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40th WEDC International Conference, Loughborough, UK, 2017LOCAL ACTION WITH INTERNATIONAL COOPERATION TO IMPROVE AND
SUSTAIN WATER, SANITATION AND HYGIENE SERVICES**An island within an island: 19 years of rural WASH
programmes implementation in La Gonave, Haiti***B. Bourzac (Haiti)*

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With harsh environmental conditions and isolation, the island of La Gonave, in Haiti, offers a rare opportunity for studying the impact of long term support in sustainable WASH services. After 19 years of WASH programmes implementation, Concern Worldwide was willing to document different experiences held in this particular context. Moreover, La Gonave suffers from a relative lack of investment from the government, which increases its vulnerability in terms of access to safe water and sanitation. This isolation piles up many challenges, endangering population health and well-being: dry and tough environmental conditions underlying scarce water resources and logistical issues, a constraining governmental policy on water and sanitation leading the NGOs to adapt and create new strategies, and complex social and cultural aspects affecting the expected outcomes. The situation of La Gonave requires creative programmes and innovative techniques to address these factors. This paper aims to outline some examples.

Introduction and context

The Island of La Gonave is the largest island off mainland Hispaniola, hosting a population of about 80,000 people. Geographically isolated and one of the most neglected places in Haiti, La Gonave has always been lagged behind the rest of the country. Extreme poverty and dependency are a fact of life for many Gonavians (89% of the population lives on less than 2\$/day and 53% on 0.15\$/day, Concern baseline survey, July 2012).

This status leads to poor access to basic services such as health, education and water. The lack of roads, only balanced with rocky sloping tracks, makes it even more difficult, forcing people to walk up to 3 hours to reach a water point in some areas. Indeed, the island is a 700 km² land of limestone where natural resources are very scarce, with very few fresh water springs and a low rainfall (800mm/year, on the central plateau, with 90% raining from July to November - source: Tamarin 2015). Groundwater remains difficult to access and be operated, regarding subsoil conditions and the average water table level: deep in central plateau areas, and dangerously intruding salt water wedge on coastal areas.

With poor sanitation and hygiene practices coming along, the situation on La Gonave presents critical health hazards, especially given the Cholera presence in Haiti, following the 2010 epidemic.

Challenges

The lack of infrastructures is the most challenging aspect of project implementation on LaGonave. Roads are barely practicable tracks, and vehicle movements are often sore efforts, increasing both people safety risks and maintenance costs.

Geographical isolation causes many logistics difficulties: large suppliers settled on the main island would reluctantly deliver materials and services; the transportation of specific needed items would require a long journey from the capital (most effective supply zone) by ferryboat and later on bumpy gonavian roads, and therefore, increases the rates. On the other hand, local suppliers could take advantage of the situation and develop local providing businesses, but they would encounter the same difficulties and higher the prices as well.

In Haiti, national regulations and policies require that Water Management Committees are linked to the DINEPA, the National Department Division for Water and Sanitation, willing to enforce its overall guidelines. The lack of collaboration and a sense of distrust from the Communities hold this situation back.

In fact, local authorities as well as administrative, security, judicial and central Government structures in rural areas like La Gonave are either weak or inexistent; the DINEPA, for instance, which is present on the island, does not have the means to work effectively, with an inexistent mobility (lack of vehicles especially) and a lack of capacities.

The rural isolated social pressure or influence, with a slow evolution of mentalities and both strong religious and mystical believes slows down any behaviour change attempt and requires longer guidance and support.

Strengths

Paradoxically, remote location offers certain advantages for implementing new services. Its isolation relatively prevented itself from a certain number of negative factors: high aid dependency syndrome, dysfunctional coordination where too many stakeholders are intervening, political struggle where economic stakes are high.

As a limestone rocky land, basic construction materials, such as sand, gravel or rocks are widely available on the island, making their supply easier and even promoting the related business activity.

All these points affected the set-up of WaSH activities on the island, and can be articulated around three broad headings: the political and governmental aspect, the geographical and environmental aspects of the island, and finally the socio-economic aspect. They all contributed to bring lessons in various components of the WaSH sector, and some examples are presented below.

Political and governmental aspects

Water sector reforms enacted by the government, especially after the 2010 earthquake, have provided the country with new guidelines and policies regarding the water operations and sanitation infrastructures set-up. The DINEPA, the national authority regulating these matters, is in charge of enforcing the guidelines and the monitoring of water points/facilities. But the process is likely to be inefficient, considering the authority deficiencies and inadequate regulations to remote areas as La Gonave.

Community based management and small scale professional operator model

In rural areas, management of water facilities is undertaken by committees called CAEPA (for spring catchment and piped scheme) or CPE (for single water points as boreholes or community reservoirs), elected within and by community members benefiting from the water points. These community based groups were expected to engage the services of a professional operator to operate the system in accordance with legislation.

