
Overview

This brief analyzes the indicators used by the World Bank in its Project Appraisal Documents (PAD) to measure the outputs and outcomes of Water, Sanitation and Hygiene projects in Africa and Asia from 2000-2010 for forty-four projects. This summary details the methods used for collecting and organizing the indicators, and provides a brief analysis of the type of indicators used and their evolution over time. A searchable spreadsheet of the indicators used in this analysis accompanies this summary.

The most common group of indicators used by the World Bank are “management” oriented indicators. We find 28% of indicators fall into this category. Management indicators are disproportionately used in African projects as compared to projects in Asia. Several projects in Africa incorporate indicators relating to legal/regulatory/policy outcomes, while no projects in Asia use these types of indicators. In recent years, the World Bank appears to be using fewer service delivery indicators; only one of these indicators is used in 2010, one in 2009 and zero in 2008 – as compared to an average of roughly four service delivery indicators per year in 2001-2007.

Data Collection Methods

This spreadsheet lists the indicators and outcomes defined by the World Bank in 44 Project Appraisal Documents for Water and Sanitation projects. The documents were produced between 2000 and 2010. The projects include 27 countries in Africa and Asia, and 705 indicators in total. See Appendix 1 for a table of the projects covered.

The research first intended to include only projects from sub-Saharan Africa (SSA) and Southeast Asia, but expanded to include all Africa and all Asia in order to obtain a sample size that is both larger and more current than would have been possible using only SSA and Southeast Asia projects. Of the 44 projects, 31 are in Africa and 13 in Asia. In Africa, projects range in size from \$9 million to \$260 million, with a high outlier of \$951 million. Average African project size is \$92 million, calculated without the outlier, and \$120 million calculated with the outlier. In Asia, projects range in size from \$33 million to \$430 million, with an average size of \$180 million.

The World Bank classifies projects according to “sectors,” like Water Supply, Sub-national Government Administration or Irrigation and drainage. Projects can be classified into one or more sectors. Of the 44 projects from which data were drawn, 21 projects’ primary sectors were Water Supply. Four projects’ primary sectors were sewerage, and five projects’ primary sectors were either Rural Water Supply, Urban Water Supply, or Other Water Supply. Other projects’ primary sectors were Power, Irrigation and Drainage, Sub-

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national Government Administration and others. These projects often listed water supply and sanitation-related sectors as secondary sectors.

To gather the project appraisal documents, the research depended on the World Bank's own website that lists all project appraisal documents.¹ We searched the full list of projects for project titles that included water, sanitation, hygiene, sewerage and waste. Many projects focused on non-WATSAN aspects of water management, such as irrigation and environmental resource management, and unless those projects had WATSAN elements they were excluded from the final data selection.

For projects appraisal documents produced since 2001, the data were drawn from the Results Framework and Monitoring section of each document. This section lists the overall Project Development Objective (PDO) and one or more indicators that measure progress towards that goal. The section also lists intermediate outcomes and the indicators that correspond to those outcomes. We created a spreadsheet that includes all the indicators associated with each PDO and intermediate outcome. Eleven of the 44 frameworks follow an older monitoring and evaluation framework. These projects, from 2000-2001 and before, list a sector-related Country Assistance Strategy (CAS) goal in addition to the PDO. Instead of reporting Intermediate Outcomes, these reports use "Output from Each Component" and the indicators to measure it. In our analysis we used the "output" categories as a rough approximation to the Intermediate Outcomes in the later reports. For these earlier projects, we also report the CAS goal in a separate column. The accompanying spreadsheet reports all indicators developed in the reports and notes whether these indicators were developed to measure progress towards Outputs, Intermediate outcomes, PDOs or CAS goals.

Samples of both the newer and older versions of the Results Framework and Monitoring sections of the reports can be found in Appendix 1.

Groupings, Simplifications and Analysis

There were very few common metrics used across the projects. Due to the high number of unique indicators, we have reduced the 705 original indicators to 477 simplified indicators in order to highlight commonalities and aid analysis. These simplified indicators are found in Column E on the Data Sheet of the spreadsheet; they are also the indicators that appear when one double-clicks on the Indicator Groupings in the Pivot Tables. However, the indicators are so variable that despite these simplifications there are still many outliers. Many of the "simplified indicator" categories contain only one indicator.

