millennium Challenge Corporation (MCC) and Morocco, Mozambique and Lesotho have substantial infrastructure components - \$380 million in Mozambique alone. Reflecting partner country priorities, infrastructure has accounted for over 60% of the value of the eight agreements the MCC has signed with African countries from 2005 to 2007.

- France's commitments (AFD and its private window Proparco) were around \$960 million more than half of which (\$520 million) went to sub-Saharan Africa. France's overall ODA commitments to Africa increased by 33% from 2006 to 2007

with infrastructure accounting for about 50% of total commitments in the region.

- The UK channelled most of its commitments to the transport, energy and water sectors - almost \$330 million. This represents around 13% of the total \$2.5 billion the UK committed (bilaterally) to Africa in 2007

- Germany maintains a strong programme aimed at Water Supply and Sanitation (WSS) – 71% of its total commitments in 2007.

- Canadian bilateral efforts are focussed on support to build the capacity of governments, institutions and other non-state

⁴² <http://>This report does not attempt to attribute multilateral commitments to bilateral countries and neither does it take account of money channelled through budget support.

⁴³ Data is for KfW only

organisations. Canada does not directly fund physical infrastructure projects.

- Italy's bilateral contributions were modest totalling \$26 million towards the water sector.
- Russian aid to Africa is currently focussed on debt relief. The country is in the process of setting up an aid agency.

Given the recent multilateral replenishments if G8 countries are to allocate more of their resources to infrastructure from their Gleneagles commitments it does raise questions about which channels will be used to disburse the money in the short-term and whether countries have the capacity to absorb it.

3. DISTRIBUTION OF ICA SUPPORT

This chapter analyses the distribution of commitments towards regional infrastructure and the water, energy, transport and ICT sectors ⁴⁴:

- Water (water supply, sanitation, irrigation, transboundary water resource infrastructure)

- Transport (road, rail, port, airport)
- Energy (generation, transport, distribution)
- ICT (broadband, mobile network, satellite, etc.)

Support for Regional ⁴⁵ Infrastructure Projects

Total commitments by ICA members to regional infrastructure projects were \$2.8 billion in 2007, an increase of \$1.9 billion from \$900 million in 2006.

- ICA support to regional projects is strong and a growing. \$2.8 billion ⁴⁶ represents a 23% share of total ICA commitments.

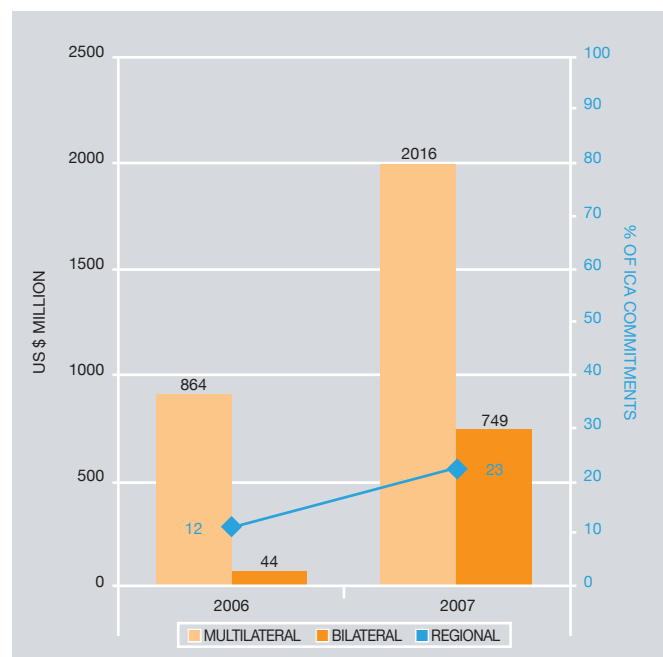
- Commitments by the World Bank were significant \$910 million (almost double \$490 million in 2006) – see table 3.1 for full breakdown by member.

- New commitments from the EIB were also significant - \$508 million mostly going to road and energy projects in North Africa.

- Commitments by the AfDB fell 15% from \$270 million in 2006 to \$228 million.

- Almost a quarter of France's ODA to Africa went to regional infrastructure - \$386 million.

Chart 3.0 - ICA commitments towards regional infrastructure projects 2006-2007



Source: ICA, 2008

⁴⁴ Some commitments could not be allocated to a specific region and are recorded as 'other'

⁴⁵ Regional infrastructure projects in this report are defined as projects which cross one or more national border or an in-country project which has a regional impact

⁴⁶ This figure is an underestimate since the EC could not fully report on commitments to regional projects for 2007

Table 3.1 ICA commitments to regional infrastructure 2007

| ICA MEMBER | AMOUNT (US\$ MILLION) |
|--------------|-----------------------|
| ADB | 65 |
| AfDB | 230 |
| CANADA | 4 |
| DBSA | 205 |
| EC | 58 |
| EIB | 508 |
| FRANCE | 386 |
| GERMANY | 37 |
| IFC | 40 |
| ITALY | 0 |
| JAPAN | 254 |
| UK | 66 |
| USA | 2 |
| WORLD BANK | 910 |
| TOTAL | 2765 |

Source: ICA, 2008

The following analysis of commitments by sector is based on geographical regions which were defined as follows:

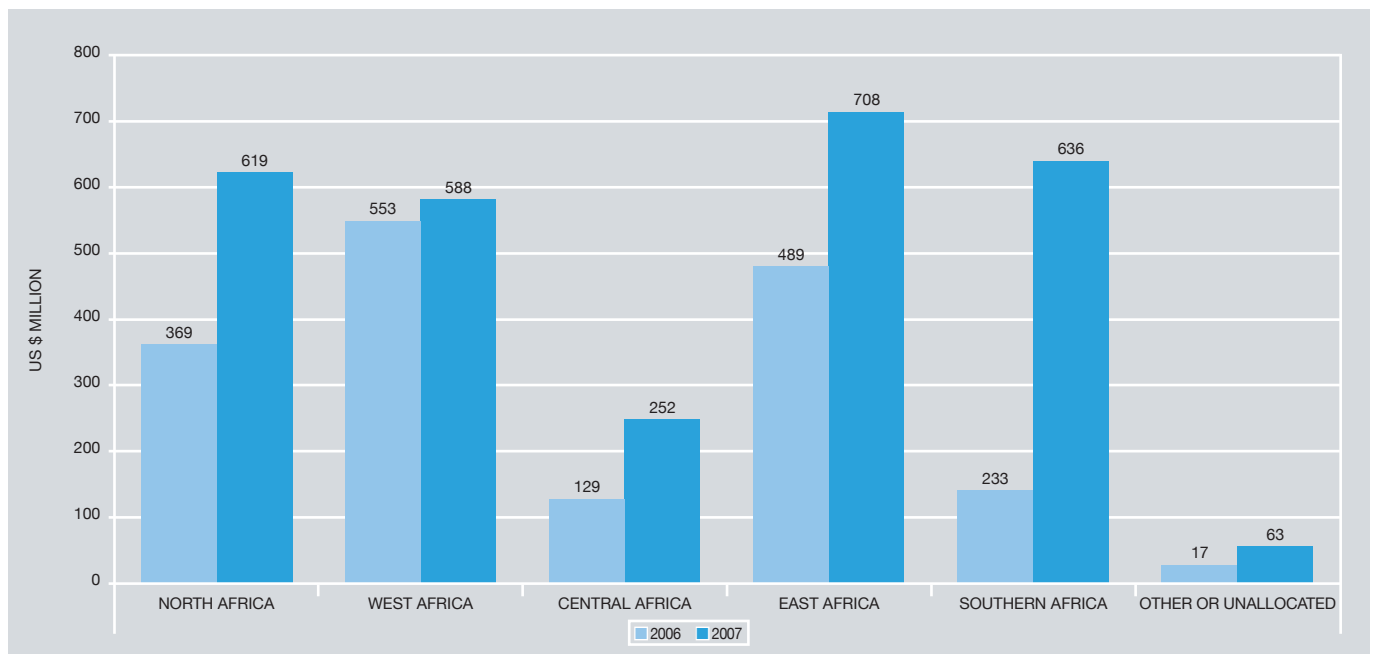
| | |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| NORTH AFRICA | Morocco, Algeria, Tunisia, Libya, Egypt, Mauritania |
| WESTERN AFRICA | Cape Verde, Mali, Niger, Senegal, The Gambia, Guinea, Guinea Bisau, Burkina Faso, Sierra Leone, Liberia, Ghana, Ivory Coast, Togo, Benin, Nigeria |
| CENTRAL AFRICA | Chad, Central African Republic, Cameroon, Sao Tome and Principe, Equatorial Guinea, Gabon, Congo, Democratic Republic of Congo, Rwanda, Burundi |
| EASTERN AFRICA | Sudan, Eritrea, Djibouti, Ethiopia, Somalia, Uganda, Kenya, Tanzania, Seychelles |
| SOUTHERN AFRICA EXCLUDING SA | Angola, Zambia, Malawi, Mozambique, Zimbabwe, Namibia, Botswana, Lesotho, Swaziland, Mauritius, Madagascar, Comoros |
| SOUTH AFRICA | |

Water

Total ICA commitments to the water sector were \$2.9 billion in 2007, an increase of 60% from the \$1.8 billion committed in 2006

- Commitments to sub-Saharan Africa increased substantially from \$1.4 billion in 2006 to \$2.2 billion in 2007 – a rise of 58%.
- Bilateral commitments reached \$1.2 billion (43% of total commitments). At the same time multilateral commitments to the water sector reached \$1.6 billion (57 of total commitments).
- East and Southern Africa have received significant increases in funding due principally to commitments by the World Bank and the USA – see chart 3.1. In Lesotho the USA committed close to \$400 million for dams and the management of waste and sanitation.

Chart 3.1 – ICA commitments to the water sector by region 2006 to 2007 (US\$ million)



A full breakdown of 2007 commitments by ICA members to the water sector can be found in Appendix A1

Energy

Total ICA commitments to the energy sector were \$3.9 billion in 2007, a rise of almost \$1.5 billion (62%) from \$2.4 billion in 2006.

- ICA members, led by the World Bank, have responded to Africa's energy crisis. \$3 billion of ICA commitments to the energy sector were concentrated in SSA. The sector receives the most amount of finance from the ICA.

- Multilateral donors accounted for \$3.42 billion, 84% of total commitments.

- The World Bank commitments more than doubled from \$700 million in 2006 to the \$1.5 billion.

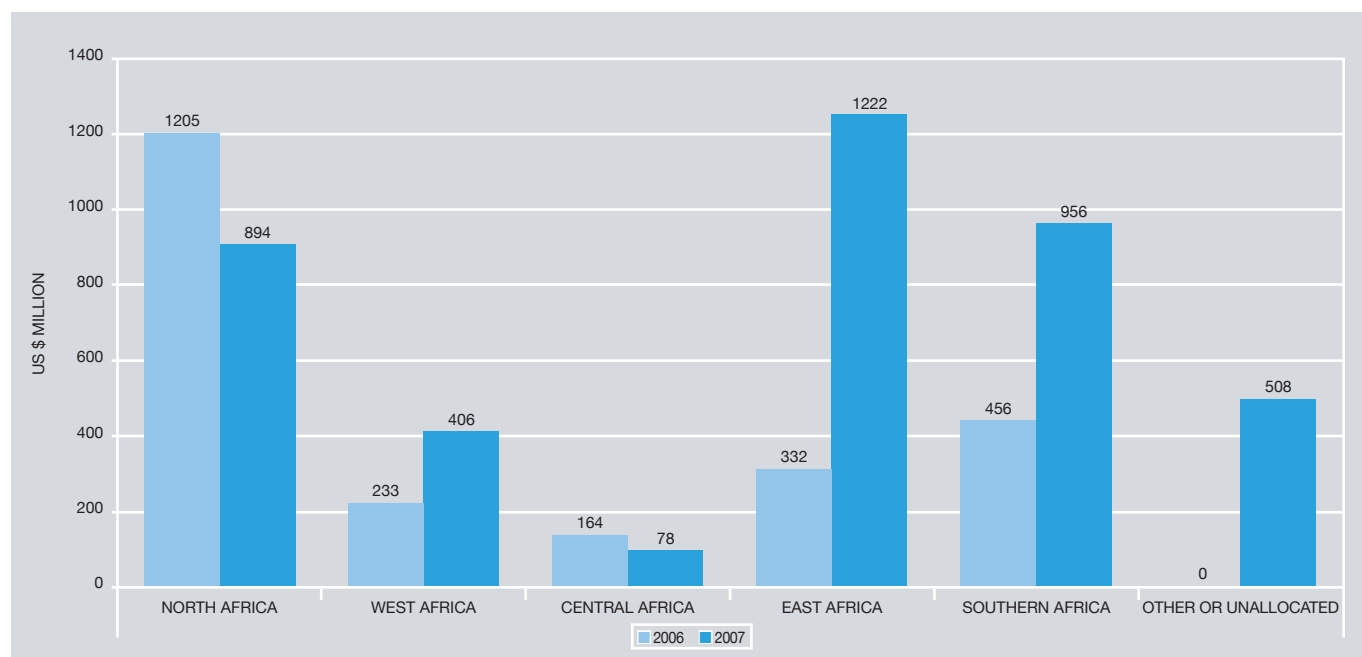
- The EU (EC and EIB) dropped from almost \$1.2 billion in 2006 to about \$800 million in 2007. Almost all of the current

\$800 million came from the EIB.

