



An AMCOW Country Status Overview

# Water Supply and Sanitation in Mali

Turning Finance into  
Services for 2015  
and Beyond

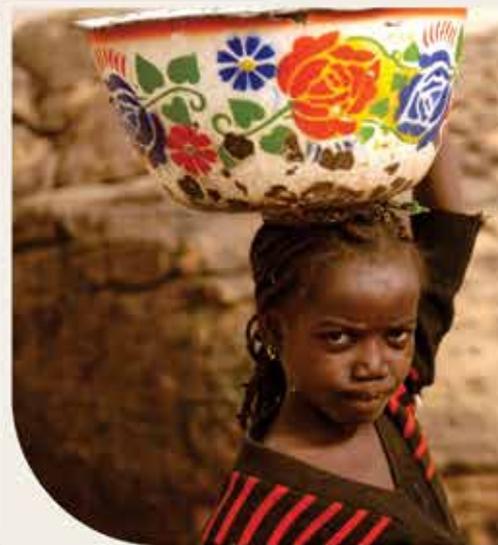




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## Strategic Overview

The water supply and sanitation sector in Mali has a number of strengths, chief among these being the political stability that has reigned in the country for the last 20 years, loyal partners, and public policies that are both clear and implemented in partnership. For several years now, the state and its partners have been committed to implementing a sectorwide approach; this is due to reach an important milestone in 2012 with the introduction of sector budget support, the principles of which have been in place since 2008. As in many countries in the subregion, Mali has undertaken a series of reforms since the end of the 1990s that have profoundly altered both the institutional landscape and stakeholder relationships. The Water and Sanitation Sector Program (PROSEA: *Programme Sectoriel Eau Potable et Assainissement*) now acts as the frame of reference for the sector.

When current access rates are compared to the 2015 targets, it becomes clear that the pace of infrastructure construction is still too low despite considerable efforts having been made, particularly in the rural water supply subsector. The situation in the sanitation and hygiene subsector is of particular concern as access rates are still exceedingly low, especially in rural areas. According to the figures provided by the government, for the Millennium Development Goal targets to be achieved it will be

necessary to provide services to an additional 460,000 people per year for drinking water and an additional 720,000 people per year for sanitation.

The target for drinking water remains achievable, but only if the government makes this a real national priority and provided that this priority is supported by implementation of the domestic and donor financing included in PROSEA. It would appear that the target for sanitation will be far more difficult to achieve by 2015, even if considerably greater efforts are made. The main bottlenecks hindering the development of the sanitation subsectors are not caused by the level of financing available, but rather by a lack of capacity within the sector.

Analysis of the financing committed to the sector over the next few years shows that all subsectors are currently underfinanced, with the whole (urban and rural) sanitation and hygiene sector being the most severely underfunded. Nevertheless, the majority of the financial partners are confident that PROSEA will be able to improve the levels of financing available and streamline the utilization of funds.

This second AMCOW Country Status Overview (CSO2) has been produced in collaboration with the Government of Mali and other stakeholders.

## Agreed priority actions to tackle these challenges, and ensure finance is effectively turned into services, are:

### Sectorwide

- Continue the transfer of competencies to communes within the water supply and sanitation sector, combined with back-up support from deconcentrated technical departments at the region and district level.
- Implement institutional reform of the urban water supply subsector (separate water and energy, create an asset-holding company and an operator).
- Implement PROSEA as the planning and coordination framework for the entire water supply and sanitation sector.
- Continue to use the Objective-based program budget/Medium-Term Expenditure Framework (BPO/MTEF) tool, particularly for sanitation and hygiene, by improving the way in which this is linked to the financial planning carried out at the commune level.
- Improve the absorption and implementation rate of donor financing.
- Increase the funding allocated to sanitation and hygiene.
- Lay the groundwork for the water supply sector's transition to SBS (Sector Budget Support) (ABS: *Appui Budgétaire Sectoriel*).
- Establish indicators for the rural and semi-urban water supply subsector.
- Ensure the definitions of 'urban' used by INSTAT (*Institut National de la Statistique*) and the urban operator (*Energie du Mali*) are consistent.
- Develop monitoring and evaluation for the sanitation and hygiene subsectors.
- Harmonize the standards and methodologies used by the Joint Monitoring Programme and the government.

### Rural water supply

- Assist the rural water supply subsector to make the transition towards sector budget support.
- Improve the absorption capacity: reinforce the implementation capacity of the private sector and improve public procurement procedures.
- Improve monitoring and evaluation of the subsector and increase the communes' involvement.
- Improve the sustainability of the water supply services in rural areas, as this is currently weak. Expand the use of the operator back-up support and Technical and Financial Monitoring (STEFI: *Suivi Technique et Financier*) mechanism.
- Continue the policy of promoting public-private partnerships (PPP) in rural areas.
- Accord priority to villages that currently have no modern water point in place.

### Urban water supply

- Implement the institutional reform agreed in 2009.
- Implement the 'Kabala' project to secure Bamako's future water supply.
- Complete the reform of the urban water supply subsector by ensuring that this respects the principles of equity and universal access to the public water service across EDM's (*Energie du Mali*) territory.
- Ensure service improvements are supported by an adjustment to the tariff to guarantee the financial stability of the urban water supply subsector.
- Focus on peri-urban areas as these currently come under the responsibility of both DNH (National Directorate of Water Resources: *Direction Nationale de l'Hydraulique*) and EDM and thus have poor coverage.

## Rural sanitation and hygiene

- Set up a monitoring and evaluation mechanism with monitoring indicators that are specially adapted to the rural sanitation subsector in Mali.
- Improve the subsector's capacity to use the BPO/MTEF tool to increase the financing available to the rural sanitation subsector.
- Develop strategies for implementing the National Policy and complete the regulatory texts required for its operationalization.
- Ensure greater consideration is given to hygiene and sanitation in commune planning (Commune Social Development, Economic, and Cultural Plans – PDSEC: *Plans Communaux de Développement Social, Economique, et Culturel*; Strategic Sanitation Plan – PSA: *Plan Stratégique d'Assainissement* and the communes' budgets).
- Promote awareness-raising and hygiene education campaigns and reduce open defecation through the development of the Community-Led Total Sanitation approach.
- Improve the capacity of the deconcentrated state departments to respond to the communes' demand for back-up support.

## Urban sanitation and hygiene

- Secure financing for the subsector, notably in the form of a sewerage surcharge added to the water bill.
- Provide capacity-building to the communes to ensure they are able to take on all or part of the sanitation infrastructure contracting authority role.
- Finalize and implement the sanitation master plan for Bamako, clarifying the conditions necessary for its institutional customization.
- Apply the provisions included in the National Sanitation Policy (PNA: *Politique Nationale d'Assainissement*), notably with regard to Strategic Sanitation Plans and the development of disposal sites.

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## Acronyms and Abbreviations

|         |  |          |   |
|---------|--|----------|---|
| ABS     | Sector Budget Support<br>( <i>Appui Budgétaire Sectoriel</i> )   | JMP      | Joint Monitoring Programme<br>(UNICEF/WHO)  |
| AEPA    | Water Supply and Sanitation<br>( <i>Approvisionnement en Eau Potable et Assainissement</i> )   | KfW      | German Bank for Reconstruction and Development<br>( <i>Kreditanstalt für Wiederaufbau</i> )   |
| AFD     | French Development Agency<br>( <i>Agence Française de Développement</i> )  | MDG      | Millennium Development Goal   |
| AfDB    | African Development Bank   | M&E      | Monitoring and evaluation   |
| AMCOW   | African Ministers' Council on Water  | MEA      | Ministry of the Environment and Sanitation<br>( <i>Ministère de l'Environnement et de l'Assainissement</i> )  |
| ANGESEM | National Agency for the Management of Wastewater Treatment Plants in Mali<br>( <i>Agence Nationale de Gestion des Stations d'Épuration au Mali</i> )                   | MEE      | Ministry of Energy and Water<br>( <i>Ministère de l'Énergie et de l'Eau</i> )   |
| AUE     | Association d'Usagers d'Eau  | MTEF     | Medium-Term Expenditure Framework   |
| BPO     | Objective-based program budget<br>( <i>Budget Programme par Objectif</i> )   | NGO      | Nongovernmental organization  |
| BSI     | Special Investment Budget<br>( <i>Budget Spécial d'Investissement</i> )  | O&M      | Operation and maintenance   |
| CAPEX   | Capital expenditure  | OPEX     | Operations expenditure  |
| CLTS    | Community-Led Total Sanitation   | PASEPARE | Drinking Water, Sanitation and Water Resources Sector Support Program<br>( <i>Programme d'Appui au Secteur de l'Eau Potable, de l'Assainissement et des Ressources en Eau</i> ) |
| CPS     | Statistics and Planning Unit<br>( <i>Cellule de Planification et de Statistique</i> )  | PDSEC    | Commune Social Development, Economic and Cultural Plan ( <i>Plans Communaux de Développement Social, Economique, et Culturel</i> )  |
| CREE    | Water and Electricity Regulatory Commission<br>( <i>Commission de Régulation Eau et Electricité</i> )  | PNA      | National Sanitation Policy<br>( <i>Politique Nationale d'Assainissement</i> )   |
| CSO2    | Country Status Overview (second round)   | PPP      | Public-private partnership  |
| DHSP    | Hygiene and Public Health Division<br>( <i>Division Hygiène et Salubrité Publique</i> )  | PROSEA   | Water and Sanitation Sector Program<br>( <i>Programme Sectoriel Eau et Assainissement</i> )   |
| DNACPN  | National Directorate of Sanitation and Pollution and Nuisance Control<br>( <i>Direction Nationale de l'Assainissement et du Contrôle des Pollutions et Nuisances</i> ) | PRSP     | Poverty Reduction Strategy Paper  |
| DNH     | National Directorate of Water Resources<br>( <i>Direction Nationale de l'Hydraulique</i> )   | PSA      | Strategic Sanitation Plan<br>( <i>Plan Stratégique d'Assainissement</i> )   |
| DNS     | National Directorate of Health<br>( <i>Direction Nationale de la Santé</i> )   | RSH      | Rural sanitation and hygiene  |
| DP      | Development partner  | RWS      | Rural water supply  |
| DRH     | Regional Directorate of Water Resources<br>( <i>Direction Régionale de l'Hydraulique</i> )   | SIGMA    | Geographical Information System of Mali<br>( <i>Système d'Information Géographique du Mali</i> )  |
| EDM     | Energie du Mali  | STEFI    | Technical and Financial Monitoring<br>( <i>Suivi Technique et Financier</i> )   |
| EU      | European Union   | UNICEF   | United Nations Children's Fund  |
| FÉDAL   | Certification of 'open defecation free' status   | USH      | Urban sanitation and hygiene  |
| GDP     | Gross domestic product   | UWS      | Urban water supply  |
| GNI     | Gross national income  | WHO      | World Health Organization   |
| INSTAT  | Institut National de la Statistique  | WSP      | Water and Sanitation Program  |
| IWRM    | Integrated Water Resources Management  | WSS      | Water supply and sanitation   |

Exchange rate: US\$1 = 496 CFA Francs.<sup>1</sup>

# 1. Introduction

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).<sup>2</sup> AMCOW delegated this task to the World Bank's Water and Sanitation Program and the African Development Bank who are implementing it in close partnership with UNICEF and WHO in over 30 countries across SSA. This CSO2 report has been produced in collaboration with the Government of Mali and other stakeholders during 2009/10.

