



Financing water infrastructure in Africa

Financing water-related infrastructure development in Africa – what's stopping us?



The infrastructure financing gap in Africa

By Nick Tandi and Anton Earle

Few would argue with the idea that infrastructure development is of decisive importance for economic growth and poverty eradication in Africa. Financing still comes predominantly from public sources for water, energy, and transport and is high relative to GDP but inadequate relative to infrastructure requirements. At 3.6 per cent of GDP, expenditure on infrastructure in Africa is comparable to the developing country norm of 2-4 per cent. In Latin America for example, expenditure is 1.8 per cent (Dobbs et al, 2013; Economist, 2014).

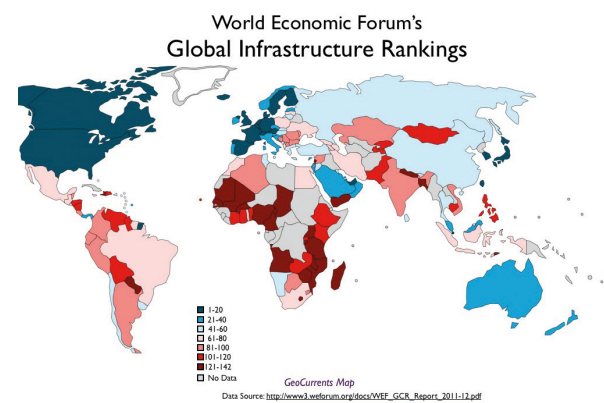


Fig 1. World Economic Forum (WEF) Global Infrastructure Rankings. Global Competitiveness Report 2012. Map produced by GeoCurrents.

The annual funding gap to meet current infrastructure requirements in sub-Saharan Africa sits at close to USD 50 billion. The funding gap for water infrastructure alone is over USD 11 billion (Briceño-Garmendia et al, 2008). Given the demands placed on national budgets by development needs such as education and health care, closing the gap, or closing it at a faster rate, will require increased private sector participation in the Africa water infrastructure financing market.

In the last decade several initiatives have emerged in response to the opportunity for infrastructure development in Africa. These are mostly in the form of facilitated (sub-)regional planning processes, project preparation facilities, partnerships for investment promotion, and various capacity development programmes. Despite these efforts, financing gaps still persist, pointing to market failure on a continental scale. Total spending on infra-

structure is just over USD 45 billion, of which about USD 30 billion is domestically sourced (Briceño-Garmendia et al, 2008). As seen in the diagram below, international commitments for finance are currently dominated by China. Financing from the private sector and national governments is not included in the diagram.

In early 2015, the Stockholm International Water Institute (SIWI) Africa Regional Centre (ARC) began consulting key African stakeholders on the drivers of the financing gap and the existing opportunities to close it through non-traditional financing sources or mechanisms. This complements broader engagements by SIWI on the topic of infrastructure financing at the global level. As part of this consultation, a roundtable held on 12 March 2015, at the SIWI ARC office in Pretoria, South Africa, convened experts from development banks, transaction advisors, large-scale water infrastructure finance utilities, development partners and government departments. This working paper discusses the findings from the engagements thus far with a focus on the outcomes of the roundtable discussion.

Key issues related to the demand for finance | Experience so far points to the inefficiency of the water infrastructure financing market being driven mostly by demand-side issues, some of which are briefly described below. The demand side of finance is the full range of infrastructure projects that have a sponsor who is willing and able to pay for these or to lead the process of seeking finance. Despite the existence of various project preparation facilities, many of the projects found in national infrastructure plans (and therefore regional plans) are not sufficiently developed either for uptake by available project preparation funds or for engagement with private sector financiers. Two related deficiencies of the project development and infrastructure planning process need to be addressed.

First, it is common that project feasibility studies emphasize technical feasibility and do not focus on the financial and institutional issues that are equally important or in some cases that should precede technical feasibility. Because of this, financial modelling is not integrated from project concepts to pre-feasibility and feasibility studies. Only at a later stage, if at all, are the sources of

finance considered. In the worst of cases, this leads to the development of infrastructure plans with projects that are not financially viable. Given the time, financial and human resources devoted to planning processes, this results in inefficiency of infrastructure planning with negative impacts on the general investment climate of a country or region. In the Global Competitiveness Report of 2012, the World Economic Forum identified access to financing and inadequate infrastructure as two of the three most problematic factors for doing business in Sub-Saharan Africa (SSA).

Second, projects are not always conceptualised to maximize benefits to the economic activities where they are located. The business case for investing in water-related infrastructure would be stronger if projects were conceptualised to serve multiple purposes (such as water storage, power, irrigation, water supply and tourism). The slow implementation of rural and urban spatial plans complicates this process. Because of the uncertainty of if and when future users would come on board, it may seem safer to exclude them in any financial modelling and project design. Added to that, developing multi-stakeholder business cases for infrastructure projects that straddle sectors and government departments is a complex process requiring active engagement and coordination. Such multi-sectoral collaboration is a long-standing challenge for water management. The same applies for attempts to plan across administrative jurisdictions. Projects that are planned across national boundaries require governments to enter into legally-binding cooperative arrangements in order to reduce investor risk. The challenge is to design interventions within the political arena that enable cooperation.

