# Water, Environment and Sanitation Angola–Hoping for Better Times

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#### Background

In November 1994, the Government of Angola and its arch-rival, the Union for the Total Independence of Angola (UNITA), signed a peace agreement to end their 20 year-old civil war. This conflict destroyed all the pre-independence infrastructure development that Angola achieved under Portuguese rule and dislocated over one-third of the country's one million population.

The water and environmental sanitation (WES) sector was hit hard. Nearly 75% of the water systems in the provincial capitals and small towns were destroyed or became inoperative through lack of maintenance. Because the country is very rich in surface and underground water resources, a large scale, famine-like problem was prevented. Yet diarrhoeal diseases, related to poor sanitary and hygiene practices, remain the second largest killer of young children, surpassed only by the vector-related malaria.

Since 1979 UNICEF inputs to the WES sector in Angola have focused on emergency responses. The trend has continued until today with priorities given to relief provision and systems rehabilitation for and within the localities of the most vulnerable of the population.

Angola's road to recovery has been progressing slowly, with the peace process still fragile and uncertain. While the country remains relatively conflict-free, the two factions have maintained tight control of the areas under their occupation preventing the free circulation of people. This situation has been an obstacle to national reconciliation and has seriously affected the type and speed of development programmes.

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#### The Programming Environment

Angola ratified the Convention on the Rights of the Child (CRC) in 1991. However, the declining efficiency and coverage of social services, has resulted in large segments of the child population being deprived of their essential survival, protection and development needs. The war severely affected the programming environment by causing:

- soaring inflation, approximately 4000% up to July 1996;
- infant and under-five mortality rates of 195 and 320 per 1000 live births respectively;
- falling food production due to the high pollution of landmine and rural depopulation;
- massive population displacement causing overcrowding in secure rural areas and rapid urbanization;
- significant demographic shifts placing increased strain on young female-headed households;
- extremely limited access to and low utilization of basic services, especially health, water supplies and education;
- widespread suffering and vulnerability due to war and economic stagnation.

The WES sector has been operating for the greater part of the last 20 years

within this complex emergency structure. Declining financial and human resources, low national capacities and the absence of national policy and planning directions have compounded the situation.

### **Notable Achievements**

Despite its inability to create a larger impact on the national situation, the WES sector can point to some notable successes within the smaller provincial communities:

- the rehabilitation of small-scale piped water supply systems serving 5000–10000 inhabitants in small towns has created conditions for the return of internally displaced persons to their areas of origin;
- rural villages have been mobilized into work brigades for constructing their own private latrines and handdug wells;
- peri-urban bairros have been influenced to organize clean-up campaigns in their communities and conduct house-to-house promotion of ORS usage, domestic water disinfection and drainage of stagnant water;
- hygiene and sanitary education promotion have reached nomadic, tribal people who typically share the same water sources with their treasured animals for all types of personal activities.

Two examples of these projects, described below, show the necessity of having good working relationships with on-site partners, whether NGOs or the beneficiary community, within an emergency environment.

#### **Village Level Water Filtration Plants**

Within an area of approximately 10km, thirteen villages had no proper potable water source. The hand-dug, traditional wells in the area were heavily polluted and villagers had to trek 8km to the nearest river for, what appeared to be, drinkable water. The incidence of diarrhoeal diseases and bilharzia was common among the 15,000 inhabitants.

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In collaboration with an NGO working in the area, UNICEF designed a small slow gravity-filter with mixed media beds of sand, coal and limestone, as an alternative for potable water. The water source was the existing or new handdug wells on which a handpump was mounted for extracting the water. It was then conveyed to the various compartments - first through graded aggregates, then through the 3-media compartment, and finally to the drinking water tank. After encouraging results from the first prototype, thirty plants were constructed with the full participation of the villagers. An intensive social mobilization and community education programme accompanied the construction phase that aided in changing the community habits of using the river and unprotected handdug wells.

The results of this simple and costeffective intervention (each system costs \$405, including an India MKII handpump) were instant. Diarrhoeal disease cases showed a dramatic 90% fall one month after the evaluation of the project. No new cases of bilharzia have been reported since the project was completed one year ago.

#### **Peri-Urban Upgrading Project**

The accumulation of solid waste in the peri-urban cluster of Luanda has

been an environmental catastrophe for many years. These areas account for more than two-thirds of Luanda's two million population, but exist without the basic services of running water, sewerage and solid waste disposal.

In a bairro of about 4 km², 20,000 people lived among "mountains" of accumulated garbage, ponds of mosquito-infested stagnant water, and an extreme paucity of adequate sanitation facilities. Malaria, diarrhoeal diseases and acute respiratory infections were common health problems, averaging at least two disease episodes per month.

In collaboration with the municipal and provincial authorities, the WES sector initiated a new programme of activities. These included social mobilization for community participation and management, advocacy for attracting attention to the expanded sanitation problems of the city, and resource mobilization to involve public and private enterprise in the venture. Inter-sectoral linkages with this project produced inputs from the Health, Information and Education sectors that were integrated into the WES interventions.

After one month of concentrated work involving community municipal and private workers, 1800 tons of solid waste was moved out of the area and

nearly 2km of roads were drained of stagnant water and regraded. In addition, two schools and the health centre were rehabilitated and refurbished with supplies and each household in the community was reached with health education and domestic hygiene messages. Through constant follow up and monitoring of the situation by UNICEF and the continuing vigilance of the trained community activists, solid waste accumulation has not restarted. ORS usage has increased by 70%, malaria and diarrhoea cases have fallen significantly, and latrine construction has increased within the community.

#### Overview

The above projects, embodying different programming and implementation characteristics, highlight the types of activities that can form part of a complex emergency environment. They provide the developmental ingredients of community participation and management, cost-effectiveness and sustainability. As the peace process continues to hold in Angola, UNICEF's country programme in 1997-98 will act as a transitionary bridge to the expected stability for longterm programme planning. The WES sector is well armed with doable projects to meet this challenge, if given the required resources.

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## Balancing Predefined and Chosen

Freedom to design is an important quality by itself, especially if money can be saved at the same time. How many people make their own clothes and knit their own cardigans? Choosing our car, clothes and the food we eat is close to a human right. It has a creative element that gives quality to life.

In many situations we prefer the design to be ready-made. The building material industry has understood this and produces doors, window-planks and roof-tiles that can be fitted into any house without influencing the size or design. In the same way a well-designed

SanPlat can be installed in any latrine using local materials and skills without impairing creative solutions.

It is more relevant to compare the implications that the choice of one system or the other has on affordability, replicability, sustainability and enthusiasm.

#### **A Paradigm Shift**

Comparing VIP-latrines with SanPlats is like comparing houses and doors, comparing a structure with an element. It is more relevant to compare the implications that the choice of one system or the other has on affordability, replicability, sustainability and enthusiasm. The Nigeria Sanitation Programme makes a clear statement about that. Opting for the SanPlat system has resulted in a paradigm shift; the probability of full sanitation coverage has come 45 times closer. Choosing the SanPlat system has proven to be smart and wise.

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