The analysis aims to help countries assess their own service delivery pathways for turning finance into water supply and sanitation services in each of four subsectors: rural and urban water supply, and rural and urban sanitation and hygiene. The CSO2 analysis has three main components: a review of past coverage; a costing model to assess the adequacy of future investments; and a scorecard which allows diagnosis of particular bottlenecks along the service delivery pathway. The CSO2's contribution is to answer not only whether past trends and future finance are sufficient to meet sector targets, but what specific issues need to be addressed to ensure finance is effectively turned into accelerated coverage in water supply and sanitation. In this spirit, specific priority actions have been identified through consultation. A synthesis report, available separately, presents best practice and shared learning to help realize these priority actions.

## 2. Sector Overview: Coverage and Finance Trends

### Coverage: Assessing Past Progress

Figure 1 provides an overview of the situation regarding access to drinking water and sanitation in 1990, 2008, and 2015. These figures use two data sources: Joint Monitoring Programme (JMP) figures and those provided by the Government of Mali. The Millennium Development Goal (MDG) target for 2015 has been calculated from the 1990 access rate given by the JMP, whereas the national target for 2015 has been calculated from the 1990 access rate provided by the government. There is a clear difference between the situation observed in the water supply subsector (where both the JMP and government figures indicate it is possible for the MDG target to be achieved if the current pace of development is sustained) and that of sanitation (where the MDG target is unlikely to be met unless there is a fundamental increase in the rate of progress).

To illustrate this difference in the rate at which access to water supply and access to sanitation is developing, the average number of additional people provided with access to sanitation and drinking water each year between 1990

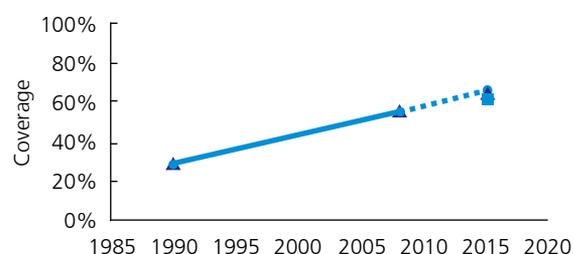
and 2008 can be compared with the number of people to whom it will be necessary to provide access between 2009 and 2015 for the MDG targets to be attained. The results vary depending on the estimate used:

- If the JMP figures are used, the ratio stands at around 1.65 for drinking water—which means that, between now and 2015, there needs to be a 65 percent increase in the efforts made between 1990 and 2008 if the MDG targets are to be met. For sanitation, however, this ratio stands at 5.46—which presents a far more considerable challenge.
- If the figures utilized by the Government of Mali for 2008 and 2015 are used, this same ratio becomes 1.70 for drinking water (and remains unchanged for sanitation as the only figures available are those of the JMP). There is, therefore, very little difference between the two estimates.

To achieve the MDG target for drinking water, access needs to be provided to an additional 420,000 (JMP) or 460,000 (government) people per year. For sanitation, an additional 710,000 people per year need to be provided

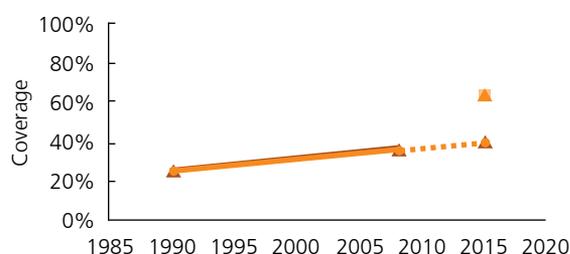
**Figure 1**  
Progress in water supply and sanitation coverage

#### Water supply



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

#### Sanitation



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

Sources: JMP and national data.

with access to an acceptable sanitation facility up to 2015—this will be a huge challenge given the current performance.

Even if Mali were to achieve its MDG targets in 2015, 2.6 million inhabitants would still be without access to an improved source of drinking water and 5.4 million would not have access to an acceptable sanitation facility; in both cases, the majority of the population with no access will live in rural areas (2.1 million rural inhabitants will still require access to drinking water and 3.7 million will be without access to sanitation).

### Investment Requirements: Testing the Sufficiency of Finance

The CSO2 methodology provides both an estimate of the amount to be invested in each subsector for the MDG targets to be achieved and the proportion of this amount that corresponds to public investment. It should be noted that the fact that public investment has been committed does not mean that the financing will be made available. For example, in the rural water supply (RWS) subsector, the 2010–12 Medium-Term Expenditure Framework (MTEF) estimates public investment of around US\$240 million over the three years; however, only about half of this amount has actually been secured (the sector review stated that US\$92 million had been obtained, to which

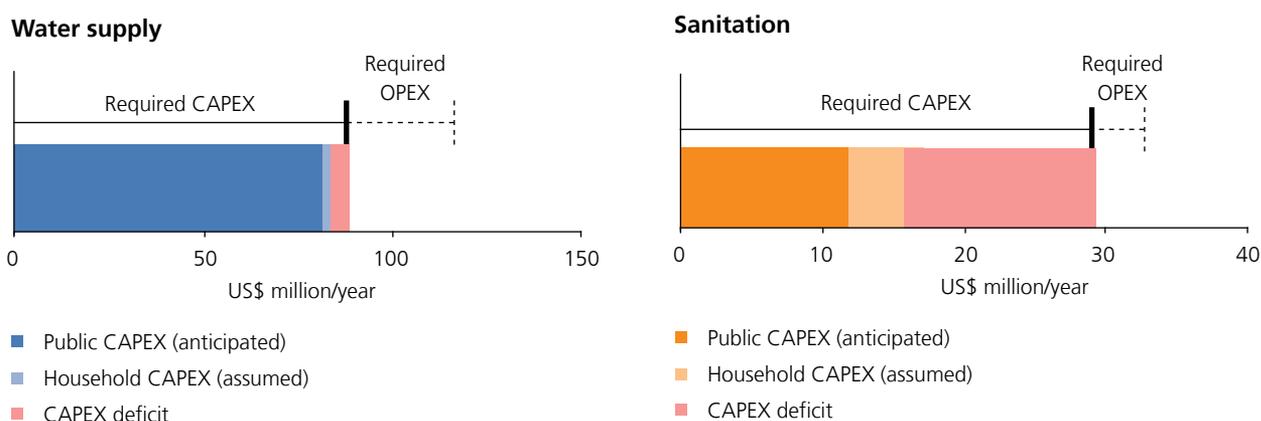
financing of around US\$28 million for the 2010–12 period from the Danish-Swedish assistance program (PADS) needs to be added, giving a total of US\$120 million obtained out of the US\$240 million required).

According to the CSO2 estimate, investment requirements stand at US\$89 million per year for drinking water and US\$29 million per year for sanitation (see Figure 2 and Table 1). Therefore, for the 2009–15 period, a total of US\$825 million is required for investment in water supply and sanitation. Nearly 64 percent of this investment needs to be allocated to rural areas.

A large part of the investment necessary for the water supply subsectors has already been committed (US\$83 million), whereas for sanitation this financing comes to only around US\$17 million. There is, therefore, a considerable funding deficit in the sanitation subsectors, particularly in the rural subsector.

It is important to note that the investment considered in the calculation only relates to drinking water and household sanitation facilities that are to be constructed and rehabilitated to meet the MDG targets. It excludes, for instance, studies and upfront investment required for mobilizing water resources, awareness-raising and hygiene education activities, as well as industrial sanitation and wastewater treatment plants.

**Figure 2**  
Required vs. anticipated (public) and assumed (household) expenditure for water



Sources: CSO2 estimates.

**Table 1**  
Coverage and investment figures

|                           | Coverage   |            | Target     | Population requiring access | CAPEX requirements |           | Anticipated public CAPEX |          |           | Assumed HH CAPEX | Total deficit |
|---------------------------|------------|------------|------------|-----------------------------|--------------------|-----------|--------------------------|----------|-----------|------------------|---------------|
|                           | 1990       | 2008       | 2015       |                             | Total              | Public    | Domestic                 | External | Total     |                  |               |
|                           | %          | %          | %          | '000/year                   | US\$ million/year  |           |                          |          |           |                  |               |
| Rural water supply        | 22%        | 44%        | 61%        | 288                         | 57                 | 54        | 39                       | 5        | 44        | 2                | 10            |
| Urban water supply        | 54%        | 81%        | 77%        | 129                         | 32                 | 32        | 34                       | 3        | 37        | 0                | -             |
| <b>Water supply total</b> | <b>29%</b> | <b>56%</b> | <b>65%</b> | <b>417</b>                  | <b>89</b>          | <b>86</b> | <b>73</b>                | <b>8</b> | <b>81</b> | <b>2</b>         | <b>5</b>      |
| Rural sanitation          | 23%        | 32%        | 62%        | 442                         | 19                 | 13        | 4                        | 2        | 6         | 3                | 10            |
| Urban sanitation          | 36%        | 45%        | 68%        | 269                         | 11                 | 8         | 4                        | 2        | 6         | 3                | 2             |
| <b>Sanitation total</b>   | <b>26%</b> | <b>36%</b> | <b>63%</b> | <b>711</b>                  | <b>29</b>          | <b>21</b> | <b>8</b>                 | <b>4</b> | <b>12</b> | <b>5</b>         | <b>12</b>     |

Source: CSO2 estimates.<sup>3</sup>

Had the targets set by the Government of Mali in the latest version of Water and Sanitation Sector Program (PROSEA: *Programme Sectoriel Eau Potable et Assainissement*) been used instead of the JMP targets, the investment requirements would have been even higher with an additional US\$21 million per year required for drinking water, mainly in the urban water supply subsector where the government target is a lot more ambitious (91 percent) than that of the JMP (77 percent). The estimates for sanitation would have remained unchanged, however, as, due to a lack of reliable national data, the JMP estimates have been used.

Once the soon-to-be published data from the latest census (2010) is taken into account, the population data could change considerably, with a further 1.3 million inhabitants being added to Mali's total population estimate—meaning the annual population growth rate is far higher than that used in current assumptions. In order for the MDG targets to be achieved, a total of 1.66 million additional inhabitants will need to be taken into account. This updated population data could, therefore, significantly increase the level of investment required and render achievement of the MDG targets less likely, including those pertaining to the water supply subsectors.

In addition to the investment requirements given above, US\$33 million per year will be needed to finance the operation and maintenance (O&M) costs of current and future infrastructure, with US\$29 million of this required for drinking water and US\$4 million for sanitation (CSO2

**Table 2**  
Annual OPEX requirements

| Subsector                 | OPEX<br>US\$ million/year |
|---------------------------|---------------------------|
| Rural water supply        | 11                        |
| Urban water supply        | 18                        |
| <b>Water supply total</b> | <b>29</b>                 |
| Rural sanitation          | 2                         |
| Urban sanitation          | 2                         |
| <b>Sanitation total</b>   | <b>4</b>                  |

Source: CSO2 estimates.

estimates, see Table 2). A large part of these costs is to be borne by households, either out of their own budget (for household latrines), through the tariff or via a fixed contribution (for water supply infrastructure in both rural and urban areas).

