

Landfill and incineration taxes: lessons from Spanish cases

Dr. Ignasi PUIG VENTOSA. Fundació ENT.

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EU legal framework

- The Directive 2008/98/EC of the European Parliament and of the Council, of 19 November, on Waste, sets the basic legal framework. Some relevant aspects for this research are:
 - Disposal and energy recovery of waste are at the bottom of the waste hierarchy (art. 4.1).
 - By 2020 preparing for re-use and recycling of waste materials such as at least paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar, shall be increased to a minimum of overall 50 % by weight (art. 11.2.a)
 - Minimum 70% material recovery of CDW in 2020 (art. 11.2.b).
- Very unlikely to have EU-wide waste taxes in the near future.

Spanish legal framework

- The Spanish Waste Act 22/2011, of 28th July, on waste and polluted soils, is the transposition of the EU framework Directive and therefore is coherent with its main objectives. Besides, it makes explicit that 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. Consistency with national goals. Some regions specifically mention waste taxation, within the potential instruments to be used.
- Moreover, despite certain restrictions, the Spanish tax legislation allows Autonomous Communities to create own taxes.

Conceptual framework

- A range of policies are available to achieve the waste management objectives: regulation, communication, planning, green procurement, etc.
- The use of economic incentives (and, particularly, environmental taxation) can be part of these environmental policies.
- The existence of environmental externalities caused by landfills and incinerators justifies the adoption of environmental taxes levied on these type of treatments.

Quick overview of the European situation regarding landfill and incineration taxes on MSW

Quick overview of the European situation regarding landfill and incineration taxes

Landfill taxes on MSW

Country	Tax rate [€/t] (year)
Austria	87 (2009)
Czech Republic	19.78 (2011)
Denmark	63.78 (2011)
Estonia	12 (2010)
Finland	40 (2010)
France	7,5 / 20 / 36 (2010)
Ireland	20 (2011)
The Netherlands	85.54 (2009)
Norway	34.97 - 57.82 (2011)
Poland	27 (2011)
Portugal	6 (2011)
Slovak Republic	0.64 (2011)
Sweden	40.92 (2010)
Switzerland	9.94 - 13.25 (2009)
United Kingdom	64.06 (2011)

Source: OECD/EEA database on instruments used for environmental policy and natural resources management [October 2011].

Quick overview of the European situation regarding landfill and incineration taxes



Landfill taxes on MSW

Region	Tax rate [€/t] (year)
Flanders (Belgium)	83.06 – 164.06 (2011)
Wallonia (Belgium)	60 (2010)
All Italian regions	5.17 - 25.82 (2009).
Catalonia	12 - 21 (2011)

Incineration taxes on MSW

Country or region	Tax rate [€/t] (year)
Austria	7 (2009)
Denmark	40-50 (2010)
Flanders (Belgium)	7.66 (2011)
All Italian regions	1.03 - 5.16 (2009).
Norway	7.26 (2009) plus additional tax rates for different pollutants
Catalonia	5,5 - 16 (2011)

Source: OECD/EEA database on instruments used for environmental policy and natural resources management [October 2011].

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.

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

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

REVENUE (€)	2005	2006	2007	2008	2009
Total	565,823	762,380	634,389	852,821	390,000

Taxes on industrial and construction waste



LANDFILL TAX IN MURCIA

- Ley 9/2005, de 29 de diciembre, de Medidas Tributarias en materia de Tributos Cedidos y Tributos Propios año 2006.
- 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.