These challenges suggest that many infrastructure plans (local, national and regional) contain a disparate mix of projects that are feasible and not feasible – ranging from those which are readily implementable (with a clear business case for cost recovery) to those which amount to aspirational visions with little hope of being developed in the short to medium term. While it is generally acknow-

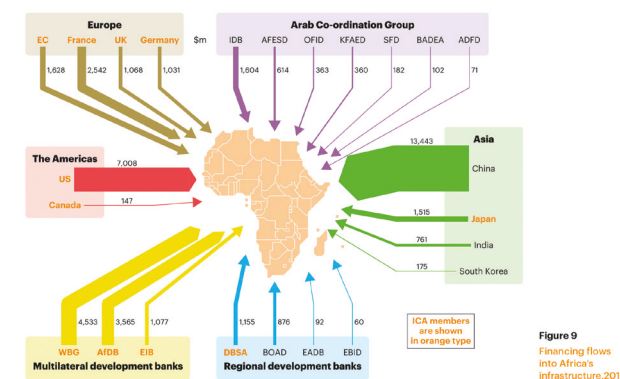


Fig 2. Commitments for financing Africa's infrastructure recorded in the Infrastructure Consortium for Africa Annual Report 2013.

ledged by experts that there is a significant financing gap for water-related infrastructure, previous attempts to quantify this gap have measured the difference between current spend by governments and aspirational plans. The real quantum of the gap may require updating when infrastructure plans are improved to include mostly the projects that have prospects for implementation.

There are numerous examples where the private sector, as off-takers of bulk or treated water, makes projects that would have otherwise been purely public projects financially feasible. Such off-takers are often the mining and manufacturing industries, and they represent something akin to "anchor tenants" in a property development, reducing project risk and establishing a sustainable financial foundation. These opportunities do not seem to be sufficiently explored, especially for financing wastewater treatment facilities and identifying potential users of the treated water. Another example where private sector participation improves project viability is through performance-based contracts to reduce non-revenue water. Where a utility is losing revenue from water losses, water theft or billing issues, performance-based contracts can be employed to incentivise specialised private sector contractors, through a bonus linked to performance, to reduce such revenue loss. This approach incentivises among other things rigorous project scoping and options analysis and provides for some sharing of risk between a contractor and a utility. In cases where the utility is considered too risky for financing by the private sector, ring-fencing or direct financing to the private contractor can be applied as described below. All these measures effectively reduce the risks associated with non-revenue water projects, allowing lenders to participate.

A typical problem for water utilities in Africa is that water users do not pay their bills. The other side of this issue is that utilities are not incentivised to address bill payment problems and therefore do not do enough to turn the situation around. As long as water users do not pay their bills, municipalities, bulk water suppliers and other water services providers cannot be financially sustainable. The implication is that these entities cannot service loans and/or fund the components of projects where costs cannot be fully recovered.

In cases where public water services providers cannot borrow money on the strength of their balance sheets, the solution to financing some projects has been to isolate the revenue-stream from payments; in effect ring-fencing them to be used only for the re-payment of the capital and operational costs of the associated infrastructure. Typically, this would involve either developing a new entity, such as a special purpose vehicle, or using a private sector partner to borrow money from financial markets and pay it off using the revenues from a project. While the merits of ring-fencing bankable projects are well accepted, especially by bankers, for municipal entities ring-fencing seems to counter some of their principles for

sound financial frameworks; one key principle being that of the authority of local government to adjust revenues to the needed expenditures across various sectors. Perhaps such flexibility is needed more in developing country contexts with water being a key revenue stream that municipalities would like maintain control over. Trying to fully ring-fence projects can prove politically unacceptable. There is also evidence that the mixed performance of public partnerships with the private sector, combined with public sector capacity challenges, has created an atmosphere of extreme caution and slow engagement between the sectors. Where public-private partnerships for bankable projects have been promoted and taken up with guarantees from national governments, an emerging concern is the potential for unintended consequences on the public finance system. One such concern is that guarantees recorded as contingent liabilities in national budgets have the potential to influence sovereign credit ratings negatively or to reduce government's willingness to spend or borrow.

Opportunities to close the financing gap | There is an opportunity to improve the water infrastructure planning process by basing the plans on development objectives and carrying out options analyses of how these development objectives can be financed within present means. With some openness that allows water-related sectors within and outside government to participate early on, project conceptualisation and infrastructure options analysis and prioritisation could be greatly improved. It is especially important to get the private sector and financiers (public and private) "involved in the full story". The value of this is threefold - the full financial and economic benefits of projects are conceptualised and planned for early on; project preparation is faster; and financial feasibility begins to be assessed early on. Small components of some large projects are feasible when the projects are unbundled into smaller parcels which are easier for interested private developers to gain market finance for. This is an example of advice and support that public sector project sponsors could be assisted with in the early planning stages.

Conversely, specific types of projects that are viable are in some cases too small individually to receive attention from financiers. But when grouped, these projects could warrant the creation of a financing facility adapted to their needs. Non-Revenue Water for example (repre-

senting the total amount of treated water which a water service provider does not get paid for and comprised of physical leakage as well as illegal water connections and accounting deficiencies) presents a special case for water financing. Projects to reduce NRW possess unusual characteristics compared to the rest of the water sector: the capital investment can be low, with short pay-back periods, and returns better guaranteed if performance contracts are applied. Most importantly the client already exists – the municipality or utility currently suffering financial losses due to NRW. Work in this area should be scaled up.

Conclusion | SIWI is developing a programme addressing the infrastructure financing challenges that persistently militate against the public as well as private development of water infrastructure. Key actions include developing institutional capacity for infrastructure planning by public water management authorities; and, where specific types of projects are viable such as those to reduce Non-Revenue Water, assisting in the development and promotion of financing facilities adapted to the project needs. SIWI seeks to collaborate with partners in the public as well as private sectors in pursuing this work and welcomes new and on-going initiatives to address the water infrastructure backlog in Africa.

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