- Of the \$2.2 billion to East and Southern Africa the AfDB approved its largest private sector loan, a non-sovereign guaranteed long-term loan of \$500 million to Eskom's energy programme in Southern Africa. Commitments in East Africa are largely due to the involvement of many ICA members in the Uganda's Bujagali Hydro Power project – see chart 3.2.

- Among the bilateral donors France emerges as the most significant with commitments reaching almost \$500 million.

Chart 3.2 ICA commitments to the energy sector by region 2006 to 2007 (US\$ million)



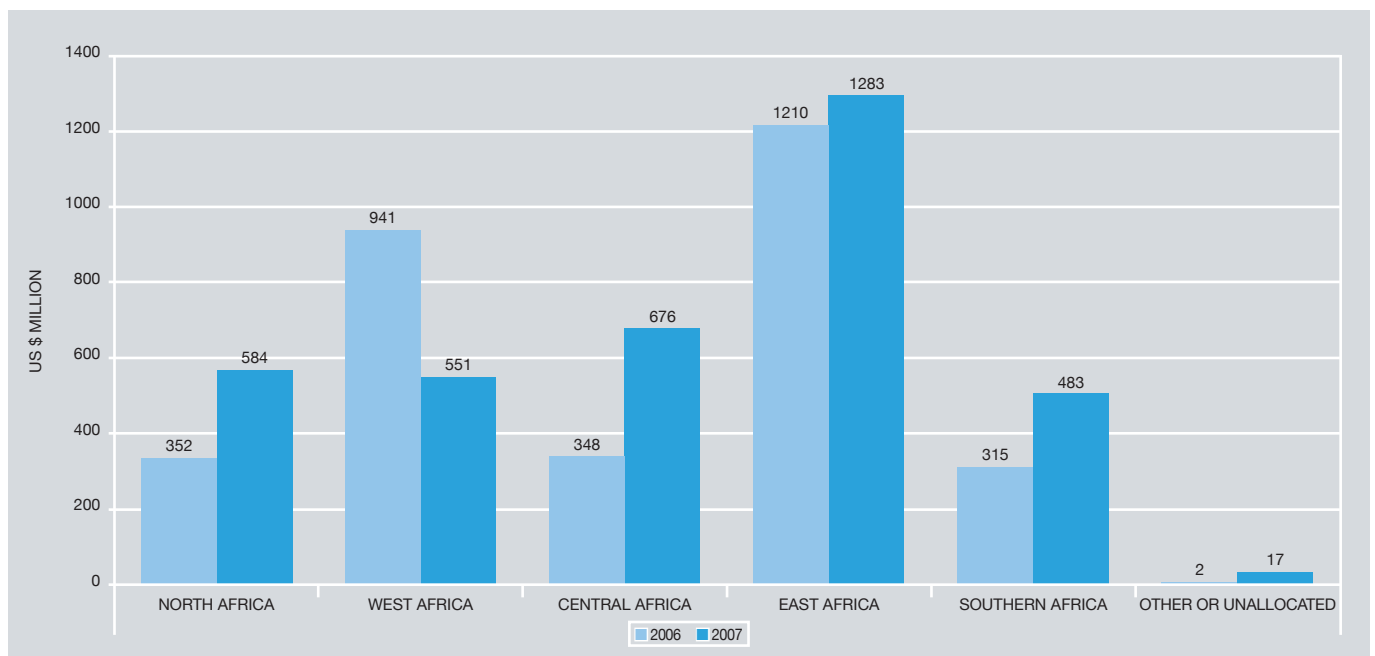
A full breakdown of 2007 commitments by ICA members to the energy sector can be found in Appendix A2

Transport

Total ICA commitments to the transport sector were \$3.6 billion in 2007, an increase of \$400 million (or 12%) from \$3.2 billion committed in 2006.

- Commitments to SSA increased by \$200 million or 7% from \$2.8 billion in 2006 to US\$3 billion in 2007.
- Multilateral commitments dominated - \$2.8 billion (78%) in 2007. The EU and World Bank were the most significant with commitments of around \$1 billion each.
- Commitments to East Africa were almost \$1.3 billion (36%) in 2007, whilst commitments to West Africa fell by 40% - see chart 3.3.
- Japan (JICA, JBIC) is the most significant bilateral donor committing \$350 million in 2007.

Chart 3.3 – ICA commitments to the transport sector by region 2006 to 2007 (US\$ million)



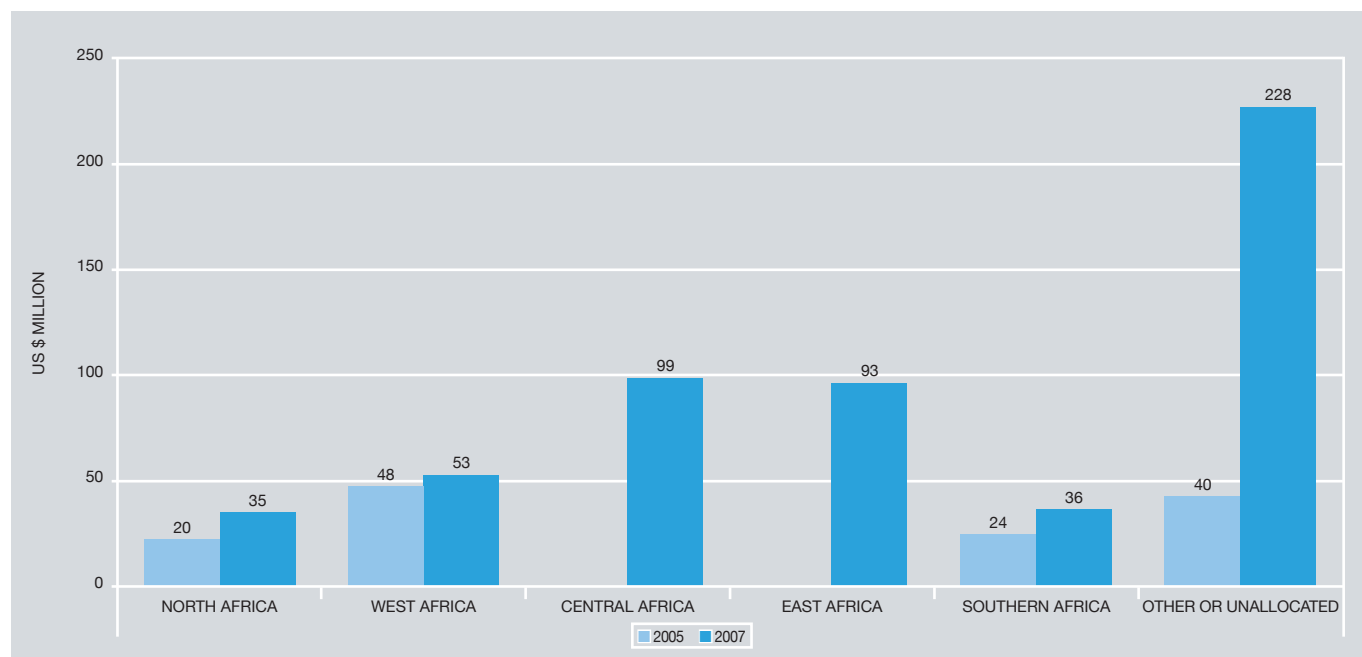
A full breakdown of 2007 commitments by ICA members to the transport sector can be found in Appendix A3

ICT

Total commitments by ICA members to the ICT sector were \$542 million in 2007.

- The ICT sector receives the least amount of finance from ICA members.
- East and Central Africa have enjoyed the majority of the commitments with \$93 million and \$95 million respectively – see chart 3.4
- The investments in East Africa are largely due to ICA commitments on the EASSy project connecting all the East African countries to an undersea cable that connects Africa to the rest of the world.
- The IFC and the World Bank were the most significant donors with commitments of \$175 million and \$135 million ⁴⁷ respectively.
- The investments in East Africa are largely due to ICA commitments on the EASSy project connecting all the East

Chart 3.4 ICA commitments to the ICT sector by region 2006 to 2007 (US\$ million)



A full breakdown of 2007 commitments by ICA members to the ICT sector can be found in Appendix A4

⁴⁷ It was not possible to allocate the World Bank ICT commitments. It explains the dominance of the “other or unallocated” column

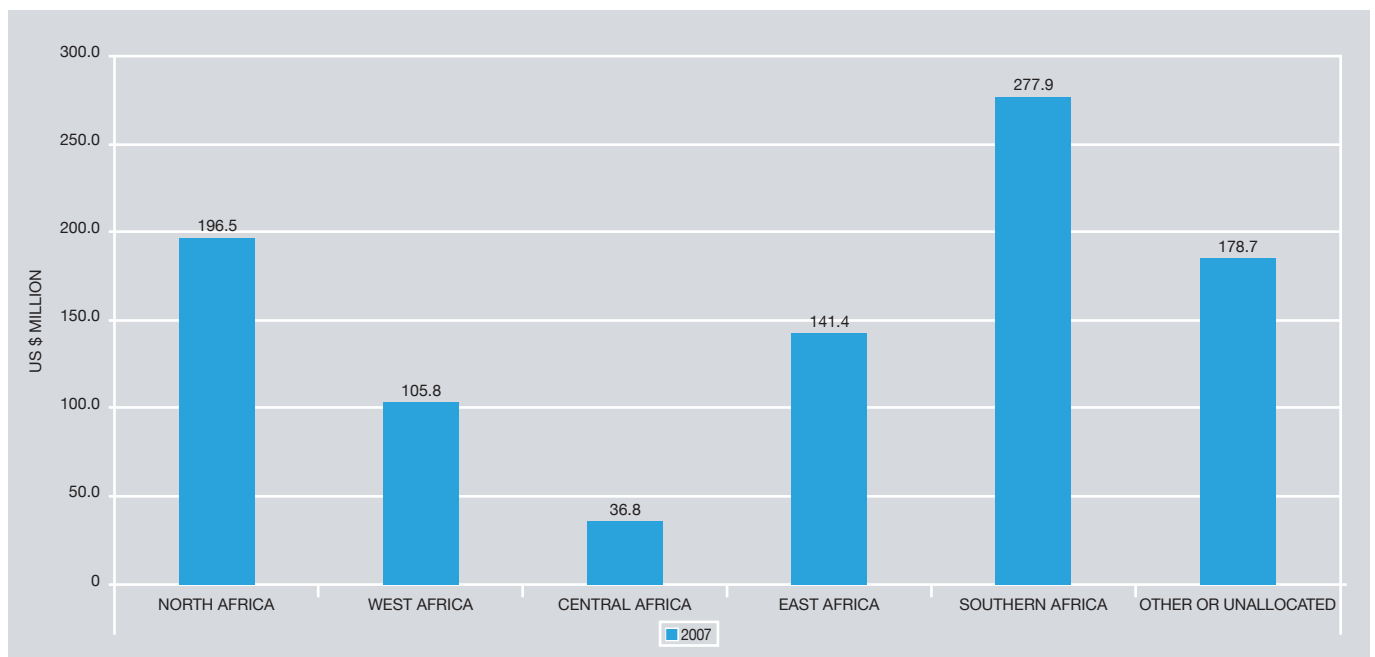
Multi-Sector Investments ⁴⁸

Investments by ICA members towards multi-sector projects have
were \$937 million in 2007.

Japan (JICA, JBIC) was the largest donor in multi-sector projects with commitments of \$425 million in 2007.

