Landfill and Waste Incineration Taxes: The Spanish Case

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Legal framework

• The Spanish Waste Act 22/2011, of 28th July, on waste and polluted soils, sets the basic legal framework. Some relevant aspects as regards taxation are:
  • Landfill and incineration of waste are at the bottom of the waste hierarchy (art. 8).
  • Waste Authorities can establish economic and fiscal measures to foster waste prevention and separate collection, including landfill and incineration taxes of municipal solid waste (art. 16.1).
• Regional legislation and planning is very relevant in the Spanish context. Some regions specifically mention waste taxation, within the potential instruments to be used.
• According to legislation on taxation, under certain circumstances Autonomous Communities have the power to create their own taxes.
Existing landfill and incineration taxes in Spain
Existing taxes in Spain

Several Spanish regions (Autonomous Communities) have taxes on landfill or incineration:

- Landfill taxes on **industrial waste**: Madrid, Murcia and Andalusia (+ Cantabria).
- Landfill taxes on **construction waste**: Catalonia, Madrid and Murcia.
- Landfill and incineration taxes on **municipal solid waste**: Catalonia.

Andalusia and Castilla-La Mancha have taxes on the disposal of radioactive waste, but are not considered in this research.
Taxes on industrial and construction waste
Taxes on industrial and construction waste

LANDFILL TAX IN MADRID

- Ley 6/2003, de 20 de marzo, del Impuesto sobre depósito de Residuos
- Entry into force: 1/4/2003
- Taxable event: deposit of waste in public and private landfills
- Exemptions: municipal solid waste and waste from energy valorisation (ashes and slags from waste incinerators)
- Taxable person: Landfill users.
- Substitute of the taxpayer: Landfill operators.
- Tax rates: 
  - Hazardous waste, 10 €/t
  - Non-hazardous waste, 7 €/t
  - Construction and demolition waste, 3 €/m³
- Not earmarked.

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction waste</td>
<td>8,145,689</td>
<td>6,966,965</td>
<td>7,279,582</td>
<td>7,079,203</td>
<td>6,755,531</td>
<td>634,305</td>
<td>237,12</td>
</tr>
<tr>
<td>Non-hazardous</td>
<td>1,671,148</td>
<td>2,361,398</td>
<td>2,225,753</td>
<td>2,082,817</td>
<td>2,219,757</td>
<td>2,255,738</td>
<td>1,889,958</td>
</tr>
<tr>
<td>Hazardous</td>
<td>339,567</td>
<td>473,119</td>
<td>538,548</td>
<td>541,006</td>
<td>561,023</td>
<td>541,67</td>
<td>367,905</td>
</tr>
<tr>
<td>Total</td>
<td>10,156,404</td>
<td>9,801,482</td>
<td>10,043,883</td>
<td>9,703,026</td>
<td>9,536,311</td>
<td>3,431,713</td>
<td>2,494,983</td>
</tr>
</tbody>
</table>
Taxes on industrial and construction waste

LANDFILL TAX ON HAZARDOUS WASTE IN ANDALUSIA

- Ley 18/2003 por la que se aprueban medidas fiscales y administrativas
- Entry into force: 1/1/2004
- Taxable event: deposit of hazardous waste in public and private landfills
- Taxable person: Landfill users
- Substitute of the taxpayer: landfill operators
- Tax rates: - Non-recoverable waste, 15 €/t
  - Recoverable waste, 35 €/t
- Earmarked, but very generic: environmental policies of the regional government

<table>
<thead>
<tr>
<th>REVENUE (€)</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>565,823</td>
<td>762,380</td>
<td>634,389</td>
<td>852,821</td>
<td>390,000</td>
</tr>
</tbody>
</table>
Taxes on industrial and construction waste

LANDFILL TAX IN MURCIA

• Entry into force: 1/1/2006
• Taxable event: Deposit of waste in public and private landfills
• Exemptions: Municipal solid waste; the use of CDW for restoration or conditioning authorised activities.
• Taxable person: Landfill operators.
• Tax rates:
  - Hazardous wastes, 15 €/t (it was 30 €/t until 2010)
  - Non-hazardous wastes, 7 €/t
  - Inert waste, 3 €/t
• Earmarked, but very generic.