REVENUE (€)	2007	2008	2009	2010
Total	3,047,426	3,882,611	2,921,413	2,200,780

Taxes on municipal solid waste

Catalan landfill and incineration tax on MSW



- Created by Catalan Law 16/2003, repealed by Law 8/2008. Tax rates amended by Law 7/2011.
- 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)

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

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: $Y = -0.1 x + 2.5$, 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

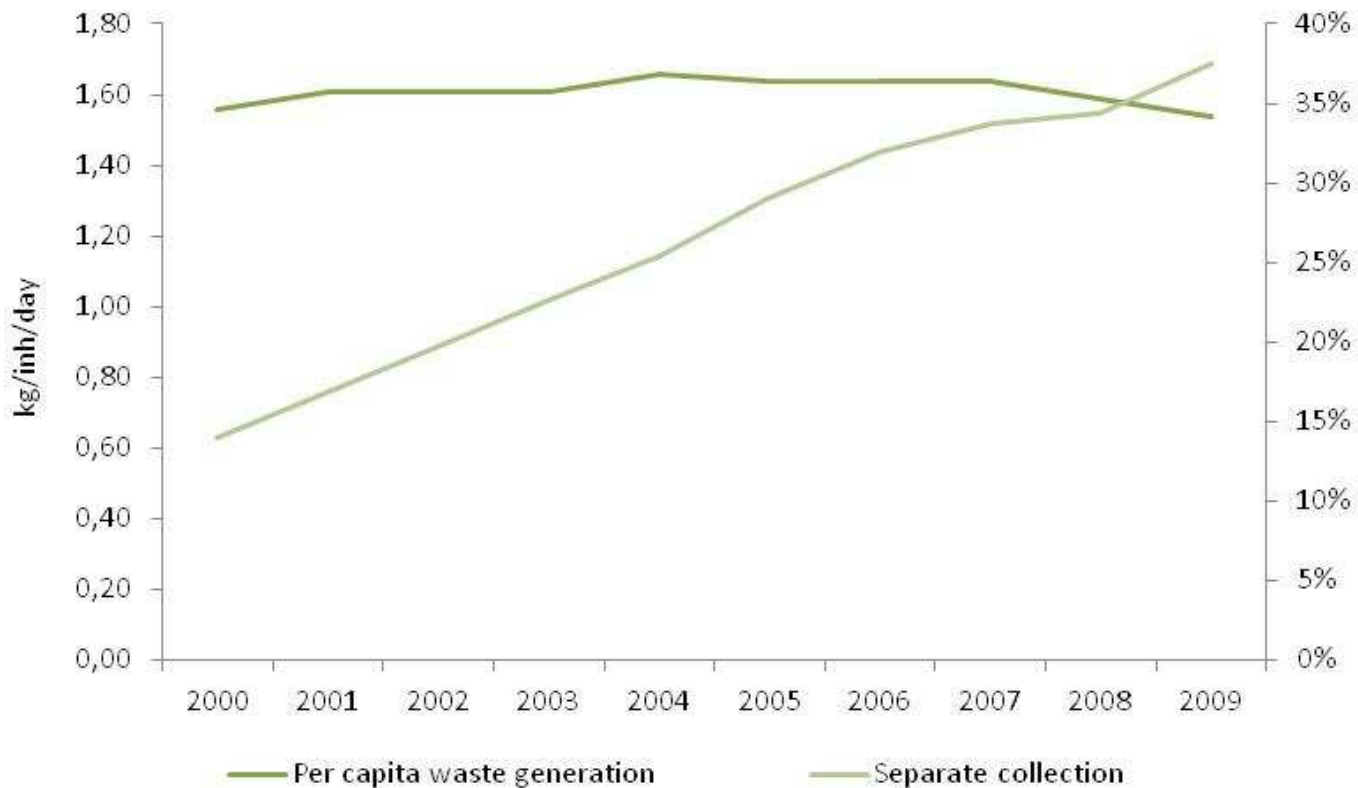
Type	Population	Coef.
Rural	< 5,000	1.5
Semi-rural	5,000 – 49,999	1.28
Urban	> 50,000	1

Catalan landfill and incineration tax on MSW



RESULTS

REVENUE (€)	2004	2005	2006	2007	2008	2009
Landfilling	32,159,333	31,873,674	32,953,994	31,530,604	29,413,242	25,146,795
Incineration	-	-	-	-	-	3,483,555

