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# Haiti

**From sustaining lives to sustainable solutions:  
the challenge of sanitation**

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Special report, six months on



International Federation  
of Red Cross and Red Crescent Societies

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**Strategy 2020** voices the collective determination of the International Federation of Red Cross and Red Crescent Societies (IFRC) in tackling the major challenges that confront humanity in the next decade. Informed by the needs and vulnerabilities of the diverse communities where we work, as well as the basic rights and freedoms to which all are entitled, this strategy seeks to benefit all who look to Red Cross Red Crescent to help to build a more humane, dignified, and peaceful world.

Over the next ten years, the collective focus of the IFRC will be on achieving the following strategic aims:

1. **Save lives, protect livelihoods, and strengthen recovery from disasters and crises**
  2. **Enable healthy and safe living**
  3. **Promote social inclusion and a culture of non-violence and peace**
- .....

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DINEPA and the WASH cluster's sanitation technical working group in Haiti  
The World Bank



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**International Federation of Red Cross  
and Red Crescent Societies, Geneva, 2010**

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**Notable  
achievements,  
but substitution  
is not the  
answer**

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The challenges of the next 6–12 months

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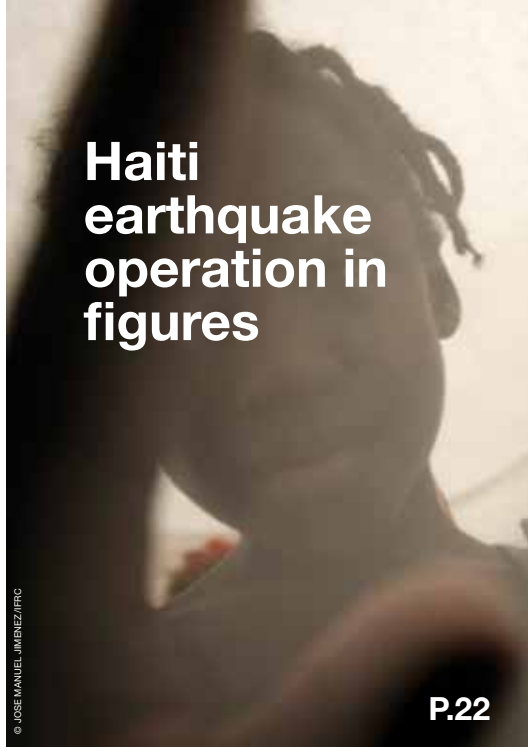
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Haiti earthquake operation in figures

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Innovation is the key

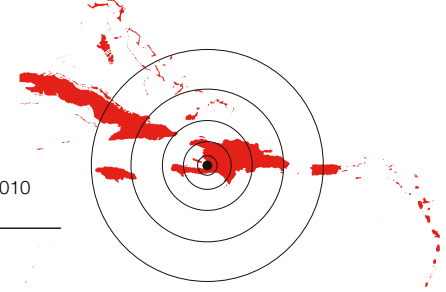
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**Haiti earthquake operation in figures**

*Sanitation services can be defined as safe excreta disposal, solid waste disposal, medical waste disposal, control of vectors such as flies, mosquitoes and rats, provision of handwashing and bathing and laundry facilities, promotion of good hygiene practices and management of dead bodies. Safe excreta disposal entails both ensuring that facilities including toilets are constructed, and that men, women and children use them correctly.*

Mass Sanitation Module Guidelines, IFRC (2010)





# Top line messages

- Sanitation saves lives. Without it, there is a risk of a secondary disaster, in which the people who have survived the earthquake could succumb to preventable disease.
- The IFRC is calling on the international community to recognize sanitation as one of the absolute priorities in Haiti's reconstruction, and to ensure that sufficient resources are devoted to it.
- The current situation is not sustainable. The IFRC and other agencies providing water and sanitation services on behalf of the Haitian authorities are currently stretched beyond their capacity and mandate.
- Haitian authorities must receive funding and support to build their capacities to provide the improved sanitation services the Haitian population needs and deserves.
- Access to appropriate sanitation is also a dignity and protection issue, particularly for women and children. Community participation is essential to identify ways to ensure that people feel safe when using sanitation facilities – toilets and showers – both at night and in the day.
- Innovative solutions for future sanitation provision are needed. For example research is needed into potential solutions such as small bore sewerage, large-scale composting of waste, or establishing biogas production.

Today, six months on, the effects of the magnitude 7.0 earthquake that struck Haiti on 12 January remain horrifyingly visible. Large parts of Port-au-Prince, Léogâne and Jacmel are in ruins. Rubble and rubbish lie piled in the streets. Hundreds of thousands of people are living under tents and tarpaulins, huddled together on street corners, vacant lots, parks and public squares, anywhere that offers space for families to shelter.