Caveat: It was not possible to allocate \$362 million from total 2007 commitments of \$12.4 billion to a sector or a multi-sector project.

Chart 3.5: ICA multi-sector commitments in 2007 (US\$ million)



A full breakdown of 2007 commitments by ICA members to the multi-sector projects can be found in Appendix A5

⁴⁸ Multi-sector investments represent commitments that could not be allocated to any specific sector (e.g. cross-sector commitments) or commitments made elsewhere other than the four main sectors listed.

Collaboration Between ICA Members

Coordination, harmonisation and alignment between ICA members and other stakeholders is a key area of work for the Consortium.

Coordination

Parallel financing, co-financing and joint appraisal missions are the most practical ways to approach coordination at present. Although the principle of co-financing implies using common procurement and disbursement procedures, which is not always the case, it is clear that the ICA has contributed to improving the dialogue and information sharing amongst its members. There are good examples of coordination on infrastructure projects among ICA members of which some will serve as inputs to the Third High-Level Forum on Aid Effectiveness which will take place in Accra, Ghana in September 2008.

In 2007 the World Bank reported that 19 of its physical infrastructure projects in Africa were co-financed, representing around 60% of total ODA to hard infrastructure. Power supply and transportation were a key focus of collaboration for the AfDB. All of the IFC's and EIB's physical projects were co-financed. For the EC new instruments in 2007 under the 10th EDF has made co-financing projects possible by delegating the management of funds under certain conditions (e.g. audit).

The Bujagali power project in Uganda is a good example of coordination with all donors and especially between DFIs and the private sector. It was helped by the appointment of a common international legal adviser and a lead financier. The financing consortia involved the World Bank Group KfW, EIB, AfDB, Japan (JBIC) the Dutch development agency (FMO), France's Proparco and AFD as well as commercial banks

In addition to the other examples in Chapter 1 of this report, below are further examples of projects where donor collaboration has been successfully promoted:

- An extensive roads and bridges building programme in Mozambique is being co-financed by 15 agencies, including AfDB, EC, OPEC Fund, Islamic Development Bank, USA, Sweden and the World Bank. Total cost of the programme is \$1 billion.
- Significantly increased the coordination within the SADC region through the development of the first multi-donor trade facilitation committee. There is now a donor leading on all aspects of coordination and better REC coordination as evidenced by the joint COMESA-EAC-SADC task force. And as a result all 3 RECs are now in the process of harmonising their trade regulations which should signifi-

cantly lower the costs of doing business in the region.

- In Mozambique the MCC has formed a strategic partnership with the World Bank and other donors which has resulted in assembling a multi-donor funding package of nearly US\$250 million for water and sanitation. Participating donors included MCC, the World Bank, the African Catalytic Growth Fund, and the Global Partnership for Output-based Aid.

First AfDB-EC-WB Partnership Meeting

The first partnership meeting between the African Development Bank, European Commission and World Bank took place in Tunis in June 2008. Infrastructure was one of the three key thematic areas discussed, the others being budget support and results orientation. In the field of infrastructure, the three institutions agreed to focus on the following five priority areas:

- Support to SWAPs at the country level
- Regional integration through support to sections of regional networks
- Support to AU/NEPAD flagship continental projects of a transformational nature
- Scaling up of resources on infrastructure funding including identification of potential PPPs and optimized use of existing project preparation facilities
- Enhance collaboration on joint analytical work including the AICD Study and SSATP

The Tunis meeting showed that a lot was already happening in terms of collaboration between the three institutions in the area of infrastructure. It was agreed that the tripartite partnership would be enhanced through the regular activities of the ICA.

ICA Regional Infrastructure Project Collaboration Meeting

An ICA technical-level meeting was held in Luxembourg in February 2008 hosted by the EIB to seek ways of maximising coordination and project collaboration between members. An emphasis was placed on regional projects which are generally more complex to design and implement. The meeting took stock of existing collaboration and identified new opportunities for enhance collaboration on transport, energy, ICT and water projects. A key outcome of the meeting was the decision to create an interactive area on the ICA's website to allow information sharing on projects.

The notion of enhanced project coordination within the framework of the ICA was given a further impetus by the Fourth Tokyo International Conference on African Development (TICAD IV) that was hosted by Japan in Yokohama in May 2008. At this meeting Japan announced up to \$4 billion of ODA loans to African development projects.

Arising from the Luxembourg meeting and subsequent discussions among ICA members and the African stakeholders some indicative projects suited for enhanced collaboration are listed:

Energy

- Inga Site Development (Inga 1 and 2)
- Inga Site Study
- OMVG Interconnection Programme
- Temani Combined Cycle Power Plant and Transmission Lines
- Felou Hydroelectric Systems
- Ethiopia – Kenya Interconnection
- NELSAP Hydropower and Interconnection Projects
- Ethiopia Gil Gibe III Hydropower Project
- Morocco Power Transmission
- Namibia – Zambia Interconnection Project
- Egypt Thermal Power Project

Water

- Lake Victoria Water and Sanitation Initiative
- Nile Basin Initiative
- Niger Basin Initiative
- Support to Zambezi River Basin

Transport

- Kinshasa – Brazzaville Bridge Studies
- Nigeria – Cameroon Highway Transport Facilitation Project
- Port of Pointe Noire
- Nacala Corridor
- Abidjan – Lagos Corridor
- Northern Corridor (East Africa)
- Mtwara Corridor
- Isaka – Kigali Railway Project
- Gambia River Bridge
- Kazungula Bridge

ICT

- East Africa Submarine System (EASY) – investment for terrestrial backhails
- East Africa Community Broadband ICT network (EAC-BIN)
- Central Africa Community Broadband ICT network (CAB-BIN)
- ICT Centres of Excellence (Rwanda and Tunisia)
- Joint analytical work on ICT services and applications
- Joint strategies for sector reform and regulatory frameworks

Success factors for doing more include the more systematic sharing of project pipelines, best practice and country-specific know-how. More decentralisation of technical staff to the country-level would also help. In programs which require large investment volumes such as in the energy and transport the creation of financing consortia should be promoted.

For regional infrastructure the RECs play an increasingly important role and they have their own plans but often there are not well harmonised with the African Union Commission (AUC) and NEPAD. The ongoing collaboration between COMESA, EAC and SADC is a good example of intra-REC collaboration which will ultimately facilitate harmonisation at the continental level. The three RECs have an active joint Task Force that meets to discuss common approaches to implement regional infrastructure initiatives. A joint summit of the member states is being planned for late 2008 to accelerate trade, customs and infrastructure developments.

At the regional level a clear set of priorities from Africa stakeholders is required. An important development in this regard is the decision to merge the NEPAD Medium to Long Term Strategic Framework (MLTSF) with the African Union Master Plans into the Programme for Infrastructure Development in Africa (PIDA). This is work in progress and the first outputs are expected late 2009. The ICA will step up consultations with stakeholders on regional infrastructure and intends to pay increased attention to the capacity needs of RECs and the AUC.

The EU-Africa Infrastructure Trust Fund

The EU-Africa Infrastructure Trust Fund (the Trust Fund) is a major new effort to increase the resources dedicated to regional infrastructure in Africa and to do in a way which promotes greater aid effectiveness between EU Members States.

In the context of the 2005 Gleneagles Declaration and of the establishment of an EU Strategy for Africa, the European Union and its African counterparts initiated a Partnership for African Infrastructure (the Partnership), which provides the overall strategy to respond to Africa's demand for infrastructure. Launched in 2007 the Trust Fund is an innovative financing instrument, complementing others, to support the implementation of the Partnership. The Trust Fund encourages the financing of infrastructure programmes which facilitate interconnectivity and regional integration on the African continent.

Collaboration with the EU-Africa Infrastructure Trust Fund will be a focus of ICA members in 2008. The gradual expansion of the Trust Fund's activities (following start-up phase in 2007) should facilitate a more structured dialogue for developing and agreeing joint work.

EU-Africa Infrastructure Trust Fund

In line with the principles of the Paris Declaration on Aid Effectiveness, the Trust Fund promotes cooperation between the EU Member States, the European Commission and the European Investment Bank (EIB) and European development agencies. The Trust Fund supports new synergies between those entities for the benefit of Africa, leveraging additional funds by blending grants and loans.

To date, twelve donors (the European Commission and eleven EU Member States - Austria, Belgium, France, Germany, Greece, Italy, Luxembourg, the UK, Portugal, Spain and the Netherlands) have joined the Trust Fund, with EUR 98 m of financial commitments. The European Commission has also announced a substantial additional contribution of approximately EUR 48m.

Eligible projects must combine the following features:

- constitute priority infrastructure projects in the energy, water, transport and (tele)communications
- be sustainable and encompass a cross-border dimension and/or a regional impact (purely national projects are not eligible)
- be driven by the public or private sector or entities with mixed public-private capital
- contribute to poverty reduction and economic development
- involve at least one country located in sub-Saharan Africa (projects located in South Africa must involve another sub-Saharan country).

Support for eligible projects comes in the following forms:

- interest rate subsidies on medium and long-term loans
- technical assistance and capacity building, including project preparation activities
- subsidies for certain capital investments with an environmental or social component that are directly linked to the infrastructure project
- insurance premiums to cover country risks during the construction phase of large projects, for a two to three year period.

Collaboration on Project Preparation

Projects need to go through several stages before they are ready for financing. Feasibility studies, financial plans and environmental studies are just a few of the activities which need to be undertaken – this costs money, sometimes up to 5% of total project costs. Developing projects is slow mostly at the earlier stage of project development and it is here that coordination between donors is as important in finding the right level of resources needed to move projects forward. Ini-

tiated by the ICA in 2006 the ‘Tunnel of Funds’ initiative aims to improve collaboration amongst funds used to help prepare regional projects for financing. The NEPAD - Infrastructure Project Preparation Facility (IPPF)⁴⁹ housed at the African Development Bank has taken the lead on this initiative. In 2007 50% of the IPPF’s grant approvals were co-financed with other project development funds, principally a similar fund housed at the Development Bank of Southern Africa (DBSA), the PPIAF and IFC. There is scope to do more and collaboration between the IPPF and the EU-Africa Infrastructure Trust Fund will be an important area of work in 2008.

⁴⁹ The NEPAD IPPF can only be used for projects with a regional impact

Harmonisation and Alignment

Procedural differences between ICA members and different sets of engagement rules and policy objectives make the preparation of projects longer and more complicated with the need to often navigate through conflicting requirements. There is generally an absence of common policies and procedures for pooling finance, monitoring and reporting.

An agreement reached between AFD, KfW and the EIB in 2005 provides a good illustration of the efforts ICA members are undertaking to improve the speed and efficiency of

cross-border infrastructure provision. The agreement has led to joint financing, joint planning and joint analytical, appraisal and supervision work. Importantly it has led to a marked improvement in the standardisation and mutual recognition of procedures for appraisal, due diligence and procurement. A recent project example which has benefited from the agreement is the construction of a 100km high voltage transmission line linking Central Namibia with the Zambian Border. Long term loan financing amounted to EUR35 million from each Development Finance Institution (DFI) and involved joint technical appraisal, delegation of tasks to one DFI on behalf of the others and joint loan negotiations.

4. CHINA, INDIA AND ARAB PARTNERS

This chapter focuses on the role being played China, India and Arab countries in Africa's infrastructure development. It aims to identify key policy areas and commitments along

with broad investments trends that will impact on African infrastructure investment and areas of possible joint work with ICA members.

China

China continues to play a variety of roles in Africa from trading partner, donor, financier and investor, to contractor and builder. Economic and resource factors now dominate China's foreign policy towards Africa.

There is little reliable data on important factors in the relationship - such as aid, debt, and direct investment, complicated by the fact that China has no centralised aid organisation and no official definition of aid. There is also a growing trend in local government funding to Africa which further complicates attempts to track and quantify investments. Most estimates of commitments either by the state or private companies are almost certainly underestimates.

In 2006 China published its first White Paper on Africa. In November 2007 the China-Africa Summit took place in Beijing. A number of key Chinese commitments were announced at the Summit. They included the doubling of 'aid' by 2009, providing concessional credits of \$5bn (EXIM) and establishing a \$5bn fund, the China-Africa Development Fund to support Chinese Investments in Africa.

Under the Beijing Action Plan (2007-2009) China committed to develop a small number of special economic zones (SEZs) to serve as centres for Chinese investment. Planning is advanced for a mining hub in Zambia, a trading hub in Mauritius, with three others planned for Nigeria, Egypt and possibly Tanzania. These SEZs will require substantial infrastructure investment, both within the zones and linking them to ports and regional markets ⁵⁰.

