

PROJECT TITLE(S) AND NUMBER(S) East Ghor Main Canal Extension (278-175), Zarqa Triangle Irrigation (278-179), Sprinkler Irrigation (278-195), Yarmouk-Dead Sea Road (278-176), Village Development I, II, & III (278-183, 205, & 221).	MISSION/AID/W OFFICE USAID/Jordan
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PROJECT DESCRIPTION #175: Irrigate almost 5,000 hectares by extending canal. #179: Irrigate 1,500 hectares with sprinklers. #179: Provide sprinklers for almost 10,000 hectares. #176: Improve 105 km of main Valley road. #'s 183, 205, 221: Construct 57 schools, 13 health centers, 10 gov't admin buildings, 2,188 housing units, furniture & equipment for schools & clinics, and other local infrastructure.

AUTHORIZATION DATE AND U.S. LOP FUNDING AMOUNT 1973-79 \$52.4 million	PES NUMBER 80-5	PES DATE 1980	PES TYPE <input type="checkbox"/> Regular <input type="checkbox"/> Other (Specify) <input checked="" type="checkbox"/> Special <input type="checkbox"/> Terminal
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This comprehensive, 262 page interim evaluation focuses less on the seven AID projects than on the rapid general development that has taken place in the Jordan Valley since 1973. It was too early to evaluate properly the full impacts of the projects. Most of the new lands were not brought under irrigation until the 1979-80 crop season and severe droughts in 1978 and 1979 made it impossible to assess properly the impact of the three irrigation projects. Aside from the schools almost all of the buildings being constructed under the three Village Development (VD) projects were either incomplete or unoccupied at the time of the evaluation.

The main focus of valley development and the evaluation is irrigated agriculture. Lack of water is the key constraint; though 42,000 hectares are irrigable, there is only water enough for 30,000 because some is being drawn off for industrial and domestic purposes. About 24,000 hectares were being irrigated at the time of the evaluation compared to only about 19,000 in 1976. Since 1973 crop intensity has increased 25% and farmers have shifted away from field crops to vegetables. Cheap, imported Egyptian labor is rapidly replacing the use of unaided family workers who prefer to stay in school longer or take high paying jobs in the highlands or Gulf. The last few years has seen rapid expansion of drip irrigation and the use of plastic mulch, tunnels and houses. These new techniques can result in net returns per hectare as high as \$50,000, compared to about \$2,500 for traditional techniques. The prospect of these big returns is attracting considerable capital from Amman. Even though cultivation practices are poor and yields are far below potential, Valley agriculture is highly profitable because the unique climatic conditions of the Valley give it a very distinct advantage over other producing areas. The land redistribution components of the projects have eliminated the inefficient fragmentation of land holdings, extended ownership to some previously landless farmers, and limited maximum holding per farmer to 20 hectares. Farmers have resisted use of the project supplied sprinklers (which they fear will damage crops) and favored drip irrigation (which appears more efficient in the short run but may result in soil salinity build-up). Other serious problems are insect infestation and potential problems of pesticide poisoning.

The 26 schools built under VDI were having very positive impacts on: morale of pupils, teachers and parents; absenteeism and drop-out rates; examination performance; and enrollment (up by about 20% per year). However, the health clinics, administration buildings and houses built under the project were unoccupied up to one year after completion and therefore were not yet benefiting the target group. The Yarmouk-Dead Sea Road project, completed in 1977, has returned far greater benefits than originally anticipated; the preproject benefit/cost analysis assumed a traffic increase of 5% per year, but the actual increase has been 20% per year. In short, available evidence suggests that most of the projects are having or will have considerable positive impact on the target group.

- Lessons Learned:**
 The evaluation which includes 13 recommendations for improving Valley development also offers some general lessons:
1. Properly planned land distribution programs can succeed.
 2. Sharecropping arrangements can be both efficient and equitable, if tenants have access to credit and other key inputs.
 3. Rigorous social analysis is needed to avoid supplying technologies, such as sprinklers, which are not consistent with the perceived needs of the target group.
 4. New schools can stimulate improved education.

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