

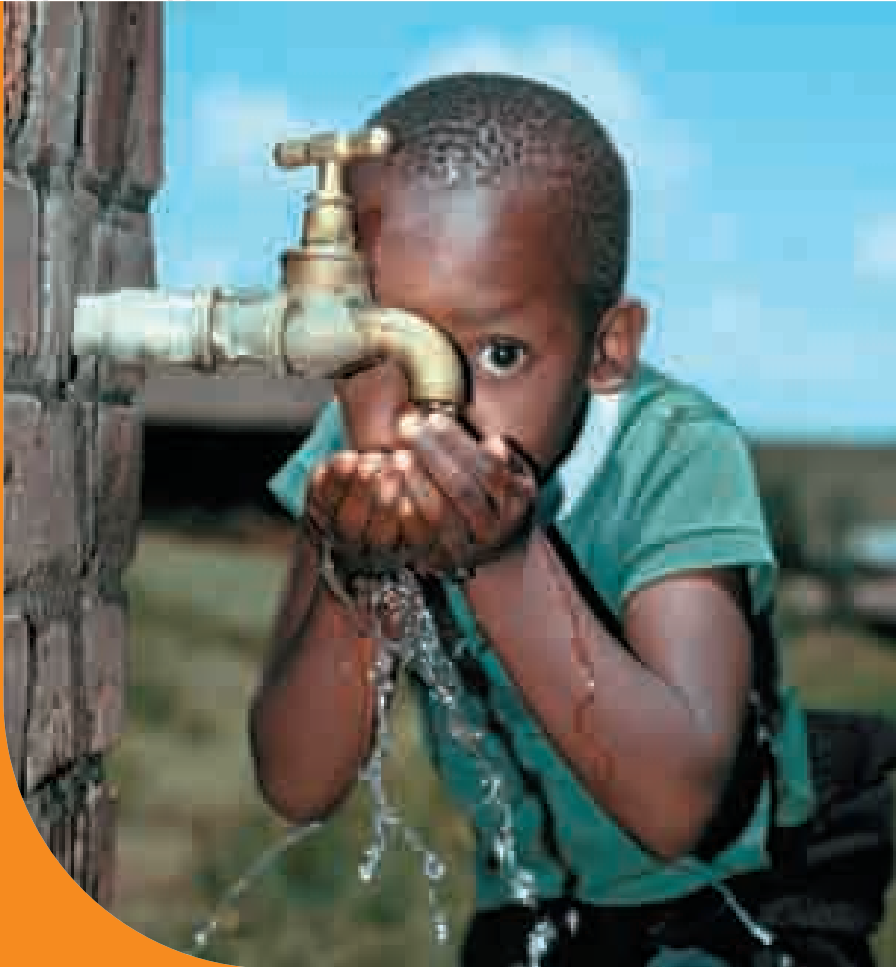
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Zimbabwe

AMCOW Country Status Overviews
Regional Synthesis Report



Pathways to Progress

Transitioning to
Country-Led Service
Delivery Pathways
to Meet Africa's
Water Supply and
Sanitation Targets



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Contents

Foreword	4
Acronyms and Abbreviations.....	7
Executive Summary	9
1. Introduction.....	21
2. New Opportunities for Country-Led Service Delivery.....	25
3. Coverage: The Political and Economic Pattern of Progress	28
4. Drivers of Progress: The Changing Balance of Aid and Domestic Finance.....	36
5. Monitoring and Strengthening Country-Led Service Delivery Pathways.....	41
6. Targeting and Sequencing of Reform Effort	57
7. The Finance Gap and How It Can Be Addressed	67
8. Conclusions	73
Appendix A. Scorecard Indicator Results.....	77
Appendix B. The WSS Sector Performance and Investment Data.....	86
Notes and References	92

Foreword

Over the past 20 years, Sub-Saharan Africa has made significant progress in extending access to improved water supply and sanitation. But this expansion of coverage has been uneven across countries and subsectors and overall falls short of the ambitious targets to which governments have committed (whether national or MDG targets).

The eThekweni declaration, the Tunis Action Plan, and the Sharm el-Sheikh commitments make an urgent call to get countries back on track for the water supply and sanitation MDG targets and to develop a deeper understanding of how progress can be accelerated in the water and sanitation sectors.

Improvements in access to water supply and sanitation contribute to the Millennium Development Goals on environment, health, education, food security, gender equality, and poverty alleviation. Access to water supply and sanitation directly impacts labor productivity, illness, school attendance, and women's personal security. Reducing health care costs, increasing school attendance, freeing time for productive activity, and ensuring safety for women have notable economic benefits.

For these reasons, the African Ministers Council on Water (AMCOW) commissioned the production of a second round of Country Status Overviews (CSOs) on water supply and sanitation, to shed light on the political, institutional, and financial factors which underpin progress in the sector. The World Bank, Water and Sanitation Program (WSP), and the African Development Bank implemented this task in close partnership with UNICEF, WHO, and the governments of 32 countries in Sub-Saharan Africa.^a

This regional synthesis report demonstrates the extent to which three factors - political stability, sector leadership, and aid modalities - underpin progress in water supply and sanitation (WSS).

Political stability has heavily influenced progress in improving access to WSS service with low-income stable countries outperforming low-income fragile and resource-rich countries by:

- making greater increases in coverage across subsectors;
- reducing open defecation more markedly in rural sanitation;
- being more successful in keeping up with population growth in urban water supply; and
- achieving more equitable access, with a smaller gap in coverage between the richest and poorest segments of the population.

In addition, sector leadership, aid flows, and aid modalities have been critical factors in driving this progress.

An estimated US\$25 billion dollars of aid has been channeled to water supply and sanitation over the past 20 years. The good progress of low-income stable countries has been assisted by their receiving three times more aid than low-income fragile countries and two times more aid than resource-rich countries, per unserved person.

However, the relative strength of low-income stable country performance is not only the result of greater funding but the nature of that funding. As aid modalities have shifted from donor-driven projects to country-led programmatic approaches

^a With the newly-formed Republic of South Sudan on July 9, 2011, this is 33 country governments.

to service delivery - along the Paris Principles for aid effectiveness - line ministries have increasingly used core government systems (public financial management systems and decentralized service delivery capacity) and private sector capacity in the wider economy.

The front-runners, among the group of low-income stable group of countries, have well-functioning service delivery pathways that translate inputs (finance) into outcomes (coverage) anchored in core government systems - greatly extending their reach and rate of implementation capacity.

The progress made by low-income stable countries is thus the product of strong service delivery pathways, stability, and support from development partners. The progress has itself made these sectors more attractive propositions for further investment both from domestic and external sources. This is the virtuous cycle required to incrementally close the annual shortfall in capital investment of US\$6 billion needed to meet national targets.

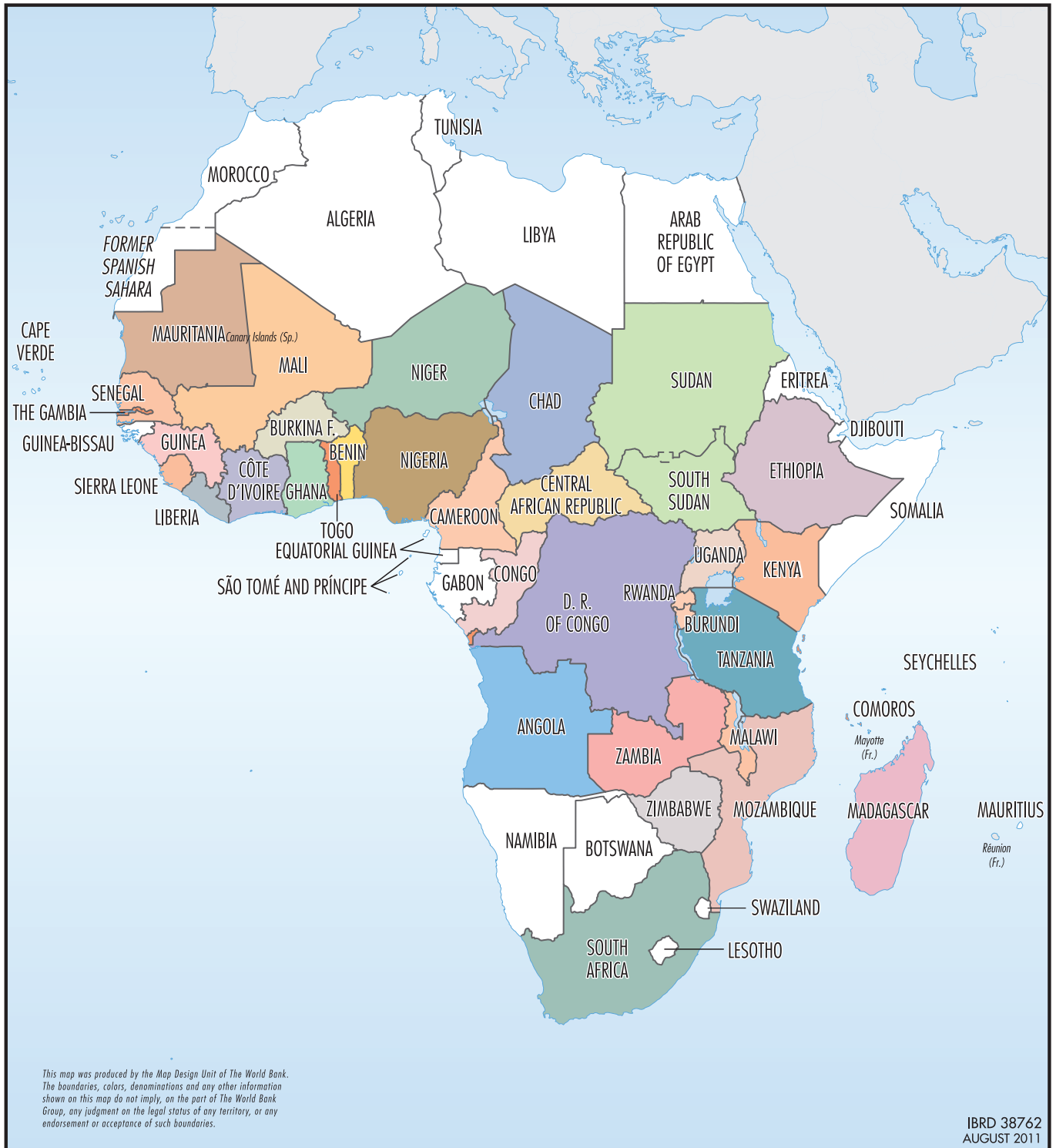
The positive trajectory of low-income stable countries - many of which have suffered conflict in the past - helps to define principles for the sector's senior managers and their development partners to transition to efficient country-led service delivery. This is complemented by specific, detailed country priorities set out in the 32 individual country status overview papers.



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Acronyms and Abbreviations

AfDB	African Development Bank	OECD (DAC)	Organization for Economic Cooperation and Development (Development Assistance Committee)
AICD	Africa Infrastructure Country Diagnostic	ONEA	L'Office national de l'eau et de l'assainissement
AMCOW	African Ministers Council on Water	OPEX	Operations expenditure
CAPEX	Capital Expenditure	PPP	Public Private Partnership
CLTS	Community-Led Total Sanitation	PRSP	Poverty Reduction Strategy Paper
CSO (1/2)	Country Status Overviews, first/second round	RSH	Rural sanitation and hygiene
GDP	Gross Domestic Product	RWS	Rural water supply
GLAAS	Global Annual Assessment of Sanitation and Drinking Water	SIP	Sector Investment Plan
HDR	Human Development Report	SSA	Sub-Saharan Africa
HH	Household	SWA-GF4A	Sanitation and Water for All - a Global Framework for Action
HIPC	Heavily indebted poor country	SWAp	Sector-Wide Approach
IMF	International Monetary Fund	TA	Technical assistance
JMP	Joint Monitoring Programme (UNICEF/WHO)	UNICEF	United Nations Children's Fund
JSR	Joint Sector Review	USH	Urban sanitation and hygiene
MDG	Millennium Development Goal	UWS	Urban water supply
MIC	Middle-income country	WHO	World Health Organization
NGO	Nongovernmental organization	WSP	Water and Sanitation Program
O&M	Operations and maintenance	WSS	Water supply and sanitation
ODA	Official development assistance		

ISO 3 Letter Country Codes^b

AGO	Angola	MOZ	Mozambique
BDI	Burundi	MRT	Mauritania
BEN	Benin	MWI	Malawi
BFA	Burkina Faso	NER	Niger
CAF	Central African Republic ^c	NGA	Nigeria
CMR	Cameroon	RWA	Rwanda
CIV	Côte d'Ivoire	SDN	Sudan
COG	Congo, Brazzaville	SEN	Senegal
COD	Congo, Democratic Republic of the ^d	SLE	Sierra Leone
ETH	Ethiopia	TCD	Chad
GMB	The Gambia	TGO	Togo
GHA	Ghana	TZA	Tanzania
KEN	Kenya	UGA	Uganda
LBR	Liberia	ZAF	South Africa
MLI	Mali	ZMB	Zambia
MDG	Madagascar	ZWE	Zimbabwe

^b The ISO 3166-1 alpha-3 country codes are used in several charts in this report.

^c In the text, the Central African Republic is referred to by the more familiar CAR.

^d In the text, the Democratic Republic of the Congo is referred to by the more familiar DRC.

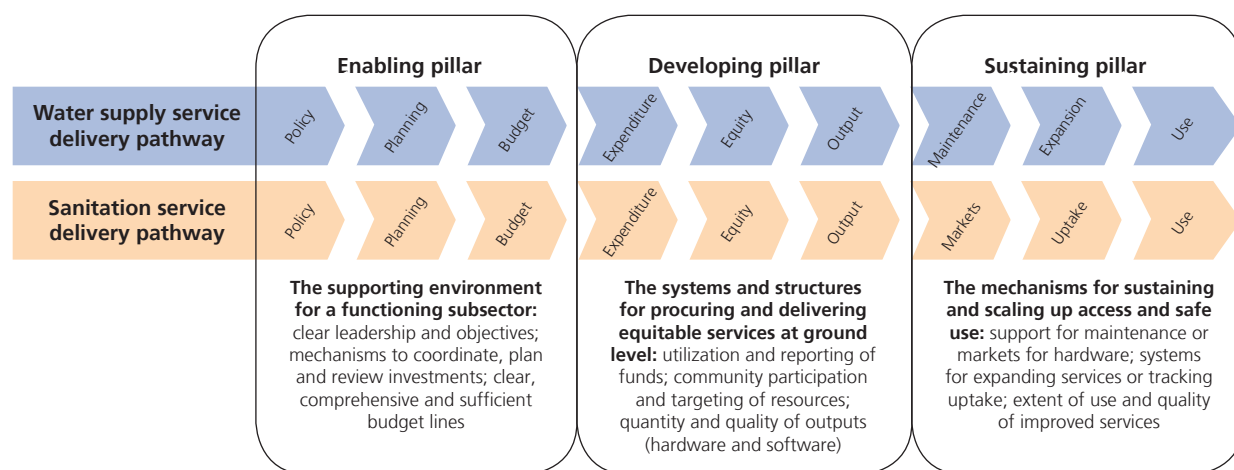


Executive Summary

The African Ministers Council on Water (AMCOW) commissioned the production of a second round of Country Status Overviews (CSOs) to better understand what underpins progress in water supply and sanitation and what its member governments can do to accelerate that progress across countries in Sub-Saharan Africa (SSA).^e Based on the extensive in-country diagnostics, analysis, and stakeholder consultations, the CSO2 provides these insights for 32 countries in SSA, for which there are separate individual country reports.^f

This document is the regional synthesis of the 32 country status overviews which collectively account for 95 percent of SSA's population and over 90 percent of GDP. The report highlights the most important trends, challenges, and proposed actions for achieving improved water supply and sanitation (WSS) services across Sub-Saharan Africa. The opportunities for progress are identified based on:

1. **Understanding trends:** The report analyzes regional performance, the relative progress of individual countries, and progress of groups of countries classified by a combination of political and economic factors. The report considers separately the four water and sanitation subsectors in each country: rural water supply; urban water supply; rural sanitation; and, urban sanitation.
2. **Identifying the challenge:** For each country and subsector, the CSO2 explores the links between inputs (finance) and outcomes (coverage) through the lens of a 'service delivery pathway', which is systematically assessed using the CSO2 scorecard,^g to identify the major barriers that still constrain performance in each subsector. The scorecards assess three pillars of the service delivery pathway and within each pillar three key building blocks:



3. **Prioritizing action:** The report builds on the insights from the CSO2 scorecard to provide senior managers in the sector and their development partners with proposals on prioritizing reform and investment options that match the relevant stages of subsector evolution in each country.

^e The first round of CSOs was carried out in 2006 covering 16 countries and is summarized in the report, 'Getting Africa On Track to Meet the MDGs on Water and Sanitation'.

^f With the newly formed Republic of South Sudan on July 9, 2011, this is 33 countries.

^g The CSO2 scorecard is an assessment framework identifying the drivers and barriers along the 'service delivery pathway'. It assesses the building blocks of service delivery: three building blocks which relate to enabling services, three which relate to developing new services, and three which relate to sustaining services. Each building block is assessed against specific indicators and scored from 1 to 3 accordingly.

The CSO2 thus offers a unique package of insights and proposals to sector stakeholders across SSA from a regional perspective underpinned by detailed country-specific national reports.

Changing Political and Economic Context for Water Supply and Sanitation Service Delivery

Increasing domestic resources, national ownership, and stability have opened the space for African governments to take charge of their water supply and sanitation sectors and develop sustainable service delivery pathways.

Line ministries for WSS have the opportunity to engage with ministries of finance to increase budget allocations, to make use of core government systems and economywide capacity, while developing their capacity as sector coordinators and leaders.

The CSO2 assists governments and donors as they transition to the new environment, providing analyses of coverage, investments, and service delivery pathways, and identifying critical needs and solutions within and between countries and subsectors.

The changing political and economic context in Africa has opened up an unparalleled opportunity for a renaissance in country-led service delivery in water supply and sanitation. Over the past decade, three fundamental transformations have created a new, favorable environment for governments to take ownership of the water and sanitation sector and accelerate progress towards the Millennium Development Goals (MDGs):

- Economic growth and a widening tax base, debt relief, and rising levels of budget support are increasing the resources available in domestic budgets.
- Subsidence in the magnitude of armed conflict has created a more predictable, stable environment for sustainable state action and opened up prospects for further debt relief and peace dividends.
- Poverty Reduction Strategy Papers (PRSPs) and Sector-Wide Approaches (SWAp) have shifted the aid environment towards supporting greater national ownership and coordination, as well as for developing government capacity for this.

Line ministries responsible for water supply and sanitation face a new era of greater responsibility, greater freedom of action, and potentially more domestic resources. The challenge is to transition to this new environment by building countries' capability to pro-actively manage nationwide service delivery programs to make use of core government systems (for example, public financial management systems, national procurement systems, and decentralized service delivery) and the wider economy (private sector goods and services as well as community management).

Development partners, now less involved in the implementation of their own discrete projects, are also in a new situation in which they have to pay more attention to sectorwide questions such as harmonizing implementation modalities and finding the right balance between technical assistance and financing country-led investment programs.

To fill their emerging new roles, both governments and development partners need more comprehensive information: Not only a detailed overview of access and investment trends, but also a systematic understanding of the capability of the sector to absorb finance, and deliver and sustain outcomes.

The CSO2 assists governments and donors as they transition to the new environment, providing analyses of coverage, investments, and service delivery pathways, and identifying critical needs and proposing solutions within and between countries and subsectors.

Understanding Trends: Significant Progress but Still Marked by Disparities and Falling Short of Targets Overall

Progress has been made in both water supply and sanitation coverage but meeting the MDG targets will need eight times more people to gain access to sanitation every year, and four times more people to gain access to water supply, compared to past trends.

Progress in increasing access is best explained by a combination of political and economic factors: Low-income stable countries have made greater increases in coverage than resource-rich and low-income fragile countries.

Development assistance has played an important role in advancing coverage both in terms of volumes and modalities of aid.

The good progress of low-income stable countries has been assisted by their receiving three times more aid than low-income fragile countries and two times more aid than resource-rich countries, per unserved person.

Low-income stable countries making most progress have capitalized on harmonized and aligned aid modalities to successfully transition to more programmatic, 'country-led' forms of service delivery.

SSA as a whole has made significant progress in extending access to improved water supply and sanitation. But this expansion of coverage has been uneven across countries and subsectors and, overall, falls short of the ambitious targets to which governments have committed (whether national or MDG targets).

Across the participating countries, coverage of improved water supply has risen by 13 percentage points since 1990 - from 45 percent to 58 percent of the total population. Improved sanitation coverage rose by 11 percentage points to reach 36 percent in 2008.^h Across the countries, achieving national goals would require access to be extended to 42 million people per year for improved water supply, and to 61 million per year for improved sanitation, four and eight times, respectively, the current trends.

Rates of progress and absolute levels of coverage vary widely across countries and subsectors. The most recent estimates of access to safe water differed by more than 60 percentage points between the top and worst performing countries, and the range is even larger for access to improved sanitation facilities. Changes in coverage levels since 1990, both positive and negative, span over 50 percentage points in some countries' subsectors. Across the region, water supply coverage is consistently higher than access to sanitation, and urban areas tend to have higher coverage levels than rural areas across subsectors. Access to improved water and sanitation is also highly inequitable between rich and poor. In almost every subsector, in every country for which data is available, access is regressive, decreasing from the richest fifth to the poorest fifth of the population.

Stable, Low-Income Countries have Taken the Lead in Improving Coverage and Reforming the Sector

Progress in coverage between 1990 and 2008 does not consistently follow either absolute levels of economic development (that is, GDP) or patterns of economic growth. Progress instead relates to the broader political and economic context:

^h Where available, these aggregate figures use national estimates of coverage in place of data from the UNICEF/WHO Joint Monitoring Programme.

low-income, but politically stable, countries committed to sector reform have made greater increases in coverage in rural water supply and urban sanitation, reduced open defecation more markedly in rural sanitation, and been more successful in keeping water supply coverage up with population growth in urban areas, than either wealthier resource-rich countries, or their conflict affected low-income peers. This group of stable, low-income countries also have more equitable access, with a smaller gap in coverage between the richest and poorest segments of the population. The relatively strong performance of these countries has been helped by large aid flows - more than three times the WSS aid than to fragile low-income countries (per capita unserved), and more than two times that flowing to resource-rich countries.

Attracting the largest share of aid, these stable countries have also capitalized on the harmonized and aligned aid modalities deployed by development partners, to successfully transition to more programmatic, 'country-led' forms of service delivery. These countries have taken responsibility for putting in place the necessary frameworks and capacities to coordinate nationwide service delivery. This transition to a 'country-led' programmatic approach to service delivery is becoming more important as the sector environment continues to shift from a donor-led project-based approach to one defined by debt-relief, budget support, and nationally owned and financed sector strategies.

While senior managers in the sector in a given country cannot influence the level of political stability, it is their responsibility to seize opportunities within their sphere of influence and continuously develop capacity to coordinate the efficient delivery of outcomes at a national scale. Improvements in delivery capacity bolster the sector's credibility as an investment opportunity for national ministries of finance and external donors. The goal is a virtuous cycle of increasing capacity and sector finance.

Managing the transition from a project to a country-led programmatic approach requires a clear identification of present barriers to progress at the sector and subsector levels.

The Challenge: Identifying the Barriers in Service Delivery Pathways

The shift from donor-driven projects to country-led programmatic approaches requires a new management tool (the CSO2 scorecard) that considers the service delivery pathway in its entirety.

The CSO2 scorecard is a means to facilitate management of subsector programs, by identifying factors that may be stopping inputs (finance) from turning into outcomes (coverage) at the scale and pace required.

Scorecard results indicate that it is again low-income stable countries that have had most success putting country-led service delivery pathways in place, and are now poised to accelerate further ahead.

Senior managers in the sector are faced with critical information gaps as they transition to country-led service delivery. They may have information on inputs (that is, the amount of resources available to them), and outcomes (that is, coverage). Just as important, but generally not analyzed systematically, is what happens in-between: *what may be stopping those inputs from turning into outcomes at the scale and pace required*. The CSO2 contributes towards filling that information gap. It assesses the service delivery pathway - the functions that translate inputs to outcomes - using a specially developed monitoring tool: the CSO2 scorecard. This tool uses existing country information systems to construct an overview of the entire service delivery pathway.

The CSO2 scorecard allows senior managers in the sector and their development partners to see which functions of service delivery in each subsector are missing or inadequate: from the policies, plans, and budgets that provide

an enabling framework (the enabling pillar), to the mechanisms for developing new services equitably and at scale (the developing pillar), to the systems that sustain services once in place, and allow them to expand 'organically' (the sustaining pillar).

At the regional level there is an overall downward trend in scores moving through the service delivery pathway with a corresponding decrease in proposed country priority actions to address those weaknesses. While many countries have put in place policies and plans, far more emphasis needs to be put on implementation capacity: translating these elements of the enabling environment into actual, equitable, and sustainable outcomes on the ground. The apparent shortage of potential solutions to strengthen processes for developing and sustaining services points to the need to identify front-runners and to foster regional learning to create greater awareness and uptake of available solutions.

Identifying Front-Runners

The same group of low-income, nonfragile countries that have had the most success in increasing access have also made most progress in transitioning to country-led programmatic approaches to service delivery - in line with the Paris Principles for aid effectiveness. These front-runners have done so by:

- a) Developing capacity within sector institutions.
- b) Drawing on service delivery capacity in the broader economy.
- c) Linking to reforming core government systems: including budget and expenditure management processes and human resources throughout tiers of government.

According to the CSO2 scorecard, these countries now feature the strongest service delivery pathways, and are showing promising results in output and intermediate outcomes - increases in number of water points built, improved financial viability and efficiency of utilities, as well as increased numbers of extension workers promoting hygiene and sanitation.

There is potential for other countries to follow suit. The diagnosis offered by the CSO2 scorecard guides prioritization of reform effort. The recommendations in this synthesis report complement the priority actions identified by each country in the status overviews. Together, these provide senior managers in the sector and their development partners with proposals for transitioning to country-led programmatic approaches to service delivery.

Prioritizing Action: Targeting and Sequencing of Reform Effort

To facilitate the transition towards country-led programmatic approaches, each country involved in the CSO2 process established a list of priority actions.

Three stages of subsector evolution have been identified. These stages set out a common sequence of reform steps facilitating further prioritization of country actions and tailoring of external support.

Matching the state of subsector evolution with appropriate aid modalities and technical assistance can accelerate the overall transition to a country-led approach.

To facilitate the transition towards country-led programmatic approaches, a key step in the CSO2 process was for each country to establish a list of priority actions based on the country analysis carried out.

To further aid this transition, three stages of subsector development have been identified. Together these stages set out a common sequence of reform steps taken by countries as they develop their service delivery pathways in each of the four subsectors: rural water supply; urban water supply; rural sanitation; and, urban sanitation.

Different WSS subsectors in any particular country often fall into different stages of development. Thus, while Senegal's urban water subsector falls into the most advanced 'transitioned' group, its other subsectors remain in the 'transitioning' group.

Establishing stage: Subsectors at this stage of development are establishing - or re-establishing after a period of crisis - basic elements of the service delivery pathway. The common feature of these subsectors is that they scored poorly across all three pillars (*enabling, developing, and sustaining*).

For water supply, most of these 'establishing' subsectors are in fragile states but for sanitation a number are in stable countries, where sanitation is yet to gain a distinct identity or momentum as a subsector. While some subsectors in this group may have adopted targets in their national development plans, and have water supply policies, most need to develop sanitation policies and better define institutional responsibilities. In fact, nearly half of these subsectors have even started forming into a SWAp or initiated subsector investment planning. Annual reviews, if introduced at all, lack undertakings. These subsectors are struggling to find even 50 percent of the required funding to meet targets. Most external funding is off-budget, being implemented directly by development partners.

For these countries, capacity within subsector institutions is the principal barrier to progress, over and above the capacity constraints of core government systems and economywide capacity.

Transitioning stage: These subsectors have basic elements of the service delivery pathway in place but are in the process of transitioning to a country-led programmatic approach. Notably, this group of subsectors scored well on their *enabling* pillar or their *developing* pillar, or both. Scores for sustainability were mixed with some, mainly water supply subsectors, achieving high scores.

The weaknesses of subsectors at this stage of development point more to difficulties of linking the subsector institutions to core government capacities than to weaknesses in the subsector institutions alone. Most subsectors at the *transitioning* stage are in the process of forming into a SWAp, have initiated subsector investment planning, hold annual reviews, and have secured more than 50 percent of the required funding to meet targets. Yet, a quarter of subsector spending is still off-budget. Around half of the subsectors are struggling to spend 75 percent of allocations, in cases where they can be tracked. Indeed, lack of definition in the structure of public budgets obscures identification and tracking of expenditure in half of the cases - mostly in rural sanitation subsectors. No sanitation subsectors are identified as having sufficient finance at local government level to meet their stated subsidy policy and targets. Output reporting is consolidated in only half of the subsectors.

The weakest aspect of service delivery pathways across this group is equity. In over half of the cases, there are no criteria for matching available funding to WSS needs across regions or districts of countries. Even where these are set out, the criteria are either not adhered to or not monitored. Likewise, procedures to ensure local participation in planning and implementation often exist (especially for rural) but are not adhered to systematically.

Transitioned stage: Subsectors at this third stage of development are functioning well and have most of the elements of country-led service delivery pathways in place. This group of subsectors scores well on both *enabling* and *developing* pillars, demonstrating that both sector capacity and linkages with core government systems are in place. Most donor funding is on-budget; domestic and donor expenditure reporting indicates generally high levels of utilization; funding is channeled to local spending units; and output reporting is consolidated. For these subsectors, the remaining shortcomings

are likely to be located in the *sustaining* pillar of the service delivery pathway, where refining linkages with economywide capacity can be important, including: reinforcing autonomy, commercial orientation and regulation of utility and small scheme management (whether public, private or community operated), or entrepreneurs for pit-emptying services and installation of sanitation hardware. Even though subsectors in this grouping have transitioned to country-led processes, it should be noted that all still need to reach significant unserved populations and, in many cases, are having to do this in the face of rapid population growth.

