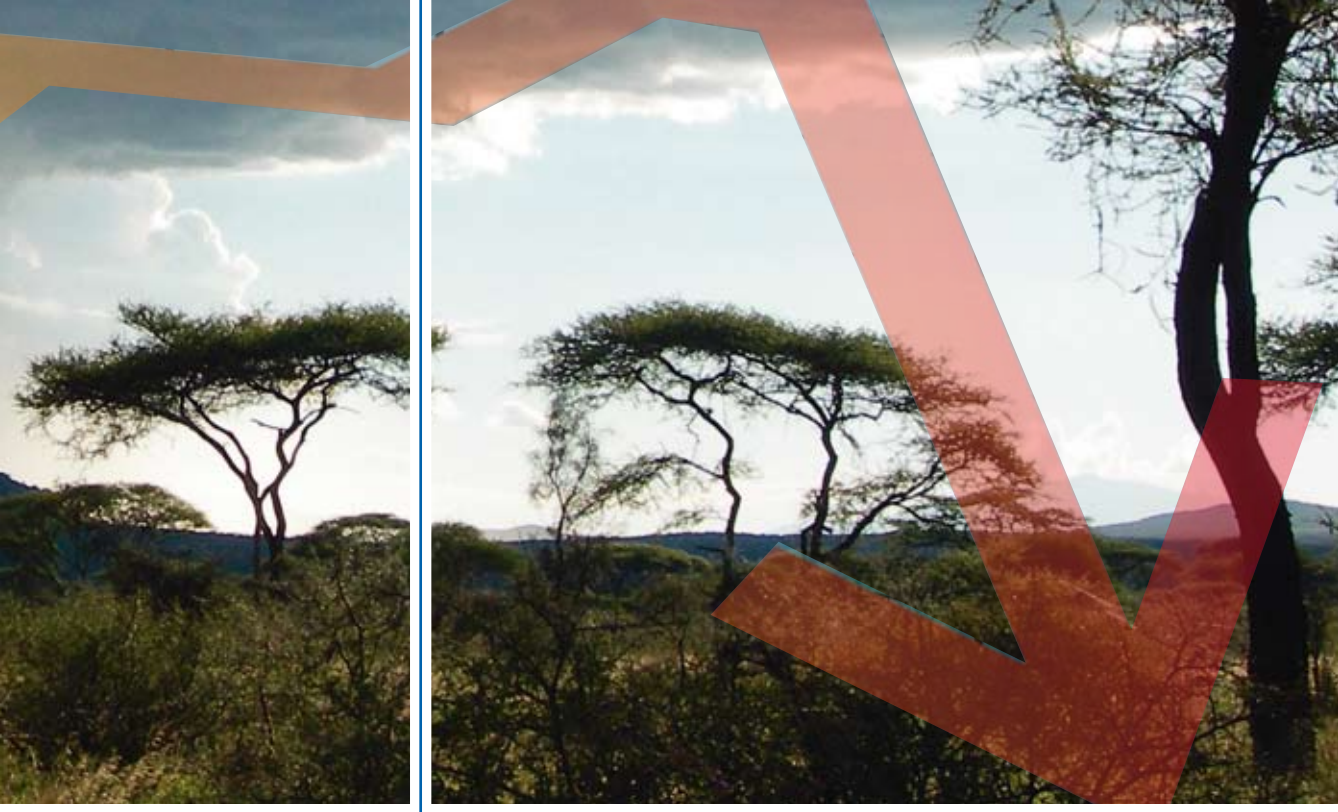

The Impact of the Global Financial Crisis on Financial Flows to the Water Sector in Sub-Saharan Africa

SIWI

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The Impact of the Global Financial Crisis on Financial Flows to the Water Sector in Sub-Saharan Africa

Note to the Reader

This report highlights the impact of the global financial crisis on financial flows to the water sector in Sub-Saharan Africa. Our goal was to unpack how the water sector is presently financed and then trace the impact of the crisis on these financing sources.

The lead author is John Joyce, Stockholm International Water Institute (SIWI). Jakob Granit (SIWI), Emmanuel Frot (Stockholm University), David Hall, Public Services International Research Unit (PSIRU) and David Haarmeyer (Independent Consultant) were co-authors.

