



CHAPTER 6. BEHAVIOR, ATTITUDES AND PUBLIC HYGIENE

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6.1 Waste prevention conduct in households

Particular focus is given to waste issues and the behavior of people in recent waste management studies. This is based on the notion that waste is an integral component of the development of humans. Since the end of the 20th century scholars such as Coleman and Peterson brought forward the idea that solving waste problems may not only require solutions associated with infrastructure and engineering. The social dimension of waste issues was then considered an important approach to providing sustainable solutions to waste crisis (1998, 1999). On that account a closer look will be given to the attitudes toward waste in households and in the public sphere.

In this section, aspects of Jiutepec's culture and social behavior and its connection with waste management are outlined. The information provided here is primarily based on personal observations, as the search for literature on how waste is produced in household was unfruitful and very little statistical data on household separation exists. Despite the gap of information in this area, the consultation of a series of local magazines, the interviews with experts, and random household visitations offered a reasonable body of evidence which providing some answers in this regard.

Waste collection day

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Key actors in domestic waste separation are informal collectors. They trigger habits of separation in households, by collecting specific items such as cardboard, glass and aluminum cans



Household separation trends

The latest statistics show that Jiutepec hosts 43,677 households (INEGI, 2006). It is difficult to say how many of these homes practice waste separation prior to the collection service. Ideas from different sources suggest that household separation needs to be reinforced through continuous awareness programs. For instance, local experts have repeatedly stated the need to promote source separation in homes. Jiutepec's current Waste Management Program takes into account separated collection of organic and inorganic waste (PMPGIR, 2007). According to the program, householders are required to divide their waste at least into 2 separate categories. However, the sample of household waste observed during waste collection operations comprised a mixed of organic matters, plastic bags, packaging and metal items. Also in random visitations to households, few homes appeared to hold separated containers. In this sense, it can be said that household separation is still a slow process in Jiutepec.

Interviews revealed that homes where separation practices fail the most, reflect a low occupancy rate. For instance, households where the majority of its members (parents and sometimes children) have to work are occupied more as a dormitory than a home. This phenomenon is known to occur specially in popular housing units (Salingaros et al, 2006). In consequence, time for source separation is limited, as it is also in vacant weekend homes and small apartments with reduced storage area.

Household separation practitioners

In homes where separation practices are recurrent, the key waste separation practitioners are women and youngsters. This is due to the fact that women are the primary household managers, notwithstanding the authority of men in traditional Mexican homes. Other waste separation practitioners are female domestic servants employed in households with higher economical income. They commonly separate key items such as glass, aluminum cans and other valuable secondary goods. They later either reuse or retail those merchandises at specific locations, obtaining therefore another source of income.

Informal collectors who make periodical visitations to designated households can also be considered key behavioral modifiers. By collecting specific items such as aluminum cans and cardboard, they trigger habits of separation at the source and they reduce the amount of waste accumulated in households. In this regard, efficient waste separation practices can occur in targeted neighborhoods where informal collectors are active.

Awareness programs in schools or through environmental groups play a substantial role in changing the mindset of locals. Mostly women and children participate in those programs. This not only reflects the particular role that women and children have in waste separation trends in the region, but also suggests that some types of environmental accomplishments take place.

Organic waste in households

Activities in kitchens produce the highest amount of waste. As exposed in the previous chapter, organic waste (including kitchen and green waste) is rank high on the waste composition scale, at all socioeconomic levels. During observations made on the type of organic waste loaded in collection trucks, fresh food such as fruits and vegetables, grains and meat residue were noted.

Due to weather conditions, organic residues stored in plastic bags decompose rapidly and odor rises. This is one of the main nuisances that householders express. Remarks such as “it’s smells” and/or “it attracts animals” are frequent and push residents to discard organic waste immediately. The attitude toward biodegradable waste has been to pass it on to local authorities (which are perceived to be responsible for its disposal by many) and to forget about it. There is evidence that locals have some awareness of the properties of organic waste and its rapid decomposition effect, however composting practices in households do not occur often.

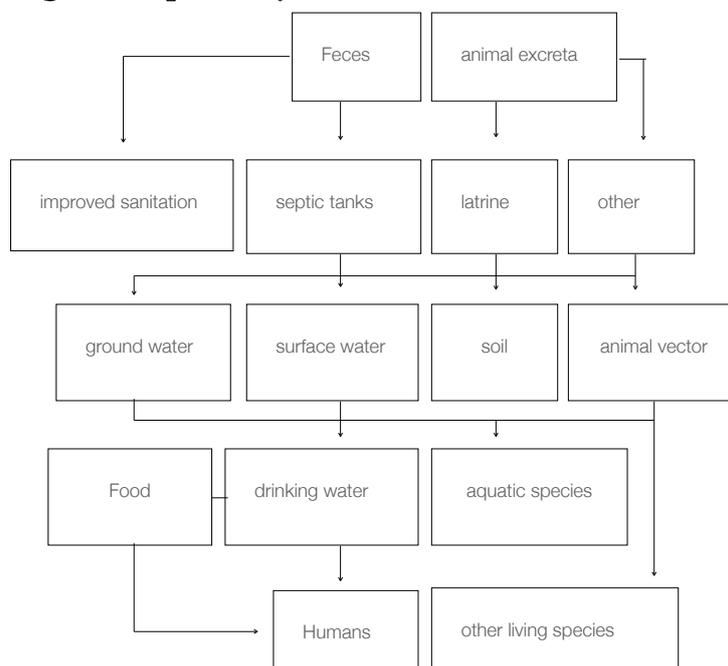
Alternatives taken by private actors to handle their waste have raised several criticisms in different sectors. In the local news for instance, waste issues are mentioned with frequency. Newspapers reflect upon the challenges that local authorities face in terms of environmental protection in the eastern region of Morelos. They also make public environmental hazards and poor sanitary conditions in towns and communities. The strong emphasis made on waste issues by local news suggests that there is a need to change the current household waste storage behavior (See Newspaper analysis in Appendix).