Subsectors for each country grouped according to the relative strength of their service delivery pathwaysⁱ

Stage of pathway evolution	Rural water supply	Urban water supply	Rural sanitation	Urban sanitation
Establishing stage	Cameroon, Central African Republic, Cote d'Ivoire, DRC, Mauritania, South Sudan, Zimbabwe	Central African Republic, South Sudan, Togo, Zimbabwe	Angola, Burundi, Cameroon, Central African Republic, Chad, Cote d'Ivoire, DRC, The Gambia, Mauritania, South Sudan, Tanzania, Togo, Zimbabwe	Benin, Burundi, Cameroon, Central African Republic, Chad, Cote d'Ivoire, DRC, The Gambia, Mali, Mauritania, Mozambique, Niger, South Sudan, Tanzania, Togo
Transitioning stage	Angola, Burkina Faso, Burundi, Chad, Congo Brazzaville, The Gambia, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Senegal, Sierra Leone, Sudan, Tanzania, Togo, Zambia	Angola, Benin, Burundi, Cameroon, Chad, Cote d'Ivoire, DRC, Congo Brazzaville, Ethiopia, The Gambia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nigeria, Rwanda, Sierra Leone, Sudan, Tanzania, Uganda, Zambia	Benin, Burkina Faso, Congo Brazzaville, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Sudan, Uganda, Zambia	Angola, Burkina Faso, Congo Brazzaville, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Malawi, Nigeria, Rwanda, Senegal, Sierra Leone, Sudan, Uganda, Zambia, Zimbabwe
Transitioned stage	Benin, Ethiopia, Ghana, Rwanda, South Africa, Uganda	Niger, Burkina Faso, Senegal, South Africa	South Africa	South Africa

Source: CSO2 scorecards. Scorecards were developed separately for the Republic of South Sudan and for the Republic of Sudan.

Priorities for Stages of Subsector Development and Supportive Aid Instruments

The reform process itself needs to be country-led, if sufficient capacity and oversight is to be developed within line ministries, agencies and decentralized bodies, to develop and sustain these basic services nationwide. Senior managers in the subsectors need to define reform objectives, identify priority actions, and seek out appropriate aid modalities and technical assistance to support the step-by-step transition to country-led programmatic approaches.

ⁱ Based on the CSO2 scorecard results.

Aid will account for over 50 percent of sector development expenditure over the next three years (excluding South Africa).

Priorities for stages of service delivery pathway evolution and supportive aid instruments

Stage of pathway evolution	Objective of sector reform	Priorities for subsector and technical assistance	Recommended nature of aid instruments
Establishing stage	Build basic oversight capacity for implementation within line ministry and initiate development of economywide capacity for construction and scheme operation	<p>Enabling services: Set targets; have sector/subsector policy; delineate institutional roles and responsibilities</p> <p>Developing services: Support outsourcing to attract drilling, construction and community mobilization capacity; adapt tools for sanitation promotion; monitor service delivery roll-out</p> <p>Sustaining services: Support surveys of scheme functionality and existing knowledge attitude and practice on sanitation and hygiene behavior</p>	Project grants and loans channeled to the line ministry through special accounts outside the regular government expenditure management system with dialogue focused on subsector capacity
Transitioning stage	Foster interaction between the sector institutions and core government systems while deepening economywide capacity for construction and broadening options for scheme operation	<p>Enabling services: Have sector investment plans; encourage SWAp formation; align and integrate with national budget process</p> <p>Developing services: Align with national procurement and intergovernmental transfer mechanisms; develop and apply equity criteria for pro-poor targeting; install human resources capacity for decentralized service delivery; monitor service delivery roll-out</p> <p>Sustaining services: Experiment with, and adapt, management models; foster autonomy and financial viability; develop M&E of operational performance of water services and uptake of sanitation services</p>	Programmatic earmarked grants and loans for the subsector but channeled through the ministry of finance linked to conditional intergovernmental transfers with dialogue focused on the links between the subsector and core government systems
Transitioned stage	Consolidate sector linkages with core government systems for continued expansion in coverage. Reinforce autonomy, commercial orientation, and regulation of utility/scheme management, thus sustaining service delivery	<p>Enabling services: Regulation; public-private-partnership legislation</p> <p>Developing services: Monitor equity, efficiency, and effectiveness of roll-out</p> <p>Sustaining services: M&E of operational performance of water services and uptake of sanitation services</p>	Budget support channeled through the ministry of finance linked to intergovernmental block transfers with dialogue focused on sectorwide policies and systems development

Development partners have a wide range of modalities and instruments for development assistance that can either support or undermine the transition to country-led programmatic approaches. The table on previous page sets out desirable characteristics of aid instruments against common reform objectives for each of the three stages of subsector development. This aims to promote a division of labor among external support agencies by encouraging development partners to match their preferred aid modalities and technical assistance competencies with the relevant stage of subsector development. These generalized proposals to senior managers in the subsector and development partners is complemented with specific detailed country priorities set out in the 32 country status overview papers.

Resolving the Finance Gap

A minimum annual shortfall of US\$6 billion is projected for capital investments, between requirements of over US\$15.5 billion per year and anticipated finance from governments, donors, nongovernmental organizations (NGOs), and households of around US\$9.5 billion per year, across the region.

Poor targeting, uncertainty over the leveraging of user contributions for both capital and operational costs, additional water resource development, and other weaknesses in service delivery pathways mean the true extent of the financing gap may be much higher.

With aid unlikely to increase three-fold again to meet the gap, countries will need to engage their ministries of finance. Focusing on domestic public spending, analysis of countries' own resources and their investment requirements, suggests a share of 5 percent of domestic revenues is an appropriate benchmark and advocacy target for the sector.

Countries that are directing 5 percent of domestic revenue to the sector but still face financing gaps can make a clear case to donors that they require aid increases.

The CSO2 estimates that capital investment requirements will total over US\$15 billion annually if all subsector targets of the 32 countries are to be achieved. This is based on countries' own estimates of financing requirements for national targets or, where unavailable, the CSO2 costings.

Anticipated capital finance from domestic budgets, donors, and NGOs is estimated at US\$5.9 billion per year, which is expected to leverage a further US\$3.6 billion per year in household contributions. At the aggregate level, a finance gap of at least US\$6 billion per year needs to be closed to meet the targets - though poor targeting between countries and subsectors, and weak service delivery pathways, mean the additional requirement may be much higher. Assuming targeting between countries and subsectors is not substantially improved, the finance gap would increase to at least US\$7.2 billion per year. The table on the next page sets out the scale of the finance gap by subsector.

These aggregate investment figures conceal significant differences at the country and subsector level. Furthermore, the ability of countries to afford investments themselves, whether measured in terms of GDP or government revenue, also varies considerably.

The benchmark of 2 percent of GDP (1 percent in public spending and 1 percent from cost recovery and contributions from households) for the sector, proposed by the Human Development Report 2006, would be insufficient for low-income countries participating in the CSO2 - by a factor of three in the case of fragile low-income countries. Low-income countries as a whole already anticipate spending of close to 2 percent of GDP, but would face a gap even if their anticipated finance were optimally allocated between subsectors and countries.

Regional capital and operations and maintenance requirements, anticipated capital spending, and projected minimum deficits for meeting national WSS targets, by subsector

	Required CAPEX	Anticipated public CAPEX			Assumed HH CAPEX	Minimum CAPEX gap	Required OPEX
		Domestic	External	Total			
US\$ billion/year							
Rural water supply	3.3	1.2	0.8	2.1	0.1	1.1	0.7
Urban water supply	4.3	1.3	1.3	2.6	0.3	1.3	1.5
Water supply	7.6	2.6	2.1	4.7	0.4	2.5	2.2
Rural sanitation	3.7	0.2	0.2	0.4	2.6	0.7	0.4
Urban sanitation	4.2	0.6	0.2	0.8	0.6	2.9	1.0
Sanitation	7.9	0.8	0.4	1.2	3.2	3.5	1.4
Total	15.5	3.4	2.5	5.9	3.6	6.0	3.5

Source: CSO2 government costings.

With aid unlikely to more than triple again to fill the finance gap, line ministries across all countries will increasingly need to draw down funding from domestic budgets that have benefited from economic growth, debt relief, and budget support. The CSO2 analysis suggests that, given constraints on aid and wide variations both in domestic resources and required investments, 5 percent of government revenue is a suitable benchmark for the 32 participating countries to aim for in their engagement with ministries of finance. Countries that are already approaching this level of spending on the domestic side but find it insufficient, can argue that they are especially deserving of aid increases.



Attracting this level of support to the sector will require considerable advocacy, resting on close analysis of financial requirements, set against demonstrated effectiveness in turning that finance into coverage. The CSO2 reports provide a platform for this in each country, with assessment of the financing gaps to meet sector targets, as well as a detailed snapshot of service delivery pathways, based on the scorecard.

Conclusion

The target year for the achievement of the MDGs (2015) draws ever closer. The opportunity to accelerate progress lies in completing the transition to country-led service delivery that:

- a) Draws on all available capacity to implement and sustain services (public, private, civil society, and users).
- b) Harmonizes and aligns aid flows with domestic and user finance, routed through country systems and institutions.

This transition to country-led service delivery is necessary, desirable, and inevitable: necessary, to cope with the transition from project aid to programmatic aid; desirable, as opportunities to increase funding and deliver at scale lie principally with developing country governments; and inevitable, as countries transition away from being donor dependent.

The prospects and incentives to make this shift to country-led service delivery are unprecedented. Improving political stability, economic growth, debt relief, increasing aid volumes, and the renaissance of country-led service delivery across sectors in Africa that has accompanied these developments, mean that the opportunities for sector actors to make an impact are more favorable now than they have been in recent times.

Accelerating progress in providing sustainable, equitable access requires:

- Strengthening country-led service delivery pathways - the mechanisms that translate inputs (incomes: taxes, tariffs, and transfers) into outcomes (sustainable access to water supply and sanitation) - across all countries and subsectors.
- Increasing current funding levels by at least US\$6 billion a year by raising both domestic and donor financing flows to the sector.

The manner in which this will be achieved differs between groups of countries, but the objective remains the same: to establish a virtuous cycle in which iterative strengthening of service delivery pathways accelerates outcomes, attracting increased funding. Though much of the practical advice in this report is targeted at senior managers within the sector, success depends on the realization of a common vision involving the sector's line ministries, ministries of finance, development partners (official and nongovernmental) and regional bodies such as AMCOW. All parties can contribute, for instance:

Line ministries can:

- 1. Work to put in place and strengthen country-led nationwide service delivery.** Using the CSO2 scorecard, along with generalized proposals associated with the three stages of subsector development, countries can prioritize reforms for transitioning to country-led programs of service delivery.
- 2. Undertake evidence-based advocacy to bridge finance gaps while demonstrating improvements in service delivery pathways.** The subsector investment gaps calculated in each country's individual CSO2 report provide a basis for advocating for increased finance. Due to the limits on further increases in aid, countries will need to approach their ministries of finance as a priority. The regional perspective provided by this synthesis report indicates that 5 percent of domestic revenue from all countries, with existing levels of aid targeted to fill the gaps and user contributions as per policy, would suffice at the regional level.

Development partners can:

1. **Support countries to develop their service delivery pathways.** Development partners can tailor technical assistance and aid modalities to each subsector's stage of development (*establishing, transitioning, transitioned*) and by doing so, progressively increase absorptive capacity and effectiveness of countries' spending in the sector.
2. **Respond to need and reward effort,** increasing or reallocating funds for those countries and subsectors which are making convincing efforts to build robust service delivery pathways. Where countries are already allocating 5 percent of domestic revenue to WSS and still face financing gaps, there is an especially strong case for scaling up external investment to meet the remaining finance gaps. While countries should demonstrate that they will use funds effectively, equitably, and efficiently, donors may have to take some risks: iteratively investing in services while helping to enhance service delivery pathways.

Ministries of finance can:

1. **Help meet the financing gap for providing basic services for the population,** by incrementally increasing the sector's share of the domestic budget to 5 percent of domestic revenue (the regional benchmark proposed in this synthesis report).
2. **Support line ministries to embed service delivery pathways,** by collaborating to interlink sector processes with core government systems including budget and expenditure management processes and the intergovernmental transfer system.

AMCOW can:

1. Advocate for enhanced external support for water supply and sanitation. In line with the Africa Water Vision and as the main regional grouping for senior managers in the sector, AMCOW is well placed to advocate *en bloc* for increased and better-targeted aid for the sector, in fora such as Sanitation and Water for All (SWA).
2. Foster regional learning among peers by sharing good practices, and help to identify and test new solutions. Lessons identified in this synthesis report and the individual country reports provide a starting point for shared learning. Comparison of countries' self-identified priority actions, with weaknesses in their service delivery pathways, has also highlighted a need for new and robust models, particularly for developing and sustaining services.

1. Introduction

SSA as a whole has made significant progress in extending access to improved water supply and sanitation. But this expansion of coverage has been uneven across countries and subsectors and, overall, falls short of the ambitious targets to which governments have committed (whether national or MDG targets). The eThekweni declaration, the Tunis Action Plan, and the Sharm el-Sheikh commitments make an urgent call to get countries back on-track for the water supply and sanitation MDG targets and to develop a deeper understanding of how progress can be accelerated in the water and sanitation sectors.

Improvements in access to water supply and sanitation contribute to the MDGs on environment, health, education, food security, gender equality, and poverty alleviation. Access to water supply and sanitation directly impacts labor productivity, illness, school attendance, and women's personal security.¹ Reducing health care costs, increasing school attendance, freeing time for productive activity, and ensuring safety for women have notable economic benefits. Each dollar invested in meeting the water and sanitation MDG targets in SSA can return US\$6 in economic benefits.²

For these reasons, the African Ministers Council on Water (AMCOW) requested the production of a second round of CSOs on water supply and sanitation, which aims to shed light on the political, institutional, and financial factors which underpin progress in the sector. The World Bank, Water and Sanitation Program (WSP), and the African Development Bank (AfDB) implemented this task in close partnership with the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO).

Purpose

The primary purpose of this document is to reflect learning generated from the 32 participating countries on where and how progress in access to water supply and sanitation has been achieved.^j

In terms of audience, the document is above all intended for the sector's ministers, senior managers in the sector, and their development partners. The report identifies an emerging era of country-led service delivery, in which governments are increasingly responsible for coordinating, implementing, and even financing the sector. The CSO2 also reflects on the changing role for development partners in this new environment and provides recommendations for this audience as well.

The rich data generated by the CSO2 includes country-by-country analysis of past progress in coverage, and future financing to meet sector targets. For each country, the CSO2 explores the links between inputs (finance) and outcomes (coverage) through the lens of a 'service delivery pathway', which is systematically assessed using the CSO2 scorecard. This synthesis report contextualizes and builds on the findings and agreed priority actions of the individual CSO2 country reports, which are complemented by existing data sourced from the Organization for Economic Cooperation and Development (OECD), UNICEF and WHO.

The CSO2 also has purposes at the regional and international levels.

At the **regional level**, AMCOW and its partners will use this synthesis report to:

- Advocate for enhanced support for WSS development where most needed.
- Foster regional learning among peers on reform for accelerated development, effectiveness and poverty focus.

In the **international setting**, this synthesis and the individual CSO2 country reports are reference documents that countries can feed into multilateral high-level discussions on sector investment and aid flows. To

^j With the newly-formed Republic of South Sudan on July 9, 2011, this is 33 countries.

ensure its place in such international forums the CSO2 is linked to:

- The Global Annual Assessment of Sanitation and Drinking-Water (GLAAS): A UN-Water initiative delegated to the WHO.
- Sanitation and Water for All: A Global Framework for Action (SWA:GF4A), an emerging political initiative.

Background

First Round of Country Status Overviews: CSO1

The first round of CSOs published in 2006 benchmarked the preparedness of sectors to meet the WSS MDGs based on their medium-term spending plans and a set of 'success factors' - for example, a Sector-Wide Approach (SWAp), a sector investment plan, sector monitoring and evaluation (M&E) - selected from regional experience.³ Combined with a process of national stakeholder consultation this prompted countries to ask whether they had those 'success factors' in place and, if not, whether they should put them in place.

In Ghana, for example, the analysis of 'success factors' spurred the establishment of the Water and Sanitation Monitoring Platform to provide a comprehensive overview of sector progress and performance. In Senegal it contributed towards a move to sharpen country M&E systems and to the introduction of annual sector reviews.

Second Round of Country Status Overviews: CSO2

CSO2 has built on both the method and the process developed in CSO1. The 'success factors' have been supplemented with additional factors drawn from country and regional analysis to develop the CSO2 scorecard.⁴ Together, these reflect the essential steps, functions, and results in translating finance into services through government systems - in line with the Paris Principles for aid effectiveness. The MDG costing was retained with some minor modifications. Critically, greater emphasis was placed on the participatory process which was carried out in two main phases in each country.

The first phase of the CSO2 was initiated by the AMCOW which invited responsible ministers in each country to take part. Governments were requested to appoint a sector focal point, to work in partnership with the specified technical agency (AfDB, UNICEF, WHO, WSP) selected to facilitate the process for that country.

WSP, WHO, and AfDB contracted an experienced network of local and regional consultants to work with the line ministries in each of the 32 countries - regional consultants were used to maintain a standard and objective approach to the CSOs across countries.

CSO2 consultants conducted desk reviews with support from facilitating agencies, using a wide variety of sources.⁵ Country visits were carried out to verify and refine the findings with governments and other stakeholders. Three carefully-structured instruments were used to collate and analyze data:

1. **CSO2 scorecard:** An assessment framework allowing identification of drivers and barriers in the 'service delivery pathway' of each of the four subsectors: urban water supply; rural water supply; urban sanitation; and rural sanitation. The scorecard allows each building block of a functioning subsector, from enabling policies to the quality of user experience, to be evaluated in turn. Scores are generated with reference to a range of specific questions and a simple visual key allows problem-building blocks (barriers) to be easily identified.
2. **CSO2 costing tool:** An excel-based model combining population, coverage, and technological data to estimate the annual investment required for infrastructure (new and replacement) in each subsector, and what proportion will be met from public finance based on subsidy policy. Requirements are then compared with anticipated public investment from national, donor, and NGO sources, to identify any investment gaps.
3. **Questionnaire to line ministries:** This questionnaire elicited formal inputs to the costing model as well as supplementary qualitative information regarding progress, for example, on donor coordination.



Consultants then prepared the CSO2 'consultation draft' and, together with in-country multilateral agencies, worked with line ministries to validate the draft for circulation and further consultation. An interim synthesis report was also drafted to provide feedback on findings and good practices emerging from the CSO2.

The second phase of the CSO2 involved circulation of the 'consultation draft' for each country; subsector consultations to agree priority actions for accelerating progress towards the MDGs and national sector targets; multistakeholder reviews to prioritize those actions; and finalization of the Country Status Overviews.

Report Overview

The main body of the report is arranged in the following chapters:

Chapter 2 presents the emerging opportunities for country-led service delivery that have arisen with greater stability, increased resources and strengthened core government systems, and the implications for line ministries, ministries of finance, and donors.



Chapter 3 outlines the progress made in increasing coverage and introduces a simple four-way categorization of countries to show how a subset of relatively stable, but not necessarily wealthy, countries have managed to take the lead, in terms of overall progress and achieving more equitable outcomes.

Chapter 4 shows how the volume of finance - mainly official development assistance (ODA) - and the technical assistance and dialogue accompanying it, have played a significant role in driving progress in coverage in this subset of countries. Meanwhile, the changing dynamics of finance, with increasing domestic budgets, will make the task of interfacing and effectively directing sector resources (domestic and donor) increasingly complex for all countries.

Chapter 5 introduces the service delivery pathway concept in detail, and presents results from the CSO2 scorecards to show how far the countries have progressed in putting them in place. Again applying the four-way typology, it is shown that the same stable, yet

poor countries have had the greatest success in putting in place service delivery pathways, and are now poised to accelerate further ahead in terms of coverage. Case studies show how functioning service delivery pathways have been established through the concerted effort and leadership of governments and their development partners, and the importance of linking the sector's pathways to wider capacity in government and the economy.

Chapter 6 provides suggestions on how the scorecard can be used to prioritize and sequence reforms in each country's subsectors, depending on the extent of evolution towards sustainable service delivery pathways.

Chapter 7 returns to finance, this time looking forward, setting required investment to meet sector targets against anticipated funding from governments, donors, and users. Possibilities for meeting the likely minimum finance gap of US\$6 billion are explored in the context of affordability for each country, in terms of their GDP and government revenue.

2. New Opportunities for Country-Led Service Delivery

KEY MESSAGES

- Increasing resources, national ownership, and stability have opened the space for African governments to take charge of their water supply and sanitation sectors and develop sustainable service delivery pathways.
- Line ministries for WSS have the opportunity to engage with ministries of finance to increase budget allocations, to make use of core government systems and economywide capacity, while developing their capacity as sector coordinators and leaders.
- The task for donors is shifting from implementing discrete projects, to balancing broader programmatic and budget support investment with technical assistance to help governments in their new role.
- The CSO2 assists governments and donors as they transition to the new environment, providing analyses of coverage, investments, and service delivery pathways, identifying critical needs, and proposing possible solutions within and between countries and subsectors.

Three Major Changes in the Political and Economic Context

The changing political and economic context in Africa has opened up an unparalleled opportunity for a renaissance in country-led service delivery in water supply and sanitation.

Over the past decade, three fundamental transformations have created a new, favorable environment for governments to take ownership of the water and sanitation sector and accelerate progress towards the MDGs:

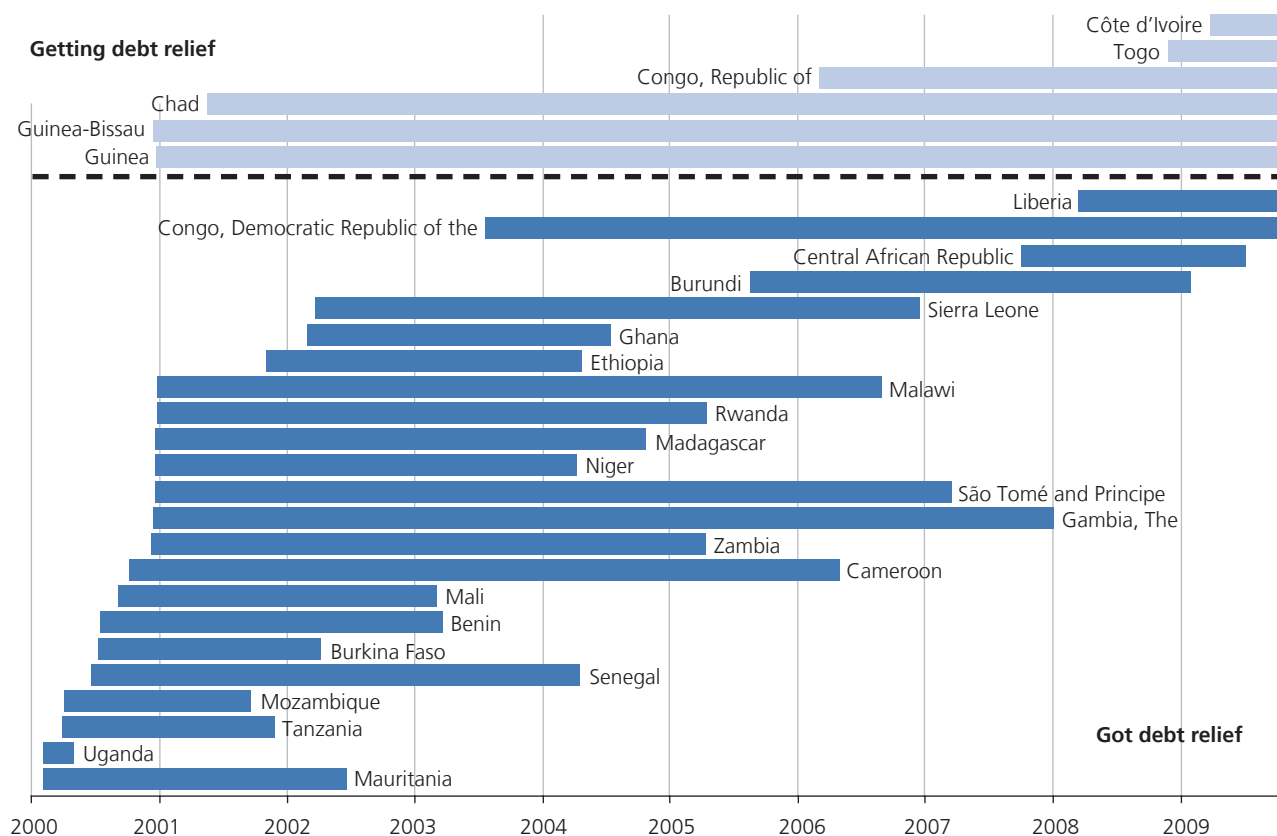
- Economic growth and a widening tax base, debt relief, and rising levels of budget support are increasing the resources available in domestic budgets.
- Subsidence in the magnitude of armed conflict has created a more predictable, stable environment for sustainable state action and opened up prospects for further debt relief and peace dividends.
- PRSPs and SWAps have shifted the aid environment towards supporting greater national ownership and coordination, as well as developing government capacity for this.

Increased Resources: Debt Relief, Aid, and Growth

Since 2000, 23 countries have received debt relief through the Heavily Indebted Poor Countries initiative (HIPC), amounting to US\$50 billion and reducing their debt service payments by an average of 2.5 percent of GDP (Figure 2.1). Together with strong economic growth (averaging over 5 percent since 2000), improved macroeconomic management, and a broadening of the tax base has enabled countries to increase their poverty reducing expenditure by two to three times within four years of receiving debt relief.⁶

While debt relief has freed up budgetary resources for service delivery, development partners have increased aid flows in support of poverty reduction strategies. Aid commitments to SSA have almost tripled in real terms, reaching \$47 billion a year in 2008. The associated processes of dialogue and technical assistance have also enhanced the functioning of core government systems, particularly budget and expenditure management but also procurement, civil service reform, and decentralization. Growth has also benefited capacity in the wider economy, giving line ministries an additional resource to make use of in the form of stronger civil society and private sector capacity: to supply, implement, operate, and manage services in the sector.

Figure 2.1
Years between start and completion of HIPC initiative for countries in SSA Africa



Source: IDA/IMF. 2009. Heavily Indebted Poor Countries (HIPC) Initiative and Multilateral Debt Relief Initiative (MDRI)—Status of Implementation.

Declining Armed Conflict in Most Subregions

This progress is contingent upon relative peace and security. In this respect, trends have also been positive. Since a peak in the magnitude of armed conflicts in Africa in the early 1990s, the trend has been downwards, dropping by nearly half by 2005. Southern Africa has shown the strongest trend in the cessation of armed conflict, followed by West Africa while Central and Eastern Africa remain unstable and volatile.⁷ The Global Peace Index (2007–10) notes that SSA, though still the region most affected by armed conflict in the world, is not deteriorating.⁸ A number of countries previously held back by armed conflict - Burundi, Central African Republic (CAR), Sierra Leone as well as most recently Liberia and DRC - have managed to reach HIPC completion point (agreement on debt relief), thus enhancing their chances of delivering a peace dividend.

Alignment of Aid with National Development Plans and Systems of Service Delivery

A further effect of the HIPC process has been to reinforce developing countries' ownership and coordinating role over service delivery by aligning aid and debt forgiveness to the PRSPs. Unlike the earlier structural adjustment programs, the PRSPs place greater emphasis on national planning and domestic accountability. The dialogue and technical assistance linked to PRSP support has strengthened core government systems in many countries. Concurrent to the PRSP/HIPC process, development partners are shifting their aid modalities from project aid towards budget support, channeling finance into sectorwide, programmatic approaches that strengthen national coordinating institutions.

Table 2.1
Indicators of a changing macroeconomic context in SSA

Indicator	2002	2008
GDP (constant 2000 prices)	US\$684 billion	US\$978 billion
Government expenditures (% GDP)	25% of GDP	29% of GDP
Government expenditures (2008 prices)	US\$91 billion	US\$284 billion
Debt burden	45% of GDP	12% of GDP
Total aid flows (commitments)	US\$16 billion	US\$47 billion
GBS aid flows (commitments)	US\$2.1 billion	US\$5.2 billion
WSS aid flows (commitments)	US\$1.1 billion	US\$2.4 billion

Sources: WDI, IMF, OECD, and IMF. 2007, 2010. Regional Economic Outlook: Sub-Saharan Africa.

Ministries and Donors: Evolving Roles in the New Environment

Thus WSS line ministries, which were often marginalized in the 1980s and 1990s by donor run projects and a focus on utility restructuring in urban areas, face a new era of greater responsibilities, greater freedom of action, and more (potential) resources. The challenge is to transition to this new environment successfully by liaising with the ministry of finance to make use of core government systems and increase sector allocations and, at the same time, to reinforce their capability to pro-actively manage nationwide service delivery programs, as actual implementation is increasingly done at local government level. Donors, now less involved in the implementation of their own discrete projects, are also in a new situation in which they have to pay more attention to sectorwide questions such as harmonizing implementation modalities and finding the right balance between technical assistance and financing country-led investment programs.

To fill their emerging new roles, both governments and donors need more comprehensive information: not only

a detailed overview of access and investment trends, but a systematic understanding of the capability of the sector to absorb finance, deliver and sustain outcomes. Only if strengths in service delivery are clearly identified can they be built upon, advocated to donors and ministries of finance as investment opportunities, and to other governments as good practices. Likewise, bottlenecks need to be recognized to prioritize reform and improve service delivery capability. For donors, an in-depth knowledge of the sectors' strengths and weaknesses is crucial for choosing between different types of assistance (for example, support for sector reform and pilot projects, or large scale investments) and to target the sector and subsector components most in need.

The second round of Country Status Overviews (CSO2) contributes this information for each of four subsectors - urban and rural, water supply and sanitation. The following two chapters use historic coverage and finance data across subsectors, to confirm that it is a subset of stable countries, with strong donor support, that have both benefited most from the new environment, and adapted to it most energetically.

3. Coverage: The Political and Economic Pattern of Progress

KEY MESSAGES

- There has been progress in both water supply and sanitation coverage but meeting the MDG targets will need eight times more people to gain access to sanitation every year, and four times more people to gain access to water supply, compared to past trends.
- Progress in increasing access is best explained by a combination of political and economic factors: Low-income stable countries have made greater increases in coverage in most subsectors, reduced open defecation more markedly in rural sanitation, and been more successful in keeping up with population growth in urban water supply, than resource-rich and low-income fragile countries.
- These countries also have more equitable access, with a smaller gap in coverage between the richest and poorest segments of the population.

