



Mapping Support for Africa's Infrastructure Investment

This report is part of the **Aid for Investment in Africa's Infrastructure** project, jointly managed by the Development Assistance Committee and the Investment Committee of the OECD within the framework of the NEPAD-OECD Africa Investment Initiative.

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EXECUTIVE SUMMARY

Infrastructure development is critical for Africa's economic growth and poverty reduction. Yet there is a significant funding gap to fulfil the continent's infrastructure needs, which cannot be met by current official sources of funding alone. In particular, the proportion of Official Development Finance (ODF)¹ in total infrastructure spending is modest, with reduced likelihood of further increase in a context of tightening budgets in countries that provide assistance. Private investment, on the contrary, offers some promising way to close the funding gap for Africa's infrastructure.

Historically, the role of private investment in African infrastructure has been limited, particularly due to the weak enabling environment that underpins infrastructure development. The enabling environment encompasses: the policy framework; regulations that include tariff setting and procurement; and sound public institutions for the management of infrastructure systems. As several OECD guidance indicates, development partners can leverage private investment both by strengthening the enabling environment and using financial instruments to mitigate investment risks.

At the same time, some development agencies face a dilemma in promoting private investment in general as they do not want to directly promote national commercial interests. Other agencies have little incentive to leverage other financial sources. In the survey conducted by the OECD Development Assistance Committee (DAC) and Investment Committee secretariats for this project, several development agencies point to obstacles in promoting investment in certain developing countries such as political instability, weak public administration, unreliable legal frameworks, corruption, the low capacity of project promoters, bankability of projects, lack of long-term financing, and insufficient resources for project preparation. Particularly for fragile states, some agencies mention that peace and security are prerequisites for improving the enabling environment.

Nevertheless, the OECD DAC Creditor Reporting System data show that development agencies allocate roughly 22% of ODF for Africa's infrastructure to the enabling environment. This support mostly consists of capacity building by deploying experts or training government staff in various stages of planning and operations. Although not all ODF to these 'soft' aspects is provided specifically to promote private investment, examples show that many activities have this aim, including for regional infrastructure.

The survey shows that development finance institutions (DFIs), international organisations and specialised government agencies also use a wide range of financing instruments such as investment funds, blended grants, guarantees to draw in private investors who might otherwise be reluctant to invest in Africa's infrastructure by mitigating the risks in bankable projects. Export credits, while primarily benefitting exporters from the country provider, can also have indirect benefits for project sponsors and buyers involved in infrastructure projects. Investment funds are usually set up by DFIs by using official sources that are then managed by private companies who invest in funds targeted towards African

¹ In this report, ODF relates to bilateral ODA as well as concessional and non-concessional financing by the World Bank's International Bank for Reconstruction and Development (IBRD) and the AfDB. Non-concessional financing from the bilateral donors is not included, even if this forms part of the definition of ODF, due to incomplete reporting at the activity level. ODA was 81% of ODF to Africa's infrastructure in 2010.

infrastructure projects. As for blending, some DAC members are making use of this approach to combine concessionary funding with financing from market-based sources.

In addition to DAC members, multilateral organisations and the private sector, a number of emerging economies such as China, India and the Arab countries, have been increasingly active in Africa's infrastructure sectors. In particular, some estimates suggest that China has outpaced the World Bank as the leading funder of Africa's infrastructure. The active engagement of emerging economies in Africa's infrastructure sectors reflects these countries' own focus on developing infrastructure domestically as part of their growth strategies.

In the context of the Paris Declaration on Aid Effectiveness, it is important to establish common approaches, agree on lead development partners and reduce aid fragmentation to support a country-led approach in the infrastructure sectors. For Africa's infrastructure in general, the largest donors, i.e., World Bank, European Union institutions, African Development Bank, Arab Fund, Japan, Germany and France, together provided more than 79% of ODF disbursements, which excludes financing from the emerging economies. On the other hand, disaggregation of data into different categories by sub-region of North Africa and Sub-Saharan Africa, as well as 'hard' and 'soft' aspects, for each infrastructure sector shows a varied picture in terms of the largest donors. As data also show that there is significant aid fragmentation, effective division of labour needs to be addressed, particularly considering the increasingly important role of the emerging economies in Africa's infrastructure.

While development agencies state that they align to partner country priorities, most of them express challenges due to the disconnect between country and regional priorities, lack of co-ordination and capacity among partner government ministries and regional communities, and inadequate country systems. On harmonisation, many bilateral donors resort to multilateral organisations, specialised programme funds, and multi-donor platforms to minimise duplication, leverage other donors' resources, build consensus, facilitate transactions, and disseminate good practice. While these can be effective approaches to reduce transaction costs and fragmentation, the proliferation of specialised programme funds could also become another source of aid fragmentation. In terms of domestic harmonisation, while some development agencies co-ordinate with other parts of the government that promote investments abroad, others try to maintain a distance between development objectives and promotion of national business interests.

In managing for results, measuring the leveraging effects of ODF on private investment to Africa's infrastructure by supporting the "soft" aspects is difficult. It is first hard to establish causal linkages, particularly since increased investment and infrastructure development can take time. In addition, broader issues such as reduced corruption or a developed financial sector may impact more effectively than direct support to the infrastructure sectors. A major bottleneck in assessing results is the lack of disaggregated data on foreign direct investment and various financial instruments due to confidentiality of commercial interests and other reasons.

It is important to remember that the ultimate goal is sustainable growth and poverty reduction in Africa, as opposed to simply increased private investment. However, when the latter is deemed to contribute to the former through a specific infrastructure plan, then development partners should collectively look at what they can do more to help improve the enabling environment and provide effective financing instruments. This could be done through enhanced dialogue among African governments, the private sector, development agencies, development finance institutions, civil society, as well as the emerging economies on better co-ordination, harmonisation, and division of labour, in line with the Paris Declaration principles.

PART I: INTRODUCTION

1. Background

This section provides the context, references, and structure of the report.

The objective of this paper is to present an overview of support by development partners as well as financial instruments that are promoting private investment for Africa's infrastructure². The report is one of the outputs³ for a joint project by the Development Assistance Committee (DAC) and the Investment Committee (IC) in the Programme of Work and Budget 2011-12 (4.1.1.7 and 5.1.3.3). It is delivered within the framework of the New Economic Partnership for Africa's Development (NEPAD)-OECD Africa Investment Initiative, building on past efforts by the two committees.

The joint project takes place in the international context of the 2002 Monterrey Consensus on Financing for Development, which established the importance of non-aid resources for meeting the Millennium Development Goals (MDGs). Furthermore, the G20 Multi-Year Action Plan on Development included infrastructure as one of its nine key pillars for development, emphasising the need for Multilateral Development Banks (MDBs) to catalyse the flow of private capital to developing countries through mechanisms such as guarantees. Within the OECD, the 2009 DAC Reflection Exercise recommended the need for the Committee to work on leveraging other sources of development finance using Official Development Assistance (ODA). The 2011 Ministerial Council Meeting also encouraged closer collaboration among different policy communities to ensure coherent and multidimensional approaches to development, including in mobilising financial resources and fostering a favourable investment climate.

On the African side, most recently, leaders agreed on a common position for the Busan High Level Forum on Aid Effectiveness that affirmed their aim to exit from aid dependency in the long run. This requires using aid as a catalyst for development, with the private sector playing a key role in turning-around Africa's economy. They further deemed that, in order to realise this, capacity development for both public and private sectors was necessary⁴.

This paper is largely based on responses from a questionnaire that was developed by the secretariats of the DAC and Investment Committee and sent to DAC participants in November 2010⁵.

² For this report, the term "infrastructure" comprises the following sectors: water and sanitation, transport and storage, communications, and energy.

³ See *Aid for Investment Project*, www.oecd.org/daf/investment/africa.

⁴ NEPAD Planning and Co-ordinating Agency, 30 September 2011, <http://www.nepad.org/fr/crosscuttingissues/news/2492/african-leaders-agree-common-position-aid-development>

⁵ *Questionnaire on Donor Support to Enhance Private Investment for Infrastructure in Africa*, <http://www.oecd.org/dataoecd/5/1/49108411.pdf>

The questions covered: Members' strategies for infrastructure in Africa, including mobilising private investment; special considerations for fragile states, environment, regional approaches, and lessons from other developing regions; specific project activities for the enabling environment; application of principles of the Paris Declaration on Aid Effectiveness; and domestic co-ordination and coherence for Africa's infrastructure investment. DAC Members' responses⁶ were supplemented by interviews with officials from a number of multilateral and bilateral agencies⁷. In addition, the paper is based on desk reviews as well as data analysis from the Creditor Reporting System (CRS).

The rest of Part I describes the importance of infrastructure for Africa's development, as well as some international initiatives to support it. It then provides an overview of official development finance for Africa's infrastructure. Part II presents the need for private investment to fund the financing gap for Africa's infrastructure as well as donor efforts to use aid to leverage it. It also shows that there is aid fragmentation in the support to Africa's infrastructure. This part also provides information on donor activities in support of the enabling environment for infrastructure investment. Part III presents information on other official financing instruments as well as other development partners active in Africa's infrastructure. Finally, Part IV refers to the application of the Paris Declaration on Aid Effectiveness to the area and some conclusions.

2. Importance of Infrastructure for Africa's Development

This section briefly explains the importance of infrastructure development for Africa, ongoing international initiatives to support it, and importance of a regional approach.

Infrastructure development is critical for economic growth and poverty reduction.⁸ In Africa, infrastructure can potentially contribute as much as 2% to Gross Domestic Product, with particularly positive effects in East and Central Africa.⁹ In other parts of the developing world, notably in China, massive investments in infrastructure established the backbone for other economic activities such as manufacturing, which in turn fuelled economic growth. A similar path lies open for African countries. Moreover, increased access to infrastructure services such as roads, electricity, telecommunications, water and sanitation—especially in rural areas—can entail direct social benefits such as health, education, and women's empowerment, thereby help achieve the MDGs.

Conversely, deficient infrastructure can hamper economic activities and weaken human development efforts. Poor infrastructure quality has been found to undermine productivity among manufacturing firms in Africa, especially in low-income countries in Central Africa.¹⁰ It is therefore

⁶ Some responded by simply stating that they did not have significant programmes in Africa's infrastructure.

⁷ The Public Private Infrastructure Advisory Facility, International Finance Corporation, and the Multilateral Investment Guarantee Agency of the World Bank; African Development Bank; USAID, Department of the Treasury, Department of Energy, and the Millennium Challenge Corporation of the US; and Japan International Cooperation Agency

⁸ For example, see Page 18 of *Promoting Pro-Poor Growth: Policy Guidance for Donors (Infrastructure)*, 2006

⁹ Africa Infrastructure Country Diagnostics, 2010; Calderon, 2009

¹⁰ Escribano, Guasch, Pena, 2010. Furthermore, empirical analysis has shown that in the countries of the West African Economic and Monetary Union (WAEMU), weaknesses in infrastructure – especially in paved roads and electricity supply – are a major constraint to growth (IMF Regional Economic Outlook, Oct 2010).

critical to address these deficiencies in order to unlock Africa's productive potential and maximise infrastructure's impact on economic growth and human development. In order to achieve this, significant financial resources are required.

For a number of years, many African countries have featured infrastructure as one of the main focal areas in their national development plans, including the Poverty Strategy Reduction Papers (PRSPs). In 2002, NEPAD adopted a Short Term Action Plan on Infrastructure to promote regional integration by bridging the infrastructure gap. More recently, Heads of State and Government of African countries endorsed a number of priority infrastructure projects and appointed champions for their development at the African Union (AU) Assembly in January 2011 in Ethiopia.

The G8 also established the Infrastructure Consortium for Africa (ICA) at the G8 Gleneagles Summit in 2005 to act as a platform for increasing financing commitments by G8 countries and some key development finance institutions for Africa's infrastructure. The Secretariat, housed in the African Development Bank (AfDB), publishes annual reports and organises meetings for members which now include all the G20 members, major multilateral institutions, the Private Infrastructure Development Group (PIDG)¹¹, NEPAD's Infrastructure Project Preparation Facility (IPPF), and the Pan-African Infrastructure Development Fund. The G20 has also emphasised infrastructure development as an important pillar of its Multi-Year Action Plan on Development, with a particular focus on regional infrastructure and ways to leverage private sector investment.

Furthermore, through the joint Aid for Trade Initiative led by the World Trade Organisation (WTO) and supported by OECD, donors have become more aware of African countries' lack of infrastructure as a constraint to their ability to trade and access global markets¹². The Initiative has also resulted in recognising the need to increase capacity building and technical assistance for infrastructure development as well.

The World Bank undertook a major study called the Africa Infrastructure Country Diagnostic (AICD), whose aim was to expand knowledge on the state of Africa's infrastructure, covering sources of expenditure, sector performance, institutional frameworks, and so on. The AICD, funded by France, Germany, United Kingdom, the European Union (EU), and others, aimed to stimulate public actors and development partners in their efforts to support Africa's infrastructure by identifying the needs and key policy issues. The successor to the AICD, the Africa Infrastructure Knowledge Programme, which is housed in the African Development Bank (AfDB), will expand the AICD knowledge and carry out capacity building for national statistics offices across Africa.

An important aspect in infrastructure is the need for and benefits from a regional approach. Economies of scale from regional infrastructure can reduce costs of construction and services compared to those that are developed and used on a country by country basis. In particular, regional infrastructure is suitable from Africa's geographical perspective, for example, with 16 international river basins which present enormous hydropower potential. The POVNET *Guidance on Infrastructure* encourages donors to promote regional and cross-border infrastructure as it increases trade, improves security, saves money, strengthens natural resource management, addresses the needs of landlocked countries, and builds on national and regional comparative advantages.

¹¹ PIDG is a coalition of donor agencies that pool financial resources to invest in infrastructure in developing regions. Members include the United Kingdom's DFID; Switzerland's State Secretariat for Economic Affairs; Netherlands' Ministry of Foreign Affairs; Sweden's International Development Corporation (SIDA); the Austrian Development Agency; Irish Aid, Germany's KfW; and the International Finance Corporation of the World Bank Group. Its website is <http://www.pidg.org>.

¹² See Aid for Trade Case Stories: Infrastructure <http://www.oecd.org/dataoecd/15/38/48323850.pdf>.

In fact, an increasing number of infrastructure projects in Africa involve two or more countries—from power pools and submarine cables to transport corridors. The AU-NEPAD African Action Plan 2010-2015 on infrastructure outlines a series of priority regional projects, with sponsoring governments at the highest political level identified for each project. Furthermore, the World Bank has developed a list of 10 priority regional infrastructure projects. A regional approach requires: creating consensus among various countries on policies and institutional aspects; harmonising regulatory frameworks, including tariff-setting; a clear understanding of and a fair sharing of the costs and benefits of trans-boundary projects; both innovative and established financial instruments; and capacitating regional institutions such as the Regional Economic Communities (RECs) that oversee regional projects¹³. Similar to individual country projects, cross-border projects also require capable, sustainable, targeted and sufficiently funded project management, which includes a deep understanding of the economic, financial, and funding aspects of all phases from preparation and implementation.¹⁴

3. Overview of Official Development Finance to Africa's Infrastructure

This section provides an overview of financial resources for Africa's infrastructure, including official development finance and the composition of assistance providers based on the Creditor Reporting System (CRS)¹⁵. It also presents strategies and approaches of some development agencies, particularly the multilateral organisations, towards Africa's infrastructure.

There are few official estimates available on the current levels, needs and sources of financing for infrastructure for the African continent as a whole. However, data from AICD shows that USD 45 billion was spent annually between 2001 and 2006. Of this amount, ODA provided only around 8% of the total financing¹⁶. In fact, two thirds were paid by African governments and citizens, roughly 20% by the private sector, and the rest by other financiers such as China, India, and the Arab States. While this data is available only for Sub-Saharan Africa, it is assumed that North Africa has a similar funding structure, with official development financing playing a relatively small role.

Disbursement of official development finance (ODF) towards Africa's infrastructure¹⁷ has grown from USD 7.3 billion in 2008 to USD 10.1 billion in 2010 in real terms¹⁸. In this report, ODF includes bilateral ODA as well as concessional and non-concessional financing by the World Bank's

¹³ *Investing in Regional Infrastructure Vital for Africa's Economic Development; ICA Press Release; 10 May 2010; <http://www.icafrica.org/en/news/ica-news/article/press-release-investing-in-regional-infrastructure-vital-for-africas-economic-development-1020/>.*

¹⁴ Based on comments from a DFI representative

¹⁵ The DAC databases cover bilateral and multilateral donors' aid and other resource flows to developing countries. The CRS provides detailed information on individual aid activities, such as sectors, countries, project descriptions, terms of loans, tying status, etc.

¹⁶ Using Table O.4 of AICD on spending by the African public sector, private sector, ODA, and non-OECD financiers (excluding multilateral organisations).

¹⁷ Infrastructure here includes Water Supply & Sanitation (140), Transport & Storage (210), Communications (220), and Energy (230) in the CRS. (See http://www.oecd.org/document/21/0,3746,en_2649_34447_1914325_1_1_1_1,00.html).

¹⁸ Part of this increase is due to the fact that the Arab Fund for Social and Economic Development started reporting data to the DAC in 2008.

International Bank for Reconstruction and Development (IBRD) and the AfDB¹⁹. Non-concessional financing from the bilateral donors is not included, even if this forms part of the definition of ODF, due to incomplete reporting at the activity level. Furthermore, it does not include financing by the emerging economies such as China, India, and Brazil, as they do not yet report to the DAC on their development finance (see Part III). For Africa's infrastructure, ODA consisted of 81% of ODF in 2010.

In 2008-2010, among donors that report to the DAC, the disbursement by World Bank, AfDB, the EU Institutions²⁰, and the Arab Fund for Economic & Social Development represented more (61%) than that of bilateral countries (39%) in total ODF for Africa's infrastructure. Furthermore, if one adds the multi-bi funding, which is technically part of bilateral aid but channelled through multilateral institutions²¹ for specific projects, the amount administered by multilaterals is even higher, for example, at 64% in 2010. Box 1 summarises the strategies for supporting infrastructure development by the major institutions.

Box 1. Multilateral Donors' and EU Institutions' Strategies for Africa's Infrastructure

AfDB is active in supporting regional infrastructure in Africa. It is the executing agent for the Programme for Infrastructure Development in Africa (PIDA), which serves as the blueprint for the development of the continent's infrastructure, including investment strategies, priority projects, and a framework for engaging with development partners. PIDA attempts to merge all the various infrastructure initiatives—namely the NEPAD Short Term Action Plan, the NEPAD Medium to Long Term Strategic Framework, and the AU Infrastructure Master Plans—into one coherent programme for the continent. AfDB also houses several facilities, such as the IPPF and the African Water Facility. Furthermore, under the Enhanced Private Sector Assistance (EPSA) Initiative, the Bank finances its private sector operations through a credit line from Japan on concessional terms. In addition, the Accelerated Co-financing Facility for Africa (ACFA) provides joint project financing with Japan on concessional terms, while AfDB provides project appraisal and loan administration services for the whole project. The total funding for EPSA and ACFA amounted to USD 1 billion over five years since 2006/7.