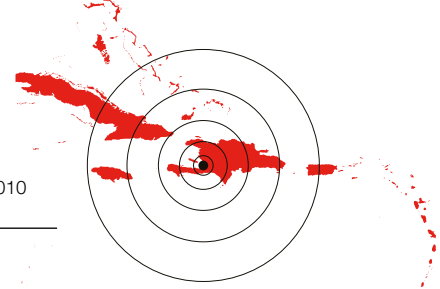
Table 1: Countries with low improved sanitation coverage

	Improved sanitation coverage (%)		Number of people who gained access to improved sanitation (thousands)
	1990	2006	1990 – 2006
Eritrea	3	5	143
Niger	3	7	714
Chad	5	9	640
Ghana	6	10	1,465
Ethiopia	4	11	6,858
Sierra Leone	-	11	147
Madagascar	8	12	1,353
Togo	13	12	222
Burkina Faso	5	13	1,365
Guinea	13	19	991
<b>Haiti</b>	<b>29</b>	<b>19</b>	<b>-162</b>
Congo	-	20	-
Rwanda	29	23	38
Somalia	-	23	605
Côte d'Ivoire	20	24	1,905

Six months on, a large proportion of sanitation services (and two-thirds of the water trucking) continue to be provided by international partners. This is not sustainable. The IFRC calls upon the international community to recognize sanitation as one of the absolute priorities in Haiti's reconstruction and ensure that sufficient resources are devoted to it. Initial planning is underway, and this needs to be supported.

We also call upon those allocating funds to ensure that Haitian authorities receive the funding and support they need to provide the improved sanitation services the Haitian population needs and deserves.

Generally after a natural disaster, talk is about helping the country build back to pre-disaster levels of service. Given the poor water and sanitation coverage in Haiti before the earthquake, there now exists a real opportunity to build back much better. The Haitian authorities must be supported to provide innovative and sustainable systems that will enable large numbers of Haitian people to have safe and reliable sanitation, in some cases for the very first time.



**Table 2: Largest providers of sanitation services in post-earthquake Haiti**

Top seven organizations providing sanitation services <sup>1</sup>	Approx. number of latrines constructed
ACF	824
ACTED	871
CARE	698
HAVEN	1,072
Oxfam	1,373
Red Cross Red Crescent	2,671
Save the Children	900

With the government and local authorities as devastated as the country – ministries and their offices collapsed, employees killed, documentation and equipment lost – international organizations have been working together to support the government to provide survivors with the bare essentials: tarpaulins and tents to keep out the rain, healthcare, access to clean water and sanitation services.

In Haiti, providing clean water and sanitation services is an enormous task. Before the earthquake, safe water access was amongst the lowest in Latin America and the Caribbean,<sup>2</sup> whilst access to sanitation was amongst the lowest in the world (see table 1).<sup>3</sup> The earthquake has made a bad situation so much worse.

*This report focuses on one area of work; the provision of sanitation services.*

Sanitation demonstrates all the challenges and opportunities of responding to this catastrophic disaster in terms of health services, shelter etc. So often the neglected twin of water provision – which generally receives more attention and most of the available funding – effective sanitation is vital.

A key call of this report is that equal emphasis must be given both now and in the future to improving sanitation facilities. This will be instrumental in reducing disease, ensuring a healthy future and assuring the dignity of those whose lives have been affected by the tragedy of the earthquake.

1 Taken from DINEPA statistics June 14, 2010, amended with up-to-date figures from IFRC, Haiti. DINEPA points out that the figures are very approximate and many organizations are under-reporting construction. The DINEPA report suggests that 11,234 latrines were reported to have been constructed, although there were no details as to how many were still serviceable.

2 McLeod, C, Haiti: *Exploring Water & Sanitation*, University of Pennsylvania (2009) <http://www.pgwi.org/>. This report further points out that Haiti is in the region of the world with the highest available average water per person.

3 *Progress in Drinking Water and Sanitation: special focus on sanitation*, WHO/UNICEF (2008) [http://www.who.int/water\\_sanitation\\_health/monitoring/jmp2008/en/index.html](http://www.who.int/water_sanitation_health/monitoring/jmp2008/en/index.html)

# Before the earthquake

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## Tentative steps in the face of chronic under-development

In 2008, Haiti was “the only country in which access to improved sanitation<sup>4</sup>(had) significantly decreased over the past decade.”<sup>5</sup> Its improved sanitation coverage rate was ranked 11th worst in the world – on a par with DR Congo and Somalia.<sup>6</sup> The existing water regulatory agencies had no responsibility for sanitation, resulting in the absence of any sewage systems and individual families arranged their own sanitation according to their economic means. Those households with toilets or latrines would, when they could afford it, pay for emptying services, including employing *bayacou* (night soil collectors who emptied tanks by hand), although many latrine pits were extremely deep and could go for years without being emptied.

Fewer than 70 per cent of people living in urban environments had regular access to safe water, so it is no surprise that the incidence of diarrhoeal disease was high. Haitian children commonly had four to six episodes of diarrhoea per year (several times higher than the expected annual incidence among young children in industrialized countries) and watery diarrhoea caused between five and 16 per cent of child deaths.<sup>7</sup>

The situation was similarly bleak when it came to garbage collection. Many older Haitians speak of Port-au-Prince as once being a relatively clean city, with regular rubbish collections and street cleaning services. However, 30 years of chronic under-resourcing saw these services diminish and piles of rotting rubbish became a familiar sight all around the capital city.

There were hopeful signs when, in 2009, a new water and sanitation regulatory authority was created. DINEPA's<sup>8</sup> mandate was to reform the drinking water and sanitation sector, starting by harmonizing the existing organizations that had responsibility for water and sanitation services. This process had only just begun when the earthquake struck.

