



# Curitiba waste as resource

01 March 2012

## Integrated thinking for urban sustainability

Behind the genius of Curitiba's programmes *Garbage that is not garbage* and *Green exchange* is the recognition by city officials of the interconnections of many of Curitiba's severe problems. Poverty, hunger, pollution, failing education, and formal job creation are addressed together. Complementary currencies turned waste into a resource, unleashing a range of positives.

In Curitiba, Brazil, the city's waste management did not have a budget for a standard recycling plant, so it found a way to turn the negative spiral into a positive one through its programmes *lixo que nao è lixo* (garbage that it is not garbage) and *cambio verde* (green exchange). The city created complementary currencies to reward people for separating their organic and non-organic recyclable wastes and bringing them to waste stations, where they can be exchanged for bus tickets, food, and school-books (see also Calgary and Tokyo). Participation among Curitiba households reached 70% in the 1990s.

### From waste to resource

Curitiba's strategy turned waste into a resource, thereby unleashing a range of positives (see also Stockholm). The widespread problem of food security has been alleviated, and city spaces are no longer covered with garbage – enabling not only better materials use but also reducing hazards to environment and health. Education is now more accessible even for the poorest families.

Employment was created in various ways. Firstly, recycling created jobs. Secondly, the green trade for bus tickets enabled more of the city's poorest citizens (e.g. those living in distant slum/favelas) to travel to where the existing jobs were on offer, especially in the city centre. With more jobs in the formal economy, another benefit is greater tax revenues to support urban governance and public services. All of these benefits can be seen to create positive multiplier effects. That is, employment, education, environmental cleanup, food security, and social inclusion are not only positive in themselves but enable other positive effects.

### What can be integrated?

Thinking of the city in integrated ways – seeing how to integrate functions and different social groups – is one of the keys to Curitiba's work, according to **Jaime Lerner**, an architect and former mayor of Curitiba (see also Bogota). Eco-citizenship is one expression of this: where a city's residents, and visitors, are actively aware of their own responsibilities to achieve their city's sustainability goals, e.g. through recycling or choosing public transport. Communicating to citizens is vital in this. Curitiba has for example electronic displays in public places showing the number of trees saved by citizens via recycling. Curitiba had, according to 2008 figures, the lowest rate of illiteracy in Brazil: 3.4% compared to a national average of 13.6%.

**See also:**

<http://www.coolgeography.co.uk/A-level/AQA/Year%2013/World%20Cities/Sustainability/Curitiba.htm>

<https://www.youtube.com/watch?v=r4sumpEqnlY>

Interview with Jaime Lerner:

[https://www.youtube.com/watch?time\\_continue=234&v=hRD3l3rIMpo](https://www.youtube.com/watch?time_continue=234&v=hRD3l3rIMpo)

Jaime Lerner | TEDxBuenosAires (Lovely, he compares the city to a Tortuga (a tortoise !) but he speaks in Spanish, naturally !):

<https://www.youtube.com/watch?v=IXGY0X-wdjl>

How a Brazilian City Has Revolutionized Urban Planning and Transportation:

<https://www.youtube.com/watch?v=hRD3l3rIMpo>

Have a look at the Resilient Cities website. The only city in Ireland is, strangely enough, Belfast !

<http://www.100resilientcities.org/about-us/#section-2>