Photo: Manfred Matz

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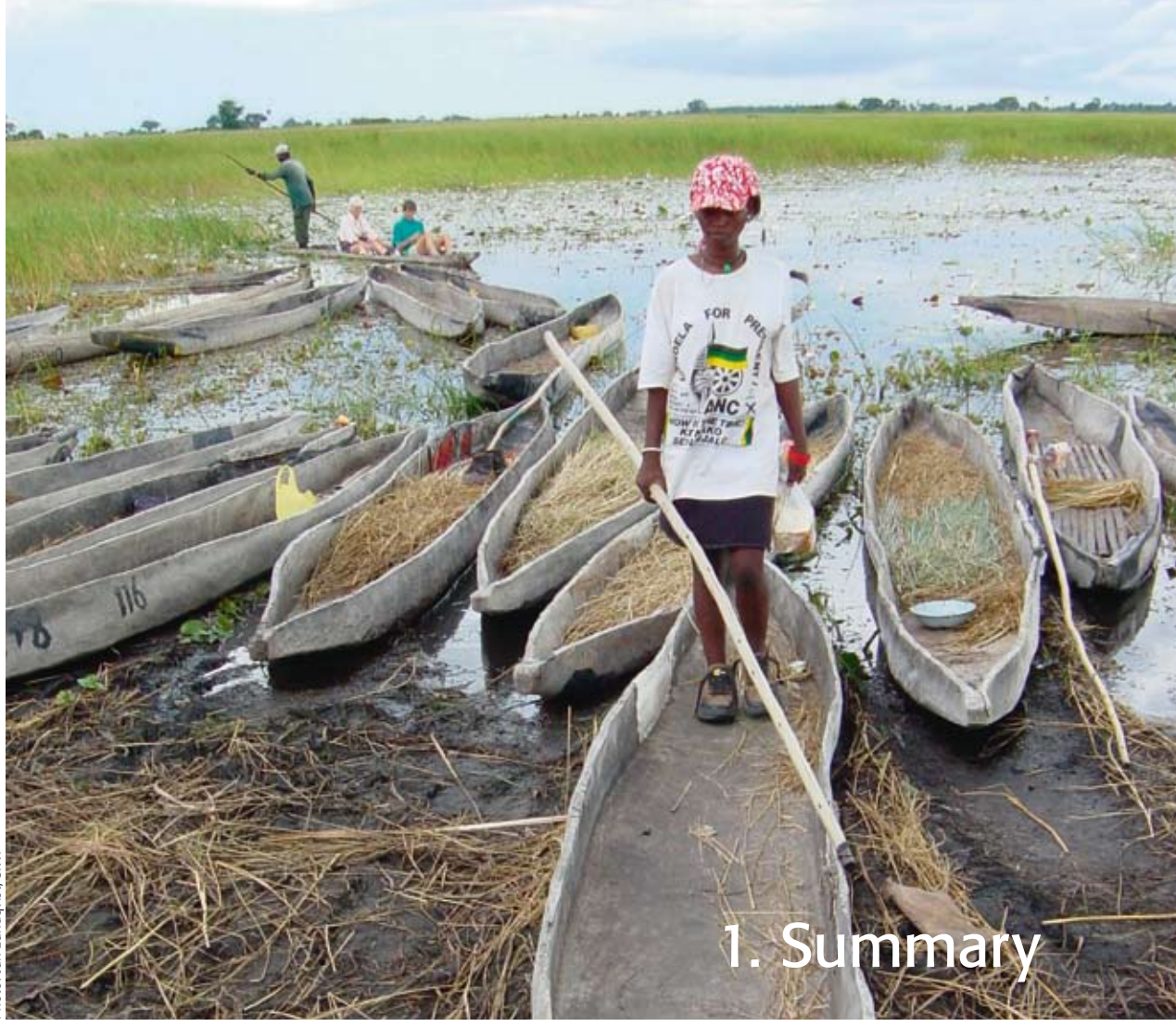

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1. Summary

The purpose of this report is to provide an analysis of the impact of the global financial crisis ("the crisis") on financial flows to the water sector in Sub-Saharan Africa (SSA). To gain an insight into the impact requires first of all an understanding of how the water sector is financed and then the extent to which these financing sources are impacted by the crisis. The paper assesses the impacts of the crisis in the following three water sub-sectors: water supply and sanitation (WSS), irrigation and hydro electric power. Financial flows from the public sector, Official Development Assistance (ODA), non-OECD countries (such as China); private sector capital; and household/farmer self-finance are analysed.

This report complements a 2009 report by the Stockholm International Water Institute on the impact of the financial crisis on the water sector prepared for the Swedish International Development Agency (Sida) (Winpenny et al., 2009). The two major conclusions in the 2009 report were that the financial crisis had overlapped with the earlier food crisis, and that it, together with fluctuating energy costs, compounded the economic problems of many SSA countries; and secondly, that the financial impacts would be superimposed on the basic problem of underinvestment in water services that undermines growth projections in SSA and the possibility of reaching related Millennium Development Goals (MDGs).

The paper is structured as follows: Section 2 presents key messages, Section 3 discusses the methodology, Section 4 establishes a baseline, Section 5 looks at how these financing sources may have been impacted by the crisis and Section 6 estimates the impact and offers a conclusion.

2. Key Messages

Photo: Manfred Matz

The general low level of investment finance to the water sector will continue hamper growth. The water sector in Sub Saharan Africa (SSA) is characterised by low levels of investment, cost ineffective service delivery and weak governance.

The economic impacts of the crisis in SSA are temporary. Recent economic data indicate that the economic impact of the crisis appears to have been temporary on SSA economies, due to positive and high macro-growth forecasts and improved commodity revenues.

A significant proportion of the SSA's financial flows in the water sector rely on public sector finance. The crisis has had a minimal impact on public sector finances in many of the countries, including low income and low income fragile countries, due to widespread growth. Many SSA governments introduced countercyclical spending plans and as a result capital spending has been increasing in percentage of Gross Domestic Product (GDP).

The financial impacts of the crisis on the water sector in SSA are limited. Negligible private sector capital contributions and embryonic local capital markets limited the vulnerability of the sector to falls in financial flows from these sources. Sovereign bonds are now being used to support national budgets in certain low income countries (e.g. Uganda; Kenya; Tanzania).

Non-OECD financial flows have played an important role in keeping SSA economies vibrant. Financial flows from non-OECD economies helped minimise any adverse economic impacts from the crisis and indirectly on water sector spending. Hydro electric power (funded by China) and agricultural investments (by Arab States) are significant and on-going and have not been significantly impacted by the crisis.

The impact of the crisis on financial flows to irrigation and hydro-electric power projects has been limited. The weak integration of SSA's agriculture into the world economy, historically low levels of spend and apparent neglect of this sub-sector by Official

Development Assistance (ODA), combined with the largely unexploited hydro-electric power potential, have in relative terms limited the exposure to the impacts of the crisis in these sectors.

The impact of the crisis on financial flows to Water Supply and Sanitation (WSS) **has been limited.** Household self-finance and public sector finance are the principal sources of finance for WSS and the crisis has had a limited impact on these flows. Notably, in low income fragile countries, the contribution of household self finance is approximately five times greater than the public sector. GDP is expected to grow for all countries including low income fragile, thereby increasing levels of income available for spending.

ODA from OECD countries may fall as a result of the financial crisis. Water aid represents a small percentage of total aid to SSA. Prospects for higher water aid to create fiscal space for protecting Millennium Development Goals (MDG) related spending are particularly uncertain, given budgetary pressures faced by many donor countries. Any fall in water aid will affect large-scale and basic WSS systems, in particular in low income countries as they receive the greatest share of water aid. Strategic interaction among donors may overcome some of the impact. The use of sovereign bonds by low income countries is a possible substitute for falling water aid. Multilateral donors are prioritising SSA and are increasing their level of effort and financing, although it is unclear how much of the additional multilateral disbursements will target the water sector.

