

# Sanitation in an Afghan Refugee Camp

## Design for a Community Approach Programme

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**Afghanistan, August 1994: Sar-Shahi Camp for Internally Displaced Persons.** Well over a hundred thousand people from the war zones have taken up residence here on the roadside near to the town of Jalalabad, less than 100 km from the border with Pakistan. Officially recognised 'internally displaced persons' (IDPs) are living in tents set up by international aid organisations. Others live under sacks and plastic sheeting. On 20 x 20 metre plots, from 5 up to as many as 12 people huddle together with all their belongings.

In this desert of stone and hard clay, day-time temperatures rise to 45°C. There are long queues at water tap points and huge crowds form when the food convoys roll in. A dozen international organisations are concerned with alleviating the so obviously material plight of the refugees. The traditional division of labour and roles within families seems to be threatened. These people, who once had enough imagination, energy and improvisation to organise their own flight from neighbouring provinces and the capital Kabul, have turned into waiting beggars. Responsibility for looking after their own families has had to be exchanged for a ration card.

Dust and the odour of human excrement hangs in the air, there are flies everywhere. Despite the best medicinal supplies, the number of cases of diarrhoea, particularly amongst children, is alarmingly high. Concrete squatting slabs for the construction of latrines lie about, some run over and broken by passing vehicles, and remain unused.

The building of

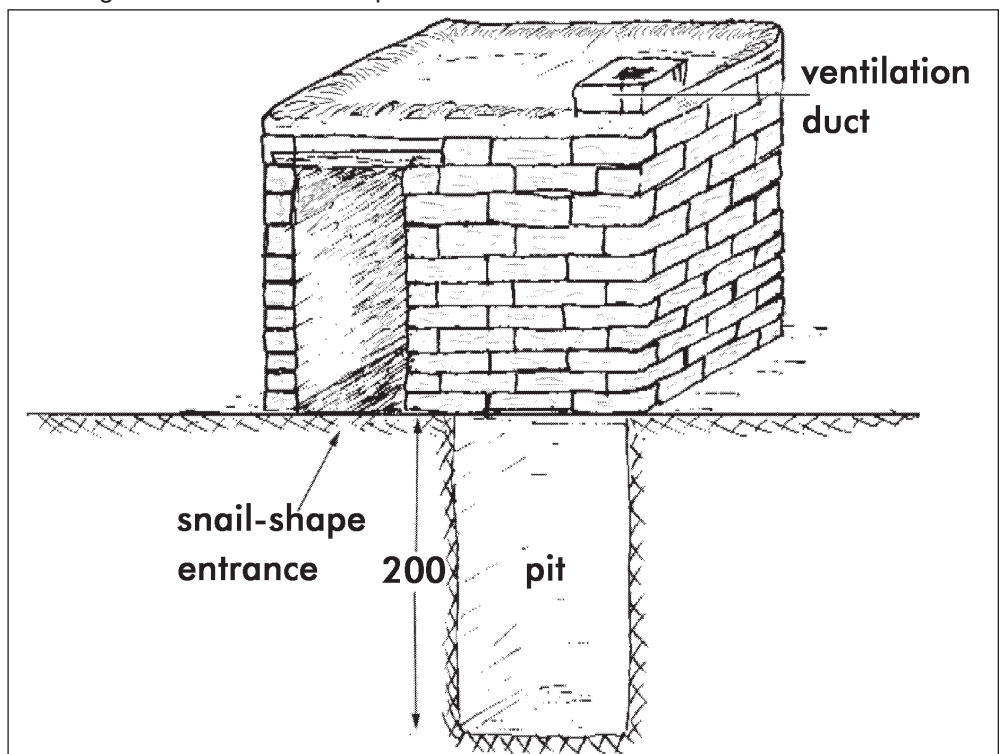
right through to the camp. The logistics of international supply no longer function as a result of difficulties at the border. Without cement and iron there can be no latrines. And every family needs their own latrine.

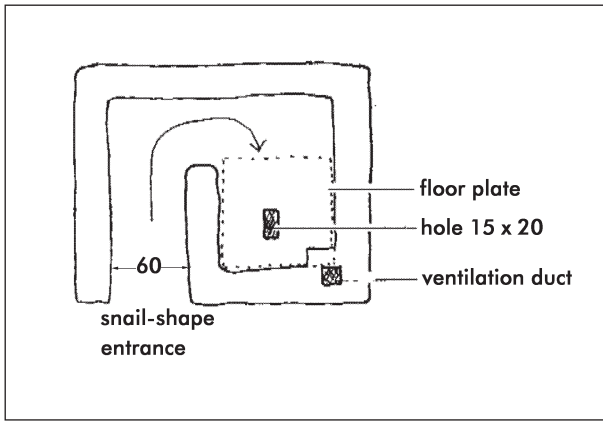
The inhabitants of the camp can do very little, however. Couldn't they maybe dig a pit? No, the hard ground is resistant to anything but heavy-duty tools. Sometimes you see rags and sacking acting as a screen around a dip in the ground. The public toilet facilities have long been overflowing because no-one feels responsible for cleaning them. Above all, they are used by very few of the women. Should men and women of different families use the same place? Public, shared toilets are apparently unworkable in this strict culture. The decision of how to proceed with this problem has to be worked out at the Head Office of UNICEF in Pakistan from where all the sanitation programmes are coordinated.

