

<b>Title</b>	<b>Developing guidelines for legal transformation to enhance ecological sanitation</b>
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Short CV for Introduction Purposes ( 100 words max)	Guadalajara, Mexico (1968). Luis Enrique Ramos was trained as a lawyer (Guadalajara 1992). He holds two master degrees: one in Law (Mexico City 1997) and one in Developing Studies (The Hague, Netherlands 1998). He works as a lawyer and since 1999 as a consultant in water related issues, specialized in sanitation and underground waters. Amongst other projects he is currently working as external advisor with Sarar S.C. in the Eco-San-Res pilot project in Tepoztlán, México.
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### Summary:

This paper deals with some of the obstacles and opportunities that impede or encourage the implementation of ecological sanitation, from a legal point of view. Mexico is used as a case and

more specifically, the Mexican legal system is taken as an example and departure point to show the need to analyze specific legal issues regarding ecological sanitation more in-depth.

Departing from the Mexican case it draws conclusions about the necessity to develop specific guidelines, that may also be used elsewhere, which integrates different levels of comprehension of the law regarding ecological sanitation amongst eco-san pursuers, helping to elaborate a common understanding in order to foster the work of the whole network. The main elements of these guidelines are analyzed in this paper.

## **First part: The need for a shift of the legal paradigm regarding sanitation in Mexico.**

### **The rationality of the law and why it impedes the implementation of ecological sanitation**

There is a lack of recognition in the Mexican Law of the different systems of sanitation. Different laws and regulations assume both implicitly and explicitly that sanitation necessarily refers to water treatment, therefore assuming that water has been previously polluted.

For instance, Mexican Water Law prescribes as a principle of “national security” the conservation, preservation, protection, and restoration of water in quantity and quality. The same law establishes that Hydric planning must respect the environmental use and conservation, the natural quota of renovation of water, hydrological sustainability and vital ecosystems. It is fundamental that authorities of all levels, water users and civil society organizations prevent pollution and reintegrate used water in proper conditions (Mexico 1992).

However, the same law allows, through specific permits and after having fulfilled diverse requirements such as the payment of a duty, the discharge of residual waters into water bodies (Mexico 1992).

This policy has motivated lax and passive policy regarding production and disposal of residual waters which is partially responsible for the extended pollution of water bodies in Mexico. It is estimated that 73% of residual waters in Mexico are to a greater or lesser extent polluted (CNA/SEMARNAT 2002). So even though the law establishes the principle of preventing pollution, in practice it is contradicted by the same law which allows the discharge of residual waters against the payment of a duty. This contradiction has not been sufficiently assessed and is one of the great obstacles which ecological sanitation faces and will face when implemented and expanded.

On the other hand, Mexican Water Law treats excreta and urine as wastes to be disposed of. There are some exceptions to this rule that are worth mentioning<sup>1</sup>, yet they are insufficient to change as a whole the basic elements with which sanitation policies in Mexico must deal. Legal reform is needed in this field to acknowledge ecological sanitation expressly as a basic policy in order to meet the goal of zero pollution.

Departing from the above, ecological sanitation faces a twofold problem. On the one hand sanitation has not been properly defined within the law; and on the other, when dealing with any sanitation process, “conventional” sanitation is implied without acceptance or recognition of alternative processes or systems of sanitation;

One fundamental consequence of this lack of recognition is that there is no proper legal foundation for the treatment of excreta and urine and this impedes attempts to build a system of collection, treatment, handling and reuse of both components on a larger scale.

That is why sanitation must be dealt with as a central and distinctive element within the Mexican Law and by doing so, in the same process of inclusion of such a concept, it must differentiate and define ecological sanitation and conventional sanitation separately and the relationship amongst both must be clarified. This differentiation must have juridical consequences, i.e. creation of financial incentives, tax exemptions or tax reductions when investing in eco-san.

