Resourceful River Flooding

In addition to the pollution problem, the Tietê River is also famous for its floods.

In the 1960s, developers straightened some stretches of the meandering Tietê. The marshy side areas of the river channel were incorporated into a landscape with raised levees both to contain the rising flood waters and also to provide a platform for busy arterial roads (see left).

However, São Paulo has expanded at a staggering rate, with the population increasing from 6 million in the 1960s to 17.5 million in the greater metropolitan area today.

As São Paulo has grown, so the amount of land now under tarmac, concrete and other impermeable surfaces has increased. These days, when it rains in São Paulo very little water is actually absorbed into the landscape. The majority of it runs off into sewage pipes and from there, goes untreated into the river. Sustained heavy rainfall fills the Tietê's tributaries and consequently the water level in the main river rises rapidly and occasionally overflows.

City planners had thought that these rising waters would be contained within the man-made levees. However, the huge volumes of rubbish that is thrown into the Tietê has attracted increased silt deposits and the combined effect of pollution and river mud has raised the river bed. The river bed is occasionally dredged. But unfortunately corrupt and unscrupulous contractors have exacerbated the problem. Dredging boats have been removing debris from the riverbed and then dumping it a few kilometers downstream in the marshy side areas beside the river. Squatters have also been settling illegally in these riverside areas further reducing its capacity to absorb flood waters.

Fortunately, city officials have recently taken drastic action. They are attempting to solve the problem by increasing the depth of the riverbed using explosives, underwater drilling and dredging and then taking this off to landfill sites. As a result, between 2001 and 2004, the Tietê was flood-free. But on 25 May 2005, the second-largest rainfall since 1943 struck and the area flooded.

The solution, currently under construction, is to double the width of the Tietê along a 15 mile stretch to about 140 feet wide and also to deepen the channel by an average of 8 feet. Experts expect this to solve the metropolitan region's flooding problems for the next hundred years.

Rivers of the World – River Tietê by Adrian Evans
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