China EXIM Bank

Concessional loans are an important part of the country's official development assistance and the EXIM bank is the sole institution authorised by the Chinese Government to provide such loans. Whilst exact data on the exact terms of Chinese loans is difficult to obtain given the confidentiality of bilateral agreements the World Bank estimate that on average the grant element is 33%.

EXIM are currently supporting around 300 infrastructure projects (79% infrastructure) in Africa. Through careful analysis of press reports corroborated with official statements the World Bank estimate that EXIM **commitments to African infrastructure were \$1bn in 2005, \$8.4bn in 2006 and \$4.5bn in 2007**. In sharp contrast to projects being funded by ICA members around 30% went to large scale hydro scheme and another third to rail projects.

China Development Bank (CDB)

CDB is the largest amongst China's three policy banks and it lends on commercial terms. Within China its growth is impressive having reached a total loan portfolio of \$215 billion at the end of 2005 (it was set up in 2004). Around 90% is directed towards eight key industries: power, road construction, railway, petro-chemical, coal mining, telecommunications, public facility and agriculture.

CDB currently has a loan portfolio of around \$1bn in Africa where infrastructure investment is an important part of its strategy. It is busy scoping out new project opportunities having dispatched over 30 working teams to African countries, including Egypt, Nigeria, South Africa, Zimbabwe, DRC, Uganda, Kenya and Benin. It is also cooperating with the following sub-regional financial institutions:

- Eastern & Southern African Trade and Development Bank (PTA)
- Bank West African Development (BOAD)
- Central African States Development Bank (BDEAC)
- Infrastructure Development Bank of Zimbabwe (IDBZ)

In May 2007 the CDB was designated to manage the **\$5bn** China-Africa Development Fund.

⁵⁰ How China delivers development assistance to Africa, Centre for Chinese Studies, University of Stellenbosch, 2008

China-Africa Development Fund (CADFund)

CADFund is a commercial financing mechanism – essentially an equity fund. It will invest directly in Chinese enterprises which have set up operations in Africa or plan to invest in Africa and also provide support for African companies engaged in the agriculture, energy, manufacturing, and urban infrastructure and extractive industry sectors.

Chinese Companies

Many of China's largest companies have traditionally been run by the state although privatisation is happening at pace. China often uses grants, loans and debt relief alongside commercial investments and preferential trade access to gain resources and build political ties⁵¹.

The World Bank estimates that from 2000-2006 Chinese FDI was around \$20bn with approximately \$17bn finding its way to the oil sector. It increased sharply in 2007. The acquisition in October 2007, for example, of 20% (\$5.6 billion) of Standard Bank by the Industrial and Commercial Bank of China (ICBC) demonstrates that China is not only interested in African commodities. Chinese private enterprises are also investing in textiles and mining but also in services, agriculture, and processing and manufacturing.

The number of private Chinese construction companies is growing rapidly, as are their size and capacity and they compete actively for construction contracts in Africa⁵². On the contracting side Chinese companies are to be found completing the majority of Government-backed or financed projects e.g. EXIM loans, on turnkey arrangements. Chinese contractors have now completed more than 30% of the projects tendered by both the World Bank and the AfDB.

As the interests of companies are often aligned closely to those of the state there is evidence that some are prepared to pay more for raw materials than foreign companies. For example, the Chinese consortium led by China National Machinery & Equipment Import & Export in 2007 clinched a \$3 billion deal with Gabon to start an iron ore mine at Belinga by promising to build a 310-mile railway to link it to the coast. Analysts say that BHP had turned down the project, deciding it was too expensive.

Joint Work with China

Coordination with China, is a growing area of activity for the ICA. In May 2007 an MOU was signed between the World Bank and China EXIM Bank. The agreement will focus initially in transport and energy projects in Mozambique, Ghana and Uganda. Staff exchanges as part of the arrangement are already taking place between Washington and Beijing.

The AfDB has signed an MOU with China EXIM Bank and plans to sign an MOU with China Development Bank.

The EC held its first discussions with China on infrastructure in 2007 which was followed by an EU-China coordination meeting on regional infrastructure linked to the launch of the EU-Africa Infrastructure Partnership in Addis.

DFID has an active programme of collaboration with China in Africa. For example, in the DRC a major road reopening and maintenance programme developed with the World Bank, the EU, the Government of DRC, with inputs from the AfDB, will be launched in 2008. There are plans to collaborate with a Chinese investment consortium in the sector on areas such as environmental and social impact mitigation and maintenance capacity building.

Joint-funding of transport corridors, regional energy, and water supply and sanitation projects designed to help meet MDG7 will be a focus of continued collaboration efforts.

⁵¹ *How China delivers development assistance to Africa, Centre for Chinese Studies, University of Stellenbosch, 2008*

⁵² *China's Burgeoning Ties with Africa, IMF 2008*

India

Whilst China has concentrated in recent years on resource-based investment India has focussed mainly on capacity building whilst large-scale Indian investments have been largely private sector, riding on the back of the lines of credit given by the Indian Government.

This pattern is changing, driven to a large extent by India's energy security concerns. Although trade relationships have traditionally been skewed towards East and Southern Africa, West Africa has been growing in importance owing to oil imports from that region. In 2008 Indian diplomatic missions will open in Mali, Gabon, Niger and Burkina Faso.

The first India-Africa Summit in early 2008 launched a new initiative to improve India's collaboration with a number of African countries in the fields of agriculture (particularly irrigation and water resource management) and regional integration (with support to infrastructure projects and regional institutions). India has important experience to offer in these areas particularly when set against the growing threat of climate change. India is currently the world's largest market for infrastructure PPPs – another growing area where Africa will need help and expertise.

Pan-Africa E-network Project

Announced by Indian President Abdul Kalam in 2004 this \$1 billion joint-project with the AU was formalised in 2005. The project aims to develop Africa's information and communication technologies by eventually connecting all 53 African countries (25 currently signed) to a satellite and fibre-optic network. The project aims to link African countries to Indian universities and hospitals.

In 2007 Ethiopia was the first African country to benefit. Centres for tele-education and tele-medicine will be located at the Addis Ababa University and the Black Lion Hospital respectively, with two other remote centres. The cost of the pilot project for Ethiopia is a \$ 2.13 million grant.

India EXIM Bank

At the end of 2007 EXIM had approximately \$1.8 billion operative lines of credit (LOC) for countries in Africa⁵³. Notably this

included around \$500 million for Sudan and \$250 million for the ECOWAS Bank for Investment and Development. A large proportion of these LOC are focussed on infrastructure-related investments. Sample deals in 2007 included \$20 million (of total \$80m commitment) to the Government of Rwanda to finance the construction of a hydro power project. \$30 million was extended to Mali for financing electricity transmission and distribution projects.

Indian Companies

Corporate India, by comparison to China, has neither government backing nor its balance sheet, so companies have had to be more selective in where they invest.

Traditionally focused in areas where the native Indian population was already active on the continent, this dynamic is now shifting as Indian companies increasingly seek investments in non-Anglo western African countries. Trade deals with Francophone Côte d'Ivoire, for instance, are forecasted to grow to \$1 billion between 2006 and 2011.

With Africa poised to make significant investments in infrastructure projects in the next few years Indian companies are increasingly looking to win their share of the multi-million dollar contracts on offer. Africa has a land mass that is 11 times the size of India, which is an indication of the size of the opportunities in that continent.

For example, in November 2007 KEC was awarded a \$60 million turnkey job for the construction of a 400kv transmission line in Algeria, and two further transmission lines in Namibia for Nampower. The overseas arm of the Indian Oil and Natural Gas Corporation is investing \$200 million in Sudan pipeline project.

The annual Indian-Africa Conclave has emerged as an important forum for African countries to interact with potential investors and renowned Indian companies. The 4th Conclave on India-Africa Project Partnership in 2008 is expected to discuss a raft of planned infrastructure projects.

⁵³ Analysis of India EXIM Bank's website

Arab Partners

Public investments

Arab National and Regional Development Institutions have organised themselves into a Coordination Group with secretariat support provided by the Arab Fund for Economic and Social Development (AFESD). The Group meets periodically to discuss ongoing and planned development projects and publishes, twice a year, a

Summary of Loans and Technical Assistance Extended to Developing Countries by Arab National and Regional Development Institutions. Members of the Group are listed in table 4.1. Together \$2.68 billion was committed in 2007 to infrastructure projects in Africa (see table 4.1), with 55% of that total going to road projects. The ICA Secretariat has initiated contacts with the Coordination Group with the view to establishing closer links and identifying areas of possible joint work in Africa.

Table 4.1 Commitments by members of the Coordination Group in 2007 (US\$ million)

| SOURCES | TOTAL US\$ MILLION |
|------------------------------------------------|--------------------|
| KUWAIT FUND FOR ARAB ECONOMIC DEVELOPMENT | 873.9 |
| SAUDI FUND FOR DEVELOPMENT | 114.6 |
| ABU DHABI FUND FOR DEVELOPMENT | 50.0 |
| ARAB BANK FOR ECONOMIC DEVELOPMENT (BADEA) | 134.5 |
| OPEC FUND FOR INTERNATIONAL DEVELOPMENT (OFID) | 265.0 |
| OFID – PRIVATE SECTOR | 14.5 |
| ARAB FUND FOR ECONOMIC AND SOCIAL DEVELOPMENT | 483.30 |
| ISLAMIC DEVELOPMENT BANK | 739.12 |
| TOTAL | 2675 |

For a full list of project commitments see Appendix A6.

Private investments

There is plenty of interest from the Middle East in Africa. Historically confined to North Africa Gulf investors are increasingly keen to develop large infrastructure projects and blue-chip investments across the continent. Gulf investors could help bridge the gap as project finance is well suited for Islamic financial instruments, which need to be backed by physical assets.

On the infrastructure side, Dubai Ports, has invested in Djibouti, Mozambique and Senegal. In telecommunications, Celtel, one of the largest operators across the continent, is owned by MTC Kuwait (Zain). South Africa's Cell C is Saudi-funded⁵⁴. UAE companies have already invested about \$380 million in Sudan, across sectors such as telecommunications, banking, hotels and leisure, infrastructure and manufacturing.

The hotel and leisure sector is sparking particular interest. Property investment company Sama Dubai is investing \$15 billion in the construction of a new city covering 830 hectares in southern Tunis. Final investment is predicted to reach \$30 billion. The project, located around the old Tunis harbour, will have space for 500,000 people. Sama Dubai also has a \$7 billion portfolio of projects in Morocco, including the \$3 billion Amwaj (hotels, harbour and housing) near Rabat.

Emaar, a Dubai-based investment company, has burgeoning operations in Egypt and Morocco. In Egypt its portfolio has grown to over \$6 billion and in Morocco is nearly \$12 billion. Al Qudra International, a privately held investment company, recently launched tourism developments in Algeria and Morocco and is expected to announce more in the region by the end of 2008. Bloom Properties, announced a \$5 billion community development in 2007 located near Algiers. Stretching over 6.6 million square metres the project will feature a mix of

⁵⁴ *Africa Investor 2007*

residential and commercial properties, with educational, medical and leisure facilities.

Given the sheer scale of many of these investments it is clear that attempts to track infrastructure and infrastructure-related investments in Africa (such as the PPI database) are not comprehensive and under-estimate levels of investment.

5. PRIVATE SECTOR INVESTMENTS

The overwhelming majority of investment in African infrastructure continues to be delivered through traditional procurement techniques, using public capital. This

Chapter looks at trends and developments in private sector participation and ongoing bottlenecks to doing more.

Levels of Private Investment

Infrastructure investment in Africa using private capital has grown over the last decade or so, particularly in the energy and telecommunications sectors. This has been accompanied by the privatisation of some monopolies, with attempts at shifting the cost burden from taxpayers to consumers. Long-term concessions have always been awarded in the roads, ports and water sectors in a small number of countries, again using revenues from user tolls or tariffs to provide long-term financial underpinning of investments.

The World Bank's Private Participation in Infrastructure (PPI) ⁵⁵ project database for energy (electricity and gas), transport, telecommunications, and water and sewerage, estimates that the investment in Africa from private sources was in the

region of \$21.9 billion in 2006. A time of writing this report 2007 data was not available though given the upward trend in both North Africa and SSA over the last few years it was assumed that \$21.9 billion would be a minimum figure for 2007.

