

Community Eco-Sanitation Toilets

India



Wherever the Need

www.wherevertheneed.org.uk



Community Eco-Sanitation Toilets, [India](#)

Organisation Background

Wherever the Need (WTN) became a registered charity in 1998, and since the year 2000 has been actively involved in the provision of drinking water and sanitation to the poorest parts of Africa and India. In 2006 WTN wrote a strategy document committing the charity, where feasible, to providing, managing and conserving water, constructing eco-sanitation toilets and encouraging tree planting programmes as part of a wider environmentally friendly programme. This strategy has already seen its methodology for eco-sanitation toilets used in a document produced by the Tamil Nadu State Government in India and brought Ministerial acknowledgement in Sierra Leone. Through working with the needs and wishes of local people, projects can be straightforward and simple, whilst having a long-term positive effect for communities and the environment.

Project Background

Despite the fact that India is experiencing tremendous growth as an industrialised society, it is estimated that at least 400 million people live on or below the poverty line. The majority of these people live in the many tens of thousands of rural villages scattered around the sub-continent. Life in rural India has in many respects remained much the same for the past several hundred years. The reality is that villagers eke out a subsistence living to pay for the large families they support; it is still accepted that children are expected to provide for their parents when they get older, and a large family increases the chances of a better retirement. They struggle to get at least one child, invariably a son, through the education system.

There are numerous dilemmas in this society. Whilst many live at a subsistence level, they are still affected by the technological age with which they have contact through satellite television, mobile phones and the internet. The benefits of modernisation are clear to see – better health education, self empowerment etc. However, the impact of messages received through these facilities is not always positive. For instance, in a closed society where females are often still perceived as second class citizens, the availability of images showing even partially clothed women can create very negative impacts.

WTN is very conscious of all these varying challenges. Our work not only improves local conditions but also the perceptions of the communities by creating projects that provide more than simply physical benefits. We seek to encourage self sustaining, ecological projects generated through the self empowerment of the people themselves.



One example of our work that highlights these criteria is our provision of eco-sanitation toilets. Few villages, semi-urban or urban areas in India have toilets. In fact 52% of all people in Asia do not have access to basic sanitary facilities. If you live near the coast then the sea disposes of human faeces, but inland the use of wasteland and/or bushes is common. Specific, well known areas are used solely for the purpose of human defecation. There are several problems attached to this, not the least being the spread of disease.

Contamination of water with human faeces causes the transmission of diseases such as typhoid. Poor health resulting from poor sanitation has a huge effect on economies, with money that could be used to purchase food or education spent on medicines. National economies also feel the strain of providing medical treatment; people become too ill to work, their livelihoods being destroyed by preventable disease.

Open defecation is one of the major causes of disease anywhere in the world. Faeces provide the perfect breeding ground for a wide variety of parasites and flies, which invariably settle on hands, eyes and food, all obvious vectors for the transmission of disease. As the same areas are used daily, regular contact with parasites makes the transmission of disease from ground to human inevitable. This also increases the likelihood of cross-contamination as people and animals travel between 'infected' and 'non-infected' areas, especially those near water. Such problems are exacerbated when water is scarce and personal and food hygiene are not as high as they should be.

For women the problem is greater still, and 1.3 billion women and girls in the developing world do not have access to basic sanitation. The best opportunity a woman has to relieve herself and benefit from the most privacy is just before sunrise and just after sunset. Unfortunately, this is also the time when she runs the greatest risk of being bitten by scorpion, snake or spider. Similarly these times are also well known by the voyeur or criminal, and it is not unusual to hear of women being watched, attacked or even raped. For young schoolgirls the problem can occur during the time when they are menstruating. Because many schools do not have appropriate facilities, there is no opportunity for girls to change sanitary towels, and so it is quite usual for girls to miss one week of every month from their education. This is hardly empowering.

Wherever the Need decided to tackle both these problems in villages, schools and semi-urban environments by introducing women only eco-sanitation toilets. It commissioned a set of designs that included four 'stalls', including one that was child friendly, a bathing area and a clothes washing area. This facility is totally enclosed, giving maximum privacy and security to those using it. Other designs increase this capacity.



How does an eco-san toilet work?