The availability of finance is only part of the picture. Bottlenecks can, in fact, occur throughout the service delivery pathway—all the institutions, processes, and actors that translate sector funding into sustainable services. Where the pathway is well developed, sector funding should turn into services at the estimated unit costs. Where it is not, the above investment requirements may be gross underestimates. The rest of this report evaluates the service delivery pathway in its entirety, locating the bottlenecks and presenting the agreed priority actions to help address them.

### 3. Reform Context: Introducing the CSO2 Scorecard

The CSO2 scorecard is an assessment tool providing a snapshot of reform progress along the service delivery pathway. This scorecard looks at nine building blocks of the service delivery pathway, which correspond to specific functions classified in three categories: three functions that refer to enabling conditions for putting services in place (policy development, planning new undertakings, budgeting); three actions that relate to developing the service (expenditure of funds, equity in the use of these funds, service output); and three functions that relate to sustaining these services (facility maintenance, expansion of infrastructure, use of the service). Each building block is assessed against specific indicators and scored from 1 (poor) to 3 (excellent) accordingly.<sup>4</sup>

Figure 3 shows the overall scorecard results obtained by Mali, which are compared to the average results of its peer-group countries in SSA.<sup>5</sup> It can be seen that the scorecard places Mali within the average of other African low-income countries.

As far as sector context is concerned, the water supply and sanitation (WSS) sector in Mali underwent considerable upheaval during the early years of the decade of the 2000s. This period was marked both by the notable advances made (particularly in the rural and semi-urban water supply subsectors) and by the difficulties encountered, for which initial solutions began to be found in 2009–10 (notably in the sanitation and hygiene subsectors).

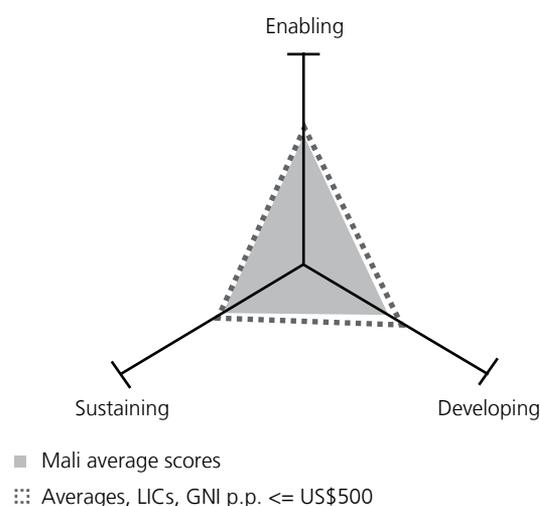
Mali has made remarkable progress in terms of strategy, policy, and regulatory framework, although there are significant differences from one subsector to another. Numerous reforms have been introduced that have profoundly altered the institutional landscape.

Although the spirit of reform is present in the WSS sector as a whole in Mali, the situation at subsector level is more varied. Although the rural and semi-urban water supply subsector is relatively well organized with a strategy that has recently been substantially improved and updated (in 2007), the organization of the sanitation subsectors is very recent.

From 2005, intense review has led to the foundations of a programmatic approach being put in place. This has been manifested in two ways: (a) through the design of a framework to combine planning and coordination at national level, the PROSEA; and (b) through the implementation of a MTEF for water supply and sanitation, broken down into an Objective-based program budget (BPO: *Budget Programme par Objectif*) for water supply and a BPO for sanitation. The target now is for the water supply sector to make the transition to Sector Budget Support (ABS: *Appui Budgétaire Sectoriel*) in 2012.

The urban water supply (UWS) subsector underwent considerable upheaval at the initial years of the 2000s with the old public water and electricity company, *Energie du Mali* (EDM), being placed under concession and with the creation of an independent regulator, the Water and Electricity Regulatory Commission (CREE: *Commission de Régulation Eau et Electricité*). The public-private partnership gradually disintegrated as a result of two tariff reductions decided

**Figure 3**  
Average scorecard results for enabling, developing, and sustaining service delivery, and peer-group comparison



Source: CSO2 scorecard.

by the government, coupled with chronic underinvestment linked to the fact that EDM's 'strategic partner', Saur International, failed to honor its commitments. The crisis reached its peak in the autumn of 2005 with the departure of Saur International and the de-facto renationalization of EDM. Since then, the financing that the subsector so

desperately needs has been dependent on clarification of the sector's institutional context. This was finally achieved through a political decision taken in 2009 which led to the creation of an asset-holding company, the separation of water and electricity activities, and the establishment of a new tariff structure.

**Table 3**  
**Key dates in the reform of the sector in Mali**

| Year | Event   |
|------|---|
| 2000 | Signature and implementation of the EDM concession to Saur International and IPS.<br>Creation of an independent regulator for water and electricity.<br>Order pertaining to the organization of the drinking water public service (March).  |
| 2002 | Adoption of a new Water Code, under preparation since 1999 (January).   |
| 2004 | Development of the 2004–2015 National Program for Access to Drinking Water (PNAEP: <i>Programme National d'Accès à l'Eau Potable</i> ).<br>External support agency round-table, presentation of PNAEP. Sector approach.   |
| 2005 | DNH and DNACPN work together to develop the National Sanitation Policy (PNA: <i>Politique Nationale d'Assainissement</i> ).<br>Sale of Saur shares to IPS, amicable termination of the concession contract.<br>Project (since abandoned) to create the Drinking Water Agency of Mali (AMEP: <i>Agence Malienne de l'Eau Potable</i> ).  |
| 2006 | The PNAEPA becomes the Drinking Water and Sanitation Sector Program (PROSEPA: <i>Programme Sectoriel Eau Potable et Assainissement</i> ).<br>First version of the PROSEPA implementation roadmap.<br>Adoption of the National Water Policy (based on IWRM principles).<br>Launch of Drinking Water, Sanitation and Water Resources Sector Support Program (PASEPARE: <i>Programme d'Appui au Secteur de l'Eau Potable, de l'Assainissement et des Ressources en Eau</i> ), PACTEA ( <i>Programme d'Appui aux Collectivités Territoriales pour l'Eau potable et l'Assainissement</i> ), and the African Development Bank project in rural areas. |
| 2007 | First joint sector review. PROSEPA becomes PROSEA.<br>New national strategy for the rural sector and small urban centers.<br>Initial exercise to develop a MTEF within the DNH perimeter.   |
| 2008 | Second joint sector review with the state/development partners (DPs).<br>Establishment of the CPS in charge of water and sanitation (among other things).<br>Realization of a new sanitation master plan for Bamako.<br>Adoption of an IWRM Action Plan (April).<br>Definition of a new reference framework for unit costs (drinking water section).  |
| 2009 | Production of the 2010–2012 MTEF for water supply and sanitation.<br>Approval of the National Sanitation Policy and related strategies.<br>Third joint sector review between the state/DPs.<br>PROSEA roadmap sets out the establishment of an ABS for water as a target for 2012.<br>A study redefines the urban water supply institutional framework.<br>Launch of the Danish-Swedish assistance program (35.6 billion CFA Francs between 2010 and 2014).   |

The national water policy, adopted in February 2006, sets out the sector approach based on Integrated Water Resources Management (IWRM) principles, as well as the strategic directions to which particular effort needs to be applied to develop the water supply sector, namely (a) promoting the sustainability of investment; (b) involving the private sector and optimizing investment efficiency; (c) capacity-building to improve the qualitative and quantitative understanding and monitoring and evaluation of water resources and their users; and, (d) promoting consultation between countries on issues linked to the management of international waters.

For a long time, no real consideration was given to strategy and policy for the sanitation and hygiene subsectors. This situation has, however, been largely rectified over the course of the last few years following the preparation of a National

Sanitation Policy and five subsector policies which were officially adopted at the beginning of 2009. Nevertheless, implementing this national strategy is a huge challenge for the subsector, which remains highly fragmented and is still not yet accorded real political priority.

Table 3 provides a summary of the main steps taken as part of the WSS sector reform process in Mali.

Sections 4 to 6 highlight progress and challenges across three thematic areas—the institutional framework; finance; and monitoring and evaluation (M&E)—benchmarking Mali against its peer countries based on a grouping by gross national income. The related indicators are extracted from the scorecard and presented in charts at the beginning of each section. The scorecards for each subsector are presented in their entirety in Sections 7 to 10.

## 4. Institutional Framework

### Priority actions for institutional framework

- Continue the transfer of competencies to communes within the water supply and sanitation sector, combined with back-up support from deconcentrated technical departments at the region and district level.
- Implement institutional reform of the urban water supply subsector (separate water and energy, create an asset-holding company and an operator).
- Implement PROSEA as the planning and coordination framework for the entire water supply and sanitation sector.

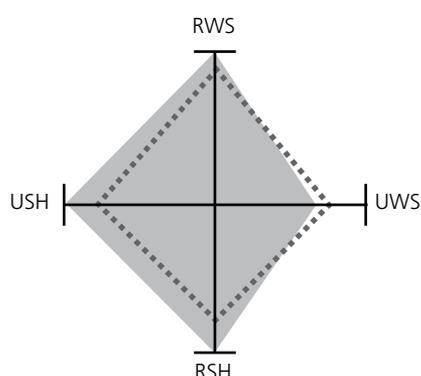
Decentralization plays a highly important role in the WSS sector in Mali as all related competencies are steadily being transferred to the communes. As a result, Mali is one of the West African countries in which the decentralization process is most advanced and where, overall, the sector's institutional framework is relatively sound (see Figure 4). The transfer of competencies is being supported by the distribution of tools adapted to the communes' needs

and by the capacity-building of the state's deconcentrated departments (regional and subregional directorates). The majority of projects respect this orientation. In those towns where EDM is responsible for the water service, the level of commune involvement is, however, extremely limited.

As the EDM perimeter is relatively small, the size of the rural and semi-urban water supply subsector is substantial. The subsector comes under the responsibility of the National Directorate of Water Supply (DNH: *Direction Nationale de l'Hydraulique*), which is part of the Ministry of Energy and Water (MEE: *Ministère de l'Énergie et de l'Eau*). The DNH has been widely decentralized into all regions of Mali, with decentralization to subregional levels being more recent (this is currently intensifying). The DNH is also responsible for the coordination of the entire water supply sector.

EDM manages the water supply service in 17 urban centers and is responsible for electricity distribution in 36 centers. EDM is a joint stock company whose current majority shareholder is the state. The company has signed a concession contract with the state and the DNH acts as contracting authority for the urban water supply subsector on the state's behalf. In accordance with the policy orientations agreed as a result of the institutional study finalized in 2009, water and energy activities are to be separated, with two new bodies being set up to oversee operation of the services; these new companies will also be responsible for asset management. EDM does not currently deal with sanitation issues and it appears

**Figure 4**  
Scorecard indicator scores relating to institutional framework compared to peer group<sup>6</sup>



■ Mali average scores  
::: Averages, LICs, GNI p.p. <= US\$500

Source: CSO2 scorecard.

that this will continue to be the case after the institutional reform has been implemented.

