# Eco-tax on plastic bags in Romania

## 1. Summary

<table>
<thead>
<tr>
<th>Country</th>
<th>Romania</th>
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<tbody>
<tr>
<td>Level implementation</td>
<td>National</td>
</tr>
<tr>
<td>Scale</td>
<td>Roll out</td>
</tr>
<tr>
<td>Waste fraction / Specific</td>
<td>Packaging / Plastic bags</td>
</tr>
<tr>
<td>Waste Type</td>
<td></td>
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<tr>
<td>Target Audience</td>
<td>Producers and importers of plastic bags</td>
</tr>
<tr>
<td>Objective</td>
<td>Reducing the quantity of plastic bags distributed to consumers</td>
</tr>
<tr>
<td>Initiator/coordinator</td>
<td>Romanian Government</td>
</tr>
<tr>
<td>Other key actors involved</td>
<td>Environment Fund Administration</td>
</tr>
<tr>
<td>Duration</td>
<td>January 1(^{st}) 2009 - present</td>
</tr>
<tr>
<td>Number in Mapping Report</td>
<td>94</td>
</tr>
<tr>
<td>Drafted by</td>
<td>SPCII January 2011, IBGE 21 November 2011</td>
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</tbody>
</table>
2. Context

The Eco-tax on bags was introduced in Romania through GO 25/2008 which modified GEO 196/2005 regarding the Environmental Fund. Through this, the part regarding the income received by the Environmental Fund was modified to include another source - the eco-tax.

The Environmental Fund is defined by GEO 196/2005 as an economic and financial instrument meant to support projects and programmes related to the protection of the environment and it is managed by the Environmental Fund Administration. The funds are collected at national level.
3. Strategy

Objectives

The main objective of the eco-tax on bags is to gather extra income for the Environmental Fund and at the same time to reduce the demand for plastic bags on the market. This is done by imposing a 0.2 RON (0.04 Euro) for each bag made from non-biodegradable materials that is introduced on the market.

Preconditions

As it was mentioned before, the Environmental Fund already existed, enabling the authorities to collect this tax. Apart from this, the major retailers (Carrefour, Kaufland, Cora etc) had a policy of distributing free plastic bags when you did your shopping there. This generated a very large amount of plastic bags that were either reused by people or became waste and ended up in the landfills or polluting the environment due to people not disposing of them properly.

Procedure

The eco-tax functions by imposing a 0.2 RON (0.04 Euro) tax on bags made from non-biodegradable materials that are introduced on the market. The producer has to pay this sum for every bag introduced on the market, regardless of its size or quality. What matters is whether or not the bag is made from biodegradable materials. The economic operators that have to pay this tax are: producers (for bags produced in Romania), importers (for bags supplied by producers from third countries), natural or legal authorized Romanian persons (for bags supplied by producers from other EU Member States). The biodegradable character of the materials is established through an evaluation regulated through Law no. 608/2001 regarding the conformity of products. The evaluation is done according to the applicable standards - international standards, Romanian standards or national standards of the EU Members states. Furthermore, even though this tax is paid by producers, not by retail stores or directly by consumers, retailers have the legal obligation to inform consumers about this tax and about the bio-degradable or non-biodegradable character of the bags. The economic logic behind this mechanism is that producers will pass on a part or the entire cost of the eco-tax to consumers by increasing the price of plastic bags. Then, consumers will be reluctant to pay extra for the bags that they used to get for free and this will reduce the consumption of this type of goods. In other words, consumers are “stimulated” though this tax to bring their own bags or use biodegradable ones (although these are not for free either).

Instruments

The instruments used are legislative ones (GEO 196/2005 and GO 25/2008) and economic incentives.
4. Resources

Financial Resources

In 2009, the authorities collected 5.481.235,74 RON (approximately 1.285.750 euro) from the eco-tax on bags. The quantity of plastic bags sold was of approximately 27 million bags. In 2010, the authorities collected 10.358.767,19 RON (approximately 2.430.254 euro) from the eco-tax and the quantity sold more than doubled, reaching 60 million bags.

It is easily noticeable that the expected effects in the absolute reduction of consumption have not appeared, since the quantity increased in 2010, despite economic crisis and the extra money that people had to pay for the bags. However, according to economic theory, the plastic bag producers have experienced a relative reduction in the quantities they sold - in the absence of the tax the number of plastic bags sold would have been higher.

Human Resources

The human resources involved are the employees from the Environmental Fund Administration.