The World Bank Group (WBG) has developed the Sustainable Infrastructure Action Plan (SIAP), which outlines funding guidelines for the Bank's infrastructure operations for 2009-2011. The Plan identifies four core activities: access to basic services; cross-sectoral linkages; mainstreaming sustainability; and scaling up WBG support and leverage. In addition, in response to the financial crisis, the World Bank launched the Infrastructure Recovery and Assets Platform to help governments minimise the negative effects of the financial crisis on their existing infrastructure projects and to provide additional financing for projects with liquidity problems. It also entails tailor-made advisory services for governments using stimulus packages to boost investment in infrastructure. Moreover, the IFC – a part of the World Bank Group - established an Infrastructure Crisis Facility in April 2009, which aims to bridge the financing gap for privately-funded or PPP-funded projects in emerging markets that are facing financial distress.

The EU-AU Infrastructure Partnership, which covers all infrastructure sectors, has established an Infrastructure Trust Fund (ITF)²², through which grants from the European Commission and EU Member States are blended with loans from the European Investment Bank, bilateral European financing institutions and others, reaching a total financing of over Euro 2 billion for 35 regional infrastructure projects in Sub-Saharan Africa (see Part III). Projects are brought to the ITF for possible co-funding by accredited development finance institutions. The creation of an enabling environment for private sector investment is an increasingly important element of the approach.

¹⁹ Non-concessional financing by other international organisations are not included as they are small.

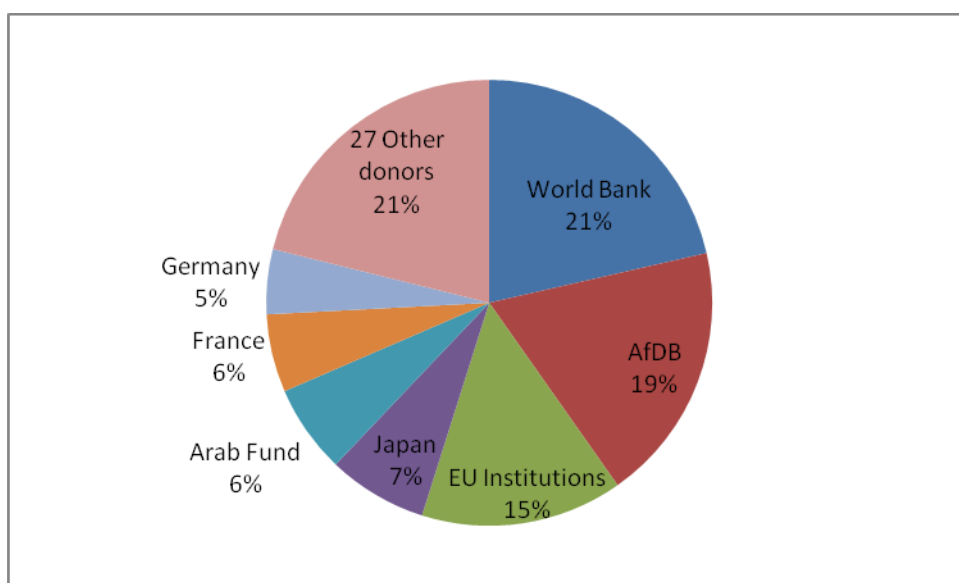
²⁰ Data on loans by EU Institutions are not included in the CRS for years 2008-10.

²¹ Multilateral donors are the World Bank and AfDB. The EU, a DAC Member with its own sources of financing and budgetary authority, is also included here, although it has a *sui generis* legal nature.

²² <http://www.eu-africa-infrastructure-tf.net/>

As for the bilateral countries, the top three ODA contributors to Africa’s infrastructure in 2008-2010 were Japan, France, and Germany. These bilateral countries, along with the World Bank, AfDB, EU Institutions, and the Arab Fund disbursed 79% of ODF to Africa’s infrastructure; the remaining 21% was disbursed by more than 27 bilateral and multilateral donors (see Figure 1). Here, it is important to mention the issue of complementarity for more effective division of labour stated in the Paris Declaration of Aid Effectiveness. As excessive fragmentation of aid at the sector level impairs aid effectiveness, a pragmatic approach to the division of labour and burden sharing becomes necessary to reduce transaction costs. The POVNET *Guidance on Infrastructure* also states the need to agree on lead donors in supporting a country-led approach. This issue is examined in greater detail according to sector, sub-region, and soft or hard aspects of infrastructure.

Figure 1
Share of Donors for Africa’s Infrastructure



Note: 2008-2010 disbursements for Official Development Finance to Africa infrastructure, based on USD 2009

A few DAC members, such as Belgium, Japan, Korea, United Kingdom, and the United States, have developed specific strategies for Africa’s infrastructure. In particular, the United States Agency for International Development (USAID) has a dedicated Africa Infrastructure Programme, the EU Members have a Joint EU-African Infrastructure Partnership strategy, and Japan elaborates its focus on regional aspects such as the integrated Corridor-Based Approach²³. Canada has articulated a Pan-Africa Regional Programme Strategy, which covers infrastructure from the perspective of trade and regional integration.

²³ This involves a whole chain of transport infrastructure—highways, railways, bridges, ports—for example, connecting the ports of Kenya and Tanzania with landlocked countries and linking the region’s east and west coasts of Mozambique, Namibia, and Angola. The Approach also includes support to border crossing regulations, customs clearance, and so on, such as One Stop Border Posts, i.e. to go through joint customs once instead of separately—which has helped reduce the border-crossing times for railway freight from two days to about an hour. In addition, Japan is working on harmonising the regulatory framework for the axle load regulation.

While many bilateral donors provide government-to-government development co-operation in supporting Africa's infrastructure, others resort to the multilateral organisations to take leadership, as they are well placed to address the crucial aspect of regional infrastructure, given their large number of field offices across the continent and expertise in project finance. In other words, some bilateral donors support infrastructure development through funding various multilateral organisations and facilities²⁴ through multi-bi funding, as explained above. Donors such as Belgium use these multi-bi channels by recognising the limits to their mid-sized funding level for government-to-government projects. This may be one way of reducing transaction costs and fragmentation; on the other hand, the proliferation of these specialised programme funds could become another source of aid fragmentation.

Other key data regarding aid to Africa's infrastructure is highlighted in Box 2.

Box 2. Other Key Data on Aid to Africa's Infrastructure

- The growth of ODF to Africa's infrastructure between 2008 to 2010 was higher than the growth for overall aid to Africa, as well as for Africa's health and education, but not for agriculture. In terms of regions, however, the growth was not as high as that of Asia's infrastructure which increased from USD 10.6 billion to USD 15.7 billion nor as that of the Americas which increased from USD 3.0 billion to USD 8.0 billion.
- In 2010, while multilateral donors and EU Institutions disbursed significantly more than the bilateral countries, the difference was mostly in energy and transport. In fact, the bilateral countries collectively disbursed more for water & sanitation than the multilaterals.
- World Bank, AfDB, Arab Fund, Japan, Belgium, Germany, France, Spain, Portugal, UK, and Italy provided ODA loans to Africa's infrastructure in 2010. All other donors provided predominantly ODA grants.
- In 2010, ODF distribution among the infrastructure sectors was: water & sanitation received 23%, transport received 39%, communications received 3%, and energy received 35%.
- The top recipient countries of ODF for infrastructure in 2010 were Morocco, Egypt, Tunisia, South Africa, Ethiopia, Tanzania, Uganda, Kenya, Ghana, and the Democratic Republic of Congo (DRC), in that order, with Morocco receiving 13% of the total amount.

Source: CRS in USD 2009

²⁴

Such as PIDA, PPIAF, AfDB's Water Partnership Programme, African Water Facility, etc.

PART II: PROMOTING PRIVATE INVESTMENT FOR AFRICA'S INFRASTRUCTURE

1. Need for Private Investment for Africa's Infrastructure

This section explains that there is a financing gap for Africa's infrastructure, which needs to be filled by private investment. It introduces existing guidance by the DAC and the Investment Committee which provides directions on how to facilitate private investment for infrastructure. These guidance documents also present challenges that arise in carrying out public private partnerships (PPPs) in infrastructure.

According to the AICD study, the annual financial requirement for infrastructure in Sub-Saharan Africa is about USD 93 billion a year for both capital expenditures and maintenance. However, only USD 45 billion is being mobilised, leaving a gap of close to USD 50 billion a year. It can be assumed that the funding gap would also be significant if North Africa were included to provide a continental scope²⁵.

Current official sources of funding will not be enough to cover this financing gap. Official development finance to Africa's infrastructure has grown steadily, but, as explained in Part I, its proportion in total spending is still modest. Moreover, official development resources are unlikely to further increase in a context of tightening budgets in countries that provide assistance. Furthermore, public expenditure in African countries has played a prominent role, but is unlikely to meet the significant needs of the infrastructure sector, given other competing needs. Private investment, on the contrary, offers some promising way to close the funding gap for Africa's infrastructure.

OECD governments are encouraging their own investors to invest in Africa, although not only for infrastructure. For instance, in 2008, under the "Public-Private Partnership for Accelerated Growth" policy measure, the Japanese government sent three joint missions consisting of government and business representatives to 12 African countries to promote trade and investment and to help improve the continent's investment climate. Moreover, to foster Japanese private business operations in Africa, the Japan Bank for International Co-operation (JBIC) established the Facility for African Investment (FAI) in 2009 to make equity investments and guarantees for private Japanese bank loans and to provide local currency financing to projects in African countries. Furthermore, the Yokohama Action Plan adopted at the Fourth Tokyo International Conference on African Development in 2008 aimed to increase the global competitiveness of African countries by accelerating assistance through the Development Initiative for Trade and doubling Japanese private investment in Africa by 2012.

The Portuguese Ministry of Finance and the Ministry of Economy and Innovation has also created a joint unit whose aim is to inform Portuguese entrepreneurs and investors about multilateral instruments supportive of private sector development and other business and investment opportunities in Africa, particularly in Lusophone countries. Korea's International Development Cooperation Agency (KOICA) and the Korea Trade and Investment Promotion Agency (KOTRA) work together

²⁵ The AICD study did not cover North Africa.

with the Korea Eximbank to provide Korean companies with information on investment opportunities abroad, including in Africa. The US Department of Energy undertakes missions between its energy companies and African utilities, while the US Trade Department also organises trade missions as well as facilitates contacts between its chamber of commerce with the chambers of commerce of various African partner countries.

African governments are also taking active measures to attract private investors. Zambia, for instance, established the Office for Promoting Private Power Investment (OPPPI) in 2000, whose task is to promote and facilitate private investment in power projects. Among its functions, OPPPI identifies potential hydropower investment opportunities, facilitates the preparation of feasibility studies, and assists investors in securing the necessary permits.²⁶ The Development Bank of Southern Africa also assumes a multiple role of financier, advisor, partner, and implementer to mobilise finance and expertise for physical, social and economic infrastructure. More generally, many African countries have set up investment promotion agencies whose functions include image building, investment generation, promoting linkages between domestic and foreign firms, information dissemination and policy advocacy.²⁷ Such activities are targeted to attract investment in all sectors, including infrastructure.

While there are no official data on foreign direct investment (FDI) to Africa's infrastructure (See Box 3), estimates indicate that historically, the role of private investment in African infrastructure has been limited. For example, less than four percent of worldwide private investment in infrastructure went to Sub-Saharan Africa between 1990 and 2003²⁸. However, since the early 2000s, private investment in Sub-Saharan Africa's infrastructure has increased: from USD 3 billion in 1997 to USD 12 billion in 2009, mostly directed at the ICT sector²⁹. This compares to ODF disbursements for Sub-Saharan African's infrastructure of USD 6.4 billion in 2009, China's USD 4.5 billion in 2007 and the Arab Funds' USD 3.3 billion in 2010.³⁰ At the same time, private investment is sensitive to market fortunes – in response to the financial crisis, for instance, private capital dried up³¹, especially for

²⁶ *Investment Policy Review of Zambia: Advancing Investment Policy Reform*; OECD 2011; <http://www.oecd.org/dataoecd/40/33/48720875.pdf>.

²⁷ *Policy Framework for Investment: A Review of Good Practices*; OECD 2006.

²⁸ *Privatizing Basic Utilities in Sub-Saharan Africa: the MDG Impact*; Kate Bayliss, UNDP Policy Research Brief No 3, January 2007.

²⁹ See Annex 1 for a full list of private sector projects in infrastructure from 1990. This data is for country-level projects although there are a number of regional projects with private sector participation as well. Preliminary estimates from the Infrastructure Consortium for Africa's 2010 Annual Report put private sector commitments at USD 13.8 billion in 2010.

³⁰ ODF data is derived from OECD DAC's CRS database; data on Chinese investment is from the AICD study; data on the Arab Funds commitments is from the ICA Annual Report 2010. See Footnote 97 on the Arab Funds.

³¹ In Sub-Saharan Africa (SSA), investment fell by 13% compared with 2008, driven by a slowdown in the implementation of new projects. Investment in new projects fell by 60% to US\$1 billion. Investment in previously implemented projects, by contrast, remained stable at US\$10.8 billion. Telecommunications accounted for 96% of the year's investment. ("Private activity in infrastructure remains at peak levels but is becoming more selective", PPI data update note 42, World Bank, December 2010.).

infrastructure projects that are inherently risky, and especially in Sub-Saharan Africa, which still presents a high-risk profile for many investors³².

Box 3. Statistics on FDI Flows

Statistics reported by OECD countries do not necessarily provide complete estimates of FDI flows or stocks, in spite of generally well developed statistical systems. FDI relates to investments by multinational enterprises (MNEs) which may go through complex investment patterns to maximize benefits for the investor. MNEs frequently pass the funds through so-called Special Purpose Entities (SPEs – eg holding companies, shell companies, brass-plate companies, etc), also known as Special Purpose Vehicles (SPVs) generally located in jurisdictions offering tax and other advantages. Given that FDI is recorded for the first counterparty, the country of residence of SPEs would be shown as the recipient rather than the ultimate beneficiary.

Regarding sector allocation, many countries deviate from international standards when allocating the proper industry to their outward investments. Rather than identifying the industry in the host country, many OECD countries classify outward investments according to the industry of the home (investor) country. In many cases the economic activity of the investor and the direct investment enterprise are not the same. In addition, countries where the international standards are properly implemented, investments through SPEs are likely to be shown as investments in the financial sectors. Lastly, some transactions, in particular smaller ones, may fall under confidentiality obligations which make it challenging to acquire disaggregated data.

As an example, if the home country investment to Africa goes through an SPE located in a tax heaven, FDI outflows of the home country will be recorded for the tax heaven but not Africa. The economic sector of the investment will be recorded as finance. If the data are confidential, outflows will not be shown at all. In view of these difficulties, it has been recommended to establish reliable and comprehensive FDI statistics in developing countries' national authorities (e.g. central banks) and examine FDI in infrastructure from their inward investments.

In addition, the private sector usually looks for profitability and the reliability of project revenue streams, based on adequate and realistic tariff setting and projections. This may explain the larger involvement of private sector actors in urban ICT networks and storage where market price setting is more accepted, as opposed to projects in non-tolled roads, water and sanitation, or rural electrification, which involve more challenging cost and revenue economics. This is a challenging issue for the government, given the social or public good aspects of infrastructure projects, including the need to provide access for the poor.

Nevertheless, with the right framework conditions – including macroeconomic stability, good governance and a strong enabling environment for private participation in infrastructure – the private sector is ready to provide more funding to Africa in the future. The question, then, is how African governments and their development partners can leverage the massive potential of private investment for Africa's infrastructure. In response, private investors state that a sound enabling environment is important for their participation and indispensable to make investments sustainable. Among the priorities ranked by investors in developing countries, the legal framework defining the rights and obligations of private investors was considered the most critical “deal-breaker”, along with stability and enforcement of consumer and project counterparty, including government controlled counterparty, payments; the availability of credit enhancement or guarantees from government and/or

³² *Private activity in infrastructure in Sub-Saharan Africa declined in 2009*; PPI Data Note 48; World Bank, December 2010.

multilateral agencies; and independence of regulatory institutions and processes from arbitrary government interference³³ (Annex 2 provide detailed components of the enabling environment).

At the same time, the Multilateral Development Bank (MDB) Working Group for the G20 as well as some think tanks point to the insufficient amount of resources available for project preparation, which is crucial in developing bankable infrastructure projects, particularly regional ones. Insufficient allocation for infrastructure project preparation, which can amount to 5-10% of total investment costs in Africa, will result in a failure of not attracting private sector participation. Experts recommend that donors shift more resources to project preparation as well as rationalise the plethora of project preparation facilities that already exists³⁴. In addition to funding, good project preparation also involves dedicated human resources experienced in project development. For projects seeking private sector involvement, this includes a thorough understanding of the latter's interest and the ability to realise their participation³⁵.

DAC guidance for donors to support partner countries in enhancing private investment in infrastructure is included in *Promoting Pro-Poor Growth: Infrastructure and Private Sector Development* as well as *Promoting Private Investment for Development: The Role of ODA*. While this set of guidance neither focuses exclusively on Africa nor on promoting private investment in infrastructure, it provides some specific action points (See Box 4).

Box 4. References from DAC Guidance on Support to Enhance Private Investment in Infrastructure

Promoting Pro-Poor Growth: Infrastructure, 2006

- To enhance sustainability of infrastructure investments, donors should foster PPPs to enhance project efficiency and improve sector governance.
- To encourage broader involvement in financing by foreign and domestic private agents, donors should:
 - provide predictable, long-term official development assistance;
 - support a diverse mix of financial instruments, including credit enhancements, and investments in PPPs; and
 - provide technical assistance in financial markets and develop various financing mechanisms.
- In transport, donors should:
 - encourage a service-oriented approach to optimise use of public and private resources; and
 - encourage local private provision of services and development of local industries for construction and maintenance of facilities.
- In energy, donors should support reforms that result in tariff collection policies that attract private investment.
- In ICT, donors should support increased access through innovative financing facilities.
- In water, donors should:
 - strengthen public bodies responsible for water services and encourage PPPs; and
 - encourage peri-urban and rural access to low-cost water by involving the domestic private sector.

³³ *What International Investors Look For When Investing In Developing Countries: Results from a Survey of International Investors in the Power Sector*; Ranjit Lamech and Kazim Saeed; World Bank, 2003.

³⁴ *Infrastructure Action Plan: Submission to the G20 by the MDG Working Group on Infrastructure*, Oct 2010, and *Time for a Big Push on Infrastructure in Africa: What the G-20 Can Do*, H.Kharas and K. Sierra, The Brookings Institution, http://www.brookings.edu/papers/2011/08_infrastructure_africa_kharas_sierra.aspx.

³⁵ Based on comments from a DFI representative.