Eco-sanitation/compost toilets are comprised of a raised platform above two chambers, one in use and one composting. Organic material is regularly added to the chambers to introduce carbon for composting, to oxygenate the composting process and neutralise odours. It takes roughly five months for pathogen free compost to be produced. To help prevent the toilet from smelling, faeces and urine are not allowed to mix, as a chemical reaction between the two creates odour. Therefore, a pipe takes urine to a separate chamber. This may be used to make pellets that can be stored and used to nourish soils for crop growth, or directly mixed with water and sprinkled on plants. The compost produced is either sold – there is a ready demand – or used by the villagers themselves replacing expensive chemical fertilisers.

The introduction of eco-sanitation facilities can lead to many benefits, not least the positive diversion of hard-earned wages from medical supplies to combat parasitic and intestinal illness, to food or education.

As with all of our projects we provide a full education programme, and would not undertake the provision of the toilet without the local community requesting its installation, and being willing to participate either financially or ‘in kind’ to its construction. The basis of our programme is set out below.

The Project

There are five phases to this project:

1. Discussions/education forums with local people to ensure understanding of the new facilities and awareness of cultural aspects attached to such a sensitive issue;
2. Creation of self help groups with training to deal with toilet maintenance and compost disposal;
3. Selecting an appropriate site for the eco-sanitation toilet to be built, and agreeing with the family their participation in the project;
4. Local production of compressed earth blocks for use in the build;
5. Local labour, preferably female, employed to build the facilities.



Project Impact

Eco-sanitation toilets address most aspects of the holistic cycle:

- **Management & Conservation.** They save water and prevent contamination of water sources.
- **Sustainable Livelihoods.** They provide income through the sale of compost produced, or through increased revenue from higher crop yields as a result of increased soil fertility.
- **Agriculture and Food Security.** They increase soil fertility through the addition of compost and urine, thus improving food crop yields. There is no risk to health from food crops grown this way.
- **Health.** They are a safe way of dealing with human waste as the composting process kills pathogens. They dramatically reduce the spread of intestinal illness. They are hygienic and do not smell.
- **Training & Local Understanding.** They are simple in design and can be built using local labour and materials. They use appropriate, sustainable technology and are operational at home and village level.
- **Climate Change & Environmental Sustainability.** They are self-contained units built using eco-friendly materials and avoid the use of harmful chemicals for the treatment of human waste.
- **Education.** They are coupled with hygiene education programmes.
- **Empowerment.** They are of great benefit to the whole family, particularly women and girls.

In a village where we have recently finished installing family facilities, the response has been extremely positive. The toilets are kept clean, are respected, and have helped women regain their self-respect. There can be few simpler ways to empower people than to give them back control of their need for a toilet. In addition the toilets are 100% environmentally friendly, do not smell or attract flies, produce beneficial compost and significantly reduce disease. They are a truly win-win facility!

Cost

Units can be designed for both family or village use and this particular model for women only, will cater for up to 300 women and children and cost in the region of £4,000/\$8,000. This equates to £13.50/\$27 per person – for a lifetime toilet.



Donations & Feedback

Formed and run by business people, Wherever the Need's administration costs are kept to a minimum and the equipment, materials and labour we use are cost effective and environmentally appropriate, through strong links to the areas in which we work, and our skilled, knowledgeable, dedicated staff. We strive to be good stewards of all resources entrusted to us, openly accountable for our work, systematic in evaluating our impact and effectiveness, and professional in their management. We accept all responsibility for our collective and individual actions. Wherever possible, projects are set up on an individual basis, so that companies and individuals may have their own ring-fenced package.

We ensure delivery of high quality services in a cost effective manner, providing accurate and timely feedback on work. As far as this feedback is concerned, it can be in any form, within reason, that the donor wishes to receive it: photographs, writing and messages from those helped by the project are commonly favoured, but we can also film videos or take people out to visit and experience the project themselves. We like to form partnerships between the charity, donors and the people they are helping, providing regular reports on where money is being spent and what benefits it is providing.

Wherever the Need has over ten years' experience of setting up and carrying out development work in over twenty different countries. Consequently, we are not stuck by rules, meaning that if donors have special needs and desires, we can try to incorporate them. We are proud of our flexibility, but at the same time understand exactly what works, and what doesn't.

Wherever the Need is committed to working in line with the Millennium Development Goals (MDGs) of 2015 and playing its part in helping to halve the 2.6 billion people who currently have no access to basic sanitation facilities. Eco-sanitation toilets are an important part of this strategy.

Further information can be requested by emailing: info@whenevertheneed.org.uk

www.whenevertheneed.org.uk

Supported by:

