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**DELIVERING WATER, SANITATION AND HYGIENE SERVICES  
IN AN UNCERTAIN ENVIRONMENT**

**The transition from Community Water Management to  
Public Private Partnership & Participation: An intermediate  
model for remote and underdeveloped locations**

**The case of La Gonave, Haiti, Caribbean**

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**BRIEFING PAPER**

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*In this paper, we argue for a transition phase/model for small rural water supplies transitioning from the Community Based Model (CBM) to the Water and Sanitation Programme's Public Private Partnership & Participation model (let us term it WSP-4P<sup>1</sup>). We think that such a transition phase is especially suited to rural water facilities in remote and underdeveloped areas characterized by the absence of agile private enterprises (to provide operation and maintenance services) and strong local authority and central government departments/structures to play crucial monitoring and regulatory functions. The phase or model, which we term small scale professional operator (SSPO), in our view avails the right mix of features that can facilitate poor rural communities to progressively transfer the management of their facilities from the Water User Association (WUA) to a Water Service Provider Enterprise (WSPE). The presence of a spare parts and technical service supply chain or enterprises is crucial for the transition to happen. Our proposition is based on experiences and lessons learnt by Concern while implementing water supply programmes on the island of La Gonave, Haiti over the past 7 years. The SSPO model has so far been tested over a period of 21 months between May 2011 and February 2013. Hence the findings and lessons shared in this briefing paper should be treated as interim. The results of numerous analyses carried out and tools and formats adopted for this model cannot fit in the scope of this paper but are available upon request.*

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## **1. Background**

Surrounded by the Atlantic Ocean and the Caribbean Sea and ravaged by an annual cycle of hurricanes, Haiti is a net water stress country. Access to improved water supply within a <1km walking distance is barely 40%. In the most remote rural areas like La Gonave, the situation is dire, with drinking water going for US \$0.25 per 20 liter bucket in dry season and return walking time to a fresh water source from 6-8 hours. Sanitation is very poor. Port au Prince is one of the world's few capital cities without a conventional sewage system. In La Gonave, latrine coverage is only 10%. Poor access to clean water and poor sanitation and hygiene are serious health hazards. The October 2010 cholera epidemic resulted in over .62 million hospitalizations and 7,700 deaths. 2010 was the same year an earthquake killed nearly a quarter of a million people, injured 0.3 million and displaced over 1.3 million. The first fully fledged national water department, DINEPA, established in early 2010, is still grappling with national water sector reforms and its own development. Local authorities as well as administrative, security, judicial and central government structures in rural areas like La Gonave are either weak or inexistent.

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<sup>1</sup> The 4<sup>th</sup> P being our own emphasis on community participation, to ensure that the community is not left out in critical planning and decision making.

Concern Worldwide works alongside the GoH and other agencies to address development and humanitarian needs in La Gonave. Water and sanitation programmes facilitated by Concern between 2006 and 2012 have benefitted nearly one third of the island’s population. But according to a 2010 DINEPA report, <50% of an estimated 250+ rural water facilities are fully functional. This high rate of dysfunction was attributed to non-existence of a structured management system coupled with the absence of a spare parts and service supply chain on the island and in Haiti generally. Poor engineering design construction was cited as well. Most of the functioning facilities are operated by a voluntary Water User Association or Committee, or the committee, where it existed, has since collapsed.

## 2. The small scale professional operator model (SSPO)

### 2.1 Terminology and background to DINEPA’s new water sector reforms

The term Professional Operator (*Opérateur Professionnel* in French) refers to a skilled or qualified operator.

DINEPA’s strategy and policies are still being developed. The new structure has just begun to be rolled out in rural areas, with serious capacity and logistical challenges being encountered. Its new water sector reforms are fashioned around the World Bank Water and Sanitation PPP model (or 4P as we prefer to term it). Key sector strategy and policy reforms include:

- A national water directorate (DINEPA) responsible for the regulation and coordination of the water sector and for control of water conservation and exploitation as well as development of major water facilities
- A separation of roles between DINEPA (national level focusing on sector regulation and water resources conservation and management) and OREPA (regional authorities which deal with development of new water facilities or major rehabilitations of existing ones and contracting of water service provider)
- Operation of water facilities is contracted by OREPA to service providers (*Opérateur Professionnel*) in the urban areas. In rural areas, the responsibility for management of water facilities is delegated to water committees called CAEPA (one CAEPA per piped scheme) or CPE (for single water points such as hand pumps and point source spring protections), elected by beneficiaries and expected to engage a *professional operator* to operate the system at a commission pegged on monthly water tariff collections.
- The new policy provides guidelines for implementation of a water tariff mechanism (newly legal for rural areas).