Significant Progress - but Falling Short of Targets Overall

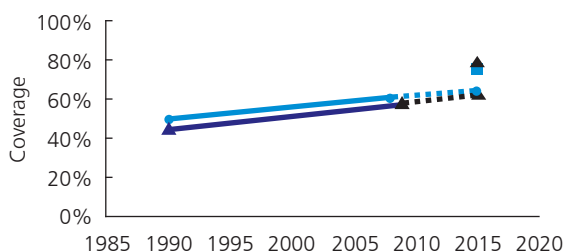
The region as a whole has made significant progress in increasing the proportion of people with access to improved water supply and sanitation. According to the governments of the 32 countries, coverage of improved water supply has risen by 13 percent since 1990 - from 45 percent to 58 percent of the total population.⁹ Improved sanitation coverage rose by 11 percent to reach 36 percent in 2008. At the aggregate level, the

overall trend is supported by data from the internationally standardized Joint Monitoring Programme (JMP) which finds 2008 coverage of 60 percent for water and 31 percent for sanitation (Figure 3.1). This progress should be set in the context of population growth of almost 60 percent over the same period.

In spite of the overall upward trajectory of coverage levels, ambitious national and MDG targets to which the region's nations have committed remain a considerable challenge. Regionally, achieving the respective *national*

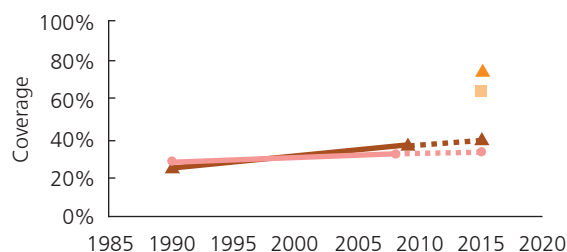
Figure 3.1
Improved water supply and sanitation coverage in Sub-Saharan Africa

Water supply



▲ Government estimates ▲ Government target
● JMP estimates ■ MDG target

Sanitation



▲ Government estimates ▲ Government target
● JMP estimates ■ MDG target

Sources: For JMP/MDG: UNICEF/WHO JMP. 2010. Progress on Sanitation and Drinking Water: 2010 Update; for government estimate/target: CSO2 costing models.

targets would require access to be extended to 42 million people per year for improved water supply, and to 61 million people for improved sanitation. With 11 million people annually gaining access to improved water supply from 1990-2008, and 7.5 million gaining access to improved sanitation, this would require past rates of progress to almost quadruple for water supply, and to increase approximately eight-fold for sanitation across the region. Similar rates of increase are required to meet the MDGs, based on JMP data. For the remainder of this chapter, JMP data is used to compare coverage between countries, as the definitions of improved access and data collection methods are consistent. Box 3.1 highlights opportunities to engage constructively in reconciling the differences between government and JMP data.

These aggregate figures mask large disparities between countries, subsectors, and rich and poor. For anyone familiar with the sector, it is no surprise that some countries have done better than others, that sanitation lags behind water supply, that rural lags behind urban coverage, and that the rich have a greater share of access. What the CSO2 analysis highlights, however, is that the countries that have done better are not necessarily the wealthiest ones. Rather, it is a group of poorer, but relatively stable countries, which have achieved the

largest increases, and generally have the most equitable coverage across subsectors. This reflects a main theme of this report - that money is necessary but not sufficient, and that having functional, country-led service delivery pathways delivering services equitably across a nation is critical to achieving national and international sector targets.

The Pattern Underlying Progress

Progress in coverage over the 1990–2008 period varies greatly across countries and does not consistently correlate with either level of economic development (GDP) or economic growth. A number of low-income countries have shown stronger growth in coverage than wealthier and faster growing economies. Progress instead relates to a mixture of political and economic factors. Viewed through this lens, valuable insights - both into current differences and strategies to address those differences - can be derived.

The four-way country typology used to explore the underlying drivers of progress is borrowed from the Africa Infrastructure Country Diagnostic (AICD), which itself draws on categories used by the International Monetary Fund (IMF) in its regular macroeconomic reporting (Table

Box 3.1

Understanding and utilizing the differences between JMP and government data

The CSO2 utilizes both JMP and government coverage statistics to facilitate discussion around the collection and interpretation of critical sector data - rather than to claim that either is preferable (Table 3.1). For the sector's senior managers, an important step is to understand the underlying reasons for the differences in statistics, so that they can be explained, and used to maximum effect with different audiences.

For example, ministries of finance and donors may be more accustomed to using household survey data (on which JMP estimates are based) to determine investment priorities between different sectors. Donors may also prefer the international comparability of JMP data. Water supply and sanitation line ministries and their staff, meanwhile, may be more accustomed to using 'provider data' from within the sector: for example, the number of water points installed multiplied by an agreed number of users.¹⁰ Understanding why the data differ - for instance, because there is a time lag between output (provider data) and outcome (user data) - will enable senior managers to identify sector priorities more accurately and make more convincing cases for additional resources from ministries of finance and donors.

Other underlying factors which may be at work include differing views on what technologies constitute improved access, and the JMP's use of several household surveys to guard against outliers, whereas government may prefer to use the results of only the last survey.

Table 3.1
Coverage levels for water supply and sanitation, comparing government and JMP data

Country	Water						Sanitation					
	Government data		JMP data				Government data		JMP data			
	'Current'	Target	1990	2008	2015 target	Trend vs. Target	'Current'	Target	1990	2008	2015 target	Trend vs. Target
Angola	50%	n/a	36%	50%	68%		55%	n/a	25%	57%	63%	
Benin	52%	73%	56%	75%	78%		37%	69%	5%	12%	53%	
Burkina Faso	59%	79%	41%	76%	71%		11%	55%	6%	11%	53%	
Burundi	58%	n/a	70%	72%	85%		37%	n/a	44%	46%	72%	
Cameroon	n/a	n/a	50%	74%	75%		n/a	n/a	47%	47%	74%	
C.A.R.	30%	65%	58%	67%	79%		5%	60%	11%	34%	56%	
Chad	30%	64%	39%	50%	70%		9%	50%	6%	9%	53%	
Congo, D.R.	24%	49%	45%	46%	73%		10%	45%	9%	23%	55%	
Congo, Rep.	37%	87%	70%	71%	85%		21%	50%	30%	30%	65%	
Côte D'Ivoire	63%	82%	76%	80%	88%		65%	79%	20%	23%	60%	
Ethiopia	66%	99%	17%	38%	59%		39%	99%	4%	12%	52%	
Gambia, The*	75%	95%	74%	92%	87%		48%	73%	60%	67%	80%	
Ghana	58%	n/a	54%	82%	77%		13%	n/a	7%	13%	54%	
Kenya	42%	76%	43%	59%	72%		31%	76%	26%	31%	63%	
Liberia	25%	n/a	58%	68%	79%		15%	n/a	11%	17%	56%	
Madagascar	40%	n/a	31%	41%	66%		52%	n/a	8%	11%	54%	
Malawi	66%	74%	40%	80%	70%		49%	74%	42%	56%	71%	
Mali	72%	83%	29%	56%	65%		36%	64%	26%	36%	63%	
Mauritania	n/a	68%	30%	49%	65%		n/a	67%	16%	26%	58%	
Mozambique	51%	70%	36%	47%	68%		45%	60%	11%	17%	56%	
Niger	52%	58%	35%	48%	68%		15%	54%	5%	9%	53%	
Nigeria	50%	82%	47%	58%	74%		66%	88%	37%	32%	69%	
Rwanda	72%	85%	68%	65%	84%		45%	65%	23%	54%	62%	
Senegal	85%	90%	61%	69%	81%		43%	70%	38%	51%	69%	
Sierra Leone*	n/a	74%	57%	49%	79%		n/a	66%	10%	13%	55%	
South Africa	91%	100%	83%	91%	92%		76%	100%	69%	77%	85%	
Sudan N	62%	n/a	65%	57%	83%		42%	n/a	34%	34%	67%	
Sudan S	27%	n/a					5%	n/a				
Tanzania	64%	71%	55%	54%	78%		24%	n/a	24%	24%	62%	
Togo	33%	66%	49%	60%	75%		32%	73%	13%	12%	57%	
Uganda	63%	80%	43%	67%	72%		64%	80%	39%	48%	70%	
Zambia	60%	77%	49%	60%	75%		49%	63%	46%	49%	73%	
Zimbabwe	46%	100%	78%	82%	89%		30%	85%	43%	44%	72%	

* Coverage estimates shown as 1990 are in fact extrapolated back only as far as 1997 in the case of the Republic of Congo, 1994 in the case of Sierra Leone, and 1992 in the case of The Gambia's sanitation subsectors, due to the lack of earlier adequate household surveys in these countries.

Sources: For JMP coverage: UNICEF/WHO JMP. 2010. Progress on Sanitation and Drinking Water: 2010 Update; for government coverage: CSO2 costing models.

3.2). The first three groupings comprise (a) resource-rich countries in which more than 10 percent of GDP stems from oil or mineral resources; (b) fragile states affected by or emerging from conflict (or economic crisis); and (c) the remaining low-income countries that are neither resource rich nor fragile. Among countries participating in the CSO2, the final group of middle-income countries not classed as resource-rich comprises only South Africa: its GDP is well over US\$1000 per capita but less than 10 percent is from oil or mineral resource rents.

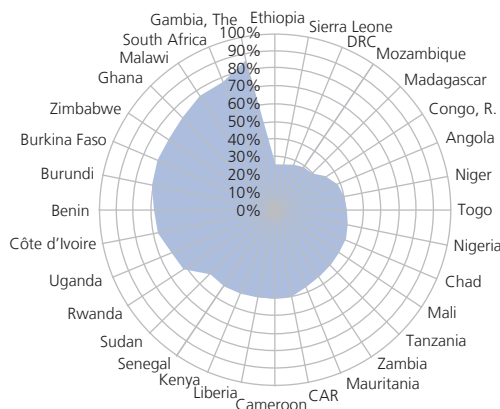
consistently higher than sanitation coverage, and urban areas tend to have higher coverage levels than rural areas, for both water supply and sanitation. The low access rates in rural areas are particularly problematic because in spite of the continued population movements towards cities, and even factoring in the large and relatively urbanized South Africa, more than 60 percent of the region's population is projected to still live in rural areas in 2015. The disparity between sanitation and water supply coverage is a reminder of the continued need for implementation of the 2008 eThekweni declaration, which pledged to increase the profile of the sanitation sector and reforms such as establishing dedicated national sanitation plans and one principal institution for the sector in each country - factors instrumental to sanitation service delivery pathway and ones which are assessed by the CSO2 scorecard (Chapter 5).

Progress between Countries and Subsectors

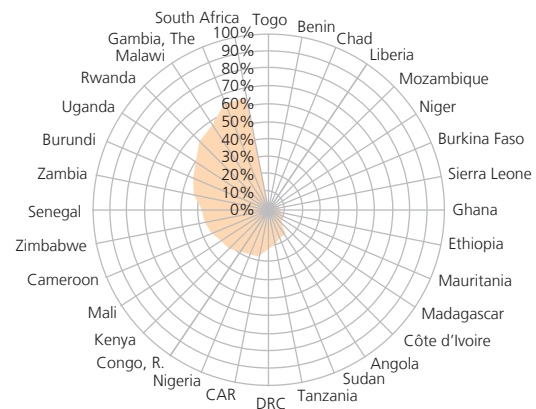
Figure 3.2 illustrates the significant disparities in coverage levels between countries, and between subsectors. Water supply coverage in both urban and rural areas is

Figure 3.2
Coverage levels across countries and subsectors

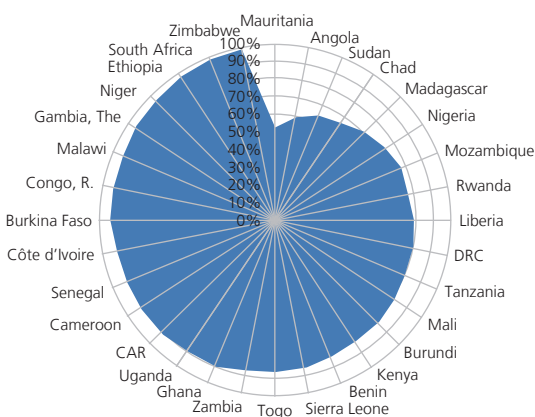
Rural water supply



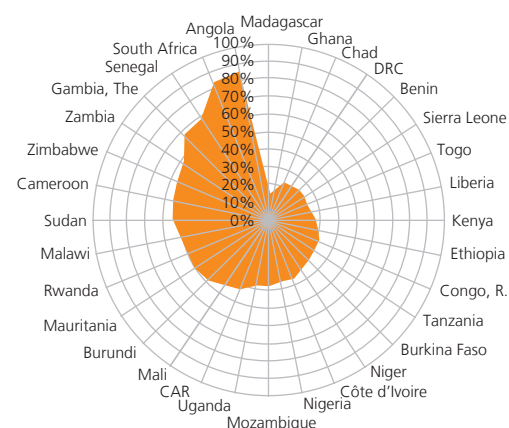
Rural sanitation



Urban water supply



Urban sanitation



Source: UNICEF/WHO JMP. 2010. Progress on Sanitation and Drinking Water: 2010 Update.

Countries are ranked slightly differently if assessed according to coverage change between 1990 and 2008, rather than 2008 coverage alone. For instance, according to the JMP, current rural water supply coverage in Ethiopia is the lowest in the sample, but the country has managed to achieve a respectable increase of 18 percentage points since 1990. By contrast, the Democratic Republic of Congo (DRC), conflict-affected for much of the period, has barely managed to keep overall coverage levels where they were 20 years ago. Nonetheless, even when looking at the coverage change, the huge differences between countries persist, ranging from increases of more than 40 percent to decreases in access in excess of 20 percent in others (changes according to government estimates are even higher).

Grouping the countries according to the above political-economic classifications is a first step to explaining these differences in progress.

In 1990, less than 40 percent of the *low-income stable* country group's combined population had access to improved water supply, compared to almost 50 percent in the *resource-rich* group, and approximately 58 percent in the *low-income fragile* countries. The relatively high starting point for low-income fragile countries is influenced by high historic levels of access in countries such as Zimbabwe, Côte d'Ivoire, and Burundi. Subsequently, however, the politically stable country group has caught up, increasing coverage by more than 17 percentage points according to JMP statistics, compared to less than 10 percentage point

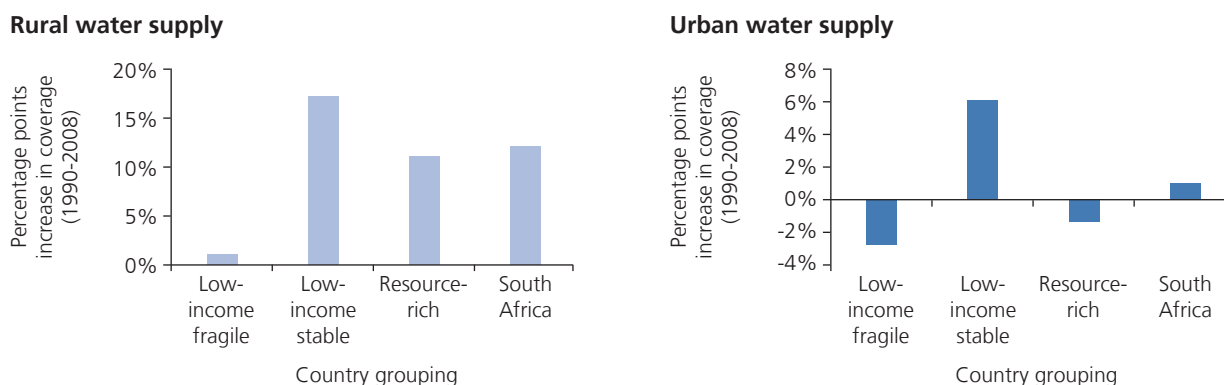
increase in the *resource-rich* group and less than 2 percent in the *fragile* countries.¹¹

Access to sanitation has stagnated at roughly 35 percent between 1990 and 2008 in the *resource-rich* group, but increased from below 20 percent to around 25 percent in both *low-income stable* and *fragile* groups.

These aggregate developments, showing a strong performance from the relatively poor stable country group, can also be traced at subsector level. In rural water supply, the *low-income stable* country group started with the lowest coverage level in 1990, but increased by 17 percentage points, jumping ahead of both the *resource-rich* and *low-income fragile* country groups by 2008. Similarly, in urban water supply, *low-income stable* countries have increased coverage by 6 percentage points while *low-income fragile* countries, *resource-rich* countries, and even South Africa have struggled to keep up with urban population growth (Figure 3.3). By accelerating rural water supply coverage so significantly even while advancing urban coverage, *low-income stable* countries have also narrowed the gap between the rural and urban water subsectors to a greater extent than either *resource-rich* or *low-income fragile* countries.

The raw coverage figures for urban water supply access mask the wide range of urban growth rates that countries have had to cope with. Annual growth rates over the period have varied from just over 2 percent in Zambia to almost 7 percent in Rwanda. Figure 3.4 shows the

Figure 3.3
Increase in water supply coverage (1990–2008) by country grouping



Source: Adapted from UNICEF/WHO JMP. 2010. Progress on Sanitation and Drinking Water: 2010 Update.

growth in household connections relative to overall urban population growth. This metric better captures the growth that utilities have delivered.¹²

South Africa has managed to connect nearly all this growth (96 percent) with household connections, in spite of urban growth of around 11 million people over the 1990–2008 period (third only to Nigeria's 39 million and the DRC's 12 million). The only country in SSA to have outperformed South Africa on this measure is Senegal, where household connections have been extended to more people than what the urban population grew by (2.5 million people) - driven by a strong service delivery pathway including far-reaching institutional reform and a progressive social connection policy.

On average, *low-income stable* countries also have a better quality of service - compared to *low-income fragile* countries in rural areas, and compared to both *low-income fragile* and *resource-rich* countries in urban areas. In rural areas, this is reflected in less time spent fetching water and in urban areas by more hours of service per day.¹³ Urban coverage in *low-income fragile* and *resource-rich* countries is moving away from household connections towards cheaper options with both groups showing negative growth in household connections but positive coverage growth in other improved sources.

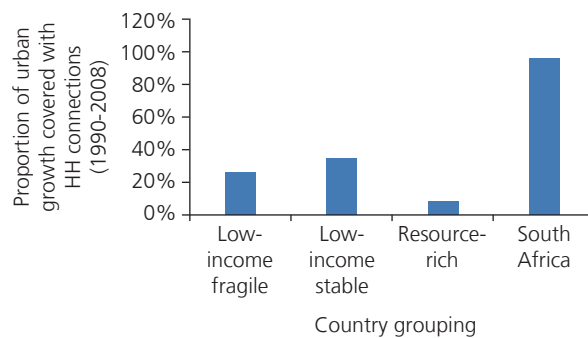
Low-income stable countries have made greater strides than any other country grouping in terms of reducing open defecation in rural areas: by 14 percent between 1990 and 2008 while open defecation dropped by only 7 percent and 4 percent in *low-income fragile* and *resource-rich* countries, respectively (Figure 3.5).

Urban sanitation coverage in *low-income stable* countries grew faster than in other country groups (Figure 3.6). *Low-income stable* countries also reduced open defecation in urban areas by almost 11 percent over the period while reductions in open defecation across other country groupings were negligible.

Progress between Rich and Poor

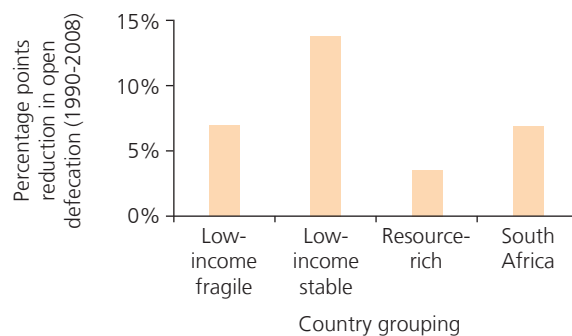
The disparities of outcome persist within subsectors; access to improved water and sanitation is highly inequitable between rich and poor. In almost every subsector, in every country for which data is available, access is regressive,

Figure 3.4
Proportion of urban growth provided with access to household connections (1990–2008) by country grouping



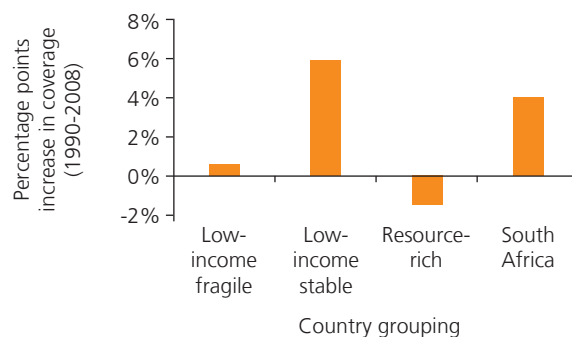
Source: Adapted from UNICEF/WHO JMP (2010) Progress on Sanitation and Drinking Water: 2010 Update.

Figure 3.5
Reduction in proportion of population resorting to open defecation in rural areas (1990–2008) by country grouping



Source: Adapted from UNICEF/WHO JMP. 2010. Progress on Sanitation and Drinking Water: 2010 Update.

Figure 3.6
Increase in urban sanitation coverage (1990–2008) by country grouping



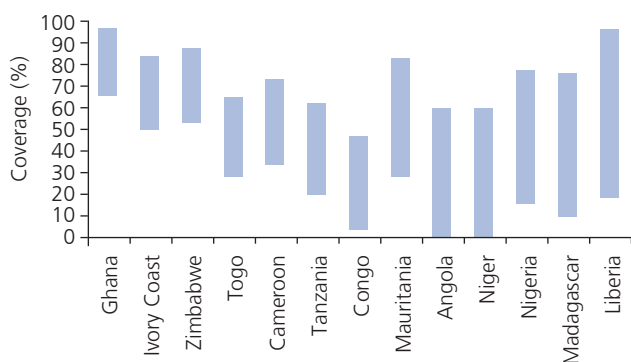
Source: Adapted from UNICEF/WHO JMP. 2010. Progress on Sanitation and Drinking Water: 2010 Update.

decreasing from the richest fifth to the poorest fifth of the population.¹⁴ The difference in access to sanitation between the richest and poorest quintiles is more than 80 percentage points in four countries.¹⁵ For water supply, these differences are almost as vast, and reach over 70 percentage points in two countries.¹⁶ In well over half the subsectors for which data is available, access to improved water supply is at least 30 percentage points lower for the poorest fifth than the richest fifth. Figure 3.7 indicates the scale of the differences in each subsector across a selection of countries. The charts show the more inequitable 50 percent of countries in each subsector, for which data is available. The floating bars show, at the lower extreme, coverage for the poorest 20 percent and, at the upper extreme, coverage for the richest 20 percent.

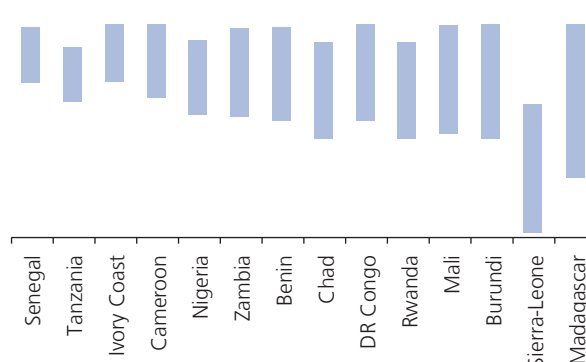
While equity of access remains a serious challenge for all countries, overall coverage in *low-income stable* countries is more equitable than in both *low-income fragile* and *resource-rich* countries. In the rural water supply and sanitation subsectors, access in *low-income stable* countries is more equitable than that in *resource-rich* countries but on a par with that in *low-income fragile* countries. Figure 3.8 shows the difference in rates of coverage between the top and bottom income quintiles, adjusted for the population size of each country (data was not available for the only middle income country, South Africa).

Figure 3.7
Range in coverage between richest and poorest quintile, by subsector

Rural water supply

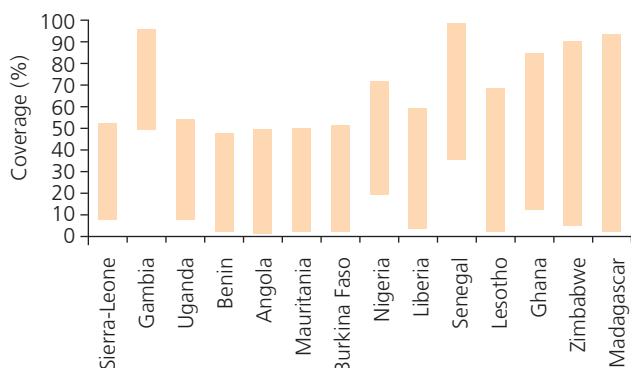


Urban water supply

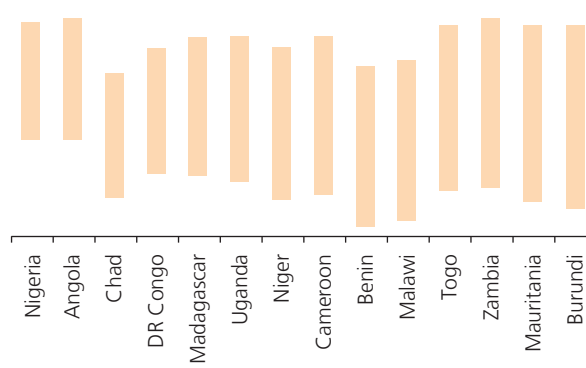


■ Difference in access between poorest and richest quintile by water supply subsector

Rural sanitation



Urban sanitation

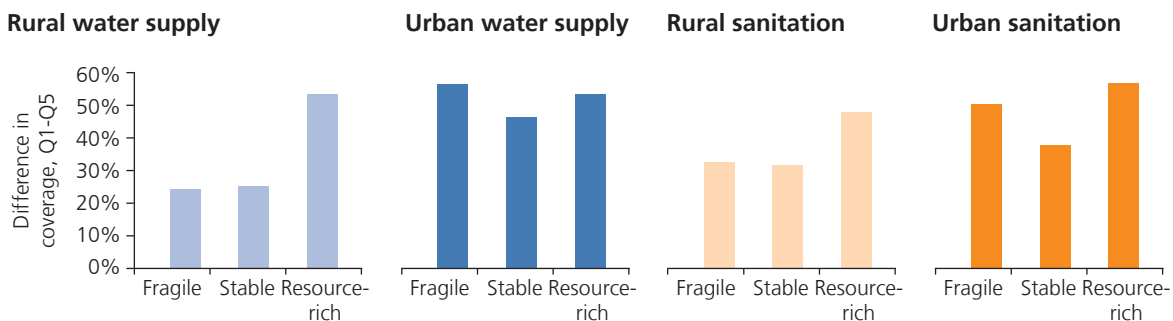


■ Difference in access between poorest and richest quintile by sanitation subsector

Source: Special tabulation of DHS and MICS surveys, UNICEF New York, 2010.



Figure 3.8
Range in coverage between richest and poorest quintile, by subsector, for *fragile, stable* and *resource-rich* country groupings



Source: Special tabulation, UNICEF New York, 2010.

From Pattern to Prospects: What This Means for Governments

The story of water supply and sanitation in Africa over the last 20 years is one of constrained progress, marked by deep disparities between countries, subsectors, and households.

Viewing the disparities through the lens of a political-economic typology, wealthier, resource-rich countries were often outperformed by poor but politically stable

low-income countries, whereas fragile states have tended to do worst in most measures. The next chapter (Chapter 4) reflects on the drivers that have led to this pattern: in particular, how aid has historically given *low-income stable* countries an advantage. At the same time, the chapter argues that new drivers are increasingly important: the transition from aid-driven to country-led service delivery will create new opportunities and responsibilities for governments to develop their service delivery pathways across all countries irrespective of grouping.

4. Drivers of Progress: The Changing Balance of Aid and Domestic Finance

KEY MESSAGES

- Development assistance has played an important role in advancing coverage.
- The good progress of low-income stable countries was assisted by their receiving three times more aid than low-income fragile countries and two times more aid than resource-rich countries, per unserved person.
- Past levels of aid to sanitation, and past domestic spending on the subsector in general, are difficult to discern.
- However, aid and other forms of external finance are spreading to other countries, and domestic funds, allocated by ministries of finance, are set to play an increasingly important role, especially for resource-rich countries and low-income stable countries.

Aid as a Driver for Progress

This chapter examines aid as a major driver for the progress that low-income, *stable* countries have made against other groupings, outlined in the previous chapter (Chapter 3). However, it also points out how the dynamics of aid and domestic finance are changing, presenting new opportunities and challenges for all countries.

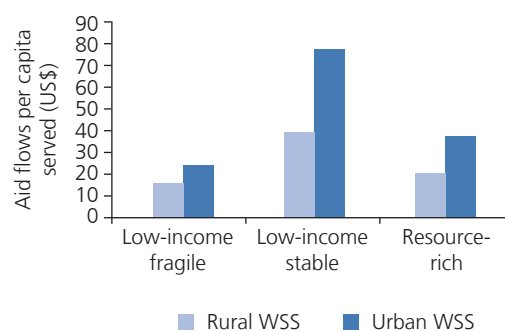
Over the period 1990 to 2008 an estimated US\$25 billion of official development assistance earmarked for WSS was spent across the CSO2 countries by OECD DAC donors and multilateral agencies.¹⁷

The relatively strong performance of stable countries described in the previous chapter has been supported by large aid flows (Figure 4.1). *Stable* countries received three times the WSS aid that flowed to the *fragile* country grouping per capita unserved and two times that flowing to *resource-rich* countries.

During this same period just over 200 million people actually gained access to water supply - around half in rural and half in urban areas.

In *low-income stable* countries, aid contributed just under US\$80 per urban beneficiary who gained access, and just over US\$40 per rural beneficiary added to the covered population (Figure 4.1).

Figure 4.1
Aid flows per capita served from 1990–2008



Source: OECD DAC Creditor Reporting System (CRS) Database.

Though urban water supply received over three times as much aid per unserved person as rural water supply, the coverage disparity between rural and urban has declined slightly at the aggregate level. In *low-income stable* countries, in particular, the gap in coverage between rural and urban has narrowed by around 10 percent over the 18-year period.

The fact that *low-income stable* countries received a high aid contribution per urban person gaining access (Figure 4.1) is, in part, due to the higher ratio of household connections to overall access: 2:5 versus 1:4 in *low-income fragile* countries and 1:10 in *resource-rich* countries. This

and other important factors for interpreting the data are explained in Box 4.1.

The influence of aid on sanitation coverage is much more difficult to trace as the funding was relatively minor and

integrated with water supply - particularly in the 1990s. This is changing - for instance, where sanitation service delivery is becoming more country-led, the spending can be traced through departments of environmental health as expenditure on health workers.