The water sector in low income and low income fragile countries remain vulnerable to the crisis. Those countries with binding financial constraints, fragile debt positions and limited scope for countercyclical policies remain vulnerable to the crisis.[1] This will impact on their ability to finance operations, maintenance and capital investments in WSS, increasing their reliance on ODA. Despite their need, low income fragile countries receive less ODA as they lack the institutional structures that make aid programmes effective.

[1] Fiscal policy is considered countercyclical if expansionary in "bad times" and contractionary in "good times"; for procyclical fiscal policies, the relationship is the opposite (IMF, 2010). Automatic stabilisers are one form of countercyclical fiscal policy that that automatically expand fiscal policy during recessions and contract it during booms (Weil, 2008)

Photo: David Dahmén

3. Methodology

To simplify the analysis, we disaggregated SSA using the following typology: oil exporters, middle income, low income, and low income fragile countries (Table 1)

For the purpose of the analysis and data availability we employed a narrow definition of the water sector to include the following sub-sectors: water supply and sanitation (WSS), irrigation and hydro-electric power. WSS data are disproportionately available when compared to the other sub-sectors, as the MDG targets in this sub-sector have raised its profile and the availability of data and information.

At a general level, data collection and reliability (and comparison) problems are significant for the SSA water sector. The sector is characterised by highly decentralised service delivery (for example, in comparison with the power sector) where data collection is much harder and the differences between countries make comparisons difficult. There is a need to build region-level data and information for the water sub-sectors to allow for effective management and gap analyses. This will enable faster and more targeted responses by national governments and international donors, stabilising progress towards the MDG targets to support economic growth prospects.

To overcome some of the data challenges we used simple decision rules or assumptions to reveal possible effects. Due to the complexity of the analysis and data limitations, the report is aimed at outlining broad trends and suggested outcomes rather than precise predictions.

Table 1. Country Typology, SSA (IMF, 2010)

Oil exporting	Angola; Cameroon; Chad; Republic of Congo; Equatorial Guinea; Gabon, Nigeria.
Middle income	Botswana; Cape Verde; Lesotho; Mauritius; Namibia; Seychelles; South Africa; Swaziland.
Low income	Benin; Burkina Faso; Ethiopia; Ghana; Kenya; Madagascar; Malawi; Mali; Mozambique; Niger, Rwanda; Senegal; Tanzania; Uganda; Zambia.
Low income fragile	Burundi: Central Africa Republic; Comoros; Democratic Republic of Congo; Cote d'Ivoire; Eritrea; The Gambia; Guinea; Guinea-Bissau; Liberia; Sao Tome and Principe; Sierra Leone; Togo; Zimbabwe.

Photo: Jakob Granit, SIWI

Photo: Manfred Matz

4. Establishing a Baseline
– How the Water Sub-sectors are Presently Financed

This section identifies five major sources of finance for the water sub-sectors, namely: 1) public sector; 2) Official Development Assistance (ODA) 3) financial flows from non-OECD countries such as China; 4) private sector capital; or 5) household/farmer self-finance. Table 2 provides an overview infrastructure of spending on water sub-sectors in SSA during the period 2001–2006, linked to the sources of finance.

Table 2 Infrastructure Spending on Water Sub-Sectors in Sub-Saharan Africa (USD Billions annually)

	O&M	**Capital Expenditure**						
Sector	Public Sector	Public Sector	ODA	Non-OECD Financiers	PPI	Household Self Finance	Total	Total Spending
WSS*	3.06	1.06	1.23	0.16	0.01	2.13	4.58	7.64
Irrigation*	0.6	0.3	n/a	n/a	n/a	n/a	0.3	0.9
Power**	7.0	2.4	0.7	1.1	0.5	n/a	4.6	11.60

Source: Briceño-Garmendia et al. (2008).

* USD Billions annually. Based on annualised averages (billions) for 2001-2006. Averages are weighted by country GDP. Figures are extrapolations based on the 24-country sample covered by AICD Phase 1.
** USD Billions annually. Notably, 93 percent of the continent's economically feasible hydropower potential remains unexploited (Eberhard et al. 2008) therefore hydro-electric spending represents a small fraction of these estimates. n/a: not available.

To establish the baseline, we primarily used information from Briceño-Garmendia et al. (2008) and Foster & Briceño-Garmendia (2010) as part of the World Bank-led Africa Infrastructure Country Diagnostic (AICD). This information is based on annualised average data during the period 2001 to 2006 (reported as USD billions annually), with averages weighted by country GDP. Other information sources supplemented the analysis. From here, we established a baseline for WSS, irrigation and hydro-electric power. Official spending figures are likely to underestimate real spending as actual spending data does not take into account "off-budget funding" sources and funders such as many small-scale providers, NGOs, and even bilateral donors who are not listed in databases.[2]

[2] Off-budget spending is sources of revenue for the sector outside the regular budgets.

