

**Sanitation as if it really matters:**

**Taking toilets out of the (water) closet and into the loop**

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**Abstract:**

The following paper focuses on some of the social-cultural aspects of ecological sanitation promotion. It begins by considering some of the common assumptions and misconceptions related to cultural barriers and taboos, particularly in terms of getting people to discuss sanitation practices and technologies. It looks at how attitudes change and why “talking toilets” is important, and refers to some of the common barriers that must be overcome in order to place toilets on the agenda. Subsequently, the paper considers some of the strategies and tools that can be used to help people consider and frankly reflect upon the strengths and weaknesses of different sanitation approaches. And finally, the paper shares some recent examples of how ecosan concepts have been introduced into specific cultural contexts —placing ecosan into conceptual, social and cultural loops. A specific description is given of a training process in Kyrgyzstan where participatory methods helped to overcome people’s resistance to ecological toilets.

**Keywords:** Ecological sanitation, Kyrgyzstan, participatory, PHAST, SARAR, toilet culture

**INTRODUCTION**

**Taking toilets out of the closet**

It is not easy to shift away from conventional sanitation systems, whether water-based “flush-&-discharge” or “drop-&-store” pit toilets. The design, use and misuse of toilets are deeply ingrained within a specific cultural context and then translated into individual attitudes and behaviors. And if culture itself is not sufficiently complex, the subject of toilets is further complicated by a unique set of individual attitudes and behaviors, which Freudian psychology traces to a particular phase of the psychological development of the individual related to “toilet training.”

Although it might be argued that the trauma of toilet training is a particularly western phenomena, it is also true that many cultures tend to regard the act of “using the toilet,” “going to the bathroom,” “taking care of necessities” —or more correctly, defecating and urinating— as an essentially private experience that is only spoken about openly and in public when absolutely necessary. This attitude is further reinforced by the fact that much of the activity associated with digestion and excretion is conveniently relegated to the realm of the instinctive and mechanical, where we have very little voluntary control. But unlike eating, sleeping and sexual reproduction, all of which are somehow associated with pleasurable sensations, our sense of smell, in particular, tends to be offended by the aroma of faeces and urine —particularly that which is not our own.

Customs and behaviors vary widely in regard to the natural and repetitive act of “relieving oneself”: There are squatters and sitters, washers and wipers, and men and women certainly do things

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differently. Yet toilet behaviors are usually learned at a very early age, assimilated into a daily routine and simply not spoken about unless something begins to go particularly wrong. In short toilets are not considered to be a pleasant place to spend the morning.

Unfortunately the school toilet experience is often traumatic. Children are frequently ridiculed simply for asking permission to use the toilet, while toilets themselves are places of shame and disgust, and where children are bullied and abused.

It should not be surprising then that the toilet is an area of human existence that is little talked about. Rather, throughout the world, the very natural functions of urinating and defecating are referred to with euphemisms such as “number one and number two,” “answering the call of nature,” “taking care of business,” or simply “doing” (“*haciendo*” in Spanish).

“If it ain’t broke, don’t fix it!” If you are “regular,” why mention it? But if you have diarrhea, dysentery or extreme constipation, then it is time to talk about it, at least with those people who can help you the most. Similarly, if your toilet is working properly, it is “flush-&-forget” —but if your septic tank is overflowing, it is certainly time to call the plumber.

It took the AIDS pandemic to convince society that sexual behavior is a topic to be discussed in social gatherings, educational institutions and public places. The global water, environmental and agricultural crises should be enough to convince us that it is now time to talk about sanitation!

**Talking toilets**

- Why is it important to talk *about* toilets?

Dialogue is an important way to raise awareness regarding limitations and serious risks to the environment, human health and the survival of human societies. It is also a way to share ideas on workable alternatives to conventional practices, and more important still, it is a key mechanism for stimulating attitude changes among members of a peer group. Conversation provides a context for testing new concepts and positions —as a kind of rehearsal to initiating change itself.

If the shaping of new ideas and attitudes through dialogue is a prerequisite to achieving sustainable behavior change and cultural transformation, then it follows to ask:

- Is it *really* so difficult to talk about toilets?

Although “toilet talk” might not seem appropriate at the dinner table, our experience has been that once basic taboos are broken, people from all over the world tend to be fascinated by the subject. The challenge then is not so much whether people are able or willing to talk about toilets, but rather how and when to get them talking about toilets in a meaningful and constructive manner. In the remainder of this paper we will share some ideas and experiences from different cultural contexts on how “toilet talk” has been stimulated and in turn, how it has catalyzed significant changes in hygiene and sanitation.