The very recently created National Directorate of Sanitation and Pollution and Nuisance Control (DNACPN: *Direction Nationale de l'Assainissement et du Contrôle des Pollutions et Nuisances*) comes under the supervision of the Ministry of the Environment and Sanitation (MEA: *Ministère de l'Environnement et de l'Assainissement*). During development of the new National Sanitation Policy (PNA: *Politique Nationale d'Assainissement*), which it led, the DNACPN consolidated its leadership role within both the rural and urban sanitation subsectors. The DNACPN is relatively well decentralized with two-thirds of its staff working in the regional and subregional directorates.

The National Directorate of Health's Hygiene and Public Health Division (DHSP: *Division Hygiène et Santé Publique*) works across the whole national territory to promote public hygiene and health in households, communities, workplaces, and public places. The DHSP is supported in

this by the extensive network of community healthcare centers and their health workers.

The new (2007) National Agency for the Management of Wastewater Treatment Plants in Mali (ANGESEM: *Agence Nationale de Gestion des stations d'Épuration du Mali*) is a state-owned company created to manage Bamako's first wastewater treatment plant, which was constructed in 2006 with financing from the Netherlands. The ANGESEM is supervised by the MEA.

Sector coordination should be carried out within the PROSEA framework; however, PROSEA does not yet have an operational Steering Committee in place and so most coordination work is conducted during the sector reviews (with the latest of these scheduled for March 2011). The Statistics and Planning Unit (CPS: *Cellule de Planification et de Statistique*), which is responsible for the WSS sector, was created in 2007 and has been operational since 2008. The CPS has been required to play an important role in coordinating the sector.

## 5. Financing and its Implementation

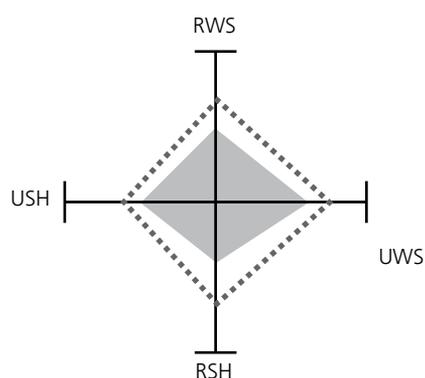
### Priority actions for financing and its implementation

- Continue to use the BPO/MTEF tool, particularly for sanitation and hygiene, by improving the way in which this is linked to the financial planning carried out at commune level.
- Improve the absorption/implementation rate of donor financing.
- Increase the funding allocated to sanitation and hygiene.
- Lay the groundwork for the water supply sector's transition to ABS.

The WSS sector in Mali is highly dependent on development aid (it is estimated that over 90 percent of funding comes from bilateral or multilateral aid). The main multilateral external support agencies within the sector are the World Bank, the European Union, the African Development Bank (AfDB) and the United Nations Children's Fund (UNICEF); the main bilateral donors are France, Germany, Sweden, Denmark, Belgium and Luxembourg. All of these donors operate exclusively through projects, albeit with a relatively limited amount of inter-project coordination that is reliant on the goodwill of the actors.

The scorecard results relating to financing of the WSS sector are below the average of Mali's peer group countries (see Figure 5).

**Figure 5**  
Scorecard indicator scores relating to financing compared to peer group<sup>7</sup>



■ Mali average scores  
 :::: Averages, LICs, GNI p.p. <= US\$500

Source: CSO2 scorecard.

The new program being co-financed by Denmark and Sweden (2010–14) is the first that truly complies with the rationale of the Paris Declaration (to fully respect national procedures) and of PROSEA (to conduct planning entirely at sector level). This program has set a target for the water supply sector to ensure the conditions necessary for its transition to ABS in 2012 are in place (the equivalent target for the sanitation sector has not yet been established).

Another characteristic of development aid in the WSS sector in Mali is the heavy involvement of nongovernmental organizations (NGOs)—Protos, CARE, Eau Vive, WaterAid, and so on; decentralized cooperation<sup>8</sup> (several hundred twinning arrangements exist in the country); and diaspora associations (which, for over 20 years, have made sizeable financial contributions to the water supply sector, notably in the region of Kayes).

Investment planning has steadily been improving since 2004, the year in which there was a considerable DNH-initiated effort made by PNAEPA to coordinate the planning of rural and semi-urban water supply networks following updates made to the SIGMA (*Système Informatique de Gestion du Mali*) database (water supply facilities). PNAEPA has since developed into a sectorwide approach with PROSEA, for which the main tool is a BPO coupled with a MTEF. It is to be noted that two MTEFs have been developed, one for water supply (driven by DNH) and the other for sanitation (driven by DNACPN).

Sector planning is therefore considered to be satisfactory, but with three reservations:

- The MTEF/BPO tool has been better developed and adopted by the DNH than by the DNACPN; investment planning for sanitation could still be significantly

improved, notably by including the urban sanitation subsector and by using unit costs that have been better validated against actual experience. In addition, the local/commune planning tools (PDSEC: *Plans Communaux de Développement Social, Economique, et Culturel*; and PSA: *Plan Stratégique d'Assainissement*) also need to be improved and updated.

- Links between the different planning levels (communal, regional, national) could be improved; although the communes theoretically lead the investment planning process, the national BPOs are not arranged as a compilation of these commune planning exercises. A pilot recently undertaken in the Kayes region, and then expanded to other regions, has shown that integrating local authorities' planning into the MTEF is perfectly feasible and that PROSEA would be able to cover the associated cost. The 2010 exercise is, therefore, the first whereby the national BPOs have been developed as a compilation of those BPOs created at local authority level (however, whilst this is true for water, it is less so for sanitation).
- Although the 2009–11 MTEF/BPO for water supply includes both subsectors (rural and urban), investment planning for the urban water supply (UWS) subsector is currently carried out independently of RWS subsector investment planning and includes significant contributions from EDM. It is possible that the next planned reform will bring about changes to this situation, as it includes the creation of an asset-holding company for the UWS subsector which would, in all likelihood, be given responsibility for planning.

Aid coordination is carried out at the national level through several different instruments: through PROSEA as the coordination body (although it is not yet carrying out this role in full); through the sector reviews, where the main orientations of the sector are presented and discussed (however, the fact that these are only held once a year means coordination is neither particularly detailed nor operational); through the development partners' (DP) own consultation framework meetings, which are currently being facilitated by cooperation with the German agency, KfW (*Kreditanstalt für Wiederaufbau*). With the water supply sector due to make the transition to an ABS in 2012, it is even more important that this coordination be improved.

At regional level, coordination should be carried out through the Regional Steering Committees for the Coordination and Monitoring of Development Orientations (CROCSAD: *Comités Régionaux d'Orientation, de Coordination et de Suivi des Actions de Développement*), chaired by the regional Governors, and through the Local Steering

Committees for the Coordination and Monitoring of Development Orientations (CLOCSAD: *Comités Locaux d'Orientation, de Coordination et de Suivi des Actions de Développement*), chaired by the local prefects. However, these organizations have only recently been created (February 2008) and do not specialize in water supply. In some regions, there are Regional Water Sector Committees (Comités Régionaux du Secteur de l'Eau) in place, whose levels of activity vary according to the impetus given to them by the DRH and the main regional stakeholders (projects, NGOs, and decentralized cooperations).

It is difficult to compile a complete picture of all the financing allocated to the WSS sector in Mali due to the diverse nature of the external support agencies and their procedures; to the recent and modest introduction of the sectorwide approach; and to the limited role still being played by PROSEA in this area.

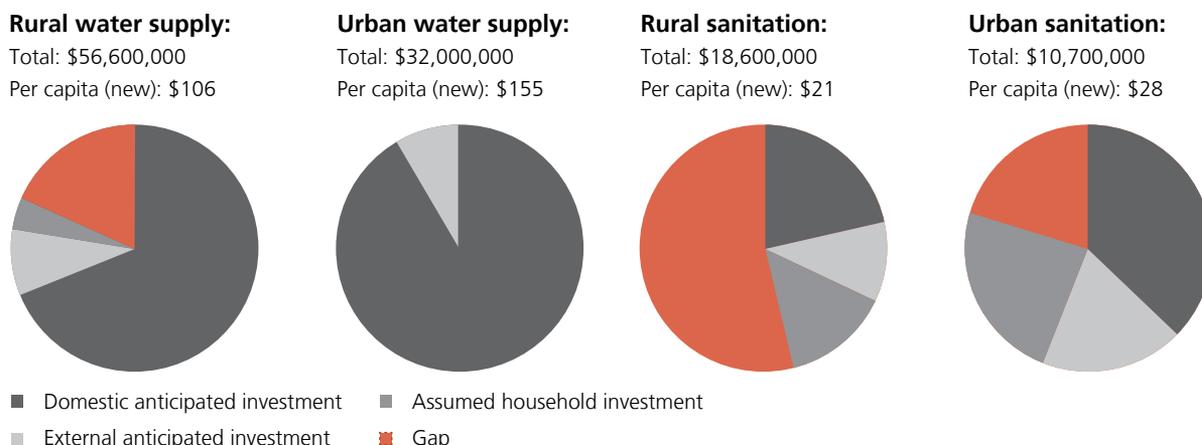
The MTEF tool (and its subsector variations, the BPOs), put in place four years ago, is aimed at improving the capacity to monitor and collate financing allocated to the sector; however, the extent to which it has been adopted varies from one subsector to another. The BPO for water supply has become relatively sophisticated: the 2009–11 water supply MTEF, which includes both UWS and RWS, reflects the fact that there is a real planning capacity in place, even though the monitoring of indicators is still an issue.

The share of the national budget allocated to sector financing fluctuates and depends on a number of various decisions. This financing is generally provided through the Special Investment Budget (BSI: *Budget Spécial d'Investissement*), which contains most of the financial contributions that the state has committed to providing in the finance agreements signed with the DPs. The state is not, however, always in a position to honor its commitments and this situation risks being exacerbated by the financial crisis currently affecting the whole subregion.

The exact budget allocated to the sector is unknown, with the exception of the rural and semi-urban WSS subsector for which a review of public expenditure was carried out at the beginning of 2008 for the 2001–06 period. In addition, figures are provided by the DNH at each sector review as part of the report on implementation of the water supply BPO. In contrast, only very imprecise figures are available for sanitation.

Overall, the financing allocated to the WSS sector outside the EDM perimeter has increased significantly over the course of the last eight years, rising from 11 billion CFA Francs in 2001 to 42 billion in 2008, with a sharp increase

**Figure 6**  
**Overall and per capita investment requirements and contribution of anticipated financing by source**



Source: CSO2 estimates.

in funding levels seen from 2005 onwards. A large part of this growth is due to higher levels of donor financing, which rose from 9.5 billion CFA Francs in 2001 to 32.5 billion in 2008. The national budget has also increased at the same rate, rising from 1.6 billion CFA Francs in 2001 to 9.6 billion in 2008.