Afghanistan, October 1994. The sanitary situation has somewhat improved. Most families have been supplied with their own latrines. But in some of the camp blocks

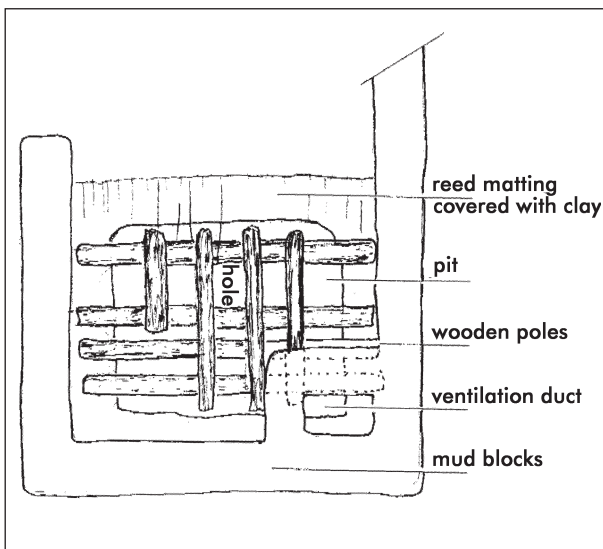
latrines has come to a standstill because the local organisations cannot get their act together to get enough materials in appropriate numbers or of sufficient quality

GAA Afghanistan Ventilated Improved Pit latrine





Groundplan



Floorplate (view from above)

they are so little shielded from public view, so dirty and fly-infested, that the owners go out at night-time to relieve themselves on the pathway at the side of their tents.

In October it is supposed to be getting more peaceful in Afghanistan. At meetings of the international organisations, there is talk of the reintegration of refugees, of training programmes for the young people and schools for the camp children. The relative calm is then broken as, quite unexpectedly, the next lorry loads and bus loads of refugees enter the town. They arrive in their thousands, some even on foot or in donkey caravans from Kabul.

In New Hadda, above the town of Jalalabad, desert is being clear-

ed of minefields to make room for another 80,000 to 120,000 people. When the camp is opened, another priority besides the supply of drinking water and food and medicinal supplies is the construction of functioning latrines.

After the difficulties experienced in Sar-Shahi, the 'Deutsche Welthungerhilfe' organisation/ German Agro Action (GAA) - is developing a new design and new procedures for the building of sanitation facilities in New Hadda Camp. GAA has been commissioned by UNICEF to coordinate and manage all the sanitation and drinking water projects in the new camp. The European Commission (ECHO) is prepared to finance the project. In Spring 1995, CARITAS comes in to assist with the needs of over 70,000 refugees. After some bad experiences in Sar-Shahi Camp, local, commercially oriented NGOs are no longer being involved.

The construction aim is the building of ca. 6,000 family latrines in just a few months. The preparatory task of appropriate design, technical back-up and supply of tools and building materials is to be handled by the GAA. All building materials are to be provided locally. These are to be either re-usable or biodegradable after use and produced using local know-how. The refugees have to carry through as much of the work as possible themselves and all transportation measures are to be effected by private operators within and outwith the camp and refugees with their own private vehicles. Families themselves are to be responsible for solving their own sanitation problems.

## Design

After a 'Ventilated Improved Pit-latrine' (VIP), snail-shaped and of mud construction, had proved itself in the GAA office, an adapted rectangular design was introduced throughout the camp. Not only did this model have to be considerably cheaper than the unsatisfactory construction of concrete squatting slabs and jute

matting in the Sar-Shahi Camp, it had to afford better protection against the extreme summer heat and winter frosts.