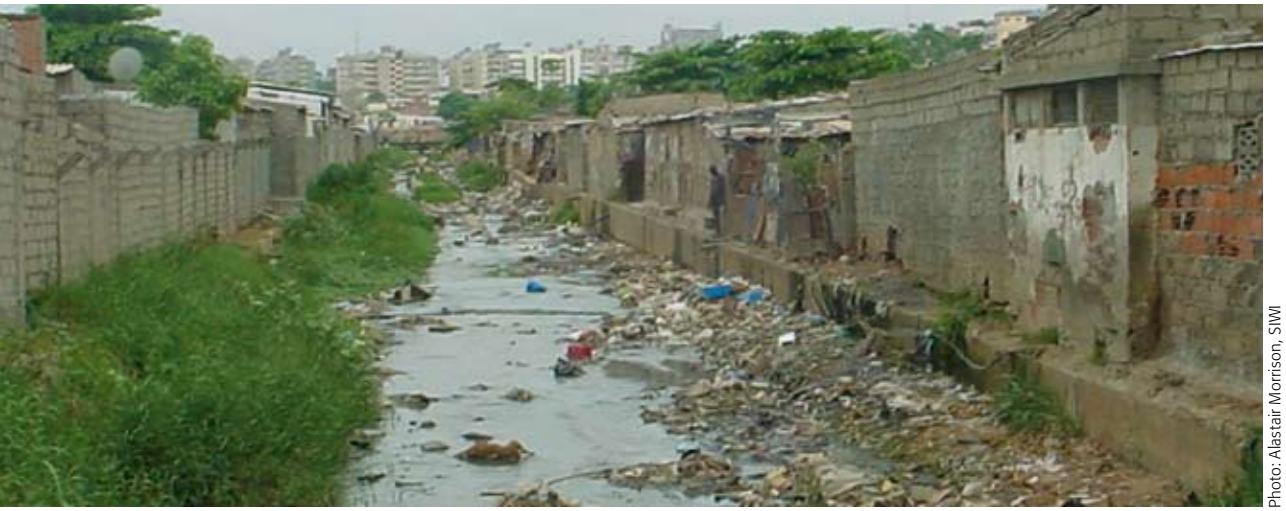

Photo: Alastair Morrison, SIWI

4.1 Water Supply and Sanitation

The existing financial flows to WSS across SSA (Table 2) shows that the public sector provides the bulk of the finance for operation and maintenance (O&M). Household self-finance is the largest contributor to capital spending followed by ODA and the public sector.

Table 3 Existing Financial Flows to Water Supply and Sanitation (USD Billions annually)

	O&M	**Capital Expenditure**						
Country Type	Public Sector	Public Sector	ODA	Non-OECD Financiers	PPI	Household Self Finance	Total	Total
SSA	3.06	1.06	1.23	0.16	0.01	2.13	4.58	7.64
Low Income fragile	0.13	0.03	0.11	0.02	0.00	0.16	0.32	0.45
Low income	0.30	0.25	0.78	0.05	0.00	0.45	1.54	1.83
Middle Income	2.17	0.15	0.10	0.01	0.00	0.21	0.47	2.64
Oil Exporter/ Resource rich	0.15	0.72	0.24	0.08	0.01	0.52	1.57	1.72

Source: Briceño-Garmendia et al. (2008). Based on annualised averages (billions) for 2001-2006.
PPI = Private Participation in Infrastructure.

As a significant proportion of the region's WSS sector relies on public sector spending, the fiscal condition of SSA governments across all country categories is a critical minimum condition for the operation, maintenance and expansion of WSS.

The scale of household spending on domestic sanitation is high. On-site sanitation facilities such as latrines make up a substantial portion of household self-finance sanitation investments. Other, related items include sinks, taps, baths and washing machines. The impact of the crisis on consumer spending will also have an effect on the level of spending on water and sanitation-related domestic equipment. The contribution of household self-finance to WSS decreases as we move from low income fragile to oil- exporting countries. For example:

- in low income fragile countries; the annual contribution of household self finance to capital spending is approximately five times greater than the public sector.
- in oil-exporting countries, the annual contribution of household self finance to capital spending is less than the public sector.

ODA contributions are significant in low income countries and therefore the fiscal condition of donor countries is critical to maintaining this level of contribution. The contribution of private capital to capital spending is close to zero.[3] Foreign direct investment (FDI) in the sector has been negligible, contrary to widespread expectations. The longstanding lack of a stable regulatory framework to uphold contract integrity and collection of fees limits private capital flows into the SSA water sector.

Presently private participation is through affermage or lease contracts[4], with activities largely focused on urban locations which have delivered operational efficiency improvements as well as improved access (UNCTAD, 2010). The lease contracts have been established in countries such as Cote d'Ivoire, Guinea, Niger and Senegal.

[3] It is worth noting that analysis undertaken by Jimenez & Perez-Foguet (2009) indicates that international private investment in water and sanitation was approximately 7% in 2005, although this analysis was not specific to SSA.

[4] Leasing is a process by which a company obtains the use of a specific fixed asset for which it must pay a series of contractual payments. In the water sector they are often referred to using the French term affermage.

4.2 Irrigation and Hydro-Electric Power

Data availability on irrigation and hydro-electric spending across SSA is fragmented and has constrained the analysis of these two water sub-sectors. They should be evaluated in the following context: only seven percent of the continent's economically feasible hydro-electricity potential has been exploited (Eberhard et al. 2008), and SSA's agricultural industry has achieved relatively low integration into the world economy and has had a historically low level of spending (Table 2).

In terms of irrigation, using the AICD reports, no information was available on ODA, non-OECD or private capital contributions to irrigation spending. The public sector contributed to both O&M and capital expenditure, with the largest share of spending on O&M (Briceño-Garmendia et al., 2008). No disaggregation to country categories was available. While not recorded by the AICD analysts, it is assumed that farmers' self- finance contributed to on-farm level irrigation development (You et al., 2010). Recent investments in large-scale agricultural land (of which irrigation is a subset), primarily in low income countries (Cotula et al., 2009); have been driven by non-OECD countries.[5]

In terms of hydro-electric power, non-OECD financiers contributed to capital spending in oil-exporting countries. Since 2005, China has been financing 10 large hydro-electric projects, which once complete will increase SSA's hydro-electricity capacity by 30 percent (Briceño-Garmendia et al., 2008).

[5] Larger irrigation schemes are increasingly embedded in multi-purpose activities, delivering hydro-electric power, flood protection or water supply (IEG, 2010). Besides the actual water infrastructure additional infrastructure such as roads is required to facilitate access to markets. Irrigation developments attract migrants from other parts of the country, with increasing population often requiring additional infrastructure in these areas, such as communication, education and health care (Grimm & Richter, 2006).