**Faecophobia is a red herring**

*Faecophobia is a red herring. A red flag waved in front of the bull. The salt in the wound. Let's consider dumping this prejudicial approach of classifying people... What we really are talking about is the process of maturation in humans and humankind and the steps toward*

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*becoming more caring, respectful environmental citizens that are much wiser than they are today. Let's choose wisdom in our dogma! [Arno Rosemarin, EcoSanRes, SEI, Sweden]*

Perhaps one of the key obstacles that we must overcome in our mission as eco-sanitarians is the assumption about the faecophobic nature of most communities —the belief that somehow faecophobia, like ascaris infestation, is an illness that affects large groups of people and even entire cultures around the world. Rather, from my participation in various gatherings and real and virtual discussions around the world, I am now convinced that this is overstated. In fact I continue to hear quite the opposite.

Although some cultures, particularly in Asia, are much more open toward the use of human excrement as a fertilizer, farmers throughout the world seem to be quite aware of the resource value of animal dung. Faecophobia in fact seems to be much more related to modern urbanization, along with the advent of waterborne sanitation systems. Thanks to hygienist-dominated modern medicine, there has been a tendency in the West (and I include Japan here) to over-dramatize the role of pathogens in health care and to project our paranoia onto our children.

The truth is that when you scratch a bit below the surface you discover that individuals and cultures all over the world have understood and practiced, in one form or another, the recycling of nutrients derived from faeces and urine. Often these practices were still fairly common only two or three generations back, or are still being practiced —if not openly talked about— in a more isolated way even to this day. To give just a few examples:

- *“As we began to gain momentum with ecosan we tended to hear over and over again that African cultures in particular are extremely faecophobic and resistant to the use of humanure for food production, yet the examples abound where abandoned latrine pits, for example, are recognized as rich sites for fruit tree growth, either spontaneously or ‘accidentally’.” [Peter Morgan, Aquamor, Zimbabwe]*
- Toilet talk at a workshop in Central Asia revealed that a community that produces commercial vegetables has long practiced the use of shallow pits with a movable superstructure so that night soil can be easily plowed into the fields early in the spring. Night soil, after all, is simply a euphemism for the global practice of depositing human excrement directly in the fields near one’s home.
- In the *chinampas*, the famous Xochimilco floating gardens in Mexico City, all manner of organic material, including human excrement, has been composted since the pre-colonial era.
- It is reported that the Mayans recognized the value of urine as a fertilizer. Recently *campesino* or rural communities in the southern Mexico state of Chiapas are beginning to collect their urine for use in agricultural production —and urine is even taken internally for medicinal purposes.<sup>1</sup>
- It was interesting to discover that the directors of two community-based NGOs located regions apart, in southern Africa and Central Asia, unbeknownst to their colleagues regularly drink urine as therapy.

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<sup>1</sup> Independent Appraisal: *Espacio de Salud* Community Sanitation Project — R. Sawyer, SANRES, 2001.

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Although some cultures are undoubtedly more open to accepting the use of human excrement as a resource, if we simply assume at the outset that they are faecophobic —perhaps as a projection of our own inhibitions!— we will lose important opportunities for people to decide for themselves.

*“Yes, I can add a little on India. There is a real fear of excreta and its smell here. This is an immediate obstacle to ecosan, as people at all levels (the higher the level, the higher the obstacle) find it difficult to contemplate a chamber of faeces that doesn't smell, let alone using it later for growing food. Whilst public and many private toilets stink very badly, any attempt at an alternative must not smell at all. Double standards. 'Pre-meditated' use of human excreta as manure is uncommon. Handling of it was and is still done by 'untouchables' who are miserably treated by the rest of society. So use of excreta, modified or raw, in agriculture is not actively or openly practiced. However, sewage-filled canals are used for crop and vegetable cultivation, but psychologically, people are able to pretend to themselves that it is just water, they are not using the product with the self-admission that it is laden with excreta. But it is not their choice to use sewage-filled canal water for irrigation —they have no choice.” (Paul Calvert, Eco-Solutions, India)*

Rather than only listening to the resistance in order to convince ourselves that change is not possible, we must listen to the deeper resonance behind the resistance —the latter of which is often based on fear of failure or cultural insecurity, the legacy of cultural and economic hegemony and domination, or simply honest and rational doubts about the validity of the solutions being offered.

The SARAR participatory methodology has a tool, called the Resistance to Change Continuum, which is especially designed to help change agents to recognize and identify the various sometimes-subtle reasons why individuals, families and groups are hesitant to accept and act upon a specific technical or behavioral change. (See Kyrgyzstan workshop below.)