Promoting Pro-Poor Growth: Private Sector Development, 2006

- Donors should encourage private provision of basic services and infrastructure to the poor by strengthening capacity in legal, regulatory, and administrative frameworks for PPPs.
- PPPs are needed to finance infrastructure, including water or power distribution projects that are essential for increasing services for the poor. Donors' and development financial institutions' roles as catalysts to maximise the leverage of ODA in attracting private financing are key.
- Financial instruments are needed to devise innovative and well-adapted solutions, while increasing the leverage of donors' funds, particularly for pro-poor infrastructure such as water or power distribution.

Promoting Private Investment for Development: The Role of ODA, 2006

- A well-developed financial services sector is important for financing long-lived infrastructure assets. Development agencies should help create a conducive enabling environment through support for regulation, supervision and promotion of financial systems.
- Private sector participation in infrastructure investment needs to increase, including through PPPs. Where there is official financing support for export credits, these need to bear in mind international obligations about trade distortions and subsidies.
- Establishing appropriate frameworks for PPPs is complex, particularly in the water sector. A structured dialogue between the public and private sectors is needed to better understand each partner's objectives. Careful attention is required when contracts are being negotiated.
- To promote investment more effectively, staff working on private sector development, agriculture, infrastructure, public governance, capacity development, environment and gender need to work under a common framework.

In sum, this set of guidance encourages donors to: promote private investment by strengthening the capacity of public bodies in legal, regulatory, and administrative reforms and frameworks; develop and support diverse financial instruments; and help build the financial sector. Furthermore, to complement these guidance for donors, the Investment Committee has also developed the *OECD Principles for Private Sector Participation in Infrastructure* which outline the key issues that host governments could consider when seeking to involve the private sector in the financing and management of infrastructure (see Box 5). The *Checklist for Public Action in Water*, a derivation of this tool, has also been developed for the water and sanitation sector, with subsequent use in Egypt, Lebanon, Mexico and Russia to assess the framework for private sector participation in this sector.

Box 5. OECD Principles for Private Sector Participation in Infrastructure, 2007

- I. Governments should put in place provisions for the **decision-making process** on whether and how to pursue private provision of infrastructure services. Several aspects should enter into this process: cost-benefit analysis; risk allocation; and contingent liabilities.
- II. The **enabling institutional environment** is essential for private sector participation. This includes measures to counter corruption in infrastructure projects and ensure transparency; ensuring the integrity of the procurement process; creating a competitive environment so that domestic and foreign firms can compete on an equal footing, for instance by horizontal or vertical separation of operations; removing restrictions on access to finance and restrictions on international capital movements by making exchange rates fully convertible, for example.
- III. **Goals, strategies and capacities** at all levels must be factored in. This involves consultations with stakeholders; dealing with resistance to private sector participation; strengthening administrative capacities to deliver such as competency in public procurement and monitoring of contracts; coordination across various jurisdictions; and putting in place mechanisms for cross-jurisdictional co-operation.

IV. In order to make **public-private co-operation work**, the following elements should be taken into account: specifying expectations about the private sector's performance; regular and timely consultations between the private and public entities; due diligence and full disclosure from both parties of all the information relevant to the project; setting simple award criteria focused on the quantity and quality of services and the price to end-users; contracts specifying the quantity and quality of services; provisions for future tariffs, technical maintenance and technology transfer; mediation, dispute resolution and recourse to investor-state dispute settlement mechanisms under international investment agreements;

V. Lastly, governments should encourage **responsible business conduct** on the part of private investors, including abiding by contractual commitments, fighting corruption and collusive practices; combating bribery; engaging in dialogue with affected communities; adopting good principles over the environment and society; and upholding human rights.

At the same time, private investment in infrastructure has some challenges. First, some host governments themselves, according to the International Finance Corporation (IFC) of the World Bank Group, are hesitant to fully embrace private entry and to establish the necessary framework conditions due to the political economy challenges associated with introducing private sector participation in infrastructure. Host governments have complained that investors have reneged on contractual obligations, while investors have complained that the business environment has not been conducive. Other important issues that have arisen include the pricing of the basic services provided, arrangements regarding poor people's access to services, financing operating and maintenance costs and mitigating non-market risks. Results to date with Public Private Partnerships (PPPs) have been mixed, with some sectors more suited to this arrangement than others.

Where PPPs work best appears to be in the mobile telecommunication sector, but even here, further work is needed to expand and strengthen services in underserved areas such as poor rural communities. PPPs are also vulnerable to public perception that the private counterparty profits disproportionately. There is also a risk that governments can fail to place their financial obligations under the PPP contract on their balance sheets, leading to a burden on public budgets if these obligations have to be met but had not been accounted for. Lastly, new regulations such as Solvency II and Basel III will pose difficulties for commercial banks to issue long tenors on bank loans. An option in mobilising new sources of finance is to develop local financial markets, in particular pension funds, which can help fill the funding gap for infrastructure in developing countries.

Development agencies face a dilemma in promoting private investment as they do not want to directly promote national commercial interests. Some agencies may also view big infrastructure projects as convenient channels to disburse large amounts of ODA, thus having little incentive to leverage other financial sources or engage in complicated and cumbersome PPPs. Some agencies, such as Germany, do not regard private sector involvement as a goal in itself, nor see it as the preferred option in all cases. For France, the main challenges include the low capacity of project promoters, bankability of projects, and lack of long-term financing. Development agencies may also be concerned over private investors neglecting to align with development objectives as well as the financial viability and sustainability of the projects.

To the above, some DFI representatives responded that, on long-term debt financing, it is less of an issue compared to the lack of up front availability of experienced and hands-on project venture equity that would enable smaller and less experienced project developers to take start up risks. Furthermore, on development objectives, they responded that incentives to motivate the private investors to achieve them can be built in projects, along with carefully assessing and strengthening financial viability and sustainability in the course of project development.

On the other hand, some civil society organisations are cautious of PPPs in general³⁶. For example, they state that: privatisation of infrastructure should be carried out only if there is private sector interest to invest; cost recovery by investors should not become unaffordable for the poor; PPPs may need to be financially viable in the short to medium term, but should lead to long term development impacts; and risk sharing should not disproportionately burden the public sector, resulting in further indebtedness of host country governments when projects fail. Finally, they state that a thorough assessment of the successes and failures of PPPs in developing countries to draw lessons would be necessary. It must be added that not all of the relatively few PPPs for infrastructure in OECD countries have been successful³⁷.

2. Examples of Donor Activities in Promoting Private Investment for Africa's Infrastructure

The following presents some examples of how donors are supporting country efforts to leverage private investments, including in the specific sectors of water & sanitation, transport & storage, communications, and energy³⁸. These activities include: capacity and institution building for defining and implementing sectoral policies, legislation, and regulation; facilitating public-private dialogue; technical and financial assistance for privatisation or liberalisation; support for carrying out a specific PPP or setting up a PPP unit; support feasibility studies; and funding multilateral facilities that promote private investment for infrastructure. Examples cover both country and regional approaches.

Bearing in mind various challenges in enhancing engagement of the private sector for infrastructure, many donors still see its key role in development. For example, eleven bilaterals³⁹ signed on to the Bilateral Donors' Statement in Support of Private Sector Partnerships for Development at the United Nations Private Sector Forum in September 2010, which included partnerships for infrastructure. Furthermore, a few donors—namely, Austria, Belgium, Luxembourg, Italy and Korea—explicitly acknowledge the need to mobilise private investment in Africa's infrastructure to compensate for the limited official aid flows. Finally, how to work better with the private sector was one of the major topics at the Fourth High Level Forum on Aid Effectiveness in Busan at the end of 2011.

³⁶ *Public Private Partnerships: Fit for Development?: Eurodad Submission to the DAC Working Party on Aid Effectiveness.*
[http://www.eurodad.org/uploadedFiles/Whats_New/News/PPP_Eurodad_Final_in%20template1\(1\).pdf](http://www.eurodad.org/uploadedFiles/Whats_New/News/PPP_Eurodad_Final_in%20template1(1).pdf).

³⁷ *From Lessons to Principles of the Use of Public-Private Partnerships*, Ian Hawkesworth, OECD Public Governance and Territorial Development Directorate. <http://www.oecd.org/dataoecd/42/12/48802369.pdf>; *Public-Private Partnerships and Investment in Infrastructure*, S.Araújo & D. Sutherland, OECD Economics Department Working Papers No. 803, http://www.chaire-eppp.org/files_chaire/oecd_ppp.pdf; and *Public Works Financing*, Volume 235, October 2010, http://www.pwfinance.net/pwf_major_projects.pdf.

³⁸ As the examples are mostly derived from the long descriptions in the CRS data from 2008-2010, they mostly include activities which contained good descriptive data in one of the two official languages of the OECD as required by the CRS reporting directives.

³⁹ Austria, Denmark, Finland, Germany, Japan, the Netherlands, Norway, Switzerland, Sweden, the United Kingdom and the US.

In reality, many donors are firmly engaged in various types of activities to help enhance private sector participation. For example, USAID provides technical support as well as large-scale training to address the lack of capacity among African governments to negotiate complicated business with the private sector, which it considers as the largest barrier to closing project deals⁴⁰. The Millennium Challenge Corporation (MCC) of the United States has developed a Private Sector Toolkit for partner countries to help them work out financing arrangements for infrastructure. Other donors are helping host governments define and implement reforms, as well as in the upstream preparation of infrastructure projects.

Many bilateral donors provide support for the enabling environment through multi-donor platforms like the Private Infrastructure Development Group. They also contribute to the Public-Private Infrastructure Advisory Facility (PPIAF) housed in the World Bank that provides technical assistance to client governments to support the creation of a sound enabling environment for the provision of basic infrastructure services by the private sector⁴¹. The Netherlands notes that its support to these multilateral facilities helps avoid duplication and leverages other donors' resources. According to one review, these facilities have had a major impact in supporting reforms to increase private participation in infrastructure by building consensus, strengthening regulatory and legal frameworks, facilitating transactions, and disseminating good practice.⁴²

2.1 Water & Sanitation

The water sector faces the most difficulty in attracting private investors. Nevertheless, donors are making various efforts, including in involving multiple countries or taking a regional approach. For example, Canada supports the enabling environment for trans-boundary basin management while enhancing service delivery for several countries, such as Zambia and Malawi. It encourages various partnerships including with financing institutions through a multi-stakeholder process in developing guidelines on integrated water resources management. Sweden works with a network in the Southern Africa Development Community (SADC) region to increase water distribution and efficiency, especially for the poor, by supporting municipalities to attract funding from commercial banks. There are also cases of country-specific assistance. For example, donors led by the World Bank are helping build capacity in the Cameroonian Ministry of Urban Development and Housing to implement a PPP for urban water services in low-income settlements, including in decentralised administrations.

At the same time, in the water sector, many bilateral donors provide multi-bi funding to the World Bank or AfDB to carry out support to enhance private investment. For example, Canada, Denmark, and the Netherlands fund the AfDB's Water Partnership Programme on awareness raising for integrated water resources management policies and practices among African countries. The Programme facilitates the preparation and wide distribution of studies, guidelines and strategy papers on, *inter alia*, institutional and policy frameworks as well as public-private financing approaches in the water sector.

⁴⁰ Based on an interview with USAID authorities in Washington.

⁴¹ PPIAF, which is part of the World Bank Group, is a key provider of information on infrastructure in developing countries. It has a regular publication, analytical notes on private sector participation in infrastructure, with a focus on projects and policies, including good practices. In addition, the World Bank has a PPP Infrastructure Resource Centre for Contracts, Laws and Regulations which disseminates legal materials that can be useful in the design and structuring of PPP projects.

⁴² *Desk Review of DFID's Private Sector Infrastructure Investment Facilities*; DFID Evaluation Report 2008; WSP International Management Consulting Evaluation Team; March 2008

Norway, Sweden and the United Kingdom fund a different programme hosted by AfDB called the African Water Facility whose purpose is to finance activities that facilitate investment for water—in addition to physical water infrastructure. The Facility addresses: policy, legal and institutional reform; development and implementation of a regulatory framework; strategic capital investment; effective management of shared water resources; and monitoring and evaluation. Finland contributes to the Africa Water and Sanitation Programme administered by the World Bank, which aims to enhance water and sanitation services through supporting sector reforms, capacity development for national and regional policy makers, and financing strategies to stimulate investments for water and sanitation.

2.2 *Transport and Storage*

In transport and storage, donors, particularly led by the World Bank, are financing sector-wide programmes. Such an example can be found in Mali, which includes modifying the regulatory and institutional framework in order to promote increased private sector participation in the provision of services and the execution of works. The components include restructuring the transport sector's parastatals, improving its operational efficiency, and reducing transport costs. Transport in this project covers rural and urban roads, railways, as well as the Timbuktu and Bamako Airports. The MCC financed capacity building as part of its Compact in assisting the Malian government's plan to upgrade the Bamako Airport through a private concessionaire.

The United Kingdom is assisting the decentralised management of rural roads in Mozambique by increasing government capacity to rehabilitate priority roads in harmony with the private sector and rural communities. On a smaller scale, in Nigeria, Canada has carried out an awareness building exercise on concessioning as part of its support to restructure port operations. Germany and other donors have also been active in PPP in Namibia by facilitating platforms between private and public partners in the transport sector. France has worked with the World Bank to help Senegal establish a Project Implementation Unit (PIU) to oversee construction of the Dakar-Diamniadio PPP toll road.

The EU Institutions are carrying out several pertinent activities in North Africa. For example, in Morocco, the EU is supporting budgetary reform for road freight transport, the port system, and air transport through: adaptation and implementation of the legislative and institutional framework; strengthening the regulatory authority; and opening of competition by private participation in the management and service provision of the transport infrastructure. In Algeria, the EU Institutions have supported a feasibility study on the economic, financial, and legal aspects of establishing a PPP that could serve as a model for the development of the transport sector strategy for the country.

In East Africa, donors are providing technical assistance for concessioning by Kenya Railways Corporation (KRC), a public enterprise, which includes providing financial support for retrenchment expenses, social mitigation, and the pension fund of KRC staff. Aside from providing some investment support to the Uganda Railways Corporation, technical assistance is given to the Uganda Railways Asset Holding Company. Agencies are supporting the Kenya-Uganda Joint Railways Concession by providing partial risk guarantees to the subsidiaries of the Rift Valley Railway Consortium of South Africa.

2.3 *Communications*

As mentioned earlier, PPPs appear to work best in the communications sector, particularly in mobile telephones. Although the exact role of the public sector in this phenomenon can be debated,

donors are nevertheless supporting partner governments. For example, donors, particularly led by the World Bank, have assisted the Algerian Ministry of Post and Telecommunications to open the telecommunications sector for private participation. The components include support to develop strategies for: the privatisation of the telecommunications entity; award of communication licenses; informing potential investors on new business opportunities; and ensuring transparency of the reform programme. IFC has advised the Ugandan government on reforms for the mobile phone sector, which included the privatisation of Uganda Telecom. IFC then provided Celtel, the first mobile operator in Uganda, a loan on commercial terms. Following the reform and the Celtel deal, two more private mobile networks entered Uganda under the new regulatory framework, leading to the development of a vibrant and competitive telecoms sector⁴³.

At the project level, Canada has supported researchers to identify suitable technological and policy alternatives for developing and managing the internet backbone⁴⁴ infrastructure in the Democratic Republic of Congo. The results of the study were made available to the private sector, as well as the government, the donor community, and other stakeholders to explore implementation and financing options.

There are regional or multiple country approaches in ICT as well. For example, the World Bank and other donors supported Burundi, Madagascar, and Kenya to promote liberalisation of the ICT sector so as to lower prices, extend the geographical reach of the broadband network, and advance regional market integration. This includes an e-Government component that aims to re-engineer and streamline government services for business processes, contributing to the enabling environment to attract private investors. The United States Overseas Private Investment Corporation (OPIC), a government agency that mobilises United States private sector investment in emerging and developing country markets, has supported the strengthening of communications networks in several Sub-Saharan Africa countries.

2.4 Energy

In the energy sector, donors are supporting the Guinea Electricity Company to improve the electricity sector's commercial and operational efficiency, financial viability, and quality in service delivery. The World Bank uses the Commercial Reorientation of the Electricity Sector Toolkit (CREST) which comprises a set of good practice interventions. The programme aims to reengineer core business processes with a focus on retail metering, billing and collection. It also uses innovative technology solutions to improve service delivery and reduce technical and commercial losses. Donors are supporting the implementation of CREST in Nigeria's energy sector reform, particularly for successive new distribution companies, along with developing new models of private sector participation in the distribution business.

At the project level, Finnfund—the Finnish development finance company that provides long-term risk capital to Finnish companies in developing countries—has explored business opportunities in the energy sector in countries such as Ethiopia and Ghana. This consists of carrying out feasibility studies and seeking partners to build and operate electrical power generating plants, including mini-

⁴³ *Evaluation of the Demonstration Effect of IFC's Involvement in Infrastructure in Africa: Final Report*; Castalia, 2011

⁴⁴ The internet backbone is a conglomeration of multiple networks owned by numerous companies and the government, serving as the principal data routes between large interconnected networks and core routers in the Internet between countries and continents. It is typically a fiber optic trunk line consisting of many cables bundled together to increase capacity.

hydro power. Germany has explored PPPs in hybrid systems for rural electrification in countries such as Tanzania, Kenya, Zambia, Zimbabwe, Ghana, and Mali. The United Kingdom has supported South Africa in determining the commercial risks and opportunities in the energy sector due to climate change.

In the energy sector, many activities take regional approaches and focus on renewable energy. The EU institutions, for example, are supporting the enhanced integration and improved security of the Euro-Mediterranean energy market in North Africa. This includes technical assistance for the Euro-Arab gas market, as well as for the development of the “Mediterranean Solar Plan” which involves private investors. The World Bank and other donors are supporting Morocco’s reform by fostering competition in the energy market through regional system integration, liberalisation of the high-voltage domestic electricity market, open access of competitors in the petroleum downstream market, and subsidy reduction for petroleum products.

In Senegal, Mali, and Mauritania, donors are supporting a hydroelectric project that aims to transform the Senegal River Basin Development Authority into a nucleus power pooling mechanism that can be replicated in other sub-regions of West Africa’s Power Pool. The project promotes a Design-Build-Operate-Transfer approach that involves deployment of date-certain, fixed price, performance-based contracts for each plant. It also provides institutional restructuring and capacity building to improve the efficiency of the PPP that involves a power asset holding entity and a private operation concessionaire.

Norway and Sweden have also jointly supported the Southern Africa Power Pool in the development of competitive electricity markets and on transmission pricing. This included organising various conferences with the aim of obtaining firm commitments from investors toward prioritised transmission and generation projects. The EU Institutions have also an Integrated Southern Africa Business Advisory project targeted to small and medium-sized companies for renewable energy, which is co-financed by Germany and others.