Over the course of the last three years, the overall proportion of financing utilized (domestic and donor) has remained stable at around 64 percent. This average does, however, conceal differences between domestic financing, where the percent of financing utilized rose considerably between 2006 and 2008, increasing from 70 percent to 95 percent, and donor financing, where the percent of financing utilized fell to only 53 percent in

2008—this highlights both the sector’s limited absorption capacity and the issues created by the procedures that are currently in force.

The funding prospects for the next few years are stable, notably within PROSEA which brings together the majority of domestic and donor contributions. The anticipated financing is still insufficient, however, to cover all requirements, particularly for the rural sanitation subsector, where the funding deficit equates to over half of the financing required (see Figure 6). In theory, financing for the UWS subsector has already been obtained due to an ambitious investment plan presented by EDM for the 2010–12 period. Nevertheless, it appears highly unlikely that all the anticipated funding required for this will be mobilized.

## 6. Sector Monitoring and Evaluation

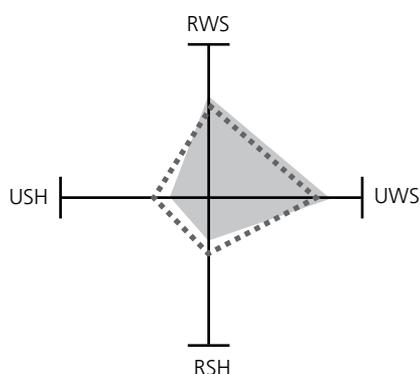
### Priority actions for monitoring and evaluation

- Establish indicators for the rural and semi-urban water supply subsector.
- Ensure the definitions of 'urban' used by INSTAT and the urban operator (*Energie du Mali*) are consistent.
- Develop monitoring and evaluation for the sanitation and hygiene subsectors.
- Harmonize the standards and methodologies used by the JMP and the government.

Whilst certain developments have enabled the quality of the sector M&E mechanism to be improved, this generally remains unsatisfactory and out of step with the targets set out in PROSEA. Moreover, the situation varies widely from one subsector to another with sanitation and hygiene lagging behind the water supply subsectors.

The scorecard shows that Mali's results for sector M&E are largely similar to the peer-group average (being slightly lower for the sanitation subsectors and marginally higher for water supply, see Figure 7).

**Figure 7**  
Scorecard indicator scores relating to sector M&E compared to peer group<sup>9</sup>



■ Mali average scores  
 :: Averages, LICs, GNI p.p. <= US\$500

Source: CSO2 scorecard.

Some of the more positive aspects are:

- The establishment of a Statistics and Planning Unit (CPS: *Cellule de Planification et de Statistique*) in 2008 that covers both the water supply and sanitation sectors (as well as other related sectors). The CPS is specifically responsible for planning and M&E within the sector and so should, therefore, play a key role in implementing this aspect of PROSEA. However, as it is relatively new, the CPS still lacks the necessary methods and resources.
- The production by Energie du Mali of a certain number of annual indicators, as stipulated in the provisions of the contract linking the company to the state, and in the regulator's (CREE) monitoring framework. These indicators enable the partial monitoring of the urban water supply subsector's performance.
- A study carried out in 2008, the conclusions of which were validated at the beginning of 2009, which enabled the list and means of establishing M&E indicators to be defined, but only for the water supply subsector. The results of this study were highly anticipated as they form an integral part of the implementation and monitoring of the water supply BPO.

Some of the more negative aspects or those where there is scope for improvement, are:

- The large discrepancies in the water supply access rate calculated by the DNH and EDM and the results of the regularly conducted household surveys (upon which

the JMP estimates are based). This disparity is most striking in the urban water supply subsector where JMP figures indicate an access rate of 94 percent, yet this figure is not supported by field observations which have identified several areas of the capital, Bamako, as having no coverage. More generally, this lack of concordance is a reflection of the difficulties experienced by the sector in clearly defining access to the service and in including these definitions in the household surveys. The JMP has offered to support a 'reconciliation' of this data.

- The current lack of consistency between the 'official' definition of what constitutes an urban area in Mali (particularly that used by INSTAT for population censuses) and the definition used by EDM (which operates the water supply service in 17 towns, thereby covering an area much smaller than that actually considered to be urban).
- There is currently no M&E system in place that is adapted to the sanitation and hygiene subsectors, where the only data available are from household surveys and the quantitative data pertaining to facilities built as part of the main projects. Much work still remains to be done to define both the baseline indicators (work that has already been completed for the water supply subsectors) and the means of monitoring the sector. This is a complex issue as monitoring cannot be carried out entirely at local or regional level and needs to include both an inventory of facilities built—such as public latrines, for example—and household surveys. A study financed by the DNACPN was initiated in 2010 to (a) precisely define the technical standards in use, notably for on-site sanitation; and (b) propose a M&E system for sanitation and hygiene that is both realistic and aligned to the constraints of the subsector (and notably to the ministerial Health/Sanitation dichotomy).

## 7. Subsector: Rural Water Supply

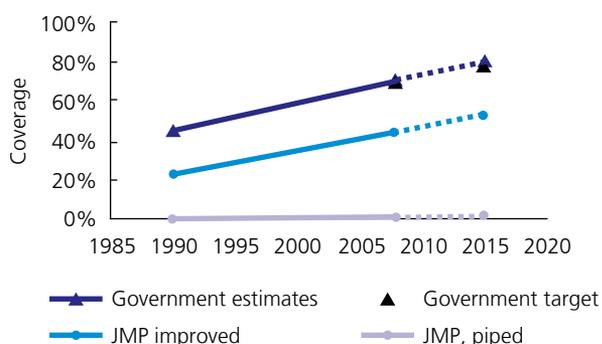
### Priority actions for rural water supply

- Assist the rural water supply subsector to make the transition towards SBS.
- Improve the absorption capacity: reinforce the budget implementation capacity of the private sector and improve public procurement procedures.
- Improve monitoring and evaluation of the subsector and increase the communes' involvement.
- Improve the sustainability of the water supply service in rural areas, as this is currently weak. Expand the use of the operator back-up support and monitoring mechanism (STEFI).
- Continue with the policy of promoting PPP in rural areas.
- Accord priority to villages that currently have no modern water point in place.

It is highly likely that the method currently used by the DNH to calculate the access rate to drinking water in rural areas leads it to overestimate coverage (70 percent in 2008, compared to 44 percent according to the JMP). Furthermore, the target set by the government (78 percent in 2015) is more ambitious than that identified from JMP data (61 percent). The current pace of access rate development is thus insufficient to enable the targets to be met; however, the RWS subsector has clearly made the most progress as regards organization. According to the Government of Mali, the current pace of modern water point construction will need to double if the MDG targets for the RWS subsector are to be achieved. This construction effort includes building both simple structures (handpumps, large diameter wells) and water supply networks.

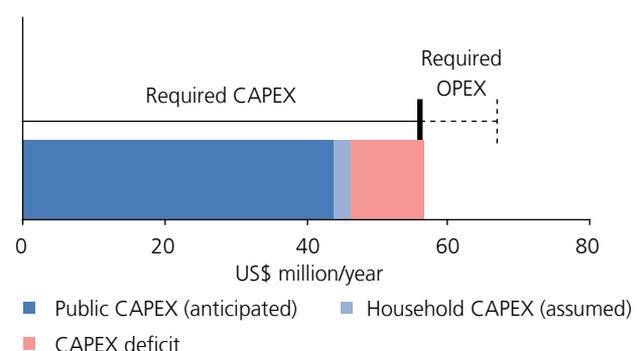
To make up the difference, the public authorities need to mobilize more financial resources (see Figure 9). According to CSO2 estimates, US\$57 million per year needs to be invested in RWS if the corresponding MDG targets are to be achieved. A further US\$11 million then needs to be added to this to cover the infrastructure's O&M costs. High levels of financing have been invested in the RWS subsector in Mali over the course of the last few years (including funds invested by NGOs), but achievement of the rural water supply MDG targets is dependent upon this level of investment being both sustained and increased. The transition to ABS, planned for 2012, should lead to a significant increase in the financing available to the subsector.

**Figure 8**  
Rural water supply coverage



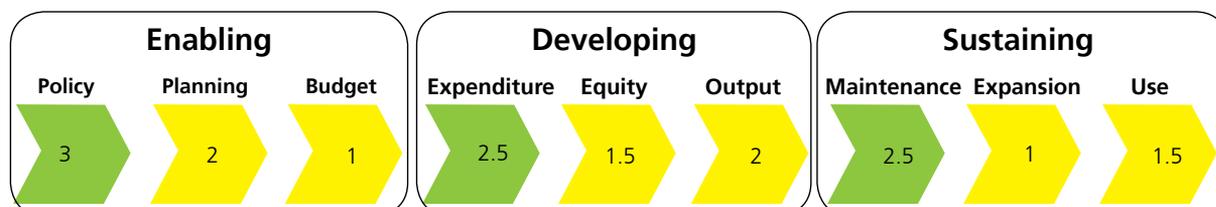
Sources: JMP and national data.

**Figure 9**  
Rural water supply investment requirements



Sources: CSO2 estimates.

**Figure 10**  
Rural water supply scorecard<sup>10</sup>



Source: CSO2 scorecard.

Overall, the scorecard results for the rural water supply subsector place Mali within the average of its economic peer group countries (see Figures 10 and 3).

The ‘water supply’ BPO, put in place as part of the MTEF, has already progressed (particularly when compared to the BPO in place for ‘sanitation and hygiene’). The water supply BPO is updated each year and the latest version covers the 2011–12 period. In 2010, Mali organized its fourth sector review, which was the first to be organized by CPS. The fifth review took place at the end of March 2011.

The accounting headings currently utilized by the local authorities (who include very little investment in their budgets) and the state do not particularly distinguish between RWS (DNH perimeter) and urban and semi-urban water supply. The majority of donor financing is included in the national budget. The last review of public expenditure for the RWS subsector was conducted in 2008 and relates to the 2001–06 period. According to the conclusions of the April 2009 sector review, 53 percent of donor financing was utilized, which was slightly lower than the proportion of financing utilized in 2007. The cumbersome nature of the public procurement procedures was cited as the reason this rate was so low.

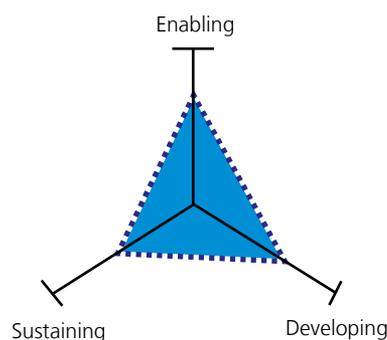
In RWS subsector planning, the communes with the lowest coverage rate are theoretically given priority. However, commune planning is not sufficiently linked to regional planning and decision making is mostly carried out at regional level.

There are very precise standards in place for the quality of the water distributed (stipulated in the 2007 National Strategy for rural and small towns water supply) but

they are neither systematically applied nor monitored. The performance indicators for the RWS subsector were established in 2009 as a result of a study conducted across the whole water supply sector, the conclusions of which have since been validated.