5. Impacts of the Financial Crisis

Analysts at the World Bank's Public-Private Infrastructure Advisory Facility (PPIAF) (Leighland & Russell, 2009) point to three ways that the global financial crisis can impact infrastructure projects: financial, economic and policy impacts. We added a fourth impact, the ODA and non-OECD financiers. Using this typology, we consider the different ways in which the crisis may impact on spending for WSS, irrigation and hydro- electric power across all country categories in SSA.

5.1 Financial Impacts

For all country categories, since the contribution of private capital before the crisis was close to zero, the general slowdown in private capital is unlikely to have significantly affected financial flows to the WSS sector in SSA (World Bank, 2010).

Photo: Q

Regarding the establishment of local capital markets, except for South Africa, these markets are embryonic and have not contributed to infrastructure finance, but are expected to play a larger role in the future. Prior to the financial crisis a growing number of low income countries were looking to access international bond markets, or obtain direct or indirect foreign financing in local markets (e.g. Kenya, Nigeria, Malawi, Ghana, Uganda and Zambia) (IMF, 2009). The World Bank's WSP was grooming a number of African utilities with the aim of giving them access to the bond and commercial finance market (WSP/PPIAF, 2009). The crisis has temporarily stalled access to the international sources of finance, which may be resuming for government bonds, but there is also significant potential for bonds on domestic local currency markets, which are not affected by the global financial crisis (Gillingham, 2010). Seria & Ombok (2010) report that Uganda, Kenya and Tanzania are looking to financial markets to underpin their national budgets, including using the sale of sovereign bonds, in response to the crisis and the expected curtailment in ODA.

As finance becomes more expensive and less available this may cause projects to be delayed or cancelled or for a push to be made for alternative financing sources. International private capital is especially risk-averse to economic crises and particularly in developing countries where other risks (e.g. political and regulatory) are already high. On the positive side, the crisis could lead to a reallocation of capital, with weak growth in Europe and the USA leading investors to look for more dynamic markets. Emerging markets could significantly benefit from this reallocation. On the other hand, it is unclear if SSA will attract international capital (except for South Africa), as it is still far from being an emerging market. On the whole, many people now see SSA as the next region of investment opportunities after the catastrophic decades of the 1980s and 1990s. The global financial crisis may speed up this process.

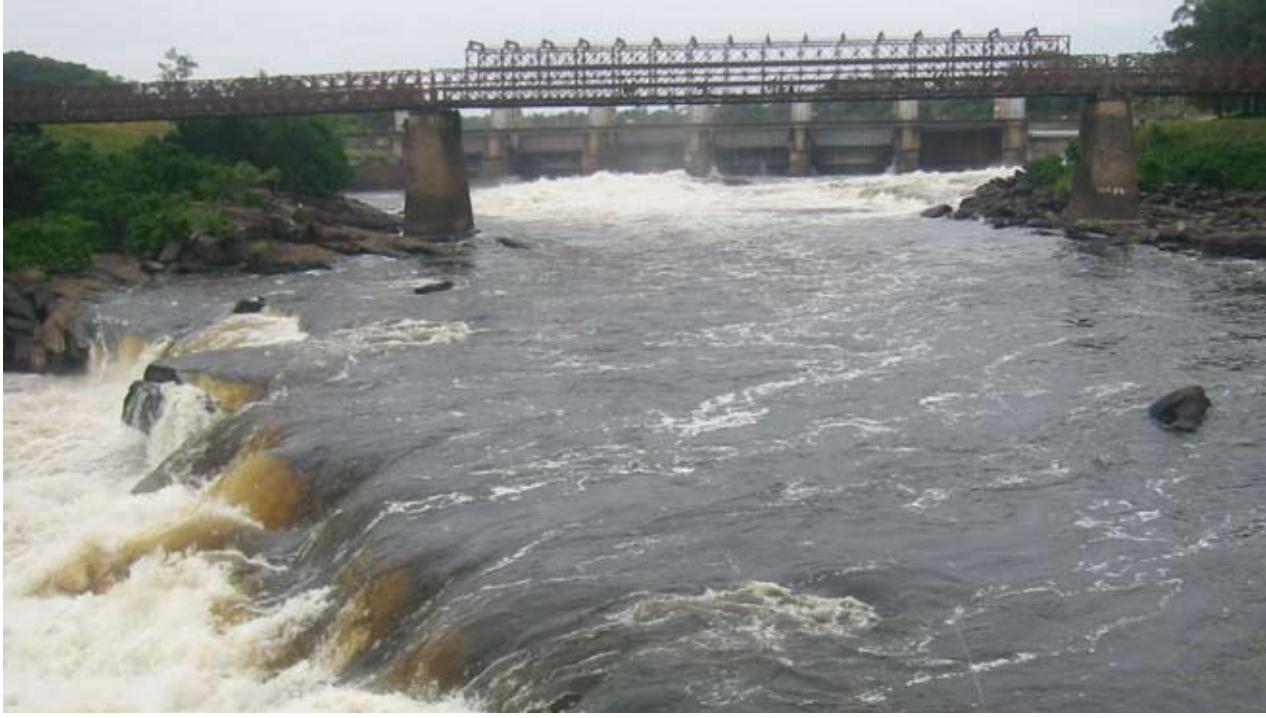

Photo: Manfred Matz

5.2 Economic Impacts

The analysis of economic impacts must be considered within the following dichotomy: positive and high growth forecasts for SSA and the temporary nature of any external shocks (IMF, 2010). External (or exogenous) shocks are likely to be transmitted mainly via revenue losses, with commodity-related revenues particularly affected. One type of revenue, remittances, has been less affected than expected by the crisis (IMF, 2010). Expansion of social spending to avert rising poverty levels was noted in some low income countries, Madagascar, Niger and Senegal, and a low income fragile country, The Gambia (IMF, 2009).

