

PROGRESS SEP 2007-SEP 2008

INSTALLATION OF INFRASTRUCTURE

1. Construction of the Toilet-cum-Bathroom complex for the Kameshwaram Panchayat: (Sep 2008)

Panchayat offices, or the offices of the governing councils at the village level, are one of the most important motors of change in rural India. Most panchayat offices are not equipped with sufficient toilets or bathrooms and Kameshwaram is no exception to this rule. The panchayat here has three persons in their staff and in addition receives many visitors every month (local residents, residents and officials of other villages, district officials etc.). To serve their needs, the panchayat office has one pit latrine, which often becomes dysfunctional during the rainy season.



In a unique collaboration between Gita Balakrishnan, architect of Ethos (Calcutta), M.Subburaman, Eco-san expert of SCOPE and two students of architecture of the “National Institute of Technology” (NIT, Trichy) Ashish Bhuvan (picture on left) and Vivekanand Tiwari (picture on right), and myself (an economist), an **Ecosan Toilet cum Bathroom**



Complex or ETBC was designed by the students and SCOPE faculty with feedback from Gita and some squeaking on my part. It was unique because Gita was able to motivate the students to join us in this adventure that called for extra efforts in addition to their regular work and we were really a very vocal multidisciplinary team!



The highlights of the Designer toilet are as follows. It is an Ecosan Toilet cum Bathroom Complex (ETBC) with Rain-Water-Harvesting (RWH) and Solar energy facility. The bathroom has RWH facility. Water is collected in all three tiled roofs and drained into two tanks inside the bathroom. The bathroom is provided with towel and soap stand. The men's toilet has bamboo walls and support for roof and contains ceramic ecosan toilet pans. The women's toilet has brick walls and superstructure and contains fibre-reinforced plastic pans. The solar panel fixed on the

roof of the women's toilet, supplies power to light the solar in the toilets, and the bathroom for about 3-4 hours. Hand Railings are provided to users, to climb up the steps. A kitchen garden is being raised behind the toilet complex and will use the compost created in the ecosan toilets. It will be maintained by Kameshwaram Panchayat.

2. A 100 more Ecosan toilets in Kameshwaram and starting a waste collection system. (March 2008-

An NGO called Gramalaya, which has already done a lot of work on provision of potable water through



economically-friendly or low-cost technologies, obtained a contract from Water AID international to provide for 100 ecosan toilets in Kameshwaram. We collaborated with them in the building of the 100 toilets and signed an exchange clause of cooperation with the beneficiaries, who are mainly fishermen.



In return for our financial participation in the toilets, each family of the fisherfolk is going to receive three buckets: blue (for fish & meat waste), green (for vegetal waste), red (for the rest). We will pay someone to collect the bins every morning from the families and put them in a designated spot. We will also place public waste bins every 50 metres or so. I have to figure out a way to make sure they are not stolen. No great ideas so far.

**** This project is being financed by a grant from *Guilde Europeen du Raid* supported by the French Ministry of External Affairs. The toilets have been built already.**



3. Construction of a platform to dry fish next to the solar drier (Dec 2008)

As a first step towards developing a completely decentralized waste management system in Kameshwaram, we will start with the fishermen, who now live in houses built adjacent to one another. Earlier they were living in spaced out huts. For the 350 fishermen families, the closeness of the houses is creating a real problem of waste management. The problem is the worst for fish waste. Before, they were living near the seashore and they would just throw the fish waste into the water. Now, living further away from the shore, they find it difficult to walk to the shore after cooking every meal. So they throw the waste near their house and this is causing a bad smell and attracting flies.



This project is being financed by a grant from *Guilde Europeen du Raid* supported by the French Ministry of External Affairs.



Following up on a point mentioned in the report of Morgane Sevat and Timothee Romain (student interns- details follow) that fish waste is used in prawn farms and poultry feed, instead of composting, I am going to experiment with drying the fish waste and selling it as input to poultry farms/prawn farms. A platform for drying fish waste will be built just next to the solar drier. A pump for water and a leach pit will be built next to it. Between 4 AM and 10 AM, the platform will be used as a market place. From 10 AM onwards it will be used to dry the fish. After a first drying on the platform, fish waste will be also be dried in the solar drier.

Then it will be packed into jute bags. A covering will be installed within the solar drier compound to store the jute bags. The dry fish waste will be sold to prawn farms, shrimp farms and poultry feed producers.