Rather than simply generalize and label cultures as faecophobic, we must learn to understand, respect and be guided by the cultural norms and values of the people we work with, in order to stimulate sustainable sanitation change. At the same time it is essential to appreciate that within this global village, cultures are neither static nor totally homogeneous. Although certain ideas and attitudes will predominate, a change in attitude by a significant few can frequently generate a perceptible shift in the predominant cultural norms.

**MOVING UP THE SANITATION LADDER****Facilitating choice**

Unless technological changes are forced upon people by elements that are essentially beyond their control, such as in the case of authoritarian government systems, a key role of development institutions and change agents is to facilitate choice. We strongly believe that the most appropriate and sustainable sanitation improvements will be those that the users have had a major role in selecting, from among a range of possible options and within an information-rich environment. Choice is meaningless when people lack a reasonable understanding of the strengths and limitations of their present situation, and a clear idea about the conditions they can expect from the proposed systems.

Authentic user choice is empowerment. As such, it is both complex and central to achieving effective, sustainable sanitation improvement. When families, communities or local governments are confronted with the issue of improving their sanitation systems, they are essentially being

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invited to assume risks —sometimes simply small, incremental changes, but often, as in the case of shifting from conventional systems to ecosan, these risks can be enormous, involving:

- Possible social ridicule and loss of social status if the new systems fail,
- Economic loss in terms of the investment in the new systems and, as the case may be, the dismantling of the old ones,
- Health and environmental damage if the new systems fail and rather only contribute toward spreading contamination and disease; and
- Possible political loss for local leaders and governments.

It seems only fair that development projects, programs and/or institutions should also be prepared for the risk that potential ecosan users might opt for a less than ideal system. Where sanitation programs have been prepared to enter openly and honestly into dialogue regarding the potential advantages of different sanitation systems, the results have generally been surprising. More often than not, the solutions have been innovative, appropriate to the specific social-cultural and physical environment and have achieved a high level of user involvement and commitment. For example:

*“In September Ron went to Zambezia and facilitated another sanitation workshop with WaterAid. One of the outcomes of the workshop was to test out what they had learned at a pilot site. So, one community in this Province (largest Province in Mozambique) had expressed a demand for sanitation and therefore a group of Government people went into the field to test what they had learned during the workshop. After awhile the community arrived at the question - what sanitation choices are you going to make. Like in Niassa we are supporting a program of choice. The first 20 families involved in the process worked through it all, weighed the options and chose - yep, Fossa Alternas. All of them. The reasons - permanence and they like the idea of compost.” [Ned Breslin, WaterAid, Mozambique]*

*“Like WaterAid we are offering a choice between a urine diversion and a VIP. When people are offered a choice with the correct information, it is amazing how often they choose a urine diversion. In South Africa many people state that we shouldn't expect people to handle faeces. What they don't realize is that many people do not use an outside toilet at night and use a chamber pot instead. The choice is, to handle the slop in the chamber pot every day or the dry faeces once a month.” [Richard Holden, Mvula Trust, South Africa]*

**What are relevant ecosan drivers?**

One of the underlying explanations for the importance of user choice is that the reasons for choosing a specific sanitation option vary from culture to culture, community to community and even family to family. The “drivers” that might be most valid in one situation might hold very little sway in the next. The process of discovering these motivating factors can be very subtle and requires sensitivity and patience. Participatory processes can play a central role.

- In Namaqualand in the Northern Cape Province of South Africa, the change to a urine diversion system has been greatly motivated by the desire to get rid of the bucket system, a disgusting holdover from the apartheid system, and due to water scarcity and the difficulty of digging in the hard rocky soil. During a SARAR methodology workshop in 1996, a Mexican urine-diversion toilet mold was introduced to the national Participatory Hygiene

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and Sanitation Transformation (PHAST<sup>2</sup>) Program. Hundreds of dry toilets have since been built in the Northern Cape, while the next phase of the program will concentrate on highlighting the benefits of recycling the nutrients for horticultural production.

- The highly publicized ecosan program in the province of Guangxi in southern China has been largely driven by the district government and provincial health authorities, in order to improve the overall hygiene and health conditions for rural villagers and thus to stem emigration to larger urban centers.
- The dry toilet movement in Mexico was initially stimulated by a small group of environmentalists concerned about then looming water scarcity and the contamination of local water bodies.
- In Central Asia the dramatic loss of food security in recent years (including phosphate scarcity) and the convenience of having the toilet closer to the home seems to be driving the move toward ecosan.
- Ecosan was initiated in Niassa, Mozambique, in March 2000 with a participatory stakeholder workshop.

