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

**Improving desludging in Haiti by building the capacity of  
local Bayakou (informal manual desludgers)**

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*This paper presents the work of the International Rescue Committee (IRC) to build the capacity of private sector manual labour (locally known as Bayakou) for the desludging of latrines in Port-au-Prince's Internally Displaced Population (IDP) camps. It looks at the successes and challenges of the methods used to improve safety among a limited number of Bayakou groups awarded contracts by IRCs as well as efforts to improve the quality of their work and their level of professionalism.*

*It also discusses the significant challenges in gaining wider recognition for the Bayakou among the national and local authorities as well as the challenges of replicating the success of the programme among Bayakou working in other neighbourhoods of the Metropolitan Zone of Port au Prince.*

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## **Introduction**

This paper presents the experience of the International Rescue Committee (IRC) in working with Haiti's traditional manual desludgers to empty latrines in spontaneous camps originally created in Port au Prince following the 2010 earthquake.

It looks at IRC's work to develop responsive and progressive methodologies which improve safety, quality and professional recognition among the manual desludging profession. The resulting improvements to sanitation services resulting from these improvements and corresponding improvements in hygiene behaviour in the home from other project components were intended to both reduce negative environmental health impacts within the Internally Displaced Population (IDP) in Port au Prince and the general public at large.

## **Context**

On January 12th, 2010, an earthquake of magnitude 7.2 on Richter's scale struck Port-Au-Prince and surrounding areas killing 222,570 people, displacing approximately two million others and affecting three million individuals. The country's infrastructure was destroyed and government capacity decimated.

While 604,215 people left Port-Au-Prince for outlying departments, an estimated 1.3 million survivors settled spontaneously on empty land in the vicinity of their damaged or destroyed houses (OCHA,2010).

The provision of humanitarian supports to these spontaneous and mosaic-style camps throughout the Metropolitan Zone of Port au Prince has been a highly challenging humanitarian management objective especially in relation to the provision of sanitation services.

Sanitation and latrine management challenges gained even greater importance with the subsequent cholera outbreak in Port au Prince as authorities and aid agencies sought ways to prevent the spread of this deadly and extremely contagious disease in the capital of Haiti.

Although in the three years following the quake, the number of Internally Displaced People (IDP) and informal camps has steadily reduced, a large population remains in spontaneous camps (approximately 350,000 people in 450 camps in January 2013 (IOM, 2013) and the provision of basic services remains a daily challenge for WASH actors leaving many camp populations highly vulnerable to water related disease.

### **The challenge of desludging in Haiti's IDP camps**

Three years after the earthquake, with focus on the relocation of the existing camp population, there is little political will or investment for building new improved latrine facilities in IDP camps. As such the focus for sanitation efforts is the maintenance of existing infrastructure and the decommissioning of latrines when camps close or where deemed too dangerous for use.

Maintaining Haiti's IDP camp infrastructure is highly challenging for the following key reasons:

- *Poorly built infrastructure:* The rush to provide infrastructure in the aftermath of the earthquake resulted in many poorly built sanitation systems. These systems often failed to meet basic standards and were only designed for short lifespan. Years later this infrastructure is in very poor repair and many latrines are full.
- *Population density:* Although camp populations fluctuate, density is very high. This very high and somewhat unpredictable demand for the limited existing latrines, mean they fill up very quickly. There is little space to manoeuvre between tents making access to latrines for mechanical desludging very difficult or impossible.
- *Topography:* Camps are set on steep hills, dry riverbeds, rocky outcrops, flood plains and swamps. This makes access for mechanical desludging highly challenging or impossible.
- *Inappropriate use:* Lack of ownership of infrastructure along with poor social cohesion and leadership means hygiene standards are low and latrines are regularly misused. This results in the disposal of high levels of solid waste in latrines. Waste such as diapers, plastic bottles and rags block mechanical pumps used for desludging, damaging equipment and preventing sludge removal. Vandalism is also rife often putting latrines out of use and placing a higher strain on the limited number of working latrines.
- *No new construction possible:* Both the Haitian government and owner of private land on which camps are situated display a strong reluctance to build new camp latrines. While the government is trying to close camps the process is very slow and sanitation demand remains high.

Combined these challenges make the emptying of latrines a key priority for maintaining sanitation within the camps. However, these same challenges have also resulted in many mechanical desludging operators refusing to accept contracts in IDP camps for fear of damaging their equipment.