Domestic agricultural rather than export-market oriented agriculture comprises a large share of the economy in many SSA countries, with low export revenues (IMF, 2009). Supply constraints of a number of African agricultural commodities (e.g. tea and cocoa), meant that lower export volumes were offset by higher international prices (EIU, 2010). The duration of the downturn in commodity prices, particularly for oil and other minerals, was not very long, given the demand for these resources (e.g. from China) (EIU, 2010). Oil-exporting/resource-rich countries such as Nigeria, Angola and South Africa were hit economically the hardest by the crisis given their greater vulnerability to contracting global demand, although saved royalty revenues reduced their vulnerability, with their savings accounts impacted more than budget accounts (Berg et al., 2009).

Commodity prices are not continuing to fall; there has been a rebound to pre-crisis price levels. "Prices of both oil and non-oil commodities then fell sharply until the beginning of 2009 before rebounding again in the course of 2009 […] The oil price (crude Brent) reached an all-time high of USD 145 per barrel in July 2008 after having sharply increased during the preceding years from USD 20 in 2002. After this peak, it dropped sharply to USD 30 in December 2008 before moving up again and stabilising at around USD 75–80 since mid-2009" (African Economic Outlook, 2010).

5.3 Policy Impacts

There is reason to believe that the crisis had a minimal impact on the public finances of SSA countries. Underpinning this, the IMF (2010) "identified three key factors for the brevity of the region's slowdown:

- The relative health of the region's economies in the mid-2000s
- The countercyclical macroeconomic policies that were pursued in many countries
- The quick recovery of the global economic activity."

The IMF (2010) predicts output for SSA to expand from 2 per cent in 2009 to 5.75 per cent in 2011. As GDP is set to grow, income available for spending, whether through public or private spending, is going to increase.

It reported that many SSA governments introduced countercyclical spending plans.[6] As a result of these plans, for all country categories, capital spending has been increasing in percentage of GDP, with low income fragile states recording the highest increases (as a percentage of GDP, a 2.5 percent increase from 2008 to 2009).

SSA GDP growth is widespread, over time and across all country types, not just oil-exporting countries (IMF, 2008). This sets the overarching policy context in SSA and allows for an appreciation of how the water sector and wider economy has remained relatively unaffected by the crisis. Notably, the government of Kenya has increased its budget for the water sector for the financial year 2010/11, underscoring "the role of this critical sector in stimulating economic growth." (OOSKA, 2010)

The exception to this is low income and low income fragile countries that have binding financial constraints and fragile debt positions and have limited scope for countercyclical policies.[7] They remain vulnerable to the impact of the crisis. Without additional ODA, the scope for countercyclical policies in these countries is limited.

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[6] Fiscal policy is considered countercyclical if expansionary in "bad times" and contractionary in "good times"; for procyclical fiscal policies, the relationship is the opposite (IMF, 2010). Automatic stabilisers are one form of countercyclical fiscal policy that that automatically expand fiscal policy during recessions and contract it during booms (Weil, 2008)

[7] Binding financial constraints mean that governments are unable to acquire sufficient risk capital to invest in productive assets.

Photo: Manfred Matz,

5.4 ODA Impacts

Donor governments face fiscal constraints at home due to fiscal costs of bailouts and economic stimulus packages. The challenge to reduce debt-to-GDP ratios in donor countries, particularly in Europe, is further constrained in the context of adverse demographics (too many elderly and too few people of working age) and slow growth. To make the structural adjustments necessary donor countries have a number of options: restrict increases in stimulus packages; cut spending in less effective or low priority sectors; generate revenue; increase borrowing or print money (IMF, 2009a). The question arises, what is the potential impact on the water sector if donors are forced to cut ODA?

Using the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) Creditor Reporting System (CRS) statistics on ODA to the water sector (focusing on disbursement data only) we identified a number of historical trends. Notably data from the World Bank IDA is missing from the CRS dataset. This analysis is subject to the caveat that it focused on data from 2002 to 2008. Seven years of data is not a very long term perspective, and this was a period of increasing aid flows, so it may not be best suited to study a period of aid cuts.

Furthermore, data on ODA to SSA between 2002 and 2008 was inflated by large debt relief programmes, so that it is often difficult to relate variations in aid budgets to sectoral variations. Allowing for these strong caveats, the following historical trends were identified:

- low income fragile countries get (on average) less water aid than others. That is often the case with these countries: despite their greater needs, they lack the institutional structures that make aid programmes feasible
- four sectors make up 90 percent of water aid. These are basic water supply and sanitation, large water supply and sanitation systems, water resources policy and administration, and hydro-electric power. Agricultural water resources (i.e. irrigation, reservoirs, etc.) represent only 5 per cent of all the disbursements, suggesting that donors have largely neglected the agricultural sector
- the top five donors in the water sector disburse 64 percent of all disbursements. That is relatively concentrated, but is similar to average concentration levels in ODA overall. What is more surprising is that in the database, the USA accounts for only 1.28 per cent of all disbursements to the sector between 2002 and 2008 (we assume this reflects a discrepancy in the reporting during this period, given that the USA is way larger than most other donors). The largest donor is Germany, closely followed by the European Commission, then Japan, France, and the Netherlands
- Multilateral donor disbursement data coverage in the CRS is low, and there are only three multilateral donors in the dataset: the European Commission, UNDP, and UNICEF
- the World Bank's International Development Association (IDA) is missing from the dataset. The World Bank Group is a key investor in the region and increased its commitments to SSA countries by 28 percent from 2009 to 2010. "This included USD 7.2 billion from IDA, or 49 percent of total IDA commitments; USD 4.3 billion from IBRD; a record