4 i.e. facilities of a safe standard

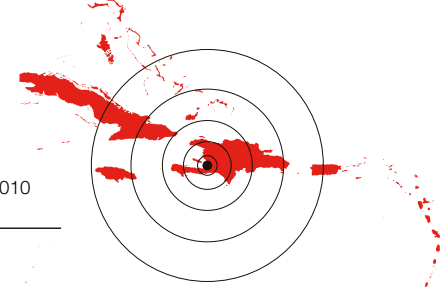
5 McLeod, *ibid*, p.11

6 WHO/UNICEF (2008), *ibid*, see table above

7 CDC: [http://www.bt.cdc.gov/disasters/earthquakes/haiti/waterydiarrhea\\_pre-decision\\_brief.asp](http://www.bt.cdc.gov/disasters/earthquakes/haiti/waterydiarrhea_pre-decision_brief.asp)

8 Direction Nationale de l'Eau Potable et de l'Assainissement





*The earthquake devastated already fragile water and sanitation systems* near the epicentre and left more than 1.5 million<sup>9</sup> vulnerable people without access to safe drinking water or a toilet, and at risk of water- and sanitation-related diseases. Further from the epicentre there was less direct damage to these systems, but people fled Port-au-Prince to virtually all corners of Haiti, compromising already poorly functioning water and sanitation systems in outlying areas and making poor hygiene practices unavoidable for many people.

Despite being badly affected by the earthquake, losing employees, assets and documentation, DINEPA took the leadership of the WASH cluster – the mechanism put in place to harmonize water, sanitation and hygiene interventions throughout Haiti following the earthquake.<sup>10</sup> For the first six months DINEPA trucked approximately one-third of all the subsidized water to camps in the affected areas.

The sanitation programmes of the International Red Cross and Red Crescent Movement have made a significant contribution to improving the living conditions of those affected by the earthquake. In collaboration with the Haitian Red Cross Society, the Austrian, British, French and Spanish Red Cross societies have so far provided sanitation facilities (toilets and showers) to 85,000 people across a number of different camps, in Port-au-Prince, Jacmel, Léogâne, Petit-Goâve and Grand-Goâve.

“Minimum water supply needs are being met for 1.2 million people, with the Cluster having reached its Phase One target of distributing 5 litres of safe drinking water per person per day... and (is) providing enough latrines with access to about 200 people per facility. With 16,500 more latrines either under construction or in the pipeline, this figure is projected to reduce to 100 per latrine by October.” The Bulletin notes that construction rates are severely under-reported and use is overestimated, which “may imply that user ratios may have already reached acceptable bounds of 50 to 100 users per toilet.”

OCHA, Humanitarian Bulletin, June 19 2010  
<http://www.reliefweb.int/rw/rwb.nsf/db900sid/MINE-86KR32?OpenDocument&RSS20&RSS20=FS>

9 Taken from OCHA’s Humanitarian Bulletin, 19 June 2010

10 For more information see <http://www.humanitarianreform.org/humanitarianreform/Default.aspx?tabid=76>

## CASE STUDY

# *“It’s a dirty job, but somebody has to do it.”*

Elie Michel balances gingerly on narrow planks of wood as he fills up the tank with water. The 22-year-old explains, “We’re waiting for a truck to come and pump the faeces out of these tanks. We add water to make the waste more liquid so it’ll be easier to drain out of the tank. Then another truck will move the empty tanks and we can put in new ones.”

Elie works with the Spanish Red Cross, which provides water and sanitation services in 32 camps across Port-au-Prince. He has a three-month contract that he hopes will be renewed. Together with his mother, who has a small trading business, he is able to provide for the basic needs of his younger brother and sister. The four of them live together in a tent in Portail Léogâne, downtown Port-au-Prince.

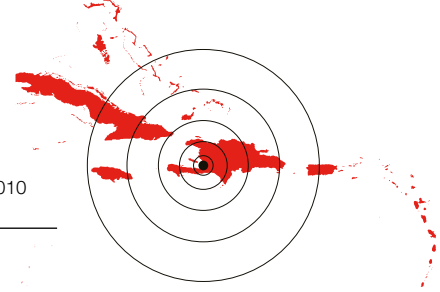
When asked about the risks of becoming ill through his work, Elie says, “We have equipment and protective gear. I’m not worried. It’s a dirty job but somebody has to do it. I’d like to have a better job but I’m happy doing this for the time being. My dream is to be a policeman but there are no opportunities right now, so I’ll stick with the Red Cross.”

He is proud of the work that he and his colleagues are doing. “We’re a team – the driver, the technician and me. We install toilets in the camps and we maintain them.” Despite Elie’s enthusiasm, the job can be frustrating. He explains, “We’re repairing this one because people wrecked it. It’s upsetting after all the work we put into constructing them.”

In some camps, sanitation committees have been set up to encourage residents to maintain the facilities installed by the Red Cross Red Crescent. Hygiene promotion activities are also organized to ensure people know how to use the toilets properly.

Even so, Elie finds people’s attitudes can be demoralizing. “People complain about the smell coming from the toilets. Depending on the wind, the smell can be really strong, but then you have to ask why people are throwing all kinds of waste into them that shouldn’t be there in the first place.”





# Six months on: notable achievements, but substitution is not the answer

“The IFRC estimates that around half the directly affected population has not seen any improvement in their sanitation and water situation.”

*Six months after the earthquake, and despite intensive efforts by DINEPA and humanitarian agencies, the IFRC estimates that around half the directly affected population (and particularly those living in smaller, informal and hard-to-reach locations) has not seen any improvement in their sanitation and water situation. The authorities, together with the international aid community, are still months away from meeting these overwhelming needs.*

In the last month or so, some encouraging improvements in the environmental health of Port-au-Prince have been spotted. Large bins provided by SMCRS<sup>11</sup> – the metropolitan authority responsible for garbage collection – are appearing on street corners and teams of SMCRS street cleaners have started clearing gullies and drains of rubbish. Anecdotal evidence suggests that some streets are cleaner now than before the earthquake, with fewer piles of garbage in evidence.

