



Improving EPA's Performance with Program Evaluation

An Evaluation of EPA's Safe Drinking Water Program in Central America

Series No. 3

By continuously evaluating its programs, EPA is able to capitalize on lessons learned and incorporate that experience into other programs. This enables the Agency to streamline and modernize its operations while promoting continuous improvement and supporting innovation. This series of short sheets on program evaluation is intended to share both the results and benefits of evaluations conducted across the Agency, and share lessons learned about evaluation methodologies in this evolving discipline. For more information contact EPA's Evaluation Support Division at www.epa.gov/evaluate.

At a Glance

Evaluation Purpose

To identify outcomes and determine the overall effectiveness of EPA's Safe Drinking Water Program activities, and to provide recommendations for sustaining successes and transferring the program to other regions.

Evaluation Type

Outcome Evaluation

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Partners

Office of International Activities, Office of Policy, Economics and Innovation

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Background: Why was an evaluation performed?

In 1997, EPA launched the International Safe Drinking Water Initiative to improve water quality. Central America was identified as a priority region, and El Salvador was selected as a pilot country. In October 1998, Hurricane Mitch devastated the region and EPA, among other U.S. government agencies, was called upon by the U.S. Agency for International Development (USAID) to assist in the region's rehabilitation. With additional funds from USAID, EPA expanded its program to include Honduras and Nicaragua. This effort later became known as EPA's Safe Drinking Water Program in Central America (Program). The Program included four initiatives: (1) laboratory capacity-strengthening; (2) drinking water treatment plant optimization; (3) source water protection; and (4) safe drinking water program development. As the Safe Drinking Water Program in Central America neared completion at the end of 2001, EPA's Office of International Affairs (OIA) conducted an evaluation to determine how effective the Program had been in meeting its goals, and to identify lessons learned that could increase the likelihood of sustaining the Program's outcomes and help promote and guide safe drinking water efforts in other regions.

Basic Evaluation Approach: How did they do it?

The evaluation was completed using roughly nine steps, which are outlined below.

- Step I:** Develop key questions.
- Step II:** Review pertinent documents.
- Step III:** Develop a Safe Drinking Water Program framework to better understand Program goals and activities and determine how to measure success.
- Step IV:** Develop an evaluation report outline to better ensure that the final product would match EPA's initial expectations about the evaluation.
- Step V:** Prepare interview guides for each of the four distinct Program components to help answer each of the key questions.
- Step VI:** Conduct preparatory interviews with EPA staff who helped guide each of the four Program initiatives, to better focus the subsequent interviews.
- Step VII:** Develop a potential list of interviewees for individual and group interviews.
- Step VIII:** Conduct face-to-face individual and group interviews in Central America involving 69 participants representing each of the four Program components.
- Step IX:** Analyze data on Program initiative outcomes and impediments to success to develop findings and recommendations.

Evaluation Results: What was learned?

The evaluation team found that, overall, the Program has made good progress toward several of its short-term goals. Much of the success achieved was at the technical level, especially with the lab capacity and treatment initiatives. For instance, for the Program's laboratory capacity-strengthening initiative, which took place primarily in El Salvador and Nicaragua, the team found that results exceeded expectations for improvements in the operations of the participant

laboratories. However, continued external support will be needed if the Program is to succeed in its long-term goal of improving drinking water quality in the region.

Factors influencing the success of Program initiatives included EPA's effort early on to identify and cultivate relationships with potential partners and stakeholders. Also important was EPA's effort to be sensitive to cultural differences and how they might impact participants' views towards elements of the Program. EPA's integration of the various Program components to maximize learning was also critical. In El Salvador, for instance, the treatment plant optimization and laboratory capacity-strengthening initiatives were conducted simultaneously, increasing the ability of individuals to transfer information, share ideas and collaborate on plans. In addition, EPA and its partners greatly enhanced the quality of Program workshops and training by incorporating the use of hands-on activities.

Approach for this Evaluation

Step I

Develop Key Questions

Step II

Review Pertinent Documents

Step III

Develop Program Framework

Step IV

Develop Evaluation Report Outline

Step V

Prepare Interview Guides

Step VI

Conduct Background Interviews with EPA Staff

Step VII

Develop Potential List of Interviewees

Step VIII

Conduct Individual and Group Interviews

Step IX

Analyze Data and Prepare Findings and Recommendations

Initially, the lack of sufficient resources to fund the purchase of laboratory equipment for all labs, to finance pilot projects, or to make training more widely available limited the ability of the Program to achieve greater progress toward its goals. In addition, the absence of a strong drinking water regulatory framework in each country limited the degree to which Program initiatives gained sufficient visibility to garner enough resources to continue. The lack of trust between organizations such as health ministries and national water utilities at the senior management level also limited the ability to share lessons learned among Program initiatives, and subsequently limited the value of the workshops. Finally, the relatively short period of time (approximately two and a half years) during which the Program has been up and running has impacted the progress made toward longer-term goals and objectives.

Evaluation Outcomes: What happened as a result?

The evaluation identified some key impediments that limited the Program's ability to achieve greater success. Eleven recommendations were developed that centered on each of the four Program initiatives and that address the sustainability of the Program and its transferability to new regions. The lessons learned identified in the report are and will be applied to future international water programs, and OIA indicated that the evaluation has positively impacted its thinking about how to implement future water programs.