



# Joined-up thinking in Curitiba

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## NATURAL CAPITALISM – THE NEXT INDUSTRIAL REVOLUTION

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**C**AN YOU NAME a city which has the world's most admired transport system, where 99% of inhabitants claim they wouldn't want to live anywhere else, where there are 74 theatres? A city where resources are used frugally and design works with nature and not against it? Where there is 95% literacy, 99.5% of households have drinking water and electricity, and 98% of them have their rubbish collected? And where per-capita GDP is less than one third of the USA's?

So it's not in America, it's not in Europe. In fact the city is Curitiba, in Brazil. It is written up in a book called *Natural Capitalism*, published last year. The point of the book is to explore the "whole system thinking" that its authors believe is necessary, if the worldwide problem of abundant people but scarce nature is not to overwhelm us. Curitiba is the success story that makes their case.

It is a south-eastern Brazilian city with the population of Houston or Philadelphia. The city faces the usual challenges of fast growing third world cities with scant resources. Most fast growing third world cities become centres of poverty, unemployment, squalor, pollution, corruption and inequity. But by combining imaginative, responsible government with vital entrepreneurship, Curitiba has achieved just the opposite.

The city's first stroke of luck was to get a mayor, in 1971, who was neither a politician nor a bureaucrat but an architect. Brazil was then still under military dictatorship, and the Governor of Parana State wanted a mayor who would be politically unthreatening. So he chose an architect, engineer, town planner and humanist named Jaime Lerner.

Lerner went on to serve three terms as mayor, and is reckoned to be the most popular mayor in Brazil's history. He has since been twice elected as Governor of Parana. In London Ken Livingstone grabs the headlines, but Londoners would be fortunate indeed if someone like Jaime Lerner was available to them as a mayoral candidate.

For a comparison, consider transport – which is a current preoccupation for Mayor Livingstone. Curitiba has the highest car ownership in Brazil but the lowest car use. Why?

Because the bus system is brilliant. You pay your ticket (45 cents US) and board the bus via a "tube station" – an elevated glass cylinder. Bus lanes and bus-operated traffic lights achieve three times the average speed and average passengers-per-hour of a traditional bus. Each bus lane carries 20,000 passengers an hour – the capacity of a tube train, but costing 100 times less. There are no bus jams, no fare evasion or vandalism.

Curitiba's land-use policy is another striking example of joined-up thinking. The city lies between two important rivers and used to suffer regular flooding. Rural migrants would build shantytowns on the flood plain, preventing floodwaters soaking away. But instead of fighting the floods Lerner's planners instead used the water as a gift of nature. They passed strict riparian-zone protective laws, turned riverbanks into linear parks, and used small ditches and dams to form small lakes, each the core of a new park. This design-with-nature strategy stopped the flooding and cost much less than traditional flood controls.

**A**s a result, Curitiba enjoy four times as much green space as New Yorkers. Community groups sprang up to protect the parks as public assets. Tax relief for gardens and woods have helped increased the greenery and stop the spread of concrete. There are over 1,000 private woodlands, and four square miles of private gardens. Curitiba planted hundreds of thousands of trees everywhere.

These policies have not only solved the soak away problem and greened the city. Land values around the new parks rose sharply, and

with them tax revenues. Tax revenues? Does this paragon of a city also run on land taxes? It seems so, although the account in *Natural Capitalism* isn't specific. We are merely told that the city runs mainly on property taxes. But it would be in keeping with the intelligence of the city's planners that they should fund development through resource taxes.

Lerner and his followers were certainly aware of what land speculators would do to their vision. Needing to plan for an influx of light industry, in 1975 the city bought sixteen square miles of land, six miles west of the centre. To ensure affordable housing, it pre-installed low-income dwellings, schools, streets, bus links and open spaces. It then recruited 500 non-polluting industries, which provide a fifth of its total jobs. International firms are well represented, partly because of the high quality of life. Executives save twenty hours a week in commuting time compared to Sao Paulo, Brazil's leading industrial city.

There are still slums, homelessness and unemployment in Curitiba. Many of Brazil's landless peasants flock to cities like it, seeking a better life. But Curitiba's

responses are characteristically imaginative. Take the Garbage Purchase Programme. A small truck pulls up in one of the squatter sectors of the city and rings its bell. Tens of thousands of the areas citizens respond by bringing garbage bags to swap for food. 60 kilograms of trash earns 60 tickets, enough for a month's food (or bus tokens, school books or toys).

The food exchanges meet several needs at once. The food is bought from local farmers, helping keep them on the land. Nutrition is improved. Public health is served by clearing rubbish from hard-to-reach land in the squatter areas. Community pride comes with the clean up.

Jaime Lerner believes that if people feel respected they will assume responsibility. So for thirty years Curitiba's central political principle has been to respect the citizen/owner of all public assets and services. As the authors of *Natural Capitalism* conclude: "closing the broken loop of politics, this principle recycles the poor and hungry, the apathetic and the illiterate into actively contributing citizens. A simple philosophy and persistent experimentation and improvement have created a First World city in the midst of the Third World."