**Participatory methods**

Several of the programs mentioned have given more than lip service to participatory methods. The Mvula Trust program in South Africa, WaterAid in Mozambique, the Central Asian Water Alliance program (supported by the IWS/SIE) have all used participatory methods, strongly grounded in SARAR methodology and related PHAST application to facilitate user choice. Also, the TepozEco program in Mexico, supported by the EcoSanRes/SEI (Stockholm Environment Institute) project and UNDP/BDP/ESDG (Bureau of Development Policy / Environmentally Sustainable Development Group), is using similar participatory approaches to catalyze a range of ecosan drivers within a diverse urban / peri-urban context.

Participatory stakeholder workshops have been a key tool for stimulating consensus and commitment. One such experience was an eight-day, hands-on ecological sanitation workshop facilitated by two international experts in the city of Osh located in the Ferghana Valley in southern Kyrgyzstan, on 13-25 April 2003. The mission was carried out on behalf of UNDP/BDP/ESDG and arranged by the Secrétariat International de l'Eau International Secretariat for Water (SIE/IWS), Montréal (Québec) Canada, in collaboration with its local partner, the Central Asian Alliance for Water (CAAW). The 28 participants, an equal mix of women and men, were selected by the CAAW from the nine villages in Kyrgyzstan and the five in Uzbekistan where the Alliance is active.

Following are the process notes from this experience:

**A CASE STUDY**

**Ecological Sanitation Workshop, Osh, Kyrgyzstan, April 2003**

The workshop was a weaving of participatory methods and exercises, lecture presentations with overhead transparencies, and practical work in the design and construction of eco-toilets. Content included eco-toilet principles, design and construction, the use of toilet output for crop production, and hygiene education and behavior change.

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<sup>2</sup> PHAST or Participatory Hygiene and Sanitation Transformation is a structured program application of the SARAR methodology specifically focused on hygiene behavior change and sanitation improvement.

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The sequence of participatory activities was designed to reveal the traditional cultural sensitivities and taboos in relation to toilets and human excrement, and gradually shift these attitudes toward greater comfort and openness in addressing these issues. For example, during the warm-up exercise, it was discovered that participants were understandably uncomfortable about assuming a mock squatting position when defining local practices in terms of “sitters” or “squatters.” The facilitator, who was exploring and testing their limits of propriety, did not insist. Nevertheless, by the end of the first morning, after drawing and discussing the range of local sanitation options (*Sanitation ladder*<sup>3</sup>), the mixed gender group was fairly comfortably talking about local anal cleansing practices (which include both wiping and washing procedures). As evidence for how much the participants’ attitudes had evolved by the end of the workshop, during the last day one of the male participants actually stood up on the demonstration toilet slab and proudly squatted over the hole.

Central to this process of attitude change was the use of specific exercises (including the *SARAR Resistance to Change Continuum*) to help participants become aware of their own resistance to building and using ecological toilets, in order to be able to overcome that resistance and to effectively promote them within their communities. By openly exploring their concerns and objectively discussing the advantages as well as the disadvantages of the “new” eco-toilet system, participants were gradually able to overcome their initial doubts and fears—and even come to view certain perceived weaknesses as possible strengths. Following are highlights of the participatory learning and change process:

- Convenience — Spontaneous comments, which emerged during the review at the beginning of each day’s session, revealed considerable uneasiness with the idea of locating the toilet near one’s house (“*the elderly will object;*” “*It is not natural to have the toilet close to where people eat and sleep –the sounds will be heard!*”). Yet, once they were convinced that a well-designed and maintained dry toilet would not smell, the idea of having an eco-toilet easily accessible directly from the veranda seemed like a great attraction—particularly during the very long, severe winters in Central Asia.
- Nutrient recycling — The initial objection, particularly from the more religiously conservative Uzbek participants, was that one should avoid any contact with human excrement. Nevertheless, presentations and discussions on the fertilizer values of processed faeces and urine, reinforced by illustrations of common practices in other countries, significantly softened the group’s resistance. In fact, considering that participants were all farmers in a region that has been suffering the impact of a chronic lack of phosphorus for nearly a decade, any talk of fertilizer and food security was very convincing. Participants expressed a keen interest, not only in the recycling of sanitized excrement, but in composting and greenhouse methods as well.
- Economic impact — Given the extreme poverty in their villages, participants were naturally concerned about the possible costs of eco-toilets:
  - *We have seen and believe—but lack the money.*
  - *First show the benefits of the money that we will spend.*
  - *I believe in the benefits of eco-toilets, but most people will think this is for the rich.*
  - *It is not possible as long as we are experiencing some financial difficulties.*

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<sup>3</sup> This activity shows what sanitation options are available, and helps people decide which are best for their particular situation and how to improve sanitation systems step-by-step.