Above a 1 x 1 x 2 m pit, a small hut is erected, built entirely out of mud blocks. The squatting floor over the pit consists of wooden poles covered with reed matting and mud. The remaining opening is sufficiently small to protect against an unattended small child from falling down through. The roof, like the floor, is constructed from wooden poles, reed matting and mud mixed with straw chaff. To enable even unpracticed mud builders to manufacture a rainproof roof, a thin plastic sheet is inserted under the uppermost mud layer. The inclination of the roof allows rainwater to flow off to one side. A chimney-type duct made of mud bricks leads up to the open air in one of the interior corners. It stretches from the latrine pit to the roof, thus forming a permanent outlet duct minimising any internal odour. Instead of a door, a screen wall of mud bricks is set in at a right angle to the entrance to ensure privacy. Constant ventilation is thus ensured via the entrance, through the pit opening and up the duct out through the roof. Even in bright sunshine, the interior remains relatively dark, and doesn't attract flies. At the top end of the duct, an additional fly screen mesh is installed, thus preventing fly infestation through the duct. As a matter of fact, the latrines in New Hadda Camp remained relatively free of flies. The absence of a door and the chimney effect of the duct made for good hut ventilation and air quality.

With regular maintenance of the mud roof, the durability of the latrine is limited only by size of pit. With utilisation by one family at a time, a use span of one and a half years is envisaged. All construction materials, apart from the reed matting for the floor, can be re-applied in a new structure over a freshly-dug pit.

## Construction Carried Out by Refugees

For each camp block the GAA appointed a local block coordinator with 2 to 4 assistants. Their task was to talk with those refugees who had been there longest, to canvas for the building of the latrines, to clarify the duties of the GAA and the refugees, and to conclude a contract on carrying out construction works. Part of the contract was the delivery of materials using a chit system and the bindingness of the GAA design for everyone. Only where all the families in any one block were prepared to help with the building could this begin. The block community's being prepared to assist weaker families was another precondition.

At the beginning of the construction of a latrine, a visit was made by the GAA block coordinator with an assistant. Together with the later users, they marked out the groundplan with chalk powder. Thus dips in the ground in danger of flooding or constructions facing in the direction of Mecca were avoided. The family now received all the necessary tools - shovel, hammer, chisel and pick - to dig out the partly rocky ground. Sometimes, after days of work, the site of the pit had to be relocated as the ground was too hard. Upon handing in all the tools again after completion of work, the family received a chit for a lorry load of earth, a wooden cast for mud bricks and sufficient water. The transport operators were later to receive payment from the GAA only against these chits. Only when all the bricks were drying in the sun could each family fetch poles and reed mats for the latrine floor from the central warehouse. During the digging work and the entire period of construction, the family could, if necessary, be paid a daily visit by the block coordinator or one of the assistants. They

checked that the design dimensions were kept to so that the load bearing capacity of the squatting floor, a minimal ceiling height and the later load bearing capacity and watertightness of the roof were ensured. No windows were allowed to be built into the structures so as to avoid additional light coming in and thus flies.

### Effective Self Help

During the course of the latrine programme, the New Hadda Camp grew to a size of 21 blocks with a population varying between 3,000 to 6,000 people. Within 6 months, almost 90,000 people had to be supplied with sanitation facilities. From December 1994 to the end of May 1995, a total of 6,300 latrines were completed. Without the logistical and technical apparatus and administrative capability of a large organisation, this was only made possible through the supported and coordinated self-help of those affected.

Through the GAA's self-help concept, the number of those fully employed and paid on the project was between 15-25 people. Most of these were themselves refugees and inhabitants of the camp. They were kept busy as block coordinators or with the measuring, cutting and packing of building materials, the repair of tools and vehicles and driving the water trucks. No machinery was deployed.

All the decisions for on-going construction measures, alterations to the design and the procurement of building materials were taken on-site at the camp.

No food or wages were paid for work carried out by the individual families, ie. for all construction work. It was clear, here, that the refugees were helping themselves.

The price of these solidly built and self-built latrines in New Hadda was only around a third of the price of the latrines made out of concrete squatting slabs with jute sacking and reed matting as screens which were erected by the commercial 'NGOs' in Sar-Shahi.

Most of the refugees in New Hadda were former inhabitants of

Kabul. Amongst these were doctors, teachers, civil servants and others who had never had to use a shovel or a hammer in their profession before this and who were even less familiar with house-building. And yet almost all the latrines built were of good quality. The number of facilities that remained unfinished lay at under one percent of the total. The theft of building materials did not take place due to the chit system. Who would have wanted to steal or sell their own load of mud or poles after several weeks labour digging a pit?

Contrary to expectations derived from the Sar-Shahi experience, the maintenance and cleaning of completed latrines was satisfactory throughout. As the works progressed, so too the sense of responsibility for each self-erected structure, into which had been poured so much time and effort, seemed to grow. Later, between tents, you could see newly-built mud brick food stores, wash houses and ovens appearing. The success of the latrine building programme inspired the GAA staff members to pass over extensive responsibility for the camp's drinking water supply, which they had until then supervised, to the camp inhabitants themselves.

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