



# ENVIRONMENT

## OPPORTUNITIES

**OPPORTUNITIES:** Industrialization, a high rate of population increase and rapid urbanization have created acute environmental problems in Turkey. Turkey's development policy primarily wanted to use indigenous energy resources — mainly low-calorie lignite — to maintain self-sufficiency. Also, due to limited financial resources, the country could not implement up-to-date technologies. Since the development program mainly sought to attain the highest degree of industrialization at the lowest cost, environmental considerations were inevitably neglected, and this has led to serious environmental degradation.

In contrast to the traditional approach to environmental issues, which basically regarded environment as a consumable input for development, the government now regards environment as a resource that must be preserved and managed rationally to attain sustained development. Consequently, a range of present and future environmental regulations will add further economic growth to this sector.

Enforcement of new legislation requires that industrial plants, resorts and municipalities install wastewater- and sewage-treatment plants, chimney filters and solid waste-treatment facilities. While this legislation is roughly parallel to European Union standards, enforcement is not effective, and the threat of legal action is not a strong deterrent to polluters. Nevertheless, public pressure groups, and other private and government agencies, help to ensure adherence to the legislation, and force the industry and municipalities to take appropriate measures.

Opportunities exist in industrial and municipal wastewater treatment, desulphurization systems for power plants and process industries, solid waste treatment and disposal, industrial and domestic water purification, conversion of vehicles to natural gas, incineration plants, environmental impact assessment and monitoring, water-resource management and consulting engineering services.

Turkish cities suffer from severe air pollution problems caused by predominantly coal-based heating systems, automobile exhausts and industrial emissions. Action is being taken to remedy these conditions, and the focus is on increasing responsibility and authority of municipal administrations in pollution control. Despite considerable

willingness to enforce air-quality measures, municipalities presently lack the necessary equipment and trained staff to monitor conditions. The provision of air-quality monitoring and emission-control equipment are areas in which Canadian firms would be strong competitors.

The supply of potable water has been the responsibility of the national government, which normally undertakes the construction of dams and reservoirs. There are needed water-supply solutions: development of major water-supply projects; improvements in the management of the yield of reservoirs; reduction of water losses in the distribution systems; and definition of alternative sources of water.

Less than 10% of wastewater is treated in Turkey. Many rivers in urban and industrial areas have become highly polluted and require massive rehabilitation. The few existing treatment plants suffer from major operating and management problems, particularly in the area of biological treatment. There are numerous opportunities for Canadian companies in construction and operation of wastewater-treatment plants in Turkey. The best opportunities are in the industrial sector, where organizations have the ability to borrow in international markets and have come under pressure to conform to European environmental standards. Generally, lack of financing presents major problems in municipal wastewater treatment. The government relies on the BOT (Build, Operate, Transfer) mechanism for large projects, but this method is of limited use as long as municipalities can not guarantee a revenue stream for these projects. Some European firms have undertaken several of these projects through soft loans.

Canadian companies interested in competing in the wastewater-treatment market in Turkey should focus primarily on industrial projects, which fall into two types: specific highly polluting industries such as tanneries, or pulp and paper mills; and industrial parks. Viable projects in municipal wastewater treatment may be found in certain areas defined by the national government as priority areas, which may provide national government guarantees for approved loans.