

Evaluating rural latrines in Guinea, 1998–2001

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The programme for rural sanitation in Guinea started out in 1989 by building ventilated improved pit (VIP) latrines in schools and various public places, too expensive for families at \$500 each. In 1994, the approach switched to simple pit latrines (one or two compartments) at \$250 to \$300, still beyond the reach of all but the richest rural households.

1997 saw the introduction of SanPlat latrines to two regions, in Upper Guinea and Middle Guinea, with a combined population of some 1.5 million in nearly 213,000 households. The sanitary platform latrines cost far less – \$45 for a family latrine and \$160 for a public latrine. Community involvement is key: nearly half the cost of installing a public latrine, and three quarters the cost of a family latrine, is borne by the users. Two years after the programme had gone fully operational, it was evaluated to assess achievement and formulate recommendations for the future.

By way of background, Guinea is a small West African country with a population of 7.4 million, home since 1990 to nearly a million refugees from Liberia and Sierra Leone. Internal displacement has resulted from recent attacks across the borders. The 1999 *Demographic and Health Survey* found that two out of five rural inhabitants had access to safe drinking water, but only 5% had acceptable sanitation; 51% were using no latrine at all while 42% were using traditional latrines, rarely if ever hygienic.

Development of a sanitation policy for Guinea has sometimes been complicated by the lack of a single supervising body. The national guidance committee comprises representatives from seven ministries – hydraulics and energy, health, promotion of women and children, communications, education, decentralization, and international cooperation.

Evaluation methodology

The evaluation teams adopted a participatory approach to survey communities reachable in the rainy season representing 12% of the programme areas. Interview guidelines and checklists were developed specifically for the evaluation. The teams interviewed village masons manufacturing SanPlat footslabs, the staff of the local rural development authority (Communauté Rurale de Développement), village women, men, children and teenagers. Their views were asked on the different technologies (SanPlat latrines, single or double VIP latrines), level of demand and use, impact on behaviour change, knowledge of hygiene messages, and the programme's durability and replicability. Two-day workshops were convened to obtain the opinions of the national partners, non-governmental organizations, programme staff and consultants.

The evaluation focused on two primary issues:

- *Technical performance.* Assessment of the latrines took into account the different users (schools, health centres, families); the soil conditions (rock, sand, silt); the materials used to build the superstructure (concrete blocks, fired bricks, sun-dried bricks, thatch or wooden frames, unroofed or roofed with metal sheet, thatch or leaves); the age and type of latrine; and the users' attitudes and practices.
- *Support strategies.* The evaluators also reviewed the effectiveness of the different strategies for helping families and communities install latrines – the numbers built so far, ease of construction and user involvement, management and distribution of materials by the rural authority, and UNICEF's contribution of imported materials.



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The programme

The primary goals for sanitation in the two programme regions were to increase the numbers of hygienic latrines and improve hygiene behaviours, especially hand-washing at the appropriate times. Between 1997 and 2000, some 8,800 family latrines were built (against a goal of 10,000 latrines to serve about 560,000 family members), and 487 public latrines in schools, health centres and marketplaces (against a goal of 600 public latrines).

The strategies:

- Community leaders and rural authorities are trained on the necessity of hygienic latrines, the danger of faeces for health and the environment, the advantages of SanPlat latrines, and the division of roles between UNICEF, the authorities and the community.
- Village masons building SanPlat latrines are trained and monitored by national non-governmental organizations.
- The rural authorities meet twice a year to review the needs.
- The rural authorities handle the local management of imported materials, select the village masons for training, decide on the beneficiaries and siting of latrines, and in general oversee all the local activities.

The village masons, equipped with tools by UNICEF, manufacture and install the SanPlat footslabs and build the superstructure only for the public latrines. Demand for the SanPlat latrines is high enough to justify training generous numbers of local masons.

The rural authorities assign latrines according to community ability to build on time, rather than level of need. Various approaches are used. Some rural authorities employ a quota system; some supply cement to the first households that dig their pit and obtain the sand and gravel for the concrete squatting slab; some give priority to the more influential families in the district. In the

course of the evaluation all the rural authorities expressed satisfaction with the sanitation programme and their commitment to running it as well as possible.

Technical performance

The evaluators found that the pits were being dug to the recommended depth (3 to 4 meters) and occasionally deeper. The squatting slabs and drophole covers were standing up well, with only three slabs broken because of a mistake in the manufacture. The superstructures were better in Upper Guinea, where families had built thatched huts. In Middle Guinea, many of the superstructures were flimsy material tacked to wooden frames, and few families had built their own. Overall, both family and public latrines were clean, odourless, and used by all members of the family. The pits were filling up slowly, but because of intense biological activity, not low level of use.