Long lead times and high capital costs in often result in low financial returns on investment in infrastructure projects. Low acceptable returns when balanced against risk considerations can hinder the implementation of projects across all sectors, but particularly for the energy and water sectors (as can be seen from the small number of PPI deals). Where essential infrastructure and customer affordability are to be taken into account the private sector is often deterred due to the increased risk of non-cost recovery and political interference.

Public Private Partnerships (PPPs)

There is increasing talk in Africa about the need for more private finance to help fill the infrastructure gap and the importance of Public-Private Partnerships. PPPs are increasingly seen as an essential institutional mechanism to design, build, finance and/or operate infrastructure facilities hitherto provided by the public sector. The PPP process usually requires that the true long-term cost of service delivery is revealed, so generating a more realistic debate on project selection.

It is still rare to find African governments stimulating private sector involvement within the context of an overall procurement policy for infrastructure, so that privatisation, concessions, output-based performance contracts and other forms of public-private partnerships (PPPs) can be assessed alongside public provision as potential options.

- In typical 'concession PPPs' the private party charges users for the use of the asset to recoup its investment, operating costs and an element of profit. Typical examples include toll roads, a container terminal or airport concession.

- A few African Governments are turning to partnerships with the private sector as a driver to better procurement of public services e.g. social infrastructure projects. These 'PFI-model PPPs' involve contracting a private party for a period of time to provide a defined public service that requires significant investment. Payments are made by the government to the private party when the service (not the asset) is delivered. The Governments of South Africa, Uganda, Botswana, Tanzania, Mozambique, Nigeria, Kenya, Egypt, Senegal, Morocco, Malawi and Mauritius are all at various stages of setting up specialist units to promote greater use of PPPs. In Egypt the Government is embarking on an ambitious scheme to deliver a number of schools and hospitals under a "PFI-model" – a deal for 345 public schools is currently at the tender stage.

Set against the level of potential investment demand and the impressive growth rates in a number of African countries recently, one conclusion is that low demand for infrastructure is unlikely to be the reason for relatively low levels of private investment in Africa when compared to other developing regions

⁵⁵ The PPI database is an estimate of the levels of private sector investment based on tracking press announcements and other media sources of information. It includes management and lease contracts, concessions, greenfield projects and equity stakes in state-owned enterprises (so called divestitures). It does not include social infrastructure PPP projects like schools and hospitals.

Table 5.1: Investment value of PPI projects 2000 to 2006.

| ALL AFRICA | | | | | |
|-----------------|--------|---------|-----------|------------------|---------|
| INVESTMENT YEAR | ENERGY | TELECOM | TRANSPORT | WATER & SEWERAGE | TOTAL |
| 2000 | 450.5 | 4110.6 | 622.7 | 31.3 | 5214.8 |
| 2001 | 2079.7 | 3840.6 | 857.9 | 3.4 | 6781.6 |
| 2002 | 513.5 | 3606.2 | 77.7 | | 4197 |
| 2003 | 1657 | 4722 | 280 | 8.5 | 8887.5 |
| 2004 | 55.8 | 8354 | 650.2 | | 9060 |
| 2005 | 1758.7 | 8749.5 | 2563 | 510 | 13581 |
| 2006 | 2936 | 14365.5 | 4691 | | 21892.5 |

| NORTH AFRICA | | | | | |
|-----------------|--------|---------|-----------|------------------|---------|
| INVESTMENT YEAR | ENERGY | TELECOM | TRANSPORT | WATER & SEWERAGE | TOTAL |
| 2000 | | 2630.9 | 418.3 | | 3049 |
| 2001 | 1367 | 1028.1 | 373.9 | | 2769 |
| 2002 | 30 | 855.4 | | | 855 |
| 2003 | 360 | 740 | | | 1100 |
| 2004 | | 4699.5 | 427 | | 5126.5 |
| 2005 | 400 | 3831 | 103.2 | 510 | 4844 |
| 2006 | 2320 | 7371.6 | 440 | | 10131.6 |

| SUB-SAHARAN AFRICA | | | | | |
|--------------------|--------|---------|-----------|------------------|---------|
| INVESTMENT YEAR | ENERGY | TELECOM | TRANSPORT | WATER & SEWERAGE | TOTAL |
| 2000 | 450.5 | 1479.7 | 204.4 | 31.3 | 2165.8 |
| 2001 | 712.7 | 2812.5 | 484.0 | 3.4 | 4012.6 |
| 2002 | 483.5 | 2750.9 | 77.7 | | 3312.1 |
| 2003 | 1297.1 | 3982.1 | 280.1 | 8.5 | 5567.7 |
| 2004 | 55.8 | 3654.5 | 223.3 | | 3933.6 |
| 2005 | 1358.7 | 4918.5 | 2459.7 | | 8736.9 |
| 2006 | 616.2 | 6893.9 | 4251.1 | | 11761.2 |

of the world. Equally, if the growth of some sectors across the continent is a guide, the ability and willingness in a number of sectors for citizens to pay for better quality infrastructure may not be a constraint. The work that is required is on the supply-side of private investment, including the obstacles to mobilising private-sector resources.

Increased private sector participation in African infrastructure will require governments and donors who support them to think and behave in new ways. In many countries in SSA where public sector processes and institutional capacity is

weak, the implications for managing the relatively complex PPP process should not be under-estimated. For example, in South Africa capital budgets are consistently under spent as there is not the capacity to prepare projects for public funding, let alone private. Important pre-requisites for a successful PPP programmed include a clear policy framework, a legal system that ensures contracts are effective and enforceable, a long-term investment plan, and an operating framework within government to properly manage the PPP process. All of this needs strong political commitment over the long-term.

In addition to skills shortages other issues such as a sustainable pipeline of credible and viable projects, transparent bidding, sound dispute resolution and land tenure are important requisites for participation by the private sector.

There is often a lack of proactivity in marketing projects. In organising 'Financing Transport for Growth'⁵⁶ – see below – the

ICA Secretariat had a muted response from countries when prompted to promote transport projects suitable for private sector participation. After 6 months lead time with the support of two leading project finance firms only 8 projects across the whole continent with feasibility studies were identified.

'Financing Transport for Growth', Tunis, December 2007

The Infrastructure Consortium for Africa (ICA) held a technical meeting focusing on private sector participation in the African transport sector on 3-4 December 2007 in Tunis. Priority transport projects which lend themselves to partnerships between the public and private sectors were presented. The meeting was successful in promoting dialogue between sponsors of transport projects and around 100 representatives from the private sector and donors. The projects were:

The Enfidha Port – Tunisia
Mohammedia Port Container Terminal – Morocco
Kazungula Bridge – Botswana / Zambia
Mayumba Port – Gabon
Winelands Toll Road – South Africa
Wild Coast Toll Road – South Africa
Jinja Nile Crossing – Uganda
Djibouti-Ethiopia Railway

The full outcomes statement from the meeting along with details of further up-coming projects can be downloaded at: http://www.icafrica.org/fileadmin/documents/Transport_Meeting/Outcomes_statement_FINAL_-_Financing_Transport_for_Growth_in_Africa.pdf

Investment Climate

African countries can attract and use more capital if they significantly reduce red tape and other regulatory impediments to private activity. Although progress has been made in recent years, sub-Saharan Africa lags behind other parts of the world in terms of investment and business climate. 24 of the 30 countries with the most costly business environment are in sub-Saharan Africa. A business-friendly environment would also incorporate non-discriminatory taxation, customs regimes that facilitate the movement of goods and services,

and regulations that make the labour market more flexible while safeguarding employee rights. Improving the business environment for the private sector remains a key challenge and is crucial for sustained economic development, poverty reduction and for the achievement of the Millennium Development Goals. International Institutions like UNCTAD, OECD, AfDB and the World Bank group publish regular country or regional business environment assessments.

Access to Finance

Major risks cited by private infrastructure financiers in Africa often relate governmental or quasi-governmental actions, outside of the control of the private party – these include regulatory and devaluation of local currency risks.

Raising debt and equity capital to finance projects in Africa remains a challenge. With few exceptions, local capital markets in Africa are currently not suited to financing infrastructure and mismatched to debt tenors which are on average only 180

⁵⁶ ICA meeting, December 2007, all meeting documents available on ICA website

days in Sub-Saharan Africa, with a maximum of 3 to 5 years in certain markets. High transaction costs are also hampering the development of an efficient market. For example Kenya Telecom – a sub-LIBOR borrower – would have to pay 7% transaction costs to access the capital markets. Most African countries have low or non-existent sovereign credit ratings which restricts their ability to tap both foreign and local currency markets to raise private finance for infrastructure, especially long-term debt finance.

Despite being under developed local capital markets do offer the best solution to long-term sustainable infrastructure financing. It seems certain that given the prevailing political and economic conditions of many countries in Africa that infrastructure projects will continue to need substantial credit enhancement (for example, through guarantees), provided mostly by official agencies, to attract local currency debt. Africa is poised for more borrowing from State Owned Enterprises (SOEs) and utilities and it is important that the

relationship between the commercial banking sector and municipalities/SOEs is strengthened. In most countries in southern Africa municipalities are authorised to borrow for infrastructure finance but few do. Lack of resources to prepare projects that will satisfy lenders is often a constraint. They also need reforms to increase creditworthiness. At the same time it is important that DFIs do not crowd out the commercial banking sector.

In the past two years, the flood of money to infrastructure funds has been astonishing⁵⁷. The world's 20 largest funds now have nearly \$130 billion under management with 75% of it raised in 2006 and 2007. Investment in traditional brown field opportunities in the developed world will not satisfy demand and bidding for these deals in emerging markets is already intense. Funds are increasingly looking for opportunities in the emerging markets. How well will Africa position itself to benefit from the availability of these large and growing infrastructure funds?

The Pan African Infrastructure Development Fund (PAIDF)

The Pan African Infrastructure Development Fund (PAIDF) is an African initiative that raises private funds from African resources (in particular pension funds) to invest in infrastructure

projects in Africa. The fund was endorsed by the Africa Union Summit in July 2007 and has so far raised \$625 million (table 5.3) out an initial target \$1 billion mark by September 2008 – it has both debt and equity financing capabilities. The PAIDF is a good example of how Africans can raise capital themselves to fund their own infrastructure projects.

Table 5.3: PAIDF investors and amounts committed in 2007

| INVESTOR | AMOUNT COMMITTED US\$ MILLION |
|----------------------------------------------|-------------------------------|
| GOVERNMENT EMPLOYEE PENSION FUND | 250 |
| BARCLAYS/ABSA BANK | 125 |
| DEVELOPMENT BANK OF SOUTH AFRICA | 100 |
| OLD MUTUAL | 50 |
| AFRICAN DEVELOPMENT BANK | 50 |
| STANDARD BANK | 15 |
| LIBERTY LIFE | 15 |
| METROPOLITAN ASSET MANAGERS | 10 |
| SOCIAL SECURITY AND NATIONAL INSURANCE TRUST | 10 |
| TOTAL AMOUNT COMMITTED | 625 M |

⁵⁷ How investors can get more of infrastructure. McKinsey and Company, February 2008

Africa Finance Corporation (AFC)

The launch of the Africa Finance Corporation (AFC) was another home-grown investment launched in 2007. Modelled on the lines of the International Finance Corporation it is an initiative of the Federal Government of Nigeria. A core pillar of this private sector-led investment bank and development finance institution is infrastructure where the institution is looking to increase the number of public-private sector partnerships to close the infrastructure gap. AFC promotes private sector investment in power, transport and telecom infrastructure projects.

User Guides

In 2007 the ICA Secretariat published a user-guide to donor debt and equity financing for infrastructure⁵⁸, funded by a grant from the Private-Public Infrastructure Advisory Facility (PPIAF). The guide provides project sponsors detailed information on the types of financial products which might be available to finance their projects, who can provide them, and the terms and conditions on which they are likely to be provided.

In 2007 the World Bank (with support from the PPIAF) produced a comprehensive review⁵⁹ to what types of risk mitigation instruments are available, who provides them and how they might work together. Case studies and in-depth details of products provided by both of multilateral and bilateral agencies are provided.

⁵⁸ The guide can be downloaded from <http://www.icafrica.org/en/publications/>

⁵⁹ The review can be downloaded from <http://www.icafrica.org/en/publications/>

6. TRENDS

This chapter highlights current trends which Africa is experiencing and which will have an impact on both infrastructure

priority setting and on the amount of money available on the continent to finance investments.