In order to further analyze the simplified indicators, we grouped them into 17 groupings according to the project area that the indicator measures. These groupings are found in Column F of the Data Sheet of the spreadsheet. They are:

- Access
- Customer Satisfaction
- Education and Awareness
- Environment
- Financial (including operation and maintenance cost coverage, billing and collection efficiency, and debt coverage)
- Funding or replicating outside project
- Hardware (including all WATSAN infrastructure, and how well it functions)
- Health (for example, reduced incidence of diarrhea)
- Hygiene
- Legal, Regulatory and Policy
- Management (including institutional capacity, audit reports, national and decentralized water authority, private sector participation and management of the WB project)
- Non-water (applies to non-water, non-infrastructure indicators)

- Service Delivery
- Outputs (includes all non-WATSAN infrastructure in projects)
- Other water (includes all non-WATSAN project components, like irrigation)
- Water quality (measured in lab tests)
- Other

The most common group of indicators used by the World Bank is “Management,” accounting for 28% of all indicators used. Following Management indicators are hardware indicators (17% of all indicators), financial indicators (16%) and access indicators (12%). Six percent of indicators were in the “Service Delivery” group, and the rest of the groupings represented fewer than 3% of the indicators. Figure 1 presents the relative proportion for each category of indicators.

There are some regional differences, as shown in Figure 2. Management indicators are disproportionately used in African projects compared to projects in Asia. Hardware indicators are as well, but less so. There are several projects in Africa that use legal/regulatory/policy indicators, and none in Asia. Projects in Asia use Access, Financial, Health, Hygiene and Water Quality indicators proportionately more than those in Africa.

Some patterns emerge over time as well, though none are very drastic. In recent years, the World Bank has used fewer indicators that measure service delivery, as shown in Figure 3. The use of health indicators and use of education and awareness indicators also appear to have decreased over time.

Please direct comments or questions about this research to Leigh Anderson, at eparx@u.washington.edu.

¹ Documents and Reports, The World Bank website, Accessed 20-31 October 2010 at <http://www-wds.worldbank.org/external/default/main?menuPK=64258546&pagePK=64187838&piPK=64187928&theSitePK=523679&function=BrowseFR&pathtreeid=MAJDOCTY DOCTY&sortattcode=DOCDT+Desc&menuPK=64258546&siteName=WDS&conceptattcode=658102|540656>

