Policy instruments for Municipal Solid Waste Management (SWM)

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A comprehensive MSWM system includes:

- setting policies;
- developing and enforcing regulations;
- planning and evaluating municipal MSWM activities;
- using waste characterisation studies to adjust systems to the types of waste generated;
- physically handling waste and recoverable materials, including separation, collection, composting, incineration, and landfilling;
- marketing recovered materials to brokers or to end-users for industrial, commercial, or small-scale manufacturing purposes;
- establishing training programs for MSWM workers;
- carrying out public information and education programs;
- identifying financial mechanisms and cost recovery systems;
- establishing prices for services, and creating incentives;
- managing public sector administrative and operations units; and
- incorporating private sector businesses, including informal sector collectors, processors, and entrepreneurs.
Elements of a municipal waste solid management system (MSWM)

Some elements are “popular”.... Some not so much...
The MSW regional average collection rate in LAC is 89.9% (as a percentage of the population). Compared with a worldwide average of 73.6%, LAC has a high level of coverage, reflecting the priority the region gives to this service (https://publications.iadb.org/handle/11319/7177) However...
Solid waste management hierarchy

- **Refuse**
- **Reduce**
- **Reuse**
- **Recycle**
- **Recover**
- **Dispose**

Prevent the production of waste, or reduce the amount generated.

Reduce the toxicity or negative impacts of the waste that is generated.

Reuse in their current forms the materials recovered from the waste stream.

Recycle, compost, or recover materials for use as direct or indirect inputs to new products. Recover energy by incineration, anaerobic digestion, or similar processes.

Reduce the volume of waste prior to disposal.

Dispose of residual solid waste in an environmentally sound manner.
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<td>To encourage (or discourage) specific actions and behaviors</td>
<td>To manage or prohibit practices (usually those that impact public health and the environment)</td>
<td>To inform, interact and engage</td>
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It is necessary to have regulations that define:

• The responsibility and authority of the various actors, including the financial responsibility: the generators (whether domiciliary, commerce, industry), the waste managers (those who are responsible for collecting, transporting and final disposal), the producers (or importers), and the various levels of Government (and thus avoid contradictory and duplicate mandates).

• Norms to regulate sanitary / environmental management of hazardous and non-hazardous waste.

• The operating parameters for the waste management facilities, so as to protect the health and the environment.

• Fines and penalties in case of non-compliance.

• The power (and obligation) to apply economic instruments, as well as the obligation to implement social instruments.
The regulations in Costa Rica
National instruments for SWM

Policy

- National Waste Management Policy

Law

- Integrated waste management Law (Law N°8839, from 2010)
- Decrees

National Development Plan 2015-2018

Integrated waste management Law (Law N°8839, from 2010)

(1.10 National Program for Protection and Recovery of the Human Environment, result "Solid wastes managed integrally")

Planning / Strategy

- Waste National Plan
- Municipal Plans for SWM
- Sectoral plans for waste
- Waste plans by generators
- Institutional Environmental Management Programs
- National Strategy for Separation and Recovery of Waste
• Objet (Art 1)
  – Regulate the IWM and the efficient use of resources, through the planning and execution of regulatory, operational, financial, administrative, educational, environmental and health monitoring and evaluation actions
General principles (Art 5)

- **Shared responsibility**: IWM requires the joint, coordinated and differentiated participation of all producers, importers, distributors, consumers, waste managers, both public and private.

- **Extended Producer Responsibility**: Producers or importers are responsible for the product during its entire life cycle, including the post-industrial and post-consumption phases. For purposes of this Law, this principle will only apply to waste of special handling.

- **Internalization of costs**: It is the responsibility of the generator of the waste the integral and sustainable management of these, as well as to assume the costs that this implies in proportion to the quantity and quality of the waste that it generates.

- **Prevention at the source**: The generation of waste must be prevented as a priority at the source.
Precautionary

- When there is a danger of serious or irreversible damage, the lack of absolute scientific certainty should not be used as a reason to postpone the adoption of cost-effective measures to prevent environmental or health degradation.

Access to information

- All people have the right to access information held by public institutions and municipalities about waste management.

Duty to inform

- The competent authorities and the municipalities have the obligation to inform the population about the risks and impacts to health and the environment associated with the integral management of waste. Likewise, the generators and waste managers will be obliged to inform the public authorities about the risks and impacts to health and the environment associated with waste.

Citizen participation

- The State, municipalities and other public institutions have the duty to guarantee and promote the right of all people to participate actively, consciously, informed and organized in the decision making and actions to protect and improve the environment.
Ministry of Health is the governing body in matters of IWM, with powers of direction, monitoring, evaluation and control.