Increased Economic Growth

Economic activity in Africa is estimated to have risen by 5.7% in 2007, and is expected to remain high, at 5.9% in both 2008 and 2009 according to the African Economic Outlook for 2007/2008⁶⁰. The outlook for much of Africa continues to be favourable with highest growth registered by the oil exporting countries. A significant increase in ODA to Africa, driven largely by debt relief, increasing flows of foreign direct investment, high commodity prices and greater macroeconomic stability have all contributed to this positive economic outlook.

The World Bank's report '*African Development Indicators, 2007*' points to wide variations between countries and highlights three distinct groups of countries:

- The big oil-exporting countries
- Those with expanding, diversified economies

- And those which have few natural resources, are conflict-prone and are experiencing slow or no growth

Increased connectivity to regional and global markets through deeper regional integration offers the best solution to some of the unique challenges resulting from these variations.

Countries in Africa with high economic growth are turning to international capital markets to raise funds for infrastructure projects. Ghana became the second country on the continent outside of South Africa to sell an international bond in September 2007, raising \$750 million. Gabon's first \$1 billion bond sold in December 2007 and was priced to pay 8.2% interest. It is expected that more countries such as Nigeria, Zambia, Kenya and Uganda will follow the example of Ghana and Gabon and raise funds for road, rail and power projects.

Rising Levels of External Infrastructure Finance

Based on analyses for this report, the chart 6.1 shows that in **2007 Africa received a minimum \$40 billion of external financial support to its infrastructure sector from all sources**. It is most likely that estimates of the levels of private sector investment to the sector and investments from emerging economies other than China and India are both underestimated due to the difficulty of capturing all data.

Chart 6.1 The big picture - minimum external financial support to African infrastructure in 2007



⁶⁰ Report jointly prepared by the AfDB, OECD and the United Nations Economic Commission for Africa (UNECA)

High Demand for Commodities

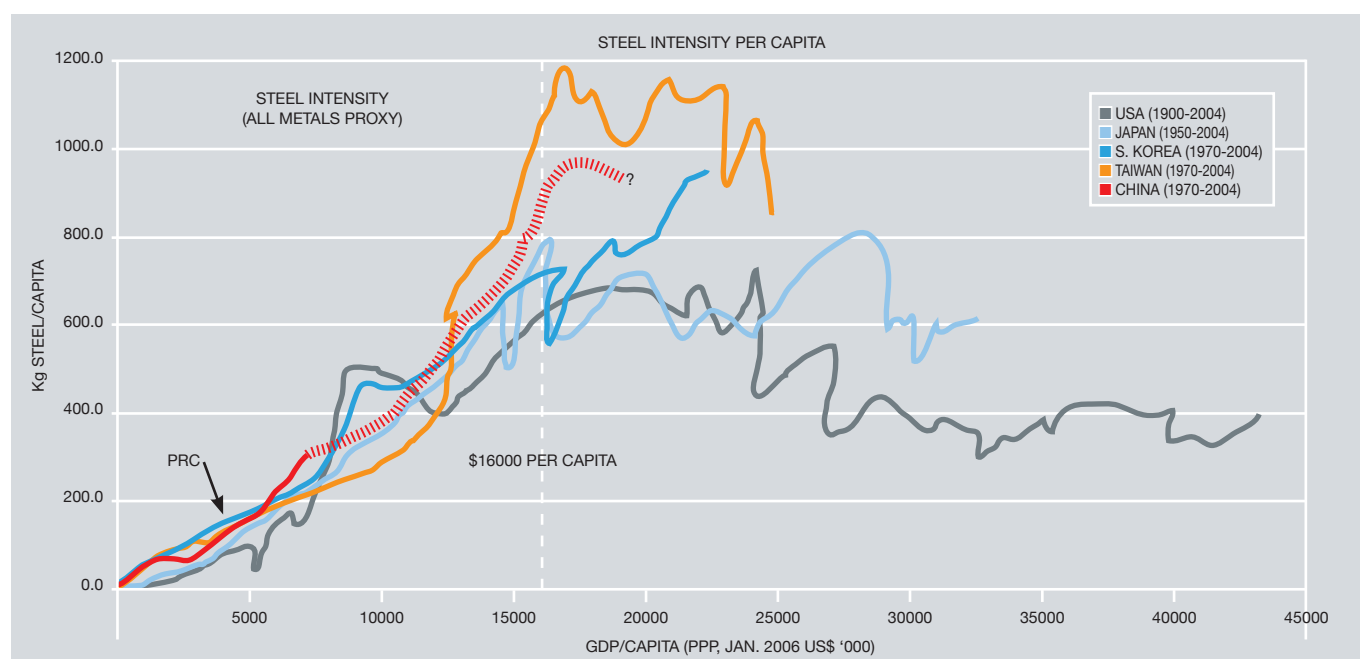
Economic activity between Africa and Asia is booming and is a major factor in the many of the high growth rates seen across the continent and the higher rates of investment in infrastructure. How long will the boom last? Figure 6.2⁶¹ a graph of steel intensity⁶² versus GDP/capita offers some clues. The intensity (or demand for steel) tends to fall off once basic national infrastructure is in place and most domestic markets have been developed and penetrated. Growth from then on tends to be in services accompanied by a falling proportion of employment in manufacturing, as evidenced by mature economies such as the USA and Japan.

The graph appears to indicate that, at around \$16,000/capita the metals intensity of GDP growth tends fall off. Given that China is only at about one-third up this high intensity phase, that India is at about a third that of China, and given that together these countries have a combined population

approaching three times that of the developed countries, then it would be reasonable to assume that the current global high metals intensity phase could continue for roughly another 30 years.

Other Asian countries, not included in this estimate, are also following China and India's model of offering infrastructure in exchange for mineral and other concessions. For example, in Congo-Brazzaville a Congo-Malaysia-Korea Consortium, a venture including the Korean Railroad Corporation and Korean steelmaker POSCO, is to build a \$4bn railway 1,500km from Brazzaville to Ouésso in eastern central Congo in exchange for oil, natural gas, iron and mining concessions. Burgeoning middle classes in Asian countries with rising incomes and purchasing power are also increasingly buying Africa's light manufactured products, its back-office services, tourism facilities and telecommunications⁶³.

Chart 6.2 China's demand from commodities



Increased Fuel and Food Prices

The high price of oil is a unique opportunity for African oil producers to use their windfall gains to speed up development. Whilst the pace of spending has to be commensurate with the economies' capacity to absorb large

additional spending programs, some countries will be able to afford to finance their own infrastructure needs allowing grant donors to focus on supporting social sectors.

⁶¹ MINTEK, 2007

⁶² Steel intensity is the amount of steel used per unit of gross domestic product, reflecting the demand for steel

⁶³ China and India Go to Africa, H Broadman, Council on Foreign Affairs, 2008

The negative effects of high oil and food prices on economic activity will be equally felt by oil importers as well as exporters.

The transportation sector will be the most vulnerable to high oil prices in African countries given that the majority of goods are transported by road. Landlocked countries far from the coast will suffer more as costs to the movement and supply of goods increase. High fuel cost is also making electricity more expensive as around 20% of Africa's installed power generation capacity is now delivered by diesel-powered generators. The cost of building infrastructure will also increase as commodity prices and the cost of transporting them around the continent to construction sites increase.

Food riots triggered by high food prices have pushed global hunger onto the political agenda. The current crisis has highlighted the fragility of the world's food system and their vulnerability to shocks. Food prices are predicted to remain high for years to come. Irrigation is rare except in only a handful of African countries and its rate of expansion has been slowing for years. Making better links between the agriculture and infrastructure sectors will be needed to increase irrigation which is key to production in the face of reduced rainfall and higher temperatures in parts of the continent. In addition, reliable power supply is required to add value to agricultural products through processing and cold storage and an efficient road network to transport goods to markets or international ports.

Changing Weather Patterns – Towards Climate Proof Infrastructure

African countries and development partners are at an early stage of trying to understand and plan for what might be the main impacts of more climatic variability. Most infrastructures in Africa continue to be built based on assumptions that the future climate will be similar to that of the past. Doing things differently will add an additional layer of complexity to Africa's development challenges and an additional layer of cost.

Climate change is already threatening vital infrastructure such as road and rail networks, water and energy systems. In the water sector lower annual rainfall in some parts of the continent reduced the power supply capacity of hydroelectric dams and could in future reduce the water supply necessary

for cooling of coal-fired power stations. Coastal and inland flooding, related to excess rainfall, is also a risk for road, rail and air networks. This is particularly so for the several small island states in the continent.

Infrastructure represents such a major investment that it is important to build it to cope with future changes. The cost implication for African governments and their development partners will be significant. Recognition of the risks associated with climate change is a valuable first step towards better planning of new infrastructure investments and mitigating potential damage to existing infrastructure.

Population Growth and Urbanisation

The dramatic increase in urban populations will mean continued strong demand for basic infrastructure such as power, electricity, water and related services, as well as transportation networks.

Africa's population stood around 924 million in 2006. It is projected to reach 1.4 billion in 2025 and 2 billion in 2050. And urbanisation is increasingly becoming a reality on the African continent with more and more rural people moving into the

cities mainly to find employment. According to the AfDB, 12-13 million Africans will leave their rural homes and move to urban areas in 2008. Many migrants find crowded roadways, overused public transportation systems, inadequate water and sanitation services, and a lack of affordable housing. Modern legislative and planning frameworks to ensure economic planning and development will need to be an essential area of focus for African governments.

7. CONCLUSIONS

1. Progress has been made on bridging the financing gap

- **Africa countries received a minimum of \$40 billion in external financial support to infrastructure in 2007.** This compares well with the \$40 billion estimated by the AICD which concluded that Africa needs minimum investments of \$40 billion per year and another \$40 billion being required for maintenance and operation.
- **Commitments by ICA members reached \$12.4 billion, an increase of 61%** from the previous year. ODA commitments to sub-Saharan Africa increased by 59%. Multilateral institutions have continued to play a dominant role, responsible for 70% of total ICA commitments. The water and energy sectors received the major share of new commitments. Water commitments increased by 43%, energy by 62%.
- Record replenishments of multilateral funds (IDA, ADF and EDF), along with the launch of the EU-Africa Infrastructure Trust Fund in 2007 will guarantee that the upward trend in commitments to the sector will continue.
- **Non-OECD countries are now a major source of finance – Chinese commitments alone are estimated to be a minimum of \$5.2 billion in 2007.** Large scale rail and hydropower developments dominate China's project portfolio and could therefore be considered complementary to support from ICA members. Although some still question the use of proper social and environmental standards it should be noted that it is African Governments in the driving seat - the terms of deals will to a large extent reflect government's internal capacity.
- Demand for Africa's commodities from emerging economies will continue for the foreseeable future. It is **important that African countries invest the proceeds from commodities-stimulated growth** into sustainable development, which will include infrastructure.

2. Africa's power crisis continues to demand urgent attention

- More generation capacity is needed to address Africa's chronic shortage of electricity supply. Investment needs in the sector are roughly \$25 billion per year. Improving the performance of energy utilities would free up more money for badly needed new investment and to upgrade existing infrastructure.
- Regional solutions through expansion of international transmission lines, greater intra-country trade and stronger power pools are important to reducing capital, maintenance and operating costs and improving energy security.

3. Action is required now to prevent what might become 'Africa's water crisis'

- Increased rainfall variability due to changes in the earth's climate has made water management and its sustainable use a more pressing problem. Negative effects of these changes are already been experienced in Africa. More water storage facilities need to be built to help smooth out seasonal variations of water supply.
- Regional cooperation between countries needs to improve through increased support to River Basin Organisations.
- Irrigation currently plays a minor role in African agriculture. One silver lining to high food and fuel prices that are affecting many poor people is that home-grown solutions will be more attractive. **Higher food prices could usher in a new era of high agricultural production** with higher land rents in productive areas used to maintain rural transport links.