Austria has been engaging heavily in renewable energy, for example, by helping improve the efficiency of power plants in South Africa through business partnerships between Austrian and local enterprises. Furthermore, it supports the Economic Community of West African States (ECOWAS) Centre for Renewable Energy and Energy Efficiency, which aims to become a hub for capacity building for renewable energy (water, wind, solar, and biomass technology) in its member states. Austria tries to strengthen: tailored policy, legal and regulatory frameworks and quality standards; advocacy, knowledge management and networking; investment and business promotion through tailored financial mechanisms; and demonstration projects and showcases with potential for regional scaling-up. Austria also supports the Southern African Solar Thermal Training and Demonstration Initiative that offers targeted capacity building and knowledge transfer in solar thermal energy by partnering Austrian private enterprises with local NGOs in Mozambique, Namibia, Zimbabwe and South Africa.

2.5 Broader Business Climate Reforms

The aforementioned guidance by the DAC and Investment Committee described in Boxes 4 and 5—as well as views from the private sector and providers of development assistance— indicate that the enabling environment for private investment in infrastructure goes beyond capacity building in the infrastructure sectors. For example, as Italy states, some of the challenges faced with supporting the enabling environment have to do with overall governance issues: political instability, weak public administration, unreliable legal frameworks and corruption. Particularly for fragile states, some donors

mention that peace and security are prerequisites for improving the enabling environment. The MCC considers that legal and regulatory reforms must be embodied in the overall economic and social fabric as well. Box 6 describes some of the indicators used to monitor the business climate, especially as regards infrastructure services and regulations that impact on infrastructure investments.

Box 6. Business Climate Indicators Relevant for Infrastructure in Africa

A number of indicators have been developed to assess the business climate in Africa.

These include the **Doing Business Report**, <http://www.doingbusiness.org/>, which is comprised of ten indicators on the ease of doing business for domestic enterprises, such as getting construction permits or electricity connections.

The **Enterprise Surveys**, <http://www.enterprisesurveys.org/>, cover 125 countries and focus on 11 issues that firms consider to constraints to their business operations. One of these issues is the reliability and quality of infrastructure services, including indicators such as the number of power outages in a typical month.

Investing Across Borders, <http://iab.worldbank.org/>, is comprised of indicators on Foreign Direct Investment (FDI) regulations and assesses the extent to which host countries put in place restrictions on foreign investment in certain sectors, including telecom, transport, electricity and waste management among others. The Global Competitiveness Report, http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf, looks at infrastructure as one of 12 pillars of country competitiveness, as it contributes to economic growth and facilitates countries' integration with regional and international markets.

Many donors, such as the United States and United Kingdom, provide significant amounts of aid to help improve general public sector policy and administrative management, decentralisation, financial sector development, privatisation and so on—which may not directly relate to infrastructure *per se* but can nevertheless have spill-over effects on private investment in the infrastructure sectors. Others, like Japan, have undertaken projects such as the Triangle of Hope, which aims at improving the overall business climate, particularly laws and regulations conducive for investment by helping develop the capacity of the relevant government bodies in Zambia. Portugal has been working with partner countries such as Angola to strengthen their capacity in statistics, land planning, and general investment policies, which is expected to have a positive impact on overall investment, including in the infrastructure sectors. The IFC provides advisory services to host governments for improving legal and regulatory frameworks for private sector activities broadly.

2.6 South-South Lessons Learned on PPPs

In knowledge sharing or applying lessons learned, the World Bank Institute works with developing country public sector agencies and partner institutions to address high-priority needs for learning about PPPs. Specifically, it helps: establish legal, regulatory, and institutional frameworks for PPPs; develop realistic projects to market successfully; build the capacity of the public and the private sectors; and evaluate and monitor the performance of projects. Infrastructure is a large part of this programme. WBI is collaborating with Germany on supporting the creation of a PPP network for SADC.

The African Development Institute also carries out training on PPPs. Furthermore, in terms of learning lessons across regions, the Asian Development Bank's National Infrastructure Information System—an electronic platform to support infrastructure project preparation and financing—may be a

useful tool. It provides project information templates covering sector-specific technical data, environmental impact assessments, social impact assessments, project risk assessments, and project financial information. The System tries to assist the PPP or project development agency in prioritisation, investment programming, and ultimately marketing and presentation to investors.

At the OECD, the Public Governance Committee's Working Party of Senior Budget Officials has a Network on PPPs which shares experience among its members but also with peers in the Middle East and North Africa through annual meetings. Within the China-DAC Study Group, some general lessons learned from China have been discussed, including 'crowding in' private investors for infrastructure (see Part III below). On the other hand, as mentioned in the African Economic Outlook 2011, the African context differs, just as policies and growth models differed significantly in each of the successful emerging economies—therefore it is difficult to build a simple global lesson for African countries on attracting investments⁴⁵. Still, there may be scope for lessons learned between North Africa and Sub-Saharan Africa, as the examples above showed, particularly due to the intra-continental dimension of infrastructure as well as the historical, cultural, and economic associations.

3. Fragmentation of Development Finance in Africa's Infrastructure

This section first examines ODF to the softer aspects of infrastructure that help improve the enabling environment for private investment. It shows the composition of assistance providers according to sector, North or Sub-Saharan Africa, and soft or hard aspects. Data shows that there is a variety of leading donors for specific sectors—aside from the largest seven donors for Africa's infrastructure in general—but that there could be aid fragmentation at the country level, which calls for a better division of roles.

Many development agencies see that providing support to the enabling environment or the 'softer' aspects is an important part of any infrastructure development plan, as opposed to financing just the hard physical aspects. Therefore, practically all development agencies involved in Africa's infrastructure are engaged in some form of capacity building through deployment of experts or training of government staff in various stages of infrastructure planning and operations. Although not all aid to the soft aspects are provided with the specific intention of promoting private investment, the improvement of these 'soft' aspects is necessary to attract the private sector to invest and make the infrastructure operation sustainable.

Thus data on official development financing to support the 'soft' aspects of infrastructure—mostly policy and administrative management, education and training, and research in the respective sectors⁴⁶—are examined⁴⁷. According to the CRS, official development financing allocated by

⁴⁵ *African Economic Outlook 2011: Africa and its Emerging Partners*, African Development Bank and OECD.

⁴⁶ They are Water Resources Policy and Administrative Management (14010), Education and Training in Water Supply and Sanitation (14081), Transport Policy and Administrative Management (21010), Education and Training in Transport and Storage (21081), Communications Policy and Administrative Management (22010), Energy Policy and Administrative Management (23010), Energy Education/Training (23081), and Energy Research (23082), as well as those that are marked with "technical co-operation" in the other codes of the infrastructure sectors.

⁴⁷ This analysis builds on but modifies the study carried out in 2007 titled *Promoting Private Investment for Development: Recent Trends in ODA Spending and Implications for Donors*, which covered all regions and included a broader category "investment-enhancing ODA" such as policy & administrative support in non-infrastructure sectors as well as budget support.

multilateral and bilateral donors on the soft aspects or the enabling environment of Africa's infrastructure reached on average USD 1.6 billion per annum in 2008-2010, or 22% of the aid provided to Africa's infrastructure. The remaining 78% went to the physical aspects or hardware of infrastructure development, such as water plants, roads, railways, ports, telephone networks, power plants, and so on.

These are rough estimates as the capacity building or research components of infrastructure projects cannot always be identified separately. CRS purpose codes are generally assigned at the level of projects (e.g. entire loans), as opposed to project components, so the code that fits closest to the main objectives of the projects is selected. Therefore, for example, one AfDB loan, regardless of the CRS purpose code assigned, can include both soft and hard infrastructure components. Thus the figures for soft aspect or hard aspects should be considered rough estimates only. Nevertheless, they provide indications of the orders of magnitude of these flows. Other key data on Aid to the Soft Aspects of Africa's infrastructure are highlighted in Box 7.

Box 7. Other Key Data on ODF to the Soft Aspects of Africa's Infrastructure

- The share of support to the soft aspects in total support to Africa's infrastructure declined from 19% in 2008 to 13% in 2010.
- The share of support to the soft aspects was 14% in Asia and 18% in the Americas in 2010.
- Twenty-three percent of aid to water & sanitation was allocated to the soft aspects; the other shares were 18% for energy; 14% for transport & storage; and 23% for communications in 2008-2010.
- South Africa received the largest amount of support for the soft aspects in 2008-2010. This was followed by, Morocco, Tanzania, Ghana, Tunisia, Sudan, Egypt, DRC, Burkina Faso, and Ethiopia. However, as a proportion, St. Helena, Togo, and Djibouti, received more support for the soft aspects than the hard physical aspects of infrastructure.

Source: CRS, in USD 2009

One of the first principles in the POVNET guidance on infrastructure states that donors should co-ordinate their assistance by establishing common approaches and agreeing on lead donors⁴⁸. Normally, lead donors would imply the largest financial contributors to the sector in the particular country. In Part I of this paper, it was shown that the largest donors, i.e., World Bank, EU institutions, AfDB, Arab Fund, Japan, Germany and France, together provided more than 79% of the ODF to Africa's infrastructure in general, excluding financing from the other development partners, such as China, India, and Brazil. However, disaggregating data into different categories by sub-region of North Africa and Sub-Saharan Africa, as well as hard and soft aspects, for each sector of water & sanitation, transportation, communication, and energy, shows a varied picture in terms of the top five donors (see Figure 2).

Figure 2: Largest Donors for Different Categories of Africa's Infrastructure

	North Africa			Sub-Saharan Africa								
	Hard		Soft		Hard		Soft					
	#	Country	%	#	Country	%	#	Country	%			
Water & Sanitation	1	World Bank	21	1	AfDB	52	1	World Bank	22	1	EU Inst	23
	2	Germany	16	2	Japan	13	2	EU Inst	14	2	World Bank	16
	3	France	16	3	Germany	12	3	AfDB	12	3	Germany	13
	4	Arab Fund	13	4	EU Inst	10	4	Germany	8	4	Japan	6
	5	EU Inst	10	5	France	5	5	France	7	5	Canada	5
	14	Others	24	14	Others	8	26	Others	37	21	Others	37
	Total		100	Total		100	Total		100	Total		100
Transport	1	France	22	1	AfDB	46	1	EU Inst	32	1	World Bank	23
	2	Japan	20	2	EU Inst	44	2	World Bank	25	2	EU Inst	19
	3	Arab Fund	20	3	Japan	5	3	AfDB	16	3	USA	17
	4	AfDB	15	4	World Bank	3	4	Japan	5	4	AfDB	14
	5	World Bank	10	5	Spain	1	5	USA	5	5	UK	11
	12	Others	13	9	Others	1	20	Others	17	15	Others	16
	Total		100	Total		100	Total		100	Total		100
ICT	1	Japan	62	1	Korea	32	1	AfDB	31	1	World Bank	25
	2	EU Inst	17	2	EU Inst	22	2	UK	16	2	Finland	13
	3	Korea	11	3	Spain	13	3	OPEC Fund	12	3	Canada	11
	4	World Bank	3	4	World Bank	12	4	World Bank	10	4	Japan	10
	5	USA	2	5	Canada	9	5	Japan	8	5	EU Inst	10
	7	Others	5	9	Others	12	20	Others	23	19	Others	31
	Total		100	Total		100	Total		100	Total		100
Energy	1	AfDB	27	1	EU Inst	39	1	World Bank	38	1	AfDB	45
	2	Arab Fund	18	2	Germany	27	2	AfDB	22	2	World Bank	29
	3	Spain	17	3	AfDB	24	3	Arab Fund	8	3	EU Inst	5
	4	Japan	10	4	Spain	3	4	Japan	5	4	Germany	4
	5	World Bank	9	5	Japan	2	5	Norway	5	5	USA	3
	8	Others	19	11	Others	5	21	Others	22	20	Others	14
	Total		100	Total		100	Total		100	Total		100

Share of donor in total disbursement for the category (2008-2010) in constant 2009 USD.

Highlighted donors are those that are not the seven largest donors for Africa's infrastructure in general

In other words: the top five donors besides the seven largest donors for Africa's infrastructure in general include:

- **Spain** in soft aspects of transport, ICT, and energy, as well as hard aspects of energy in North Africa;
- **Korea** in soft and hard aspects of ICT in North Africa;
- **USA** in hard aspects of ICT in North Africa, as well as hard and soft aspects of transport and soft aspects of energy in Sub-Saharan Africa;
- **Canada** in soft aspects of ICT in North and Sub-Saharan Africa, as well as soft aspects of water & sanitation in Sub-Saharan Africa;

- **UK** in hard aspects of ICT and soft aspects of transport in Sub-Saharan Africa;
- **Finland** in soft aspects of ICT in Sub-Saharan Africa;
- **Norway** in hard aspects of energy in Sub-Saharan Africa; and
- **OPEC Fund** in hard aspects of ICT in North Africa.

Lead donors matter at both the country and regional levels, e.g. SADC, ECOWAS, EAC, and so on. The above implies that donors other than the largest seven for Africa’s infrastructure in general may become leading donors for the particular sector in the country or sub-region. As some countries—Finland, Norway and Spain—are also non-G20 members, the composition of ICA may be worth revising, in order to become more relevant in monitoring the scale up of Africa’s infrastructure funding.⁴⁹

Furthermore, the above table shows that there is significant aid fragmentation: for example, while the top five donors provide on average over 80% of the aid to the categories⁵⁰ above, there can be up to 26 other donors each providing less than 1% of the aid to the category⁵¹. Aid fragmentation—aid coming from many sources and spread over too many co-operation programmes—creates high transaction costs for both recipients and donors. Costs arise from the preparation, negotiation, implementation, monitoring and enforcement of agreements for the delivery of aid. The Paris Declaration states that donors are committed to make full use of their comparative advantage at the sector or country level by delegating authority to lead donors for the execution of programmes activities and tasks. The Busan Outcome Document also indicates that providers of development assistance have committed to reduce the fragmentation of aid and improve the division of labour among them.

In 2007, the European Union established a Code of Conduct on Division of Labour in Development Policy which encourages its Members to, *inter alia*, establish lead donorship arrangements, limited to a maximum of three donors per sector, assess their comparative advantages, and exit and redeploy aid activities that are not focal sectors. In the case of Africa’s infrastructure, since the EU Institutions collectively are one of the largest donors in most categories, delegation may be more tenable to some EU Members whose aid volume for the category is not sufficiently large to compensate for the added administrative costs to the host countries.

In particular, while the financing of other development partners such as China, India, and Brazil are not captured in DAC statistics, estimates indicate that their amounts can be significant and growing, particularly from China (see Part III). It is also recognised that these other development partners tend to finance more of the hard physical aspects of infrastructure as opposed to the soft aspects such as capacity building and improving the enabling environment. Therefore, DAC Members, emerging economies, and multilateral organisations may need to take these aspects into consideration in addressing issues such as aid fragmentation, division of labour, comparative advantage, and aid effectiveness in their support to Africa’s infrastructure.

⁴⁹ This is underway.

⁵⁰ Categories mean, for example, hard aspects of water and sanitation in North Africa.

⁵¹ As data above does not focus only on Country Programmable Aid but uses all CRS data, some amounts may not be cross-border flows, which means that in-country fragmentation may actually be less. In addition, some data may be multi-bi funding which could further reduce actual fragmentation.

PART III: THE ROLE OF FINANCIAL INSTRUMENTS AND THE EMERGING ECONOMIES IN AFRICA'S INFRASTRUCTURE

1. Financing Instruments

This section gives an overview and examples of financing instruments beyond traditional grants and loans. Note however that, with the exception of guarantees, all are in principle included in donors' reporting on aid and other flows to developing countries.

1.1 Introduction

Development partners use a range of financing instruments in support of infrastructure development in Africa. Many of them are making use of various financing mechanisms such as investment funds, blended grants, guarantees, export credit agency instruments and so on, which all help to mobilise private investment. The development finance institutions (DFIs), international organisations and specialised government agencies that have developed these instruments often work in co-operation with the private sector and provide it with debt and equity capital, thereby mitigating the risks of investing and developing bankable projects. These interventions help to draw in private investors who might otherwise be deterred from entering risky or non-lucrative markets. Moreover, policy guidelines such as the *OECD's Principles on Promoting Pro-Poor Growth: Infrastructure* encourage donors to increase financing and make it more efficient through not only ODA but also through mechanisms, such as credit enhancement and guarantees.

The use of financing instruments is in line with the Monterrey Consensus on Financing for Development, which advocated for support for "private foreign investment in infrastructure development and other priority areas, including projects to bridge the digital divide, in developing countries and countries with economies in transition. To this end, it is important to provide export credits, co-financing, venture capital and other lending instruments, risk guarantees, leveraging aid resources, information on investment opportunities, business development services, forums to facilitate business contacts and co-operation between enterprises of developed and developing countries, as well as funding for feasibility studies."⁵² More recently, the G20 High Level Panel on Infrastructure Investment recommended "MDBs could ... be much more active than at present in catalysing the flow of long term private debt capital into developing countries. In addition to stepping up syndication activities to include private sector banks as part of lending consortia, this could be achieved by allocating a substantially larger share of MDBs' balance sheets to risk mitigation products rather than to direct loans to the infrastructure sector. This would have the benefit of "leveraging" the existing capital of MDBs in the sense that for every dollar of their own balance sheet deployed, MDBs

⁵² *Monterrey Consensus on Financing for Development*; United Nations, March 2002; <http://www.un.org/esa/ffd/monterrey/MonterreyConsensus.pdf>

should be able to mobilise several dollars from the private sector - the evidence is that partial guarantees have helped MDBs attract from the private sector 4 to 5 times the amount Development.”⁵³

Investment funds are usually set up by DFIs using official sources that are then managed by private companies who invest in funds targeted towards African infrastructure projects. This arrangement allows professional fund managers to carry out investments and facilitates DFIs’ support to first-time investors who are often based in Africa or have ties to Africa. As for blending, some DAC members and the European Commission are making use of this approach to combine concessionary funding with financing from market-based sources. Evidence suggests that this package model of funding projects is helping to catalyse infrastructure financing in a more effective way than direct grants or concessionary loans would on their own.

A number of risk mitigation instruments have been developed by development partners in response to the risks associated with investing in infrastructure projects. These instruments cover political and commercial risks and help to allay the concerns of investors, who would otherwise find the risks difficult and costly to manage on their own. However, development partners have differing views on their usefulness in promoting development. The dearth of analysis on guarantees but also on other financing instruments for the infrastructure sector, more so in Africa where investment flows are not as high as in other developing regions, will have to be addressed to ensure a better understanding of their impact in this area. Similarly, while there is a well-developed framework for using export credits to promote trade abroad, there is not much data on how export credits have been used in the infrastructure sectors in Africa, although OECD’s Trade Committee secretariat collects data on activity level but does not disclose it. Export credits can reduce exporters’ concerns about doing business abroad and where investment insurance is offered by export credit agencies, it can help to allay investors’ fears as well. However, export credit agencies normally limit their products – export credits and investment insurance – to recipients from the home countries issuing the export credits or guarantees. Export credits can also undermine fairness in competition if rules on the use of export credits, such as those set by the OECD Arrangement on Export Credits, are not respected.

