

ENVIRONMENT

LARGE PARKS 52 square metres PER PERSON WATER STORAGE IN PARKS = FLOOD PREVENTION

WATER PROJECTS – QUALITY CONTROL AND CONSERVATION HIGH RECYCLING LEVELS – 70% RECYCLED

TRASH FOR FOOD POLICY HABITAT PRESERVATION ENVIRONMENTAL AWARENESS EDUCATION

TRANSPORT IMPROVEMENTS HELP ENVIRONMENT

- Using former quarry sites to become landscape features. Each inhabitant has 52m² of green area.
- Development of cheap, low technology solutions to solve problems. Waste collectors are sold rubbish carts at cost price – they then collect, recycle and sell the waste to private recycling companies
- Pioneering the implementation of recyclable waste exchange schemes in Brazil, Curitiba today separates 13 % of its garbage and is also ranked first among the 4 Brazilian cities that separate recyclable biodegradable waste (cans, glass, metal, plastic, paper). Awarded the highest environmental prize in 1990 by the United Nations Environment Program (UNEP), the recyclable waste scheme has accomplished the separation of 419,000 tons of recyclable waste since its 1989 start-up. Such volume would fill up 1,200 20-story buildings with 280 m² of trash each. In its newest stage, the recyclable waste scheme reaches the 13 municipalities of Greater Curitiba.
- The preservation of green areas is another central instrument of municipal environmental and sanitation policy. The 21 million m² of parkland (parks, woods, gardens and squares) maintained within the urban perimeter are visited by over 150,000 people during weekends. Such recreational alternatives mean quality of life and particularly the balance between the city and its environmental assets. Most of Curitiba's parks, called linear parks, are located along river banks and in valley bottoms. They work like a kind of barrier that prevents illegal occupation of such areas, subject to floods, in addition to keeping rivers and streams from becoming landfills. The park lakes are used to hold back floods and function as water flow regulators during the rainy season.
- The population's motivation to cooperate with environmental programs increases proportionally to the benefits generated by environmental schemes. **Câmbio Verde** (Green Exchange), for example, exchanges recyclable trash for sacks of foodstuffs, toys and teaching material
- In the **Olho d'Água** (Fountain) scheme the community plays an active role in environmental education activities. All 2,600 municipal school students carry out, through water analysis, a complete survey about river quality. The idea is to assess and eventually intervene with concrete actions to recover the quality of the water supply.
- Innovative solutions to problems – social workers approach migrants from rural areas at the bus stations and offer them free return tickets to return home (so far 23,000 have accepted!). They have provided small farms around the city where people can farm between temporary industrial jobs

TRANSPORT

LESS CONGESTION

FEWER EMISSIONS ... 25% LESS CARBON THAN OTHER BRAZILIAN CITIES

BETTER ENVIRONMENT

BETTER QUALITY OF LIFE

CYCLE PATHS

DECENTRALISED FUNCTIONS

PEDESTRIANISED CENTRE

BUS RAPID TRANSIT SYSTEM (BRT)

PRE-PAID FARES

BUS LANE IN MIDDLE OF ONE WAY SYSTEM OF ROADS

BUS 'TUBES' NEW ENTRY SYSTEM

SINGLE CROSS CITY FARE

LARGE, COMFORTABLE DOUBLE BENDY BUSES

- There are now 58 km of exclusive lanes which crisscross the city along its north, south, east, west and southwest axes. The great axes are complemented by 270 km of feeder routes and 185 km of inter-district routes, servicing about 65 % of the urban area. If added to the conventional routes, Curitiba's urban transportation system covers the entire municipal area.
- From 1974 onward, an express bus system - called the "surface subway" - has been operational in Curitiba. It consists of a revolutionary solution for linking downtown to the neighbourhoods through exclusive traffic lanes. The triple system of lanes was therefore created, flanking an "express bus only" middle lane with two outer lanes for slower traffic. The express lanes enable a considerably higher average bus speed without jeopardizing passenger safety
- Public transport system has been promoted at the expense of the car. They have five main express bus routes that have their own bus lanes. These are flanked by local roads and high capacity one-way streets running in and out of the city. These have become centres of commerce and offices. Other roads circle the city to create a 'spiders web'. A single bus fare covers the whole city, there are quality bus shelters, wide access doors, comfortable buses, bendy buses, and the bus companies are paid by the number of kilometres of road they serve (encouraging them to serve more of the city)



geographyjohn
GEOGRAPHY
CASE STUDY REVISION BOOKLET

SUSTAINABLE CITIES - CURITIBA - CITY FOR THE FUTURE - SOUTH EAST BRAZIL



- FACTFILE :-**
- Curitiba is the capital of Parana state in SE Brazil with a population of 2.5-3.0 million
 - Curitiba is seen as one of the world’s most sustainable cities as it has addressed the ‘brown agenda’ with environmental policies
 - The BRT (Bus Rapid Transit) system has over 2 million passengers a day
 - There is the equivalent of 52 sq metres of park space per person
 - 70% of waste is recycled
 - The city has 25% less carbon emissions than other Brazilian cities