



# Potential use of feebate systems to foster environmentally sound urban waste management

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## Abstract

Waste treatment facilities are often shared among different municipalities as a means of managing wastes more efficiently. Usually, management costs are assigned to each municipality depending on the size of the population or total amount of waste produced, regardless of important environmental aspects such as per capita waste generation or achievements in composting or recycling. This paper presents a *feebate* (fee+rebate) system aimed to foster urban waste reduction and recovery. The proposal suggests that municipalities achieving better results in their waste management performance (from an ecological viewpoint) be recompensated with a rebate obtained from a fee charged to those municipalities that are less environmentally sound. This is a dynamic and flexible instrument that would positively encourage municipalities to reduce waste whilst increasing the recycling.

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## 1. Introduction

Most municipalities group themselves into associations in order to manage solid wastes in a more efficient way, avoiding duplication of services and facilities. Costs are allocated to each municipality according to some criteria such as the number of inhabitants or the amount of waste brought to the shared facilities.

These criteria very rarely take into account how ecologically sound the waste management practices of the municipalities are. Aspects such as the quality of the collection, environmental campaigns, or the degree of participation and commitment of the citizens depend on the environmental practices of local Councils.

In this framework, with different Councils making different efforts within the same association of municipalities, it makes sense to adopt a system to reward those municipalities that make significant steps towards ecological solutions for waste management, whilst penalizing those that do not move in this direction. In

the past, several proposals to articulate these incentives have been made (Taylor, 2000). In this paper the implementation of *feebate* systems is advocated.

## 2. Feebate systems

*Feebate* systems are aimed at fostering those activities, practices or products that are deemed more environmentally friendly at the expense of others that are less. They do so by means of a simultaneous use of both fees and rebates. The activities that take less care of the environment compared to the average are charged fees and the collected amount is transferred to the most ecological ones in the form of rebates, making them more competitive compared to the initial situation. The more environmentally harming an activity is the greater the fee is, and the friendlier it is the more it is subsidized by means of a rebate. An activity with the average environmental performance is not either charged or subsidized.

Globally, fees and rebates cancel each other out, and therefore this economic tool is neutral for the budget of the Administration that sets it up (Jansen and Denis, 1999), which only assumes the administrative costs of managing the system.

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