### **The Bayakous**

The rise of Port au Prince and other Haitian cities through rapid urban migration created high density populations but left little space for building sanitation infrastructure. Lack of formal planning of sanitation infrastructure forced latrines, when built, into tight corners of house compounds, often shared among clusters of houses (called a 'lakou' system). Latrines were not connected to sewers and access was not sufficient for desludging trucks so they had to be emptied manually.

The Bayakous, men who manually remove excreta from pit latrines, emerged to fill this need. They work at night to emptying latrine pits with hand tools and buckets, candles providing their only light. Often they will descend into the pits to complete their work, removing all their clothes to prevent them from getting soiled. Waste is transported using buckets and wheelbarrows to vehicles parked the nearest road, or alternatively to another disposal pit dug near the household where the material will be buried. What happens to the waste once it had been transferred from the household is not always clear; though it is common to see waste to be disposed in the open, in ravines, waste lands, rivers and the sea. The Bayakous have been present in the social cultural fabric of both rural and urban Haiti for a long time but are highly informal and retain an air of mystery. Most Bayakous are from poor and marginalized neighbourhoods. They are mostly uneducated, and work on a day to day basis varying the middle men that they work for. The stigma attached to their work is so high that taking a job as a Bayakou is seen as a last resort and often their families are even unaware of what they do. To maintain secrecy and prevent them being identified by the communities they serve, contracting a Bayakou is negotiated by middlemen and the Bayakou work under cover of darkness. The secretive nature of Bayakou mean they operate informally and independently from one another. There is no fixed pricing system and no health and safety standards. They are also unregulated and their work is not covered under any laws.

When initially identified as a potential solution to desludging in the IDP camps, many stakeholders resisted their engagement since the Bayakou were not perceived or accepted as part of the professional sanitation sector. It was also clearly recognized that the majority of Bayakou groups possessed low technical, safety and managerial capacity.

## Scope of the project

The IRC has worked in up to 58 camps in Port au Prince since March 2011, supporting access to basic sanitation. The aim of the project is:

- To desludge latrines pits when assessed as full, respecting the DINEPA -Direction Nationale de l'Eau Potable et de l'Assainissement- standards (DINEPA/WASH Cluster, 2010). These standards were put together and agreed in the early phase of the emergency response between DINEPA (the Haitian Government water and sanitation regulating structure) and a sanitation working group.
- Maintain latrine infrastructures through repairs and demolish derelict latrine blocks where no longer usable or when the camps close down.
- Creation and mobilization of committees and hygiene promotion of the community which lead to maintenance of the latrine blocks by the IDP population.

To achieve these objectives it was decided that desludging would be primarily undertaken by the Bayakou. To enable them to successfully carry out this role it was required for IRC to support a few selected Bayakou groups to improve safety, raise standards and improve management.

## Selection of the Bayakou groups

IRC selected Bayakou groups through a national open tender placed in a leading national newspaper. From the tender, the IRC selected four potential groups who met preset administrative and technical criteria and engaged them in a test phase. The test involved completing two nights of desludging, removing 40 drums of excreta (8m<sup>3</sup>) and disposal at the official DINEPA desludging site. Prior to the test the groups were advised on the protocol IRC wished them to follow and the criteria by which their work would be judged. All groups were judged on quality and efficiency by an IRC supervisor who was present throughout. The best 2 were contracted.

## Improving standards

When Bayakou groups were initially identified as essential in ensuring sanitation services in Port au Prince, DINEPA encouraged international organizations working on sanitation programmes to engage their desludge contractors in improving their work quality and harmonizing procedures.

As a result a sanitation working group came together to draft protocols for both manual and mechanical desludging operators, setting the basis for national standards in this informal sector. Although the protocols received initial validation by DINEPA and are being used by many actors in the sanitation sector, its formal adoption by DINEPA remains outstanding.

Using this key, yet complex document, the IRC developed a simplified protocol, one that could be followed by the Bayakou. Key performance criteria were also developed as a means to ensure quality and allow assessment of contracted Bayakou 's performance. Each Bayakou group was then trained to carry out their work efficiently and safely following the key performance criteria.

To ensure the Bayakous adhered to the performance criteria during the course of their contracts, IRC hired a number of staff to supervise the desludging work. The supervisors use a simple supervision form which was agreed upon by the Bayakou and the IRC at the beginning of the project but which has been jointly modified on several occasions to reflect the changing environment in which they work. This form is also used to keep a record of performance and facilitate payment to the Bayakou, once a desludge session had been completed to the required standard. Both parties need to agree on the data recorded in the form on the completion of work at each site before payment is made. The IRC supervisors maintain a very open dialogue with the Bayakou group leaders so that both sides feel that their interests have been understood and respected. As such disagreements are very rare but where they arise they always resolved amicably at the IRC office the following day.