1.1.1 Investment Funds

Investment funds are a financing instrument that provides capital either *directly* to private investors or indirectly - in the form of equity or loans - to *intermediary* financial institutions that offer the funding to private investors for specific infrastructure projects. Official contributions to investment funds are often provided by Development Finance Institutions (DFIs) and many are privately managed. The OECD considers investment funds in support of private investments as part of ODF.⁵⁴ Many of these funds are less than five years old but already show promise in terms of leveraging public money to attract private sources of finance. Moreover, because private equity investors are highly selective, mostly preferring existing companies with long operational track records and stable cash flows, there is arguably a case for increased DFI funding of investment funds, or co-financing with the private sector, until more significant private sector funding materialises. Also, compared to many project developers, DFIs tend to be better capitalised; have more financing options at their disposal; and have access to a deeper expertise pool. The selection of examples below illustrates how they function and operate.

⁵³ *High Level Panel on Infrastructure; Recommendations to G20 – Final Report*; 26 October 2011; http://www.g20-g8.com/g8-g20/root/bank_objects/HLP_-_Full_report.pdf

⁵⁴ *DCD Statistical Reporting Directives*; Julia Benn, Valérie Gaveau; OECD, November 2010; <http://www.oecd.org/dataoecd/28/62/38429349.pdf>

The Netherlands' development bank, FMO⁵⁵, manages specific Dutch government funds in sectors in which FMO has expertise: agribusiness; the financial sector; and energy and housing. The funds focus on facilitating investment in these key sectors. For infrastructure, FMO manages the Access to Energy Fund (AEF) and the Infrastructure Development Fund (IDF) which both aim to catalyse funds from other investors. The Dutch government provides the capital base of the Fund and sets its lending and investment policies, such as identifying the developing countries in which the funds can invest. AEF invests in energy projects (generation, transmission and distribution) that improve access to electricity and household connection rates. This fund's portfolio is 75% in Sub-Saharan Africa and in other least developed countries although as of 2012, the AEF is only available to fund projects in Sub-Saharan Africa.

IDF can invest in a wide range of infrastructure sub-sectors, including ICT, transport (roads and railways), water and sanitation, energy and agriculture-related infrastructure such as irrigation. As of 2012, IDF can also fund transactions in environmental or ecological infrastructure. The Fund provides concessional or non-concessional loans of up to €15.5 million (in euros, USD or local currency) or equity investments of up to €7.75 million to private investors for infrastructure projects in developing countries, including Africa. This funding is completely untied: investors can be from any country and do not need to have links to the Netherlands. The Fund can also financially support other funds or private companies that invest in infrastructure. Indeed, FMO, in managing IDF and other funds, never finances a full transaction on its own but catalyses investment from other institutions such as Germany's DEG, France's Proparco and Belgium's BIO. IDF's list of eligible countries includes not just LDCs but a broader range of developing countries although most of its portfolio is invested in Africa. IDF has so far invested in projects in nine African countries in the energy sector, such as the Dibamba power plant in Cameroon which is being developed by Dibamba Power Development Corporation, a private-public company.

As part of its investment policy, IDF seeks out investments in projects, companies or countries that normally would not attract commercial funding because of various risk factors. IDF makes equity investments (usually 20% but can go up to 49%) and takes subordinated debt positions in project companies. In so doing, it absorbs the higher risk portion of the transaction and thus lowers the risks faced by investors. For instance, IDF invests in greenfield projects, where the infrastructure asset does not exist and has to be newly constructed. Often, these projects involve high risk, cost overruns, schedule delays, revenue overestimates and so on.⁵⁶ FMO also plays a venture capital role in providing funding to start-up companies or first-time investors who would otherwise not be able to attract funding from commercial banks or the market. In this way, it helps to diversify the investor base active in Africa, which can have positive implications for competition and improved investor performance. Evidence suggests that funds have the biggest impact when they provide funding to such small, new companies operating in unexplored projects or in emerging economies.⁵⁷ Also, IDF provides blended grants for early stage project development. Lastly, if the investments face financial difficulty, FMO can step in to try to rescue them and therefore helps ensure projects' financial sustainability.

Similarly, through the Belgian Investment Company (BIO), its development finance institution, Belgium finances, low income and middle income countries (lower level) infrastructure projects across

⁵⁵ Full name is Financierings-Maatschappij voor Ontwikkelingslanden

⁵⁶ Dynamic Risk Management : the Missing Link in Infrastructure Finance, John Larew et Mark Robson, Oliver Wyman Risk Journal, 2011

⁵⁷ *Investing in Infrastructure: Evaluation of the LDC Infrastructure Fund*; Ministry of Foreign Affairs, the Netherlands; July 2009; <http://www.oecd.org/dataoecd/28/44/44362357.pdf>

all sectors with a focus on Africa and on renewable and clean energy, access to water and irrigation in agriculture, and to a lesser extent telecommunications and transport. It does so either directly or through intermediary financial institutions such as banks, investment funds and microfinance institutions. The beneficiary investors can be from any country, although the company must be private. Together with, FMO, EAIF and AfDB among others, BIO has provided funding to Contour Global, a private company, to develop KivuWatt, an electricity project in Rwanda. The project uses methane gas extracted from Lake Kivu, thus making use of a renewable natural resource to produce electricity and develop Rwanda's power sector. As for impact, an evaluation in 2009 showed that BIO's infrastructure investments in Africa had shown some development impacts: an increase in net government revenues in host countries; improved infrastructure supply due to network expansion and serving new areas; and improved performance in infrastructure provision due to private operators implementing cost-oriented tariffs, lower usage charges, improved operation and maintenance and more reliable supply.⁵⁸ Projects receiving BIO funding must also comply with World Bank/ IFC environmental standards. Moreover, BIO signed a cooperation agreement and division of labour with the Dutch MFO regarding infrastructure investment.

Another example of the investment fund approach is CDC Group plc (formerly the Commonwealth Development Corporation), the UK's DFI which is privately-managed but owned by DFID. It operates on a commercial basis and has been self-sustaining since 1995, taking no new money from the UK government because it funds its operations through the profit it makes on its investments. As CDC's only shareholder, DFID defines its investment policy, such as the geography and scope of CDC's investments. In 2011, DFID set a new investment policy for CDC, giving it a tighter geographic focus, limiting its investments to low-income and lower middle-income countries, and giving it authority to make direct investment in projects, which had not been the case since 2004. CDC can now provide funding in low-income or lower middle-income countries either directly to private enterprises or to fund managers who then raise additional funds and invest in enterprises in developing countries (also known as a "fund of funds" structure). There are no nationality restrictions on recipients of CDC's investments, nor do the investment funds have to show a link to British interests. Many of the fund managers within CDC's infrastructure portfolio⁵⁹ for Africa are based in Africa or are of African origin and know the local market and investment climate well. Thus, they are better placed than CDC to conduct due diligence and ensure smooth project implementation. This fund of funds structure ensures that the government's resources leverage or catalyse those from the private sector, maximising the total funding pool available for projects. To illustrate, according to one review, every dollar of CDC funding has mobilised 5 dollars of other investment – from private sources and DFIs, for instance.⁶⁰

An example of an infrastructure project funded by CDC is Songas, a gas-fired electricity plant in Tanzania. Capital from CDC was invested in Actis II, an infrastructure fund managed by Actis, a private equity firm. The fund then invested in the Songas power plant, which now produces 30% of Tanzania's electricity. CDC invested in another infrastructure fund - ECP Africa Fund III – with Emerging Capital Partners, a Pan-African fund management company. The fund then provided capital to Wananchi, a telecommunications company offering broadband, television and telephone services in Kenya and Tanzania. One of the benefits of this project was a training programme for local

⁵⁸ *GPR Ex-Ante Analysis of BIO Commitments 2009: Final Report*; BIO/ DEG 2009.

⁵⁹ CDC works with over 20 funds in Africa, including African Lion, Cauris Capital Partners and ECP Africa to name a few. A full list is available on CDC's website: <http://www.cdccgroup.com/list-fund-managers.aspx>.

⁶⁰ *Aid for Trade and Blended Finance*; Mikaela Gavas, Isabella Massa and Dirk Willem te Velde; Overseas Development Institute, January 2011; <http://www.oecd.org/dataoecd/31/55/47722147.pdf>.

technicians, whereby short-term expatriate staff transferred their knowledge of laying fibre-optic cables to local staff, a technical skill not widely available locally. In addition to various impact assessment criteria used by many DFIs as part of an evaluation system known as the Development Outcome Tracking System (DOTS)⁶¹, CDC has added two of its own: the extent to which CDC adds additional value as an investor, for example by backing a first-time fund manager; and the extent to which CDC mobilises other investment. An assessment of CDC's success in mobilising other investment is undertaken internally on a three year rolling basis. The latest assessment, of the 2008-2010 period, showed that for every 1 pound sterling of CDC investment, other DFIs invested 1 pound sterling alongside the CDC and commercial investors provided an additional 2.78 pounds sterling, making for a total mobilisation effect of 378%. This effect has been growing over time, even during the period of the financial crisis.

CDC has a history of supporting first-time fund managers, who usually find it difficult to demonstrate investment success and secure investment from other financial institutions or capital markets. As of end 2010, CDC had invested in a total of 71 fund managers, of which 38 were first-time managers.⁶² By giving its "seal of approval" to the fund manager, CDC sends a signal to other investors, which helps to develop these local businesses and investment funds. Moreover, CDC helps the fund managers to establish themselves and advises them on how to attract additional funding from DFIs.

Proparco, France's development finance institution⁶³, has also invested in infrastructure funds targeting African projects. For example, it has provided capital to the Africa Infrastructure Investment Fund 2 (AIIF2), an equity fund that will invest in road, railway, ports and airport projects in Africa as well as electricity projects. The fund is privately managed by a subsidiary of the Macquarie Group and the Old Mutual Investment Group (South Africa) Pty Ltd and has received capital from other financial institutions such as IFC. AIIF2 has invested in the Hopefield Wind Farm in South Africa's Western Cape, a 100MW commercial wind farm that is expected to start producing electricity in 2012.⁶⁴

Proparco also played a counter-cyclical role during the financial crisis, increasing its global commitments to infrastructure from €150 million in 2008 to €400 million in 2009. This scale-up in funding has helped to support infrastructure projects around the world, including mega-projects in Africa, at a time when banks were restricting financing and projects were in danger of stalling. Proparco has supported numerous infrastructure projects in Africa: roads in Tunisia, maritime transport in Djibouti, and the creation of an aviation hub comprised of the national airlines of Mali, Burkina Faso and Uganda. In addition, Proparco plays a proactive role as a convenor of various stakeholders in Africa's infrastructure. It co-ordinates an "Investors' Club" that brings together Proparco's shareholders, partners and clients, in order to share experiences on leading issues such as carbon finance in Africa.

⁶¹ DOTS covers financial performance (e.g. return on invested capital); economic performance (e.g. contribution to employment and taxes); environmental and social performance (e.g. water and energy consumption) and private sector development (e.g. number of SMEs reached).

⁶² This represents CDC's global portfolio; no details are available for Africa only or for infrastructure alone.

⁶³ Proparco is part of the Agence Française de Développement (Afd) group. Afd is Proparco's main shareholder and capital provider (59%) while French companies and financial institutions provide 29% of capital, and funds and foundation provide the remaining 1%.

⁶⁴ Old Mutual, Africa Infrastructure Investment Managers: <http://www.oldmutual.co.za/about-us/sustainability-report/investing-responsibly/aiim.aspx>

Investment funds can also serve as a multi-donor platform, as demonstrated by the Emerging Africa Infrastructure Fund (EAIF). The Fund was set up in 2002 initially with USD 100 million in equity from the PIDG group of donors which has since committed USD 150 million in equity. This equity was leveraged with subordinated and senior loans, borrowed from a range of development finance and commercial lenders, including Barclays, Standard Bank, KfW, IFC, AfDB, OeEB, DEG, FMO and DBSA. As of the end of 2011 the total fund size including equity and debt provided had grown to USD 705 million. The fund manager is Frontier Markets Fund Managers, a division of Standard Bank. It provides senior and subordinated long term project loan financing. By the end of 2011, EAIF had financed 35 projects of which 11 had been repaid and 24 projects are active. Projects it co-financed attracted an additional USD2.5 billion in loans, USD 855 million in private equity and USD 1.74 billion from DFIs.⁶⁵ The EAIF is a multi-donor initiative that pools funding from DFIs and private commercial banks, thereby leveraging funding from governments and the development banks with private finance. To give a few examples, EAIF has provided loans for the Rabai power plant in Kenya; Seacom, the undersea fiber optic cable along the east coast of Africa; DP World Dakar, a 25 year concession to operate three container ports in Dakar, Senegal; and the Kivu-Watt project, also co-financed by BIO and Addax Bioenergy, an energy company. All these projects have been presented with Africa “deal of the year” awards by respected infrastructure groups and journals based on criteria such as innovation, deal repeatability, best practice, problem solving, risk mitigation, value for money and speed of delivery in the financing of infrastructure projects, large or small.⁶⁶

EAIF has no nationality restrictions on companies applying for its funding, but it does require the company to be a private entity or if it is a consortium, it must be comprised mainly of private entities. It can finance government owned companies, if it is satisfied they are run on a private sector basis. Furthermore, EAIF prefers to invest in a company if an equity commitment has already been secured from other sources. By stepping in to provide “the last bit of money”, EAIF can help bring projects to financial closure. The funding for Seacom, for instance, was provided after lengthy negotiations and resulted in EAIF providing the last missing funding, without which the deal might not have materialised.⁶⁷

As a multi-donor facility, EAIF can make use of its weight to solve financial and political challenges that sometimes confront investors who are implementing projects in Africa. EAIF can intervene and engage directly with the host government in a more effective way than an investor could on its own. Also, EAIF’s multi-government backing can promote responsible business conduct in recipient investors. If some investors breach certain clauses in their contract, such as over environmental protection standards, they are potentially liable to EAIF’s member countries and the transaction costs of arbitration are significantly higher. There is therefore an incentive to abide by contractual terms, which often include social and environmental considerations. Lastly, EAIF provides lending for longer terms – 12 years on average - than loans from commercial institutions which tend to be 7 years or less. This has an important effect on the cost of running projects, because loans that have to be repaid over a shorter period of time have higher initial operating costs which are then passed on to consumers. Longer debt repayment periods can help bring down overall project costs, with positive outcomes for end-users.

Another multi-donor investment facility is InfraCo, which is financed by a number of development agencies under the PIDG structure. Formed in 2005 and based in the UK, InfraCo finances the high upfront costs of large infrastructure projects and undertakes initial project

⁶⁵ Ibid.

⁶⁶ Project Finance Magazine, 3 October 2011, www.projectfinancemagazine.com.

⁶⁷ According to an EAIF negotiator who worked on the Seacom deal.

preparation activities such as carrying out feasibility studies, securing construction permits, and negotiating tariffs and maintenance agreements. Having developed a project to a point where it is bankable, InfraCo recovers its costs through the sale of its property rights to the winning investor, either through a minority equity stake or in cash. If it takes an equity position in the winning company, the stake tends to be approximately from 10% to 15% and InfraCo never retains a majority interest. Any profit from the sale is reverted back to the facility's account to cover new project development costs. Examples of InfraCo supported projects include the Nairobi Commuter Rail Project in Kenya; the Beyla electrification project in Guinea; and the establishment of a new water supply utility to expand the supply network to under-served communities around the capital city in Madagascar.

InfraCo's funding is untied and works in several sectors apart from infrastructure. The advantage of InfraCo's approach is that it draws in investors to developing countries that would otherwise be unattractive as investment targets given their high-risk profiles. Many investors are wary of committing funds to initial project development because the project may not materialize due to regulatory, political or commercial risks. By assuming the initial costs, InfraCo helps to significantly allay investors' risk concerns. Moreover, InfraCo is privately managed but funded by development agencies who as shareholders, can influence project development to ensure that projects benefit poor communities and lead to sustainable development. For example, subsidy schemes are developed for projects whose services may be unaffordable for poor users. InfraCo's approach therefore leverages private capital with finance from the development agencies, while ensuring that otherwise risky and unattractive projects come to maturity. Box 1 provides a concrete example.

Box 8. InfraCo's Impact on Wind Power in Cape Verde

By the time the World Bank invited InfraCo to participate in the wind power project in Cape Verde, there had been two unsuccessful attempts over a 15 year period to develop the four wind farms on four separate islands in the Cape Verde archipelago. However, an agreement was signed in July 2007 between the government of Cape Verde, Electra, the national power utility company, and InfraCo to develop the project as a PPP. InfraCo's support to the project led to successfully attract €60 million in financing from other DFIs, including equity from FinnFund – the Finnish DFI – and Africa Finance Corporation, a private African financial institution that invests in infrastructure projects on the continent, as well as debt financing from the AfDB and the EIB.

The project is expected to connect between 50,000 and 100,000 people to the grid and enable Cape Verde to meet its renewable energy target of 25% by 2012. Moreover, the government could save about €12 million a year that would otherwise be spent on oil imports, thereby offsetting greenhouse gas emissions. By showing that a large-scale PPP project can be developed, reach financial closure, and be commercially viable without the need for a government subsidy from the national government, the Cape Verde wind project has had an important demonstration effect and can be expected to lead to other successful PPP projects in the renewable energy sector in Africa.

While investment funds are potentially powerful sources of funding for Africa's infrastructure, especially by leveraging private investment, they have some drawbacks or risks that their funding organisations should consider. Many of them fund project development companies, including for early stage green or brownfield projects, which carry significant risks. There is no certainty a project will develop or that new technology used in project development will be successful. Moreover, it may take several years before a project reaches a level of bankability that can attract lower risk equity and debt investors. If the project does not reach bankability, the money that has been committed to project development is not recovered.

In addition, investment funds often require a significant capital base due to the investment needs of large infrastructure projects. Given fiscal constraints, it is difficult for development agencies to dedicate scarce resources to these funds. Investment funds are also perceived as the domain of the private sector, often obliging development agencies to justify committing taxpayers' money. Another challenge is ensuring that the funds' benefits are not only financial, but include overall poverty reduction as well. This is an area where continued oversight or involvement from DFIs and development agencies can be beneficial.

1.1.2 Blending

Blending involves combining concessionary financing (grants or loans with a grant element) with debt finance from IFIs or market-based sources in order to maximise the volume of development resources available for infrastructure projects and investments in enterprises.⁶⁸ The blended package helps to attract debt finance that would otherwise not have materialised, while the grant element keeps the infrastructure service affordable for end users. Blending can be used for technical assistance, feasibility studies, seed financing and interest rate subsidies among other instruments.

A number of DFIs, such as France's Proparco and the Netherlands' FMO, and bilateral agencies such as AFD, use blended grants as part of their financing strategy. The EU-Africa Infrastructure Trust Fund (ITF) and the Neighbourhood Investment Facility (NIF), established under the framework of the EU-Africa Partnership for Infrastructure, aims to maximise the leveraging effect of funding from EU donors via blending. Projects can be presented to these blending mechanisms by eligible finance institutions. Grants from the EC and EU member states are combined with loans from finance institutions, the beneficiary's own resources or investment from private financiers. To be eligible, infrastructure projects must have a regional component – either as trans-border projects or national projects with a demonstrable regional impact; and must be carried out by public, private or mixed-capital entities. Partner countries also participate in setting the strategic orientations for both blending mechanisms (for ITF and NIF).