Box 4.1
Interpreting sector progress against aid per capita

In comparing aid per beneficiary against subsector progress (Figure 4.2) it is important to understand the influence of other factors, including:

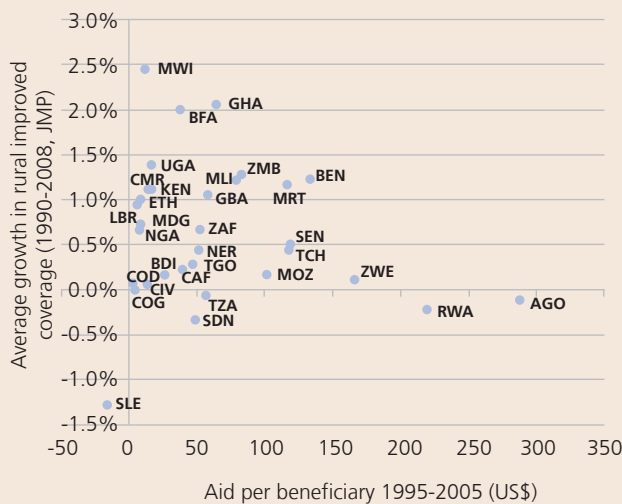
- The proportion of domestic funding - including budget support - that is flowing into the sector.
- Country policy on technology choice.
- The efficacy of targeting and sustaining interventions to the unserved.

Unraveling the contribution of these three factors is extremely complex but the following insights are a start.

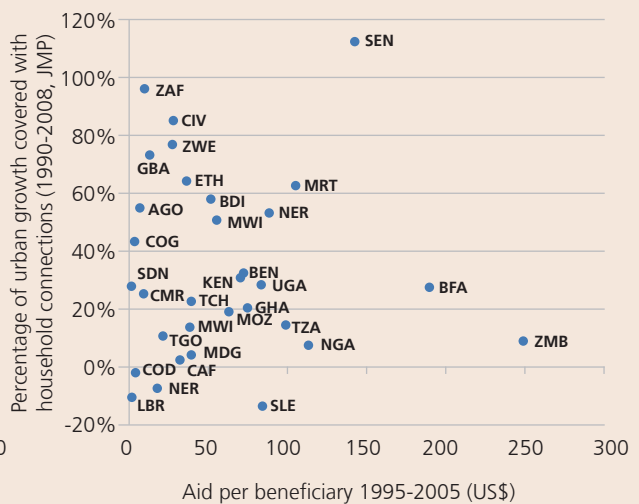
Countries that are channeling domestic funding to the sector would be expected to have proportionately lower aid per beneficiary. However, the magnitude of that reduction is related to the ratio of domestic to external financing: it is only in countries with consistent and very high domestic to external ratios of funding that aid per beneficiary is an order of magnitude lower. For example, external financing of urban water supply in South Africa, has for the majority of the period 1995–2005 been less than 10 percent of the total flows to the sector. Thus, even though unit costs and service levels are high in South Africa, aid per beneficiary is under US\$10. However, other than South Africa there are few countries in SSA that have been consistently providing even 50 percent of the overall funding to the WSS subsectors. Some resource-rich countries (Angola, Congo Brazzaville, Sudan) have been more consistent in funding urban water supply than other WSS subsectors - significantly reducing levels of aid to urban beneficiaries.

Figure 4.2
Aid in relation to coverage increase in rural water supply and coverage of urban growth

Aid and rural water supply



Aid and urban water supply



Source: For coverage data, UNICEF/WHO JMP (2010) Progress on Sanitation and Drinking Water: 2010 Update; For Aid, OECD DAC CRS Database.

With aid per beneficiary varying from under US\$10 to just under US\$300, a large part of this variation is instead explained by the choice of technology. In urban water supply, the proportion of beneficiaries that are hooked up with household connections versus stand posts or other improved sources greatly impacts unit costs. Senegal, which has received just over US\$140 per urban beneficiary over the period, has hooked up over 100 percent of its urban growth to household connections. In fact, the proportion of people served by means other than household connections has dropped substantially from 43 percent to 18 percent between 1990 and 2008. Other countries to have met the needs of expanding urban populations with household connections are presented in Table 4.1 (see investment index in Appendix B for further detail).

Angola, Congo Brazzaville, Sudan, and South Africa have funded this largely from their own resources. Also noteworthy is Côte d'Ivoire where the utility itself 'organically' expanded its household connections during the 1990s from tariffs and accessing market finance - though this is no longer the case since 1999 following a series of political crises. The high aid per beneficiary in Burkina Faso is due not only to the cost of household connections but also to the funding that has been put into augmenting the volume of raw water available to urban areas (as the result of investing in an earth dam and reservoir, transmission, and storage facilities). This is a general reminder that investments in water storage and transmission are a substantial part of the costs of expansion not always factored into the unit costs reported by countries - an issue for the CSO2 calculation of investment requirements presented in Chapter 7.

In rural water supply too, technology choice has influenced aid per beneficiary. Mauritania, Senegal, Côte d'Ivoire, The Gambia, and South Africa have invested heavily in rural piped water schemes which have yielded significant rises in rural household connections. In a second tier of countries - Angola, Benin, Ghana, Kenya, Mali, and Rwanda - piped water supplies have formed a significant part of the overall technology mix used to expand access in rural areas. The lower aid per beneficiary in Kenya is due to domestic financing and significant user financing of CAPEX.

By contrast, countries that have had a policy of low-cost solutions such as Burkina Faso, Ethiopia, Uganda, and Malawi, have considerably lower aid per beneficiary costs. The low aid per beneficiary in Nigeria is due both to the application of low-cost solutions and domestic financing.

The remaining factor - the efficacy of targeting and sustaining access to the unserved - plays an important role as upgrading the service level of people already accessing improved water supplies does not increase overall coverage. Much of the remaining variation in aid per beneficiary is attributable to systems for delivering and sustaining systems. This is covered in the next chapter on service delivery pathways.

Table 4.1
Urban growth and aid per beneficiary

Country	Urban growth served with HH connections	Aid per beneficiary (US\$)
Burkina Faso	27%	189
Sudan	28%	1
Uganda	28%	83
Kenya	30%	69
Benin	32%	71
Congo Brazzaville	43%	2
Mali	51%	55
Niger	53%	88
Angola	55%	6
Burundi	58%	51
Mauritania	62%	104
Ethiopia	64%	36
Gambia	73%	12
Zimbabwe	77%	27
Cote d'Ivoire	85%	27
South Africa	96%	9
Senegal	112%	141

Source: For urban growth served with HH connections: JMP 2010 report; for aid per beneficiary: OECD DAC CRS Database.



Changing Aid Dynamics and an Increasing Role for Domestic Finance

The nature of capital investment flows to the sector is changing, creating both new opportunities for funding WSS and new challenges to furthering alignment with core government systems, in line with the Paris Principles on aid effectiveness.

Since the early 2000s, OECD (DAC) and multilateral aid earmarked for WSS has begun to spread to *low-income*

fragile countries as well as to the *resource-rich* countries as it became apparent that these countries accounted for a large proportion of the gap in progress towards the MDG targets. Much of this is still project aid, which is off-budget (evidenced by low scores on scorecard indicator 9: comprehensiveness of sector budget) and in some cases implemented directly by development partners or their agents due to low levels of government implementation capacity.

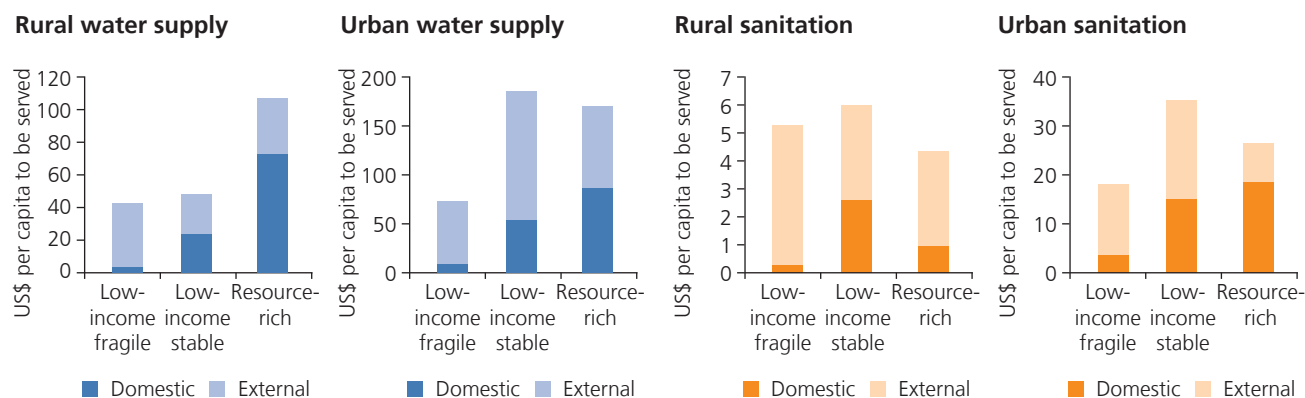
Nontraditional donors (China, Iran, Brazil, Portugal) are becoming more prominent in the sector, especially in *resource-rich* countries such as Angola, DRC, and Sudan where loans are made against future oil sales and mineral concessions. There is also increasing lending to African countries from the Middle East including by the Arab Fund for Economic and Social Development, Islamic Development Bank, Saudi Fund for Development, Kuwait Fund for Arab Economic Development, and Organization of Petroleum Exporting Countries. The funding modalities used by these development partners range from direct implementation, through sector loans to government credits - a proportion of which is allocated to the sector.

So while these are new opportunities for raising additional WSS funding, some of these new opportunities also constitute a new set of aid effectiveness challenges - particularly for *low-income fragile* and *resource-rich* countries - which will need to emulate the transition from fragmented project aid to programmatic approaches achieved by *low-income stable* front-runners.

Yet, these changing aid dynamics also have to be understood against the backdrop of strong economic growth and debt relief which are bolstering the role that domestic finance, and hence core government systems, are set to play.

The CSO2 projected expenditure for 2009-2011 shows that significant domestic expenditure allocations to WSS are being made (Figure 4.3).¹⁸ Though past records of domestic WSS expenditures for the period are weak across most countries, which makes it difficult to ascertain the contribution of domestic finance, a transition is happening across both *resource-rich* and *low-income stable* countries.

Figure 4.3
Anticipated allocations to subsectors (US\$ per capita to be served) by country grouping, 2009–2011



Source: CSO2 costings.

This is particularly the case in the urban subsectors in resource-rich countries where, for example, Angola and Cameroon have started to invest substantial amounts of their domestic resources. Nigeria is also spending on urban water supply, though this is mainly in the form of subsidy to operational expenditure. Cameroon and Nigeria have made progress in rural water supply at low levels of aid per beneficiary reflecting both domestic expenditure, and, in the case of Nigeria, private household investment in solutions such as rain water harvesting cisterns.

Meanwhile, since 2000, *low-income stable* countries such as Uganda have channeled domestic financing from debt relief and budget support towards WSS, thus showing relatively low levels of aid per beneficiary.

Finally, while domestic WSS capital expenditure flows in most *low-income fragile* countries are estimated at

less than 10 percent of aid flows, many countries in this fragile grouping are working towards debt relief - so raising their prospects for increasing domestic allocations in future.

The ability to turn finance into sustained services on the ground in this changing context will rest on the sector's senior managers having strategic oversight of the sector. This includes its links to core government systems and harnessing the service delivery capacity in the wider economy. Harmonizing and aligning these multiple streams of financing will become increasingly important.

The next chapter introduces the service delivery pathway in more detail, as a conceptual framework to assist in developing this strategic oversight, along with the CSO2 scorecard as a corresponding monitoring and governance tool.

5. Monitoring and Strengthening Country-Led Service Delivery Pathways

KEY MESSAGES

- The shift from donor-driven projects to country-led programmatic approaches requires a new management tool (the CSO2 scorecard) that considers the service delivery pathway in its entirety.
- The CSO2 scorecard is a means to facilitate management of subsector programs, by identifying factors that may be stopping inputs (finance) from turning into outcomes (coverage) at the scale and pace required.
- Scorecard results indicate that once again, low-income stable countries have been the most successful in putting country-led service delivery pathways in place, and are now poised to accelerate further ahead. Detailed case studies show how this has been achieved through clear objectives and cooperation with development partners.
- Experiences from these countries indicate that the importance of ensuring service delivery pathways are embedded within, and linked to, core government systems (for example, for planning and budgeting) and the wider economy (from private utility operators to small scale artisans providing sanitation options).

Introducing Service Delivery Pathways and the CSO2 Scorecard

The sector's senior managers are faced with complex, context-specific and often-unfamiliar challenges as they navigate towards country-led programmatic approaches to service delivery, away from donor-driven and project-based modalities. To meet these challenges, they require a strategic and coherent framework for coordinating reform.

One such framework, central to the CSO2 analysis, is to think of the various functions of service delivery as building blocks making up a pathway, through which inputs (finance) are translated into outcomes (coverage or use). This has two advantages:

- **Moving beyond specific approaches.** Particular approaches for service delivery, such as Community-Led Total Sanitation (CLTS), or financing, such as Output-Based Aid, can be very effective. However, debates over their appropriateness or adaptation to particular contexts can distract from the overarching coordination role facing the sector's senior managers. The CSO2 scorecard monitors a sequence of key processes along the entire service delivery pathway: from the enabling policies, to the mechanisms for

equitable budget allocation, to markets and cost recovery to sustain services once in place.

- **Moving beyond inputs and outcomes.** While the sector's senior managers may have information on inputs and outcomes, this neglects the intermediate factors over which they have most control, and which together provide a guide to the long-term direction of the sector - bridging the time lag of several years between putting finance in, and the outcomes materializing in coverage surveys. In Tanzania, it took 10 years for a downturn in finance to the sector to be recorded consistently in household surveys.¹⁹

In response to the framework concept of the service delivery pathway, the CSO2 uses a scorecard to empirically assess the constituent 'building blocks' within each subsector's pathway against a number of indicators. The scorecard provides a snapshot of how far countries have progressed in putting in place the service delivery pathway, and helps the sector's senior managers to respond appropriately with targeted reform effort. The standardized nature of the scorecard allows countries using it to be benchmarked against peers. A brief summary of the building blocks, which relate to enabling, developing, and sustaining services, is provided in Box 5.1, along with an outline of the scoring system. Further details are given in Appendix A.

Notwithstanding the need to help those countries most off-track with targeted investment and assistance, there are strong efficiency arguments for establishing a virtuous cycle between inputs and outcomes, in which finance drives progress in coverage, and progress attracts additional finance, demonstrating that the sector represents a sound investment proposition. Previously, identifying and sustaining this virtuous cycle has been difficult due to the time-lag between inputs and outcomes. The scorecard facilitates this by increasing the visibility of the virtuous cycle, as well as helping target technical assistance to strengthen the pathway itself (Figure 5.1).

Identifying Common Progress and Challenges

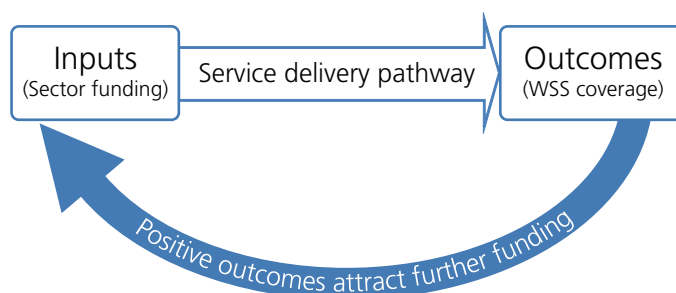
Figure 5.3 shows scorecard results for all subsectors participating in the CSO2. The color for each building block is displayed: a prevalence of red indicates barriers in the service delivery pathway; yellow indicates ongoing

challenges; while green indicates the building block is largely in place. The scores listed are the averages for the three building blocks in each 'pillar': enabling, developing, and sustaining (see Box 5.1 for further explanation).

At the regional level, two distinct patterns emerge across countries. First, there is a broad downward trend in scores moving through the service delivery pathway with a greater prevalence of low-scoring, red-colored building blocks among the downstream pillars (developing and sustaining), than the upstream (enabling) pillar. This implies that many countries have been relatively successful in putting basic policies, plans, and budgets into place, but that it has been more difficult to translate these enabling building blocks into actual, equitable outcomes on the ground, and to ensure the sustainability of systems put in place. Second, the sanitation subsectors generally feature lower scores compared to the water supply subsectors. These effects are magnified when the scores are averaged at the regional level (adjusted by the population of each country).

Figure 5.1
How the scorecard can facilitate a virtuous cycle between inputs and outcomes

Fostering a virtuous cycle in which improved outcomes encourage increased inputs is desirable; it rewards commitment and directs money to where it is likely to be used effectively. However, the time-lag between investments and coverage increases is significant.



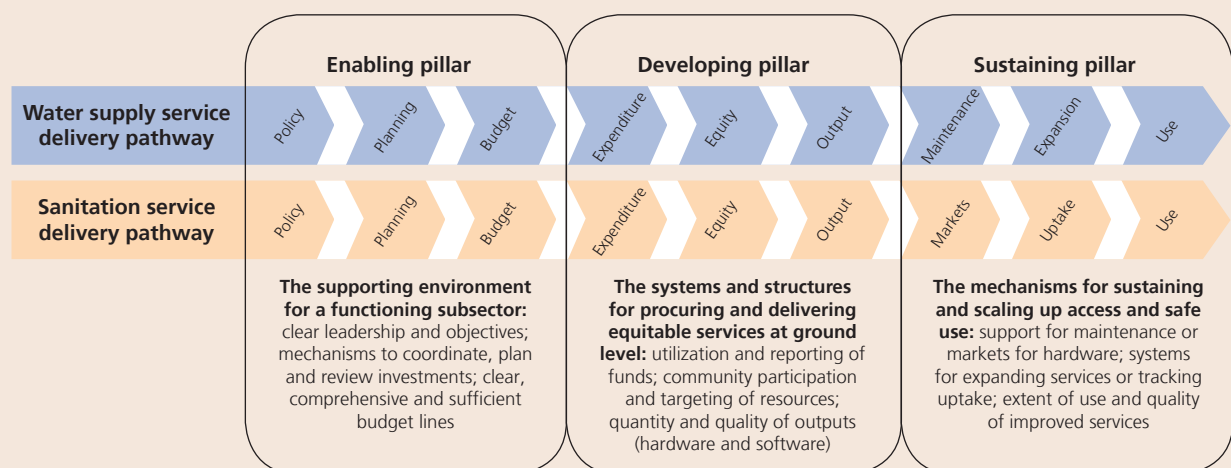
Source: Author's own.

The CSO2 scorecard facilitates assessment of the intervening service delivery pathway, which translates sector funding (inputs) into service coverage (outcomes). A strong service delivery pathway, as indicated by scorecard results, builds the case that finance will translate into outcomes efficiently, sustainably, and equitably, so attracting further funding.

Box 5.1
Essential features of the CSO2 scorecard

Each building block describes a discrete function within the service delivery pathway: three relate to enabling services (policy, planning, and budgets), three relate to developing services (expenditure, equity, and output), and the final three relate to sustaining services (for water supply: maintenance, expansion, and use; for sanitation: markets, uptake, and use). The nine building blocks, and the three 'pillars' of enabling, developing, and sustaining services, are placed in a certain order. The ordering presents a hypothesis of the most important cause and effect relationships in delivering services in the various subsectors (Figure 5.2), but is open to interpretation and debate.

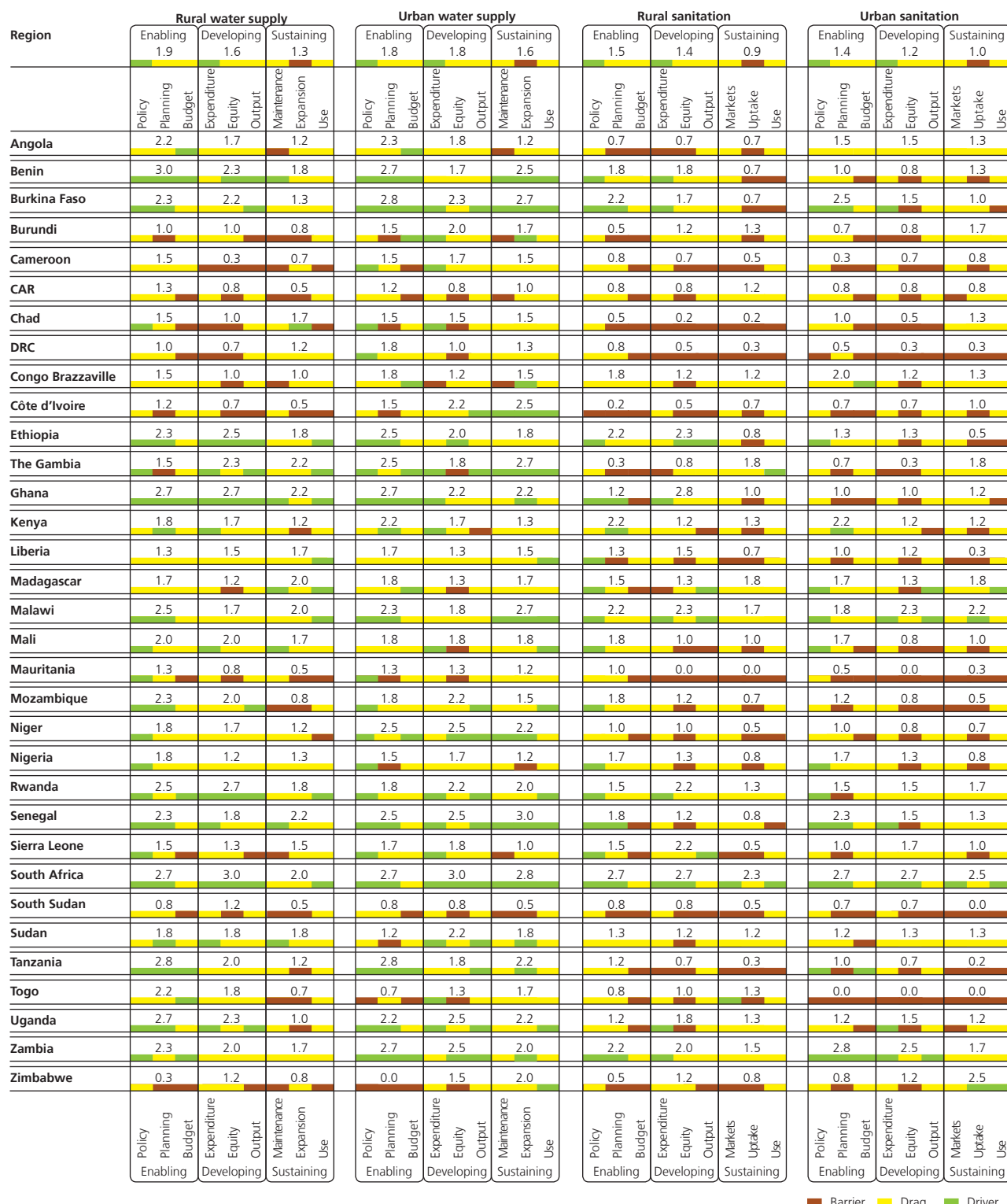
Figure 5.2
Building blocks and pillar groupings making up the service delivery pathways for the water supply and sanitation subsectors



Scoring is undertaken as follows: each building block is assessed against three indicators scored 1, 0.5 or 0 on the basis of clearly defined response options. For example, an indicator for the 'Planning' building block is the presence of an annual sector review involving all partners. No review at all receives a score of 0; an annual review receives a score of 0.5; the review has to set undertakings each year (so linking it to the planning system) for a full score of 1. The full list of indicators and response options for each subsector is presented in Appendix A.

Adding up the three indicator subscores derives the overall score for the building block, from 0 to 3. A simple color code is then assigned, so that barriers to service delivery can be quickly identified. Scores of two or more indicate that the building block is largely in place and is a driver of service delivery (green color). Scores between 1 and 2 indicate the building block is a drag on service delivery and requires attention (yellow). Scores of less than 1 indicate the building block is a barrier to service delivery and must be prioritized for reform (red). The indicators assessed differ for each subsector - rural water supply, urban water supply, rural sanitation, and urban sanitation.

Figure 5.3
Regional and country scorecard results²⁰



Note: Scorecards were developed separately for the Government of Southern Sudan and for the Republic of Sudan excluding the autonomous region of Southern Sudan.

Source: AMCOW CSO2

The remainder of this chapter extracts the most pertinent results from scorecard assessments across the region, in each of the three pillars. Subsequently, the country groupings introduced in Chapter 3 are used to explore which countries have made the most progress, and potential lessons they provide for others.

Enabling Service Delivery

Enabling service delivery is about setting up a supporting environment for a functioning subsector, which includes:

clear leadership and targets; mechanisms to coordinate, plan, and review investments; and clear, comprehensive and adequately-funded budget lines. The related building blocks are policy, planning, and budget. Across the region, progress and challenges are outlined in Table 5.1 with reference to selected scorecard indicators (referred to in **bold**). A best practice example from Burkina Faso demonstrates how political leadership has created a strong and clearly-defined enabling environment for urban water supply, with the ingredients for success now being replicated in the sanitation subsectors.

Table 5.1
Selected scorecard findings at the regional level - enabling pillar

Building blocks	Progress	Challenges
Policy	<p>In the water supply subsectors, most countries have agreed and gazetted policies, and in all subsectors, a substantial majority have high-level national targets recognized in development plans or poverty reduction strategy papers</p> <p>Institutional roles for water supply have been clearly defined in most countries and are being adhered to in practice in around half of those</p>	<p>Policy development has lagged for rural and urban sanitation, with around a third of countries yet to begin developing a policy in one or the other subsector</p> <p>Barely a third of countries have designated a single government agency with a clear mandate to lead policy development and planning for sanitation</p>
Planning	<p>Needs-based investment plans are at least in development across the majority of countries, with around half of these already implementing their plans</p> <p>In each subsector, between half and two-thirds of countries hold annual sector reviews</p>	<p>A small number of countries (fewer still in the sanitation subsectors) are actually implementing a sectorwide approach on the back of an agreed investment plan</p> <p>A limited subset of these countries - most seldom in the sanitation subsectors - set specific undertakings at their annual reviews</p>
Budgeting	<p>In most countries spending on water supply is clearly identified in national budgets. These budgets are also comprehensive, in that they also capture donor funding even when that funding does not flow through government systems</p>	<p>While it is often claimed rural sanitation is integrated into water projects the shift from projects to national programs should be leading to budget heads for sanitation, both recurrent and development, yet there are still few examples where this is happening</p>

Box 5.2**Good practice: Laying the foundation for enabling urban water supply in Burkina Faso**

Though Burkina Faso's scores in this subsector are strong throughout the enabling pillar, the most fundamental reform has been a clear definition of roles between the ministry and the public utility, L'Office national de l'eau et de l'assainissement (ONEA).

The lead line Ministry (MAHRH, the Ministry for Agriculture, Water and Fisheries) has taken an overall coordination role, but given ONEA autonomy, while safeguarding accountability through three-year performance contracts (*contracts plans*). Restructuring and strengthening of ONEA has been ongoing since the 1990s, with the result that the utility has radically improved its management structures, developing a Corporate Strategic Plan and becoming the first public WSS utility in the region to be ISO-9001 certified.²¹

In the last decade, a private operator has been contracted to improve commercial aspects of ONEA's operations (including billing and collection) and to set up customer management and accounting systems. Again, roles and accountability have been clearly defined, with the private operator contracted on a performance basis, and reimbursed for specified achievements.²²

Having delegated the tasks of service delivery to the utility and private operator, MAHRH has been able to focus on further strengthening the enabling environment, reflected in Burkina Faso's other indicator scores for this pillar: In 1998, a national policy for water was launched; in 2006, a needs-assessed sector investment plan was introduced (the *PN-AEPA*) based on nationally recognized targets. The *PN-AEPA* has been critical in the subsector's transition to a full programmatic approach, with donors aligning around the plan and dialogue and coordination strengthened through an annual review process between government and its development partners. Budgets now capture the majority of sector allocations, domestic and donor alike.

Substantial external investments have also played their part in the subsector's strong progress in coverage, which reached 95 percent in 2008 according to the JMP (ONEA's own estimates are more cautious). As the CSO2 report for Burkina Faso notes, finance has been forthcoming for a subsector that represents such a stable, sound investment proposition. Moreover, ONEA now finances 20–30 percent of its capital investments from its own revenues.

Several of these reforms are reflected in other subsectors, which also receive high scores for the enabling pillar. The sanitation subsectors are emulating institutional clarity; the key success factor for urban water supply. A new sanitation policy and strategy was adopted in 2007, and a separate department (DGAEUE) designated as sector lead in 2008. Urban sanitation also falls under ONEA's responsibility. The subsector has received a significant boost with the innovation of Strategic Sanitation Plans (*PSAs*), which are now being rolled out in secondary towns, having been spearheaded in the major urban centers of Ouagadougou and Bobo-Dioulasso.

Developing Service Delivery

Developing service delivery concerns the systems and structures for procuring and delivering equitable services at ground level: utilization and reporting of funds; community participation and targeting of

resources; quantity and quality of outputs (hardware and software). Progress and challenges identified from selected indicators used to assess these building blocks are reported in Table 5.2. A case study from Uganda illustrates how countrywide systems can be put in place for developing decentralized services.