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- *I am willing to build an eco-toilet, but I don't have the money and this worries me.*

A presentation of no-cost and low-cost composting ecological toilets offered options —such as the Arborloo and the Fossa-alterna, more common in Africa— that seemed appropriate for some of the poorer families in their communities. Nevertheless, after assessing the overall benefits and costs of the systems, workshop participants themselves, who are important opinion leaders in their communities, all ultimately decided to build urine-diverting (UD) systems in their own homes. After all, a UD ecological toilet is a permanent system that requires only one initial investment; the products have an immediate economic value as fertilizer from which nutritious foods and cash crops can be produced; existing structures —walls and roofs— of the house can be used to reduce construction costs; and the superstructure can be built from traditional materials such as the excellent traditional mud walls.

- **Health risks** — Initial concerns regarding possible health risks related to the use of excrement were significantly assuaged once participants were able to weigh the objective evidence. For example, urine presents virtually no risk of pathogen contamination, particularly when allowed to stand for a brief period —as little as 24 hours in the summer— and even less so when fermented for a month to produce a valuable enriched microbiological culture. Likewise, faeces dehydrated at a high pH, by adding ash, represent a very reduced or negligible risk, particularly when composted in a secondary process. Rather, the training highlighted the importance of continuing with the PHAST hygiene education program to address other key risk behaviors, focusing on hand-washing after defecation and handling toilet by-products, as well as before handling food and eating. Finally, a participatory exercise focusing on each of the steps in “closing the nutrient loop” (e.g. using the eco-toilet, removing processed products, composting, applying composted faeces on the fields, applying urine on the fields, harvesting, marketing the products, eating and using the toilet –again!) helped participants to recognize that risk is reduced during every progressive stage of the process —and to identify the key hygiene behaviors that need to be reinforced.
- **Appropriate standard** — Through the *sanitation ladder* exercise on the first day of the workshop, participants generally concurred that their aspiration of an acceptable toilet for their families is a well-built VIP with all of the appropriate amenities —for anal wiping and washing, a drain for ablution water, hand-washing facilities and, of course, no smell or flies. Apparently, because of the dearth of household water connections in the villages, water-based WCs<sup>4</sup> were not considered as an option. The participants' preferences were perceived by the facilitators as an opportunity to present eco-toilets as a high-end standard because of its unique advantages over conventional pit latrines —especially the possibility of integrating eco-toilets into existing housing structures and the lack of unpleasant odors or flies. By presenting a variety of examples of ecological toilets from around the world, including both Muslim and non-Muslim cultures, participants were gradually convinced that UD eco-toilets can give them a state-of-the-art sustainable sanitation system. In Central Asian villages eco-sanitation promises to be an exemplary leapfrogging technology.
- **Gender** — An activity that focused on sanitation-related tasks from a gender perspective revealed that, while women carry the greatest burden in terms of day-to-day domestic hygiene and sanitation, men are predominantly responsible for the construction of new facilities. Since men also play a major role in agricultural activities, it was suggested that

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<sup>4</sup> WC = Water Contaminator



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they should have a key role in the maintenance of the “closed-loop” eco-toilets. Among the various cultural idiosyncrasies that emerged from this activity, it was discovered that people should not face west when using the toilet (or toward a cemetery), as that is the direction of Mecca. This would have important implications in siting toilets.

**CONCLUSION**

Finally, the unique mix of participants in the workshop described here turned out to be not only potential eco-sanitation promoters, but moreover a group of ecosan “champions” —local leaders and opinion-makers who became personally committed to building and using their own eco-toilets, as an example to their neighbors. As stated in their own words (translated):

- *I believe and find it is possible to persuade the community by making them understand how it works.*
- *I have an understanding of the benefits and will persuade others.*
- *I will explain the convenience and efficiency of eco-toilets to my neighborhood and to other people.*
- *I believe and will tell others.*
- *I liked the idea and will gather people to explain to them the significance of toilet building and will show them the pictures of the way to build them.*

There is no better way to introduce and spread this new approach.

How many of you —as ecosan specialists and promoters— who are reading this paper actually have and regularly use an eco-toilet in your own home? Would you trust a doctor who doesn't take his own medicine?

*June 2003*

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