Communication Tools

Retailers are obliged by law to inform consumers about the eco-tax collected on non-biodegradable bags. This means that in every store, there is a poster that informs consumers about the eco-tax.

Other communication tools included press-conferences held by the Environmental Fund Administration in which they made public the effects of the eco-tax (income from tax, consumption of plastic bags).

Allocation of resources over time

This is a long term project, and there are no signs that the authorities will give up this initiative.

However, the producers are currently trying to obtain the modification of this law. They are mainly trying to convince the authorities to change the form of the tax so that it applies on quantity - per kg, because pollution is caused by the quantity of bags that end up in the environment, not by their number.
5. Evaluation

Results

- **Participation**
The measure was applied to all the producers of non-biodegradable bags and it consequently affected all the consumers. The indicators regarding participation (persons reached, active participation in events/actions) cannot be applied in this case since it is a universal measure and it was applied in a non-discriminatory manner.

- **Avoided waste quantities (or toxicity)**
The waste stream that was targeted is represented by plastic bags. The initial state (quantity of plastic bags distributed on the market) was not assessed through an official study. However, the quantities of plastic bags sold in 2009 and 2010 are available.
  - In 2009, approximately 27 million bags were sold.
  - In 2010, approximately 60 million bags were sold.
These show that this measure did not fulfil its purpose of reducing the number of plastic bags distributed on the market.
The information regarding the number of plastic bags sold on the market was supplied by the Environmental Fund Administration, which keeps track of the income received through the eco-tax.

Impacts

- **Avoided Costs and Avoided CO₂ equivalents**
Not available.

- **Social Benefits**
**Social costs:** Since the eco-tax is imposed on producers who transfer a part or the entire tax onto the consumers, the market price of the plastic bags has increased. Thus, from the economic point of view, there was a **loss of welfare suffered by consumers**, since the price was artificially increased.

Another category affected by this tax is represented by the plastic bag producers. Since they have only two options - to internalize the tax can consider it a cost, maintain the price and have lower profit rates, or to pass it on to consumers and increase the price, they will experience a relative reduction in the quantities they sell. In other words, they now sell smaller quantities than they would have sold in the absence of the tax (have experienced a relative reduction), regardless of the absolute evolution of the quantities in 2009 and 2010.

Thus, the tax did reduce, relatively, the quantity of plastic bags on the market, but **with costs manifested through the reduction of welfare for both producers and consumers.**
**Continuation over time**

This is a long term action.

**Difficulties encountered**

There were a few major difficulties generated by the eco-tax.

First of all, there was a problem regarding the VAT. At first, even though the legislation specified that the producers were the ones paying this tax, there was general confusion whether or not the retailers should perceive a VAT tax when they sell the bag to consumers.

Another problem encountered was the fact that this tax only applied to non-biodegradable bags. This means that biodegradable bags are not taxed and therefore, they can be handed out for free by retailers. Studies have proven that even the bio-degradable bags contain some substances that are harmful for the environment, so the environment is still polluted by bags, only now it is polluted by “bio-degradable” bags. Even if these will decompose more easily and with less impact on the environment (less impact doesn’t mean that there will be NO impact), there are some aspects in which it doesn’t matter whether the bag is bio-degradable or not. For example, wildlife and fish will die just as easily by eating biodegradable bags that people have disposed of inadequately.

The fact that the absolute quantity of plastic bags increased can also be considered a sign of the consumers’ unwillingness to change their consumption patterns. In Romania, for example, textile bags were very unsuccessful.

**Monitoring System**

The monitoring of the effects of the eco-tax is done by the Environmental Fund Administration, which calculates the incomes received from the eco-tax and the number of plastic bags sold on the market.

The monitoring process would improve if the elaboration of studies would be added to the mechanism. It would be really useful to see the exact welfare lost by consumers.
6. Lesson learnt & recommendations

Opportunities & Challenges
As far as opportunities and challenges are concerned, these are the usual ones that appear in the case of any tax. First of all, there is the opportunity to gather some extra funds to a budget that is used to finance projects for the environment. The fact that the welfare of consumers is affected should be considered, as well as the fact that, in our case, consumers did not radically change their preferences and continued to buy non-biodegradable bags.

Key factors of success
The financial success of this measure was guaranteed by the fact that it producers are required by law to pay this tax. They cannot avoid it legally. So the tax revenues are obtained no matter what. However, as far as changing the consumption patterns of consumers and the reduction of the absolute quantity of bags that enter the market are concerned, we cannot talk about success, since it was proved that it did not reach its objectives.