Table 5.2
Selected scorecard findings at the regional level - developing pillar

Building blocks	Progress	Challenges
Expenditure	Integrated public financial management systems have improved consolidated domestic and donor capital expenditure reporting and facilitated increased domestic budget utilization rates : for each subsector, utilization of domestic commitments is 75 percent or more in over half of countries	Across subsectors, utilization rates for donor capital expenditure are generally lower than domestic capital expenditure. Lagging implementation performance is endemic to the water sector across countries but is most problematic in low-income fragile and resource-rich countries. In rural water supply, the problem is exacerbated by donor procurement and disbursement procedures superimposing centralized control over decentralized service delivery processes
Equity	Procedures for ensuring the equitable distribution of funds at the subnational level - whether through participatory planning or allocation criteria - are being developed for the rural water supply subsector in the majority of countries	Fewer countries have put in place these kinds of procedures in the other subsectors, and fewer still monitor the impact on equity . Around half of countries in urban water supply, and a quarter in rural, do not apply their procedures consistently
Output (water supply)	Around half of countries consolidate reporting of water supply construction output at the national level, providing an indication of progress from a supply-side perspective Over two-thirds of countries regularly monitor water quality in urban areas	In only around a third of countries in either urban or rural water supply, is this annual construction output within three-quarters of the level required to meet the MDG targets. Barely a third of countries consistently apply water quality standards when developing new rural schemes
Output (sanitation)	A critical form of output for sanitation is promotion , which requires adequate staff and tools at local level. Most countries have developed sanitation promotion tools, though only around a quarter are using them at scale	Of countries with policies of direct or indirect sanitation subventions only a handful are channeling sufficient funding to local spending units , for this purpose, to meet the MDG targets. Large-scale promotion mechanisms are extremely rare among countries that expect users to meet the full costs of sanitation hardware

Box 5.3**Good practice: Decentralized and equitable development of rural water supplies in Uganda**

Since the late 1990s efforts to improve water supply and sanitation in Uganda have taken place in the context of broad economic reforms and debt relief. The prominence of water and sanitation was raised with the establishment of the Poverty Eradication Action Plan (PEAP) and Poverty Action Fund (PAF) - Uganda's poverty reduction strategy. Related water sector reforms included a shift in the role of government from service provider to policy maker, a shift from projects to a Sector-Wide Approach (SWAp) to planning and the development of Strategic Investment Plans (SIPs).

Over and above these broad enabling reforms, Uganda has evolved its *developing* pillar with effective mechanisms for decentralized service delivery, particularly of rural water supplies and sanitation. Most donor funding for rural water supply and sanitation investments is channeled to the Government of Uganda's consolidated fund and then remitted along with additional domestic finance to over 100 local governments as the District Water and Sanitation Development Conditional Grant. The Grant, clearly identified in government budgets, has succeeded in priming local government capacity, which though initially weak, now has sufficient numbers of qualified staff to manage a large program of service delivery using private sector contractors. Collectively, local government output of around 3,000 water points per year has been sustained since 2002.

Joint sector reviews have played an important role in monitoring the efficiency, effectiveness, and equity of distribution of these water points, pointing out unequal implementation performance across districts and rising unit costs. While the Grant was allocated according to the SIP, the Ministry of Water and the Environment has, since 2008, set specific criteria to address the inequitable distribution of rural water services between districts which allocate more funds to underserved parts of the country. Criteria are based on coverage, population (current and projected to 2012), and average cost (technology mix). The allocation system was commended by the Local Government Finance Commission as the most equitable of all Uganda's sectors.²³ Ongoing work to map water supplies across the entire country will provide a new, Global Positioning System referenced inventory to enable a more accurate assessment of access, water quality, functionality, and replacement requirements that will further improve allocation.

Sustaining Service Delivery

Sustaining service delivery requires having the mechanisms for perpetuating and scaling up access and safe use: support for maintenance or markets for hardware; systems for expanding services or tracking uptake; extent of use, and quality of improved services. The related building blocks for water supply are maintenance, expansion, and use. For sanitation they are markets, uptake, and use. Table 5.3 shows the key progress and challenges identified in relation to selected scorecard indicators. A case study details Ghana's progress in sustaining services through its Community Ownership and Management approach.

The Pattern of Reform: Progress in Service Delivery Pathways Mirrors Progress in Coverage

The degree to which countries have adopted country-led service delivery pathways is highly variable both in terms of specific building blocks and across subsectors. As with progress in coverage, there is a poor correlation between level of country economic development (GDP per capita) and whether countries have put service delivery pathways in place. In other words, a number of very low-income countries (GDP per capita less than US\$500) have put in place relatively strong service delivery pathways while

Table 5.3
Selected scorecard findings at the regional level - sustaining pillar

Building blocks	Progress	Challenges
Maintenance (water supply)	<p>Cost recovery for O&M is in place in urban areas and small towns in the majority of countries.</p> <p>In over two-thirds of countries, major utilities have managed to bring nonrevenue water below 40 percent</p> <p>In around half of countries, private sector spare parts supply chains operate effectively in rural areas</p> <p>Inventories of rural water infrastructure functionality are carried out in the majority of countries</p>	<p>Urban utilities have a long way to go to put full-cost recovery in place. Utilities in less than a third of countries have operating ratios above 1.2 and though regular tariff reviews are carried out in most countries, these fail to lead to adjustments in almost half of countries</p> <p>Cost recovery for O&M in rural areas remains the exception. This is despite rural scheme functionality rates being below 70 percent across most countries</p> <p>Only two countries regularly update their rural water inventories</p>
Markets (sanitation)	<p>In urban areas, there are sufficient companies and operators to meet household demand for building on-site sanitation facilities in almost all countries, and for emptying such facilities in two-thirds of countries</p>	<p>Sanitation markets in rural areas meet household demand for artisan skills or equipment, in both quantity and quality in only a handful of countries. Governments rarely undertake private sector development programs for sanitation</p>
Expansion (water supply)	<p>In around half of countries, major utilities have autonomy in investment planning and have business plans for expansion that include water resource requirements</p> <p>Almost all countries have a legal framework recognizing small rural systems, and scheme-level plans for expansion are also widespread, at least for small towns</p>	<p>Though in the majority of countries major utilities are legally able to access market finance that access is mainly to short-term working capital rather than long-term commercial investment finance</p> <p>Financing for expansion of small rural schemes is inadequate: in only a few countries is there financing from the state or (for small towns) cost recovery from user fees, to expand small schemes</p>
Uptake (sanitation)	<p>In a small number of countries, the uptake of sanitation - households investing in or otherwise obtaining sanitation - is viewed as sufficient to meet the MDG targets in terms of quantity and quality</p>	<p>Only two countries (Uganda and South Africa) have dedicated national mechanisms for monitoring the quality and quantity of sanitation facility uptake. However, even in these countries, the data is not used to learn whether progress relates to public interventions</p>
Use	<p>Consistency with the MDG definitions is maintained in at least some household surveys in nearly all countries</p>	<p>Improved supplies enable the majority of rural people to fetch water in under 30 minutes in only a third of countries</p>

Box 5.4**Good practice: Sustaining rural water supply in decentralized Ghana**

Ghana's sound performance in the sustaining pillar for rural water supply arises from a gradual transition towards a demand-driven, community-managed model, in keeping with the country's broader shift towards decentralization. A local government act of 1993 placed considerable responsibilities on district assemblies for planning and supervising the management of rural water supply, but permitted them to delegate this latter task to WATSAN committees or, in the case of small towns, Water and Sanitation Boards. Meanwhile, the department in charge of rural water supply was established as the independent Community Water and Sanitation Agency (CWSA) in 1998 and has since transitioned from direct implementation, to providing support and supervision to the district assemblies through its regional teams.

Levels of cost recovery are sufficient to meet the operational costs of community schemes - a first, and critical, indicator assessed by the CSO2 scorecard. Until 2009, the demand-driven model meant that communities were required to provide 5 percent of the capital costs of new schemes, with exceptions granted on the grounds of poverty, disease incidence, or emergencies. This has been an important factor in securing ownership and community willingness to sustain their own systems. The abolition of this rule has raised concerns that ownership will be reduced, with a consequent negative impact on levels of operational cost recovery.

Ghana also scores well for its strong supply chain for spare parts. The government directly supported the supply chain with subsidies until 2009, based around private sector management and a standardized range of four handpump types. The supply chain is now viewed as self-sustaining, with sales outlets available in all 10 regions, and most districts.

These factors have helped sustain Ghana's high levels of access to rural water supply, up 25 percent from 1990–2008 according to the CWSA, and doubling (from 37 percent to 74 percent) according to the JMP. Of those with improved access, less than a quarter are estimated to spend more than 30 minutes collecting water - another scorecard indicator on which Ghana performs well, in the sustaining pillar.

Though Ghana scores well relative to its peers, there is still room for improvement. In particular, there is limited support for rural and small towns to expand their networks - cost recovery from users is often insufficient for expansion.

Technical support is also an area for improvement: in theory, the regional teams of the CWSA provide this, but in practice their capacity is limited. Promising efforts have been underway, with a pilot project to set up Monitoring of Operation and Maintenance Units (MOMS) in some regional CWSA offices, each with two dedicated staff for backstopping. Funding is required to scale this up to the remaining regions.

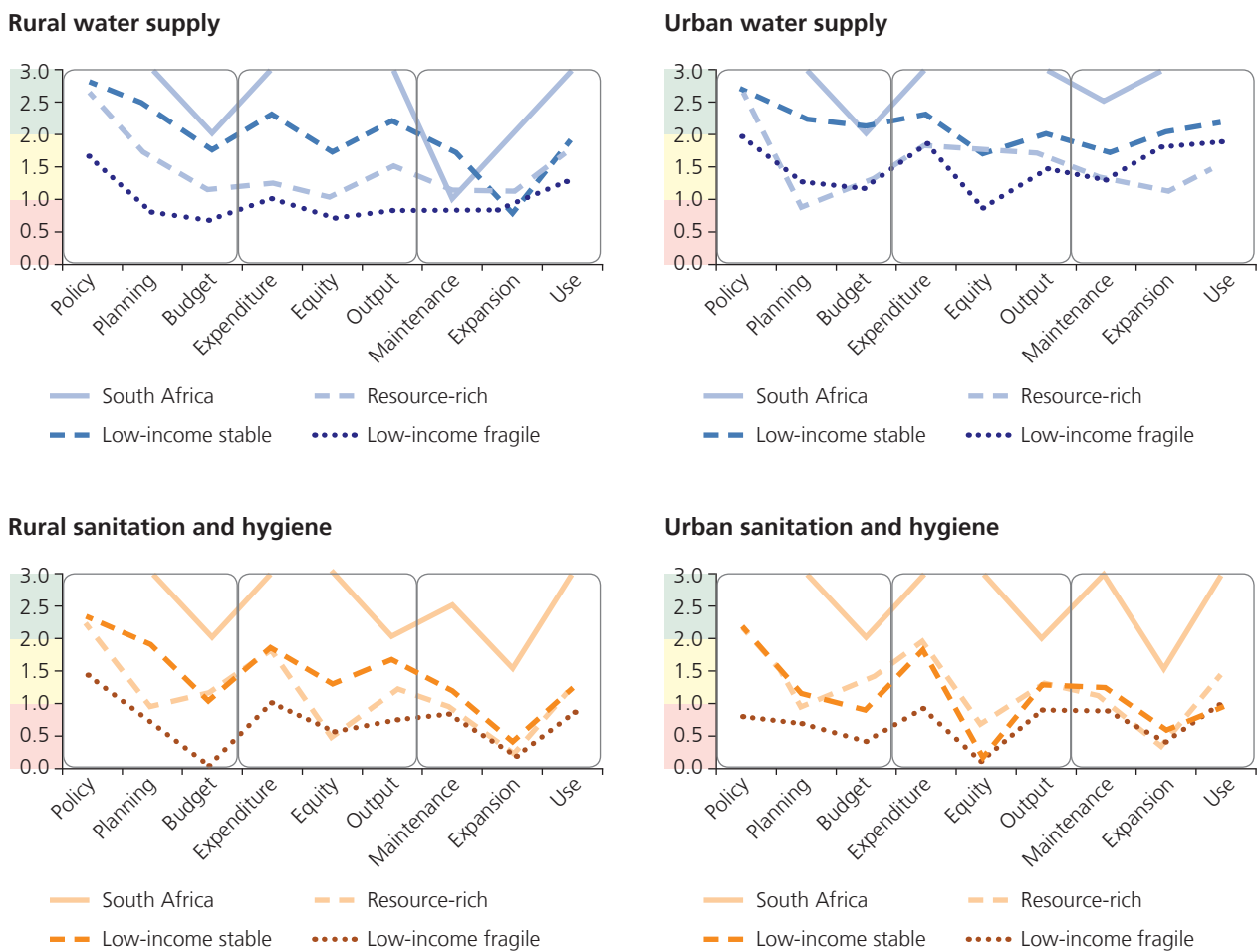
a number of countries with GDP per capita of over US\$1,000 have weak service delivery pathways.

Figure 5.4 shows the average scores (weighted for population) across service delivery pathways for each subsector, by the country groupings introduced in Chapter 3. Across all subsectors, the notable trend is that *low-income stable* countries have higher average scores than *resource-rich* countries do, with the exception of urban sanitation where average scores are similar but weak across both country groupings. The average GDP per capita for the former is US\$458, while for the latter

it is US\$1,279 (2008 constant prices). In urban water supply, scores for *resource-rich* countries even drop below those of *low-income fragile* countries (average GDP per capita, US\$303). In all other subsectors, *low-income fragile* countries score lower than other groups while South Africa scores higher than other groups.

The service delivery pathways for sanitation are also notably weaker than those for water supply, with those for urban sanitation being weakest of all. While the indicators for each of the subsectors are not identical, the low scores for sanitation are mirrored by the lack

Figure 5.4
Service delivery pathway scores for rural and urban water supply by political-economic grouping



Source: CSO2 scorecard.

of progress made in increasing coverage. Three factors warrant specific mention:

First, despite wide acceptance that policy and program development in sanitation needs to be led by a single, designated government agency (for example, eThekweni Declaration - Commitment 5) only one-third of countries taking part in the CSO2 had achieved this initial step.

Second, there remains considerable policy uncertainty about the countries' position on sanitation subsidies. This leads to inconsistent practice in sanitation service delivery both across development agencies and between agencies and government. But, more importantly the lack of policy

clarity undermines subsector investment planning. This stalling of sanitation subsector investment planning is often linked to the misconception that no subsidy means no need for a public sector budget. This in turn translates into no public funding for staffing and equipping local spending units - local government departments - to carry out sanitation promotion and market.

Third, systems to monitor the impact of public interventions to improve sanitation are all but absent. This monitoring is needed to understand and improve the relationship between public interventions and the quality and quantity of household uptake of sanitation. Tanzania provides a rare example (Box 5.5), albeit on a project basis.

Box 5.5**Good practice: Impact evaluation of sanitation interventions in Tanzania**

Tanzania has made inroads to understanding which public interventions on sanitation are most effective: hygiene promotion, sanitation marketing, or using both together. The Total Sanitation and Sanitation Marketing project aims to increase sanitation at the community level through CLTS and at the household level through sanitation marketing (a communications campaign convincing household consumers to invest in an improved latrine, with marketing techniques also used on the supply side), with hygiene promotion also integrated via a hand washing campaign. Impact evaluation is being conducted to identify and quantify the most effective intervention in terms of health and poverty improvements. Within the 10 project districts, eligible wards were selected, and randomly assigned to one of four groups: (1) Hand washing activities; (2) Sanitation activities; (3) Hand washing and Sanitation activities; and (4) Control (no activities) - to test the efficacy of the different interventions.

Pathways for Progress: Linking to Economywide and Core Government Capacity

The relative strength of service delivery pathways in the *low-income stable* countries is the result of the long-term learning process during which governments and their development partners have gone through many iterations of approaches to service delivery. First, in the '80s and '90s these were variants of project-led approaches and then, since the late '90s, a series of country-led programmatic approaches.²⁴

The project-led approaches were initially highly hardware-oriented and supply-driven. However, they paid increasing attention to demand-responsiveness and the importance of the 'software' aspects of service delivery, mobilizing community capacity for scheme management, hygiene and sanitation behavior change. In the '90s, this was extended to private sector capacity with the liberalization of drilling and construction markets as well as private sector participation (first international and then domestic) in utility and scheme management. This created further water sector linkages to economywide capacity for service delivery.²⁵

In turn, the building of linkages to core government systems was driven forward by the introduction of the 'new poverty agenda': PRSPs and the increased emphasis on basic service delivery as well as attention to the functioning of core government systems.^{26, 27}

Together, these two sets of linkages to economywide capacity on the one hand and core government systems on the other (Figure 5.5), have greatly enhanced service delivery capacity of the sector in stable low-income countries creating the virtuous cycle outlined (Figure 5.1). This has led to greater aid absorptive capacity, improved intermediate outcomes (equity and output), and significant expansion of coverage.

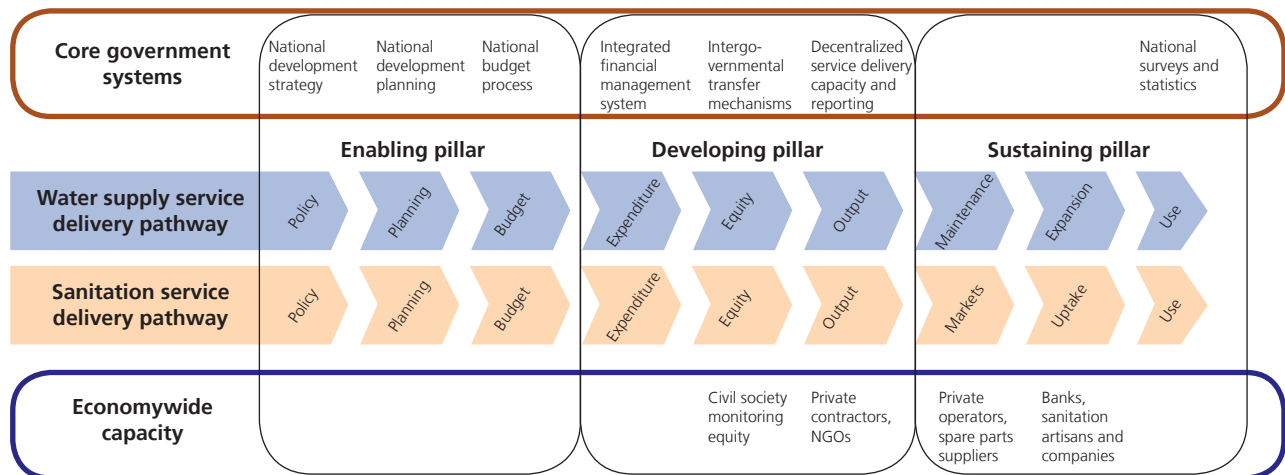
Though developing and strengthening service delivery pathways is a context-specific, iterative, and dynamic process of action learning, an important question is: how can other countries learn and build on this experience to improve their absorptive capacity, equity, output, and sustainability of the spending on WSS?

A series of case studies is presented here to illustrate how service delivery pathways have been linked to:

- a) Core government systems (planning, budgeting, expenditure management processes, intergovernmental transfers, and decentralized service delivery) on the one hand; and
- b) Economywide capacity (markets, civil society, and private sector capacity) on the other.

These 'key lessons' apply to the *low-income, fragile* and *resource-rich* groupings alike (and also to the remaining *low-income stable* countries that have not been front-runners) underpinning the identification of tailored reform priorities for all countries in Chapter 6.

Figure 5.5
The service delivery pathway showing key linkages to core government systems and economywide capacity



The task of linking or embedding service delivery pathways in their broader country context will vary considerably, depending on the setup of the subsector itself, and the wider development trajectory of the country.

In Benin, which has enjoyed relative democratic stability

for the past two decades, there has been an emphasis on programmatic aid since the early 2000s, accompanied by significant strengthening of public financial management for both individual sectors and central government. The results are clear in the rural water supply subsector in particular (Box 5.6) which has evolved with - and been successfully embedded within - the core government systems for planning and budgeting.

Box 5.6

Case study - Benin: Linking to strong core government systems boosts rural water supply output

In 2001, in support of Benin's interim PRSP, World Bank sector projects were closed with a view to instead supporting the Government of Benin to transition to a programmatic approach. This governmentwide programmatic approach was to be set out in the full PRSP and a related medium term expenditure framework (MTEF). At the core government systems level a Public Expenditure Reform Adjustment Credit (PERAC) supported public expenditure management reforms including a transition from a line-item based budget to a program-based budget. At sector level, analytical and advisory work, including sector PERs, helped sectors to develop programs with supporting program-based budgets. This laid the ground for shifting spending authority from the ministry of finance to line ministries, and progressive deconcentration and decentralization of service delivery (World Bank, 2008).

At HIPC completion point in 2003, the Government of Benin developed a full PRSP in which improving access to safe water was one of the top priorities. A Poverty Reduction Support Credit (PRSC) series that included rural water supply was aligned with the PRSP and budget cycles. Supported by Benin's Commissioner of Budget it was argued that Benin needed to address structural public sector management issues in order to unblock constraints on public sector implementation capacity. The limited absorption capacity was leading to low execution rates in donor projects making Benin look 'over' financed.

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Benin made significant progress in its core public expenditure management systems under the PRSC series. Program budgets are now produced for 17 sectors and details are integrated into the annual budget submitted to Parliament. SIGFIP, the budget execution software, has been extended to all ministries and even to the department level. The SIGFIP budget system has also been adapted to allow comprehensive coverage of donor-financed expenditure. Ministry staff manage and monitor the programs in the program-based budgets, and report on these in their annual performance reports. Performance-based contracts are signed between the minister of finance and the ministers responsible for designated subprograms. The 2006 and 2007 budgets were prepared in terms of program authorizations and payment appropriations - an encouraging step to enable multiyear contracts which are important for the water sector. Sector performance reports are produced regularly. Progress was also made in budget execution reporting and transparency, and in reducing fiduciary risk.

Impressive progress in rural water supply has also come along with these reforms which allow the sector to tap into core government systems. Based on the latest household survey data, Benin is on-track to meet its rural water supply MDG. Between 2001 and 2008 physical sector output - as measured in the number of water points planned and constructed per year - has increased more than four-fold. The functionality of water points and schemes has improved from 77 to 88 percent.

In Ethiopia's rural sanitation subsector, it is the existing government health systems that have provided a critical context for embedding service delivery pathways. In working across a vast and populous country undergoing

decentralization, the existing network of government health extension workers has been leveraged to produce impressive strides in basic sanitation coverage (Box 5.7).

Box 5.7

Case Study - Ethiopia: Vast evolving government health extension system to promote sanitation

The current era of reform in Ethiopia began in the early 1990s, with the establishment of the present system of government. Prior to that, there was little in the way of policies or programs to address sanitation needs, and therefore the current government inherited a legacy of extremely low sanitation coverage.

In 2004, the Government of Ethiopia launched a national preventive health extension program which had a strong hygiene and sanitation focus, aiming to achieve 100 percent sanitation coverage by 2012 (recently changed to 2015). This was reinforced in 2006 with the development of a National Sanitation and Hygiene Strategy which articulated a strategic shift towards low-cost sanitation solutions coupled with large-scale investment in promotion, which would leverage the government's huge and expanding network of women health extension workers (over 30,000) already employed across the country.

This cadre of women health extension workers working at village level are supported by the national Health Extension Program, a far-reaching initiative to bring preventive health services to all Ethiopians. The program is staffed by health officers at the local government, regional, and federal levels. It is a core government program funded out of general unearmarked block grants that cascade from the federal level, through regional level to local government (woreda) level, and is managed within Ethiopia's national integrated budget and expenditure management system.

Ethiopia's development partners contribute to this via two main routes. First, through the Protection of Basic Services (PBS) program which channels money through government systems, co-mingling funding with the block grant. PBS

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accounts for around 30 percent of subnational expenditures. Second, through programmatic support to provide additional resources for implementation of the national Health Extension Program, and technical assistance adapting and refining the program.

Although the program still faces challenges in terms of finance and the breadth of the tasks expected from health extension workers, notable progress has been made in improving sanitation and hygiene coverage at grassroots level. According to government figures (which relax the definition of improved facilities) coverage had reached 39 percent in 2009. JMP figures confirm this progress showing that the rate of open defecation had dropped by 28 percent between 1990 and 2008, meaning 19 million Ethiopians in rural areas have gained access to basic, shared or improved sanitation.

In the late '90s improved rural water supply coverage in Madagascar was estimated by the government at only 12 percent.²⁸ Public sector capacity to respond to the need for water supply was very weak, with low absorptive capacity and almost no private sector participation. Investment in building economywide capacity has been a key step to establishing national service delivery capacity (Box 5.8).

Such examples demonstrate the importance of seeing the service delivery pathway not as something to be developed in isolation, but within a context of wider capacities and systems in government and the economy. This concept is utilized as the next chapter (6) moves from specific case studies to outline a broad typology of service delivery pathway development, around which interventions and support can be tailored to each country's subsectors.

Box 5.8

Case Study - Madagascar: Fostering economywide capacity for rural water supply service delivery

Between 1998 and 2005, the World Bank funded a US\$17 million project rural water and sanitation project. The main objective of the project was to develop national capacity for delivering RWSS to communities across a terrain that is both extremely varied hydro-geologically and that is physically difficult to access due to the very limited roads infrastructure.

Over this period, a successful service delivery arrangement emerged that eventually exceeded the targets set at the time of appraisal by 40 percent reaching 400,000 people. This was achieved by a small Department of Water and Sanitation (DEA) with less than 60 professional staff, all but 13 based in the capital, outsourcing the development of rural gravity schemes to three NGOs (Caritas, TARATRA, FIKRIFAMA) and boreholes with handpumps to private sector drilling companies. NGOs also carried out the community management training for handpumps.

Putting this service delivery arrangement in place, particularly the procurement of the drilling companies, took time; the contracts for drilling were not awarded until 30 months after project effectiveness. However, once in place, economies of scale were achieved by grouping construction activities to be carried out in small rural communities under large, multiyear umbrella contracts. Sector delivery capacity tripled over the project period to about 300 new gravity systems and 350 boreholes per year (World Bank, 2005).²⁹ This progress has been confirmed by household surveys.



6. Targeting and Sequencing of Reform Effort

KEY MESSAGES

- To facilitate the transition towards country-led programmatic approaches, each country involved in the CSO2 process established a list of priority actions.
- Three stages of subsector evolution are identified. These stages set out a common sequence of reform steps facilitating further prioritization of country actions and tailoring of external support.
- Country-defined priority actions comprehensively addressed barriers to the enabling of service delivery but only partially addressed barriers to developing services. For sanitation, only the barriers to sustaining services were addressed - omitting key linkages to core government systems and economywide capacity.
- Matching the state of subsector evolution with appropriate aid modalities and technical assistance can accelerate the overall transition to a country-led approach.

The CSO2 scorecard is most useful at the country level, where the indicator and building block scores are a guide to senior managers in the sector, their development partners, and other sector stakeholders in the targeting of reform effort. Indeed, a key step in the CSO2 process was for each country to establish a list of priority actions based on the country analysis carried out.

However, faced with the urgent need to deliver WSS services, multiple possible entry points and pressures for reform, set within an often complex political-economic context, it can be difficult for senior managers in the sector and their development partners to determine what measures could improve the systems for delivering WSS more effectively.

This chapter puts forward additional analysis and provides guidance to support the prioritization of reform effort based on emerging regional learning, including:

- Grouping country-subsectors according to three stages of development relative to their transition towards a country-led programmatic approach to service delivery. This sets out a common sequence of reform steps taken by countries as they develop their subsector service delivery pathways.
- Assessment of the degree to which priority actions identified at country level addressed weaknesses identified by the CSO2 scorecard, along with common reasons why certain weaknesses were not addressed.

- Pointers for countries and their development partners on matching the stage of subsector development with appropriate aid modalities and technical assistance to accelerate the overall transition to a country-led programmatic approach to service delivery.

Together with additional WSS performance and investment data set out in Appendix B, the suggestions in this section aim to promote successful SWAp formation and an effective strategy to embed service delivery pathways in all four subsectors.

Stages of Subsector Development

Based on the CSO2 scorecard, subsectors for each country have been sorted according to the degree to which subsector service delivery pathways have been put in place (Table 6.1). Different WSS subsectors in any particular country often fall into different stages of development. Thus, while Senegal's urban water subsector falls into the most advanced 'established-transitioned' group, its other subsectors are currently in the 'established-transitioning' group.

Establishing stage: The first group comprises subsectors that are establishing - or re-establishing after a period of crisis - basic elements of the service delivery pathway. A common feature of these subsectors is that they scored poorly across all three pillars (enabling, developing, and sustaining).

Water supply subsectors in the establishing stage are mostly in fragile states. Sanitation subsectors in the establishing stage include a number that are in stable countries where sanitation is yet to gain momentum as a subsector. While some subsectors in this group have adopted targets in their national development plans and have water supply policies, most need to develop sanitation policies and better define institutional relationships - designating a lead agency in the case of the sanitation subsectors. Under half of these subsectors have started forming into a SWAp or initiated subsector investment plans. Annual reviews, if introduced at all, lack undertakings. These subsectors are struggling to find even 50 percent of the required funding to meet targets. Most aid is off-budget being delivered through direct implementation by development partners.

Implementation capacity within subsector institutions is the principal barrier to progress over and above the capacity constraints of core government systems and economywide capacity.

Transitioning stage: In this second stage of evolution, subsectors have basic elements of the service delivery pathway in place (subsector, targets, policies, agreement on institutional roles) but are in the process of transitioning to a country-led programmatic approach. Subsectors at this stage scored reasonably well on their *enabling* or *developing* pillar (or both). Scores for sustainability were mixed with some mainly water supply subsectors achieving high scores.

The weaknesses in service delivery pathways at this stage point more to difficulties of linking the subsector institutions to core government capacities than to weaknesses in the sector alone. In this *transitioning* stage, the water supply subsectors are typically in the process of forming into a SWAp, have initiated subsector investment planning, hold annual reviews, and have secured more than 50 percent of the required funding to meet targets. Yet, a quarter of subsector spending is still off-budget and, where actual expenditure can be tracked, implementation performance is below 75 percent of allocations in half the cases. Indeed, lack of definition in the structure of public budgets obscures identification and tracking of expenditure in half the cases - mostly in rural sanitation subsectors. No sanitation subsectors are identified as having sufficient finance at local

government level to meet their stated subsidy policy and targets. Water supply output reporting is consolidated in only half of the subsectors and monitoring of sanitation uptake, including quality of facilities built, is rare.

The weakest aspect of service delivery pathways across this group is equity. In over half of cases there were no criteria for matching available funding to WSS needs across countries. Even where these were set out the criteria were either not adhered to or not monitored. Likewise, procedures to ensure local participation in planning and implementation often existed (especially for rural) but were not systematically adhered to.

Transitioned stage: In this third stage of evolution, subsectors function well and have most of the elements of the country-led service delivery pathway in place. This group of subsectors scored well on enabling and developing pillars, demonstrating that both subsector institutional capacity and linkages with core government systems are in place. Most donor funding is on-budget, domestic and donor expenditure reporting indicates generally high levels of utilization, and output reporting is consolidated. Scores for sustainability were strongest for urban water supply. Other subsectors still need to refine and reinforce autonomy, commercial orientation and regulation of utility/scheme management (whether public, private or community operated), as well as foster private sector development in markets for goods and services.

