Assessing Resiliency of WASH Projects in Eastern Africa

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Objectives

1. Determine factors that lead to successful WASH projects within Eastern Africa and globally
2. Identity the factors that lead to resiliency
3. Define and categorize the intersection between the two and which improve project success the most

Introduction

- **Problem:** Tens of millions of people lack access to safe water, sanitation and hygiene (WASH) infrastructure in eastern Africa. WASH projects in developing countries requires resilience; during disruptions such as COVID-19 the need for organizational resilience is even more important.
- **Defining disruption:**
- "The action of preventing something, especially a system, process, or event, from continuing as usual or as expected" (Cambridge University Press, 2013)
  - **Disease** (COVID-19, Ebola, cholera)
  - **Political** (2021 Ugandan Election, Somali-Kenyan War)
  - **Natural Disasters** (Haiti Earthquake)
  - **Economical** (Unstable markets, 2008 recession)

Village of Kinyuko-Bikono's main water source prior to WASH project (Courtesy Lydia Kyokaali)

New gravity system; the project was affected by COVID and flooding (Courtesy Lydia Kyokaali)

Methods

1 Literature Review
- Developed framework for project success
- Project case studies, COVID documents, humanitarian supply chain reports

2 Primary Research/Experience
- Knowledge gained through humanitarian work in Uganda
- Met with NGOs, CBOs, and users

3 Stakeholder Interviews
- Three stakeholders, NGO, CBO and humanitarian researcher, answered questions about WASH experience during covid and past disruptions

How did Covid-19 affect your WASH development work?

- **"Two projects stalled until January this year 2022"**
- **"Partnerships became harder"**
- **"We saw new players coming on board"**
- **"Fundraising became a major challenge"**
- **"Harder because immediate attention to covid"**

What factors led projects to be successful despite major disruptions?

- **"Trusted partners on ground"**
- **"Quick and proactive response by the organization was the key"**
- **"The concept of virtual teams"**
- **"Success from true partnerships over Zoom"**
- **"Proper planning, teamwork, timely discussions"**

When a project experienced failure from a disruption, or continued to be successful, what do you think would have improved that project's resilience?

- **"When locals initiate and own these projects"**
- **"Enhancing internal fundraising"**
- **"Understanding where you are"**
- **"Just listening and coordination across"**
- **"More reserves in the project's treasury"**
- **"Community came in and provided us with locally sourced materials"**

Stakeholders

Position	Role Alongside Resilience
Researchers*	**Dr. Danielle Lantagne, Tufts** • Survey an array of communities to understand progress in WASH • Represents the policy side of WASH and large-scale change
Country Based Organization*	**Godfrey Kitimbo, BuVuCoD, UG** • Closest contact to users, facilitate communication • Experience and local knowledge and can represent communities
Non-Governmental Organization*	**Lydia Kyokaali, EWB Uganda CO** • Act as a project manager • Connect funding with end-users • Be prepared for virtual projects
Contractors	• Apply local materials and labor
Donors	• Finance aid projects proactively
End-users	• Community ownership

Table 1: * Means the stakeholder was interviewed

Following a WASH Project Timeline

Fundamental elements of project success with additional aspects needed for resiliency.

Preparation	Implementation	Monitoring
Conduct in **depth project** assessment to discover user needs and **designate stakeholders**	**Flexibility** during assembly and construction. Dealing with changes on the fly	Planning for **long-term** success by following sustainable practice.
Designing with the community in mind and **listening** to the end-users	**Communication** across all parties. Using technology to conduct virtual projects	**Training** community to allow users to manage and maintain their own systems
Assessing the resources on the ground. Utilizing the assets already in place	Using local labor and knowledge during construction	**Learning** from past projects and applying the knowledge to improve project success
Understanding differences in culture, economics and characteristics of community	**Proactive** response, have materials, funds, and teams prepared before disruptions	Addressing humanitarian policy. I.e. travel, funding, and resources during disruptions

Cross-cutting factors that improve success and resilience

- **A. Localization:** Listening to and giving community ownership
- **B. Project Funding:** Building up reserve funds and having users "buy in"
- **C. Project Assessment:** Understand the community and culture
- **D. Stakeholder Collaboration:** Listening to all parties and communicating regularly
- **E. Technology Integration:** Virtual projects and global access to tech.
- **F. Supplies and Infrastructure:** The right resources and transportation
- **G. Skilled and Knowledgeable Manpower:** Using on-ground resources and long-term training