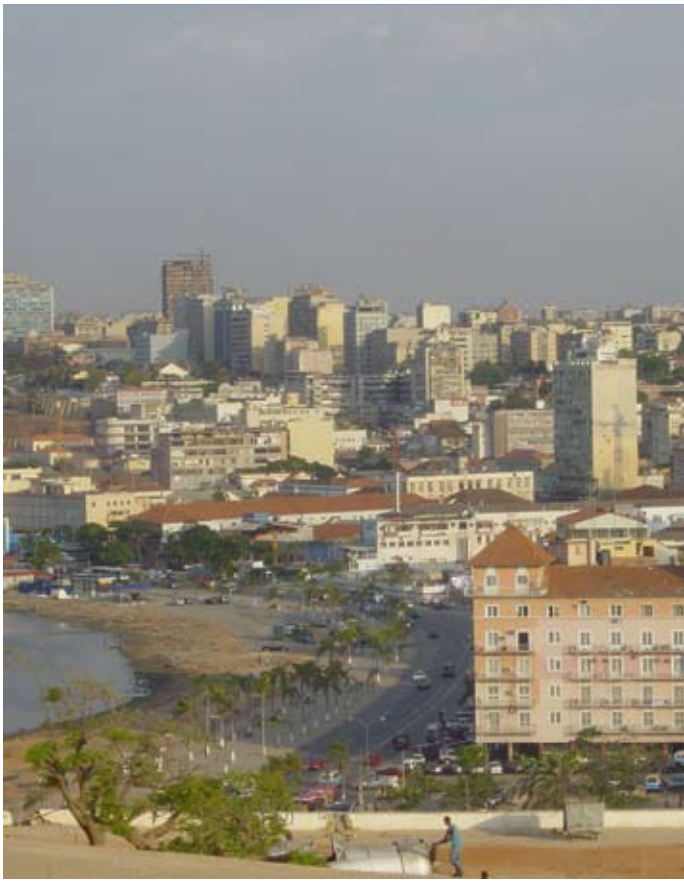

Photo: Anton Earle, SIWI

USD 2 billion from IFC; and USD 345 million in MIGA guarantees for projects in the region. IBRD and IDA disbursements in sub-Saharan African countries stood at USD 6 billion in FY10" (World Bank, 2010). This tends to show that multilateral donors, despite the crisis, see SSA as a priority region. The question remains how much of the additional commitments will the water sector receive?

- looking at historical data, during 2002–2008, for every rise of USD 1 in aid to SSA, the water sector received an additional 1.1 cents. This can be seen as the "pass through" rate. This was obtained by aggregating all the donors. This implies most additional SSA aid does not flow to the water sector. Indeed, water aid represented between 2 and 4 per cent of SSA aid during this period

5.5 OECD ODA Financial Flow Estimates

Based on the banking crises that hit Finland, Japan, Norway, Sweden, and the United States in the 1980s and 1990s, the World Bank estimates that aid, 10 years after the crisis was down by 24 per cent (compared to what it would have been without a crisis) (World Bank, 2010a). These countries, hit by a crisis, more or less froze their aid budgets.

Using this estimate (24 per cent), to give an order of magnitude, assume that because of the current crisis, SSA aid stagnates at its current level. In the CRS dataset, SSA disbursements were USD 29.8 billion in 2008. Assume in 2018 they are the same level. Without the crisis they would have been USD 39.2 billion using the World Bank estimates. That is a USD 9.4 billion change. Water aid in 2018 will be USD 103 million lower than without the crisis. This estimate relies on strong assumptions: the 1.1 cents effect will be valid in the following years, the 24 per cent fall applies to the current crisis, and SSA aid stagnates. This potential fall must be placed in the context that in 2008 ODA to the SSA water sector was USD 1.7 billion. Strategic interaction among donors could overcome some of the impact (World Bank, 2010a).

Large water supply and sanitation systems, but also basic systems, are likely to suffer from any fall in ODA. It is important to note the following caveat: large systems are, by definition, large. If a project in this sub-sector ends, it is likely it will significantly affect the total water aid budget. It is not that a lower budget decreases aid to large systems, but on the contrary that fewer large projects mechanically decrease the aid budget. To put it another way, the result is demand- and not supply- driven.

Photo: Manfred Matz

5.6 Non-OECD Financial Flows

The large and growing flows of non-OECD financing have played an important role in keeping SSA economies moving and vibrant and thus helped to minimise adverse economic impacts from the crisis and indirectly to the water sector. Non-OECD financial flows, primarily from China and Arab States, target infrastructure or resource extraction in countries such as Angola, Nigeria and Sudan.

Water sector spending has been largely limited to hydro-electric power (mainly China) and investments in agricultural land (primarily in low income countries by Arab States). UNCTAD (2010) does not expect the crisis to necessarily have a negative effect on investments from non-OECD countries: "since the onset of the crisis, China has stepped up rather than reduced its economic engagement in African countries. Brazil, India and the Republic of Korea have also signalled their intention to provide more support to the region in the coming years."

6. Conclusions

This report has focused on assessing the impact of the global financial crisis ("the crisis") on the water sector in Sub-Saharan Africa (SSA) and on financial flows to: water supply and sanitation (WSS), irrigation and hydro-electric power. The low income fragile, low income, middle income and oil exporting typology was applied to group the countries in SSA. Household/farmer (self-finance), the public sector, Official Development Assistance (ODA) donors, and non-OECD financiers all play an important role in supporting operations, maintenance and expansion of these water services. We analysed the levels and allocation of these sources of finance. This analysis is placed in the context that the water sector in SSA is characterised by low levels of investment, cost ineffective service delivery and weak governance.

For WSS spending, the impacts of the crisis are not likely to be significant. Middle income and oil-exporting countries, where the contribution of public sector finance is significant, so far appear to have protected sector spending through the successful introduction of countercyclical policies or utilisation of saved royalty revenues. In low income fragile countries, the contribution of household self-finance is approximately five times greater than the public sector. GDP is expected to grow for all countries, including low income fragile, thereby increasing income for spending and protecting household budgets. Non-OECD financiers' capital spending in WSS has not been significant, when compared with other contributors. The private sector contribution to spending on WSS has been negligible.

For irrigation and hydro-electric power spending, the impacts of the crisis are not likely to be significant. Limited data was found to suggest meaningful (medium- or long-term) impacts on irrigation and hydro-electric power spending. The SSA agricultural industry's relatively low integration into the world economy indicates a low exposure to global demand contraction. For those farmers who are integrated into an international supply chain; as a result of the trade shock they may have faced a temporary reduction in their income, impacting on on-farm irrigation development. High ODA and non-OECD flows as well as countercyclical spending in the power sector suggest that hydro electric power would not be significantly affected by the crisis.