The database used within the RWS subsector is the ‘SIGMA’ database, which was last comprehensively updated in 2004 to coincide with the work undertaken to prepare the National Program for Access to Drinking Water (PNAEP: *Plan National d’Accès à l’Eau Potable*). Although the deconcentrated (DRH) departments regularly provide feedback to the central level as to which elements of SIGMA need to be amended, including information on the facilities’ breakdown rate and rehabilitation requirements, the database is not kept sufficiently up-to-date. This

**Figure 11**  
Average RWS scorecard scores for enabling, developing, and sustaining service delivery, and peer-group comparison



■ Mali average scores  
⋯ Averages, LICs, GNI p.p. ≤ US\$500

Source: CSO2 scorecard.

information flow forms the basis of the current planning system created as part of the MTEF/BPO.

The water tariff is supposed to cover O&M costs, which is the case in most areas that receive no subsidies from either the state or the local authorities. The users of rural water supply networks generally do not contribute to the development of the service through the water tariff; extensions are carried out using public funds or financing mobilized by NGOs or decentralized cooperation stakeholders. Mali's diaspora community in France is also highly active in this domain.

Spare parts for pumps (handpumps or diesel engine pumping units) are mostly provided by the local private sector. Except in rare cases (a batch of spare parts obtained through a cooperation project), the state is not involved in this supply chain and this can create problems, notably in sparsely populated or difficult to access areas (the north of the country). In addition, the high growth in demand for water supply networks is increasingly putting the existence of the 'handpump' supply chain at risk.

The management model used for water supply facilities in rural areas is both well-established and continually evolving. Simple facilities (typically, boreholes equipped with handpumps) are overseen by Management Committees. The more complex facilities (water supply networks) are mostly managed by Water Users' Associations (AUE: *Association d'Usagers de l'Eau*) which come under the responsibility of the communes. The communes are not entitled to directly manage the service, so they delegate the management of the water supply networks to the AUE or private operators (recourse to this latter option has been increasing rapidly as it has been promoted, and

supervised, by the DNH). The fact that EDM operates within such a small perimeter (only 17 towns) means that the communes, and those associations or private delegates they have selected to manage the water supply service, are being made responsible for relatively large water supply networks.

Over 15 years ago, Mali put in place an innovative technical and financial monitoring system (STEFI) for water supply networks in rural areas. Although previously managed by a unit attached to the DNH, this system has now been decentralized and taken over by specialist private operators recruited through a national invitation to tender process. The STEFI operators provide both back-up support and control on behalf of DNH (and so the communes). This is a predominantly self-financing service, using funding received from a surcharge of 20 CFA Francs per m<sup>3</sup> pumped on the water tariff (this surcharge has remained the same for 15 years and is today insufficient to cover the STEFI operators' costs).

The government has clearly stated it wishes to achieve the MDG targets for rural areas and the DPs have also expressed their willingness to support this effort. It is important to ensure that the external support agencies remain heavily involved in the RWS subsector as 70 percent of Mali's population live in rural areas and so meeting the MDG targets constitutes a major challenge. The current pace of development is insufficient, however. To achieve the change in pace required, it will be necessary to overcome steep hurdles related to the utilization of finance and public procedures (budgeting, procurement). These procedures need to be gradually simplified to reverse the trend observed in 2009 and 2010 (low percentage of financing utilized).

## 8. Subsector: Urban Water Supply

### Priority actions for urban water supply

- Implement the institutional reform agreed in 2009.
- Ensure all sources of financing identified during the last round table have been obtained and implement the 'Kabala' project to secure Bamako's future water supply.
- Ensure the reform of the UWS subsector respects the principles of equity and universal access to the public water service across EDM's territory.
- Make sure the financial stability of the urban water supply subsector remains a priority and ensure service improvements are supported by an adjustment to the tariff.
- Focus on peri-urban areas, as responsibility for these currently 'floats' between the DNH and EDM resulting in poor coverage.

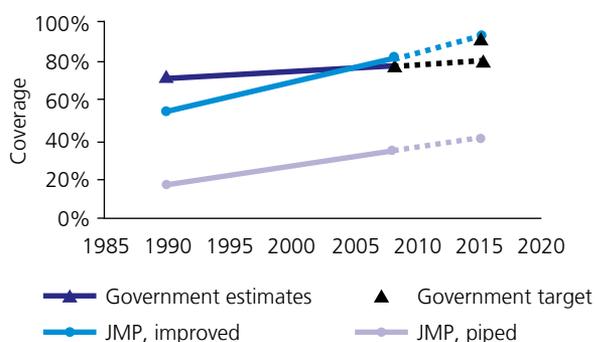
The statistics published by the JMP indicate that 81 percent of the urban population had access to drinking water at the end of 2008, compared to 54 percent in 1990 (see Figure 12). As far as the JMP is concerned, therefore, Mali has already achieved the urban water supply MDG target. In contrast, however, the target set by the Government of Mali is 91 percent coverage in urban areas in 2015.

The service level has also improved as 34 percent of the urban population had a household connection in 2008, compared to only 17 percent in 1990. However, 34 percent is still very low and points to shortcomings in the way EDM's service offer is set up.

On paper, it would appear that the financing required for the UWS subsector in Mali has already been obtained, as the funding included in the budget (US\$37 million per year) exceeds the US\$32 million per year required. EDM has put forward an ambitious US\$200 million investment plan for the 2010–12 period that notably includes the implementation of the Kabala project—Kabala being the name of the new pumping and treatment station that, once completed, should secure the capital's future water supply.

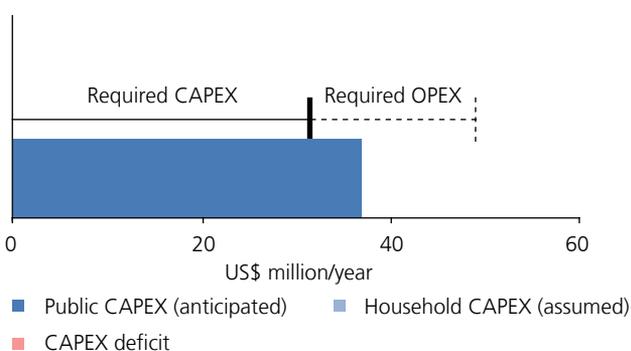
This investment plan would offset years of underinvestment and assist the government to increase the coverage rate from 77 percent to 91 percent as per the target (here

**Figure 12**  
Urban water supply coverage



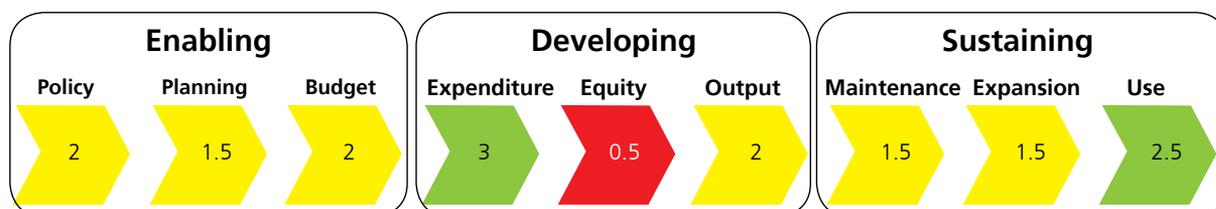
Sources: JMP and national data.

**Figure 13**  
Urban water supply investment requirements



Source: CSO2 estimates.

**Figure 14**  
Urban water supply scorecard



Source: CSO2 scorecard.

the government figures are used, not those of the JMP). However, there is little indication that it will be possible to mobilize the US\$200 million within such a short timeframe—the initial invitations to tender were only issued at the end of 2010.

Overall, the performance of the UWS subsector in Mali is slightly below the peer-group average (see Figures 14 and 15), with the main areas of weakness being encountered in the enabling conditions for putting services in place. Ensuring equity when extending the service is also an issue.

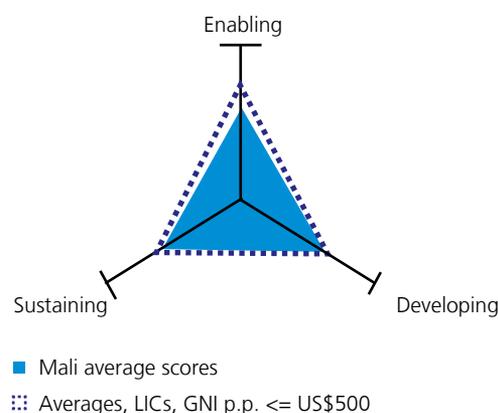
After the failure of the public-private partnership set up at the beginning of the decade of the 2000s, coupled with the resistance to change that prevailed in the subsector for a number of years, the institutional framework of the UWS subsector is now undergoing rapid development. The 2006 national water policy document makes a brief reference to the urban sector (page 54), but there is no viable and realistic policy in place that specifically targets the subsector. The institutional framework of the urban water supply subsector is due to be completely overhauled in 2011 following recommendations made in a study, validated in 2009, to separate water supply and electricity activities and to differentiate between operation of the service and asset management.

As part of PROSEA, there is a joint MTEF in place for the UWS subsector that includes both EDM activities and those directly managed by the DNH. However, any alignment remains largely artificial as EDM's implementation of expenditure is totally different to that of the DNH, as are activity planning and M&E. There is an investment plan that has been prepared by EDM and validated by the supervisory authority but it has not yet been possible to implement this due to the institutional situation, even

though all the conditions necessary for this implementation were in place at the end of 2010.

Whilst the access rate to the water supply service in urban areas is satisfactory, the low number of household connections is symptomatic of production failings and highlights potential scope for improvement. Although EDM has successfully and steadily increased water production for Bamako and the other centers through the 'emergency programs' partially financed by external aid, in general production is not keeping pace with demand. This is particularly true in Bamako where financing of the 'right bank' treatment plant (the 'Kabala' project), aimed at ensuring that medium-term future production requirements can be met, has been delayed due to the implementation of the new institutional framework. At the 2009 sector review, EDM presented an ambitious US\$200 million investment plan for 2010–12; it is unlikely,

**Figure 15**  
Average UWS scorecard scores for enabling, developing, and sustaining service delivery, and peer-group comparison



Source: CSO2 scorecard.

however, that this will be implemented before 2011, after the financing arrangements for the Kabala project have been confirmed.

Within EDM's concession area, planning is conducted by mutual agreement between the DNH (supervisory authority), EDM and, to a lesser extent, the communes. There is very little local stakeholder involvement (users' associations, community groups, private operators). The planning process currently contains no criteria for allocating finance; this is due to the fact that very few development partners directly finance EDM, in addition to which the national budget often has to be utilized for emergency programs. There is no specific strategy in place aimed at providing access to the poorest users, although some pro-poor programs have been implemented by communes and nongovernmental stakeholders.

In urban areas, the rate at which production and the uptake of household connections are increasing is too slow to enable the urban water supply MDG targets to be met. There were 3,636 new connections in 2008, which was 24 percent fewer than in 2007 in Bamako (and 18 percent fewer over the whole country). The quality of the water distributed by EDM is independently defined and controlled.