Figure 1 -Indicators used by WB by Indicator Grouping

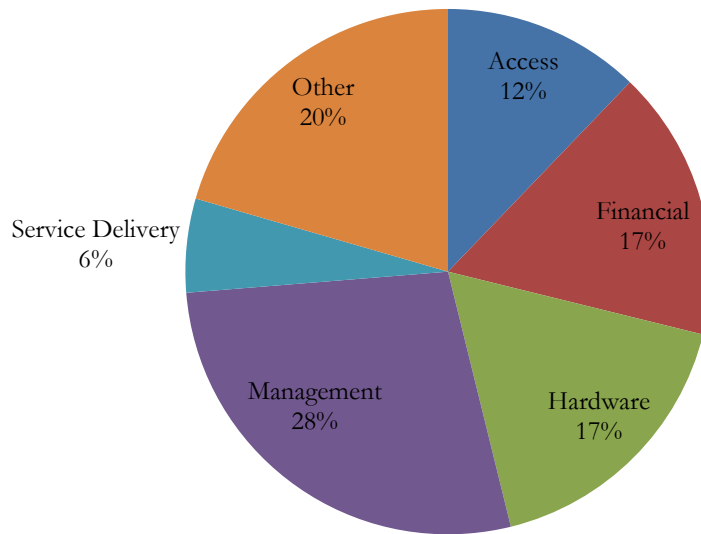


Figure 2 - Types of Indicators Used for Projects in Asia and Africa

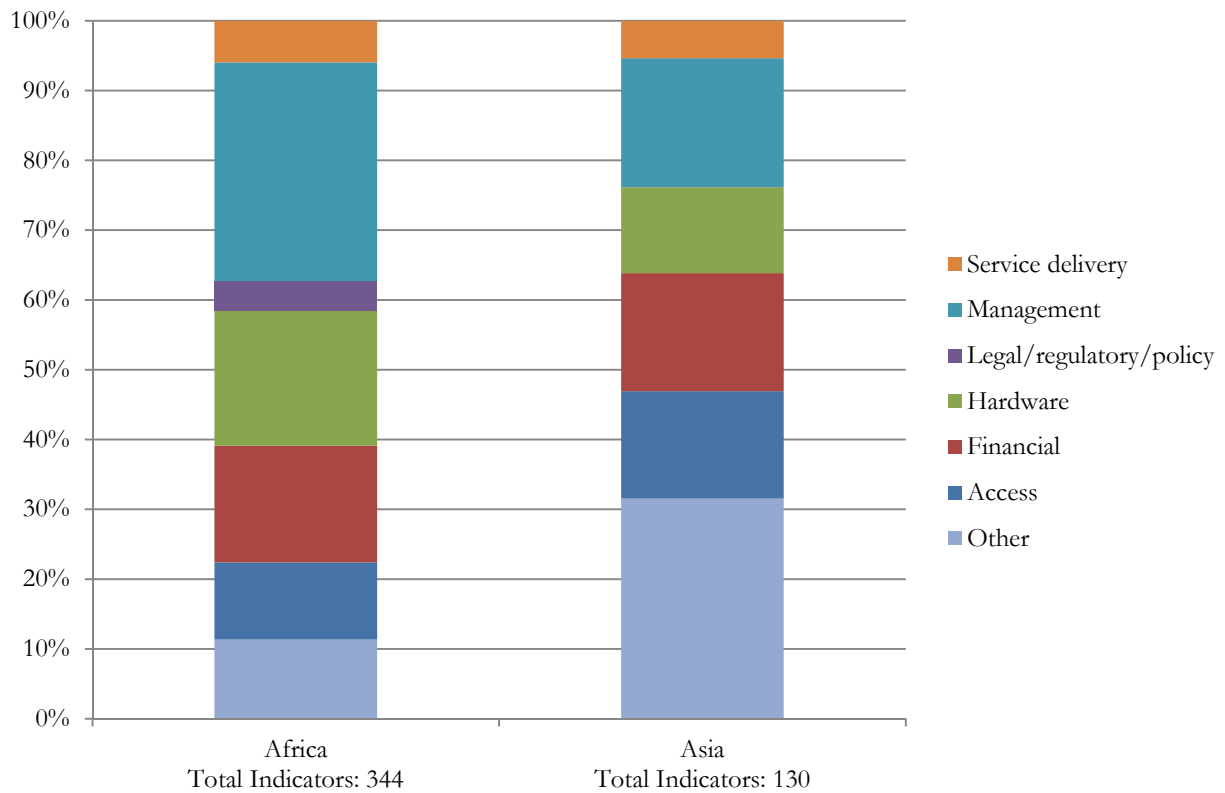


Figure 3 - Types and Frequency of Access Indicators Used by the WB Over Time

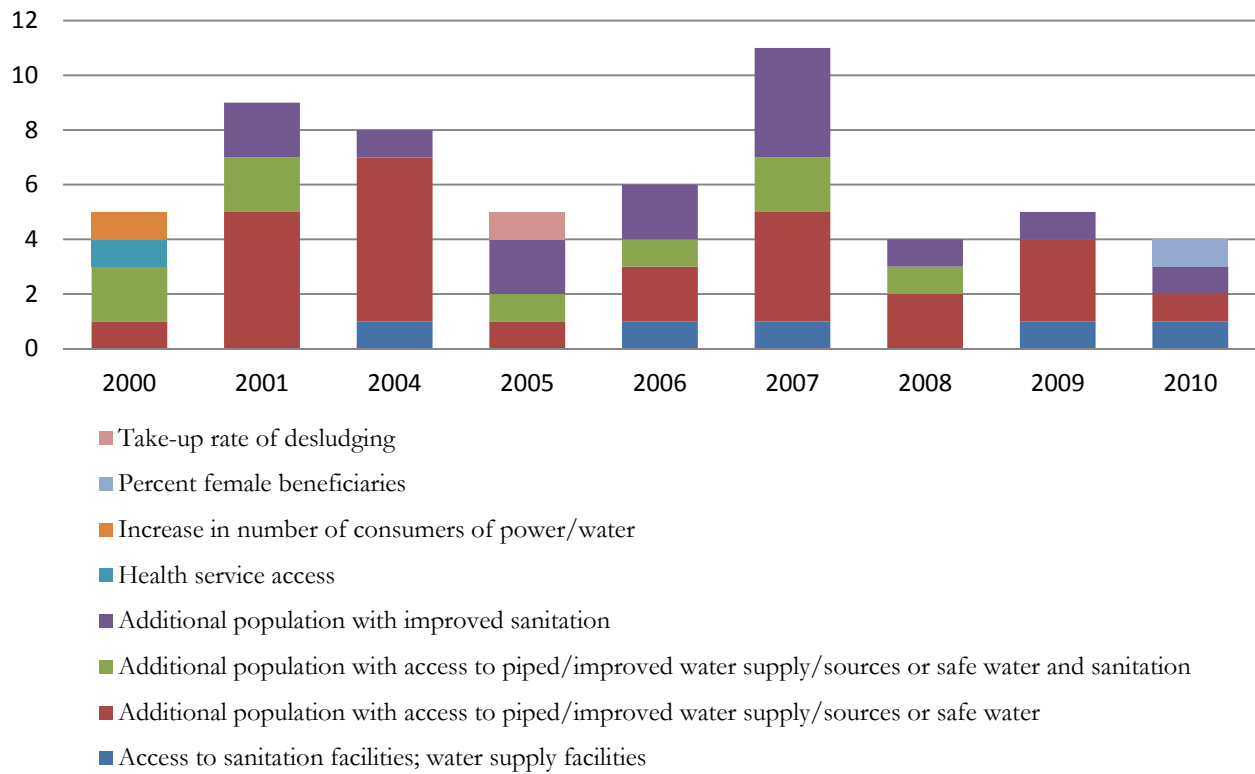


Figure 4 - Types and Frequency of Service Delivery Indicators Used by the WB Over Time