Indeed, DINEPA's new regulation fully encouraged after 2011 to set up private operators contracted to maintain the facilities (based on the WSP-4P Model, or Public-Private Partnerships concept). After 5 five years of governmental advocacy, the policy appeared to be more effective in urban areas. As serious capacity and challenging logistic issues were encountered in rural areas, especially in la Gonave, the concept was not likely to work out. Essentially, no local private business with the profile or experience for system management exist on the island and villagers unaccustomed to outsiders and fearful of "commercializing" their water facilities are reluctant to trust those private operators.

Concern then adopted a mixed strategy with two pronged approach and where roles are separated. With a revitalisation of water committees through new elections, management and technical trainings, members would take in hand the overall management of the facility, while a paid operator, chosen within the community and trained by Concern, handles its operation and maintenance.

This angle stresses out the necessity of sustaining the committees' cohesion and effectiveness, while many constraints are already threatening them: attendance of members, internal conflicts, appropriation of committee budget, illiterism, and emigration of trained technician/operator.

A federation to coordinate the committees and manage local spare parts supply

A key challenge that has already been encountered for most of the facilities is that DINEPA lacks the staffing and logistical capacity on the island to fulfil their monitoring obligations to the CAEPA/CPEs. Confronted with this reality and the urgent need of repair work, CPEs supported by Concern were sensitized

on the need to regroup all the CPEs within a common institution allowing members to discuss together solutions to shared issues and manage mediation between members. In 2015, a Federation of Water Committees in La Gonave was created, with a management board elected within the CPE's members. Such a system requires a long-lasting mobilisation effort and motivation emphasis. Its structuration and formalization (with government authorities) was terminated until recently, in 2016, and several trainings (management, governance, mediation) were provided.

Furthermore, the availability of spare parts (for borehole hand pumps, especially) and service supply chain on the island has been one of the greatest restraints limiting facilities maintenance and sustainability. In this perspective, Concern, according to DINEPA and other stakeholders' guidelines, worked on a plan to establish a Water Service Provider. A strategy was launched in 2013 to set up a network of professional suppliers of spare parts to facilitate water points repair and maintenance.

Therefore, local hardware suppliers were contacted and mobilised to take part in the setting up of a local supply system on the island, supported by Concern. Already facing themselves logistics issues, suppliers declined after a while their commitment to the project. In 2015, it was decided to transfer the responsibility of managing the expected system to the newly created Federation, with several workshops to ensure the integration of the concept. The board responsible of the stock would be paid out on an agreed salary reward, based on sales revenues. The main challenge remaining with this system remains the mobility on the island for members, as the roads are particularly damaged in La Gonave and it takes a great effort and/or cost a lot to organise any travel or transportation.

Thus, the Federation will endorse the following main responsibilities:

- Providing support and counselling to affiliated CPEs;
- Be the mediation body for all water points management groups willing to take part;
- Ensure the supplying (purchase and sale) of spare parts on the island;
- Ensure the management of the set up stock with stakeholders' funds;
- Give feedback and accountability on the service operation to the communities, through the CPEs;
- Manage the funds and benefits generated by the service to ensure the monitoring of Water Points being part of the system.

Safe disposal of human faeces

Since 2011, the government has put in place a non-subsidised policy for the construction of individual new latrines. This policy is partly due to failures observed in the past: following the earthquake in 2010, heavily subsidised interventions led to a large number of misused or unused latrines. The current ACATs ("approche communautaire d'assainissement total" or CLTS approach adapted to local Haitian context) approach allows for community ownership over latrine construction. Nevertheless, in a context of limited access to construction tools and specific materials (such as which is precious resource in La Gonave) and rocky soil conditions, it might have been relevant to consider partial subsidisation to support communities' effort.

Lessons learned

- Payment for rendered labour motivates performance; the budget allowed can be based on Community contribution;
- A tariff mechanism is necessary to sustain the Committees' both commitment and effectiveness;
- A lack of support from local/national authorities could be mitigated with community based groups clusters/interlinked committees network.

Environmental, geological and geomorphological aspects

Drilling and borehole construction

Scarce water resources on the island and willingness to sustain the newlyplanned ones, have led NGOs towards groundwater operation and borehole construction. The island provides indeed an interesting aquifer in the eastern hills, but is unequally gifted with water resources, the western part of the island being particularly deprived.

Very few fresh water springs and boreholes, along with other NGOs former positive drilling initiatives, led Concern to commence drilling activities on the island of La Gonave in 2011. Willing to gain in

autonomy and get away from dependency of contractors' high rates due to the isolation context, a strategy of self-owned rig and equipment was adopted, operated by internal qualified staffs.

Until 2014, drilling campaigns, targeting more accessible areas and groundwater aquifers in the eastern part of the island allowed the drilling team to achieve several functional equipped boreholes. However, the hydrogeological conditions on the island, explained by the limestone subsoil and insular context, present many technical challenges, such as hard rock drilling techniques, remote faults, karstic holes, deep water table in plateau area, and salt water wedge on coastal areas; those aspects required the support and supervision of a high skilled professional, with additional heavy logistics.

Meanwhile, one local technician was trained to higher local capacities, with the perspective of transferring the supervision of local operated drilling campaigns.