The grant component in the blending mechanism can be used for interest rate subsidies, direct investment grants, technical assistance, risk capital, loan guarantees, or insurance premia. *Interest rate subsidies* and direct investment grants reduce the total amount of debt payable by the borrower. *Technical assistance* (TA) covers preparatory work for eligible projects, project supervision and targeted capacity building. *Direct grants* can also be used to finance project components with social or environmental benefits. *Insurance premia* and guarantees aim to share some of the risk perceived by investors.

Interest rate subsidies and direct investment grants have proven to be particularly useful during the financial crisis in reducing the debt burden of the borrowers by lowering the commercial rates on loans. This, in turn, facilitates investment in capital intensive infrastructure projects in Africa. Most of the interest rate subsidies have been provided for projects in the energy and transport sectors.

Some concrete examples of projects financed under the ITF include an interest rate subsidy for Felou, a hydroelectric project that provides electricity to a number of countries in West Africa and the Sahel, such as Mali, Mauritania and Senegal. The subsidy amounted to approximately € million out of a total project cost of about €211 million, with the EIB acting as the lead financier. In central Africa, an interest rate subsidy and technical assistance was provided for constructing a container terminal at the Port de Pointe Noire in Congo-Brazzaville which could serve the whole Central

⁶⁸ *Innovative Financing Mechanisms for the Water Sector*; OECD 2010.

African region. AFD was the lead financier for this project among the co-financing finance institutions.

Preliminary studies, including on the ITF and NIF, found a positive leverage effect on other funding sources: 1 unit of grants blended with 5-6 units of loans leveraged 15 units of total project financing.⁶⁹ For example, a project to rehabilitate the Beira Corridor originally had difficulty attracting finance, but when the ITF helped to help fill the funding gap with a €9 million interest rate subsidy to an EIB loan, the project reached closure. According to EIB staff, closure would not have been achieved without the grant element.⁷⁰ The interest rate subsidy from ITF also helped Mozambique to keep its indebtedness level (non-concessional claims) compatible with the HIPC process. More generally, more than half of infrastructure projects in the ITF pipeline will receive interest rate subsidies under the HIPC debt sustainability framework.⁷¹

The grant element in the blending package can also facilitate investment in projects that have high social impact but low financial returns. Moreover, the grant element can incentivise environmentally-responsible projects, as in the case of a wind farm in Egypt which benefitted from a €10 million NIF grant as part of a blended package. If the grant had not been available, the project may have had major difficulty taking off. As for TA, it helps to boost capacity in public utilities and government agencies tasked with preparing projects, thereby increasing the pool of bankable projects that can attract private financing. Moreover, TA that is provided for project implementation can facilitate the progress of the project during construction as well as operational stages and thus increase sustainability.

Blending also promotes co-operation among various development partners for a specific project, as it entails two or more institutions pooling their funds together. This co-operation and co-ordination not only yields a bigger scale of financial resources than individual donors would be able to achieve on their own, but also harmonises processes thus decreasing complexity for the beneficiary. At the same time, blending has some limitations. It has been difficult to measure the specific benefits of blending, given that they have only been used in this mixed concessional-market finance form for a short period of time. Blending remains, therefore, somewhat new terrain.

1.1.3 Risk Mitigation Instruments

Risk mitigation is crucial for attracting private investors by assuaging their concerns over potential losses that are often significant in infrastructure projects. Infrastructure assets cannot be moved once constructed, making it more difficult for project developers to abandon the project if it encounters problems. Projects also involve complex financing arrangements, such as setting up a Special Purpose Vehicles (SPV) for PPPs, whereby a company comprised of various financiers and institutions is set up specifically to invest in and oversee a given PPP project. Moreover, the long gestation period of infrastructure projects increases the likelihood for unforeseen events to take place, which could undermine the successful completion of the project cycle. Projects often have significant upfront capital costs due to feasibility studies, impact assessments and so on, in addition to high construction and

⁶⁹ *Aid for Trade and Blended Finance*; Mikaela Gavas, Matt Geddes, Isabella Massa, Dirk Willem te Velde; Overseas Development Institute, 31 January 2011.

⁷⁰ Based on interview conducted with ITF Secretariat staff at their headquarters in Luxembourg, November 2010.

⁷¹ EU-Africa Infrastructure Trust Fund Annual Report 2010; http://www.eib.org/attachments/country/eu_africa_infrastructure_trust_fund_annual_report_2010_en.pdf.

operating costs. Furthermore, large infrastructure projects tend to be more visible and have important political implications, thereby exposing them to political interference. This political aspect increases the risk of regulatory changes that could impact the operations and revenues of the project.

Another issue is that, given the narrowness of African financial markets, most investors provide their capital in foreign currency but earn their revenues from the infrastructure project in local currency. Currency depreciation would thus increase the investors' debt burden and compromise their ability to service their foreign debts. Specific instruments have been developed to address the currency risk, although providers are few and the scale of the coverage is often small. Lastly, force majeure risks, such as accidents, uncontrollable situations, extreme events and inaccurate predictions concerning wind and rainfall for hydropower projects typically affect infrastructure projects, particularly in renewable energy.

In response to these risks, DFIs and international financial institutions (IFIs) have developed a number of risk mitigation instruments that can help attract private financing in infrastructure projects in African countries.⁷² These include Partial Risk Guarantees (PRGs), Partial Credit Guarantees (PCGs), Political Risk Insurance (PRI), Currency Risk Coverage and Export Credit Guarantees (ECGs). The DFIs and IFIs that offer these products charge a high premium to cover their outlays, such as transaction costs from due diligence and so on. While their coverage is typically open to all eligible investors, a number of export credit agencies (ECAs) restrict their products to investors of their own countries only. Box 2 summarises the main guarantee types that can be applied to investments in infrastructure projects in Africa.

Box 9. Types of Risk Mitigation Instruments

Credit Guarantees: cover losses in the event of a debt default, regardless of the cause of default (i.e. commercial or political). The coverage can be partial, in which case only part of the debt loss is covered, or full and thus cover the whole amount from the default. These guarantees usually help borrowers to have better terms on their debt – longer maturities and lower interest rate payments – than if they did not have the guarantee. They can help private sector beneficiaries to borrow in the international capital markets or governments to cover the risk associated with issuing bonds.

Partial Risk Guarantees (also known as Political Risk Guarantees or Political Risk Insurance): cover losses from a debt default as a result of political events. These include losses as a result of: **expropriation** - government actions to expropriate an investment (by reducing or eliminating the investor's ownership, control and rights to the investment); **war and civil disturbance** - damage or destruction of tangible assets as a result of war and civil disturbance; **currency/transfer risk** - restrictions on the ability to repatriate foreign currency earnings or to convert local currency into foreign currency; and **breach of contract** – government action to amend or cancel a contract. They are normally offered by MDBs.

Products Offered by Export Credit Agencies (ECAs): Government agencies typically provide their products to investing companies and exporters from their countries although some agencies do not limit eligibility by nationality.

Export credit agencies provide export credits to support exports from their home companies abroad; insurance for investments abroad that are beneficial to the home country; and guarantees against political and commercial risks that can adversely impact on investments and loan guarantees so that buyers can purchase goods and services from exporters. The same ECA can provide all three products while in other cases, the products are

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However, the contribution has been a minor part of these institutions' operations. In the early 2000s, guarantees represented about 9% of IFIs' total operations and half of 1% of bilateral donors' programmes. See *Guaranteeing Developing – Impact of Financial Guarantees*, James Winpenny, OECD 2005.

offered by a number of institutions across the government. The agencies can be private, government-owned or government-owned but privately managed. Government agencies typically provide their products to investing companies and exporters from their countries although some agencies do not limit eligibility by nationality.

Currency Risk Coverage: Currently, there is a dearth of instruments that cover foreign currency exchange risk, even though the risk matters for most infrastructure projects funded by foreign currency but earning revenues in local currency. The Currency Exchange Fund (TCX) offers currency hedging products which mitigate currency and interest rate risks through medium to long-term swap agreements. Due to the hedging effect, investments, including in African infrastructure projects, have in many cases moved up the equivalent of two levels in credit ratings (i.e. from a BB rating to a BBB- rating) and in some cases, up to four levels. TCX helps support emerging countries to develop their local currency markets, by sparring local investors from assuming a currency mismatch on their balance sheets. Furthermore, TCX can cover first loss tranches on loans, which is beneficial for equity investors.

Sources: Export Credit Financing Systems in OECD Member Countries and Non-Member Economies, OECD 2005; Review of Risk Mitigation Instruments for Infrastructure Financing and Recent Trends and Developments, T. Matsukawa; O. Habeck; World Bank 2007; The Currency Exchange Fund N.V.: Overview, TCX March 2010 and TCX Annual Report, 2010.

MIGA has been active in providing risk mitigation instruments and services for various investments, including infrastructure. It does so by providing guarantees against non-commercial risks to investors and lenders. Almost all countries are members of MIGA, including 49 African countries. MIGA's risk coverage ranges from three to twenty years and includes equity investments, shareholder and non-shareholder loans, and loan guarantees. MIGA also provides technical assistance to support governments to reduce policy impediments, attract new investors and implement management contracts and bond issues. In FY2010, infrastructure comprised 21% of MIGA's global coverage; while Sub-Saharan Africa made up 26%⁷³ and Europe and Central Asia had the most, at 52%. MIGA enables investors to enter under-served investment areas, such as the renewable energy sector in some African countries. Box 3 provides some examples of MIGA's provision of guarantees in support of Africa's infrastructure.

There are also several other guarantee instruments and providers. GuarantCo, a PIDG group initiative, managed by Frontier Markets Fund Managers, seeks to provide long term guarantees for local currency financing of infrastructure projects. It also extends tenors provided by local lenders under its guarantee, thereby helping to increase the availability of long term local currency financing for infrastructure projects and reducing the currency risk. Apart from providing guarantees for long term commercial loans, GuarantCo can also enhance local debt capital markets issues (e.g. local bond issues). Recently established initiatives in support of risk mitigation for investments relevant for Africa's infrastructure include the Initiative for Risk Mitigation in Africa (IRMA), which is housed in AfDB. IRMA provides a brokerage service for private investors and African governments who need risk mitigation coverage. It also acts as a platform for disseminating information on available risk mitigation instruments for infrastructure projects in Africa. Founded during Italy's tenure as G8 Chair in 2009, IRMA is still in its infancy, but is expected to make a meaningful impact on investments in Africa's infrastructure by filling a gap in risk coverage services on the continent.

⁷³ North Africa did not have any coverage.

Box 10. MIGA's Support to Africa's Infrastructure

In 2007, MIGA underwrote USD427 million in guarantees for equity investment and Islamic project financing for the construction of the Doraleh Container Terminal in Djibouti in line with Islamic financing requirements, making it the first MIGA guarantee to comply with Shariah rules on project financing. The project is expected to help make Djibouti a trade gateway for the Common Market of Eastern and Southern Africa (COMESA) region. MIGA also supported the modernisation of container-terminal areas of the port of Dakar, which will include upgrading equipment and operations systems. The project is expected to lead to a reduction in shipping costs, and an increase in access to shipping services for the landlocked country of Mali.

Furthermore, MIGA is helping to unlock Africa's renewable energy potential, as part of a strategy to mitigate the adverse effects of climate change. For example, KenGen was already operating two plants at Olkaria in the Kenyan Rift Valley; in 1998, it was awarded a BOT concession to design and construct a third one, Olkaria III, to Ormat Technologies, an IPP. The project became the first privately funded and developed geothermal project in Africa. MIGA provided a guarantee of USD37.5 million to cover Ormat's equity investment for an initial installation of 8MW, which came online in 2000, completing the first phase of the project. MIGA signed an additional guarantee for political risk insurance in 2007 when Ormat's concession was renewed, this time to increase the plant's generation capacity to 48 MW. MIGA also supported Umeme, a distribution company in Uganda, which was awarded a 20-year electricity distribution concession in 2005, making it the first private distributor of electricity in all of Sub-Saharan Africa.

Source: Based on content in the MIGA Annual Report, 2010.

Another initiative is the Geothermal Risk Mitigation Facility in the East African Rift Valley, which is supported by a €30 million direct grant from the EU-Africa Infrastructure Trust Fund alongside loans from and KfW and other finance institutions. While the East African Rift Valley holds potential for geothermal energy, it has not been fully exploited so far as the costs of exploratory drilling are high and the novelty of the technologies used make it a risky energy option. Therefore, the Geothermal Risk Mitigation Facility is intended to allay some of the costs, making geothermal energy for the Rift Valley an attractive investment opportunity for potential investors.

Bilateral DFIs also provide guarantees for Africa's infrastructure sectors. For instance, Proparco provides guarantees, including local currency financing that helps to mitigate the currency risk, as it did when it provided the private phone operator, Milicom Tchad, with a €9 million loan for the extension of the existing network in Chad.

1.2 Assessing the Impact of Risk Mitigation

There are a number of benefits associated with risk mitigation instruments for Africa's infrastructure sectors. First, guarantees give investors a measure of control over political and commercial risks associated with their investments - such as operating risks - and assurance that the risks they cannot control - such as regulatory changes - can be better managed. Investors have indicated that the availability of credit enhancements or guarantees from governments or multilateral

agencies is an essential aspect of whether or not they invest.⁷⁴ Therefore, guarantees and the institutions that provide them help to influence investment flows to developing countries.⁷⁵

Another benefit is that guarantees sometimes make it possible for the holder to obtain longer term loans. This is important for infrastructure projects as they often involve a long – 20 years or more – project cycle and a long loan tenor can help spread the high up front capital expenditure of a project during a longer period of this cycle. This leaves more room respectively for lower end user usage fees and earlier and increased flows to shareholders via dividends. Partial credit guarantees (PCGs) also help enhance the creditworthiness of companies and sub-sovereign entities, thereby improving their access to funding sources. A concrete example is the provision of a PCG by the World Bank for the Bujagali hydropower project in Uganda. The guarantee was key in attracting funding from four commercial banks in addition to the IFIs who had already committed to the project.⁷⁶ Bilateral agencies are also involved in providing guarantees. For example, Germany's DEG and the Netherlands' FMO co-guaranteed a 4.5 billion Kenyan shillings (USD50 million) bond issue for the Celtel mobile phone company to finance network expansion in Kenya.

Finally, guarantees can help to support development efforts generally.⁷⁷ Multilateral organisations and national agencies that provide guarantees often undertake an appraisal and due diligence of the companies who apply for guarantees. A common requirement is that investors must abide by principles of responsible business conduct and meet certain environmental and social needs. For example, a pre-requisite for the issuance of a guarantee by the International Development Association (IDA) for the Azito power plant in Cote d'Ivoire was that the beneficiary, Cinergy - a private company - had to make cash compensation and facilitate the resettlement of the local population affected by the project site.⁷⁸

However, there are some caveats to consider in the use of guarantees for Africa's infrastructure. First, guarantees have mainly been used for large-scale strategic projects that can benefit from the signal the guarantee gives about the soundness of the project to attract private financing. Moreover, while most projects can have a 20-30 year life cycle, loan tenors are typically only 10 to 15 years and not all guarantee or insurance products provide long tenor cover. While MIGA may be prepared to offer 20 year cover for a 20 year concession agreements, many providers of private sector political risk insurance may only offer cover renewable year-by-year or on a basis for a few years only. Thirdly, detailed due diligence and negotiations specific to the project is often needed before the guarantee can be issued, which raises transaction costs. Transaction costs for PRI, for instance, tend to be higher because granting the insurance necessitates both statistical modelling and more qualitative assessments that in combination raise the costs of risk evaluation. There are often high costs associated with

⁷⁴ *What International Investors Look for When Investing in Developing Countries*; Ranjit Lamech and Kazim Saeed; World Bank 2003.

⁷⁵ *Investment Guarantees and Political Risk Insurance: Institutions, Incentives and Development*; Kathryn Gordon, OECD Investment Policy Perspectives, OECD 2008.

⁷⁶ *IPPs in Sub-Saharan Africa: Determinants of Success*; Anton Eberhard and Katherine Nawal Gratwick, World Bank, 2010.

⁷⁷ However, where guarantees are issued to cover exports, the objective is not primarily for development.

⁷⁸ *IDA Makes First Private Loan Guarantee*; Africa Renewal; United Nations Department of Public Affairs: <http://www.un.org/ecosocdev/geninfo/afrec/vol12no4/ida.htm>.

contract design, which have to be tailored to the specificities of the host country and client rather than relying on a standardised model. The costs of contract monitoring are also quite high.⁷⁹

Another issue that complicates the use of guarantees is the difficulty of determining the circumstances under which a guarantee called, and whether the guarantor must disburse funds when regulatory and contractual risks arise. Unlike commercial or political risks, which are well defined, the impact of a regulatory change on project revenue is not always straightforward. Similarly, political risks are not easy to manage because they relate to behaviours of governments and other political actors which typically unfold over time, making it challenging to provide coverage for this type of risk in particular. Lastly, the disbursement of funds can depend on the outcome of arbitration proceedings, which necessitates a protracted legal or arbitration process. These issues can all be significant drawbacks to extending the use of guarantees for infrastructure projects in Africa.

1.3 How Development Agencies Perceive Guarantees

The Doha Declaration on Financing for Development, signed by the heads of state of UN member countries including OECD members, mentions that “official development assistance (ODA) and other mechanisms, such as, inter alia, guarantees and public-private partnerships, can play a catalytic role in mobilizing private flows.” However, there are mixed views among development agencies on the usefulness of guarantees as a development tool. Some government providers of PRI view themselves as “insurers of last resort” by serving customers who cannot get coverage from private insurers.⁸⁰ AFD believes that guarantees can help achieve the MDGs by mitigating risks, thereby mobilising private investment, improving the financial stability of developing countries, and increasing liquidity in recipient countries. Italy’s aid agency has also agreed that guarantees have strong benefits, as has the Canadian International Development Agency, although the latter adds the caveat that there needs to be a credible way of placing a price on the covered risk in order to count guarantees as ODA.⁸¹ In a Senior Level DAC meeting, Belgium, France and Greece suggested that the definition of ODA should be expanded to take into account non-ODA public resources such as guarantees as they can leverage private financing in developing countries.⁸² However, the aid agencies of Denmark, the Netherlands, DFID of UK and USAID of the US, maintain that guarantees should not be counted as OOF, even if the risks they cover can be priced, because ODA should be based on the actual flow of resources.⁸³ The EU, Ireland, Spain, the UK and the US have also expressed concerns about including guarantees in the definition of ODA, as it would undermine volume commitments made to developing countries.⁸⁴

⁷⁹ *Investment Guarantees and Political Risk Insurance: Institutions, Incentives and Development*; Kathryn Gordon, OECD Investment Policy Perspectives, OECD 2008.