Recommended improvements/adaptations
The problem with this tax was that it did not take into account the reactions of the public and of producers. At the present, consumers are indifferent towards the difference between biodegradable and non-biodegradable bags, an attitude which is proven by the absolute increase in the consumption of plastic bags. Furthermore, it would have been useful to coordinate this action with a well designed awareness raising campaign in order to try to change the perception of the public. In Romania, very few people were pleased by the introduction of this tax because they interpreted it not as an action for the environment, but as an extra burden for consumers and producers.

Remaining in the communication and dissemination area, a second campaign would have also been useful in which to present to the public the concrete details related to this tax - how the tax revenues will be used for projects, ideas for projects, fiscal aspects such as the payment of VAT and so on. People in Romania were not properly informed and that might be a reason why this tax is not efficient.

When implementing taxes on single-use disposable products (amongst others), Eunomia recommends the following approaches:
- Apply taxes to items where alternatives are clearly available (this is likely to ensure a reasonable response to the tax);
- Continual review of the tax to ensure that its effectiveness is not being eroded over time (e.g. through inflation);
- Ensure the tax is designed with sufficient inbuilt flexibility to adapt to changing economic conditions;
- Prior to introducing the tax, develop an effective communication campaign to advertise the rationale behind the tax. In this respect, there should be a clear rationale for the tax; and
- Albeit that this is desirable rather than necessary, it is helpful to be introducing such measures against the backdrop of a direct and variable rate charging for household waste. This can help strengthen the response to price changes occasioned by the tax.
Experience from the Irish scheme (see Pre-waste Factsheet 110) suggests possible adaptations

- Public acceptance by putting proceeds of tax into an environmental fund and effectively informing the public about the projects that received funding from this source.
- Advance consultation with stakeholders and arrangements can be critical in winning support.
- Including biodegradable bags can be more effective against littering and facilitates implantation.

**Recommended indicators & monitoring**

The indicators used by the Romanian authorities are: the level of tax revenues and the number of plastic bags sold on the market.

It would be useful to use indicators that show the increase in the consumption of biodegradable bags, since it was established that these also harm the environment, such as number of biodegradable bags sold, absolute and relative increase of consumption of plastic bags etc.
7. Comparison with similar actions

In different location/context

Can be compared to the Belgian Eco-taxation on disposable plastic bags, disposable kitchen utensils, food wrap & aluminium foil, Belgium (Pre-waste Factsheet 26).

Examples of Taxes on Plastic Carrier Bags and Their Impact on Consumption

<table>
<thead>
<tr>
<th>Rate of Tax</th>
<th>Consumption trends</th>
<th>Impacts on litter</th>
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<tbody>
<tr>
<td>Belgium, April 2007</td>
<td>Reduction in sales of 80% between 2003 and 2009</td>
<td>n/a</td>
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<tr>
<td>€3.00 per kg of plastic bags (1 to 10 cents per bag, depending on weight)</td>
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<tr>
<td>Ireland, March 2002</td>
<td>Consumption decreased from 328 bags per capita prior to the levy, to 21 the year after (this increased to 30 units per capita prior to the price increase in 2007)</td>
<td>Plastic bag litter reduced from 5% (estimated figure) in 2001 to 0.25% in 2010</td>
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<tr>
<td>Initially €0.15, but raised to €0.22 per plastic bag in July 2007</td>
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<tr>
<td>Italy, 2002</td>
<td>Use of plastic bags decreased from 1.3 billion prior to the tax to 20 million units the year after (consumption then began to increase to 140 million units per annum)</td>
<td>n/a</td>
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<tr>
<td>Initially €0.13, but raised to €0.20 per plastic bag in 2007</td>
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<tr>
<td>South Africa, May 2003</td>
<td>For high-income earners consumption of plastic bags per ZAR 1,000 worth of shopping (€92 on 22 September 2011) has decreased by approximately 57% and for low-income earners the reduction has been approximately 50%. There was an initial sharp drop in demand, but this was soon reversed</td>
<td>According to the cited paper, no pre or post levy data exists on litter levels in South Africa</td>
</tr>
<tr>
<td>Initially ZAR 0.46 (€0.04) for standard 24L bags, but subsequently decreased as retailers have absorbed the costs (retailers are liable for the tax)</td>
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Notes:
3. The full impacts of this levy are covered in the case study described in the preceding section

Source: EUNOMIA (2011) « A Comparative Study on Economic Instruments Promoting Waste Prevention Final Report to Bruxelles Environnement » Dr Dominic Hogg, Dr Chris Sherrington, Thomas Vergunst, 8 November