4. A greater emphasis on regional solutions is needed

- **African Governments need to speed up decision making and Ministries of Finance allocate resources to preparing and financing regional infrastructure projects.** Helping to sell the benefits of regional infrastructure is important yet some Regional Economic Communities and the NEPAD Secretariat often do not receive the annual financial backing pledged by their members.
- Political will and getting the incentives right are key to increased trade and competitiveness, lower energy costs and sustainable water access. The politics of security and monopoly power often provide incentives to maintain the current status quo.
- In response to NEPAD priorities, an increasing share of ICA commitments, from 5% in 2005 to over 23% in 2007, are devoted to funding regional infrastructure.
- **A lack of projects prepared to a stage where they are ready for financing continues to be a significant bottleneck to building new infrastructure** – there are simply not enough of them either for public, private or public-private financing. Too often support to project preparation is seen as an issue for donors. Countries need to commit money and people with the right the legal, technical and financial skills, to develop their own projects

5. The returns to reform and increasing the efficiency of existing infrastructure are high

- **Effective institutions and reform are as important as new infrastructure to ensuring better maintenance of networks and attracting more private sector finance.** In the roads sector, a combination of road funds and road agencies deliver better road conditions and competition in the mobile phone market has lowered prices and expanded access. Technical improvements in the ports sector, for example, will only yield a fraction of their potential without institutional reform.

- More efficient infrastructure will lower costs, free up domestic finance for investment and encourage more outside investment. It is also an important component of helping to mitigate the full impact of food and fuel price rises

- **The prospects for more public-private financing arrangements are good**, though a large jump in the number of these deals should not be expected any time soon. Donor finance will be needed to continue to support African efforts in legal, judicial and regulatory reforms. Where political and regulatory risk remains high Governments can still attract the private sector with performance-type contracts to improve the performance of public operations.

- **Most of the new investment needed for cables to connect African countries to the internet and to increase mobile phone coverage can be met by the private sector.** Technological innovation and liberal policies witnessed so far in the mobile phone sector will be required in the area of broadband if similarly impressive rates of growth are to be recorded. Completing intra-regional and international connectivity is a quick-win with potentially high economic dividends.

- **Public and private users are willing to pay for quality of service** which will require the move to market pricing where conditions allow. Commercialisation of parts of Africa's road network, in particular in areas of high demand such as urban centres and high demand highways must be seen a way of ensuring sustainability. Governments need to ensure a fair deal for customers and a level playing field for all private parties.

- Innovative financing structures in some sectors, such as the dual tariff arrangements involving long-term public subsidies, will need to become a common feature if increased private sector investment is to become a reality.

6. Significant additional spending will be required on urban infrastructure

- **Urban infrastructure in many of Africa's cities is already under strain** and the rate of urbanisation is set to increase.

- **Governments must ensure that they put in place modern legislative and planning frameworks.** Private sector finance will be available if the investment conditions are right whilst the use of targeted government subsidies will be needed to ensure that the urban poor are not marginalised.

- Death by road accidents is Africa's hidden killer. African Governments and ICA members should consider adopting the recommendation from the Global Commission for Road Safety to allocate 10% of road construction budgets to safety.

7. More joint-working will deliver results faster

- **ICA members are working well together** on project co-funding, which could be more effective through routine sharing of project pipelines. More work is needed on harmonisation of procedures and common standards. **Cooperation with China, India and Arab partners is a growing area of activity for the ICA.**

- **Better project prioritisation** by African stakeholders, in particular Regional Economic Communities and other specialised regional institutions based on sound economic and social considerations would help to better focus donor and private sector financing and improve coordination.

Appendix

| AFRICA REGIONS | AfDB PUBLIC | EU (EC & EIB) | WB | JAPAN | FRANCE | GERMANY | UK | USA | ITALY | ICA TOTAL |
|-----------------------------|-------------|---------------|--------|-------|--------|---------|------|-------|-------|-----------|
| 2006 | | | | | | | | | | |
| NORTH AFRICA | 99.0 | | 66.8 | 56.1 | 38.0 | 94.3 | | | 15.0 | 369.2 |
| WEST AFRICA | 81.3 | 67.7 | 348.5 | 21.3 | 22.2 | 10.9 | | 0.7 | | 552.6 |
| CENTRAL AFRICA | 18.6 | 21.2 | 25.0 | 4.5 | 23.7 | 35.8 | | | | 128.8 |
| EAST AFRICA | 84.0 | 203.8 | 153.0 | 25.1 | 9.3 | 13.4 | | 0.5 | | 489.1 |
| SOUTHERN AFRICA | 30.5 | 106.1 | 23.3 | 7.3 | | 14.0 | | 0.5 | 51.3 | 233.0 |
| OTHER OR UNALLOCATED | | 16.5 | | | | | | | | 16.5 |
| TOTAL | 313.4 | 415.3 | 616.6 | 114.3 | 93.2 | 168.4 | 0.0 | 1.7 | 66.3 | 1789.2 |
| AFRICA REGIONS | AfDB PUBLIC | EU (EC & EIB) | WB | JAPAN | FRANCE | GERMANY | UK | USA | ITALY | ICA TOTAL |
| 2007 | | | | | | | | | | |
| NORTH AFRICA | 3.4 | 5.5 | 308.8 | 118.8 | 101.3 | | 0.0 | 81.3 | 0.0 | 619.0 |
| WEST AFRICA | 154.2 | 80.2 | 122.0 | 10.7 | 145.3 | 33.5 | 25.4 | | 16.4 | 587.8 |
| CENTRAL AFRICA | 120.8 | | 111.0 | 0.0 | 12.3 | 6.8 | 0.8 | 0.0 | | 251.8 |
| EAST AFRICA | 87.2 | | 473.0 | 44.6 | 17.0 | 49.9 | 36.4 | 0.0 | | 708.2 |
| SOUTHERN AFRICA | 23.0 | 20.0 | 81.0 | 17.8 | 71.4 | 28.7 | 28.3 | 366.0 | | 636.2 |
| OTHER OR UNALLOCATED | | 57 | | 0.0 | | | 5.4 | 0.0 | | 63.0 |
| TOTAL | 388.6 | 163.2 | 1095.8 | 191.9 | 347.4 | 119.0 | 96.4 | 447.3 | 16.4 | 2866.0 |

| AFRICA REGIONS | AfDB PUBLIC | AfDB PRIVATE | IFC | DBSA | EU (EC & EIB) | WB | JAPAN | FRANCE | GERMANY | UK | USA | ITALY | ICA TOTAL |
|----------------------|-------------|--------------|------|-------|---------------|--------|-------|--------|---------|------|-----|-------|-----------|
| 2006 | | | | | | | | | | | | | |
| NORTH AFRICA | | | | | 760.0 | 259.6 | 106.0 | 56.0 | 23.3 | | | | 1204.9 |
| WEST AFRICA | | | | | 48.3 | 157.2 | 14.1 | | 8.8 | | 4.7 | | 233.1 |
| CENTRAL AFRICA | 75.0 | | | | | 89.0 | | | | | | | 164.0 |
| EAST AFRICA | 127.7 | | | | | 193.4 | | 10.0 | | | 0.7 | | 331.8 |
| SOUTHERN AFRICA | 37.0 | | | | 365.0 | 40.0 | 2.3 | 0.9 | | | 1.1 | | 456.3 |
| OTHER OR UNALLOCATED | | | | | | | | | | | 0.3 | | 0.3 |
| TOTAL | 239.7 | | | | 1183.3 | 739.2 | 122.4 | 66.9 | 32.1 | | 6.8 | | 2390.4 |
| AFRICA REGIONS | AfDB PUBLIC | AfDB PRIVATE | IFC | DBSA | EU (EC & EIB) | WB | JAPAN | FRANCE | GERMANY | UK | USA | ITALY | ICA TOTAL |
| 2007 | | | | | | | | | | | | | |
| NORTH AFRICA | 0.0 | 0.0 | 0.0 | | 632.9 | 193.0 | 0.2 | 67.6 | 0.0 | 0.0 | 0.0 | 0.0 | 893.7 |
| WEST AFRICA | 102.8 | 0.5 | 0.0 | 0.3 | 6.8 | 201.0 | 17.1 | 21.5 | 0.0 | 55.8 | 0.6 | 0.0 | 406.4 |
| CENTRAL AFRICA | 57.3 | 0.0 | 0.0 | 0.0 | 0.0 | 21.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 78.4 |
| EAST AFRICA | 89.9 | 110.0 | 44.5 | 0.8 | 0.0 | 691.0 | 84.1 | 185.8 | 15.6 | 0.0 | 0.1 | 0.0 | 1221.9 |
| SOUTHERN AFRICA | 0.0 | 508.7 | 25.0 | 210.0 | 0.0 | 25.0 | 1.1 | 184.9 | 0.0 | 0.0 | 1.3 | 0.0 | 956.0 |
| OTHER OR UNALLOCATED | 0.0 | 0.0 | | 0.0 | 134.3 | 366.0 | 0.0 | | 0.0 | 7.5 | 0.0 | 0.0 | 507.8 |
| TOTAL | 250.1 | 619.2 | 69.5 | 211.1 | 774.1 | 1497.0 | 102.6 | 459.8 | 15.6 | 63.3 | 2.0 | 0.0 | 4064.2 |

| AFRICA REGIONS | AfDB PUBLIC | EU (EC & EIB) | WB | IFC | AfDB PRIVATE | JAPAN | FRANCE | GERMANY | UK | USA | ITALY | ICA TOTAL |
|----------------------|-------------|---------------|-------|-------|--------------|-------|--------|---------|------|-------|-------|-----------|
| 2006 | | | | | | | | | | | | |
| NORTH AFRICA | 143.0 | | 60.0 | | 149.0 | | | | | | | 352.0 |
| WEST AFRICA | 122.3 | 129.8 | 143.7 | | 21.6 | 19.0 | 8.0 | | | 496.6 | | 941.0 |
| CENTRAL AFRICA | 85.0 | 218.6 | 39.0 | | 0.1 | | 5.0 | | | | | 347.7 |
| EAST AFRICA | 249.7 | 493.1 | 366.8 | | 38.7 | 25.0 | 37.0 | | | | | 1210.3 |
| SOUTHERN AFRICA | 56.4 | 56.3 | 60.7 | | 101.9 | | 13.0 | | | 0.4 | 26.3 | 315.0 |
| OTHER OR UNALLOCATED | | | | | | | | | | 1.9 | | 1.9 |
| TOTAL | 656.4 | 897.8 | 670.2 | | 311.3 | 44.0 | 63.0 | | | 498.9 | 26.3 | 3167.9 |
| AFRICA REGIONS | AfDB PUBLIC | EU (EC & EIB) | WB | IFC | AfDB PRIVATE | JAPAN | FRANCE | GERMANY | UK | USA | ITALY | ICA TOTAL |
| 2007 | | | | | | | | | | | | |
| NORTH AFRICA | | 340.9 | 40.5 | | 120.0 | 1.0 | | | | 82.0 | | 584.4 |
| WEST AFRICA | 57.1 | 216.4 | 233.0 | 2.5 | | 7.2 | 27.2 | 1.3 | 5.5 | 0.7 | | 550.9 |
| CENTRAL AFRICA | 173.0 | 169.1 | 234.0 | | | 0.1 | 60.5 | | 38.8 | 0.6 | | 676.2 |
| EAST AFRICA | 381.1 | 189.1 | 258.0 | 130.0 | 309.2 | | | | 15.6 | | | 1283.0 |
| SOUTHERN AFRICA | | 94.8 | 157.0 | | | 32.4 | | 20.8 | 3.0 | 174.9 | | 482.9 |
| OTHER OR UNALLOCATED | | 13.7 | | | | | | | 3.6 | | | 17.3 |
| TOTAL | 611.1 | 1024.1 | 922.5 | 132.5 | 120.0 | 349.9 | 87.7 | 22.1 | 66.5 | 258.3 | | 3594.6 |

