



NORTH AMERICAN DEVELOPMENT BANK FACT SHEET

IRRIGATION DISTRICT 005 DELICIAS, CHIHUAHUA

- Project:** Project for Modernization and Technical Improvements to the Conchos River Irrigation Districts
- Cost:** US\$143,600,000
- Sponsor** The Mexican water agency, *Comisión Nacional del Agua* (CNA).
- Location:** The project is located in Irrigation District 005 Delicias in the south central part of the state of Chihuahua, about 52 miles south of Ciudad Chihuahua. Although the project is located outside the 100 km border region, it has transboundary effects on the Rio Grande and, therefore, has been deemed eligible for BECC certification and NADB financing by the Mexican Ministry of Environment and Natural Resources (SEMARNAT) and the U.S. Environmental Protection Agency (EPA).
- Background:**
- The Delicias Irrigation District is located in the Conchos River watershed, which forms part of the Rio Grande river basin. With a surface area of 90,589 hectares (223,849 acres), it is the largest district in this watershed. However, because of severe drought conditions, irrigated areas in the district have shrunk to an average of 40,000 Ha. (98,842 acres) in recent years.
- The district's water infrastructure consists of the "La Boquilla" and "Francisco I. Madero" storage reservoirs, the "Colina" y "Andrew Weiss" diversion reservoirs, the "Conchos" and "San Pedro" main canals, a secondary distribution system, a drainage system, a road system and various structures.
- Because of the need to improve the conservation and maintenance of Mexico's irrigation infrastructure, and thus achieve better crop yields and greater efficiency in the use of water, a program to decentralize irrigation districts was initiated at the end of 1998. This program basically entails transferring the responsibility of operating, maintaining and managing the irrigation infrastructure from the federal government to the users. To this end, the districts have been reorganized into modules or user associations. The Delicias district is composed of 12 such modules.
- Water losses in the district's transmission, distribution and irrigation systems have been relatively high mainly because of unlined canals,

deteriorating infrastructure and poor water irrigation techniques. Currently, the District's irrigation efficiency is about 65%, while overall efficiency of the entire system is about 37%.

Description: The rehabilitation and modernization program for Irrigation District 005 Delicias includes the following actions:

- Lining canals and/or installing pipes in lateral canals and irrigation lines;
- Rehabilitation and construction of complementary works in canals;
- Seal coating of roads;
- Installation of modern irrigation systems and grading of agricultural land to improve application of water in the fields;
- Installation of farmland drainage systems;
- Procurement of machinery;
- Permanent training program for module staff;
- Training and organization of user modules.

BECC Certification: October 17, 2002

NADB Financing: Water Conservation Investment Fund (WCIF):
Grant Assistance: US\$39,990,407

Grant proceeds will be applied to lining canals and/or installing pipe in the canals, land grading and construction of low- and high-pressure irrigation systems.

Other Funding Sources: The rest of the funding will be provided by the Mexican government.

Benefits: Increased water efficiency from infrastructure improvements and better irrigation techniques will result in estimated water savings of up to 248 million cubic meters a year. Some of the water saved will be transferred to the U.S. in compliance with IBWC Minute 309. The saved water will increase and help stabilize flows in the River Conchos, as well as in the Rio Grande. Implementation of modern irrigation and farming techniques will also reduce agrochemicals contamination in agricultural runoff. District farmers will also benefit from higher crop yields and better crop quality, as well as higher land value and lower maintenance costs.

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