6.2 Public hygiene and waste management

Public hygiene and sanitary issues do not only result in health consequences but can also become a waste management problem if proper sanitation measures are not taken in communities. Urban areas with incomplete water supply and sanitation coverage fall into the category of those where health hazards and risks factors are likely to occur. Fewtrell et al consider water, sanitation and hygiene as interconnected items. In their view, the lack of services such as access to safe drinking water, adequate sewage systems, and poor waste management increase the risk of diseases (2007).

The connection that can be made between public hygiene and waste management lies in the fact that feces and animal excreta which are not conducted through improved sanitation or in a waste collection bag, eventually become waste. The possibility of spreading of diseases, water and soil contamination is illustrated in Figure 11.

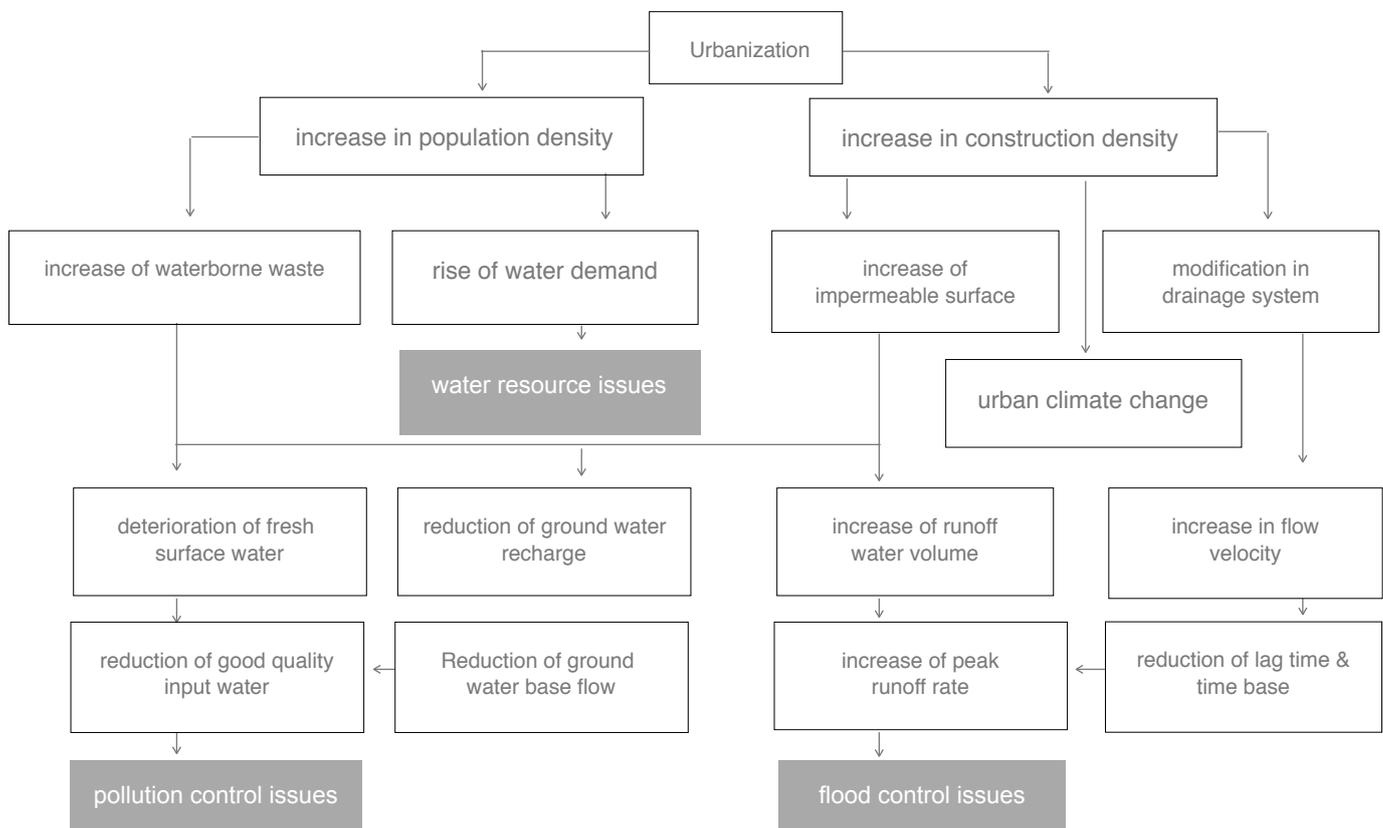
Figure 11. pathway of feces in cases of limited sanitation



Adapted from Prüss et al. cited by Fewtrell et al., 2007

The literature features health, water and sanitation as priority issues in poor regions. They are considered as “dominant ecosystem challenges” (Satterthwaite cited by EPA, 2007). Indeed in Jiutepec access to water is one of locals’ most pressing requests and household sanitation primary consists of a limited sewage system in the city’s central area, septic tanks in most of the urban footprint and pit latrines in remote localities. Polluted water with feces and other waste is exposed throughout a number of official reports. This suggests that public hygiene can be improved in order to reduce negative impacts in the natural environment.

Figure 12. The effects of urbanization on hydrological processes



Adapted from Goudie, 2001