### 2.2 Intentions to pilot the WSP-PPP

It is under this emerging context that Concern decided to support DINEPA to pioneer the new sector reforms on the island, looking beyond water supply hardware to focus on helping to transform water management on the island. What is now being termed as SSPO was in fact originally intended as WSP-4P. But conscious of the debates around WSP-4P, as well as some of the challenges and lessons outlined by WSP in recent publications<sup>i</sup> and also considering some of the myths<sup>ii</sup> and pitfalls that continue to afflict the Community Based Management (CBM) model, Concern chose to test the planned model on a pilot basis for 6 months before beginning to roll it out on 27 other water facilities (2 more piped schemes and 25 boreholes equipped with hand pumps). The pilot was conducted on a small piped scheme (1km pipeline with kiosks) in a village of 1,150 people on the south of the island, called Petit Anse. What emerged was a mix of WSP -4P and CBM (Community Based Management), now termed SSPO.

As soon as the testing began, it became evident that straight implementation of 4P was not possible due to:

- No available local private enterprises with the business profile or experience for system management
- Difficulty in attracting private enterprises external to villages (due to low financial portfolio of project) and apprehension of villagers unaccustomed to outsiders and fearful of “commercializing” their water facilities

- Incomplete/insufficient dissemination of the necessary DINEPA policies and legislation to regulate private enterprises
- Lack of preventive maintenance system and supply chain, necessitating set up and heavy investment cost

## **2.3 Piloting and rolling out the Small Scale Professional Operator Model**

The key pilot features which have been rolled out to the 28 (including the one used for piloting) water facilities are briefly outlined below.

### ***2.3.1 Reconstitution of the then existing water committee to CAEPA/CPE.***

The water committees (where they existed) were reconstituted (or new ones created) in line with DINEPA guidelines. Fresh elections were held to invigorate and diversify membership (age, education, occupation, sex). Training was provided with a curriculum developed with DINEPA's input and basic office cum store space established or rehabilitated for the much busier water facilities.

### ***2.3.2 Establishment of a water tariff mechanism.***

A water tariff mechanism was established for each of the 28 facilities through deliberations at public gatherings. DINEPA's general guidelines stipulate a tariff of 1 gourde per 20 litre container at public water collection points (e.g. water kiosks). However, beneficiaries came up with various other propositions. A mean flat rate of 25 gourdes (or USD 0.5) per month was agreed for households of hand pumps drawing 2-3 buckets per day (those who want to draw more than 3 buckets can pay an additional cash at 1 gourde per bucket). For piped schemes, a mean flat rate of 35 gourdes was set per month for 3-4 buckets per day and a gourde per bucket after that. A mean 15% of registered consumers for hand pumps and 10% for piped schemes were considered vulnerable and exempted from payment by special resolutions of CAEPA/CPE. These include very elderly persons living alone, physically handicapped persons with no occupation, widows and widowers without a regular source of income, and child headed households.

### ***2.3.3 Engagement of a Professional Operator.***

One of the main pitfalls of the CBM model was the assumption that a committee member, with a few days of skills training, was prepared to provide his/her services for days on end, for the sake of the community. Under the new arrangement, roles are separated. The water committee oversees the scheme while a paid operator handles the operation of the facility. Payment for labour rendered motivates performance. For hand pumps, the operator was selected from among those trained by Concern in installation, repair and maintenance. For piped schemes, a competitive recruitment targeted local technicians, hardware dealers and business people. In turn, the recruited piped scheme operator engages a number of kiosk caretakers, who also handle hygiene promotion. The operator and her/his team undergo rigorous skills, sales, and PR training and their roles are clearly defined in job descriptions.

