

PROJECT HISTORY IN SOLID WASTE MANAGEMENT
Geotechnical and Environmental Study

**Technical and Financial Review of the Basic Diagnosis and Executive Project
for the Closure of Dump Sites and the Creation of a New Regional Controlled
Landfill, BECC Certification Documents, Phase II
Cities of China and General Bravo, Province of Nuevo León, México**

Client: North American Development Bank (N.A.D.B.), San Antonio, Texas, U.S.A.

Project Location: Cities of China and General Bravo, Nuevo León, México

Project Execution Time Frame: 2001 (6 months)



=====**Improvement Project**=====

- The NADB selected SII to conduct the Technical and Financial Review of the preliminary work performed by the Border Environment Cooperation Commission (BECC) and the Mexican firm ETEISA regarding a Municipal Solid Waste Management Project for the Cities of China and General Bravo, Nuevo León.
- SII conducted this review in conjunction with its local partner, Dr. Vicente Jonguitud Falcón from TACSA.

===== Services Provided =====

The preliminary diagnosis conducted by BECC – ETEISA focused on the following issues:

- ❑ Remediation and Closure of the present open dump site
- ❑ Creation of a Regional Controlled Landfill
- ❑ Preparation of the Certification Documents for Phase II of the BECC

The technical and financial review of this diagnosis conducted by SII – TACSA developed along the following lines.

1. Objectives

- Review the information presented and confirm its validity based on – social, - political, - economical, - financial, - environmental and – regulatory criteria, as well as on – demographics.
- Evaluate the validity of the assumptions and courses of action presented.
- Indicate the changes to be made in order to be able to use, from technical and financial points of view, the resources assigned to the project, from design through construction.

2. Activities Developed

- Analysis of the technical and financial information of the BECC – ETEISA project.
- Site visits and meetings with the promoter
- Meetings with ETEISA
- Description of the plan of action to finish the studies in due form for certification: identification of inconsistencies, recommendations.
- Reports
- Presentations

3. Main tasks performed

SII compiled all the legal and technical and regulatory information in order to be able to analyze the following aspects of the study:

■ Demographic and economical aspects

Study on current and projected data, indexes, generation of MSW, planning and organization of the system of MSW management, operation of the systems of MSW.

- Financial aspects

MSW management history indexes, O&M for MSWM cost history, costs associated with the proposed program of investment and its financial calendar, resources needed at the human – equipment – technical levels for the plan selected and differences with the systems currently in operation, investment costs associated with the program of institutional strengthening and its impact on management indexes, O&M costs associated with the proposed solution, income generated by the proposed solution, analysis of the proposed tariff structure and legal requirements for its enforcement.

- Proposed site for the disposal of MSW

Selection of the site (geo- hydrological characteristics of the proposed area and its compliance with the Official Mexican Norm concerning the locations of sites for the construction of landfills, Juridical status of the site and current situation re. ownership of land, basic topographic, geotechnical, geo- hydrological studies, design criteria, construction and operation stages for the landfill, design drawings, management of leachate and biogases, operation method, information package to start the construction.

- Closure of open sky dump site

Methodology to use for the closure, design criteria, construction phases, design drawings, management of leachate and biogas, information package to start the construction.

- Document Phase II

Consistence with the study for the improvement of the municipal cleaning system, the landfill project and the closure project.

Financial analysis which included: projections for increased service, projections for costs of operation, maintenance and debt service, projections for revenues, investment requirements for infrastructure and institutional strengthening, tariff structure, creation of reserves.

=====Follow-Up on the Project=====

Taking into account the revisions both technical and financial of SII-TACSA, the project will be funded by the NADB for its implementation.



Other Similar Projects

- **San Luís Río Colorado, Province of Sonora, Mexico**

Technical and Financial Review of the Solid Waste Management Plan