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<sup>1</sup> For instance article 36, f. VIII of the Environmental Law of the State of Morelos states the obligation of authorities to promote the utilization of dry toilets. Another example is the Environmental Municipal Regulation of the city of Tijuana, Baja California, of which article 93 prescribes: “In order to prevent and control pollution coming from residual waters of domestic or commercial use, the Direction shall promote the following actions: I.- Installment of systems to separate gray waters of domestic origin for the watering of parks, gardens, sport areas, roundabouts, and others under its administration; II.- Capacitation and giving of information for the insallment of latrines, septic tanks and/or dry toilets in human settlements that lack sanitary drainage”.

Legal change must be dealt with at the three levels of government with a view of mutually influential transformation: from the federal level to the local and vice versa. At the same time it must be taken into account within the different areas of legislation, starting with the sanitary regulations but also taking into account legislation related to the environment, water, urban development, air and soil.

Legal transformation is needed beyond reforming the law within the same principles that currently rule sanitation. This is because they overwhelmingly fall within the paradigm of conventional sanitation. Within this paradigm any legal provision is going to be hard, if not impossible, to meet. The costs of this scheme are one fundamental reason for changing to eco-san<sup>2</sup>. That is why legal change must be seen within the scope of a (gradual) shift of paradigms.

## **Second part: Building guidelines to enhance legal transformation.**

### **1. Legal recognition: How to define ecological sanitation in law?**

As discussed above, there is a need for legal acknowledgement. Gaining legal foothold however requires minimal definition of ecological sanitation in law. For instance, the Water and Sanitation Collaborative Council has defined ecological sanitation as:

“Interventions to reduce peoples’ exposure to disease by providing a clean environment in which to live, with measures to break the cycle of disease. This usually includes hygienic management of human and animal excreta, refuse, wastewater, stormwater, the control of disease vectors, and the provision of washing facilities for personal and domestic hygiene. ES involves both behaviours and facilities which work together to form a hygienic environment” (WSSCC 2000).

Some issues that must be solved are: how to translate this concept to a juridical norm? Would it be proper to define ecological sanitation by means of one concept? Is it by defining and differentiating conventional sanitation vs ecological sanitation that acknowledgement must be granted? Would such an attempt not be restrictive by limiting the range of options and meanings of ecological sanitation?

In any case gaining legal foothold must have at least a minimal definition of what ecological sanitation means. This does not necessarily mean trying to enclose eco-sanitation in one and only concept. Legal recognition is related to a greater extent to the elements that compose the concept of eco-san. In this sense there are two important factors that must be taken into account:

a) Legal acknowledgement of the basic principles that are the basis of ecological sanitation. An example of how this could be done is by translating the Bellagio principles into a specific legal formulation.

b) It is important to identify the different areas (i.e. health, soil, water, urban development, etc.) and levels of regulation (municipalities, states, federation). It would be useful to have a tool that may provide some information on how and where regulation must be conducted whenever trying to enhance eco-sanitation. Some questions to be asked in the building of such guidelines are: In which laws and/or regulations must ecological sanitation take a foothold? How may different levels of regulation be made compatible regarding eco-san<sup>3</sup>?

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<sup>2</sup>The Federal Government of Mexico spent \$7,800 million pesos on the water sector in 1999. In the year 2000 the expenditure in this area increased to \$9,995. A mexican expert in the field set different scenarios. According to him in a tendencial scenario just to maintain the current situation without significant improvements the investments required must minimally be of \$13,200 million pesos per year, while in a desirable scenario investments should really be of \$29,000 million pesos per year with \$30 million added because of maintenance costs (Perló Cohen 2002).

<sup>3</sup> As an example of the need to gain clarity of where eco-sanitation can take legal foothold, it is worth mentioning that the use of water toilets in Mexico involves to a certain extent the National Water Commission because at some point there will be discharge of residual waters to bodies – rivers, ditches, underground- of which protection is in the hands of the federal authorities. The shift to dry toilets would effectively prevent pollution. Prevention of pollution is a principle that water authorities must fulfill according to corresponding laws. In this case, even though dry toilets may not use water, a policy to foster these toilets must be recognised as an alternative in the water laws as one means of effectively preventing water pollution. Recognition in this law would help not only in deriving funds assigned for water projects but also to counteract conventional systems of sanitation regulated in such laws. Guidelines could help in providing reasoning for the necessary incursion of eco-san in the water laws and not only, for example, in the sanitary laws.

