Ensuring Sustainable Impact in High-Risk Contexts

While the gap in Water, Sanitation, and Hygiene (WASH) access remains a critical public health challenge in Nigeria, high insecurity, complex local politics, and the impracticality of data collection hinder traditional impact measurement & management (IMM) practices. The South Saharan Social Development Organization (SSDO), a Nigerian non-profit, has successfully adapted IMM practices to this context through (i) measurement methods that ensure staff safety, and (ii) sustainable impact management practices hinging on securing physical infrastructure and local community governance. SSDO's experience offers critical lessons for impact investors and practitioners on how to deliver and measure sustainable value in complex humanitarian environments.

The Data vs. Danger Challenge

As SSDO operates in high-risk humanitarian hotspots like Katsina State, its work confronts a dual challenge: ensuring the *sustainability* of infrastructure in insecure environments and *measuring* impact where traditional data collection is impossible. In Katsina, where the poverty rate surpasses 70%, banditry and kidnapping incidents were reported by more than 96% of respondents to a UNICEF survey[1]. In this context, traditional Monitoring & Evaluation (M&E) frameworks often cannot be applied, as they generally require household surveys and long-term on-site presence – data which could not be collected without exposing staff to risks stemming from local instability.

Simultaneously, SSDO's WASH operations face significant infrastructure risks. Valuable equipment like solar panels and submersible pumps are frequent targets for theft, which contributes to the broken water pump phenomenon in sub-Saharan Africa (where 30 to 40% do not work at any one time[2]). Geographically, the gap in WASH is exacerbated by perennial water scarcity in states like Enugu, where difficult topography often makes standard aquifer drilling difficult. As such, only 29

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[1] The Impact of Insecurity on Access to Education in Katsina, Zamfara, and Niger States, UNICEF, 2025, p. iv, https://www.unicef.org/nigeria/media/12691/file/THE%20IMPACT%20OF%20INSECURITY%20ON%20ACCESS%20TO%20EDUCATION%20IN%20KATSINA,%20ZAMFARA%20,%20AND%20NIGER%20STATES.2025.pdf.pdf.pdf

[2] Katherine Purvis, How do you solve a problem like a broken water pump?, The Guardian, 2016, https://www.theguardian.com/global-development-professionals-network/2016/mar/22/how-do-you-solve-a-problem-like-a-broken-water-pump

percent of Nigerians[3] have access to improved sanitation[4].

As the primary implementing partner for WaterAid[5] Nigeria in the region, SSDO faced a critical dilemma: how do you prove impact to donors when you cannot stay on the ground to measure it, and how do you ensure the sustainability of programs when infrastructure stability is low?

A Context-First Approach to Deliver Lasting Impact

To build long-term, sustainable impact, SSDO radically adapts both their measurement strategy and their physical implementation to the reality of the field.

On the impact measurement side, SSDO has developed a practical approach to M&E frameworks. For example, in their WASH project in Katsina, SSDO proposed to their donor the use of a single, high-sensitivity proxy indicator: the incidence of diarrheal disease in children under-five reported at local clinics. The logic: if water and sanitation improve, child diarrhea rates will mechanically drop. Instead of potentially dangerous door-to-door surveys, staff retrieved anonymized data from local Primary Health Centers (PHCs), allowing for data collection in under one hour. This approach was grounded in a philosophy of "stopping at the level you can defend": setting a specific, testable target, which in this case was a 15% reduction in disease incidence.

On the impact management side, SSDO develops a security-by-design model that integrates deep community governance with defensive engineering to ensure the survival of the infrastructure and the impact it generates. In communities where security is volatile, SSDO alters standard boreholes designs by digging pits 10-15 meters away from water tanks to encase pumps in concrete underground. Crucially, the Water, Sanitation, and Hygiene Committees (WASHCOMs) - groups of local volunteers trained to manage facility maintenance and finances - also devise their own security protocols. Recognizing that brass taps were targets for theft, the committee turns off the water main every evening and takes the taps home for safekeeping until the next morning.

Operational agility also means adapting engagement strategies. When security risks prevented on-

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[3] A Wake Up Call: Nigeria Water Supply, Sanitation, and Hygiene Poverty Diagnostic, World Bank p. xv, https://documents1.worldbank.org/curated/en/530431502696926677/pdf/118241-v2-WP-PUBLIC-A-wake-up-call.pdf

[4] Improved sanitation is defined by the WHO as the use of facilities that hygienically separate human waste from human contact.

[5] WaterAid is an international non-government organization (NGO) that works to improve water quality and sanitation in developing nations.

site training in Katsina, SSDO transported 20-25 youth leaders from the community to a "safe town" two hours away. There, they conducted an intensive five-day training, equipping these youths with flip charts and stipends to return home and conduct the door-to-door awareness-raising that SSDO staff could not safely perform themselves.

Proven Results Across Diverse Communities

SSDO's context-first target-setting strategy in the Katsina WASH project was validated as its goal of a 15% reduction in disease incidence was largely surpassed: during August - typically the peak of the rainy season when waterborne diseases spike - the reduction reached a level of 79.2%. Across 15 projects in 10 years, SSDO has reached more than 1.2 million individuals through its WASH initiatives, for example providing 160,000 people with access to clean water and delivering improved sanitation and hygiene services to over 550,000 citizens across Nigeria. Beyond health metrics, the organization is also targeting systemic impact: in Enugu, their holistic model of combining infrastructure with Community-Led Total Sanitation has placed communities on the path to being certified Open Defecation Free (ODF) by UNICEF. This includes the adoption of SaTo pan toilets to bridge the gap between open defecation and expensive septic systems. To ensure these behaviors stick, they have established "Environmental Health Clubs" in schools to turn students into agents of change.

Diagram of a SaTo Pan toilet, *Global Sanitation and Hygiene, Lixil (2019)*

The organization's commitment to leaving no one behind can be seen in its targeted interventions for vulnerable populations. For example, in Karonmajigi, Abuja, SSDO partnered with the Embassy of Switzerland to construct a 10,000-liter solar-powered borehole specifically for a Persons with Disabilities settlement, ensuring inclusive access for over 5,000 residents. Similarly, they have prioritized gender-inclusive infrastructure by constructing "female-friendly" toilets in schools like CPS Ukwuinyi and public markets like Eke Ozzi, aimed at improving menstrual hygiene

management and reducing stigma.

The infrastructure component has proven scalable, with successful replication across three states, including the rehabilitation of boreholes under the Diageo "Water of Life" project and the Heineken African Foundation (HAF) Phase 3 project, which transitioned from emergency COVID-19 response to establishing permanent handwashing facilities in public places.

The Next Steps: Ensuring Accountability and Codifying Change

While its operational model shows a proven track record, SSDO's representative points out that there is no shortcut to expanding impact: contextual adaptation is non-negotiable for each project. SSDO's success hinges one "radical listening" to the community, who often know the context and risks better than the donor and investors. To maximize the learnings from this model, SSDO introduced WASHCOM Peer Review mechanisms in 2024, where committees from different communities evaluate each other's performance to foster knowledge sharing, resulting in recommendations for improvements in sustainable management and community engagement in WASH initiatives.

Simultaneously, SSDO continues to drive systemic change by advocating for local governments to enact sanitation bye-laws, ensuring that the behavioral shifts they engineer are backed by legal enforcement. Their advocacy activities have contributed to the passage of the Water Sector Law in Enugu in 2021, aimed at providing citizens rights to access basic portable water and sanitation services.