### ***2.3.4 Business plan/income projections.***

Each CAEPA/CPE prepared an annual business plan and revenue projections. For the pilot and initial few facilities, the plan considered key parameters such as projected population of the target area or village (about 100 households per hand pump and 120 households per water kiosk); provision for 10-15% of households who could not pay due to vulnerability; and per capita water demand tagged at 15 litres/person per day. The water fee was fixed at 1 gourde per 20 litre bucket. The respective committees along with the operator are also trained in basic budgeting, income projections, and tariffication process, invoicing as well as banking transactions and book keeping. Training is carried out by Concern staff from

the water management unit supported by staff from Finance and Procurement units. Concern staff, often together with DINEPA staff, guides the committees through the more critical phases of the process.

However, after several months of testing, it became apparent that revenue targets were not being met and Concern reviewed the parameters for both existing and subsequent facilities as follows:

Unlike in the original pilot where income projections were based on estimated population, preparation of business plans are now preceded by water demand studies for the individual water facilities to establish the critical water demand by the population (for example, how many buckets are required/used per household per day on average, income levels and sources of most households, and capability to pay, etc.) and hence potential tariff levels. The business plans now consider only those households who registered as consumers following recruitment campaigns – about 50-75 households per hand pump on average and 80-100 households per water kiosk. Per capita water demand was adjusted to 10-15 litres/person per day. Water collection was pegged at 21 days of service per month per year, to cater for 3-4 rainy months a year when demand is lower. The tariff rate was pegged at 25 gourdes per month for hand pumps, 35 gourdes for water kiosks and 80 gourdes for individual connections.

Following these reviews and adaptations, service fee collections have been increasing steadily, with 40% of hand pumps recording over USD 25-35 per month and 30% of facilities having broken even by September 2012. Each facility has a bank account. Funds are deposited on a regular basis. Withdrawals are approved by the President (Chairperson) and Treasurer and one other member based on a request voucher initiated by the Operator or Treasurer. CAEPA/CPE can pay themselves a bonus when a profit is realized (According to the most recent monitoring report, 10 out of 28 water facilities or 36% had in their account sufficient funds to operate and maintain their water facility as per their business plan, and could potentially declare a bonus, but only two had actually done so, declaring a tiny bonus, while the rest preferred to accumulate savings).

### ***2.3.5 Operation, maintenance and monitoring plan for water facilities.***

Operation and maintenance plans were developed for individual hand pumps and piped schemes with the support of Concern WASH technical unit based on individual operating circumstances. A key challenge that has already been encountered for most of the facilities is that DINEPA, who according to the new sector strategy should play the role of performance monitoring and technical advice once the CAEPA/CPE has been created and linked to them, currently lacks the staffing and logistical capacity to fulfill this obligation to the CAEPA/CPEs. Hence, in locations where Concern has ongoing programmes, Concern has continued to monitor some of the water facilities on a regular basis (2-3 months). Performance ratings remain good for most but for those facilities where regular monitoring is not possible, it is apparent that performance standards continue to decline with time. Given the remoteness of the island and scarcity financially viable business outfits, it is not feasible to scale up from the small scale professional operator right away to a full-fledged WSPE running several schemes as envisaged in the World Bank WSP model. Priority, rather, is for the establishment of a spare parts and technical service supply chain that can support the SSPOs to run individual schemes. It is partly for this reason that WASH development and humanitarian partners on the island are currently facilitating the establishment of a Spare Parts and Technical Service Enterprise (STSE) on the island to cater for spare parts supply, service and maintenance support as well as performance monitoring services – all at a fee.