Behaviour change

The two key objectives are to instill sound practices for building, maintaining and using latrines, and to ensure hand-washing with water and soap at the critical times. (The initial goals were set at 50% to wash their hands before eating, 35% after defecating and 25% before preparing food, and 50% to dispose of children's faeces in latrines.)



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The strategy is spearheaded by the production and diffusion of messages in the local languages on how to maintain and use water points; how to store water safely; why latrines should be built, maintained and used; why faeces carry risk; and why hands should be washed at certain times. Every possible partner is trained to disseminate these messages – community leaders, village masons, rural authority staff, rural radio, school-teachers and students. Special emphasis goes to environmental education in schools.

The nine stations of the rural radio service have been a key resource. They broadcast practical, lively and popular programmes in the local languages on every aspect of hygiene. The messages are then reinforced by everyone active locally in the sanitation programme.

Evaluation findings

- The evaluators observed real motivation at every level of administration from national to local.
- The switch from VIP to SanPlat latrines has paid off in the rural areas because the SanPlat latrines are easy to build, cheap, hygienic, and preferred by users. They have become widely known over the past three years.
- The rural authorities have proven their capacity to manage the programme. Their selection of masons for training has been efficient. Their handling of materials supplied by UNICEF seems transparent. Their achievement is reflected in the numbers of new

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programme, is no longer as active in the sector, and has fewer resources to make available for emergencies.

Preparing for disaster

Nevertheless, the mandate from the Executive Board and the continued country requests for emergency interventions ensure that UNICEF will continue to be active in WES in emergency situations. The types of emergency that require WES interventions will be continuing to recur in many of the countries where UNICEF works, often on a seasonal or multi-year cycle – hurricanes, floods, rainy-season cholera outbreaks and the like.

All UNICEF country offices should therefore include emergency preparedness planning for WES in their country programming cycle irrespective of the existence of ongoing WES programmes. The various notes of core commitments for WES in emergencies outline some procedures for UNICEF country offices, summarized below:

- Include vulnerability analysis (in general, and specifically for WES) as a mandatory part of the country situation analysis, particularly in countries with a history of seasonal or multi-year cyclical emergencies, natural disasters, or recurring civil and political disruption.
- Include emergency preparedness activities within the country programming cycle.
- Ensure an annual source of flexible funding for emergency situations, in consultation with the regional office and UNICEF headquarters.
- Coordinate with government, partner agencies, civil society and the private sector – brief them on UNICEF's core commitments, assess the capacity of the various partners, assess the capacity of private suppliers and service companies, etc.
- Build capacity in the country office – train WES staff and/or other staff in vulnerability analysis and WES emergency programming, maintain a regional roster of trained WES staff, etc.
- Prepare information notes and instructions ahead of time on each of the UNICEF core commitments (messages to be country-specific, pre-tested, laminated if appropriate, stockpiled in both country and regional office, etc.)
- Ascertain the principal and alternative supply sources and delivery options for all WES items likely to be needed in emergencies.

Note:
UNICEF core corporate commitments in emergencies, *E/ICEF/2000/12, table C.*

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- latrines installed, averaging 90% of the goals set for the three-year period.
 - Open defecation has become noticeably rarer. Despite travelling numerous villages by foot and car, the evaluation teams saw no faeces on the ground. Villagers still without latrines are now defecating in the bush far from homes and rivers.
 - Communities now know the benefits of latrines and the importance of personal and environmental hygiene. The demand for latrines has soared. In Upper Guinea, for example, the number of family latrines has nearly quadrupled, from 875 in 1998 to 3,323 in 2001, while the number of public latrines has nearly tripled, from 108 in 1998 to 286 in 2001. Latrines were being built in 2000 at three times the 1998 pace.
 - Knowledge has translated into behaviour change. For example, water sampling found 69% of samples entirely free of coliform bacteria in 2000, compared with 48% in 1998; all the samples showed lower densities of bacteria; and three out of five households in the evaluation areas were drinking safe water in 2000, compared with only two out of five in 1998.
 - Reduction in diarrhoea incidence was not objectively verified, but all the interviewees reported noticing it had become less common.
- Recommendations for the future**
- Retain the SanPlat latrines with shallower pits (2 meters maximum)
 - Promote hand-washing in schools
 - Develop appropriate guidelines offering many models of superstructure for masons and rural authorities
 - Recruit and train more masons; retrain some existing masons to higher proficiency
 - Continue disseminating messages by rural community radio
 - Use broadcasts popular with women to discuss hygiene behaviours and the latrines programme
 - Develop local plans of action, to include schools, for incorporation in the yearly planning reviews
 - Involve village women more actively in building and maintaining latrines and in hygiene education for their villages.

Detailed information in French on the Guinea sanitation programme is available from the IRC website, www.irc.nl.

