

**NOTES FOR ECOSANRES NODE WORKSHOP ON:****1. Mexican policies and regulations related to the reuse of nutrients from human excreta.**

In 2003 SARAR/Mex carried out a study of the “Legal Constraints and Possibilities for Ecological Sanitation in Mexico. Among the principle findings:

- a) *Human urine and feces are not well defined in the law. That is, it is not clear whether the law considers them solid waste, hazardous solid waste (because of their potential pathogen content), hazardous materials (because fertilizers are considered hazardous materials), or ‘urban wastewater’ (because until now the conventional method of management is through water).*
- b) *Similarly, composting facilities (or excreta processing facilities in general) are not defined in the law, creating regulatory gaps.*
- c) *There is a need for specific recognition and regulation of human excreta (both feces and urine) as inputs for agricultural production. Current regulation treats them only as wastes to be disposed of or/and treated or at the most states only generically the importance of sustainable agricultural production without pinpointing concrete elements of what is and what is not sustainable in agricultural production.*
- d) *The lack of recognition of the previous elements is part of the larger problem of lack of definition of ecological sanitation in the Law.*

Through information dissemination, training and advocacy, SARAR/Mexico lobbies for the regulation of the use of human excreta nutrients for organic products, and is concerned about certain groups trying to prohibit this.

In 2006 the Ley de Productos Orgánicos was published, with a list of prohibited, restricted and permitted products. This law addresses the use of animal excreta, although there is no direct mention of human excreta.

The Ministry of Agriculture has begun a process to (re)define the technical guidelines for organic agriculture (Lineamientos para la Producción Orgánica). In January 2009, a consultation seminar was held and the draft circulated recommends that:

- a) *Unprocessed animal manure can only be applied on land that will be used for crops that are not meant for human food consumption – e.g. cotton, safflower, etc.*
- b) *It is prohibited to apply fertilizers containing human excrement directly on vegetables.*

*Included among substances that can be used as fertilizers and soil conditioners are:*

- c) *Liquid manure and urine (presumably animal) –preferably after “controlled fermentation” &/or appropriate dilution.*
- d) *Human excrement –Preferably “aerated” or composted (and recognized by the certifying entity?).  
Not applicable for crops for human consumption.*

For the Mexican ecosan community, it is important that such new guidelines include sanitized human excreta for organic agricultural use. Unfortunately due to budget, staff and time constraints, it was impossible to participate in the consultation.

Some of the arguments against the use of urine for food crops question the hormone/pharmaceutical content and the impacts it could have on the plants. Finally, for certain organic production, we foresee the reuse of human excreta for fruit trees –and in general for agroforestry.

## 2. How could the reuse of excreta be seen as Sanitation as a Business?

In rural areas, this approach could be difficult due to low-income levels but local agricultural producers might pay a “symbolic fee” for the harvested urine and faeces. This payment could support the urine harvesters (e.g. school community) so that the income could be used for the O&M of their existing ecosan systems. More realistically, the collection of the toilet byproducts by the agricultural producers could/should be seen as a service in itself –as is already happening in at least one of our projects.

The reuse of “nutrients” should not be seen exclusively as a business. Arguably:

- It is difficult and unrealistic to expect for the population in low-income rural communities to pay for the product.
- We should recognize the value of human excreta as fertilizers/soil conditioners for agricultural production, food security and climate change adaptation;
- If a critical mass of ecosan and reuse is reached, the negative environmental impact of conventional sanitation systems on watersheds would certainly diminish.
- The adoption of the ecosan systems and the proper reuse of the harvested excreta certainly can have a beneficial impact on the economy and food security of the users

In low-income settings, the reuse of human excreta nutrients is a very valuable resource as the population really lacks access to chemical fertilizers. As the costs of commercial fertilizers continue to increase and access becomes more difficult, there will be a growing interest in the wider community for the nutrient/product reuse.

This interest must grow in parallel with knowledge in regards to the sanitary risks and consequences of different sanitation systems. To a considerable degree the management of the sanitary risks has to do with How one handles human excreta. Potential users should clearly understand the basic principles contained in the WHO guidelines, as their interest towards the reuse + benefits of human excreta can grow exponentially. Once knowledge on sanitary risks is assumed, responsibility towards a healthy environment can be achieved.

Training and education activities related to the potential benefits, risks, and safe management of ecosan products must anticipate and accompany the rising interest in the productive reuse of human excreta in agricultural practices. These training activities could be carried out together with other integrated sustainable agricultural practices practice such as infiltration trenches, vegetation barriers, permaculture, agroecological principles, etc. In the world that we live, we must return these nutrients to the soil.

The people that see ecosan as a business must approach it as a sum of many activities, rather the whole of the ecosan system (service provision of O+M+ harvesting, construction, sale of accessories/fixtures, etc.).

Sarar, through its work with WWF, GWC, World Vision, local + state governments, and universities, Stanford University (ESW), UNAM, etc.; is constantly lobbying for the insertion and strengthening, and adoption of sustainable sanitation systems including closing nutrient loops. Through university links, Sarar is carrying out research on alternatives of management and sanitization of excreta and also greywater.

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