In contrast, low income, low income fragile and some (weak) oil exporting countries are likely to be vulnerable to the effects of the crisis, in particular those countries: that have binding financial constraints, fragile debt positions/rising debt service costs and limited scope for countercyclical policies. In particular, this will impact on low income fragile countries ability to operate and maintain WSS systems, increasing their requirements for other sources of finance in particular ODA. For the other country categories it impacts on their ability to finance operations, maintenance and

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expansion of: water supply and sanitation; irrigation and hydro-electric power (albeit from low spending bases). The countries with a high risk of vulnerability to the crisis and which are critically weak states include: Somalia; Democratic Republic of Congo; Burundi; Sudan; Central African Republic: Liberia; Cote d'Ivoire; Angola; and Nigeria.

Prospects for higher ODA to off-set these effects and to create fiscal space for protecting MDG-related spending, in particular for WSS, remain uncertain, given budgetary pressures faced by many donor countries. We do not know in real time how the financial crisis will impact on donor decisions. There may be a lagged impact where disbursements in the near future will turn out to be much less than commitments given before the crisis. This outcome could be even more likely should the crisis continue to linger or turn into a double-dip recession. Based on past crises, donor responses, and historical disbursements data and a number of strong caveats, we estimate a scenario where water aid in 2018 will be USD 103 million lower than without the crisis.

The strong growth prospects of SSA are a countervailing factor to any effects on the water sector as a result of the crisis. Growth in all countries, not just oil-exporting or middle income, has enabled public sector spending to be resilient, with many countries introducing countercyclical measures and looking to sovereign bonds to support public sector budgets (and as a possible substitute for falling ODA). Multilateral donors, despite the crisis, see SSA as a priority region. These are positive signals for the SSA water sector as these policies will underpin the positive growth forecasts. While this report has focused on financing sources and spending levels on the water sector, inefficient spending remains a key constraint to the provision of water sector infrastructure.

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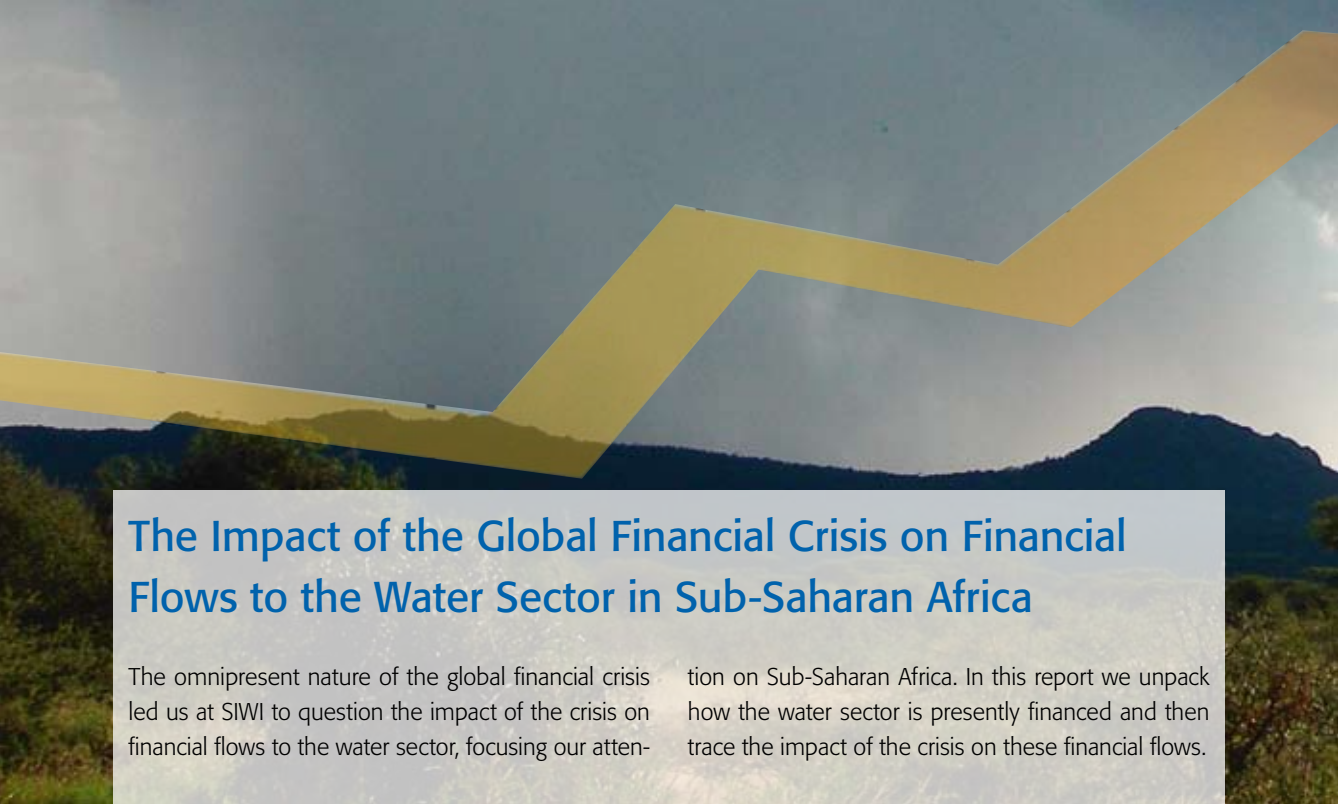

The Impact of the Global Financial Crisis on Financial Flows to the Water Sector in Sub-Saharan Africa

The omnipresent nature of the global financial crisis led us at SIWI to question the impact of the crisis on financial flows to the water sector, focusing our attention on Sub-Saharan Africa. In this report we unpack how the water sector is presently financed and then trace the impact of the crisis on these financial flows.

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