# Environmental Geographic Information System about the situation of urban solid waste within Mexican States and Municipalities

**Diana Gabriela Castro Frontana, MsC**., IPN – ENCB, Mexico

The General Law for the Prevention and the Integrated Waste Management (LGPGIR) defines an Urban Solid Waste as any material whose owner discards, which is found in any state of aggregation, it is enclosed in any form of container and that is suitable of valorization, reuse, recycling, treatment, or final confinement. This type of waste results from the elimination of materials in domestic and street activities. PEPGIR's - State Programs for the Prevention and Integrated Solid Waste Management - (acronym in Spanish) and the PMPGIRSU's – Municipal Programs for the Prevention and Urban Solid Waste Management – are environment political instruments where states and municipalities, respectively, should state their activities, strategies and operations to achieve the ISWM, starting from baseline diagnoses.<br>In this project a mapping exercise was made using GIS software to map the situation of ISWM in Mexico, taking information from PEPGIR and PMPGIRSU collected over a period of two years. A Geographic Information System (GIS) is a tool that integrates hardware, software and processes to capture, create, analyze and present spatial data.<br><br>The results show that information regarding solid waste management at municipal and state levels is still scarce and limited. Only 19 states have an official PEPGIR approved by SEMARNAT and less than 50 municipalities (from almost 2500 in México) have elaborated their PMPGIRSU. Moreover, the information shown in these documents differs from information found in other official data sources or it is beyond proportion (taking into account national average data from specialized bibliography), which makes difficult that data can be taken as baseline information for further studies such as seed data for ISWM projects and programs. The study concludes that, if ISWM is truly a priority for the Mexican Government (through SEMARNAT) and it intends to trigger solid waste management projects, more care should be taken with the information that is being generated and approved at municipal and state levels.<br>