At the same time it is clear that the provision of safe water and appropriate sanitation has done much to secure the situation of many vulnerable people. Although the numbers of toilets come nowhere near meeting SPHERE standards (an internationally recognized set of universal minimum standards for disaster response), there are signs of improved sanitation. Camp residents no longer need to queue to use a toilet and there have been no major outbreaks of diarrhoeal disease. Organizations working in sanitation in Haiti suggest that some of the SPHERE indicator target figures need to be put into context, taking into account the daily comings and goings of significant numbers of residents, many of whom return home to use the toilet, whilst the numbers of permanent camp residents is unclear.

However, it is no exaggeration to say that the sanitation situation for most Haitians affected by the earthquake is considerably worse now than it was before the quake.

For the humanitarian community, the first phase of response focused on numbers of toilets being constructed. The emphasis now also includes guaranteeing usability of the facilities provided, as well as upgrading and replacing existing facilities. In this, **hygiene promotion** to ensure that toilets are properly used and kept clean is key, together with carrying out regular inspections and swiftly carrying out repairs when needed.<sup>12</sup> Efforts in hygiene promotion (particularly focused on children) must be accompanied by the reliable provision of clean water and soap; increasing awareness of the importance of washing hands after visiting the toilet or preparing food will be futile if water and soap are not available. Reinforcing hygiene promotion activities through the school curriculum should be encouraged where possible.

11 Le Service Métropolitain de Collecte des Résidus Solides

12 In mid-June, DINEPA started conducting twice-weekly inspections of sanitation facilities in all 1,300 camps.

*Ensuring access to appropriate sanitation is also a protection and dignity issue,* particularly for women and children. Even in camps that have adequate toilet coverage, women are often afraid to use the toilets at night, given the distance they may need to walk and the absence of lighting. Instead, they prefer to use plastic bags or other receptacles in the privacy of their shelters. Some camp committees have put in place volunteer camp security systems to try to reduce the opportunities for violence. Anecdotal evidence suggests that despite this, women do not feel confident to leave their homes at night to visit the toilet. Organizations providing toilets and showers must consult with camp residents to identify ways to ensure that people feel safe to use the facilities night and day.

*Substitution cannot continue long term.* Substitution cannot continue long term. The IFRC and other agencies providing water and sanitation services are currently supplying services on behalf of the Haitian authorities and are stretched beyond their collective capacity and mandate. The current approach is one of containment; buying time whilst longer-term decisions are made. This situation cannot continue forever. Whilst the government and WASH cluster are developing plans for the transition of responsibilities for water provision, plans for sanitation are still in their infancy. A dual approach giving equal prominence to funding both sanitation and water provision is required to secure the health of people affected directly and indirectly by the earthquake.





## CASE STUDY

# Hygiene promotion at Camp La Piste

Jean-David Dieudonné was unemployed before the earthquake, but he used to help his mother with her small trading business. His wife left the country seeking better opportunities in Santo Domingo, capital of the Dominican Republic. Since the earthquake, he has been lucky to find work in the camp where he lives.

He works as a hygiene promoter with the British Red Cross at a camp known as La Piste. He says, "I started working here two months ago. Before the earthquake I used to live nearby in Pont Rouge but now I live here at the camp."

Jean-David works six days a week and earns 550 Haitian dollars a month. It's enough to support himself and his ten year-old son.

"I'm happy to be part of a team that is teaching people to be healthy. We encourage people to come to the meetings we organize. We talk to them about how to keep clean and wash their hands to prevent disease. We use theatre to show people how to use the toilets properly," he says.

According to Jean-David, the hygiene promotion activities have had an impact on people's behaviour already. "I can see a difference. Before we started this work, we would sometimes find human faeces on the ground in the camp, but we don't see that anymore. People use the toilets now, and use paper to wipe themselves – before they used cardboard or anything else they could find. Until the earthquake happened, many people had never really learnt about sanitation. Now, as a result of our hygiene promotion activities, people are changing their behaviour."

As a resident in La Piste, Jean-David is not only a promoter of good hygiene but also benefits from the services provided by the British Red Cross. "I used to have a toilet in my house, but the ones we have here in the camp are better. People used to complain about the pit latrines we had at first in the camp because there were lots of flies and the rain got into them, but now they've been replaced with the elevated toilets, they're much better."



## CASE STUDY

# *Sanitation technicians – doing the work that nobody else wants to do*

Every morning at 8am, Jasmin Herline and fellow Automeca camp resident Lucia Toussaint clean the toilets in block 2. Much to their dismay, the toilets are always in a mess again the following morning.

“I ask myself, ‘Would people take better care of the toilets if they were in their own homes?’ Maybe it’s because the toilets are provided for free that people think it’s OK to treat them badly.”

Jasmin moved to the camp with her extended family, including her parents, brother, sister, husband and her two children in the aftermath of the earthquake. Previously her home was on the road that leads to the airport.