### ***2.3.6 Establishment of a regional Spare Parts and Technical Service Enterprise (STSE).***

Currently, there is no established dealer for basic supply pipeline fittings and hand pump parts on the island. Nor does a business exist which can provide repair and maintenance to the hand pumps, spring protections, rain harvesting tanks and piped schemes. Indeed, there is no commercial hand pump dealer in all of Haiti. Yet the presence of a reliable parts supply and service chain is a key requirement for the performance and success of any small scale professional operator and Water Service Provider. To address this lack, Concern, DINEPA and 9 other stakeholders operating on the island are working on a plan to establish a Spare Parts and Technical Service Enterprise (STSE) -essentially, an already existing

hardware or garage business selected through a tender process- to serve all the water facilities functional to date. The STSE shall be based at Anse à Galets, the main town on the island. S/he will stock spare parts and fittings and sell to all CPEs/CAEPAs registered with the scheme. The STSE will also be facilitated to establish trained agents akin to the water circuit riders of the Philippines<sup>iii</sup> at each of the island's 3-4 principal townships. The agents will be paid by the STSE on a commission basis to do regular monitoring, servicing, repairs and major maintenance on boreholes, piped schemes and other water facilities.

#### 2.4 Lessons learned (or lessons reinforced)

- i. **Transition from WUA to Individual Operator to Water Service Provider Enterprise model:** For water supplies systems in remote rural locations, it is not easy to achieve the transition from Community Water Management to WSP-4P within a span of just a few months or even a few years. The minimum timeframe would be 1.5-2 years, if not more. Plus our experience so far shows that a CAEPA/CPE comprising the right mix of age, education, occupation and sex is more dynamic and posted better tariff collections than those managed by the typical committee of village elders.
- ii. **Water Tariff System based on a realistic business plan and income projection:** It is no doubt viable to run rural systems on the basis of water tariffs and business plans regardless of the myth that the poor cannot afford to pay for water. On the contrary, our learning shows that where there is no proper facility, water becomes very expensive (sometimes as high as 7 gourdes per bucket). But perhaps the most important lesson learnt is that like any new business venture, the tariff system does not begin to work immediately. It takes several months for the CAEPA/CPE to build an adequate financial portfolio to begin to break even and start to meet its operational costs. Ideally, the development partner should factor into the project budget financial support for at least 6-8 months as CAEPA/CPE builds operational capital. In addition, the plan should be based on rigorous analysis and disabused of any hypothetical assumptions (see 3.3.4 above).
- iii. **Post project completion and monitoring period:** Very often, development partners, dictated by grant end-lines, hand over operation and maintenance functions to the community as soon as the project has been commissioned. This does not allow for observation of the newly constructed facility to be able to detect and rectify faults which may arise from structural settlement or quality related failure. From our experience, the post project completion observation period by the development/humanitarian partner should last no less than 1 year, while regular post project monitoring (every 2-3 months) by the local WASH Authority or, in the absence of one, a private enterprise such as STSE should continue for at least 2 years following project commissioning<sup>iv</sup>. Otherwise there is a high risk of the newly established management systems and structures back peddling and even collapsing.
- iv. **Boosting water consumption:** A rigorous campaign is needed to promote higher water consumption and educate consumers on the added value of an improved water source within reasonable walking distance. For most of the water facilities, there were notable increases in household water collection and consumption following campaigns.

#### Figure formats



Figure 1. Map of Haiti

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### Notes

<sup>i</sup> See for example UNDP-WSP: “Private Operator Models For Community Water Supply”, Field note Feb 2010; and “Public-Private Partnerships For Small Piped Water Schemes”, Field Note October 2010, where numerous lessons and challenges are shared from programmes implemented in several developing countries since year 2000

<sup>ii</sup> Perhaps best captured in current debates such as RWSN: “Myths of The Rural Water Supply Sector”, May 2010 and in the blog, Triple S-water services the last, “Community Water Management is Dead – Long Live Community Water Management” by Stef Smits, October 2012.

<sup>iii</sup> Read about the role of circuit rider here: <http://waterservicesthatlast.wordpress.com/2012/03/31/a-day-in-the-life-of-a-circuit-rider/>

<sup>iv</sup> In a yet more radical article “The water sector’s Orpheus complex – and what it costs” in the blog , **Triple S-water services that last**, Stef Smits argues that development agencies should look far beyond the initial post project period into what will happen 8, 10 years later.

Read Stef’s blog here : <http://waterservicesthatlast.wordpress.com/2012/05/06/the-water-sectors-orpheus-complex-and-what-it-costs/>