EDM is a public company and its accounts are regularly audited. EDM activities are controlled both by the DNH (representing the ministry in charge of water supply for the whole water sector) and by an independent regulator, CREE.

A pricing study was carried out in 2008 in preparation for the institutional reform. The pricing issue is both fundamental (as the tariffs are currently very low and

need to be increased to ensure the sector's financial stability) and highly sensitive (it was CREE's decision to introduce tariff reductions in both 2002 and 2004, offset by subsidies provided to the operator by the state, that triggered the crisis which culminated in the departure of the international majority shareholder).

The proportion of water distributed and paid for is estimated to stand at 74 percent for the country as a whole (71 percent for the network in Bamako, which provides water to the vast majority of EDM's clients). Despite considerable efforts made by EDM since the beginning of the decade of the 2000s, this percentage is continuing to fall due to the aging networks and low levels of investment.

In theory, investment planning comes under the remit of the state, represented by the DNH. EDM regularly prepares a business plan and clearly has the competencies required to conduct planning and support the implementation of investment. As a result of the ongoing institutional reform, however, investment planning (and, in all likelihood, the related contracting authority role) will be carried out by the asset-holding company that is due to be set up, with EDM remaining as the water supply service operator.

As far as service quality is concerned, access to the network in the peri-urban settlements of Bamako is notoriously poor and certain neighborhoods are entirely dependent upon water resellers who obtain their water from standposts connected to either the EDM network or to independent networks managed by private operators or associations. Some neighborhoods suffer from water shortages (with distribution proving difficult during certain periods, notably at the end of the dry season) but, on average, following emergency measures put in place by EDM since 2000, water is now available for over 12 hours per day.

## 9. Subsector: Rural Sanitation and Hygiene

### Priority actions for rural sanitation and hygiene

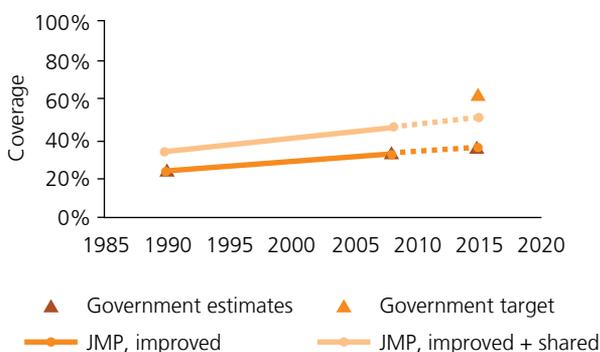
- Set up a monitoring and evaluation mechanism with indicators that are especially adapted to the rural sanitation subsector in Mali.
- Improve the subsector's capacity to use the BPO/MTEF tool to increase the financing available to the rural sanitation subsector.
- Develop strategies for implementing the National Policy and draft the regulatory texts required for its operationalization.
- Ensure greater consideration is given to hygiene and sanitation in commune planning (PDSEC, PSA, and the communes' budgets).
- Promote awareness-raising and hygiene education campaigns and reduce open defecation through the development of the Community-Led Total Sanitation approach.
- Improve the capacity of the deconcentrated state departments to respond to the communes' demand for back-up support.

Mali is currently unable to produce reliable figures for the country's rural sanitation and hygiene (RSH) subsector. The only figures available are those of the JMP which estimates that, in 2008, only one rural household in three (32 percent) had access to an improved sanitation facility (see Figure 16). Few programs have distributed improved sanitation facilities, with the exception of those in public places or institutions (schools, healthcare centers). The number of households equipped with sanitation facilities is very low, with most of these facilities having been paid

for by the households themselves, and open defecation remains prevalent (21 percent of rural households).

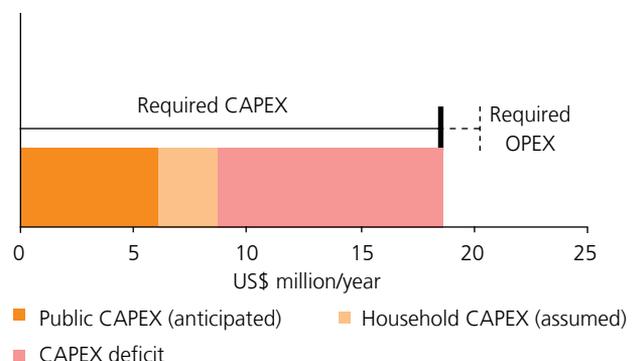
Analyses of the financing available to the RSH subsector show that Mali will be unable to achieve the MDG target for rural sanitation due to the large funding gap. According to CSO2 estimates, US\$19 million per year will be required for the targets to be met, whereas only US\$6 million of public investment has so far been obtained. While not to be overlooked, the investment mobilized by households

**Figure 16**  
Rural sanitation coverage



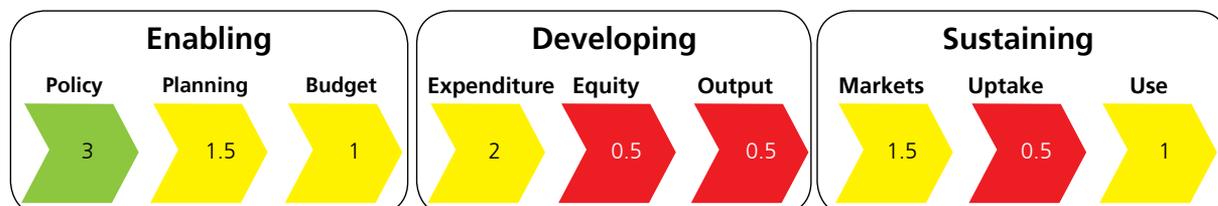
Sources: JMP and national data.

**Figure 17**  
Rural sanitation investment requirements



Source: CSO2 estimates.

**Figure 18**  
Rural sanitation and hygiene scorecard



Source: CSO2 scorecard.

(around US\$3 million) will only offset a small part of this deficit. This situation reflects the underfinancing of sanitation and hygiene in general and of the rural subsector in particular.

Furthermore, around US\$2 million is also required to cover the facilities' O&M costs (see Figure 17). At the moment, the vast majority of these costs are being met by the households (these maintenance costs are relatively low as household latrines are virtually the only type of sanitation facility used in rural areas).

Sanitation and hygiene in rural areas are not considered priorities by either the national or local authorities. This explains the below-average performance of the subsector (see Figures 4 and 18), with development of the service noticeably lagging behind that of other African low-income countries.

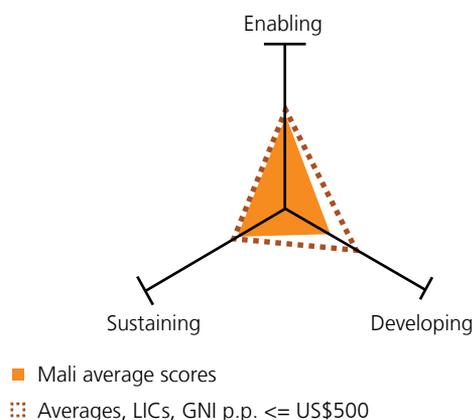
There are, however, some positive elements in place within the RSH subsector, which suggest it may be accorded greater priority in the years to come.

The PNA was approved at the beginning of 2009. This new policy clearly designates the DNACPN, placed under the Ministry of the Environment and Sanitation, as the body in charge of coordinating the sanitation and hygiene sector. A strong incentive has been put in place for DNACPN to work with the other ministries (notably the Ministry of Health on hygiene issues and the Ministry of Energy and Water to improve the link between water supply and sanitation and hygiene). The PNA sets out clear targets for 2015 but not all of these have been precisely quantified. The national target listed in the latest available documentation (2010–2012 MTEF) is lower than the MDG target for sanitation in rural areas.

As part of PROSEA, a BPO/MTEF is currently being developed for the (urban and rural) sanitation and hygiene sector. However, it is difficult to distinguish rural from urban (for budget planning purposes, the master plan for Bamako seems to be dealt with separately and is not currently included in the MTEF). Annual sector reviews have been held since 2007, but they do not particularly lead to new projects being launched and their effectiveness could be improved. Due to the lack of monitoring indicators, the sanitation and hygiene MTEF/BPO tool also still needs further refinement.

Rural sanitation is not identified as such in the national budget and communes hardly ever include this expenditure in their budgets. There are masons active in most towns, but they do not always master the techniques required for the construction of improved household latrines, for which demand is currently very low in rural areas. Nevertheless, it

**Figure 19**  
Average RSH scorecard scores for enabling, developing, and sustaining service delivery, and peer-group comparison



Source: CSO2 scorecard.

is worth noting that several organizations are supporting the Ministry of Health by promoting SanPlat slabs (UNICEF, Plan Mali, WaterAid, and so on). This has led to the training of a sizeable number of masons and there are several SanPlat slab production/promotion workshops taking place. Unfortunately, this effort has not yet been comprehensively evaluated and there is no recent reliable data available to measure its success. Furthermore, interaction between the two ministries (Sanitation and Health) is limited and those activities carried out on behalf of the Ministry of Health are not included in the M&E mechanism as Health and Sanitation come under two different Statistics and Planning Units (CPS).

Recent pilots of the Community-Led Total Sanitation (CLTS) approach (notably in the Koulikoro region) have not led to a particular increase in demand as most newly constructed latrines are traditional latrines built by the families themselves. There is no program in place at national level to either train or reinforce the local private sector.

The promotion of sanitation is considered a priority in the national policy, which seeks to strike a balance between stimulating demand and subsidizing facilities, particularly in rural areas. Some projects and programs (led by the government or NGOs) have made considerable efforts to drive promotional activities in rural areas, despite insufficient resources being made available at the national level.

The DNACPN recently trialed the CLTS approach in 30 villages in the region of Koulikoro (with the technical and financial support of UNICEF) and the initial results have been highly promising: in May 2010, CLTS was launched

in 106 communes and 48 communities have already been declared FÉDAL (certified as 'open defecation free'—'*fin de défécation a l'air libre*'). Around 2,000 latrines have been either built or rehabilitated in less than a year, which have benefited around 95,000 people. In addition, pools of CLTS experts have been set up at the central level and in two regions. CLTS in Mali is, therefore, clearly moving on from the experimental stage and is now being upscaled. The government wishes to expand this approach nationwide, whilst at the same time recognizing that technical standards need to be improved to encourage the transition away from slabs made of wood or mud towards washable slabs (such as SanPlat).

The monitoring of hygiene practices in general and of handwashing with soap, in particular, is still unsatisfactory. Since 2010, the DNACPN has been working on defining indicators for the whole subsector but this task has not yet been completed and needs to be integrated into the monitoring planning conducted at the MTEF level.

Since 1990, there has been a steady but slow (23 percent to 32 percent) increase in the access rate. This rise is mainly due to the investment made by households, which is inevitably limited in rural areas. The activities currently being undertaken to implement CLTS should mainly lead to a reduction in open defecation, still practiced by 21 percent of households. However, unless the link between CLTS and the promotion of SanPlat latrines is reinforced, it will have less impact on the number of households equipped with improved latrines. The current rate of latrine construction means that it is unlikely that Mali will achieve its MDG targets for the rural sanitation and hygiene subsector.