“I lived near the toilets when they were first installed and I volunteered to help take care of them because it’s a service that the Red Cross provides us with.” Soon the British Red Cross began paying a salary of 250 Haitian gourdes per day to the hard-working teams who clean

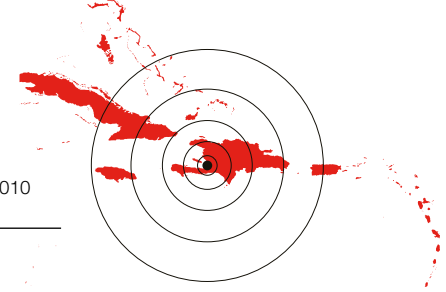
the toilets. Part of their job is to inform the Red Cross when the tanks are full so that they can be emptied.

In her old home, Jasmin cleaned her own toilet with the same attention to detail that she does now. “I use this toilet so I make sure it’s clean,” she says.

In some camps, residents return to their abandoned homes to use the toilets rather than use the ones installed for communal use. Jasmin thinks this might be due to security issues. “There are no security patrols in the evening so it’s dangerous to go out to the toilet. Even the men don’t feel safe going out in the dark. I use a vase in my tent and throw it out the next morning.”

The Automeca camp has a committee and organizes volunteer security patrols during the day, but it’s difficult to get volunteers to work at night as they fear for their safety.





# The challenges of the next 6–12 months



## Taking the first steps towards sustainable sanitation solutions

The focus of the first six months has been on assuring a minimum level of human and solid waste management in the camps. During the next 6–12 months, DINEPA and organizations such as the IFRC will increasingly focus attention on addressing the health and hygiene issues of people moving to transitional shelters and those returning to their homes. This will include repairing usable toilets in homes that have been classified as structurally sound or repairable, as well as improving existing services in the camps.

It is clear that finding sustainable solutions in sanitation, in the short and longer term, can only **follow once solutions are found to shelter issues** such as rubble clearance and making resettlement options available to homeless people. Working in an integrated manner and increasing the scale and speed of interventions will be essential. It is worth noting that the current delays being experienced by agencies bringing vital equipment into Haiti are impacting their abilities to deliver sanitation, as well as other services. Waiting for vehicles such as de-sludging pumps to clear customs and be registered is significantly holding up some operations. Speeding up the registration and import of essential equipment should be prioritized.

One of the key lessons learned in the first months of the earthquake response operation was the need for **flexibility regarding the individual context of each camp and neighbourhood**; determining the most appropriate solution to residents' sanitation needs. Each camp has different characteristics and may need a different approach; agencies must build their approaches on what will work in that context.

**Improving the sanitation habits of people**, whether they are living in camps or returning home, is an approach being advocated by the WASH cluster, of which IFRC is a part. If, for example, people were using a sludge collection system at home before the earthquake, then ensuring this is done regularly, hygienically and that the sludge is dumped appropriately may be a good solution once they return home.

## CASE STUDY

# Making it fun to learn about hygiene

Nicolette Bernard is a 30-year-old qualified nurse who leads a team of 10 Red Cross hygiene promoters at the Automeca camp. “I love what I do. It’s about giving information, education and encouraging behaviour change. I love the contact with the people. My job now is more rewarding than my previous job, as I see a change in people’s behaviour,” she says.

Before the earthquake, Nicolette worked at the maternity ward of the St. Croix hospital in Léogâne. At the time of the earthquake she was at home in Port-au-Prince and ran to safety in a nearby field. At first, she helped at a local hospital, but then made contact with the Haitian Red Cross through her sister, who has been a volunteer for many years.

“The Red Cross needed help so I volunteered as a translator with the health team. Then one day Mrs Ferna Victor, Branch Director of the Haitian Red Cross, told me the British Red Cross was looking for nurses for hygiene promotion.”

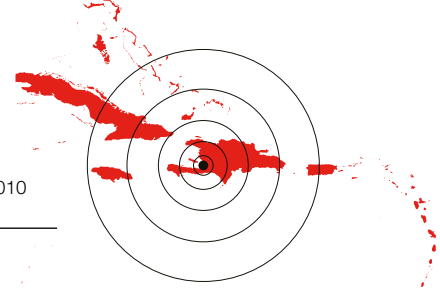
Nicolette manages a team of hygiene promoters, toilet cleaners and inspectors who work together to ensure that camp hygiene is maintained at an acceptable level. The hygiene promoters use lively songs and interactive practical demonstrations to spread their message and focus particularly on the children. Camp residents are encouraged to form sanitation committees to clean their toilets on a regular basis. Toilet inspectors make daily rounds to ensure the structures are well maintained and that doors and roofs don’t disappear. This is easier said than done; in some camps such as La Piste, toilet doors have disappeared only days after being installed.

Nicolette laments the breakdown in the provision of sanitation services over the years: “In the 1980s, the capital was a lot cleaner. But overpopulation and reduced public spending led to poorer levels of hygiene.”

Nicolette and her team are working to change poor hygiene habits and improve the landscape. “People used to leave their garbage all over the place even though there were bins around. Now they use the bins.”







Whilst the IFRC works mainly in larger camps and neighbourhoods, other agencies and NGOs are working in small camps that are not accessible to larger de-sludging machines. They have also taken this “improve on what exists” approach, consulting with camp dwellers to learn and build upon their own practices. They are currently piloting a number of different options. These include field-testing the distribution and safe collection of biodegradable bags<sup>13</sup> in locations where there appears to be no other viable solution (for example, no space for more conventional toilets), installing toilets that use little or no water,<sup>14</sup> and investigating options to introduce manual de-sludging pumps that would improve upon the *bayacou* system of toilet clearance used prior to the earthquake.