Yet, even at this transitioned stage, subsectors cannot be considered as mature as they still have to meet the needs of large numbers of unserved households compounded by rapid population growth. Even in South Africa, the urban water and sanitation subsectors have had to cope with an urban population growth of more than 10 million people over the period 1990–2008; a reminder that the ability of country-led systems for translating development funding into new services is just as critical as sustaining existing services. Scores for sustainability were mixed with only the water supply subsectors achieving high scores.

Two further groupings yet to emerge in SSA are mature-reforming and mature-reformed subsectors. These would be subsectors in which population growth and rural-urban migration have leveled out and, as a result,

do not need to cope with rapid expansion of services nor the associated complexities of channeling and absorbing large volumes of development capital from general government budgets into the subsector. These last two groupings would primarily be focused on achieving and maintaining full-cost recovery through tariffs.

Do Country Priority Actions Address Weaknesses in Service Delivery Pathways?

For both rural and urban water supply, priority actions

identified by countries corresponded well with weaknesses identified in the enabling and sustaining pillars of the scorecard as well as their respective building blocks.³⁰ By contrast, there was a poor match between country priority actions and the scorecard bottlenecks identified in the developing pillar.

In the case of sanitation subsectors, only the enabling pillar demonstrated a match between country-identified priority actions and weaknesses identified in the scorecard assessment. Neither the developing nor the sustaining pillar showed this match.

Figure 6.1
Subsectors for each country grouped according to the relative strength of their service delivery pathways based on the CSO2 scorecard subsectors

Stage of pathway evolution	Rural water supply	Urban water supply	Rural sanitation	Urban sanitation
Establishing stage	Cameroon, Central African Republic, Cote d'Ivoire, DRC, Mauritania, South Sudan, Zimbabwe	Central African Republic, South Sudan, Togo, Zimbabwe	Angola, Burundi, Cameroon, Central African Republic, Chad, Cote d'Ivoire, DRC, The Gambia, Mauritania, South Sudan, Tanzania, Togo, Zimbabwe	Benin, Burundi, Cameroon, Central African Republic, Chad, Cote d'Ivoire, DRC, The Gambia, Mali, Mauritania, Mozambique, Niger, South Sudan, Tanzania, Togo
Transitioning stage	Angola, Burkina Faso, Burundi, Chad, Congo Brazzaville, The Gambia, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Senegal, Sierra Leone, Sudan, Tanzania, Togo, Zambia	Angola, Benin, Burundi, Cameroon, Chad, Cote d'Ivoire, DRC, Congo Brazzaville, Ethiopia, The Gambia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nigeria, Rwanda, Sierra Leone, Sudan, Tanzania, Uganda, Zambia	Benin, Burkina Faso, Congo Brazzaville, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Sudan, Uganda, Zambia	Angola, Burkina Faso, Congo Brazzaville, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Malawi, Nigeria, Rwanda, Senegal, Sierra Leone, Sudan, Uganda, Zambia, Zimbabwe
Transitioned stage	Benin, Ethiopia, Ghana, Rwanda, South Africa, Uganda	Niger, Burkina Faso, Senegal, South Africa	South Africa	South Africa

Source: CSO2 scorecards. Scorecards were developed separately for the Republic of South Sudan and for the Republic of Sudan.

Table 6.2**Did countries' priority actions respond to barriers identified in the scorecard?**

Subsector	Enabling pillar	Developing pillar	Sustaining pillar
Rural water supply	Yes	Partial	Yes
Urban water supply	Yes	Partial	Yes
Rural sanitation	Yes	Partial	Partial
Urban sanitation	Yes	Partial	Partial

This indicates that while countries are aware of and willing to commit to potential policy solutions for strengthening the enabling environment across all subsectors, there is less understanding, awareness, willingness or interest in potential policy solutions for overcoming barriers to improving implementation performance across subsectors: that is, *developing* services - expenditure, equity, and output building blocks. And, for sanitation this paucity of off-the-shelf-policy solutions extends to sustaining sanitation services (markets, uptake, and use).

The reasons for this mismatch between barriers and policy solutions, in the case of the developing pillar, stem from the sector's relatively recent transition to using country-led programmatic approaches to rolling out services. Challenges relating to developing services in this new context - such as low budget utilization rates, fragmented sector budgets, sectorwide output and performance monitoring, criteria for matching budget allocations with local need, channeling subsidy to local spending units - have been created by the transition to programmatic approaches without linking to core government systems. Taking advantage of the opportunities of linking to core government systems requires a strengthening of linkages with ministries of finance and local government to adapt their respective core government systems to include and benefit the WSS sector. These include:

- Elevate sector planning, target setting, and monitoring to national level strategy processes, for example, PRSPs.
- Take advantage of reformed public financial management systems to: contest for additional sector resources; better capture donor resources flowing into the sector; and routinely monitor expenditure versus sector budget allocations.

- Use national procurement systems to streamline and harmonize procurement and to attain economies of scale.
- Capitalize on national processes of devolution and related intergovernmental transfers to improve the reach and rate of water and sanitation service delivery through the local government level.
- Draw on national civil service reform and human resource management functions to recruit and retain sector staff at both national and local government levels.

By contrast, the small number of priority actions responding to the need to sustain sanitation services is driven by a lack of established approaches for linking the sanitation subsectors to economywide private sector capacity, to facilitate household uptake and upkeep of sanitation. Innovation is needed to develop appropriate policy solutions to addressing questions such as the following:

- Does the supply-chain for sanitation equipment meet household needs in rural areas?
- Is there sufficient supply-side artisan/technician capacity to meet household needs in rural areas?
- Are there sufficient companies, operators, and entrepreneurs to meet the demand of households for sanitation (on-site and networked) in urban areas?
- Are there sufficient operators to handle the demand for excreta removal, treatment, and disposal?
- Does government have a private sector development program for sanitation?

Resolving the bottlenecks in service delivery pathways requires a combination of subsector institutional solutions, solutions that draw on core government systems and solutions that draw on capacity in the broader economy.

The next section looks at ways to facilitate these linkages to accelerate subsector progress through stages of development.

Priorities for Stages of Subsector Development and Supportive Aid Instruments

The reform process itself needs to be country-led, if sufficient capacity and oversight is to be developed within line ministries, agencies, and decentralized bodies, to develop and sustain these basic services nationwide. Senior managers of subsectors need to define reform objectives, identify priority actions, and seek out appropriate aid modalities and technical assistance to support and sustain the step-by-step transition to country-led programmatic approaches.

Across SSA over the next three years, anticipated commitments from development partners are estimated at over 50 percent of the sector's development expenditure (based on data collected for the CSO2 costing, excluding South Africa; see Chapter 4).

Development partners have a wide range of modalities and instruments through which they can provide these commitments and associated support. The specific combination of these can either reinforce or undermine the transition to country-led programmatic approaches. Modalities need to evolve with the stage of subsector evolution.

To assist in the transition, Table 6.3 sets out some desirable characteristics of aid instruments and associated dialogue against common reform objectives for each of the three stages of subsector evolution.



Table 6.3
Priorities for stages of service delivery pathway evolution and supportive aid instruments

Stage of pathway evolution	Objective of sector reform	Priorities for subsector and technical assistance	Recommended nature of aid instruments
Establishing stage	Build basic oversight capacity for implementation within line ministry and initiate development of economywide capacity for construction and scheme operation	<p>Enabling services: Target setting; sector/subsector policy; delineation of institutional roles and responsibilities</p> <p>Developing services: Support outsourcing to attract drilling, construction, and community mobilization capacity; adapting tools for sanitation promotion; monitoring of service delivery roll-out</p> <p>Sustaining services: Support surveys of scheme functionality and existing knowledge attitude and practice on sanitation and hygiene behavior</p>	Project grants and loans channeled to the line ministry through special accounts outside the regular government expenditure management system with dialogue focused on subsector capacity
Transitioning stage	Foster interaction between the sector institutions and core government systems while deepening economywide capacity for construction and broadening options for scheme operation	<p>Enabling services: Sector investment plans; SWAp formation; alignment and integration with national budget process</p> <p>Developing services: Alignment with national procurement and intergovernmental transfer mechanisms; development and application of equity criteria for pro-poor targeting; installing human resources capacity for decentralized service delivery; monitoring service delivery roll-out</p> <p>Sustaining services: Experimentation and adaptation of management models; fostering autonomy and financial viability; developing M&E of operational performance of water services and uptake of sanitation services</p>	Programmatic earmarked grants and loans for the subsector but channeled through the ministry of finance linked to conditional intergovernmental transfers with dialogue focused on the links between the subsector and core government systems
Transitioned stage	Consolidate sector linkages with core government systems for continued expansion in coverage. Reinforce autonomy, commercial orientation, and regulation of utility/scheme management, so sustaining service delivery	<p>Enabling services: Regulation; public-private partnership legislation</p> <p>Developing services: Monitoring equity, efficiency, and effectiveness of roll-out</p> <p>Sustaining services: M&E of operational performance of water services and uptake of sanitation services</p>	Budget support channeled through the ministry of finance linked to intergovernmental block transfers with dialogue focused on sectorwide policies and systems development

Source: CSO2, ODI and Mokoro (2009) Sector Budget Support in Practice Literature Review.

These desired characteristics for both aid modalities and technical assistance address the enabling, developing, and sustaining pillars of the service delivery pathway in parallel at each stage - including those where country priority actions only partially dealt with barriers in the service delivery pathway.

At each stage, the recommended aid instruments and associated dialogue aim to create strong incentives to encourage the subsector to graduate to the next stage of development. The technical assistance addresses the most pertinent barriers at that stage of development.

Establishing stage:

In a post-crisis environment - or in the case of sanitation where the subsector development is simply nascent - the capacity of the line ministry is so weak that a key objective of external support is to build basic implementation oversight capacity and initiate development of economywide capacity for construction and scheme operation. Achieving this requires aid instruments that channel investment funding to the line ministry - rather than to third party implementing agencies - to encourage hands-on subsector capacity development (see 'The capacity conundrum' in Box 6.1). Project instruments

are appropriate in this context to ensure results and accountability. The parallel technical assistance seeks to foster first generation enabling environment reforms and basic elements of the subsector's developing and sustaining pillars.

Transitioning Stage:

Having established basic sector-specific capacities, subsectors in this second group need support that encourages the formation of linkages between the subsector institutions and core government systems, as well as economywide capacity for construction and scheme operation. Programmatic grants and loans to subsector institutions channeled through the ministry of finance linked to conditional intergovernmental transfers create incentives to develop linkages between subsector institutions and (a) the ministry of finance through the budget process; and (b) local government by priming decentralized capacity to deliver WSS services.

The parallel technical assistance needs to work both from within subsector institutions and from the ministry of finance to support alignment and integration with national budget process, national procurement systems, intergovernmental transfers, and development of equity

Box 6.1

The capacity conundrum

In most fragile countries, the capacity of state institutions is initially too weak to meet donor service delivery standards or accountability requirements. Yet, in the face of these constraints, governments and donors have to act to reap the peace dividend and ensure any results achieved are sustainable.

The capacity conundrum is encountered as a sector transitions from emergency interventions provided by NGOs and humanitarian agencies, relying on their own capacity. At the next stage, project grants and loans channeled to the line ministry through special accounts outside the regular government expenditure management system become appropriate. Examples include multisectoral rehabilitation programs and social investment funds or community-driven development programs, supported by coalitions of donors led by multilateral agencies, often the World Bank. At this stage, however, national implementation capacity is the key constraint, most obviously in the public sector, but also in the private sector: from contractors, to suppliers, to the whole array of support services such as transportation and banking.

In such circumstances, the best way to develop capacity is to use it: working in partnership with countries to make incremental improvements in government implementation capacity even as they channel increasing funds through government systems. Box 5.8 demonstrates how a major rural water supply project in Madagascar developed capacity in the water and sanitation department by entrusting it with coordination, while simultaneously evolving civil society and private sector capacity for drilling and construction.



criteria. In addition, technical assistance should seek to influence civil service reform processes to ensure appropriate staffing at the local level as well as capacity building of staff involved in decentralized service delivery. Finally, support to sustainability includes experimentation and adaptation of management models, developing M&E of operational performance of water services, and uptake of sanitation services.

Transitioned Stage:

Support to this third group of subsectors should aim to consolidate subsector institutional linkages with core

government systems and economywide capacity for national scale service delivery.

Linkages with economywide capacity should aim to reinforce autonomy, commercial orientation and regulation of utility, and small scheme management (whether public, private or community operated). They should also foster private sector development in markets for goods and services.

Linkages with core government systems should aim to 'wean' the subsector off development assistance, encouraging the sector as a whole to contest higher levels of funding through the domestic budget process.

Box 6.2

Case Study - Rwanda: From crisis to development of the rural water supply service delivery pathway

From 1995 to 2003, Rwanda moved from the ruins of genocide to the implementation of advanced macroeconomic management practices, public financial management reforms, and progressive improvements in basic service delivery.

The WSS sector policy issued in 1998 provided a basis to steer the transition from post-crisis, donor-executed emergency interventions to sector projects guided by a coherent set of policy principles including: demand-based planning, community management (through the so-called *Régies Associatives*), and local cost recovery. The sector policy was regularly updated; first in 2004 to reflect Rwanda's program of decentralization and then in 2010 to formalize the policy of delegated management through local public-private partnership.

The 1998 policy provided the basis for a World Bank-funded rural WSS project. The government-executed US\$20 million project ran from 2000 to 2007 and provided a testing ground to translate the policy principles into practice, developing the implementation capacity of the rural WSS unit within the WSS directorate.

Responding to Rwanda's unique topography, hydrology, and demography, the project focused on the development and rehabilitation of rural piped systems. The operational model that emerged from the project is one in which the development of large piped systems is driven by community planning, with a centralized design, procurement, and contract management process, supported by district-level supervision and oversight. This is complemented by gap-filling with simpler point source technologies implemented entirely by the government, using central government subventions such as the Community Development Fund.

The World Bank-supported project was instrumental in building the capacity of local contractors. Almost nonexistent in the RWSS sector at the beginning of the project, local contractors carried out US\$10.6 million of construction works. The absorption capacity of the sector increased 10-fold, with the number of people getting access to improved water services each year jumping from 60,000 to 600,000 people during the project period. The service delivery model, the additional public sector technical and private sector construction capacity developed under the project formed the core of a countrywide sector program attracting additional funding from AfDB, the EC, Austria, Belgium, and Japan.

Restoring and reforming key components of the public expenditure management systems steadily progressed over the period. Budgeting and expenditure management processes were streamlined and systematically implemented across all line ministries. The Central Projects and External Financing Bureau were established in the Ministry of Finance in late 1998 to monitor and coordinate donor funded projects. In 1999, a National Tender Board was established.

By 2002, the confidence derived from the extensive fiduciary assessment and analytical work allowed the World Bank to accede to the Government of Rwanda (GoR's) preference for budget support which was provided through a series of Poverty Reduction Support Credits for selected high priority sectors including education, health, water, and energy.

Rwanda's rural WSS subsector is making steady progress supported by a combination of earmarked programmatic funding and budget support using harmonized procedures for procurement and financial management based on GoR systems. Sector agencies and partners are now taking steps to improve the sustainability of the 800-plus systems in place through capacity building and strengthened oversight of the local contracts.

The evolution of Rwanda's rural WSS subsector aptly illustrates the transition from donor-executed projects toward a country-led sector program over the 1998-2010 period. This example shows the importance of setting a clear policy direction at the sector level combined with a drive to integrate the sector into core public sector management systems.

It is worth noting that, in contrast, the urban water subsector has not yet transitioned to a country-led approach to service delivery. Still, at the transitioning stage, the subsector is yet to put in place key building blocks in the service delivery pathway and is struggling to muster funding commensurate with its large investment requirements related in particular to the expansion of its production capacity to meet rapidly-growing demand in Kigali.



These aims can be supported through budget support, with the associated sector dialogue and technical assistance being focused on:

- Sectorwide policies, regulation, performance, and sustainability.
- Domestic budget allocations to the sector through the national budget and intergovernmental block transfers (as opposed to conditional transfers).

The Rwanda case study (Box 6.2) illustrates how Rwanda's rural water supply subsector has moved through the three stages of evolution outlined above.

While all these proposals should encourage senior managers in the subsectors to seek out appropriate aid modalities and technical assistance, they also aim to promote a division of labor among external support agencies by encouraging:

- Development partners restricted to project modalities to target subsectors in the establishing category.
- Development partners able to use earmarked programmatic instruments to the established-transitioning category.
- Development partners able to give general or sector budget support to the established-transitioned category.

In addition, the nature of technical assistance provided by agencies varies; some agencies specialize in sector-specific reforms, others are able to work on linkages with core government systems and others specialize in promoting linkages with economywide capacity.

These generalized proposals to senior managers in the subsector and development partners is complemented with specific, detailed country priorities set out in the 32 country status overview papers.

7. The Finance Gap and How It Can Be Addressed

KEY MESSAGES

- A minimum annual shortfall of US\$6 billion is projected for capital investments, between requirements of over US\$15.5 billion per year and anticipated finance from governments, donors, NGOs, and households of around US\$9.5 billion per year, across the region.
- Poor targeting, uncertainty over the leveraging of user contributions for both capital and operational costs, additional water resource development, and other weaknesses in service delivery pathways mean the true extent of the deficit may be much higher.
- Benchmark spending of 2 percent of GDP for the sector from public funds and households, proposed by the Human Development Report 2006, will be insufficient for low-income countries participating in the CSO2 - by a factor of three in the case of fragile states.
- With aid unlikely to increase three-fold again to meet the gap, countries will need to engage their ministries of finance. Focusing on domestic public spending, analysis of countries' own resources and their investment requirements suggests a share of 5 percent of domestic revenues is an appropriate benchmark and advocacy target for the sector.
- Countries that are directing 5 percent of domestic revenue to the sector but still face financing gaps can make a clear case to donors that they require aid increases.
- At the same time, whether advocating for increased resources from domestic or external sources, senior managers will need to continue to strengthen service delivery pathways, demonstrating that their subsectors represent a sound investment proposition.

Calculating the Gap at the Regional Level

Headline Figures and the Case for Domestic Finance

The CSO2 analysis indicates that capital investment requirements to meet the sector targets of the participating countries will total over US\$15.5 billion annually.³¹

Anticipated capital finance from domestic budgets, donors, and NGOs is estimated at US\$5.9 billion per year, which is expected to leverage a further US\$3.6 billion per year in household contributions. At the aggregate level, a finance gap of at least US\$6 billion per year would therefore need to be closed to meet the targets - though poor targeting between countries and subsectors, and weak service delivery pathways, mean the additional requirement may be much higher.

Of the anticipated public finance, almost 60 percent is projected to come from domestic budgets, and the rest from donors and NGOs, suggesting that domestic finance is playing an increasingly important part in funding for the subsector. This pattern is partly attributable to the three countries participating in the CSO2 with the highest GDP: South Africa, Angola, and Nigeria, where 97 percent, 96 percent, and 77 percent of public finance, respectively, is projected to come from domestic budgets. But other countries are also shouldering a substantial proportion of the sector investments: over 70 percent in Congo Brazzaville; more than half in Kenya, and over a third in Ethiopia, Madagascar, and Rwanda.

While there are still 13 participating countries that are dependent on donors for more than 80 percent of public capital investments, it is unlikely that external finance will plug the minimum gap of US\$6 billion per year on its own. This means that it is increasingly necessary, desirable, and feasible that the sector's senior managers look to other

sources to close their finance gaps - including to their own ministries of finance for a share of the domestic budget. This is necessary because earmarked aid to water supply and sanitation already doubled between 2002 and 2008 to US\$2.4 billion a year (Chapter 2) and is unlikely to increase again by a further multiple of three - given slow recovery from the financial crisis among donor countries. It is also desirable, in that by financing basic services for their citizens from the domestic budget, governments can cement a key part of the social contract. Finally, it is increasingly feasible, as growth, budget support,³² and debt relief augment the domestic resource-base.

For these reasons, this chapter focuses on the potential for increasing the domestic share of sector financing. User contributions will also play a part, but assessing how far users can additionally contribute requires context-specific analysis of affordability at the household level, which is beyond the scope of this report.

This chapter disaggregates the regional finance gap, placing each country's requirements in the context of their domestic revenue to establish a benchmark level of domestic spending for the sector. First, however, it is important to highlight the reasons why the above investment gap may be underestimated.

Interpreting the Finance Gap

There are several reasons why the apparent regional finance gap of US\$6 billion per year is likely to be much higher in reality.

First, poor targeting. Simply taking the regional gap to be the difference between total required investment and total anticipated investment, assumes finance can be reallocated optimally from countries and subsectors with more than enough, to those that face deficits. This would be a two-fold process: reallocations within countries from subsectors in surplus, to those in deficit, followed by reallocations of external finance between countries. In the near term, such reallocations are unlikely, with funds 'locked-in' to donor projects and programs, medium-term expenditure frameworks, and policies regarding user contributions. Assuming such reallocations between countries and subsectors do not take place, the finance

gap would increase to at least US\$7.2 billion per year.³³ The problem of targeting is also likely to extend to the community and household level, within countries' individual subsectors: the scorecard indicates that few countries systematically apply allocation criteria to target resources to where they are needed most (analyzed as part of the equity building block, Chapter 5). Even where such criteria are used, it is unlikely that *all* anticipated investment would go to the unserved, or the most urgent rehabilitation needs.

Second, the assumed user contribution incorporated into the country costing models on the basis of official policy and discussion with sector stakeholders totals US\$3.6 billion per year - almost 90 percent of which is required for the sanitation subsectors. To leverage this effectively would require key components of the service delivery pathway to be in place and functional; for cost recovery, promotion, marketing, and delivering subventions. The CSO2 scorecard analysis identified very few countries where such systems are functioning at scale. Furthermore, many countries lack a clear policy on how household uptake of sanitation facilities and hygiene behavior is to be encouraged at all. A shortfall in user contributions for capital would increase the finance gap still further.

Third, additional operation and maintenance requirements are estimated to total US\$3.5 billion per year.³⁴ Again, the analysis of service delivery pathways suggests operational cost recovery remains a challenge for many countries, implying that these costs will be a further drain on resources intended for capital investment - whether immediate (for example, in the form of operational subsidies paid to nonviable utilities) or deferred (for instance, through having to replace neglected infrastructure).

Fourth, the cost requirement is based on unit costs gathered in consultation with governments in each country. In few instances do these include the additional water resource development which may be required. For example, in Kenya it is estimated that US\$150 million per year is required for developing water storage and transfer capacity, in addition to any unit cost-based estimates for covering unserved citizens and rehabilitating existing infrastructure.

Finally, the anticipated public finance (and thus the

user contribution which it is expected to leverage) is based on near-term allocations, not actual expenditure. According to the CSO2 scorecard for each subsector, rates of expenditure of allocated donor funds are below 75 percent in around half the participating countries, while rates of expenditure for domestic finance appear slightly higher in general, but still fall below 50 percent in a number of countries.³⁵

Table 7.1 shows the capital investment requirements by subsector, against expected investments from government, development partners (official and nongovernmental), and households. The CAPEX deficit indicated is the likely minimum and the above caveats should be kept in mind when interpreting the figures. The figures indicate that sanitation (particularly urban sanitation) is less well funded relative to requirements, even accepting the assumption that users will meet much of the cost. These investment requirements are for achieving national targets based on government estimates of coverage. The shortfall for meeting the MDG targets, based on JMP coverage data and population, is lower (due to lower overall investment requirements) but still totals at least US\$4.6 billion, with the above caveats also applying.³⁶

How Much Should Countries be Spending?

Revisiting the Human Development Report 2006 Benchmark

As with coverage figures and scorecard results, the aggregate investment figures conceal significant differences at the country and subsector level. Furthermore, the ability of countries to afford investments themselves varies considerably.

The landmark Human Development Report (HDR) 2006, which focused on water issues, proposed that:

“In low-income countries with limited coverage and high levels of poverty, a benchmark indicator is public spending on water and sanitation of about 1 percent of GDP (depending on per capita income and the ratio of revenue to GDP), with cost-recovery and community contributions providing an equivalent amount” (UNDP, 2006; p.65).³⁷

The CSO2 analysis suggests that spending 2 percent of GDP from public and household sources would suffice for 11 of the participating countries to meet their national targets, but would be insufficient for the remaining 20.³⁸ For six countries - Benin, Burundi, DRC, the Gambia, Liberia, and Sierra Leone - the required investments are more than 4 percent of GDP, reaching 14 percent and 10 percent of GDP in the latter two countries, respectively.

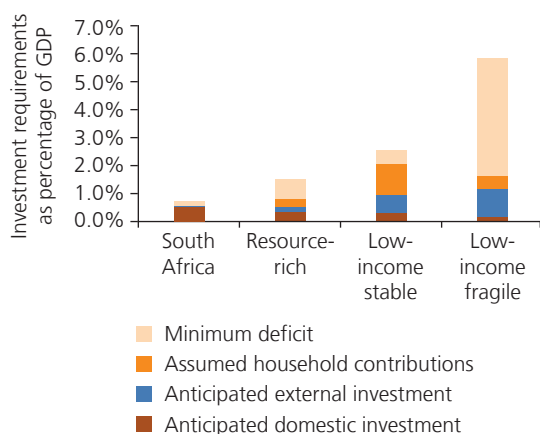
Table 7.1

Regional capital and operations and maintenance requirements, anticipated capital spending, and projected minimum gap for meeting national WSS targets, by subsector

	Required CAPEX	Anticipated public CAPEX			Assumed HH CAPEX	Minimum CAPEX gap	Required OPEX
		Domestic	External	Total			
	US\$ billion/year						
Rural water supply	3.3	1.2	0.8	2.1	0.1	1.1	0.7
Urban water supply	4.3	1.3	1.3	2.6	0.3	1.3	1.5
Water supply	7.6	2.6	2.1	4.7	0.4	2.5	2.2
Rural sanitation	3.7	0.2	0.2	0.4	2.6	0.7	0.4
Urban sanitation	4.2	0.6	0.2	0.8	0.6	2.9	1.0
Sanitation	7.9	0.8	0.4	1.2	3.2	3.5	1.4
Total	15.5	3.4	2.5	5.9	3.6	6.0	3.5

Source: CSO2 government costings.

Figure 7.1
Investment requirements as % of GDP by country grouping, showing breakdown in anticipated spending and resulting minimum gap



Source: For investment data, CSO2 government costings; for GDP, World Bank DDP Database - data is for 2008, in line with the latest coverage data used in the majority of CSO2 costing models.

Figure 7.1 shows aggregate capital investment requirements relative to aggregate GDP, for each of the four country groupings, indicating the breakdown between domestic, external, and household spending, and the resulting minimum gap. This suggests that, as a group, investments at the level of 2 percent of GDP would be more than sufficient for resource-rich countries and South Africa. However, among low-income countries for which the HDR benchmark is intended, total investment requirements are a higher proportion of aggregate GDP; 2.6 percent for low-income nonfragile countries and almost 6 percent for low-income fragile countries.

Figure 7.1 indicates that at the aggregate level, low-income countries (fragile and stable alike) are in fact already spending 2 percent of their GDP on the sector, but still face a financing gap.

The AICD, using the same country groupings but with a slightly broader sample of countries across SSA, estimated that annual capital investment requirements to meet the water supply MDG target alone stand at 3.95 percent of GDP for *low-income stable* countries, and 6.27 percent of GDP for *low-income fragile* countries.³⁹

If operations and maintenance requirements were included alongside capital investment requirements

(which is implied by the HDR 2006 reference to “cost recovery and community contributions”) the percentage of GDP required would rise still further, for all country groupings.

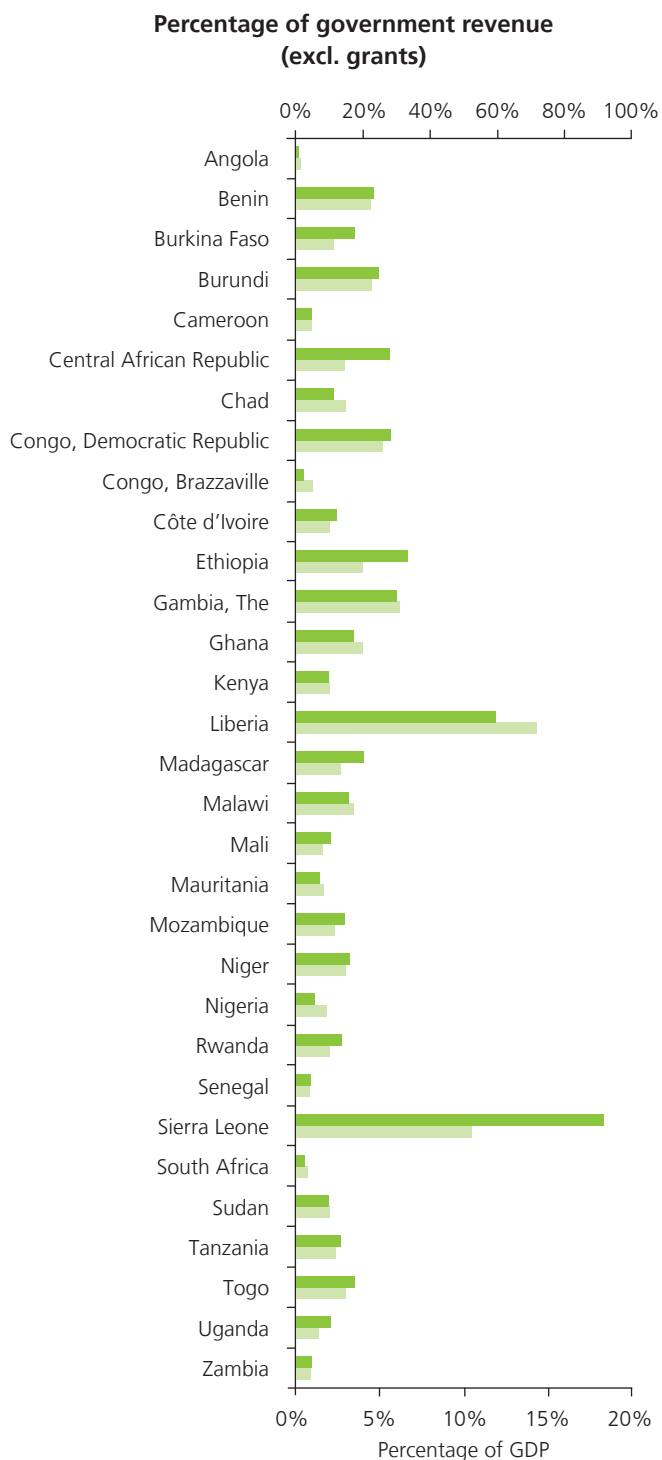
There are two major reasons why the 2 percent of GDP benchmark may be insufficient in the case of low-income countries in SSA. First, the HDR 2006 provides a global benchmark, whereas the CSO2 is specific to SSA, which has the lowest levels of improved sanitation coverage of any global region, and is second only to Oceania in terms of low water supply coverage.⁴⁰ With lower levels of coverage, the cost of attaining targets is likely to be higher for countries in the region, as opposed to globally. Second, the time remaining to achieve the sector targets has decreased; for countries that have made limited progress since 2006, there is now less time remaining to attain the same targets - which necessarily increases the annual investment requirements.

