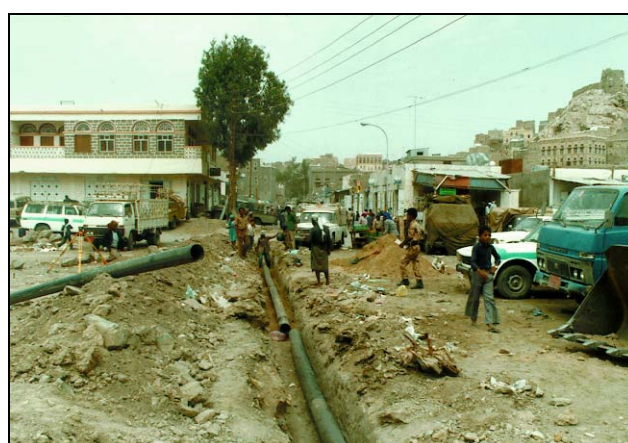


# REPUBLIC OF YEMEN

## WATER SUPPLY & SANITATION IN PROVINCIAL TOWNS

<b>Location</b>	Nationwide
<b>Client</b>	National Water and Sanitation Authority (NWSA), Sana'a
<b>Financing</b>	German Financial Cooperation / KfW
<b>Period</b>	1985 - 2006
<b>Value of own Services</b>	6.868 million US\$



### Project Description

Improvement and expansion of water supply and construction of sewerage systems in provincial towns with 7,000 to 30,000 inhabitants per town.

10 towns in Phases I and II, including an immediate improvement programme:

- Construction of reservoirs and sewage treatment plant Al Bayda (oxidation ponds)
- Repair of pumps and force mains

8 towns of the original 10 in Phase III comprising:

- Water production facilities, storage tanks and 220 km piped distribution lines
- Drilling of 2 wells and testing of 22 existing wells
- 130 km sewer network and sewage treatment plants for the towns of Amran, Hadjah, and Yarim
- Sewerage system for the town of Zabid comprising 40 km sewer network, 3 km sewage outfall line, oxidation ponds treatment plant and pumping station

### Scope of Services

Phases I and II (1985 - 1990):

- Inventory, investigations, and assessment of existing piped systems in 10 provincial towns
- Simplified feasibility studies for further improvement and expansion, including organisational proposals, development of a health education campaign
- Execution of the immediate improvement programme (force-account)
- Execution of repair works by mobile workshops and development of a maintenance unit in each town
- Execution of seismic investigations, and tendering and supervision of a test-well drilling programme

Phase III (1993 - 2005):

- Detailed mapping, geotechnical investigations
- Final design, preparation of tender documents
- Supervision and evaluation of the well drilling/testing programme
- Tendering, tender evaluation, advisory services in award of contracts
- Supervision of construction

(Leading Partner of Joint Venture)