*Ministries of Health, Environment, Agriculture and Livestock, Public Education, Institute of Municipal Development and Advisory, the Municipalities represented by the National Union of Local Governments, Union of Chambers and Associations of Private Enterprise, National Council of Rectors (Academia), representative of the NGOs linked to waste management.
ARTICLE 8.- The municipalities will be responsible for the integral management of the waste generated in their canton; for this they must:

- a) Establish and apply the **municipal plan for IWM**
- b) **Dictate the regulations** in the canton for classification, selective collection and final disposal of waste.
- c) Promote the **creation of an environmental management unit**, under whose responsibility is the process of integral waste management, with its respective budget and personnel.
- d) **Guarantee that in its territory the waste collection service is provided** selectively, accessible, periodically and efficiently for all inhabitants, as well as material recovery centers, with special emphasis on those of small and medium scale.
- e) Provide **cleaning services** for ditches, sewers, roads, public spaces, rivers and beaches when appropriate, as well as sanitary management of dead animals on public roads.
- f) Prevent and **eliminate dumpsites** in the canton and the unauthorized collection of waste.
- g) Promote alternative systems for the **selective collection of recoverable waste** as containers or receivers, among others.
ARTICLE 8.- The municipalities will be responsible for the integral management of the waste generated in their canton; for this they must:

- **h)** Set rates for waste management services that include the costs to perform an integral management, in accordance with the municipal plan for IWM, this Law and its Regulations, and in proportion to the amount and the quality of the generated waste, ensuring the strengthening of the necessary infrastructure to provide said services and **guaranteeing its self-financing**.
- **i)** Coordinate compliance with this Law and its Regulations, the Policy and the National Plan and any other technical regulation on integral waste management within the municipality.
- **j)** Promote training and educational awareness campaigns for the inhabitants of the respective canton to promote a culture of separate collection, cleaning of public spaces and integral management of waste.
- **k)** Establish agreements with micro-enterprises, cooperatives, women's organizations and other organizations and / or local companies to participate in the waste management process, especially in communities located in rural areas.

The municipalities are **authorized to develop alternative technologies** for the treatment of waste, as long as they are less polluting.

Municipalities are **authorized to establish differentiated rates**, according to the type and amount of waste to those that separate at the source, or another form of tax incentive, which contributes in the canton to the integral management of waste.
Other topics covered by the law 8839

- Incentives
- National information system (data)
- National education program (IWM)
- Citizen participation
- Public procurement (sustainable public procurement to set the example for sustainable consumption)
- Licensing of waste managers
- Obligations of waste generators (particularly, to handle their waste only with authorized waste managers)
- Extended producer responsibility (or importer), to products to be designated by the Ministry of Health
- Infractions and offenses related to waste management (such as illegal dumping of toxic waste)
Examples of other norms associated with law 8839

- Regulation for the Integral Management of Electronic Waste (Decree No. 35933-S, 2010)
- Regulation for the Final Disposition of medicines, raw materials and their waste (Decree No. 36039-S, 2010)
- Regulation of Recovery Centers (Decree No. 35906-S, 2010)
- Regulation on the management of ordinary solid waste (Decree No. 36093-S, 2010)
- General Regulation for the Classification and Management of Hazardous Waste (Decree No. 37788-S-MINAE, 2013)
- Methodology for Studies of Generation and Composition of Ordinary Solid Residues (Decree No. 37745-S, 2013)
- Regulation on Landfill (Decree No. 38928-S, 2015)
- Regulation on operating conditions and control of emissions from installations for co-incineration of ordinary solid waste (Decree No. 39136-S-MINAE, 2015)
- Regulation for the Management and Final Disposition of Sludges and Biosolids (Decree No. 39316-S, 2015)
- Regulation on Waste Tires (Decree No. 33745-S, 2007)
26, out of 81 municipalities in total, had no plan (and the approval of their budget for 2014 depended on complying their obligations, including having a municipal IWM plan, as the law 8839 indicates)

De acuerdo con autoridades del Instituto de Fomento y Asesoría Municipal (IFAM) y el Ministerio de Salud, los ayuntamientos que para el 2014 no cuenten con una propuesta sobre el tratamiento de todos sus residuos corren riesgo de que la Contraloría General de la República no les apruebe el plan de gastos para ese año.

Olga Segura, de la dirección de Protección al Ambiente Humano del Ministerio de Salud, dijo que al tratarse de instituciones autónomas lo que se dan son recomendaciones, y que es la Contraloría, la que vigila.
Examples of waste management companies that provide services in Costa Rica

Among many others, including recovery centers. Compliance with the law has driven the growth of this sector of the economy (if there is no demand, and legal security, there is no offer ...)

242 registered waste managers as of June 2017

Manejo Integral Tecnoambiente
84% of homes have a waste collection service.
Examples of findings by the National Comptroller Office (audit 2016)

- 14 municipalities (out of 81) still don’t have a Waste Management Plan
- 28 municipalities have not updated the rate of the solid waste collection service for more than a year
- The average default (for the waste management service) in 81 municipalities was 40% in 2014.
- 30 municipalities presented a budget deficit in the service in 2014.
- Out of 55 revised plans, 17 did not identify targets for selective, accessible, periodic and efficient collection.
- 26 municipalities indicated to the Comptroller Body that the Cadastral Units do not identify all the users of the service or do not do so in a timely manner.
- Weak design of collection routes and poor state of the truck fleet
- Among others

Source: Informe de auditoría operativa de recolección de residuos sólidos, CGR (2016)
Thanks!

http://ccacoalition.org/en
http://www.waste.ccacoalition.org/
http://ccacoalition.org/en/content/how-join

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