| AFRICA REGIONS | AfDB PUBLIC | EU (EC & EIB) | DBSA | IFC | AfDB PRIVATE | WB | JAPAN | FRANCE | GERMANY | UK | USA | ITALY | ICA TOTAL |
|----------------------|-------------|---------------|------|-------|--------------|-------|-------|--------|---------|-----|-----|-------|-----------|
| 2006 | | | | | | | | | | | | | |
| NORTH AFRICA | | | | | | | | 20.0 | | | | | 20.0 |
| WEST AFRICA | | | | | 40.0 | | | | | | 7.6 | | 47.6 |
| CENTRAL AFRICA | | | | | | | | | | | | | |
| EAST AFRICA | | | | | | | | | | | | | |
| SOUTHERN AFRICA | | | | | | | | | | | | 23.7 | 23.7 |
| OTHER OR UNALLOCATED | | | | | | 40.0 | | | | | | | 40.0 |
| TOTAL | | | | | | 80.0 | | 20.0 | | | 7.6 | 23.7 | 131.3 |
| AFRICA REGIONS | AfDB PUBLIC | EU (EC & EIB) | DBSA | IFC | AfDB PRIVATE | WB | JAPAN | FRANCE | GERMANY | UK | USA | ITALY | ICA TOTAL |
| 2007 | | | | | | | | | | | | | |
| NORTH AFRICA | | | | | | | 34.7 | | | | 0.1 | | 34.8 |
| WEST AFRICA | | | 0.3 | 30.9 | | | 6.0 | 15.0 | | | 0.1 | | 52.8 |
| CENTRAL AFRICA | | | | 75.0 | | | 8.0 | 15.1 | | | 0.4 | | 98.5 |
| EAST AFRICA | 0.5 | 1.8 | | 52.7 | 14.5 | | 9.8 | 13.0 | | | 0.7 | | 92.5 |
| SOUTHERN AFRICA | 0.5 | | | 17.0 | | | 2.7 | 3.5 | 12.2 | | 0.1 | | 36.1 |
| OTHER OR UNALLOCATED | | 21.3 | 16.5 | | 50.0 | 135.0 | | | | 4.8 | | | 227.6 |
| TOTAL | 1.0 | 23.1 | 16.8 | 175.6 | 64.5 | 135.0 | 61.2 | 46.6 | 12.2 | 4.8 | 1.5 | | 542.4 |

| AFRICA REGIONS | AfDB | DBSA | EU (EC & EIB) | WB | JAPAN | FRANCE | GERMANY | UK | USA | ITALY | ICA TOTAL |
|----------------------|------|--------|------------------|----|-------|--------|---------|------|-------|-------|--------------|
| 2007 | | | | | | | | | | | |
| NORTH AFRICA | | | | | 98.4 | | | | 98.1 | | 196.5 |
| WEST AFRICA | | | | | 92.7 | 1.5 | | 10.7 | 0.9 | | 105.8 |
| CENTRAL AFRICA | | | | | 33.1 | 2.7 | | 1.0 | | | 36.8 |
| EAST AFRICA | | 0.13 | | | 102.3 | 8.4 | | 29.6 | 1.0 | | 141.4 |
| SOUTHERN AFRICA | | 47.35 | | | 98.3 | | | 18.5 | 104.7 | 9.0 | 277.9 |
| OTHER OR UNALLOCATED | | 140.00 | | | | | | 38.7 | | | 178.7 |
| TOTAL | | 187.5 | | | 424.7 | 12.6 | | 98.6 | 204.7 | 9.0 | 937.2 |

| COUNTRY | PROJECT NAME | AMOUNT (US\$ MILLION) |
|-------------------------------------------------------------|-------------------------------------------------------------|-----------------------|
| KUWAIT FUND FOR ARAB ECONOMIC DEVELOPMENT | | |
| BURKINA FASO | SAMENDENI DAM FOR AGRICULTURAL DEVELOPMENT | 13.5 |
| SENEGAL | GOUNASS – GUINEAN BORDER ROAD | 11.30 |
| GUINEA | KOMBA – BOUMMEHOUN ROAD | 18.80 |
| EGYPT | AL-ATF POWER GENERATION STATION | 113.00 |
| RWANDA | REHABILITATION OF GITARAMA-MUKAMIRA ROAD | 11.30 |
| LESOTHO | METOLONG WATER SUPPLY PROJECT | 15.00 |
| MALAWI | THYOLO-BANGULA ROAD | 15.00 |
| SENEGAL | ROADS REHABILITATION (SUPPLEMENTARY LOAN) | 11.00 |
| BURKINA FASO | YEGUERESSO-DIEBOUGOU ROAD AND HAMELE ACCESS AT GHANA BORDER | 13.50 |
| MOROCCO | RURAL ROADS | 565.40 |
| TUNISIA | AGRICULTURAL ROADS | 19.40 |
| MAURITANIA | ATAR-TAGAKGA ROAD | 21.50 |
| KENYA | BURA IRRIGATION AND SETTLEMENT SCHEME REHABILITATION | 22.60 |
| SIERRA LEONE | KENEMA-PENDEMBU ROAD PROJECT OF THE KENEMA-KOINDU CORRIDOR | 11.30 |
| BENIN | EAST COAST OF COTONOU | 11.30 |
| TOTAL | | 873.90 |
| SAUDI FUND FOR DEVELOPMENT | | |
| BURKINA FASO | SAMENDENI DAM FOR AGRICULTURAL DEVELOPMENT | 12.00 |
| SENEGAL | GOUNASS – GUINEAN BORDER ROAD | 10.00 |
| BURKINA FASO | YEGUERESSO-DIEBOUGOU ROAD AND HAMELE ACCESS AT GHANA BORDER | 10.00 |
| LESOTHO | METOLONG WATER SUPPLY PROJECT | 10.00 |
| MOROCCO | TASKOURT DAM | 26.70 |
| SENEGAL | DAKAR OUAKAM ROAD | 30.40 |
| KENYA | DANDORI-NEJABANI ROAD | 10.00 |
| TANZANIA | RURAL ROADS IN ZANZIBAR | 5.50 |
| TOTAL | | 114.60 |
| ABU DHABI FUND FOR DEVELOPMENT | | |
| MOROCCO | FES OLUJDA HIGHWAY PROJECT | 50.00 |
| TOTAL | | 50.00 |
| ARAB BANK FOR ECONOMIC DEVELOPMENT IN AFRICA (BADEA) | | |
| BURKINA FASO | YEGUERESSO-DIEBOUGOU ROAD | 12.00 |
| CHAD | BOKORO-ARBOUATCHATAK ROAD | 13.00 |
| GUINEA | MATOTO-DABOMPA BRANCH ROADS - CONAKRY | 3.60 |
| TANZANIA | UPGRADING MWANZA AIRPORT | 6.00 |
| RWANDA | REHABILITATION OF GITARAMA-MUKAMIRA ROAD | 10.00 |
| LESOTHO | METOLONG WATER SUPPLY PROJECT | 10.00 |

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| KENYA | GARISSA CITY SEWERAGE | 4.30 |
| COTE D'IVOIRE | JAQUES VILLE BRIDGE | 7.00 |
| MALI | INTERNAL ROAD PROJECT – PHASE III | 9.50 |
| GABON | REHABILITATION OF TEN REGIONAL AIRPORTS | 10.00 |
| CAMEROON | FOMBAN MAGABA ROAD | 8.00 |
| BOTSWANA | UPGRADING OF SIR SERETSE KHAMA AIRPORT | 10.00 |
| CAPE VERDE | RING ROAD AT FOGO ISLAND – PHASE I | 8.00 |
| BENIN | EAST COAST OF COTONOU | 10.00 |
| SIERRA LEONE | KENEMA-PENDEMOU ROAD | 10.00 |
| MAURITIUS | WASTE MANAGEMENT | 3.10 |
| TOTAL | | 134.50 |
| OPEC FUND DEVELOPMENT | | |
| BURKINA FASO | SAMENDENI DAM PROJECT | 7.00 |
| BURUNDI | POST-CONFLICT RECONSTRUCTION RURAL DEVELOPMENT | 10.00 |
| NIGER | NIAMEY-OUALLAM ROAD PROJECT | 12.00 |
| SAO TOME & PRINPIE | SAO TOME WATER SUPPLY PROJECT | 2.50 |
| CAPE VERDE | POWER SUPPLY FOR FOUR ISLANDS | 12.40 |
| EGYPT | GRAINS SILOS | 10.00 |
| LESOTHO | METOLONG WATER SUPPLY PROJECT | 6.00 |
| ETHIOPIA | SAWLA-KEY AFER POWER TRANSMISSION PROJECT | 20.00 |
| KENYA | BURA IRRIGATION AND SETTLEMENT PROJECT | 6.00 |
| COTE D'IVOIRE | JAQUES VILLE BRIDGE | 5.00 |
| COTE D'IVOIRE | ABIDJAN WATER SUPPLY | 6.00 |
| MADAGASCAR | INFRASTRUCTURE ON MARIE ISLAND | 2.80 |
| MOROCCO | FES-OUJDA ROAD PROJECT | 25.00 |
| MALI | LIVESTOCK III | 4.61 |
| TUNISIA | INTEGRATED RURAL DEVELOPMENT PROJECT | 24.00 |
| BOTSWANA | UPGRADING OF SIR SERETSE KHAMA AIRPORT | 20.59 |
| ZAMBIA | COPPERBELT FEEDER ROADS | 6.00 |
| BENIN | COASTAL PROTECTION PROJECT | 8.00 |
| SIERRA LEONE | KENEMA-PENDEMOU ROAD | 12.51 |
| SUDAN | RAHAD AND EL SUKI IRRIGATION PROJECT | 20.60 |
| SWAZILAND | NHLANGANO-SICUNSA ROAD | 25.00 |
| TANZANIA | SONGEA-MATEMANGA ROAD | 11.00 |
| THE GAMBIA | THIRD PUBLIC WORKS PROJECT | 4.00 |
| THE GAMBIA | LAMINKOTO-KOINA-BASSE ROAD | 4.00 |
| TOTAL | | 265.01 |

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|------------------------------------------------------|-------------------------------------------------------|--|----------------|
| OFID – PRIVATE SECTOR | | | |
| SUDAN | MOBITEL | | 8.00 |
| UGANDA | CSSIL | | 3.50 |
| EGYPT | MARIDIVE II | | 3.00 |
| TOTAL | | | 14.50 |
| ISLAMIC DEVELOPMENT BANK | | | |
| BENIN | COASTAL EROSION PROTECTION | | 20.20 |
| BURKINA FASO | YEGUERESSO-DIEBOUGOU ROAD | | 10.48 |
| BURKINA FASO | SAMENDENI DAM PROJECT | | 22.74 |
| COTE D'IVOIRE | ABIDJAN WATER SUPPLY REINFORCEMENT | | 15.11 |
| COTE D'IVOIRE | CONSTRUCTION OF SINGROBO-YAMOOUSSOUKRO HIGHWAY | | 61.66 |
| DJIBOUTI | SURFACE WATER MOBILIZATION | | 0.29 |
| DJIBOUTI | DORALEH CONTAINER SEA PORT TERMINAL | | 65.00 |
| EGYPT | ABU QIER POWER | | 158.58 |
| GABON | SUPPORT TO THE PREPARATION OF INFRASTRUCTURE PROJECTS | | 9.94 |
| GAMBIA | WEST-FIELD SUKUTA ROAD | | 7.71 |
| MALI | BANDIAGARA BANKASS-KORO- BURKINA FASO ROAD | | 10.58 |
| MALI | POWER GENERATION EXPANSION | | 69.70 |
| MAURITIANA | ATAR-TIDJIKIA ROAD | | 14.80 |
| MAURITIANA | SNIM-MINING PORT EQUIPMENT UPGRADE | | 26.50 |
| MAURITIANA | NOUAKCHOTT WATER SUPPLY (ADDITIONAL) | | 6.25 |
| MAURITIANA | NOUAKCHOTT POWER PLANT EXTENSION (ADDITIONAL) | | 3.74 |
| MOROCCO | TANGIER-MEDITERRANEAN HARBOUR RAILWAY (SPPLEMENTARY) | | 16.20 |
| MOROCCO | MOHAMMEDIA GAS TURBINE POWER PLANT | | 188.00 |
| SENEGAL | TOUBA WATER SUPPLY (PHASE I) | | 10.41 |
| SIERRA LEONE | REINFORCEMENT & EXTENSION OF DISTRIBUTION NETWORK | | 10.80 |
| UGANDA | F.S. ON MINI HYDRO-POWER | | 0.29 |
| UGANDA | SMALL BRIDGES | | 10.64 |
| TOTAL | | | 739.12 |
| ARAB FUND FOR ECONOMIC AND SOCIAL DEVELOPMENT | | | |
| MOROCCO | RURAL ROADS | | 56.60 |
| MOROCCO | FES-OUJDA MOTORWAY | | 113.30 |
| MAURITIANA | DEVELOPING WATER AND ROAD SERVICES IN RURAL AREAS | | 49.10 |
| MAURITIANA | NOUAKCHOTT WATER SUPPLY | | 139.70 |
| MAURITIANA | ATAR-TIDJIKJA ROAD | | 41.50 |
| TUNISIA | REGIONAL AND RURAL ROADS NETWORK (PHASE II) | | 83.10 |
| TOTAL | | | 483.30 |
| GRAND TOTAL | | | 2674.93 |



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