

CHALLENGES FACING CROATIA¹

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Among the key challenges and pressures facing Croatian urban areas in achieving sustainable development are the following:

- increasing traffic and an inadequate traffic infrastructure;
- inadequate wastewater collection systems;
- the lack of modern waste management practices, i.e. recycling.

Traffic in urban areas has intensified and is constrained by aging infrastructure with insufficient carrying capacity. Despite significant investment in highway construction across the country and good connections with cities and towns, corresponding growth has occurred in the goods and services market, as product providers look to meet urban demands. Zagreb, Osijek, Rijeka, Varazdin, Split and other leading regional urban centres are known to suffer all-day traffic congestion. Emissions from fuel combustion are the predominant source of SO₂, NO_x, particulate and CO₂ emissions, while the situation worsens during summer due to the influx of tourists. Popular holiday destinations are becoming traffic hot spots, where health and safety is jeopardised by all manner of vehicles, the noise they bring and pollutant emissions. The traffic situation in Zagreb, however, will receive a boost from 2008, when congestion charging will be scoped alongside the introduction of freight delivery restrictions and improved conditions for cycling, with the support of the EC's Civitas Plus programme.

Water supply systems serve 76 percent of the Croatian population. However, only 40 percent is connected to wastewater collection systems (through 82 treatment facilities). Three quarters of those connected live in urban areas. The uncollected wastewater is either treated by individual household systems, whose environmental performance may be questionable, or directly enters surface streams without treatment. The consequences are bad odours, especially in Croatia's karstic region which includes its coastline and inland areas — home to towns such as Split, Rijeka, Zadar, Šibenik, and Dubrovnik. The problem can be pronounced during the summer season. Untreated wastewater also endangers groundwater quality.

Every year, around 1.2 million tonnes of communal waste are disposed of in Croatia. About 89 percent is deposited in landfills, 10 percent is recycled and 1 percent undergoes biological treatment. It is uncertain how much waste is illegally dumped each year, but remediation of 600 illegal dumpsites has been undertaken within more than 150 local government units, two national parks and two nature parks. About half have been remediated so far.

In light of these statistics, the establishment of a modern waste management system is ongoing. It favours recycling and places the responsibility with local governments. However, it has yet to be organised in a profitable way. The government's strategy has opted for two regional waste management centres: one at Koprivnicki Ivanec, serving four counties in northwestern Croatia, the other at Antunovac near Osijek, serving two eastern counties. The remaining 13 counties will dispose of their waste within "county centers" that will rely on existing landfills to absorb as much as 95 percent of their communities' waste (from the current 89 percent). No clear solution has been identified to deal with the 0.1 million tonnes of hazardous waste disposed of annually. Medical and animal waste also lack solutions.



¹ Map is available online at: <https://www.cia.gov/library/publications/the-world-factbook/>

Case Study 3 within the *Lobbying* module presents the efforts of NGOs, the public and political parties vis-à-vis the establishment of the Kastijun County Centre for Waste Management, just one kilometer from Pula, while Case Study 27 within the *Public Participation* module reflects on the City of Zagreb's ongoing plans for a municipal waste-to-energy incinerator. Zagreb today recycles less than 5 percent of its communal waste, far less than the 15 percent achieved by the Zagreb Waste Management Company a few years ago. The cases illustrate the challenges that have been encountered with the identification of locations and facilities. A more positive example is Krk, where 24 percent of the communal waste is already being recycled thanks to financial support from the national environmental fund. Case Study 38 in the *Communications and Outreach* module demonstrates how a communal company and civil society organisation can successfully collaborate to reduce the levels of waste and save money.