⁸⁰ Ibid.

⁸¹ DAC Senior Level Meeting 2004 Summary Record.

⁸² *Summary Record of the Senior Level Meeting (SLM)*; 26 August 2011; [http://olisweb.oecd.org/vgn-ext-templating/DCD-DAC-M\(2011\)3-FINAL-ENG.pdf?docId=JT03306167&date=1314372782000&documentId=488024&organisationId=1&fileName=JT03306167.pdf](http://olisweb.oecd.org/vgn-ext-templating/DCD-DAC-M(2011)3-FINAL-ENG.pdf?docId=JT03306167&date=1314372782000&documentId=488024&organisationId=1&fileName=JT03306167.pdf).

⁸³ DAC Senior Level Meeting 2004 Summary Record.

⁸⁴ [http://olisweb.oecd.org/vgn-ext-templating/DCD-DAC-M\(2011\)3-FINAL-ENG.pdf?docId=JT03306167&date=1314372782000&documentId=488024&organisationId=1&fileName=JT03306167.pdf](http://olisweb.oecd.org/vgn-ext-templating/DCD-DAC-M(2011)3-FINAL-ENG.pdf?docId=JT03306167&date=1314372782000&documentId=488024&organisationId=1&fileName=JT03306167.pdf).

1.4 Officially-Supported Export Credits

The OECD Arrangement on Officially Supported Export Credits sets out the most favourable terms and conditions by which governments can provide export credits. It also restricts the use of tied and untied aid. The Participants to the Arrangement are OECD countries, although Brazil is a Participant to the Sector Understanding on export credits for civil aircraft. Between 1990 and 2006, the value of export credits from OECD countries with a repayment period of one year or more was approximately USD 50 – USD 60 billion a year. About 66% went to developing countries and about 90% was for the infrastructure sector, mineral resources and mining.⁸⁵

Export credits provide non-concessional loans to promote exports as well as for financing capital-intensive projects abroad. Credits are provided for trade and investment transactions; loans that cover the risk of default on export loans; and bond issues. Often, they are provided in conjunction with guarantees from the state, as well as investment insurance for project finance based on the expected future revenues of the project. Export credit agencies (ECAs), which provide export credits and in some cases investment insurance and guarantees as well, have different criteria for providing these products. In some cases, such as Switzerland and France, eligible beneficiaries must be nationals of that country, but in other cases, such as Canada and Germany, eligibility can include international private sector companies, importers and lenders. Other agencies have other conditions on eligibility. The Swedish Export Credit Guarantee Board (EKN), for instance, requires that for guarantees of exports, 50% of the goods must be of Swedish origin. Belgium's Finexpo generally provides export credits to Belgian companies for projects in developing countries but accepts applications for support from developing country governments for untied aid on a case-by-case basis. When providing official export credits, OECD ECAs follow the OECD Arrangement on issues such as the length of the tenor for the insurance or guarantee and minimum premiums, as well as OECD standards for responsible business conduct such as the Anti-Bribery Convention and the Guidelines for Multinational Enterprises.

Many export credit agencies (ECAs) also provide insurance and guarantees for exports and investments abroad by home companies. They are either owned by the government such as the Norwegian Guarantee Institute for Export Credits (GIEK), or are administered by an independent entity (e.g. Germany's Foreign Trade and Investment Promotion Scheme (AGA), which is administered by a consortium of two private companies. Most agencies provide risk coverage for both commercial risks, such as insolvency or bankruptcy on the part of the buyer, termination or non-renewal of contracts and import licenses, and non-commercial risks, such as currency inconvertibility, expropriation, political violence, natural disasters, and force majeure. In Africa, ONDD, the Belgium ECA, provided a USD 50 million guarantee of the bond issue that helped to finance the Safaricom telecommunications venture. Project sponsors and buyers in the host country benefit from export credits indirectly, as counterparties to the loans being made available and their terms, allowing it to complete its project financing by widening its debt finance choices. However, export credits are typically only one of several tranches involved in financing a project – they do not cover equity, for instance. Similarly, export credits do not usually support the entire project, therefore obliging project sponsors to pursue other instruments.

Export credits are not counted as ODA for a number of reasons. First, the primary objective of the export credits is not to promote development abroad but to promote the companies of the country providing the credits. Moreover, export credits from official ECAs must be provided at market prices that do not go below a minimum rate set by the Arrangement. The premium charged on the export credits also has to meet a certain level. Under DAC rules, official export credits provided on

⁸⁵ Exact data on export credits for Africa's infrastructure are not available.

Arrangement terms are considered to be completely non-concessional (i.e. 0% concessionality) and are not counted as official development assistance (they are considered to be “other official flows”).The Arrangement rules on tied aid are based on the underlying principle that projects that can attract commercial finance should not benefit from official aid from the state. However, if importing developing countries are unable to pay back their loans, the export credits conferred to them can be turned into debt relief. However, this rarely arises because most export credits go to private entities and in the few instances where they are provided to sovereigns, they are often given to high-income and middle-income countries that are not eligible for debt relief.

The Arrangement continues to be updated on a regular basis. For example, it has been adjusted to support renewable energy projects by allowing for longer repayment terms on loans, more flexible repayment schedules, and revised fixed interest rates for long-standing loans. More analysis is needed on how export credits have been applied in an African context, and how they have impacted infrastructure investments in African countries specifically. To do this analysis, more data collection is needed.

Figure 4: Summary of Financing Instrument

Name of Instrument	Description	Application/ Examples	Main Benefits for Leveraging Private Investment	Main Challenges
Investment Funds	These funds provide capital to projects or to specific infrastructure funds or companies, usually for early-stage and high risk projects that would otherwise not be able to attract funding from commercial institutions or the markets	<ul style="list-style-type: none"> -The Netherlands’ Infrastructure Development Fund -Belgian Investment Company -Commonwealth Development Corporation Group -Emerging Africa Infrastructure Fund 	<ul style="list-style-type: none"> -Funds projects that otherwise would not attract commercial or market funding -Equity & subordinated debt funding absorbs higher risk and reassures investors on their risk concerns -Supports 1st time fund managers -Balances development impact of projects with investors’ revenue needs -No nationality restrictions 	<ul style="list-style-type: none"> -Need huge capital base -Early-stage projects carry significant risks -Co-financiers may not come on board until project is bankable -Hard for DFIs to dedicate funds to these funds given limited resources and competing needs -full impact of funds to be seen – they are quite young
Guarantees	These are financing instruments that cover investors for commercial and political risks faced during the project life cycle.	<ul style="list-style-type: none"> -Multilateral Investment Guarantee Agency (MIGA) -GuarantCo -Geothermal Risk Mitigation Facility -Proparco 	<ul style="list-style-type: none"> -Gives investors confidence to enter under-served investment areas -Extends loan tenors, making more financing available for all or most of the project cycle -Helps develop local debt capital markets by insuring bond issues -Enhances the creditworthiness of beneficiaries e.g. municipalities -Social and environment criteria for guarantees can help support development efforts 	<ul style="list-style-type: none"> -Seem to benefit large-scale projects mostly -Guarantee or insurance products providing long-term coverage are scarce -High transaction costs due to due diligence, contract negotiations and risk assessments -Difficulty of knowing when a risk has taken place and therefore whether the guarantor pays out -Mixed views by development partners about whether to count guarantees as ODA
Blending	A combination of concessional financing with market-based or IFI-based debt financing, which maximises the amount of overall financing available for infrastructure projects. The blended instrument can finance interest rate subsidies, technical assistance, and project costs.	-The EU-Africa Infrastructure Trust Fund – provided a combination of interest rate subsidy and technical assistance for the Port de Pointe Noire in Congo-Brazzaville	<ul style="list-style-type: none"> -Helps unattractive projects reach financial closure -Facilitates investment in projects with high social impact but low financial returns -Boosts capacity of public agencies overseeing projects through technical assistance -The interest rate subsidy and grant components can reduce overall debt burden of borrowers 	<ul style="list-style-type: none"> - Have only been used in this mixed concessional-market finance form for a short period of time. -Hard to measure full impact of this approach
Export Credits	These are a form of coverage for exports and services provided by private companies, with the aim of benefiting the home country that provides them to its home companies.	-Belgium’s ONDD provided a 75% guarantee for Safaricom in Kenya	<ul style="list-style-type: none"> -Allows exporters to make a sale that may not otherwise go ahead. -Reduce the risk of exporters and banks not being repaid from their loans or services. -Debt relief possible if recipient country cannot pay back their loans 	<ul style="list-style-type: none"> -Main purpose is to promote home country’s exports and investments, not recipient country’s development -Most export credits go to middle-income and high-income countries -Concerns about debt sustainability for countries that can’t pay back their loans -Not much studies on how they’ve been used for infrastructure projects in Africa -Do not cover all project financing needs, especially equity

2. The Role of the Emerging Economies

This section looks at the role of emerging partners in Africa's infrastructure, with particular emphasis on China, which is contributing a significant share of the total financing the continent's infrastructure.

2.1 Non-OECD Financiers Contribute a Large Share of Infrastructure Financing

In addition to DAC members, multilateral organizations and the private sector, a number of Africa's emerging partners have been increasingly active in African countries' infrastructure sectors. In the early 2000s, these non-OECD financiers, such as China, India and the Arab Funds, contributed 5.5%, or USD 2.5 billion, to overall spending on Sub-Saharan Africa's infrastructure.⁸⁶ There continues to be an important contribution to financing from these emerging partners. For instance, in 2006 China made a USD7 billion commitment to Africa's infrastructure, which grew to USD9 billion in 2010.⁸⁷ As for the Arab Funds⁸⁸, they committed USD 3.3 billion to Africa's infrastructure in 2010.⁸⁹ However, the Arab Funds are still rather concentrated in a few countries. In 2008, for instance, 65% of Arab Funds investments were targeted to five countries: Sudan, Morocco, Egypt, Mauritania and Niger.⁹⁰ India has been active in power projects and telecoms, including a high profile USD 10.7 billion deal in which Bharti Airtel, an Indian private company, bought the African operations of Zain, a Kuwaiti mobile phone operator. Brazil, though a minor player relative to the other emerging partners, is active in some Lusophone countries such as Angola, Mozambique and Cape Verde, and gaining prominence in the continent.

Emerging economies have focused on developing infrastructure domestically as part of their growth strategies. They invest 5.7% of their GDP in infrastructure, compared to 2.8% for OECD members.⁹¹ Emerging partners can also draw on their own development experience and bring this to bear in their engagement with their African counterparts. Moreover, A recent survey of African stakeholders showed that 53% think that emerging partners have a competitive advantage in infrastructure while traditional partners,⁹² competitive advantage is in governance, education and other

⁸⁶ *Africa Infrastructure Country Diagnostic Study*; World Bank 2010.

⁸⁷ *Infrastructure Consortium for Africa (ICA) Annual Report 2010; Financial Commitments and Disbursements for Infrastructure in Africa for 2010*; ICA Secretariat; August 2011; http://www.icafrica.org/fileadmin/documents/2011/ICA_AR_2010_final_optimised.pdf.

⁸⁸ The Arab Funds here include: the Abu Dhabi Fund; the Arab Fund for Economic and Social Development; the Arab Bank for Economic Development in Africa; the Islamic Development Bank; the Kuwait Fund; the OPEC Fund; and the Saudi Fund. Together, these funds make up the Arab Fund Coordination Group.

⁸⁹ Ibid.

⁹⁰ *Changing the game for Africa's infrastructure: what role does South-South cooperation play in addressing Africa's infrastructure gap and under what terms?* Jeff Turner, Frances Hodgson, Gina Porter, Emma Mawdsley and Gerard McCann; <http://www.nai.uu.se/ecas-4/panels/1-20/panel-8/Turner-Hodgson-Porter-Mawdsley-McCann-Full-paper.pdf>.

⁹¹ *How the Growth of Emerging Markets Will Strain Global Finance*; Richard Dobbs, Susan Lund and Andreas Schreiner, McKinsey Quarterly December 2010.

⁹² DAC Members.

social areas.⁹³ Therefore, while emerging partners may, at first glance, seem to be competitors to traditional donors, they may in fact complement each other.

2.2 *China: An Important Player in Africa's Infrastructure*

China is now Africa's biggest partner for its infrastructure sectors, providing about two-thirds of their new spending since 2007.⁹⁴ In other words, estimates show that China has outpaced the World Bank as the leading funder of Africa's infrastructure (see Figure 2). China's approach involves not only aid but also a number of financial instruments offered by its various state institutions. For instance, the China Development Bank provides non-concessional development finance while the China-Africa Development Fund provides equity finance to ventures launched or backed by Chinese enterprises. The Fund is also a gateway to partnership with European firms for infrastructure deals.⁹⁵

China's Eximbank operates in the same manner as the export-import banks of OECD countries by providing export credits, preferential loans, and guarantees to sellers and buyers. It provides concessional loans to Chinese enterprises for their investments and exports abroad, backed by an interest rate subsidy from the central bank. If DAC definitions were applied, only the concessional loans can be counted as foreign aid.⁹⁶ China's use of a mix of grants, export credits and concessional loans therefore comprises a market-oriented "package financing mode".

China has also used resource-backed loans, whereby financial institutions such as the China Development Bank provide non-concessional loans⁹⁷ to governments which in return contract Chinese companies to build infrastructure projects and extend the right to extract natural resources as well. In this way, the government pays for its infrastructure costs through mining or oil extraction rights. The approach has been used in Angola to finance energy, water, airports, roads and rail projects, but this Angola model has also been used in Ghana for the construction of the Bui Dam, where, instead of minerals, the loans were backed by exports of cocoa. Chinese companies are not obliged by the Eximbank to export the extracted resources back to China.⁹⁸

⁹³ *African Economic Outlook 2011: Africa and Its Emerging Partners*; African Development Bank, OECD, UNDP and UNECA, 2011.

⁹⁴ *BRIC and Africa: New Partnerships Poised to Grow Africa's Commercial Infrastructure*; Simon Freemantle and Jeremy Stevens; Standard Bank; 15 October 2010.

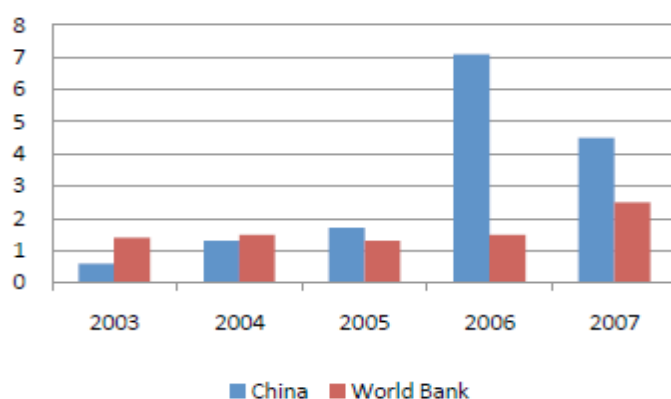
⁹⁵ *The Dragon's Gift: the Real Story of China in Africa*; Deborah Brautigam, Oxford 2009.

⁹⁶ Ibid.

⁹⁷ The China Eximbank is the only Chinese bank authorised to offer concessional loans.

⁹⁸ *The Dragon's Gift: the Real Story of China in Africa*; Deborah Brautigam, Oxford 2009.

Figure 4. China and the World Bank's Financing for Africa's Infrastructure



The column on the left refers to billions of US dollars. Source: Freemantle/ Stevens, Standard Bank, 2010 based on World Bank sources

Some critics of the Angola model point out that many infrastructure deals are not transparent, and they raise issues over debt sustainability. An example is a resources-for-infrastructure deal between the Democratic Republic of Congo and a Chinese consortium of state-owned companies in 2008 which raised criticism from civil society organizations and the IMF.⁹⁹ There was neither public information about the sale price of the copper and cobalt in the deal as is the norm, nor any mention of the specific infrastructure that the consortium was obliged to construct. Moreover, the IMF pushed for the renegotiation of the deal due to concerns about the debt burden the deal would impose on the Congolese government. A more general criticism is that Chinese contractors often bypass procurement systems due to the stipulation made by the China Development Bank in the resources-for-infrastructure deal that Chinese companies win the concession as part of the resources for infrastructure deal. Moreover, while Chinese companies have been commended for their efficiency in executing physical projects, there are often few or no provisions for their maintenance and operations, nor support for policy or institutional aspects related to the infrastructure. This therefore reduces the sustainability of the newly built infrastructure assets.¹⁰⁰

These criticisms are not necessarily backed by evidence. To give just one example, a study found that in the DRC, the workforce in Chinese-funded infrastructure projects is comprised of at least 75% Congolese workers, diminishing the number of Chinese workers used in projects due to efforts made by Chinese contractors to train the local workers in the requisite skills needed for projects. From the Chinese perspective, it is also cheaper to hire local workers than to bring in workers from China especially as local workers have gained skills and experience in working with Chinese managers.¹⁰¹ There is also an increasing demand from African governments to work with Chinese companies on infrastructure projects, with the onus on these governments to put in place the right regulations to enforce.

⁹⁹ *China and Congo: Friends in Need*; Global Witness Report, March 2011; http://www.globalwitness.org/sites/default/files/library/friends_in_need_en_lr_1.pdf.

¹⁰⁰ AICD Report, 2010.

¹⁰¹ *Chinese Participation in African Infrastructure Development: the Case of the DRC and Zambia*; Sanne van der Lugt and Hans E. Petersen; Centre for Chinese Studies/ Grontmij; 2010.

The Angola model has helped develop infrastructure in fragile and low-income states, which may otherwise not have had access to market finance or even to donor funding which tends to focus on social sectors in these countries. Moreover, while the terms of deals made under the Angola model are often unclear, this is the case for many infrastructure deals involving private companies in general. There are some encouraging signals that African countries are negotiating to their own benefit instead of simply being passive to Chinese terms. In Angola, for example, the government included a requirement in its agreement with China Eximbank that 30% of an oil-backed infrastructure credit must be reserved for Angolan firms, with the rest going to Chinese firms.¹⁰² This suggests an increase in ownership on the part of the Angolans, with growing political will to make these deals benefit their domestic enterprises. There is also evidence that commercial banks are offering more favorable terms to Angola than in the past, in order to compete with China Eximbank's attractive lending terms.¹⁰³

There has been an effort to share experiences between traditional donors and emerging partners, for example through the DAC-China Study Group, which promotes learning on China's development experience and draws lessons from this for Africa and its development partners. In September 2010, the Group organised an event on infrastructure. According to participants at the discussion¹⁰⁴, China regards both rural and urban infrastructure as important for development in Africa, particularly since infrastructure development played a key role in China's own economic growth and poverty reduction. With its large surplus of investible funds to convert it into real assets, China sees itself as playing a role in generating more holistic approaches to infrastructure across countries.

At the same time, China sees that Africa's infrastructure development process requires a new level of professional expertise and policy analysis, along with sub-national, national and regional political and institutional processes for financing, decision making, management and maintenance. China views that help in developing these capacities by the development partners will be a major contribution to Africa's emergence as a pro-active participant in the global economy¹⁰⁵.