***** ENCOURAGING INNOVATION *****

4. The Ecosan innovation contest for masons



Masons are the backbone of any construction project. About 20 masons have built the 350-ecosan toilets in Kameshwaram and yet because they are not from Kameshwaram but from an adjacent village called Thirupundi, they have not been able to benefit from our initiative. None of them have toilets. Mr.Ganapathy of SCOPE told me how they wished for toilets themselves. I couldn't get this out of my mind. Furthermore, I am always pretty appalled by the poor quality of workmanship in ecosan toilets in

Kameshwaram and the toilets we've helped build are among the best around. I think it's because the masons or the usual unschooled workers who make ecosan have no incentive to think of the quality of workmanship or try out new ideas. Nobody is interested in their ideas anyway in these structures for the poor. Usually, everyone just wants the job to be done, give the payment or receive the payment and that's the end of the story. So I wanted to raise funds and organize an "innovation in ecosan toilet" contest to give these masons a chance to showcase their skills by building ecosan toilets for themselves and using it an opportunity to introduce innovations in the form of new designs, new materials, better workmanship etc. Their toilets will be judged by a team of architects and two guest judges from abroad (who will view the photos of the toilets built by contestants through email). Their innovations in design, if excellent, will then be replicated in other villages. It's an experiment bound to benefit all.



This project is being financed by a grant from the ville of Reims or the Municipality of the city of Reims, France.

***** ACADEMIC PURSUITS *****

5. Two students from the University of Franche Comté formulate a project for waste management in Kameshwaram



Morgane Sevat and Timothée Romain spent the summer in Kameshwaram and their objective was to collect data to estimate the costs of initiating a waste management program in kameshwaram including:



material costs required for building the installation, the costs of labour for construction, the costs of labour required for maintenance. We especially wanted to examine if the system could be sustained through payments for the waste management from the residents themselves. According to our calculations, if the fixed costs of creating the waste treatment site could be covered from external sources, the costs of running a waste management system would amount to something between 10Rs and 15Rs per month per family, which the families of kameshwaram seem willing to pay. Therefore, we will be submitting this project proposal to the French Government soon.

6. Seven students from the Grenoble Business School make an estimate of costs to install Ecosan toilets in the school of the nearby village of Thirupundi



Seven students of the Grenoble School of Business, France, Alice Picaud, Sébastien Poirier, Anne Veron, Anne Florence Joffraud, Sharah Mariathas, Clémence Le Priol, Ariane Laurent from the students humanitarian association SOS had raised 2 lakh rupees from local companies in Grenoble towards building a set of ecological toilets in the government school of Thirupundi near Kameshwaram. A number of students from Kameshwaram, who cannot afford to pay the fees of the private school of St. Sebastien in Kameshwaram go to the public

school of Thirupundi near Kameshwaram. The students found that the repairs required about 3.5 lakhs which was more than what they had collected and furthermore when I visited the school later on, I found that the school authorities had no idea of how they would maintain the toilets even if they were repaired or new ones were built. Government school employees cannot be fired and hence they do not work well and nobody wants to clean the school toilet. So right now, this project is on a stand-by.

7. One student from Lady Shri Ram College in New Delhi and Five students from Bharathi Dasan University evaluate the impact of our project in Kameshwaram



Bini Phillips from Lady Shri Ram College and M. Ananthi, S. Sathya Priya, A. Pandiselvi, M. Angalaeswari, Ramayee, Ambika started out by being responsible for communications of FIN Trust with Kameshwaram in order to create a film on the village and evaluate



the impact of our different actions in the village. They did a great job though the film is still not ready, (many of the videos are also lost...oopps ...because we learnt to operate the camera for the first time and there were some slips) and I learnt a lot on the dynamics of Kameshwaram and my critical



evaluation of the impact of our project is in part based on their observations (see letter of Nov-2008 in newsletters).

***** DISTINCTIONS & AWARDS *****

Laureate of the “Women of the Earth” Award for 2008 from the Yves Rocher Foundation and the Institut de France in March 2008.



Thanks to you and the project 😊 !!

Invited delegate at the Women’s Forum in Deauville, France in October 2008



Invited to deliver the “Charles Cooper Annual Memorial Lecture” March 2008.

The title of my lecture was: “Playing in Invisible markets: Innovations in toilets to enhance the economic power of the poor”.

Charles Cooper was the founding director of United Nations University - Institute for New Technologies, Maastricht (1990 to 2000).

If you are interested, the slides are at :

http://www.merit.unu.edu/archive/docs/hl/200802_slides.pdf

Thank you all for supporting us !

We have a long way to go still. 350 toilets built with our help. 150 toilets built by other NGOs. About 700 toilets left to go. A lot of rubbish to pick up. A lot of ponds to clean up. A good decentralized waste collection and waste treatment system to develop by trial and error. Readable documents to write so that our results can be replicated by others elsewhere. And that’s just with ONE VILLAGE !

So stay with us. We need you. 😊

Shyama V. Ramani
November 8, 2008