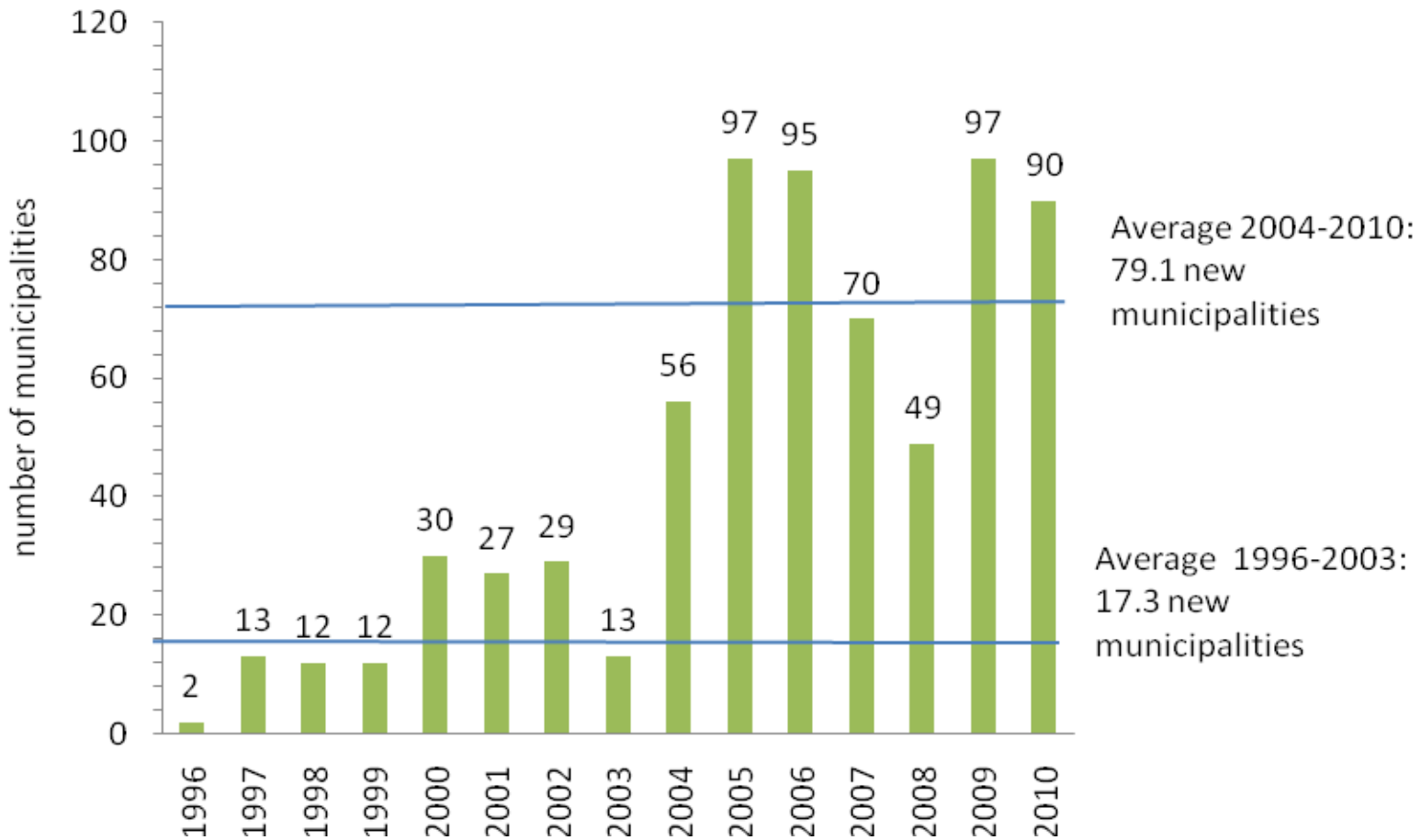


Catalan landfill and incineration tax on MSW



RESULTS

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



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.
- Extension of the taxes to the whole Spain would be desirable to increase efficiency, along with harmonisation and updating/increase of tax rates. Increasing tax rates would imply moving towards the leading EU countries.
- 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!

Ignasi Puig Ventosa

ipuig@ent.cat

www.ent.cat