



An Initiative of UTTHAN

# ECO Sanitation



## A Beneficial Toilet



Use of an ECOSAN Toilet



07/06/2007



05/06/2007

Organic manure of urine and faeces



Use in food



04/06/2007

Organic manure used in the farms

## What is ECO SANITATION?



ECO SANITATION means a beneficial toilet. The name itself suggests that this is the best possible method of using the human urine and faeces that is environmentally safe and advantageous. As well, ECO SANITATION toilets also address the social and the cultural aspects too.

ECO SANITATION is based on the principle of “as far as possible - utilizing natural nutrients that are renewable”. In a sense, ECO SANITATION actually converts the human urine and faeces into organic manure. This organic manure can be utilized in the farms to enhance the production levels of the crop. Apart from protecting the environment, ECO SANITATION also enhances the health aspects. The human urine and the faeces is collected in separate storage areas above the ground which means this does not have to be disposed off on land.

## Where can one build an ECO SANITATION toilet?



- In coastal areas where the water levels are high and when one digs a pit, these pits do get water logged or where there is no possibility of digging a pit for the toilets.
- Other areas wherein there is hard rock and digging a pit or pits would prove very difficult and perhaps a very expensive proposition.
- Areas where there is water scarcity, ECO SANITATION is a viable option.
- However, an ECO SANITATION toilet can be constructed in all the areas

## ECO SANITATION - constructed above the ground



- An ECO SANITATION unit's pits are built above the ground. A brick masonry shaped pit structure is built above the ground. The pit has a thin brick wall that divides the pit into two halves that is now there are two constructed pits.
- When one pit gets filled up, the other pit comes into use.
- To remove the organic manure, a manhole is provided at the back of the pit.
- The pit will only store the faeces. While the liquid urine will be collected in a jerry can outside the ECO SANITATION toilet.
- Within the two pits, an air vent is provided to allow the faeces to turn into organic manure as well to remove any odour from the ECO SANITATION toilet.
- Once the pits are fitted, the super structure is similar to any other constructed toilet.

## Benefits from ECO SANITATION Toilet



- An ECO SANITATION toilet can be constructed by anyone in every kind of geographical area.
- An ECO SANITATION toilet is environmentally friendly because it does not allow the faeces and the urine to pollute the underground water / soil.
- In normal circumstances, the human faeces and urine is part of the sewage that impacts the health and the environment, but in an ECO SANITATION toilet, the human faeces and the urine are converted into organic manure and utilized in the farms.
- The organic manure obtained from an ECO SANITATION toilet can be used in the farms similar to the dung manure used by farmers currently.
- An ECO SANITATION toilet does not pollute underground water.
- An ECO SANITATION toilet uses less water. In a flush pour toilet, per person per day water usage is 5 litres, while in an ECO SANITATION toilet, it is just 1 litre.
- The use and maintenance of an ECO SANITATION toilet is very simple.
- The urine gathered from an ECO SANITATION toilet can be given at the roots one part urine and five parts water. This treatment enhances the yield of the plant.

## Using an ECO SANITATION toilet



- In an ECO SANITATION toilet, a person uses it like a normal toilet to pass faeces.
- To wash / clean after defecation, a person has to move backwards.
- Put ash or wood shavings into the pit to expedite the manure making process.
- The water used to wash oneself should not enter the pit. There is a separate channel provided to allow the water to drain out.
- The pit is used to store only the faeces, while the liquids are collected separately.
- When one pit is full, begin using the second pit. After eight months, the organic manure from human faeces will be ready to use. Alternately use the pits.
- Use one pit till it is full. Do not begin using both the pits.
- Operation and maintenance is quite simple.

# Dhaniben's Experience

## Adopted the Learning from an Exposure Visit

This is an experience from Aktariya village located on the sea coast, in Mahuva Block, Bhavnagar District of Gujarat. The total population of Aktariya village is about 3060 while majority of the populace is engaged in farm labour and fishing. Aktariya has seen salinity ingress which has impacted the agriculture of this village. As well, lack of adequate water and sanitation is another major issue in this village.



Toilets are very few. Pits cannot be dug because water table is very high and sea water gets filled into the dug pits. There is hard rock too in other parts of the village. Hence digging pits is impossible. Because of these geographical conditions, toilets function for a very short period of time.

UTTHAN began working in this village thereby addressing various issues. To begin the process, women's self help groups (SHGs) were formed. These SHGs became the platform to discuss and share newer ideas. Over a period, the women members from the SHGs began attending meetings beyond their villages.

Sanitation options for Aktariya village were taken up seriously by the PLC WATSAN. As part of the capacity building process, PLC WATSAN organized an exposure visit. 7 women and men leaders from 7 different villages participated. Dhaniben Mansukhbhai Gujariya, a leader from Aktariya was one of those who participated. The exposure visit was organized to Arghyam Bangalore. Arghyam Bangalore had made impact in the coastal areas with ECO SANITATION toilets and it was important to replicate this experience in Gujarat.

After the exposure visit, Dhaniben adopted her learning and wanted to construct an ECO SANITATION toilet. PLC WATSAN too decided to use this motivation of Dhaniben to demonstrate the positive impact of an ECO SANITATION toilet. The ECO SANITATION toilet at Dhaniben's house was constructed and completed on October 5, 2007. Of the total cost of Rs.9,000.00 10,000.00, PLC WATSAN spent 70% of the cost while Dhaniben contributed 30%.

An ECO SANITATION toilet is environment friendly. The faeces and the urine do not pollute but in fact gets converted into organic manure that can be utilized in the farms. This is the best available option in the coastal areas where the water levels are very high because of the sea.

Dhaniben's family is using this ECO SANITATION toilet properly. Once she had this ECO SANITATION toilet at home, Dhaniben has seen numerous benefits. She is happy because she does not have to go out now, especially when she or someone from her family is ill. That's the time it was very difficult to go out to defecate. This ECO SANITATION toilet also helps her save time. Initially it was difficult to use the ECO SANITATION toilet we all would feel shy. But now after two years, Dhaniben and her family is used to the ECO SANITATION toilet.

Further, she stated that she used the collected urine as pesticide. She used one part urine and one part water, put it into the pi=ump and sprayed the concoction on the *Juvar* crop. This helped deal with the "massi" pest. She further stated that more than 200 people have visited her house just have a look at the ECO SANITATION toilet. She said she explained the working and the benefits to each one of the visitors and with the help of my experiences; I helped to deal with the false myths of the visitors. Dhaniben motivates everyone to build and use an ECO SANITATION toilet.

That's why Dhaniben says that an **ECO SANITATION toilet is a beneficial toilet**



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