While the key performance criteria and supervision are the key tools used for quality control, the IRC also developed a number of other professional standards which the Bayakou group were required to satisfy:

- Maintain tools and safety equipment and store them in well organized warehouses. These are inspected by the IRC in regular visits and recommendations made for improvements.
- Provide payslips and medical certificates for each Bayakou working within their group.
- Attend regular professional training sessions. The training conducted by the IRC cover topics identified as useful by both IRC and the Bayakous themselves such as good technical methodologies, using and

maintaining protective equipment, new innovative equipment etc. It also provides a forum for the Bayakou to raise issues they are facing.

- Regular coordination meetings to discuss improvements, challenges and new opportunities with group leaders and field supervisors.

IRC also provides training and technical support in the field of administrative procedures, customer service, logistics follow-up and first aid training.

### Improving safety

The first priority for IRC in working with the Bayakou was to improve health and safety. The nature of the work conducted by the Bayakous and the conditions they work in makes Bayakous particularly vulnerable to injury and illness. It also poses risks to the greater public if the work is not conducted correctly. To limit exposure to the risks inherent in their work the IRC went through a process of identifying the key risks and developing with the Bayakou the means by which those risks could be reduced or eliminated. The table below shows some of the key risks and key mitigation measures.

<b>Bayakou Risk</b>	<b>Mitigation Measure</b>
- Disease transmission through contact with excreta	- Providing and ensuring use of Personal Protective Equipment (Rubber boots, rubber suits, heavy rubber gloves, masks, goggles) - Do not enter pit unless other methods to remove excreta fail - Seal all excreta in pails before moving - Tools and PPE to be stored in maintained workshop (not taken home or used for other purposes) - Regular inspections of PPE - Regular cleaning of PPE with chlorine - Washing facilities made available - Hygiene kits provided - Health check-ups
- Injury while excavating in the pits	- One person in a pit at a time - Worker in pit always has a buddy - Maintain tools in good working order
- Injury through heavy lifting (Transporting full containers of excreta)	- Training on lifting - Limit size of containers - Heavy lifting to be done in pairs
- Working in confined spaces with noxious gasses	- One person in the pit at a time - Maximum working time in the pit - Buddy always on hand
- Exposure to chlorine products	- Clear guidelines on chlorine use - Suitable storage containers and storage locations
- Emotional burden of handling excreta on a daily basis and its physical effects (especially smell and appearance of workers)	- Hygiene kits - Work with the communities to help them understand the importance of Bayakou - Improved working practices
<b>Public Risk</b>	<b>Mitigation Measure</b>
- Disease transmission through contact with excreta	- Seal containers at site before moving - Disinfect site following IRC procedure - Disposal at DINEPA regulated sites
- Exposure to chlorine products	- Clear guidelines on chlorine use - Suitable storage containers and storage locations

Initially IRC did face many challenges in the implementation of mitigation methods however, especially in relation to the use of personal protective Equipment. Challenges included:

- Low willingness and capacity for Bayakou groups to purchase equipment in sufficient numbers so that they were personalized.

- Low willingness among Bayakous to wear and use PPE equipment properly. Labourers felt hampered by wearing safety equipment especially when accustomed to entering the latrine pits naked to avoid covering clothes in excreta.
- Low local availability and high importation costs for certain equipment such full rubber suits.

To overcome these issues IRC worked collaboratively with the Bayakou taking time to listen to their concerns and working together to find solutions. Through this process IRC was able to agree to facilitate the purchase of high quality PPE equipment at costs lower than market value, and offset costs against future Bayakou payments. IRC also worked closely with the Bayakou to customise available protective equipment and develop new working methods and equipment to facilitate the work while increasing protection.

During the development of these solutions the Bayakou also raised concerns about not just their own health and safety but that of their families. In response to this, the IRC provided training on personal hygiene which was supported by the provision of individual hygiene kits. These have been warmly welcomed by workers and used at home with their family.

### **Improving recognition**

It was identified early in the project that improving the recognition of the Bayakou was essential in ensuring them to continue playing an active role in the sanitation sector in Haiti and maintained improved standards.

The first step in helping them to reach the recognition they deserve has been to improve their own self image. This has been achieved through training, improving their quality of work and providing them with a more professional outlook. Investment by group leaders for their workers' 'well being' also showed Bayakou they are valued as an important business asset and the hygiene kits the IRC provides them for personal and family use is seen as a further token of appreciation for their work.

As such there has been a significant increase in the pride they have shown in their work and it is clear the rounds of training they received have helped them gradually grow out of their shyness and silence to enable them to care for their health, the health and well being of their families and begin to more openly discuss their social status and their aspirations as professionals.

Sadly the scale of the improvements in the quality of the work the Bayakou are producing has not been matched by an increase in recognition of what they bring to the sanitation sector in Haiti. While the improvement in the quality of their work has undoubtedly gained the attention of some actors and led to significant recognition of their role among some sanitation sector organizations their work remains invisible to many in the sector.

The IRC's work in this area is clearly not complete and the IRC hopes that with this paper recognition of the role that Bayakou and other manual desludgers play will increase. It also hopes to work with the Bayakou further in the coming years to identify strategies to increase recognition of their role within Haiti and perhaps achieve formal professional recognition from DINEPA and the Haitian Government.

### **Lessons learnt and ongoing challenges**

The project to date has been successful in sustaining the life of the temporary sanitation infrastructure implemented in some of Haiti's IDP camps as well as increasing the standards, safety and recognition of the Bayakou. Lessons learnt through the process include:

- Engaging with the informal sector and adjusting to their needs rather than requiring them to meet impossible criteria, has been an effective way of improving quality, professionalism and building self esteem
- Recognising the importance of the private sector and engaging with them to improve standards and professionalism will have significant impact which will last long after international organisations have exited the country
- The selection of a few strong and highly motivated local groups to spear head changes has been very successful. It has permitted an efficient and high quality service to be delivered to the camp population and increased the credibility of their profession.
- Maintaining regular contact and engaging with local and national authorities (in this case DINEPA) through meetings, emails, inclusion in training, sharing of data and regular field visits has provided the programme, and the Bayakous with a higher level of legitimacy.
- As camps close it will be necessary to investigate how and transfer improvements gained in this project to Port-au-Prince's other neighbourhood areas, replicating the high quality service offered in camps so

they can be accessed by individual households. The different context will bring new challenges not least the need to remove subsidies and external payments from NGOs.

The project has also highlighted a number of remaining challenges which need to be addressed to provide more sustained impact from IRC's work with the Bayakous. These challenges include:

- Some communities continue to think that Bayakous sell the fecal matter removed from the camps and believe that a portion of the money Bayakou's receive for their services should be shared within camp. Communities therefore often ask the Bayakous for payments and create barriers when payment is not forthcoming.
- The high quantity of solid waste in latrine sludge from camps is often blamed for blocking the treatment facility, run by DINEPA. As such the Bayakou are constantly threatened with being banned from using the facility despite the lack of any safe alternative.
- The topography of camps means access to certain latrine blocks remains a huge challenge despite the Bayakou's efforts. Suggested demolition of certain derelict and inaccessible latrines, has been heavily resisted among the communities who use them and alternatives need to be sought.
- The Bayakou face logistical problems in disposing their waste at the DINEPA managed waste disposal site. The problem of obtaining delivery receipts is but one example.
- Although the manual desludging protocol has been validated, the Haitian Government has not yet adopted it as a recognised document and there are no official operating standards. Combined with the lack of a census of desludging groups currently working in Port au Prince or any accreditation/licensing process basic quality, safety standards as well as professional recognition remain elusive.
- Despite recognition of their work by DINEPA, the lack of a formal written document to demonstrate their recognition, the Bayakou and their trucks are often stopped at night by police who suspect them of illegal activity. This severely hampers their work and has resulted in many nights unnecessarily spent in jail.

## Conclusion

While there has been undoubted success in building the capacity of the Bayakou to participate in the sanitation sector in Haiti there remain many challenges. None so are perhaps greater than those faced as camps are closed down and organizations like the IRC no longer provide funding for their services. A challenge therefore lies ahead as they look to switch their focus back to neighbourhoods.

Despite these challenges the Bayakous have developed a desire to work together as professionals and now have a greater sense of their potential role within the sector. It is also hoped that the Bayakou can come together as a group and create a professional Federation to promote learning, minimum standards and self regulation across all members and improve the reputation of the Bayakou. It would also be an important step in gaining greater legal and administrative status to defend and represent their interests at different levels of the Haitian society. In particular it would help push the Haitian government into provide a legal framework within which they can operate.

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