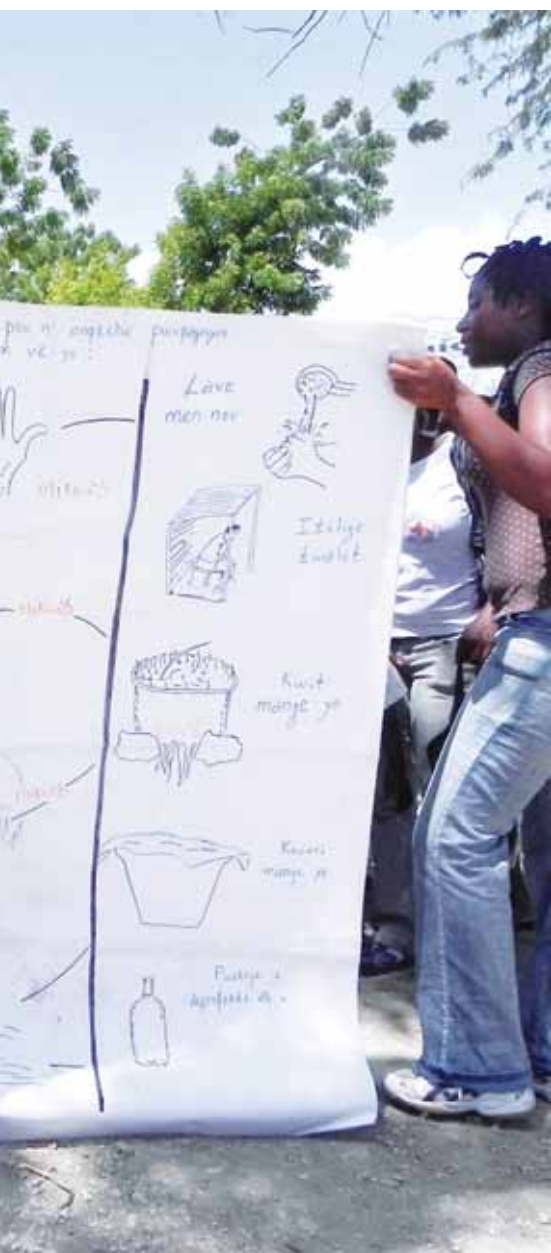
In camps where several agencies have responsibility for sanitation provision, a **common approach on the ground** must be adopted. In some cases, different agencies have differing means of responding (for example, some pay for toilet cleaning whilst others prefer a community support approach). This can lead to difficulties and tensions, which must be avoided. A unified approach should be taken, led by the needs on the ground.

City-wide **solid waste management**, such as collecting garbage from bins and transporting it to the dump site, is clearly not the responsibility of those agencies currently providing sanitation services. Key to moving forward here will be the leadership and commitment of the appropriate authorities, together with the capacity-building support of the international community so that they can manage this task effectively. SMCRS is increasing its capacity to manage solid waste and keep streets clean, but it needs the resources to sustain these improvements, increasing the regularity of garbage collection, maintaining infrastructure and equipment, training and retaining staff for the long term. Support for an initial large-scale, cash-for-work scheme to clear all ravines, gullies and drainage ditches would enable SMCRS to maintain a cleaner environment, as well as reducing Port-au-Prince’s vulnerability to flooding in the event of heavy rains or hurricanes.

Support should also be given to SMCRS to **improve the existing waste disposal site for Port-au-Prince**. Currently, both solid and human waste – including faeces in plastic bags, a commonly used option in Haiti – is indiscriminately dumped at Truitier, just outside the city. Those who have visited the site describe it as “worse than hell”: a huge area of stinking and slowly smoking garbage, picked over for recyclable material by people who live nearby. Enabling the separation of solid and human waste will be vital.

In the next six to 12 months, DINEPA and the agencies working in the provision of sanitation services will need to confront a number of dilemmas:

*How to stabilize the sanitation services in the short term* in camps that are precariously located and absolutely unsustainable in the long term without inadvertently giving messages that it is appropriate and acceptable for people to live in these locations. In larger camps, agencies are preoccupied with how to avoid inadvertently contributing to the creation of long-term slum areas.



13 Including the use of PeePoo bags which speed up the decomposition of faeces – [http://www.peepoople.com/showpage.php?page=5\\_0](http://www.peepoople.com/showpage.php?page=5_0)

14 For more information on Ecosan toilets, see WASHlink – <http://washlink.wordpress.com/category/toilet/ecosan/>

*How to put in place a coherent and coordinated strategy* for more sustainable, lower-cost<sup>15</sup> medium- and longer-term options for excreta disposal for urban earthquake-affected populations, displaced populations, and returnees. Using de-sludgable toilets is a suitable solution for the emergency and recovery phases of the emergency, however, it may not be a sustainable option because of cost and logistical considerations.

*How to accurately measure the coverage of sanitation facilities* in camps given the difficulties in ascertaining exactly how many people are living permanently in any given camp and lack full access to toilets. Methods to determine appropriate toilet coverage per location, including observation and surveying, are required, focusing on toilet usability rather than the number of toilets originally built – which may not be serviceable due to theft or misuse.

*How to build community engagement* in camps that are not established communities, which is a particular challenge for agencies more used to working in rural settings. Whilst some smaller neighbourhood camps (groups of neighbours occupying space near their homes) may be tight-knit communities, many of the larger camps are not communities but collections of displaced people. In the months to come, including those people living in the camps will be critical. In La Piste camp, for example, both the Spanish and British Red Cross societies are developing ways of engaging women in the camps. Other organizations have had some success creating mothers' groups in the camps. Each camp requires an individual approach.

*How to interact with camp committees* that may be self-appointed rather than representative. Whilst some committees are genuinely working hard for the best interests of camp residents, others may be motivated by self-interest, which agencies cannot support. Working through the women's groups mentioned above may be an approach to avoid unwittingly supporting undemocratic committees.

After six months of intensive work on the ground, some of the 48 WASH agencies' plans to increase sanitation work are being severely hampered by difficulties in finding staff. In mid-June, ReliefWeb<sup>16</sup> was advertising 21 vacant positions for senior water and sanitation professionals for Haiti, (four for IFRC programmes), whilst IFRC had 11 positions advertised on its own internal job vacancy site JobNet. Engaging camp dwellers where possible in community mobilization and non-technical roles will free up senior staff, but unless the staffing shortages are urgently met, the water and sanitation situation of many Haitian people will be adversely affected. Identifying new sources for personnel is a priority; the funds are there to do a good job, but little can be achieved without the staff in place.

15 After the earthquake, private de-sludging companies were charging 40 USD per de-sludge per cubic. Currently, rates are around 14 USD per de-sludge per cubic. It is estimated that over 800 m<sup>3</sup> of excreta sludge is being transported out of Port-au-Prince each day.

16 Amongst other things, ReliefWeb advertises job vacancies: <http://www.reliefweb.int/rw/res.nsf/doc212?OpenForm>



## CASE STUDY

# *Cleaning up the camps*

Paul Ladouceur has been a Haitian Red Cross volunteer for 14 years. He started working with the French Red Cross as a hygiene promoter in 2003. Since the earthquake, teams of volunteers like Paul have been working in camps across Port-au-Prince encouraging communities to keep their environment clean and healthy.

Every Saturday, Red Cross volunteers organize a “clean-up day” in the camps, providing residents with forks and spades to shovel up the waste that litters the camps. The plastic bags, bottles and human waste are then taken in wheelbarrows to a truck that dumps it at the main garbage disposal site in Port-au-Prince.

An earnest and studious man, Paul joins the families in raking up the dirt in the burning midday sun.

“It is vital that the residents take responsibility for the cleanliness of the camp and for their health. Disease prevention is better than cure.”

The volunteers also encourage the communities to dig ditches for the water to run off after the rains. The camp is not low-lying, so there is no great risk of flooding, but Paul says people are concerned about the impact of heavy rains that fall during the hurricane season. He gives them advice about not seeking shelter under trees, but in strong buildings such as schools and churches instead.

The volunteers run competitions between the different blocks in the camps and at the end of the day the residents organize festivities such as theatre, dance or music. It helps to foster a sense of community for a group of people who have been brought together by a force of nature.



# The next ten years

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## Innovation is the key

There are huge challenges in meeting the long-term sanitation needs for Haiti, but at the same time great opportunities exist to make substantial improvements to the sanitary environment of Port-au-Prince and beyond. The key is to support the Haitian authorities in investigating and putting in place pioneering sanitation solutions. The crucial starting point is to ensure that **equal importance, support and funding is channelled to sanitation as well as the provision of water** in tackling the long-term rebuilding of Haiti.

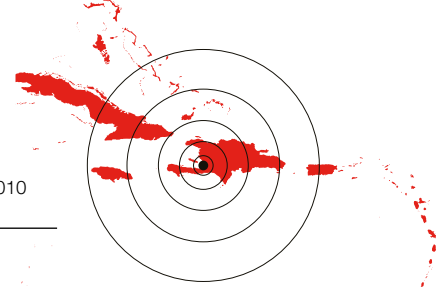
Sustainable sanitation depends upon sustainable housing plans. Developing a comprehensive resettlement plan, together with urban planning for Port-au-Prince, are vital steps to finding durable and integrated shelter and sanitation solutions. As plans are put in place to upgrade different neighbourhoods, there is an opportunity to integrate sanitation together with plans for houses, roads, water, electricity and communications – substantially improving life for many of Haiti's citizens.

*Valuable lessons can be learned* from other cities affected by devastating earthquakes, including Managua, Nicaragua in 1972 and Arequipa, Peru in 2001. The Managua earthquake left more than half the population homeless and 70 per cent of buildings destroyed or severely damaged.<sup>17</sup> Some sources estimate that rebuilding the capital took 38 years and misguided urban planning decisions were said to have resulted in major social upheaval in the years following the disaster. Looking at sanitation, there are valuable lessons to be learned from countries such as India, Tanzania and Brazil where innovative approaches to providing sanitation in crowded urban environments are being developed and implemented.

*Transporting and dumping human waste is costly.* Given the high water table throughout low-lying areas of Port-au-Prince, putting in a conventional sewage system may be out of the question. But specialists suggest that **more innovative solutions**, including small-bore sewerage, make more sense in Haiti. There may also be opportunities for sanitation systems to provide sustainable livelihoods, converting the health risks that excreta represent today into jobs tomorrow. Large-scale composting of waste for agricultural use or production of biogas are two options that require investigation for viability in Haiti, given that transporting and dumping human waste is costly.

An absolute priority in **solid waste management** is clearing the rubble. Apart from impeding the flow of traffic and the reconstruction of homes and permanent buildings, piles of rubble are becoming part of the scenery, with people learning

<sup>17</sup> Mallin, J, The Great Managua Earthquake, <http://www.ineter.gob.ni/geofisica/sis/managua72/mallin/great01.htm>. See also <http://www.mcclatchydc.com/2010/02/15/85144/haiti-quake-fear-what-if-recovery.html> comparing Managua and Port-au-Prince.