<table>
<thead>
<tr>
<th>REVENUE (€)</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3,047,426</td>
<td>3,882,611</td>
<td>2,921,413</td>
<td>2,200,780</td>
</tr>
</tbody>
</table>
Taxes on municipal solid waste
Catalan landfill and incineration tax on MSW


- Tax rates:
  - Landfill: 12 €/t (21 €/t for MSW coming from waste authorities not having initiated separate collection of biowaste).
  - Incineration: 5.5 €/t (16 €/t analogously) (Introduced in 2009).

- Taxable person: Users handling waste to landfills and incinerators (Local Authorities, industries).

- Substitute of the taxpayer: Operators of landfills and incinerators.

- Earmarked to a waste fund (Fons de Gestió de Residus).

- A minimum of 50% of the revenue must be dedicated to treatment of separately collected biowaste, and to treatments to reduce the quantity or improve the quality of refuse from treatment plants with destination to landfills and incinerators.
## Catalan landfill and incineration tax on MSW

### DISTRIBUTION OF REVENUE (2011)

<table>
<thead>
<tr>
<th>Concept</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Biowaste treatment</td>
<td>33.5 €/t</td>
</tr>
<tr>
<td>2. Treatment to reduce the quantity or improve the quality of refuse (landfill)</td>
<td>2.5 €/t</td>
</tr>
<tr>
<td>3. Treatment to reduce the quantity or improve the quality of refuse (incineration)</td>
<td>1.25 €/t</td>
</tr>
<tr>
<td>4. Separate collection of biowaste</td>
<td>8.6 €/t</td>
</tr>
<tr>
<td>5. Separate collection of paper and cardboard</td>
<td>0 €/t</td>
</tr>
<tr>
<td>6. Special waste in small quantities in recycling centres</td>
<td>500 €/t</td>
</tr>
<tr>
<td>7.1. Home composting</td>
<td>20 €/u</td>
</tr>
<tr>
<td>7.2. Community composting</td>
<td>60 €/u</td>
</tr>
</tbody>
</table>
Catalan landfill and incineration tax on MSW

DISTRIBUTION OF REVENUE (2011)

Coefficient applied to the concept of separate collection of biowaste according to level of impurities in this fraction

Until 2010 there were several brackets. Since 2011, the next equation applies: \[ Y = -0.1 \times + 2.5, \] where \( x \) is the level of impurities in \%. 

Coefficient applied to the concept of separate collection of biowaste according to the size of the municipality

<table>
<thead>
<tr>
<th>Type</th>
<th>Population</th>
<th>Coef.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>&lt; 5,000</td>
<td>1.5</td>
</tr>
<tr>
<td>Semi-rural</td>
<td>5,000 – 49,999</td>
<td>1.28</td>
</tr>
<tr>
<td>Urban</td>
<td>&gt; 50,000</td>
<td>1</td>
</tr>
</tbody>
</table>
Catalan landfill and incineration tax on MSW

RESULTS

<table>
<thead>
<tr>
<th>REVENUE (€)</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landfilling</td>
<td>32,159,333</td>
<td>31,873,674</td>
<td>32,953,994</td>
<td>31,530,604</td>
<td>29,413,242</td>
<td>25,146,795</td>
</tr>
<tr>
<td>Incineration</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3,483,555</td>
</tr>
</tbody>
</table>

![Graph showing per capita waste generation and separate collection over years](image)
Catalan landfill and incineration tax on MSW

RESULTS

Number of new municipalities implementing biowaste separate collection in Catalonia, 1996-2010.

Average 2004-2010: 79.1 new municipalities

Average 1996-2003: 17.3 new municipalities
Conclusions

• Taxes on landfill and incineration of waste represent an advance towards internalisation of environmental costs, thus rising the prices of those treatments with lower legal priority.

• These economic incentives lead in principle to behavioural changes by taxpayers, moving them towards more ecological waste management.

• Although a quantitative analysis of their impact is difficult (due to lack of data and due to concurrence with other policies), there are signals of some of their effects.

• An extension of the taxes to the whole country would be desirable to increase efficiency, along with harmonisation and updating of tax rates.

• The use of economic instruments and incentives has to go parallel with the use of more traditional ‘command and control’ approaches.

• There is a need for coherence between the use of economic instruments for waste management and the rest of policies in this area.
Thanks for your attention!

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