## prointec

## **RELEVANT PROJECTS**

## Waste treatment in the State of Ceará, Brazil



## Programme for the treatment and disposal of solid waste in the State of Ceará, Brazil

The project undertaken by Prointec consisted of a feasibility study to analyse the treatment alternatives and final disposal of solid waste from the 184 municipalities that make up the State of Ceará. The objective of the study was to design a solid waste management model, based on the exhaustive knowledge of the social and economic reality of the territory and the previous experiences carried out by the administration and the municipalities, through the Secretary for Infrastructures of the State of Ceará.

With the base information, updated through visits made to all the municipalities while preparing the study and taking into account the previous studies carried out by its authorities, the diagnosis of the situation was prepared. In this diagnosis, the guidelines of the state waste management policy were defined. Following this, different management models were proposed and, once the alternatives had been evaluated, they were submitted for consideration to the Secretary of State for Infrastructure. The selected alternative consisted of a partially centralised management model, in which the municipalities joined forces in consortia to guarantee the correct operation of each area.

The proposal for the grouping of municipalities was made according to their physiographic characteristics and socio-economic reality. A study was conducted to select the suitable areas to locate the waste treatment facilities, in accordance with different parameters, both in terms of exclusion (protected areas, geotechnical and hydrological conditions, distance from inhabited areas, etc.) and suitability (transport distances, topographical suitability, minimum area required for urban development plans, etc.) The relevant field studies were carried out at each location in order to appropriately size the facilities.

Once the municipal groupings and the location of the new waste treatment facilities had been defined, a total of 30 consortia were defined and a specific local management plan was developed for each of them. With respect to the final waste treatment facilities, 25 preliminary drafts of new controlled landfills were prepared.