A Benchmark for Domestic Spending: 5 percent of Domestic Revenue

GDP may not be the most appropriate measure on which to benchmark countries’ spending. Given that this chapter emphasizes domestic budgets as an increasingly necessary, desirable, and feasible source of finance for the sector, it may be more appropriate to frame the ‘affordability’ of investment requirements in terms of government revenues.

As Figure 7.2 indicates, for many countries, the domestic resources available to government (that is, government revenue excluding external grants) do not follow national wealth as measured by GDP, for example, where much of the economy is informal or even illicit. Figure 7.2 also shows that for countries such as Burkina Faso, CAR, Ethiopia, and Sierra Leone, investment requirements are a more serious challenge when expressed as a proportion of government revenue, than as a proportion of GDP (longer dark green bars relative to light green bars). The additional proportion of revenue that countries would need to spend to bridge their finance gaps varies significantly. Even within the country groupings used in this report, investment requirements as a percentage of government revenue differ substantially: from 4.4 percent (Senegal) to 92 percent (Sierra Leone) in the case of low-income, fragile countries, and from under

Table 7.2
Investment requirements as percentage of government revenue (excluding grants) and GDP



Source: For investment data, CSO2 government costings; for GDP, World Bank DDP Database—data is for 2008, in line with the latest coverage data used in the majority of CSO2 costing models.

1 percent (Angola) to 11.2 percent (Chad) in the case of resource-rich countries.

However, a single headline benchmark figure can be a useful point around which to conduct negotiations for more finance. Line ministries can advocate for their ministries of finance to increase domestic finance to the benchmark level; countries that are already spending the benchmark level but still face deficits can advocate for development partners to help them bridge the remaining gap. In establishing a benchmark for domestic spending, the CSO2 analysis therefore assumes that even if external finance does not increase overall, it should go to those countries which would struggle most to meet their finance gap from domestic budgets alone.

Based on the CSO2 analysis, the percentage of government revenue which, if met by *all* participating countries, would allow sufficient external finance to be freed up and reallocated to those countries that still face deficits, is 5 percent. In other words, if 5 percent of domestic revenue is allocated optimally across subsectors (alongside current assumed levels of user contributions) the annual financing gap in 16 countries would be closed, while 'freeing up' around US\$1 billion per year in external finance - enough to meet the total remaining financing gap in the remaining countries.

Advocating for Increases

While the chances of achieving an optimal reallocation of funds across the region are slim, the 5 percent



benchmark for domestic contributions is presented to catalyze the discussion with ministries of finance around how much they can afford to contribute, and also to help donors to identify where there is clearly a case for more aid. Countries that cannot meet their requirements even after committing 5 percent of domestic revenues are arguably particularly deserving of aid increases, whether in practice this comes in the form of 'new' or reallocated money.

Whether line ministries are engaging with their ministries of finance or donors for additional funds, they will need to demonstrate that the money will be spent effectively. This requires clear evidence that service delivery pathways are in place to convert finance into services.

Analysis such as that undertaken using the CSO2 scorecard can help build this case. The sector's senior managers will also need to be transparent about policy decisions which have a significant bearing on the affordability of investment requirements for the public purse. As a country-led process, the CSO2 costing estimates reflect the technology mix and user contribution policies that are in place or planned for the medium-term in each country. This has the advantage of improving contextual relevance by accepting government choices, which generally arise from a complex fusion of political preference, perceived financial constraints, and hydrological characteristics (not every technology is equally suitable everywhere). However, these factors also have a substantial impact on how much it will cost the public purse to achieve a given coverage level, and need to be carefully examined within each country: whether a cheaper technology mix is feasible; whether user contributions are realistic (for example, in countries claiming 100 percent user contribution for sanitation), or could be increased without adverse impacts on poor people.

Meanwhile, donors and ministries of finance will need to make tough decisions about how and where to invest scarce resources. The analysis offered by the CSO2 should not discourage this, even if it indicates that finance is unlikely to turn into results on a one-to-one basis, due to shortcomings in service delivery pathways. As indicated in Chapter 6, funding for the sector will need to be matched with targeted technical assistance to iteratively improve service delivery pathways.



The economic returns of water supply and sanitation investment are clear. Cost-benefit studies from the WHO indicate that the returns on investment far outweigh the cost. Estimating the costs and benefits of meeting the MDGs in off-track countries in SSA with low-cost technologies, the WHO suggests every US\$1 invested can yield almost US\$6 in return, in improved health, educational attainment, and productivity of citizens.⁴¹ Seizing the opportunities for country-led service delivery is thus not only a question of advancing human rights to safe and adequate water supply and sanitation, but is underpinned by economic logic.

8. Conclusions

Working with 32 countries in SSA, the CSO2 has responded to AMCOW's request to identify the underlying constraints that must be addressed to accelerate progress in water supply and sanitation coverage in the region.

Analyzing coverage trends, service delivery pathways, and investment needs through the lens of a four-way country typology based on political and economic factors, this report discerns the patterns and drivers that have enabled some countries to progress faster than others.

This report demonstrates the extent to which three factors - political stability, sector leadership, and aid modalities - underpin progress in water supply and sanitation.

Political stability has heavily influenced progress in improving access to WSS services. Low-income stable countries have outperformed low-income fragile and resource-rich countries:

- making greater increases in coverage across subsectors,
- reducing open defecation more markedly in rural sanitation,
- being more successful in keeping up with population growth in urban water supply, and
- achieving more equitable access, with a smaller gap in coverage between the richest and poorest segments of the population.

But progress has also been driven by sector leadership, aid flows, and aid modalities. An estimated \$25 billion dollars of aid has been channeled to water supply and sanitation over the past 20 years. The good progress of *low-income stable* countries has been assisted by their receiving three times more aid than *low-income fragile* countries and two times more aid than *resource-rich* countries, per unserved person.

However, the relative strength of *low-income stable* country performance is not only the result of greater funding but also the nature of that funding. As aid modalities have shifted from donor-driven projects

to country-led programmatic approaches to service delivery - along the lines of the Paris Principles for aid effectiveness - line ministries have increasingly used core government systems (public financial management systems and decentralized service delivery capacity) and capacity in the wider economy (markets, civil society, and private sector).

The front-runners, among the group of *low-income stable* countries, have undertaken reforms resulting in well-functioning *service delivery pathways* that translate inputs (finance) into outcomes (coverage) through government systems - greatly extending their reach and rate of implementation capacity.

In all, it is likely that the progress made by the *low-income stable* countries has resulted from an interaction of stability, strong sector leadership, and support from development partners, while the progress has itself made these sectors more attractive propositions for further investment and other forms of support - the virtuous cycle introduced in Chapter 5.

The trajectory of these *low-income stable* countries, half of which also experienced conflict in the 1980s and 1990s, helps to define certain principles for the sector's senior managers and their development partners to transition to country-led service delivery, regardless of country grouping.

There are four opportunities for countries to catch up with front-runners. Economic growth, debt relief, and increasing political stability have opened up new opportunities for low-income fragile and resource-rich countries to take charge of their water supply and sanitation sectors and to develop sustainable *service delivery pathways*:

1. **Demonstrating sector leadership drives a virtuous cycle of increasing capacity and financing.** Senior managers in the sector that have taken responsibility for developing capacity and coordinating the efficient delivery of services at a national scale have bolstered

the sector's credibility as an investment opportunity for national ministries' of finance as well as external donors, driving a virtuous cycle of increasing capacity and finance.

2. **Aid is spreading to fragile countries.** Eight out of nine participating fragile states have received or are working towards receiving debt relief, greatly raising their prospects of delivering a peace dividend including in the water sector. OECD and new donors have increased aid to both fragile and resource-rich countries since 2000.
3. **Connecting to core government systems extends the reach and rate of implementation capacity.** Following debt relief many countries have benefited from technical assistance to strengthen core government systems. Connecting, or reconnecting, the water sector to these improved core government systems opens up opportunities to establish WSS as: a priority in national plans; a contender for domestic budget allocations; a service delivered through local government; a beneficiary of civil service reform; and a standard part of the national procurement process.
4. **Judicious use of aid modalities can advance the transition to country-led service delivery.** The CSO2 identifies three stages of *service delivery pathway* evolution towards country-led service delivery: the *establishing, transitioning, and transitioned stages*. Matching the stage of evolution with appropriate aid modalities and technical assistance can accelerate the overall transition to a country-led approach. The regional synthesis provides analyses and suggestions to line ministries and their development partners in completing this transition.

The closing recommendations offered by the CSO2 synthesis are directed separately at different audiences, but revolve around the same goal: a virtuous cycle in which increasingly effective service delivery pathways translate finance into services at increasing rates, so attracting more investment.

Line ministries can:

1. **Work to put in place and strengthen country-led, nationwide service delivery pathways,** prioritizing reform appropriately, according to the stage of subsector development, as follows:

- **Establishing stage:** Subsectors which score poorly on the CSO2 scorecard across *enabling, developing, and sustaining* pillars. The first priority in these subsectors is to establish, or re-establish, the basic components of service delivery, from policies (particularly for sanitation subsectors), to sector targets, to the monitoring of output. The focus for these subsectors should be on enhancing capacity within the sector itself.
 - **Transitioning stage:** Subsectors which achieve reasonable scores for the *enabling* pillar or *developing* pillars, or both. The top priority for these subsectors is to improve expenditure management and implementation, including monitoring and improving levels of budget utilization, and developing mechanisms to equitably transfer funds to decentralized levels of government. For these subsectors, the focus should extend beyond sector-specific institutions to the linkages with broader government capacity, in particular: core government systems for expenditure management and tracking, and implementation capacity in other sectors, such as health promotion workers.
 - **Transitioned stage:** Subsectors which are well functioning, with good scores for *enabling* and *developing* pillars, and mixed scores for *sustaining* services once they are in place. The first priority for these subsectors is to fill remaining gaps in the service delivery pathway and to scale up implementation to outpace population growth and achieve sector targets. For these subsectors, remaining shortcomings are likely to be located in the *sustaining* pillar of the service delivery pathway, where linkages with economywide capacity can be important. For example, private sector or community operators for small water systems, or entrepreneurs for pit-emptying services and installation of sanitation hardware.
2. **Undertake evidence-based advocacy to bridge finance gaps while demonstrating improvements in service delivery pathways.** The subsector investment gaps calculated in each country's individual CSO2 report provide a basis for advocating for increased finance. Due to the limits on further increases in aid, countries will need to approach their ministries of finance as a priority. The regional perspective provided by this synthesis report indicates that if all countries were to spend 5 percent of domestic revenue on

WSS, excluding grants, sufficient external finance would be 'freed up' to supplement those countries for which even this 5 percent level of domestic spending is insufficient. Emphasizing the economic returns of water supply and sanitation investment will be critical: the WHO estimates that US\$1 invested in the sector in SSA can yield US\$6 in return.⁴²

Development partners can:

1. Support countries to develop their service delivery pathways. Tailoring technical assistance and aid modalities to each subsector's stage of development can progressively increase absorptive capacity and effectiveness of countries' spend, as follows:

- **Establishing stage:** Channel project grants and loans direct to the line ministry through special accounts, while focusing dialogue and technical assistance on first generation reforms: setting targets and policies; delineating roles; supporting outsourcing for implementation; developing sanitation promotion tools; monitoring output, functionality, and baseline knowledge and practice.
- **Transitioning stage:** Channel programmatic, earmarked grants and loans through the ministry of finance, while focusing dialogue and technical assistance on developing sector capacity and linking to core government systems: developing sector investment plans; establishing SWAPs; aligning with national budgeting, procurement, and intergovernmental transfer systems; developing decentralized implementation capacity; identifying appropriate operational and management models; enhancing M&E systems.
- **Transitioned stage:** Give budget support channeled through ministry of finance linked to intergovernmental block transfers, while focusing dialogue and technical assistance on consolidating sectorwide capacity, and links to core government systems and economywide capacity: supporting third generation regulatory, public-private partnership, and legislative reforms; enhancing monitoring of equity, efficiency and effectiveness of roll-out; refining community, civil society, and private sector involvement in O&M and markets for goods and services.

2. Respond to need and reward effort, increasing funds for those countries and subsectors which are making convincing efforts to build robust service delivery pathways. Where countries are already allocating 5 percent of domestic revenue to WSS and still face financing gaps, there is an especially strong case for scaling up external investment to meet the remaining finance gaps. While countries should demonstrate that they will use funds effectively, equitably, and efficiently, donors may have to take some risks: iteratively investing in services while helping to enhance service delivery pathways.

Ministries of finance can:

- 1. Help meet the financing gap for providing basic services for the population,** by incrementally increasing the sector's share of the domestic budget to 5 percent of domestic revenue (the regional benchmark proposed in this synthesis report) that would enable the countries covered in this report to achieve their agreed national targets without an overall increase in external assistance.
- 2. Support line ministries to embed service delivery pathways,** by collaborating to interlink sector processes with core government systems including: budget and expenditure management processes and the intergovernmental transfer system.

AMCOW can:

- 1. Advocate for enhanced external support for water supply and sanitation.** In line with the Africa Water Vision and as the main regional grouping for the sector's senior representatives, AMCOW is well placed to advocate *en bloc* for increased and better-targeted aid for the sector, in fora such as SWA-GF4A.
- 2. Foster regional learning among peers** by sharing good practice, and helping to identify and test new solutions. Lessons identified in this synthesis report and the individual country reports provide a starting point for shared learning. Comparison of countries' self-identified priority actions with weaknesses in their service delivery pathways, has also highlighted a need for new and robust models, particularly for developing and sustaining services.



Appendix A

Scorecard Indicator Results

The following tables elaborate the indicators and the three response options used to assign scores for each building block in each subsector's service delivery pathway.

Depending on the response option selected, each indicator was awarded a score of 0, 0.5 or 1. These indicator subscores were then aggregated to obtain the overall building block score ranging from 0 to 3 (three indicators per building block).

As can be seen, the indicators vary between subsectors for several building blocks to reflect fundamental differences in the requisite functions for service delivery. These differences generally increase, moving through the service delivery pathway from the enabling environment,

(which is broadly similar for all subsectors) to the building blocks for developing and sustaining services.

Two building blocks also vary between water supply and sanitation in the sustaining pillar of the service delivery pathway: maintenance and expansion for water supply versus markets and uptake for sanitation - reflecting the primary role of government in facilitating, rather than directly implementing, household sanitation.

The tables also indicate the number of countries obtaining each score (0, 0.5, or 1) for each indicator. The totals do not sum up to 32 in all cases, due to some indicators being left blank in some countries' scorecards.

Table A.1
Rural water supply scorecard indicators, and count of countries obtaining each score

	Rural water supply	High scores (1)	No. countries	Medium scores (0.5)	No. countries	Low scores (0)	No. countries
Policy							
RWS 1	Are there RWS targets in PRSP or national development plan?	Yes	28	No	3	No PRSP or national development plan	2
RWS 2	Is there an RWS policy agreed by stakeholders and approved by cabinet (either gazetted as part of a national policy or as a standalone policy)?	Policy agreed and gazetted	24	Policy yes, but not agreed or gazetted	8	No policy	1
RWS 3	Are the institutional roles of subsector players (central & local government, water boards, regulator etc) clearly defined and operationalized?	Defined and operationalized	13	Defined but not operationalized	16	Not defined	4
Planning							
RWS 4	Does the government have a programmatic sectorwide approach for RWS that involves all development partners?	SWAp defined and being implemented with donors	6	SWAp being defined with donors	18	No SWAp being defined	9
RWS 5	Is there an investment program for RWS based on an MDG needs assessment that is published and agreed?	Program operationalized	15	Under preparation	13	Not existing	5
RWS 6	Is there an annual review in place to monitor subsector performance and to set new targets/undertakings?	Review and setting of new undertakings	15	Review but no setting of new undertakings	10	No review or setting of new undertakings	8
Budget							
RWS 7	Are financial commitments to the subsector sufficient to meet the MDG?	More than 75 percent of what is needed	7	Between 50-75 percent of needs	11	Less than 50 percent of needs	15
RWS 8	Does the budget structure enable RWS budgets to be identified?	Yes at all levels of government	14	Yes at some levels of government	7	No	12
RWS 9	Does the government budget comprehensively cover domestic and official donor investment/subsidy to rural water supply?	More than 75 percent of funds to subsector on budget	16	Between 50-75 percent of funds to subsector on budget	8	Less than 50 percent of funds to subsector on budget	9
Expenditure							
RWS 10	What is the percentage of official donor commitments utilized (three-year average)?	Over 75 percent	11	Over 50 percent	14	Less than 50 percent	8
RWS 11	What is the percentage of domestic commitments utilized (three-year average)?	Over 75 percent	17	Over 50 percent	11	Less than 50 percent	5
RWS 12	Is domestic and official donor expenditure versus budget/commitment for the subsector reported in a nationally consolidated format?	Yes for domestic and donor expenditure	15	Yes for domestic expenditure	9	No	8
Equity							
RWS 13	Are there clearly defined procedures for informing, consulting with and supporting local participation in planning, budgeting and implementing for rural water supply?	Yes and systematically applied	10	Yes but not systematically applied	19	No	4

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	Rural water supply	High scores (1)	No. countries	Medium scores (0.5)	No. countries	Low scores (0)	No. countries
RWS 14	Have criteria (or a formula) been determined to allocate RWS funding equitably to rural communities and are they being applied?	Yes that are applied	8	Yes but not applied consistently	15	No	10
RWS 15	Is there periodic analysis by government and civil society organizations to assess whether equity criteria set by government have been applied in funding decisions?	Yes by government and civil society organizations	4	Yes but only by government	10	No	18
Output							
RWS 16	Is the annual output of the sector sufficient to meet the MDG? (including output by government directly, through contractors and NGOs)	Over 75 percent of that needed to reach MDG	12	Over 50 of that needed to reach MDG	10	Less than 50 percent of that needed to reach MDG	11
RWS 17	Are there drinking water quality standards for RWS and is there documentary evidence that they are consistently applied when developing new schemes?	Standards exist and are consistently applied	11	Standards exist but are not consistently applied	20	No	2
RWS 18	Is output for the subsector reported in a nationally consolidated format?	Yes	16	Yes but not consolidated	8	No	9
Maintenance							
RWS 19	Are there regular inventories of RWS infrastructure made?	Yes at least annually	2	Irregularly	26	No	5
RWS 20	Are O&M costs for RWS being covered by user fees?	Yes in majority of small towns and rural areas	7	Yes in majority of small towns but not majority of rural areas	12	Not covered in the majority of small towns or rural areas	14
RWS 21	Is there an effective supply chain for spare parts including in remote areas?	Yes mainly through private sector	15	Yes mainly through government	4	No	14
Expansion							
RWS 22	Are community and small-town systems recognized as operational entities and given support to expand their systems either by government or larger utilities?	Recognized and supported	8	Recognized but not supported	20	Neither	5
RWS 23	Are expansion costs for RWS being covered by user fees?	Yes in majority of small towns and rural areas	0	Yes in majority of small towns but not majority of rural areas	3	Not covered in the majority of small towns or rural areas	30
RWS 24	Are there scheme-level plans for the expansion of small town and village piped systems?	Yes in majority of small towns and rural areas	6	Yes in majority of small towns but not majority of rural areas	16	Neither in the majority of small towns or rural areas	11
Use							
RWS 25	Based on user data from household surveys is the subsector on track to meet the MDG?	On-track	9	Off-track but keeping up with population growth	10	Off-track	14
RWS 26	Are the questions and choice options in nationally representative household surveys consistent with MDG definitions?	Yes in all surveys	16	Yes in some surveys	12	No	5
RWS 27	What percentage of people using drinking water from an improved source take more than 30 minutes to fetch it (go, collect, and return)?	Less than 25 percent of people	12	More than 25 percent of people	13	More than 50 percent of people	8

Table A.2
Urban water supply scorecard indicators, and count of countries obtaining each score

	Urban water supply	High scores (1)	No. countries	Medium scores (0.5)	No. countries	Low scores (0)	No. countries
Policy							
UWS 1	Are there UWS targets in PRSP or national development plan?	Yes	28	No	2	No PRSP or national development plan	2
UWS 2	Is there a UWS policy agreed by stakeholders and approved by cabinet (either gazetted as part of a national policy or as a standalone policy)?	Policy agreed and gazetted	22	Policy yes, but not agreed or gazetted	10	No policy	0
UWS 3	Are the institutional roles of subsector players (central ministry & utilities, regulator etc) clearly defined and operationalized?	Defined and operationalized	13	Defined but not operationalized	15	Not defined	4
Planning							
UWS 4	Does the government have a programmatic sectorwide approach for UWS?	SWAp defined and being implemented with donors	7	SWAp being defined with donors	13	No SWAp being defined	12
UWS 5	Is there an MDG needs-assessed investment program for UWS?	Program operationalized	13	Under preparation	17	Not existing	2
UWS 6	Is there an annual review in place to monitor subsector performance and to set new targets/undertakings?	Review and setting of new undertakings	13	Review but no setting of new undertakings	9	No review or setting of new undertakings	10
Budget							
UWS 7	Are financial flows in the subsector sufficient to meet the MDG? (both from utility revenue generation and subsidies)	More than 75 percent of what is needed	5	Between 50-75 percent of needs	16	Less than 50 percent of needs	11
UWS 8	Does the government budget structure enable UWS investment and recurrent subsidy to be identified?	Yes for subsidies and investment	17	Yes for subsidies or investment	8	No	8
UWS 9	Does the government budget comprehensively cover domestic and official donor investment/subsidy to UWS ?	More than 75 percent of funds to subsector on budget	22	Between 50-75 percent of funds to subsector on budget	4	Less than 50 percent of funds to subsector on budget	7
Expenditure							
UWS 10	What is the percentage of official donor commitments utilized (three-year average)?	Over 75 percent	15	Over 50 percent	12	Less than 50 percent	6
UWS 11	What is the percentage of domestic budget utilized (three-year average)?	Over 75 percent	23	Over 50 percent	6	Less than 50 percent	4
UWS 12	Do urban utilities (national or three largest utilities) have audited accounts and balance sheet?	Audited accounts and balance sheet	23	Balance sheet but not audited	7	No balance sheet	3
Equity							
UWS 13	Are there clearly defined procedures for informing, consulting with and supporting participation of user groups in planning & implementing UWS?	Yes and systematically applied	5	Yes but not systematically applied	10	No	18
UWS 14	Have criteria (or a formula) been determined for allocating investment budget to utilities and are they being applied?	Yes that are used consistently	6	Yes but not used consistently	11	No	16

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	Urban water supply	High scores (1)	No. countries	Medium scores (0.5)	No. countries	Low scores (0)	No. countries
UWS 15	Do urban utilities (national or three largest utilities) have specific plans developed and implemented for serving the urban poor?	Plans developed and implemented	15	Plans developed but not implemented	12	No plans documented	6
Output							
UWS 16	Is the annual expansion of HH connections and stand posts in urban areas sufficient to meet the MDG?	Over 75 percent of that needed to reach MDG	11	Over 50 of that needed to reach MDG	10	Less than 50 percent of that needed to reach MDG	12
UWS 17	Are there drinking water quality standards for UWS and are they regularly monitored?	Standards exist and are monitored	21	Standards exist but are not monitored	12	No	0
UWS 18	Is the number of additional HH connections and stand posts per year reported in a nationally consolidated format?	Yes	16	Yes but only by utility	10	No	7
Maintenance							
UWS 19	What is the average percentage non-revenue water across urban utilities (national or three largest utilities)?	Less than 20 percent	4	20 percent to 40 percent	20	Greater than 40 percent	9
UWS 20	Are all O&M costs for utilities (national or three largest utilities) being covered by revenues (user fees and/or public subsidies)?	Operating ratio greater than 1.2	8	Operating ratio between 0.8 and 1.2	13	Operating ratio below 0.8	12
UWS 21	Are tariff reviews regularly conducted and tariffs adjusted accordingly and published?	Conducted, adjusted and published	15	Conducted but not adjusted	11	Not conducted	7
Expansion							
UWS 22	Do utilities have operational decision-making autonomy in investment planning, HR, finance and procurement management?	In all aspects	15	In all aspects except investment planning	14	Neither in investment nor in other aspects of mgmt	4
UWS 23	Do utilities (national or three largest utilities) have business plans for expanding connections and for securing water resources (WR)?	Business plans for expansion and WR being implemented	17	Business plans for expansion and WR being prepared	12	No business plans	4
UWS 24	Are utilities allowed by law to access and are they accessing commercial finance for expansion?	Allowed and accessing	15	Allowed but not accessing	12	Not allowed	6
Use							
UWS 25	Based on user data from household surveys is the subsector on track to meet the MDG?	On-track	16	Off-track but keeping up with population growth	6	Off-track	11
UWS 26	Are the questions and choice options in nationally representative household surveys consistent with MDG definitions?	Yes in all surveys	16	Yes in some surveys	15	No	2
UWS 27	What is the average number of hours of service per day across urban utilities? (Weighted by number of HH connections per utility)	More than 12 hours per day	18	Six to 12 hours per day	13	Less than six hours per day	2

Table A.3
Rural sanitation scorecard indicators, and count of countries obtaining each score

	Rural sanitation	High scores (1)	No. countries	Medium scores (0.5)	No. countries	Low scores (0)	No. countries
Policy							
RSH 1	Are there rural sanitation targets in PRSP or national development plan?	Yes	22	No	7	No PRSP or national development plan	4
RSH 2	Is there a rural sanitation policy agreed by stakeholders and approved by cabinet (either gazetted as part of a national policy or as a standalone policy)?	Policy agreed and gazetted	15	Policy yes, but not agreed or gazetted	11	No policy	7
RSH 3	Is there a government agency with a clear mandate to lead and coordinate the policy development and planning of the rural sanitation and hygiene subsector?	Lead agency coordinating sector	11	Coordination but no lead agency	16	No lead agency and no coordination	6
Planning							
RSH 4	Does the government have a programmatic sectorwide approach to rural sanitation?	SWAp defined and being implemented with donors	3	SWAp being defined with donors	18	No SWAp being defined	12
RSH 5	Is there an investment program for rural sanitation based on an MDG needs assessment agreed and published?	Assessed, agreed and published	9	Assessed	14	Not assessed	10
RSH 6	Is there an annual review in place to monitor subsector performance and to set new targets/undertakings?	Review and setting of new undertakings	10	Review but no setting of new undertakings	10	No review or setting of new undertakings	13
Budget							
RSH 7	Bearing in mind the country policy on subsidy versus promotion are financial flows in the subsector sufficient to meet the MDG?	More than 75 percent of what is needed	3	Between 50-75 percent of needs	8	Less than 50 percent of needs	22
RSH 8	Does the budget structure enable rural sanitation spending to be identified?	Yes	3	Only at local level	4	No	26
RSH 9	Does the government budget comprehensively cover domestic and official donor investment/subsidy to rural sanitation?	More than 75 percent of funds to subsector on budget	7	Between 50-75 percent of funds to subsector on budget	9	Less than 50 percent of funds to subsector on budget	17
Expenditure							
RSH 10	What is the percentage of official donor commitments utilized (three-year average)?	Over 75 percent	15	Over 50 percent	10	Less than 50 percent	8
RSH 11	What is the percentage of domestic budget utilized (three-year average)?	Over 75 percent	17	Over 50 percent	6	Less than 50 percent	10
RSH 12	Is domestic and official donor expenditure versus budget/commitment for the subsector reported in a nationally consolidated format?	Yes for domestic and donor expenditure	8	Yes for domestic expenditure	8	No	17
Equity							
RSH 13	Are there clearly defined procedures for informing, consulting with and supporting local participation in planning, budgeting and implementing for rural sanitation?	Yes and systematically applied	6	Yes but not systematically applied	20	No	7

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	Rural sanitation	High scores (1)	No. countries	Medium scores (0.5)	No. countries	Low scores (0)	No. countries
RSH 14	Have criteria (or a formula) been determined to allocate rural sanitation funding equitably to and within rural communities and are they being applied?	Yes that are applied	4	Yes but not applied consistently	9	No	20
RSH 15	Is there periodic analysis by government and civil society organizations to assess whether equity criteria set by government have been applied in funding decisions?	Yes by government and civil society organizations	2	Yes but only by government	4	No	25
Output							
RSH 16	Bearing in mind the country policy on subsidy is funding at local level spending units for subsidy in line with that policy and MDG targets?	In line with policy and MDG target	3	In line with policy but not MDG target	7	Not in line in over half of local spending units	23
RSH 17	Are there tools which have been specifically adapted and being used at scale for promoting S&H in rural areas and small towns?	Tools adapted and used at scale	6	Tools exist but not used at scale	25	No tools and no health promoters	2
RSH 18	Does government monitor quantity and quality of uptake?	Quality and quantity	9	Quality or quantity	14	Neither	10
Markets							
RSH 19	Does the supply-chain for sanitation equipment meet household needs (quantity and cost)?	Yes for quantity and cost	4	Yes for quantity but not cost	13	Neither	15
RSH 20	Is there sufficient supply-side artisan/technician capacity to meet household needs?	Well developed	8	Developing	23	None	2
RSH 21	Does the government have a private sector development program for rural sanitation?	Yes and is effective	3	Developing	14	None	16
Uptake							
RSH 22	Is the scale of uptake enough to meet the MDG?	Over 75 percent of MDG requirement	2	Over 50 percent of MDG requirement	7	No data on uptake	24
RSH 23	Is the quality of uptake sufficient to meet the MDG standards for improved sanitation?	Over 75 percent of uptake MDG quality	3	Over 50 percent of uptake MDG quality	8	No data on uptake	22
RSH 24	What percentage of rural households practice hand-washing at critical times?	Over 75 percent of households	1	Over 50 percent of households	8	Under 50 percent of households	24
Use							
RSH 25	Based on user data from household surveys is the subsector on track to meet the MDG?	On-track	3	Off-track but keeping up with population growth	10	Off-track	20
RSH 26	Are the questions and choice options in nationally representative household surveys consistent with MDG definitions?	Yes in all surveys	12	Yes in some surveys	14	No	7
RSH 27	What percentage of people living in rural areas use improved toilet facilities?	More than 50 percent of people	2	More than 25 percent of people	16	Less than 25 percent of people	15

