

Ecosan – some unresolved challenges

SuSanA India meeting – Feb. 21st, 2018 in Goa

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hence the perspective

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(1) Core issue: sanitisation / hygienisation by desiccation

As per WHO, 12 months required – which necessitates moving of non-hygienised feces containers or two toilet pans plus two non-movable feces receptacles.



(1) Core issue: sanitisation / hygienisation by desiccation

As per WHO, 12 months required – which necessitates moving of non-hygienised feces containers or two toilet pans plus two non-movable feces receptacles.

The fact that dried feces after six months does not look different from dried feces after 12 months is no sign for freedom from pathogens.

Methods of hygienisation (eliminating pathogens, not eliminating microorganisms): drying by ambient temperatures 20-40 degree C, alkaline milieu, heat.

In order to reduce building volume & costs, to employ solar heat to speed up drying & reduce the drying period to a few hours – handling to be convenient.

(2) Design of squatting pans

Depth, length, slope of
urinal

Rim of the fecal drop hole

Foothold for squatting

Choice of material:

Plastics, fiber-reinforced
plastics

Ferrocement

Ceramics



(3) Hygiene management – ecosan-specific & non-specific

Most of issues non-specific i.e. they apply to flush and non-flush toilets;

however (only) in discussion on ecosan, bad hygiene is used as argument against the system.



(3) Hygiene management – ecosan-specific & non-specific

Different hygiene levels in different households are reflected in hygiene of toilet rooms.

Use & storage of brush. Use of EM (or eco-friendly soaps).
User-friendliness? – Competing with convenience of flush!



(3) Hygiene management
– ecosan-specific &
non-specific

Different hygiene levels...

Ecosan in bathroom:
Scandinavian example



(4) General ignorance on ill-effects of lack of sanitation

Cause & effect chain from OD to spread of pathogens – in particular during monsoon times;*

Feces & sewage spread diseases – not just impurity;

Financial losses due to expenses for doctors, hospitals, pharmaceuticals, transport; due to wages and salary losses; due to productivity loss; due to loss of schooldays;

Impact on nutritional health & on brain development in early childhood.*





The wrong combination

(5) Lack of system thinking

In public services & offices, and among NGOs and corporate expertise.

Conventional flush tech is implemented without understanding of the system – examples.

Ecosan is also part of a system: fecal sludge or fecal compost & urine to be integrated – many are built without concern for follow-up & closing the loop.



(6) “Socio-cultural” reservations

Term hides a lot of issues we do not want to define nor to address.

In spite of daily media reports on SBM, plain talk on feces & raw sewage still almost taboo –

Examples: phone call with highly educated / radio script of students of 9th & 10th grade in urban private school.

(6) “Socio-cultural” reservations

Underlying dilemma: Purity-pollution gradient in a caste-conditioned society;
Refusal of backward class and villagers to adopt toilets is based on clarity of insight.*



(6) "Socio-cultural" reservations

Dirty work with waste & human excreta disliked everywhere;

Waste & sewer workers not everywhere well equipped and well paid.

But no-one has a right to regard oneself superior to the job.



EcoPro staff:





(6) “Socio-cultural” reservations

Dirty work with waste & human excreta disliked everywhere;

Waste & sewer workers not everywhere well equipped and well paid.

But no-one has a right to regard oneself superior to the job.

Examples like
Mr. Parameshwaran Iyer’s required on a daily base.



(7) Not yet addressed:

Ecosan in urban context;
Services for urban ecosan
maintenance: retrieval &
collection, storage &
transport to users i.e.
farmers.

Thank you.

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