

SUMMARY

Introduction

From 2016 to 2019, more than 240 officials in Nicaragua were capacitated aimed at improving the often-troubled water and sanitation systems that serve the country's rural people. The trainings were administered to staff from The Fondo de Inversión Social de Emergencia (FISE, by its acronym in Spanish), the government entity in charge of overseeing rural water and sanitation services in the country.

The World Bank has supported with an investment project focusing on institutional strengthening. The intervention's effects found success in the prime objective: **to upgrade the management and institutional capabilities of rural water and sanitation systems.**

In households that the systems serve, the intervention also brought specific benefits, such as lower rates of diarrhea and use of shared facilities. The study did not find statistically significant progress toward the long-term Sustainable Development Goal (SDG) of safely managed access to water, essentially clean and reliable on-premise water in all homes. But because the measurement occurred quickly after the intervention, the documented benefits were by nature short-term and may not have had time to influence this broader objective.

Life without reliable access to clean water for drinking, cooking, and bathing is a fact of life in much of rural Nicaragua. Access to basic and safely managed water supply and sanitation in rural areas was each about 60 percent in 2017. Some water systems operate informally with part-time staff, limited resources, and scant quality monitoring. **To address these many challenges, the Government of Nicaragua implemented the Sustainable Rural Water Supply and Sanitation Project (PROSASR, by its acronym in Spanish), with assistance from the World Bank.**

Component 1 of the project is about consolidation of RWSS sector institutions, and focuses on improving the management and technical skills of staff at the country's Water and Sanitation Municipality Units (UMAS, by its acronym in Spanish), which support the country's many Water and Sanitation Committees (CAPS, by its acronym in Spanish), the actual operators of water distribution and sanitation systems in rural areas. **Personnel at the municipality, and community, also received support from water and sanitation regional advisors (ARAS, by its acronym in Spanish), who assisted in the implementation of the project components.**

Methodology

- ▶ The current study was a randomized control trial. It set out to assess affects at **150 randomly selected rural communities that received the Component 1 intervention training to UMAS and CAPS in 2017 and 2018, compared to a control group of 150 that did not.**
- ▶ **Located in 76 of Nicaragua's 153 municipalities,** the communities were a good cross section of the country's geographical expanse with statistical representation.
- ▶ **A statistical baseline was established in 2015 by surveying 4,800 households** as well as other parties in both groups of communities to establish a statistical baseline for water and sanitation conditions before the intervention.
- ▶ **Between March and October 2019,** with the interventions in the 150 treatment communities complete, **researchers conducted follow-up surveys of more than 4,500 households** as well as to FISE staff in both groups of communities to establish a statistical endline and assess the impact.



Nicaragua

Main results

In 2017 and 2018 came three rounds of two- and three-day training administered to 240 officials from UMAS, which aid and advise CAPS, local government entities which operate the water systems, and are the key-points of contact with the communities.

In these training workshops, the officials honed their skills in analyzing water and sanitation data, devising action plans to address shortcomings in local water systems, interacting with community members residents to assure smooth implementation, conducting water quality tests, and filing necessary documentation.

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Workshop participants also received instruction in how to promote gender equality in provision of these crucial services. After the workshops, with support from the ARAS, the participants applied these newly learned skills and capabilities to help CAPS improve rural water systems.

The study revealed that in the intervention communities, CAPS scores on three out of five attributes of a good water and sanitation system had risen compared to the control communities. The other two attributes showed no significant change.

- + 22% ▶ Financial stability
- + 19% ▶ Formalization of operation
- + 19% ▶ Quality of system operation and maintenance
- ▶ Protection of the system's water source
- ▶ The charging of adequate tariffs for water supplied

At the household level, the study found positive impact in four indicators of sanitation, also compared to the control communities. There was no significant effect on other household indicators.

- + 15% ▶ Improved sanitation
- + 5% ▶ Use of non-shared sanitation facilities
- 32% ▶ Open defecation
- 16% ▶ Diarrhea
- ▶ Handwashing, latrine use, safe water storage, unsafe disposal of trash, and the presence of feces or trash in a house's yard.

Conclusions and limitations



The study did not show significant progress toward the ideal state of water and sanitation laid out in the Sustainable Development Goals, safely managed water access. This is defined as households having water from an improved source located within the premises, available when needed, and free from fecal or chemical contamination. In addition to increases in access to safely managed water, longer term effects are also expected in: reduction in diarrhea, and in access to clean sanitation and hygiene.



But only six to eighteen months passed between completion of the training and compilation of the statistical end line. This might not have been enough time for the effects of the systems' newly robust institutional and management capabilities to filter-down to the level of the community. **Thus, the authors recommend securing funds to conduct another data collection exercise in one- or two-year's time.**