IDEV

Independent Development Evaluation
African Development Bank

*From **experience** to **knowledge**...*
*From **knowledge** to **action**...*
*From **action** to **impact***

Evaluation Brief

An IDEV **Impact Evaluation**

Impact Evaluation of Rural Water Supply and Sanitation Program in Ethiopia 2006–2014

What did IDEV evaluate?

This evaluation examines the impact of the African Development Bank supported Rural Water Supply and Sanitation Program (RWSSP) in Ethiopia. The program was implemented during the period 2006–2014.

The impact evaluation was carried out so as to account for the program's development outcomes both to the AfDB Board of Directors and to the Government of Ethiopia. Furthermore, to give advice, backed by evidence, to the Bank on how to sustain the benefits of the program and on what to include in the design and execution of similar future programs.

IDEV conducted the evaluation with the objective of getting a credible estimate of the net effect of the program, at community and household level, on (i) access to improved water and daily per capita safe water consumption; (ii) diarrhea incidence among under-five children; (iii) travel time saved in fetching water; (iv) children's school attendance; and (v) women's productive employment.

Program data

Period: 2006–2014

Cost: UA 60.2 million

AfDB: UA 43.61 million **(72%)**

The Government and communities in Ethiopia:
UA 16.59 million **(28%)**

Coverage:

- **9** regions of Ethiopia
- **125** woredas /districts

1 Unit of Account (UA) = 1.46 US$, as at December 2014



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What did IDEV find?

The evaluation revealed the following effects of the RWSSP in Ethiopia:

- The program was **effective in delivering improved water and sanitation facilities: 6810** such facilities – close to **80% of the target** – were constructed.

- The program **significantly increased household access to and use of improved water sources** in the targeted communities – an increase of **69 percentage points** in the proportion of households. More than 90% of the households who fetched water from the RWSSP sources expressed satisfaction with the quality of the water. However, there were **shortfalls in the delivery of safe water.** Water is contaminated at source **(41% of water facilities)**, and at point of use **(68% of households).** The public tap was the most common source of drinking water in RWSSP communities (Figure 1).

- The program **contributed significantly to the surge in household ownership and use of latrines.** The program constructed 1057 public latrines and promoted household construction of 66,534 private latrines. Household sanitation coverage rose from **73% to 81%**. But the program contributed less to the decrease in open defecation – **91%** of households that did not own latrines continued the practice.

- The program **reduced diarrhea incidence by 45% in the entire population,** but had no significant impact on the incidence of diarrhea among children under-five. **While washing of hands** at critical times (before handling food, after toilet use) was widespread, only about **20% used soap.**

- **Households in program communities spent less time in fetching water** than those in non-program communities. However the time saving is below expectations – an average reduction of **23 minutes** per household per day vs the expected reduction of **2 hours.**

- The program had **no apparent impact on school enrolment rates** which were already high. Close to **97.3% of girls** and **97.1% of boys** in the program communities were enrolled in school.

- **The impact of the program on women's participation in productive employment activities was not significant and remains low** in program communities. Time saved from fetching water is mainly used for domestic activities, including cooking, fetching firewood and other unpaid work.

- The program **enhanced community capacity** by establishing water and sanitation committees and training community leaders, and communities effectively participated in the delivery of the RWSSP. However, in the absence of continued public funding, the **program results are unlikely to be sustained** due to continued institutional, technical, financial, and monitoring and evaluation capacity constraints of the beneficiary communities.

What did IDEV recommend?

The following recommendations were made to the Bank. The Bank should:

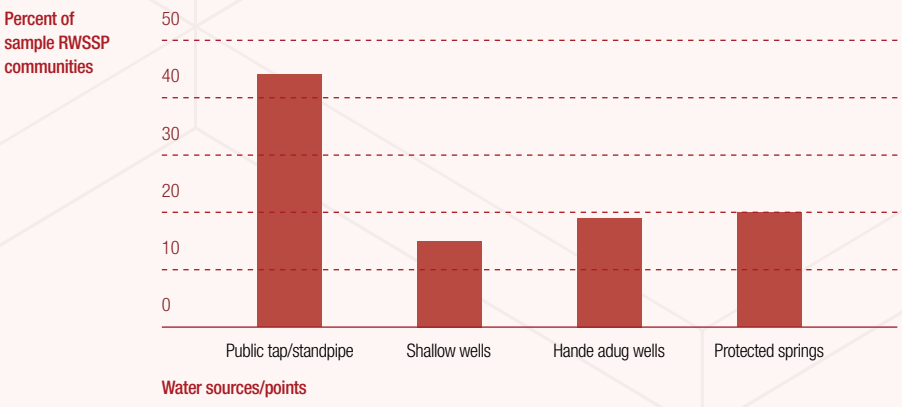
- **Develop a clear strategy for sustaining the benefits of the RWSSP in collaboration with key stakeholders.** These include the Federal, Regional and Woreda administrations, and the water, sanitation and hygiene committees.

- **Support the development and implementation of an effective monitoring, evaluation and learning system** to ensure regular, pertinent data collection, analysis, reporting and feed-back, especially for supporting the sustainability of the RWSSP community water supply, sanitation and hygiene results.





Figure 1: Predominance of public taps in RWSSP communities



Source: Water Point Survey Data 2014.

What was the Methodological Approach?

The RWSSP in Ethiopia had neither baseline data nor complete and credible outcome data so the study employed quasi-experimental methods, which are commonly applied in observational studies to measure changes caused by the program. Primary data was generated from a sample of randomly selected communities (228) and households (2,736) covering both beneficiary and non-beneficiary (for comparison) communities. The sample was distributed across 38 woredas, of 3 administrative regions – Oromia, Amhara and Southern Nations, Nationalities and People's Region (SNNPR). These regions accounted for close to 87% of the people directly benefiting from the program. Supplementary primary data was collected from water points, primary schools and health centers in the study areas. Secondary data was generated from relevant documents/reports, databases and literature. Propensity score matching and difference-in-difference techniques provided the basis for the data analysis.

Evaluation Limitations

The main limitations of the study relate to selection bias and data quality. The study applied specific quasi-experimental tools to minimize the selection bias. In order to mitigate data quality concerns, pilot-tested data collection instruments were employed during the study. In addition, multiple sources of data were used for data verification.

About IDEV

Independent Development Evaluation (IDEV) of the African Development Bank carries out independent evaluations of Bank operations, policies and strategies, working across projects, sectors, themes, regions, and countries. By conducting independent evaluations and proactively sharing best practice, IDEV ensures that the Bank and its stakeholders learn from past experience and plan and deliver development activities to the highest possible standards.

What did Management Respond?

Management acknowledges the Independent Development Evaluation (IDEV)'s Impact Evaluation report on the Bank's Rural Water Supply and Sanitation Program in the Federal Democratic Republic of Ethiopia. The Evaluation revealed the positive impact on the communities in the targeted areas, however, Management acknowledges that the intervention slightly fell short in some aspects of the anticipated impact. The different lessons drawn from this report will inform future strategies, policies and programs of the Bank, to improve the Bank's operations and learning agenda. Already, most of these lessons have been integrated into the newly launched One WASH National Program in Ethiopia, under the leadership of the Government of Ethiopia. ■

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