GUIDELINES FOR RESOLUTION OF PROBLEMS WITH WATER SYSTEMS

Resolution is the process of addressing problems identified through post-implementation monitoring and/or evaluation. Resolution reflects the concept that those implementing organizations that are made aware that water systems they have built are non-functional or need major repair are responsible for responding. There is resounding agreement in the water development sector that rural communities in developing countries need some sort of support after installation of water points. Key questions for implementing organizations, donors, and local stakeholders are:

- Who is responsible for fixing the problems with water systems built by international development organizations and charities?
- How can problems be resolved without creating future dependence or open-ended obligations?
- What are the costs to resolve a problem and how should they be divided among the implementing organization, community, host governmental entities, and external donors?
- How long should the implementing organization be required (contractually or ethically) to confirm post-project resolution of the problem?

These are questions that were addressed in developing this report. Ideally, resolution activities should be a bridge to sustained, locally-led services. These guidelines, approaches, and models are intended to move implementing organizations toward that common goal. See the full report at: improveinternational.org/resolution
Most development organizations monitor and evaluate during their programs, but this is not enough to ensure that water and sanitation interventions lead to sustainable services. Post-implementation monitoring, whether by the implementing organization or by another entity, is necessary to ensure that services continue, and post-implementation evaluation can help to understand why systems are working or not.

The overall global water point failure rate (based on “snapshots” of functionality for hundreds of thousands of water points) has hovered around 40% since the 1990s. Many systems that are considered “functioning” are not providing safe water around the clock. Rural water points are far harder to keep operational than hoped for, and often fail within just a few years. Installation and repeated rehabilitation of failed water points is a massive waste of investment.

The case for Resolution vs. Rehabilitation

If installing infrastructure did not lead to ongoing services, just rehabilitating the same infrastructure will not lead to ongoing services either. Rehabilitation—major repairs to existing dysfunctional water points—is fairly common in many water supply interventions, mainly because it is less expensive than building new water points. However, rehabilitation programs use the same training and management that led to the breakdown. Or worse, rehabilitation programs just repair the water points without any additional support. Because of the trend towards obtaining community capital contributions to water systems, when those water systems fail, implementing organizations are making poor people poorer. Rather than just fixing the immediate problem (broken infrastructure), implementing organizations should find and address the root causes of why the water point failed.
OVERALL /  
- First, do no harm. To avoid repeating mistakes, implementing organizations must take time to understand and address root causes of problems instead of just repairing infrastructure.
- To best serve users, implementing organizations, donors and governments must change their measurements of success from the number of new beneficiaries to measurements like the organization’s contribution to the nation’s water goals, water-person-years, or percentage households in a district with access to an ongoing basic service level.
- Implementing organizations must be accountable to water users.

IMPLEMENTATION /  
- Organizations should shift from just building water systems and rehabilitating broken systems to facilitation, such as capacity building for supporting service providers.
- Implementing organizations and local stakeholders should collaboratively define and agree on roles and responsibilities in ensuring ongoing services.
- Implementing organizations should improve monitoring to rapidly and accurately identify areas for resolution.
- Donors should show increased flexibility in funding to support such efforts.

INSTITUTIONAL /  
- Engage local governments and work within national frameworks.
- Collaboratively define and agree on roles and responsibilities in ensuring ongoing services.

SOCIAL /  
- Implementing organizations should make their exit strategy and timeline explicit while planning resolution activities with local stakeholders.

ENVIRONMENTAL /  
- Implementing organizations should understand and plan water services based on users’ multiple needs and sources of water, seasonal availability of water, and water resource management needs.

FINANCIAL /  
- Water services are not free—all stakeholders must understand lifecycle costs and agree on who will pay for which costs over what period of time.

TECHNICAL /  
- Implementing organizations should engage local governments and work within national frameworks.

GUIDELINES FOR RESOLUTION  
It is difficult to determine root causes vs. symptoms, due to the wide range of interventions and a lack of consistency and rigor in evaluation; however, the repetitiveness of the problems identified through monitoring and evaluation of water points across the globe suggests that there are common ways to respond.
Key questions that are addressed in this report, include:

**How long should an implementing organization be responsible?**
There is no consensus or evidence for how long an implementing organization should be responsible for the services provided by systems it has built; however, 10 years as a maximum was suggested by several organizations, with checks either annually or at three-, five- and 10-year intervals post-implementation. Whatever the time frame, monitoring increments need to be supported from the initial project planning stages and reflected in the budget.

**Who should pay for the costs of resolution?**
While many implementing organizations initially balk at the idea of having to pay past the initial investment, under the misconception that “building water supply systems is more important than keeping them working,” it must recognized that if the intent is to save or change people’s lives, the water must flow forever. Not all costs need to be covered from one source: Implementing organizations should insist on cost-sharing from users, local government, and/or central government.

**What are ranges of costs?**
Based on studies of several types of post-construction support, average expenditure is $2.50 USD per person per year. Another way to think about it is to dedicate a minimum of 10% of capital costs per year per system for preventive maintenance and repairs.

**What are models for resolution?**
Successful models for resolution of problems with water services include the following, sometimes in combination:

- Post-construction (external) support like mechanics associations and circuit riders
- Networks of water committees
- Supporting local governments

See the full report at: improveinternational.org/resolution.

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