Table A.4
Urban sanitation scorecard indicators, and count of countries obtaining each score

	Urban sanitation	High scores (1)	No. countries	Medium scores (0.5)	No. countries	Low scores (0)	No. countries
Policy							
USH 1	Are there urban sanitation targets in PRSP or national development plan?	Yes	21	No	9	No PRSP or national development plan	3
USH 2	Is there an urban sanitation policy agreed by stakeholders and approved by cabinet (either gazetted as part of a national policy or as a standalone policy)?	Policy agreed and gazetted	12	Policy yes, but not agreed or gazetted	11	No policy	10
USH 3	Is there a government agency with a clear mandate to lead and coordinate the policy development and planning of the urban sanitation and hygiene subsector?	Lead agency coordinating sector	11	Coordination but no lead agency	13	No lead agency and no coordination	9
Planning							
USH 4	Does the government have a programmatic sectorwide approach to urban sanitation?	SWAp defined and being implemented with donors	4	SWAp being defined with donors	11	No SWAp being defined	18
USH 5	Is there an investment program for urban sanitation based on a MDG needs assessment published and agreed?	Assessed, agreed and published	8	Assessed	14	Not assessed	11
USH 6	Is there an annual review in place to monitor subsector performance and to set new targets/undertakings?	Review and setting of new undertakings	7	Review but no setting of new undertakings	10	No review or setting of new undertakings	16
Budget							
USH 7	Are financial flows in the subsector sufficient to meet the MDG?	More than 75 percent of what is needed	4	Between 50-75 percent of needs	9	Less than 50 percent of needs	20
USH 8	Does the budget structure enable urban sanitation spending to be identified?	Yes	4	Only at local level	8	No	20
USH 9	Does the government budget comprehensively cover domestic and official donor investment/subsidy to urban sanitation?	More than 75 percent of funds to subsector on budget	11	Between 50-75 percent of funds to subsector on budget	7	Less than 50 percent of funds to subsector on budget	15
Expenditure							
USH 10	What is the percentage of official donor commitments utilized (three-year average)?	Over 75 percent	13	Over 50 percent	12	Less than 50 percent	8
USH 11	What is the percentage of domestic budget utilized (three-year average)?	Over 75 percent	17	Over 50 percent	9	Less than 50 percent	7
USH 12	Is domestic and official donor expenditure versus budget/commitment for the subsector reported in a nationally consolidated format?	Yes for domestic and donor expenditure	9	Yes for domestic expenditure	11	No	13
Equity							
USH 13	Are there clearly defined procedures for informing, consulting with and supporting local participation in planning, budgeting and implementing for urban sanitation?	Yes and systematically applied	3	Yes but not systematically applied	12	No	17

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	Urban sanitation	High scores (1)	No. countries	Medium scores (0.5)	No. countries	Low scores (0)	No. countries
USH 14	Have criteria (or a formula) been determined to allocate urban sanitation funding equitably to and within urban communities and are they being applied?	Yes that are applied	1	Yes but not applied consistently	7	No	25
USH 15	Is there periodic analysis by government and civil society organizations to assess whether equity criteria set by government have been applied in funding decisions?	Yes by government and civil society organizations	2	Yes but only by government	2	No	27
Output							
USH 16	Bearing in mind the country policy on subsidy is funding at local level spending units for subsidy in line with that policy and MDG targets?	In line with policy and MDG target	5	In line with policy but not MDG target	9	Not in line in over half of local spending	19
USH 17	Are there tools which have been specifically adapted and are being used at scale by health promoters for S&H in urban areas?	Tools adapted and used at scale	8	Tools exist but not used at scale	21	No tools and no health promoters	4
USH 18	Does government monitor quantity and quality of uptake?	Quality and quantity	9	Quality or quantity	11	Neither	12
Markets							
USH 19	Are there sufficient companies, operators and entrepreneurs to meet the demand of households for sanitation facilities (on-site or networked)?	Yes for both	10	Yes for on-site but not for networked	20	No	3
USH 20	Are there sufficient operators to handle the demand for excreta removal, treatment and disposal?	Yes for removal, treatment and disposal	3	Yes for removal but not treatment and disposal	19	Neither	11
USH 21	Does the government have a private sector development program for urban sanitation?	Yes and is effective	5	Developing	10	None	18
Uptake							
USH 22	Is the scale of uptake enough to meet the MDG?	Over 75 percent of MDG requirement	4	Over 50 percent of MDG requirement	9	No data on uptake	20
USH 23	Is the quality of uptake sufficient to meet the MDG standards of improved sanitation?	Over 75 percent of uptake MDG quality	6	Over 50 percent of uptake MDG quality	8	No data on uptake	19
USH 24	What percentage of urban households practice hand-washing at critical times?	Over 75 percent of households	3	Over 50 percent of households	9	Under 50 percent of households	21
Use							
USH 25	Based on user data from household surveys is the subsector on track to meet the MDG?	On-track	5	Off-track but keeping up with population growth	6	Off-track	22
USH 26	Are the questions and choice options in nationally representative household surveys consistent with MDG definitions?	Yes in all surveys	13	Yes in some surveys	15	No	5
USH 27	What percentage of people living in urban areas use improved toilet facilities?	More than 75 percent of people	8	More than 50 percent of people	14	Less than 50 percent of people	11

Appendix B

The WSS Sector Performance and Investment Data

The following WSS sector performance and investment data are intended to complement the suggestions provided in Chapter 6 to design effective forms of technical assistance and investment support. The data presented combine that gathered through the CSO2 with existing JMP and OECD DAC CRS aid flow data:

1. **Coverage, JMP data:** The first column presents JMP data to show countries' historic performance in coverage, the sector's key outcome variable. For urban water supply, a modified version of coverage is used to show performance against the immense variation in urban growth rates, from just over 2 percent in Zambia to just under 7 percent a year in Rwanda: the percentage of urban growth that was met by improved water supplies or sanitation coverage increase.
2. **Coverage, government data:** For rural water supply, and both sanitation subsectors, column two depicts countries' own estimates of coverage change - where these differ from the JMP estimates. Analysis drawn from the CSO2 country reports suggests that government estimates - which are usually based on facilities provided—give an early indication as to whether the coverage trends reported by surveys (used by the JMP) are about to switch direction. For example, in Rwanda, government data for rural water supply indicate an upturn based on output, yet to be picked up in surveys. In the case of urban water supply, the column shows the percentage of urban population growth covered with *piped* water. This shows the progress that utilities have been making increasing access, as opposed to the other forms of service, which may have resulted from self-supply (for instance, private boreholes). It is necessary to use JMP data for this metric.
3. **Overall scorecard average:** Column three provides an at-a-glance overview of scorecard performance (average across all nine building blocks), and the countries' priority in terms of developing the service delivery pathway.
4. **Service delivery pathway development stage:** Column four indicates the stage of service delivery pathway development, using typology introduced in Chapter 6:
 - Stage 1 subsectors are 'Establishing', which register low scores throughout the service delivery pathway, and would benefit from project-based grants and loans direct to the line ministry, with technical assistance (TA) to support first generation reforms, particularly focused on sector-specific capacity.
 - Stage 2 subsectors are 'Transitioning', which have made some progress in putting in place enabling environment building blocks (enabling pillar) and implementation systems (developing pillar) and would now benefit from programmatic, earmarked support channeled to the ministry of finance, and TA supporting second generation reforms which link the sector to core government systems.
 - Stage 3 subsectors have 'Transitioned', which scored well on their *enabling* pillar or their *developing* pillar, or both but can still make improvements in the *sustaining* pillar, benefiting from budget support channeled to the ministry of finance, with TA to consolidate sector capacity and consolidate links to economywide capacity.
5. **Aid flows per capita served (water supply)/ assumed user contribution (sanitation):** Column five differs for water supply and sanitation subsectors. For water supply it shows past 'value for money', the aid received per person who obtained coverage (see Box 4.1: Interpreting sector progress against aid per capita). While 1995 is the first year for which data is available from the OECD DAC CRS aid flow database, the cut-off of 2005 reflects the time lag for commitments to be realized and reflected in beneficiary numbers in surveys, or at least government provider data. For sanitation, which is not separately distinguished in historic aid data for the sector and is estimated to represent a small proportion of the total, the column shows the expected user contribution

for sanitation hardware, based on policy or (where unspecified) discussion with sector stakeholders. While in many countries, much, if not all, of the capital costs of sanitation are expected to be met by users, the scorecard assessments identified a general lack of software tools, approaches, and financing to stimulate households to finance and build their own facilities.

6. **Government planned cost per capita:** Column six depicts the expected average per-capita cost to achieve national targets (based on government coverage data). The figures give a rough indication of future 'value for money', although they reflect underlying policy variables such as technology mix, with the result that a higher cost per beneficiary may reflect higher service levels. Notwithstanding large changes in terms of domestic financing or technology mix, comparison with past aid per beneficiary (column

five, water supply) provides a credibility check on the likelihood of investment being realized at that cost.

7. **Anticipated domestic allocation as a percentage of government revenue:** Column seven depicts the anticipated spending from governments, as a proportion of their domestic revenues (that is, excluding grants). Across the four subsectors, few countries are currently approaching the 5 percent of government revenue proposed as a benchmark for domestic spending in this report (Chapter 7), on the assumption that external finance may not increase significantly across the region.
8. **Subsector financing deficit:** The final column (8) shows the financing deficits according to countries' own estimates of the costs of meeting their national target (that is, where available, derived from governments' own costings or the CSO2 costing model using nationally recognized sector data).

Table B.1
Investment data: Rural water supply

Country	Coverage change (1990–2008) JMP	Coverage change (1990–2008 approx.) government	Overall scorecard average	Service delivery pathway development stage	Aid (US\$) per beneficiary (1995–2005)	Planned cost per beneficiary (US\$) government	Anticipated domestic allocation as % government revenue	Deficit (US\$ million) government
Angola	-2%	-	1.7	Stage 2	288	133	0.43%	-
Benin	22%	-	2.4	Stage 3	133	70	0.46%	-
Burkina Faso	36%	-	1.9	Stage 2	38	123	0.38%	48
Burundi	3%	-3%	0.9	Stage 2	26	27	2.35%	3
C.A.R.	4%	14%	0.9	Stage 1	39	103	0.08%	24
Cameroon	20%	-	0.8	Stage 1	16	48	0.14%	10
Chad	8%	19%	1.4	Stage 2	118	78	0	127
Congo, Braz.	0%	8%	1.2	Stage 2	4	34	0.10%	-
Congo, Dem.Rep.	1%	-4%	0.9	Stage 1	3	37	0	8
Cote D'ivoire	1%	-	0.8	Stage 1	13	157	0.03%	120
Ethiopia	18%	51%	2.2	Stage 3	9	14	1.45%	-
Gambia, The	19%	21%	2.0	Stage 2	58	48	0.06%	12
Ghana	37%	20%	2.5	Stage 3	64	94	0.54%	65
Kenya	20%	6%	1.6	Stage 2	17	109	1.32%	78
Liberia	17%	-14%	1.5	Stage 2	6	93	0	8
Madagascar	13%	27%	1.6	Stage 2	8	98	2.35%	111
Malawi	44%	20%	2.1	Stage 2	12	28	0.20%	46
Mali	22%	26%	1.9	Stage 2	79	106	0	10
Mauritania	21%	-	0.9	Stage 1	116	121	0	14
Mozambique	3%	37%	1.7	Stage 2	101	27	0.37%	14
Niger	8%	17%	1.6	Stage 2	51	115	0	45
Nigeria	12%	-	1.4	Stage 2	8	63	0.50%	170
Rwanda	-4%	10%	2.3	Stage 3	219	83	1.81%	11
Senegal	9%	-	2.1	Stage 2	119	171	0.25%	2
Sierra Leone	-23%	-6%	1.4	Stage 2	-16	162	2.49%	44
South Africa	12%	42%	2.6	Stage 3	52	278	0.51%	-
Sudan	-6%	6%	1.8 (N)/ 0.8(S)	Stage 2 (N)/1(S)	49	84	0.21%	120
Tanzania	-1%	12%	2.0	Stage 2	57	36	0.37%	-
Togo	5%	-	1.6	Stage 2	47	64	0.27%	4
Uganda	25%	-	2.0	Stage 3	16	44	0.94%	35
Zambia	23%	-	2.0	Stage 2	83	78	0	77
Zimbabwe	2%	-30%	0.8	Stage 1	166	90	-	131

Table B.2
Investment data: Urban water supply

Country	% of urban population growth covered (1990–2008), JMP	% of urban population growth covered by piped water (1990–2008) JMP	Overall scorecard average	Service delivery pathway development stage	Aid (US\$) per beneficiary (1995–2005)	Planned cost per beneficiary (US\$) government	Anticipated domestic allocation as % government revenue	Deficit (US\$ million) government
Angola	79%	55%	1.8	Stage 2	6	123	0.38%	-
Benin	94%	32%	2.3	Stage 2	71	126	0	15
Burkina Faso	110%	27%	2.6	Stage 3	189	200	0.40%	28
Burundi	73%	58%	1.7	Stage 2	51	189	1.34%	1
C.A.R.	117%	2%	1.0	Stage 1	31	114	0.19%	1
Cameroon	105%	25%	1.6	Stage 2	8	45	0.56%	-
Chad	82%	22%	1.5	Stage 2	38	104	0	113
Congo, Braz.	95%	43%	1.5	Stage 2	2	289	0.84%	52
Congo, Dem.Rep.	71%	-2%	1.4	Stage 2	3	90	0	77
Cote D'ivoire	96%	85%	2.1	Stage 2	27	245	0.14%	187
Ethiopia	115%	64%	2.1	Stage 2	36	152	0.09%	34
Gambia, The	102%	73%	2.3	Stage 2	12	87	0.62%	25
Ghana	95%	20%	2.3	Stage 2	74	141	0.16%	54
Kenya	75%	30%	1.7	Stage 2	69	108	1.37%	-
Liberia	74%	-11%	1.5	Stage 2	1	140	0.43%	15
Madagascar	65%	4%	1.6	Stage 2	38	129	0.01%	-
Malawi	98%	14%	2.3	Stage 2	37	150	0.20%	-
Mali	107%	51%	1.8	Stage 2	55	155	0	16
Mauritania	76%	62%	1.3	Stage 2	104	112	0	10
Mozambique	79%	19%	1.8	Stage 2	63	127	0.83%	-
Niger	135%	53%	2.4	Stage 3	88	183	0	-
Nigeria	72%	-7%	1.4	Stage 2	17	90	0.50%	669
Rwanda	69%	7%	2.0	Stage 2	113	85	0.10%	8
Senegal	97%	112%	2.7	Stage 3	141	126	0.01%	17
Sierra Leone	111%	-14%	1.5	Stage 2	84	719	0.93%	90
South Africa	101%	96%	2.8	Stage 3	9	385	0.66%	-
Sudan	50%	28%	1.7 (N)/ 0.7(S)	Stage 2 (N)/1(S)	1	261	0.34%	228
Tanzania	69%	14%	2.3	Stage 2	98	225	0.62%	101
Togo	93%	10%	1.2	Stage 1	20	71	0.03%	11
Uganda	103%	28%	2.3	Stage 2	83	219	0.30%	38
Zambia	82%	9%	2.4	Stage 2	249	0	0	-
Zimbabwe	99%	77%	1.2	Stage 1	27	254	-	234

Table B.3
Investment data: Rural sanitation

Country	Coverage increase (1990–2008) JMP	Coverage increase (1990–2008 approx.), government	Overall scorecard average	Service delivery pathway development stage	Assumed user contribution	Planned cost per beneficiary (US\$) government	Anticipated domestic allocation as % government revenue	Deficit (US\$ million) government
Angola	12%	-	0.7	Stage 1	0%	29	0.02%	12
Benin	3%	-	1.4	Stage 2	40%	165	0.05%	125
Burkina Faso	4%	-	1.5	Stage 2	4%	17	0.08%	11
Burundi	2%	-9.0%	1.0	Stage 1	50%	16	0	13
C.A.R.	23%	0.7%	0.9	Stage 1	0%	20	0.06%	7
Cameroon	0%	-	0.7	Stage 1	30%	43	0	55
Chad	2%	5.0%	0.3	Stage 1	0%	13	0	15
Congo, Braz.	0%	3.1%	1.4	Stage 2	0%	16	0.01%	1
Congo, Dem.Rep.	19%	0.0%	0.6	Stage 1	40%	15	0	25
Cote D'ivoire	3%	36.0%	0.4	Stage 1	10%	30	0	42
Ethiopia	7%	25.7%	1.8	Stage 2	100%	61	0.22%	-
Gambia, The	7%	2.9%	1.0	Stage 1	25%	17	0	2
Ghana	3%	-	1.3	Stage 2	100%	130	0	-
Kenya	5%	-	1.6	Stage 2	82%	158	0.51%	26
Liberia	1%	-	1.2	Stage 2	80%	130	0	9
Madagascar	4%	38.0%	1.6	Stage 2	90%	130	0.00%	-
Malawi	16%	32.0%	2.1	Stage 2	90%	47	0.08%	43
Mali	9%	-	1.3	Stage 2	30%	21	0	10
Mauritania	1%	-	0.3	Stage 1	40%	61	0	14
Mozambique	0%	30.0%	1.2	Stage 2	48%	39	0.07%	34
Niger	2%	4.0%	0.8	Stage 2	50%	30	0	40
Nigeria	-8%	-	1.4	Stage 2	100%	75	0	-
Rwanda	33%	15.0%	1.7	Stage 2	70%	43	0.25%	3
Senegal	16%	-	1.3	Stage 2	4%	38	0.03%	10
Sierra Leone	2%	4.0%	1.4	Stage 2	100%	19	0	-
South Africa	7%	48.0%	2.6	Stage 3	0%	213	0.21%	235
Sudan	-5%	-1.6%	1.2 (N)/ 0.7(S)	Stage 2(N)/ 1(S)	74%	41	0.02%	77
Tanzania	-2%	-	0.7	Stage 1	100%	36	0.003%	-
Togo	-5%	-	1.1	Stage 1	0%	66	0.02%	24
Uganda	9%	-	1.4	Stage 2	100%	12	0	-
Zambia	7%	-	1.9	Stage 2	90%	13	0	1
Zimbabwe	0%	-10.0%	0.8	Stage 1	50%	35	-	62

Table B.4
Investment data: Urban sanitation

Country	Coverage increase (1990–2008) JMP	Coverage increase (1990–2008 approx.), government	Overall scorecard average	Service delivery pathway development stage	Assumed user contribution	Planned cost per beneficiary (US\$) government	Anticipated domestic allocation as % government revenue	Deficit (US\$ million) government
Angola	28%	-	1.4	Stage 2	0%	136	0.43%	-
Benin	10%	-	1.1	Stage 1	80%	164	0	96
Burkina Faso	5%	-	1.7	Stage 2	20%	41	0.07%	3
Burundi	8%	-	1.1	Stage 1	10%	106	0	8
C.A.R.	22%	6.1%	0.8	Stage 1	0%	10	0.09%	1
Cameroon	-9%	-	0.6	Stage 1	30%	72	0	120
Chad	3%	12.0%	0.9	Stage 1	0%	75	0	10
Congo, Braz.	0%	13.1%	1.5	Stage 2	0%	21	0.01%	0
Congo, Dem.Rep.	0%	-1.0%	0.4	Stage 1	40%	124	0	253
Cote D'ivoire	-2%	57.2%	0.8	Stage 1	10%	101	0.08%	91
Ethiopia	8%	62.8%	1.1	Stage 2	100%	107	0.61%	-
Gambia, The	5%	14.0%	0.9	Stage 1	0%	51	0	6
Ghana	7%	-	1.1	Stage 2	100%	261	0	-
Kenya	3%	5.0%	1.5	Stage 2	48%	191	0.54%	5
Liberia	4%	7.0%	0.8	Stage 2	50%	291	0	32
Madagascar	1%	57.0%	1.6	Stage 2	90%	291	0.00%	-
Malawi	1%	-23.0%	2.1	Stage 2	30%	80	0.13%	11
Mali	9%	-	1.2	Stage 1	30%	28	0	2
Mauritania	21%	-	0.3	Stage 1	25%	81	0	10
Mozambique	2%	15.0%	0.8	Stage 1	38%	86	0.22%	21
Niger	15%	40.0%	0.8	Stage 1	50%	58	0	12
Nigeria	-3%	-	1.3	Stage 2	50%	88	0	1195
Rwanda	15%	16.0%	1.6	Stage 2	70%	74	0.15%	6
Senegal	7%	-	1.7	Stage 2	10%	160	0.13%	14
Sierra Leone	3%	-21.0%	1.2	Stage 2	25%	119	0	26
South Africa	4%	32.0%	2.6	Stage 3	10%	420	0.43%	437
Sudan	-8%	11.5%	1.3 (N)/ 0.4(S)	Stage 2(N)/ 1(S)	80%	245	0.02%	306
Tanzania	5%	-	0.6	Stage 1	73%	52	0.04%	25
Togo	-1%	-	1.0	Stage 1	0%	121	0.07%	37
Uganda	3%	-	1.3	Stage 2	53%	34	0.02%	3
Zambia	-3%	-	2.3	Stage 2	30%	26	0	3
Zimbabwe	-2%	-59.0%	1.5	Stage 2	30%	132	-	273

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- ⁵ Desk review sources included sector public expenditure reviews, value for money studies, joint sector reviews, utility self-assessments, credit rating reports, MDG costings, household surveys, and previous sector assessments.
 - ⁶ IDA/IMF. 2009. Heavily Indebted Poor Countries (HIPC) Initiative and Multilateral Debt Relief Initiative (MDRI) - Status of Implementation.
 - ⁷ Marshall, M. 2006. Conflict Trends in Africa, 1946–2004: A Macro-Comparative Perspective.
 - ⁸ Institute for Economics and Peace. 2010. Global Peace Index: Peace, Wealth and Human Potential.
 - ⁹ In this report coverage, 'use' and 'access' are used interchangeably. However, it should be noted that while JMP estimates of coverage are based on surveys, in several countries governments' own estimates are based on 'provider data', that is, those made by service providers (ministries, utilities, and others) on the basis of an assumed number of people served, per facility installed.
 - ¹⁰ See Note 9. For instance, in urban areas utility companies may provide engineering estimates based on the number of connections and known water production (the main reason DRC and Zimbabwe government estimates for water supply are lower than the JMP figures), and in rural areas known point sources may be multiplied by a government agreed standard number of users.
 - ¹¹ As all the figures for these groupings are weighted by population results for Nigeria account for (57 percent) of the resource rich group and results for DRC half of the LICF grouping.
 - ¹² This metric - growth in urban population served by piped household connections relative to growth in urban population overall - also strips out private self-supply solutions, such as boreholes, which are a common response to urban water shortages but outside the purview of government or utility supply.
 - ¹³ These two factors were assessed in each country as indicators for the CSO2 scorecard.

- ¹⁴ Special tabulation, UNICEF New York. 2010. Data is based on the latest household survey for each country, used for the JMP 2010 report. Income quintile data is not available for the following countries participating in CSO2: C.A.R., Kenya, Mozambique, South Africa and Sudan. Subsectors with a nonregressive pattern of access are Burundi (rural sanitation), and Burkina Faso (rural water supply).
- ¹⁵ Mauritania and Burundi, urban; Zimbabwe and Madagascar, rural.
- ¹⁶ Madagascar, urban; Liberia, rural.
- ¹⁷ OECD DAC Creditor Reporting System database and authors' calculations.
- ¹⁸ Estimates of anticipated finance for 2009–2011 were established through in-country consultation during development of the CSO2 costing models, which provide a breakdown between four major sources of finance: national government, local government, donors, and NGOs. This chapter contrasts domestic finance (national and local government) with donor finance (integrating NGO spending which makes up a small proportion of the total).
- ¹⁹ Bilateral project funding to rural water supply in Tanzania dried up in the early 1990s and was not replaced by large-scale programmatic funding until 2007, but the down-turn in coverage only started showing up consistently between 2002 and 2005 in a series of three surveys: Census 2002, HIV/AIDS Indicator Survey 2003, and Demographic and Health Survey 2005.
- ²⁰ Note also that CSO2 reports were conducted separately for the Government of Southern Sudan, and for the Republic of Sudan excluding the autonomous region of Southern Sudan. These are reflected here as separate scorecards for 'Southern Sudan' and 'Northern Sudan', respectively.
- ²¹ World Bank. 2009. Project Appraisal Document on a Proposed Grant in the Amount of SDR53.50 Million (US\$80 Million Equivalent) to Burkina Faso for an Urban Water Sector Project.
- ²² Marin, P., M. Fall, and H. Ouibiga. 2010. 'Corporatizing a Water Utility. A Successful Case Using a Performance-Based Service Contract for ONEA in Burkina Faso'. Gridlines Note no. 53, Public-Private Infrastructure Advisory Facility.
- ²³ Government of Uganda, Ministry of Water and Environment. 2008. Water and Sanitation Sector Performance Report 2008.
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- ²⁸ World Bank. 2005. 'Rural Water Supply and Sanitation Project Madagascar (IDA-30250) Implementation Completion Report' (Report 34060). Washington, D.C.: World Bank. Pg 2.
- ²⁹ Ibid.
- ³⁰ The comparison was undertaken by relating those priority actions presented in the 'Strategic Overview' of each report, to one or more building block of the service delivery pathway. The proportion of priority actions corresponding to each pillar was then calculated, and a comparison made with average pillar scores. Priority actions are said to respond to the reform needs (as identified using the scorecard) in those countries where the pillar with the lowest scorecard average receives the highest proportion of priority actions. While in some cases additional priority actions were included in the main report narrative, the Strategic Overview highlights the most important points for each country. Many priority actions directly reflected the indicators assessed by the scorecard - for example, a priority action to develop a sector investment plan corresponds to the planning building block, part of the enabling pillar. Others related to a particular building block or pillar, even if they did not correspond to a specific indicator: for example, a priority action to systematize procurement was assigned to the expenditure building block, as it is likely to have a positive effect on levels of budget utilization.
- ³¹ The quoted figures are derived from the CSO2 'government costings'. Where available, these are nationally adopted, needs-assessed sector investment plans. For countries that lack such costings, financing requirements are calculated using the CSO2's own costing model - entering national estimates of population, coverage, and technology (distribution, lifespan, and unit cost), as well as policy variables capturing expected user contribution and national targets, where these differ from the MDGs.
- ³² For the purposes of this analysis, budget support routed to the sector has been considered to be 'domestic', rather than 'external'. Although the source is external, obtaining

a share of budget support requires the water supply and sanitation sector to tap into core government budgeting systems, directly engaging with their ministries of finance rather than with donors.

- ³³ US\$7.2 billion per year is the sum of the deficits in all subsectors across all countries; that is, any subsectors with surpluses are ignored. Reallocations of surpluses between countries and subsectors are unlikely in the medium term, because funding is effectively 'locked-in' to donor projects and programs, and government medium-term expenditure frameworks.
- ³⁴ Where countries' own robust estimates of O&M requirements were not available, the CSO2 borrowed the approach of AICD to estimate O&M as a fixed percentage (varying depending on technology) of capital costs.
- ³⁵ This is likely associated with the greater proportion of domestic budgets spent on operational expenditure and salaries, which are more predictable, compared to the 'lumpy' capital investments which have often been financed by donors.
- ³⁶ A second set of 'JMP costings' were developed using the CSO2 costing models, inputting the same variables as per the 'government costings' but substituting in population data, coverage, and corresponding MDG targets from the 2010 JMP report, implying a total regional investment requirement of US\$13.6 million per year (US\$2.8 million per year for RWS, US\$4.3 million per year for UWS, US\$2.6 million per year for RSH, and US\$4 million per year for USH). This was set against the same anticipated annual spend, to leave a total minimum deficit at the regional level of US\$4.6 million per year.
- ³⁷ United Nations Development Programme. 2006. Human Development Report, 2006: Beyond Scarcity. Power, Poverty and the Global Water Crisis.
- ³⁸ Zimbabwe is excluded as up-to-date GDP data is not available.
- ³⁹ Africa Infrastructure Country Diagnostic. 2010. Africa's Infrastructure: A Time for Transformation. The AICD estimates of investment requirements are slightly higher than the CSO2 estimates due to various factors, including higher unit costs, particularly for rural water supply. However, at the aggregate level the estimates provided by the two studies are of similar magnitude.
- ⁴⁰ WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. 2010. Progress on Sanitation and Drinking Water, 2010 Update.
- ⁴¹ World Health Organization. 2007. Economic and Health Effects of Increasing Coverage of Low Cost Household Drinking Water Supply and Sanitation Interventions to Countries Off-Track to Meet MDG Target 10.
- ⁴² Ibid.

Notes

Notes



Angola Benin Burkina Faso Burundi Central African Republic
Cameroon Chad Congo, Brazzaville Democratic Republic of
Congo Côte d'Ivoire Ethiopia The Gambia Ghana Kenya
Liberia Madagascar Malawi Mali Mauritania Mozambique Niger
Nigeria Rwanda Senegal Sierra Leone South Africa Sudan
Tanzania Togo Uganda Zambia Zimbabwe Angola Benin
Burkina Faso Burundi Central African Republic Cameroon Chad
Congo, Brazzaville Democratic Republic of Congo Côte d'Ivoire
Ethiopia The Gambia Ghana Kenya Liberia Madagascar
Malawi Mali Mauritania Mozambique Niger Nigeria Rwanda
Senegal Sierra Leone South Africa Sudan Tanzania Togo
Uganda Zambia Zimbabwe Angola Benin Burkina Faso
Burundi Central African Republic Cameroon Chad Congo,
Brazzaville Democratic Republic of Congo Côte d'Ivoire
Ethiopia The Gambia Ghana Kenya Liberia Madagascar
Mali Mauritania Mozambique Niger Nigeria Rwanda Senegal
Sierra Leone South Africa Sudan Tanzania Togo Uganda
Zambia Zimbabwe Angola Benin Burkina Faso Burundi
Central African Republic Cameroon Chad Congo, Brazzaville
Democratic Republic of Congo Côte d'Ivoire Ethiopia The
Gambia Ghana Kenya Liberia Madagascar Malawi Mali
Mauritania Mozambique Niger Nigeria Rwanda Senegal
Sierra Leone South Africa Sudan Tanzania Togo Uganda
Zambia Zimbabwe



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