From 2014, the local staff took charge of the drilling activities, left with poor technical support and supervision, and the targeting strategy moved towards the western part of the island due to the needs, where environmental conditions are more difficult.

It appeared that the many trials operated by the team failed systematically, with either rig failures or breakdowns (in hard rock ground areas) or seawater intrusion in boreholes with high salinity found out (on coastal areas).

More recently, after a long period of rig breakdown and activities being on hold, the local technician left the organisation leaving the objectives unachieved and the position unfilled. A wide recruitment was held in the country, but no profile met the requirements.

The only water facilities in the western targeted area used to be private rain harvesting reservoirs, built and operated by individual households. This resource could provide population water for a few months after the rainy season, but at high selling rates, unaffordable for the extreme poor.

The late last years, Concern changed its strategy of access to water in this area, adopting the construction of community large reservoirs connected to rain harvesting systems.

Local construction materials are indeed easily available, as many quarries could be found and be locally operated. This would involve communities' labour (and thus, commitment into facilities construction) and develop local businesses and construction trades, as long as some technical and management support would be provided. Sustainable resource management has always been a sensitive issue on the island, especially regarding soil use and erosion threat.

A set up of new water management committees with close support and trainings came along these constructions.

Lessons learned

- Drilling campaigns in challenging geological areas requires more environmental assessments, feasibility surveys and data collection to ensure that the right areas are targeted and increase efficiency;
- A strong logistical support is required also to maintain and operate the rig and equipment: supplying network, consequent budget and skilled (experienced) staff are mandatory to render effective the effort invested;
- Trained staffs need to be duplicated and skilled technicians' availability needs to be improved, especially in an isolated remote area as La Gonave;
- Simpler systems of water storage could mitigate the lack of water in remote areas, especially during the dry season;
- The use of local resources such as basic construction materials would reinforce communities' ownership but needs close technical and management support to be sustainable and effective.

Social and economic aspects

Behaviour gap: community leadership and marketing possibilities

Since its activities began, Concern has implemented a mixed PHAST/CLTS approach on sanitation and hygiene promotion component, with limited success.

The latest surveys and results monitoring conducted showed that a consistent improvement of knowledge on hygiene practices occurred within the communities.

For instance, more than 80% of the surveyed population can identify at least 3 critical moments for washing hands, and 54% could demonstrate it with relevant equipment, when less than 20% would have done the same in 2012 (2012 baseline survey, CWW).

However, despite the technical trainings provided and their proven assimilation, the effective practise of water treatment, on the other hand, is not consistent as confirmed by the survey results. It demonstrates that knowledge is difficult to translate into practise given the many constraints households face in La Gonave regarding the availability of needed materials (soap, chlorine, etc...) to apply the learned practices.

Beside the cost of the items, the main reason given by the population for such a gap is the availability of these. However, it is proven that many traders appeared last years, especially in the main locality of the island. Business is growing, but, in the same time, only leaders seem to procure specific items. One often finds that only those in privileged positions can afford sanitation items, being usually the only ones travelling from remote areas to the main locality. Rising again the question of mobility on the island.

Maintain that sort of privilege is considered as an important social factor for the leaders, since leadership is highly regarded in the Gonavian society, the latter being structured on a vertical basis.

Increasing people's knowledge on fecal-oral contamination transmission routes and how to prevent them is an important step, but remains insufficient, unless effective adoption of the promoted behaviour occurs. Availability needs to be enhanced as long as mobility. This would require more resources invested in the hygiene promotion component and facilitation of targeted local market outgrowth.

Capacity building and 'brain drain' phenomenon

As it is often the case with remote locations, Concern's capacity building initiatives have been hampered by newly trained technicians leaving La Gonave, seeking better job opportunities elsewhere. Despite attempts to secure their work in la Gonave (at least for a certain period of time) through contracting involving the community and local authorities, temptation to find better living conditions outside la Gonave led to major defection over the years, especially regarding the hand pump mechanics. This phenomenon represents a major threat to the sustainability of the water services put in place. Indeed, whenever a major repair is needed, the lack of skilled technicians established in the island leads to longer delays and increased cost for the repairing (if even occurring).

Lessons learned

Tendency of the population to depend on external aid or be assisted, but still willing to improve their conditions, has introduced an ability to rapidly "copy" behaviours without taking initiatives, innovate nor integrate positive impact.

Changes would be introduced systematically by local leaders, demonstrating a strong emphasis on the necessity of guidance for the communities.

It is culturally admitted that leadership, mostly based on charisma and education, is a required part of the social organisation in Haiti, raising again governance and community committed integrity issues.

In addition, the limited availability of hygiene and water treatment products at a reasonable cost is the main reason presented by Community members; they have access to these normally through NGO distributions, but periodically through direct purchasing. The related market availability does not cover the island, leaving potential providers in the main localities. Attempts to spread the market all over the island are generally hampered by the remoteness and lacking accessibility of areas where it is mostly needed.

Usually, potential retailers are unwilling to take part in such activities, claiming that the remoteness would prevent clientele development, necessarily higher the prices, and thus, turn the investment non cost effective.

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