Guidelines may facilitate identifying how, when and where legal transformation could be carried out, taking into account of course that these guidelines will have to be adapted to the context of each country.

## **2. Ecological sanitation and the law: Emphasizing rules that assign rights and obligations.**

One fundamental aspect of ecological sanitation is the capability of differentiating rules in order to identify norms that state principles or prescribe rights and obligations. The difference among these is that the latter have better ways of enforcement than the former. This does not mean that inclusion of principles of law must be abandoned but they should be complemented with rules that prescribe specific rights and obligations. In the process of lobbying for legal change, eco-san pursuers must be aware of such differences because obtaining only acknowledgement of eco-sanitation as a principle is a scarce recognition and a weak juridical basis from which public policy may be launched.

It would be helpful to construct guidelines that offer ways of translating such principles into specific rights, i.e. establishing the minimal rights and obligations that must accompany their implementation. These would be set in general terms to be adapted to the specific regulatory system of each country. When pushing to consider waste as a resource the implications of such a recognition must be taken into account, for instance fiscal incentives when excreta is recollected and reused or a differentiated system of tariffs or duties when opting for a wet toilet or for a dry one, in order to make it cheaper for the household owners when opting for a sanitary system that, for instance, fulfills the criteria established in the four principles of the Bellagio Statement.

## **3. Coupling legal change with institutional reform**

Both aspects are intimately related. In a gradual process to mainstream eco-sanitation, strong and efficient institutions are required. By principle of law “government can only do what it is expressly authorized to do”. In this sense legal recognition of eco-sanitation must imply reform regarding the public administration to forward eco-sanitation. Guidelines may help in the formulation of basic rules for this institutional building. Other fundamental issues are for example: schemes for different types of partnerships, guarantees for participation of all stakeholders in implementation of eco-sanitation and rules for control and inspection at the household level. Related guidelines, recommendations for decision making and manuals would have to be considered when constructing a new institutional arrangement regarding sanitation (Kvarnstrom and af Petersens 2004, Elledge Myles F. et al 2002).

## **4. Tackling non-compliance**

Ecological sanitation must be able to go beyond a formal approach to law that often relies on increasing regulation to solve specific problems. However helpful, more legislation will not guarantee by itself success if it is not enforceable. Many of the problems related to the legal field –particularly in developing countries- are related to a strong dichotomy between legislation and reality. Legislation may be very advanced but lacking good law enforcement and with poor implementation of plans and policies. Any effort to build a different legal framework must tackle this issue in order to promote laws that are in accordance with the complexities that the different actors will have to deal with when applying or being affected by the legislation concerned.

The making of regulations is often top-down, without sufficient knowledge of what should be included in the law and how it should be enforced. Without proper enforcement the law will not be applied or will scarcely be followed. Enforcement does not necessarily refer to applicability by means of force. Much of compliance relies on a strong policy of self-compliance and acceptance of the people and authorities whose obligations are to follow or to apply these norms.

The main elements to be addressed by guidelines specifically related to ecological sanitation are among others:

- a) Method(s) for Bottom-up, participatory legal construction
- b) Method(s) for a multidisciplinary approach in the making of regulations
- c) Forms to evaluate concurrent and conflictive jurisdictions
- d) Legal forms of empowerment of the community in the protection of the common goods.
- e) Linking legal reform with public policy making

## Conclusion:

Legal change is hardly needed to promote eco-sanitation. However, a paradigmatic shift, from conventional to ecological sanitation, is needed.

Specific Guidelines for legal transformation could help foster eco-san. This guidance must be reflected at the end in terms of concrete legislation. The specific elements vary from case to case but local actors may benefit strongly from having adequate tools whenever proposing legal transformation in their respective countries.

This could lead to a future data base regarding current legislation worldwide in order to evaluate where and how sanitation, and specifically ecological sanitation, is dealt with, emphasizing regulations where ecological sanitation has been acknowledged. This would save time for partners within the eco-san network when seeking advice when dealing with legal reform.

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