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to live around them, attracting yet more garbage. Developing Haiti's capacity to manage the solid waste it produces – through, perhaps, large-scale recycling – rather than continuing to dump it represents an enormous opportunity to improve the environmental health of Haiti.

As plans are made for the allocation and distribution of funds pledged towards rebuilding Haiti, the WASH cluster's sanitation working group has started to identify the key components for a long-term sanitation strategy for Haiti. A number of the following elements will form part of this strategy.

*The long-term institutional support and funding to the Haitian authorities* responsible for the provision of sanitation services throughout the country is essential, so that sanitation policy can be reviewed, staff capacity expanded and equipment provided. A key step is to support DINEPA's top priority of identifying an appropriate site for sludge treatment, as well as investigating the most appropriate technologies to do this. DINEPA also needs to develop its capacity to deliver sanitation services; currently, it has many staff focusing on water, but only one focusing on excreta disposal.

Supporting the development of a thriving private sector will also be important, particularly in stimulating the local production of septic tanks, toilets and other hardware, and providing support to *bayacou*. Agencies are currently discussing different approaches to repairing individual toilets in homes – such as giving cash grants or vouchers together with technical advice and follow-up.

*Investment in formative research is needed now* in areas such as the barriers and motivational factors to achieving improved sanitation within Haitian society, the ability and willingness to pay for it, and whether there is an openness to adopt innovations such as the agricultural use of human-derived fertiliser or the conversion of excreta into energy through biogas production. All these issues must be properly researched, together with a better understanding in how to carry out urban mass sanitation, given that most experience to date stems from rural and peri-urban situations.

Haiti is still in the first phase of recovering from the devastating effects of the 12 January earthquake, but now is the time to look forward – to the next six months and also to the next 10 or 20 years. The decisions made now will have the most profound influence in helping the country deliver a prosperous future for its citizens. Making sure that sanitation is given equal priority and funding to the provision of water – and seizing opportunities to put in place innovative long-term approaches to solid and human waste management in Haiti requires immediate action, research and planning.

# Haiti earthquake operation in figures

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(Figures accurate to 30 June 2010)

## Health

**95,000 people** have received treatment at Red Cross Red Crescent healthcare facilities.

**1,000 to 2,000 patients** seen each day.

**152,342 people** vaccinated against measles, diphtheria and rubella.

More than **16 million community health awareness text messages** have been sent.

## Water, sanitation and hygiene promotion

**300,000 men, women, and children** reached by hygiene promotion activities.

Everyday, the Red Cross Red Crescent trucks **2.4 million litres of water to 94 water points** in camps in Port-au-Prince – enough for **280,000 people**.

**2,671 latrines** have been built.

## Shelter

**120,000 families – or 597,000 people –** have received Red Cross Red Crescent emergency shelter materials.

The Red Cross Red Crescent is **committed to building 30,000 transitional shelters**.

## Relief

**955,000 relief items** – hygiene kits, kitchen sets, jerry cans, buckets, blankets and mosquito nets – have been distributed.

## Disaster preparedness

With the hurricane season looming, the IFRC is **prepositioning relief items** in ten high-risk regions for 25,000 families (125,000 people) across Haiti.

Tens of thousands of SMS messages in Creole are being sent asking people if they want information on how to be prepared during the peak of the hurricane season.

## Logistics

Over the course of the operation, more than **11,000 tons of Red Cross Red Crescent aid** has arrived in Haiti.

# The Fundamental Principles of the International Red Cross and Red Crescent Movement

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## **Humanity**

The International Red Cross and Red Crescent Movement, born of a desire to bring assistance without discrimination to the wounded on the battlefield, endeavours, in its international and national capacity, to prevent and alleviate human suffering wherever it may be found. Its purpose is to protect life and health and to ensure respect for the human being. It promotes mutual understanding, friendship, cooperation and lasting peace amongst all peoples.

## **Impartiality**

It makes no discrimination as to nationality, race, religious beliefs, class or political opinions. It endeavours to relieve the suffering of individuals, being guided solely by their needs, and to give priority to the most urgent cases of distress.

## **Neutrality**

In order to enjoy the confidence of all, the Movement may not take sides in hostilities or engage at any time in controversies of a political, racial, religious or ideological nature.

## **Independence**

The Movement is independent. The National Societies, while auxiliaries in the humanitarian services of their governments and subject to the laws of their respective countries, must always maintain their autonomy so that they may be able at all times to act in accordance with the principles of the Movement.

## **Voluntary service**

It is a voluntary relief movement not prompted in any manner by desire for gain.

## **Unity**

There can be only one Red Cross or Red Crescent Society in any one country. It must be open to all. It must carry on its humanitarian work throughout its territory.

## **Universality**

The International Red Cross and Red Crescent Movement, in which all societies have equal status and share equal responsibilities and duties in helping each other, is worldwide.

# Haiti: *From sustaining lives to sustainable solutions – the challenge of sanitation*

A publication from the International Federation of Red Cross and Red Crescent Societies (IFRC)

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The International Federation of Red Cross and Red Crescent Societies promotes the humanitarian activities of National Societies among vulnerable people.

By coordinating international disaster relief and encouraging development support it seeks to prevent and alleviate human suffering.

The International Federation, the National Societies and the International Committee of the Red Cross together constitute the International Red Cross and Red Crescent Movement.