¹⁰² All the same, there are some reports that Angolan elites profit the most from this domestic provision. See *The Queensway Syndicate and the Africa Trade*; The Economist, August 13, 2011: <http://www.economist.com/node/21525847>.

¹⁰³ *How China is Influencing Africa's Development*; Martyn Davies, OECD Development Centre, 2010.

¹⁰⁴ *Infrastructure: The Foundation for Growth and Poverty Reduction: The China-DAC Study Group* <http://www.oecd.org/dac/povertyreduction/48555115.pdf>

¹⁰⁵ Ibid.

PART IV: APPLYING THE PARIS DECLARATION ON AID EFFECTIVENESS AND CONCLUSIONS

1. Applying the Paris Declaration on Aid Effectiveness

This section describes good practices and challenges for donors in applying the principles of the Paris Declaration on Aid Effectiveness in their support to Africa's infrastructure development, which includes promoting private investment. In particular, it describes the views expressed by donors on alignment, harmonisation, and managing for results.

Several donors indicate general adherence to the principles of the Paris Declaration on Aid Effectiveness in working on Africa's infrastructure development—for both physical aspects and the enabling environment. Some state that their assistance is aligned to partner countries' priorities, particularly expressed in the national development plans or PRSPs. Austria mentioned that, for example in Uganda's water and sanitation sector, the Ugandan Government led successful consultations to enhance its monitoring and evaluation capacity by developing a performance measurement framework that included indicators on access, usage, managerial aspects, impact and cost effectiveness. To this joint effort, Austria contributed to improving the definition, criteria, and methodology of this framework.

For the most part, however, donors expressed challenges in alignment. One factor is that, according to Canada, regional strategic frameworks may not be sufficiently built up from country strategies, and conversely, country strategies often fail to articulate regional commitments. Japan also noted that, for regional projects, some of the challenges include: co-ordination among different countries, ministries and agencies; lack of political will; and insufficient capacity of regional economic communities to particularly implement the soft aspects of infrastructure projects.

Italy also mentions that aligning to country systems on procurement, monitoring, and ensuring environmental standards is problematic. Korea states that the partner governments' lack of financial or administrative capacity and frequent changes in staff in charge of supported areas pose challenges in aligning to their priorities. The decision-making process on the government side is also perceived as slow, with ministries not communicating well among themselves. These views are reflected in a study on how donors are implementing the Paris Declaration principles in the infrastructure sector, which states that, the larger the scale of the project, the harder it is for donors to align. This is because, while host country capacity in carrying out procurement and ensuring environmental and social safeguards is weak, these aspects are particularly important for donors in financing large scale infrastructure projects¹⁰⁶.

¹⁰⁶ *Aid Effectiveness in the Infrastructure Sector: Final Report*, Harry Garnett, Ritu Nayar-Stone, Sarah Polen: Urban Institute, September 2009.

1.1 *Harmonisation*

On harmonisation, some donors mention that they co-ordinate with or contribute to the multitude of regional initiatives such as the AfDB's Programme for Infrastructure Development in Africa. The United Kingdom states that it does not see particular challenges in harmonisation in supporting Africa's infrastructure because a large part of its support is channelled through the multilateral development banks. Canada, whose Pan-Africa Regional Programme Strategy takes into consideration ICA, the NEPAD-Infrastructure Project Preparation Facility, the African Water Facility (all hosted by the AfDB), and the African Union, mentions its experience as overwhelmingly positive, particularly due to robust AfDB management systems as well as the firm commitment by all stakeholders in the relevant process.

Canada also states that its Strategy supports multi-donor programming, common reporting, joint monitoring and evaluation, and the use of country systems when feasible. The United Kingdom mentioned that in many countries, donors have jointly supported procurement practices to strengthen government capacity to lead infrastructure programmes. Furthermore, Japan has initiated informational exchange meetings with Korea and China on infrastructure activities in Kenya, as a contribution towards harmonisation among Asian development partners. On the other hand, Korea as a new DAC Member, states that harmonising in general with other donors on different processes and programme cycles, such as sector wide approaches and budget support, requires substantial effort.

As lessons learned across regions, the experience in Vietnam where six largest donors in infrastructure (World Bank, AsDB, France, Germany, Japan, and Korea) aligned to government priorities and harmonised among each other could be examined. More generally as referred to in Part I, it may be worth pursuing the issue of effective division of labour among many bilateral donors each administering small portions of the total aid for Africa's infrastructure, including for improving the enabling environment.

Within donor countries, there have been some efforts to harmonise or co-ordinate among institutions that provide development financing. In other words, some development agencies are collaborating with other parts of the government in helping attract investors by promoting Africa as an investment destination, although not necessarily for infrastructure. The Korea International Cooperation Agency and the Korean EximBank, for instance, collaborate to provide Korean companies with information on investment opportunities. In Italy, there is an effective co-ordination mechanism among Italian Co-operation, Ministry of Finance, Simest (agency that promotes Italian investments abroad), and the Italian export credit agency.

In the US, there is also inter-agency co-ordination among government actors. Development agencies such as MCC and USAID work on infrastructure with the Department of Energy on issues such as energy access, integration of regional networks, and clean energy development. The United States Trade and Development Agency also helps host countries identify public-private investment opportunities, advises the officials on trade, technology, standards, and regulations in, *inter alia*, infrastructure, and holds regular consultations with the Export-Import Bank and OPIC.

Other development agencies try to maintain a distance between development objectives and direct promotion of national commercial interests. The Japan International Cooperation Agency, for example, carries out consultations on specific aid activities with the Ministry of Finance, Ministry of Economy, Trade and Industry, and other sector ministries. However, it does not actively mobilise various government agencies to promote private investment by Japanese companies in developing countries.

1.2 *Managing for Results*

A number of donors indicated that measuring the impact of their “leveraging” activities is not always straight-forward or tangible. For instance, it is difficult to pinpoint all the effects stemming from donor support for designing a PPP law—as many stakeholders are involved, it is hard to isolate the donor impact. In addition, impact of these interventions can be long-term—the result from, for example, support for a procurement bill, may see increased investment or improvement in infrastructure only ten years afterwards. In fact, the United Kingdom carried out a study in 2008 to map the causal linkages between inputs to improve the enabling environment with outcomes of increased private participation in infrastructure, which confirmed these challenges¹⁰⁷.

As mentioned earlier, the enabling environment cannot be dissociated from broader governance reforms—for instance, anti-corruption measures or a developed financial sector in general may impact the enabling environment more effectively than particular support to the infrastructure sectors. On the other hand, better correlation may be established between direct assistance towards completing investment transactions and immediate returns, e.g. using PPIAF’s grants for PPPs that increased access to and improved quality of infrastructure services or raised the receipt of concession fees and tax revenues paid by infrastructure investors. Furthermore, a review on IFC found that successful IFC projects improved the perception of private sector participation among host government officials, increased the capacity of the officials, and encouraged more investors to enter the sector or country¹⁰⁸. This means that a successful project can start a virtuous cycle.

A major bottleneck in assessing results is the lack of official data on sectoral breakdown of private flows, as mentioned in Part II. While the DAC, United Nations Conference on Trade and Development, and others collect information on private flows by countries of origin and destination, they are not disaggregated by sectors due to confidentiality of commercial interests and other reasons. This makes it difficult to evaluate the degree to which donor assistance in helping improve the enabling environment or providing risk mitigation instruments had an effect on leveraging private investment for even Africa as a continent.

While this challenge is for all sectors, the Multilateral Development Bank Working Group on Infrastructure for the G20 also states that the striking absence of systematic, comprehensive and reliable worldwide information on even the most elementary data for such a massive economic sector as infrastructure is quite remarkable. Without such information, the Group claims that it will be very difficult to evaluate the success of past interventions, prioritise current allocations, and provide a benchmark to measure future progress. Therefore, they propose to the G20 an establishment of a Global Infrastructure Benchmarking Initiative that includes, *inter alia*, global data collection on infrastructure spending from the public sector, special funds, and PPPs. They also suggest an adoption of an infrastructure statistics protocol by the United Nations¹⁰⁹.

¹⁰⁷ *A Desk Review of DFID’s Private Sector Infrastructure Investment Facilities* (March 2008).

¹⁰⁸ *Evaluation of the Demonstration Effect of IFC’s Involvement in Infrastructure in Africa: Final Report*; Castalia, 2011.

¹⁰⁹ *Infrastructure Action Plan: Submission to the G20 by the MDG Working Group on Infrastructure*, Oct 2011 .

2. Conclusion

The ultimate objective is not about promoting private investment *per se*. On the contrary, it could be counterproductive if some private investment led to unsustainable infrastructure development that posed a huge financial burden on the host government. In fact, the main goal is sustainable growth and poverty reduction that could happen at the end of a long and complex process involving many actors and interventions. Nevertheless, when private investment is deemed to make major contributions to this goal through a specific infrastructure plan, then development partners should collectively look at what they can do more to help improve the enabling environment and provide effective financing instruments. This could be done through enhanced dialogue among African governments, the private sector, development agencies, development finance institutions, civil society, as well as the emerging economies on better co-ordination, harmonisation, and division of labour, in line with the Paris Declaration principles.

ANNEX 1: PRIVATE PARTICIPATION IN INFRASTRUCTURE, 1990-2009

Country	# of projects reaching closure	Sector with largest investment share	Type of Investment, largest share	Projects Cancelled or Distressed
Algeria	27	Energy	Greenfield	0
Angola	7	Telecom	Greenfield	0
Benin	6	Energy		1 or 6% of total investment
Botswana	2	Telecom		0
Burkina Faso	5	Telecom	Divestiture	0
Burundi	3	Telecom	Greenfield	0
Cameroon	7	Telecom	Divestiture	0
Cape Verde	2	Telecom	Divestiture	1
Central African Republic	4	Telecom	Greenfield	1
Chad	4	Telecom	Greenfield	2
Comoros	2	Transport	Concession	1
Congo, Dem. Rep.	7	Telecom	Greenfield	1
Congo, Rep.	7	Transport	Concession	2 or 22% of total investment
Cote d'Ivoire	15	Telecom	Greenfield	1 or 2% of total investment
Djibouti	4	Transport	Greenfield	0
Egypt	23	Telecom	Greenfield	0
Ethiopia	2	Energy	Greenfield	0
Gabon	12	Telecom	Concession	1 or 6% of total investment
Gambia, the	5	Telecom	Divestiture	2 or 84% of total investment
Ghana	18	Telecom	Greenfield	3 or 9% of total investment
Guinea	8	Telecom	Greenfield	1 or 21% of total investment
Guinea-Bissau	3	Telecom	Greenfield	0
Kenya	19	Telecom	Greenfield	1
Lesotho	3	Telecom	Divestiture	0
Liberia	5	Energy	Greenfield	0
Libya	no info	no info	no info	no info
Madagascar	9	Telecom	Greenfield	1 or 5% of total investment
Malawi	6	Telecom	Greenfield	1 or 10% of total investment
Mali	5	Telecom	Concession	1 or 34% of total investment
Mauritania	2	Telecom	Divestiture	0
Mauritius	12	Telecom	Divestiture	0
Morocco	13	Telecom	Divestiture	0
Mozambique	15	Energy	Greenfield	1
Namibia	5	Telecom	Greenfield	1 or 87% of total investment
Niger	5	Telecom	Greenfield	0
Nigeria	51	Telecom	Greenfield	3 or 3% of total investment
Rwanda	6	Telecom	Greenfield	2 or 5% of total investment
Sao Tome & Principe	2	Energy	Concession	0
Senegal	12	Telecom	Divestiture	2 or 12% of total investment
Seychelles	3	Telecom	Greenfield	0
Sierra Leone	5	Telecom	Greenfield	0
Somalia	7	Telecom	Greenfield	0
South Africa	32	Telecom	Greenfield	2 or 1% of total investment
Sudan	7	Telecom	Greenfield	0
Swaziland	1	Telecom	Greenfield	0
Tanzania	21	Telecom	Greenfield	2 or 1% of total investment
Togo	6	Energy	Greenfield	1 or 8% of total investment
Tunisia	8	Telecom	Greenfield	0
Uganda	20	Telecom	Greenfield	0
Zambia	6	Telecom	Greenfield	0
Zimbabwe	5	Energy	Divestiture	0

source: World Bank Private Participation in Infrastructure Database, June 2011

ANNEX 2: WHY THE ENABLING ENVIRONMENT MATTERS

1 Inefficiencies are Costing African Governments

Currently, many of the challenges confronting Africa's infrastructure are as a result of a weak enabling environment. Approximately USD17 billion a year is lost due to institutional inefficiencies: bills that remain uncollected; budgetary resources that are not directed to line ministries; insufficient spending for maintenance; overstaffing; under-pricing and so on. These challenges can be acute in some sectors.¹ For instance, a stocktaking of Africa's water sector across six dimensions of operational performance showed that while 15%-20% of water losses is the norm in OECD countries, in some African countries such as Tanzania, the proportion can be as high as 86%.² Addressing constraints such as these could free funds that governments can spend on developing new infrastructure assets, or improving access to services. To illustrate, if tariffs were adjusted to cost-recovery levels and if revenue collection was strengthened among utilities, Kenya and Nigeria could save 1.3% and 1.7% respectively of their GDPs per year.³ These savings are important for creating fiscal space for infrastructure development.

2 The Enabling Environment is Important for Long-Term Planning

Poor policy planning and weak operational performance among utilities have at times undermined public investment plans, leading to various supply crises, especially in the power sector.⁴ Many of the power crises facing African countries today are due to the lack of proper planning to reconcile growing demand with generation capacity. As a result, many governments have ended up settling for emergency generation and paying a premium or accepting unfavourable terms on contracts with investors in response to an unexpected increase in demand and insufficient electricity capacity. These situations could have been avoided were it not for poor sectoral planning, vague or absent sector policies, and long-standing weak financial and operational performance in the utilities.⁵

3 A Strong Enabling Environment Makes Projects Run Better

In countries with well-developed frameworks for PPPs, project preparation costs are generally about 1% as a percentage of total project costs, but for countries without much PPP experience, the project preparation costs run between 3% and 10% of total project costs because of weak institutional and policy arrangements.⁶ Furthermore, weak institutions can lead to infrastructure projects. One study

¹ AICD, 2010.

² Kauffmann, Perouard 2007.

³ *Nigeria's Infrastructure: A Continental Perspective*, Policy Research Working Paper No. 5686, Foster and Pushak, World Bank, 2011; and *Kenya's Infrastructure: A Continental Perspective*, Policy Research Working Paper No. 5596, Briceno-Garmendia and Shkaratan; World Bank, 2011.

⁴ Eberhard, 2010.

⁵ AICD, 2010.

⁶ MDBs' Report for G20 meeting in Cape Town, May 2011.

showed that 25% of water projects (the most affected sub-sector) were cancelled or under distress in Africa between 2000 and 2005, with a similar rate for electricity projects as well.⁷

Better institutional arrangements can help project implementation, which in turn can lead to gains for both the private and public parties.⁸ Well-functioning municipalities can facilitate the delivery of infrastructure services and ensure the proper functioning of all aspects of the project cycle. Moreover, a strong enabling environment, based on long-term master planning, is critical for investment sustainability. The public sector will remain essential in strengthening regulatory and institutional support that would facilitate effective project preparation. In particular, for regional projects, the complexity of the projects demands a solid framework for harmonisation and coordination among several governments.

Various studies have analysed the factors behind project cancellation and in most cases, a weak enabling environment is to blame. One study found that in the transport sector, traffic flows fell below forecasts because of overly optimistic projections, alternative traffic routes in the case of tolls, and insufficient due diligence. In the water and sanitation sector, contract cancellation was often motivated by the inability to raise tariffs to cost-recovery levels and difficulties in collecting bills from customers. The electricity sector faced the same problems. In the telecommunications sector, the reason for project cancellation was a low customer base, and government changes to the structure of the market.⁹ Another study found that certain factors tend to make projects more likely to be cancelled: the challenging environment around the water sector makes it a high-risk sector for cancellations; projects in SSA also more likely to be cancelled because of weak institutional capacity; projects with foreign sponsors; and larger projects. Also, the potential of private sector participation in the energy sector depends in part on broader sectoral reforms that can allow independent power producers to operate. Similarly, in the water sector, there is often a market for informal distributors but not enough licensing and measures to ensure monopolies do not develop and prices are fair. Another study (econometric analysis by the World Bank) showed that the likelihood of project cancellation increases by nine percentage points in Sub-Saharan Africa, and even more if a private foreign company is involved. The authors explain that project cancellation rates may be higher in SSA because of weak institutional capacity.¹⁰

4 *The Enabling Environment Facilitates the Exploitation of Resources*

While some infrastructure sectors have the potential to grow and contribute to development, they have been impeded by a weak enabling environment. The renewable energy sector is the most prominent example. As some analysis has shown, African countries have not taken advantage of the Clean Development Mechanism (CDM), which could help boost investment in renewable energy by providing incentives for developed countries to invest in sustainable projects in developing countries. While a number of African countries have entered the pipeline of CDM projects, Africa still represents only 2% of global CDM projects, the same proportion as Thailand alone. The problem lies in the lack of human and institutional capacity to take advantage of the CDM.¹¹ Skills such as conducting

⁷ Private Participation in Infrastructure Database, World Bank; <http://ppi.worldbank.org/features/sept2006/didyouknowSept2006.aspx> ; accessed November 2 2011.

⁸ AICD 2010.

⁹ Harris et al, 2003.

¹⁰ Harris, Pratap, 2009.

¹¹ NEPAD-OECD Africa Investment Initiative, 2009.

financial appraisals, determining baselines of anthropogenic emissions, and the process of validation, verification and monitoring, can be skill-intensive. Similarly, while IPPs can potentially contribute to the power grids of many countries there aren't enough policy frameworks in place to facilitate IPPs.¹² Another example is geothermal energy, which has significant potential but the African Rift Valley, for instance, has not been exploited due to the high costs of exploration, the high risk associated with it, and the "lack of supporting policies, regulatory frameworks, technical capacity, and resource information on one hand."¹³

5 *The Enabling Environment is Key for Attracting Private Investment*

While public resources are important, private funding is indispensable for addressing Africa's massive infrastructure needs. Strengthening the enabling environment can help attract private investors, who are a crucial partner in the development of Africa's infrastructure. Part of the reason for the success of telecommunications infrastructure in Africa, for example, is because of liberalisation in licensing which led to greater market players and more competition, which drove down prices and led to greater access to more consumers. Moreover, investors pursue several prospects and bids at the same time, so bureaucratic and slow processes in government approvals and licensing create an opportunity cost for investors.¹⁴ (A study on IPPs in Africa found that countries with a better investment profile not only attracted more investors but did so on terms that were favourable to them. The implication is that a risk-reward balance, including a stable and predictable investment environment, needs to be offered to investors and lenders.

¹² Eberhard, 2010.

¹³ Mwangi, 2010.

¹⁴ Lamech, Saeed 2003.

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