## 10. Subsector: Urban Sanitation and Hygiene

### Priority actions for urban sanitation and hygiene

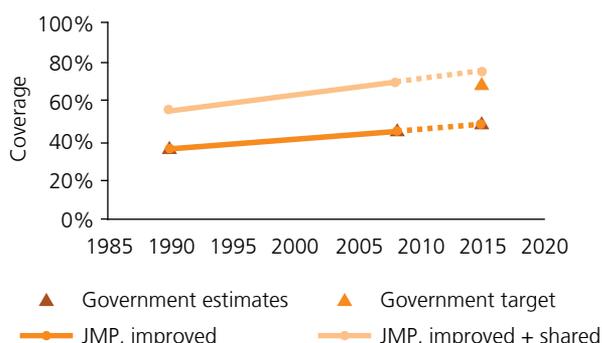
- Seek financing for the subsector, notably in the form of a sewerage surcharge added to the water bill.
- Provide capacity-building to the communes to ensure they are able to take on all or part of the sanitation infrastructure contracting authority role.
- Finalize and implement the sanitation master plan for Bamako, clarifying the conditions necessary for its institutional customization.
- Apply the provisions included in the PNA, notably with regard to Strategic Sanitation Plans and the development of disposal sites.

Access to improved sanitation in urban areas increased slowly between 1990 and 2008, rising from 36 percent to 45 percent according to the JMP (this is a smaller increase than that seen in rural areas, which is to be expected given the high urban population growth). This rise is mainly due to the investment made by households—the 2008 DNACPN report indicates that 9,149 latrines and 2,348 soakaways were constructed with the aid of public funds, which constitute only a small proportion of the total number of facilities built.

This increase in access is currently too low for there to be any possibility of achieving the MDG target for sanitation in urban areas (68 percent). However, if shared latrines to be included in the ‘improved’ category, the current pace of development would be largely sufficient to meet the MDG target (see Figure 20).

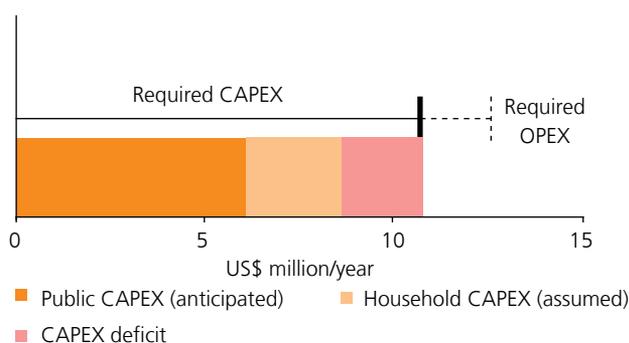
A large part of the progress seen above is due to households investing their own funds in facilities. The state and local authorities inject very low levels of public funds into urban sanitation and hygiene (USH) and the subsector

**Figure 20**  
Urban sanitation coverage



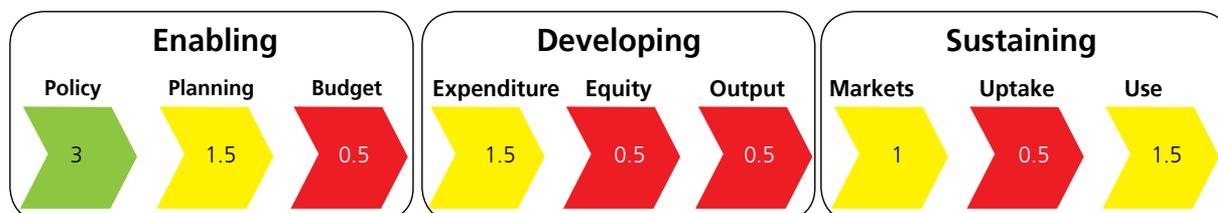
Sources: JMP and national data.

**Figure 21**  
Urban sanitation investment requirements



Source: CSO2 estimates.

**Figure 22**  
Urban sanitation and hygiene scorecard



Source: CSO2 scorecard.

lacks an internally-generated source of financing (there is no sewerage surcharge). According to CSO2 estimates, US\$11 million per year will be required between 2009 and 2015 to finance the subsector. However, this estimate does not take Bamako’s master plan into account. A further US\$2 million also needs to be added to cover O&M of the infrastructure (see Figure 21). The subsector is, therefore, severely underfinanced.

All segments of the urban sanitation chain need to be improved—wastewater collection facilities, pit emptying, and treatment. According to the CSO2 scorecard, the performance of the USH subsector is currently poor (see Figure 22), with results that are below the average of Mali’s economic peer group (see Figure 23).

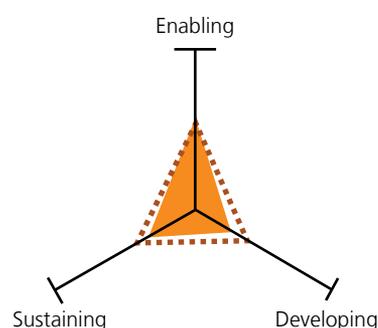
The vast majority of urban households only have recourse to on-site sanitation. The corresponding facilities (latrines, lined pits, and cesspools for the greywater) are generally financed by the households themselves as subsidized programs are currently very few and far between. Bamako has the rudiments of a sewer system in place in the town center, as well as a system for collecting wastewater from the industrial zone (and which is therefore not available to domestic users). There are some small piped sewer systems in areas of Bamako, constructed as part of a pilot scheme by an NGO, private operator or as part of a housing program.

The National Sanitation Policy was approved at the beginning of 2009, following three years of discussion and development. It is the first of its kind in Mali. Its implementation is coordinated by the DNACPN which comes under the responsibility of the ministry in charge of the environment, which in turn works in close collaboration with the ministries responsible for health and water resources. In theory, this policy caps the

subsidy level at 30 percent of the cost of investment and recommends that any subsidy be combined with intense hygiene promotion campaigns to create sizeable demand for sanitation programs.

The municipalities act as contracting authorities for infrastructure and for sanitation services in their broadest sense (this definition includes excreta, wastewater, stormwater, and industrial and commercial wastewater). Planning is conducted through the PSAs that have been developed for 13 large towns but which have not yet all received funding: sanitation is not identified as such in the budget and communes only rarely include this expenditure in their budgets. Bamako has had a sanitation master plan in place since 2009; this has not yet been approved, however, and the financing for this has not yet been finalized. The DNACPN is theoretically responsible for providing support to these municipalities, but its human and technical capacities are still being developed.

**Figure 23**  
Average USH scorecard scores for enabling, developing, and sustaining service delivery, and peer-group comparison



■ Mali average scores  
 ■ Averages, LICs, GNI p.p. <= US\$500

Sources: CSO2 scorecard.

As part of PROSEA, there is a BPO/MTEF in place for the (urban and rural) sanitation and hygiene sector which, so far, has not yet been fully implemented. This tool is rarely used for planning and not used at all as an M&E system. Annual reviews have been held since 2007, but they do not particularly lead to new projects being launched nor do they provide any great impetus to the urban sanitation subsector.

The PNA sets out the principle of stakeholder participation without defining either the tools or monitoring process to be used to support this (as neither do the corresponding subsector strategies). Local stakeholders are consulted but rarely involved in planning; there is currently no link between planning that may take place at the commune level and the planning framework established at the national level, which mostly resembles a compilation of projects and programs.

The PNA recommends that the subsidy level should not exceed 30 percent of the total investment cost; however, some projects have disregarded this provision. In any event, the financing mobilized at the local level is clearly insufficient to enable the targets to be met and there is currently no permanent financing mechanism in place for the urban sanitation subsector (such as a surcharge added to the water bill). There is also no specific financial breakdown of public funds, and neither the financing mobilized nor the extent to which this financing is able to cover requirements are monitored.

Whilst the DNACPN encourages all promotion initiatives and arranges some mobilizing events at the national level, there is no real organized promotion campaign for sanitation in urban areas and promotional activities

are mainly conducted at local or micro-local level. This promotion, therefore, mainly relies on the goodwill of municipalities and their nongovernmental partners, as well as on the involvement of healthcare workers. Any upscaling of promotional activities would require a considerable increase in the number of field staff.

In urban areas, the operators are able to meet demand, which remains fairly basic (lined pits, improved latrines, cesspools). There is practically no sewer system (with the exception of the system used to collect wastewater from the Sotuba industrial zone) and companies specializing in this domain are virtually nonexistent.

Vacuum trucks are able to satisfy the effective demand for the evacuation of excreta, except in neighborhoods that are very poor or where the population density is too high (certain neighborhoods, notably in Bamako, occasionally offer subsidized pit emptying services). Very few private actors are currently working in the treatment sector, although certain operators have pursued this activity in the past. The only wastewater treatment plant in operation today in Bamako is managed by a state-owned company specifically created for this purpose, the ANGESEM, which will ultimately also be responsible for future wastewater treatment plants that are to be financed as part of the Bamako master plan. This plant is mainly intended for industrial use and so very few households are connected. As a result, it is estimated that the majority of sludge is disposed of illegally and so is therefore not subject to any administrative controls.

There is no government program in place specifically aimed at improving the private sector's service offer within the USH subsector.

## Notes and References

- <sup>1</sup> Source: Global Economic Monitor, the World Bank, 2010 average.
- <sup>2</sup> 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*.
- <sup>3</sup> Due to rounding, subsector figures may not sum to totals.
- <sup>4</sup> The CSO2 scorecard methodology and its structure are detailed in the regional synthesis report.
- <sup>5</sup> Within this report, Mali is classified as an African low-income country with a GNI below US\$500 per capita (World Bank Atlas Method).
- <sup>6</sup> The relevant indicators are as follows. All subsectors: targets in the national development plan or the PRSP; subsector policies agreed and approved. RWS/UWS: institutional roles defined. RSH/USH: institutional lead appointed.
- <sup>7</sup> The relevant indicators are as follows. All subsectors: programmatic Sector-Wide Approach; investment program based on MDG needs assessment; sufficient finance to meet the MDG; percent of official donor commitments utilized; percent of domestic commitments utilized.
- <sup>8</sup> A relatively common phenomenon in Francophone West Africa: exchange of technical or financial support between institutions of the global North and South, other than central governments.
- <sup>9</sup> The relevant indicators are as follows. All subsectors: annual review setting new undertakings; subsector spend identifiable in budget (UWS: including recurrent subsidies); budget comprehensively covers domestic/donor finance; standards and definitions used for household surveys consistent with JMP. RWS/RSH: domestic/donor expenditure reported. UWS: audited accounts and balance sheets from utilities. RWS/RSH: periodic analysis of equity criteria by CSOs and government. UWS: pro-poor plans developed and implemented by utilities. RWS/UWS: nationally consolidated reporting of output. RSH/USH: monitoring of quantity and quality of uptake relative to promotion and subsidy efforts.
- <sup>10</sup> The scorecard uses a simple color code to indicate: building blocks that are largely in place, acting as a driver on service delivery (score >2, green); building blocks that are a drag on service delivery and require attention (score 1–2, yellow); and building blocks that are inadequate, constituting a barrier to service delivery and a priority for reform (score <1, red).

# Notes

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