

## Waterways of Hope

How Abu Minqar villagers in Egypt took charge of enhancing their livelihoods and improving the management of water resources

Villagers in the poor, remote oasis village of Abu Minqar, in the middle of Egypt's Western Desert, proved that people can take charge of available water resources and manage it efficiently and equitably. Like all of Farafra Oasis villagers, the farmers of Abu Minqar face numerous challenges: unlined canals, broken and nonexistent water gates, reliance on inefficient and unpredictable amounts of irrigation water, in addition to poor access to seeds, fertilizers, and agricultural information.

Through the WaDImena initiative, this community is now able to secure their crops and livelihoods in spite of chronic water shortages.

**Farmers' Association: By the People for the People**  
Supported by WaDImena, a team from the Desert Development Centre (DDC) at the American University in Cairo helped farmers to found their first association to improve agricultural water management in Abu Minqar. Through the project, members of the association learned a variety of new, and locally appropriate agricultural practices. They also visited a successful association in Farafra. Before returning to Abu Minqar, they had put together a plan to solve their pressing agricultural problems.



The canal before lining wasted 50% of the water  
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### Clearing the Way

Shortly after inauguration, the Farmer's Association cleaned 6 km of secondary canals in the area. The farmers' next goal was to line other secondary canals in their irrigation area. As with all unlined canals in Abu Minqar, weeds had severely slowed down water flow, preventing up to 50% of the water from reaching the tail end of the canal.

Professor Hassan Shams-el-Din from the Soils, Water and Environment Research Institute (SWERI) assessed the irrigation infrastructure and recommend strategies for canal improvement.

Estimated costs for lining the canal were 62,000 EGP (equivalent to USD 1100). The association's members collected a total of 11,000 EGP from 22 farmers who cultivate land along the 800m-long canal. The project team matched this amount with 51,000 EGP from the project's budget.

Canal improvement commenced under pressing time constraints – the existing canal would have to be dry, meaning crops alongside would not be irrigated in the interim. During the winter months, field crops can survive up to eight weeks without water. The project thus faced a challenge of finishing construction quickly, since losing a season's harvest was not an option.

In January, the association assisted by Hassan Husseiny, the DDC's irrigation engineer, levelled the canal, determined the required slope and iron rods were installed. Along the way, community members and hired workers used self-made tools of welded iron scraps for levelling. Once completed, a construction company from Farafra poured the concrete foundation.

After less than six weeks of closure, the gates of the new zarayeb canal were opened – an event that drew dozens of people from Bir Wahid to the field.

Adel, a participating farmer, exclaimed: "The water is running so well, everybody here is very happy!" Seeing the finished canal convinced even the more sceptical farmers. Mohammad, expressed his appreciation saying "The canal is only a first step, the important thing is not the canal, but the association."



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The finished canal in Wahid irrigation  
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#### Hope Underway

Today, many farmers from around Abu Minqar are saying they would like to line their canals as well. "So when are we lining the next canal?" was one of the first questions asked as farmers watched the water flowing through the new canal. The prospects look promising. The project has already raised 70,000 EGP from the German embassy to build a second canal in Abu Minqar. The new farmers' association may well complete its second lined canal in a matter of months.

This research project, which started in April 2006, was able to promote better use and distribution of water, and build on community members' participation and indigenous practices.

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"It used to take around four hours for water to make its way from the well to my field, now it takes 20 minutes!" says Magdy, president of Farmers Association Bir Wahid.

Empowering the community to take charge of managing available water has helped secure their crops and conserve scarce water resources, it also respected their dignity and ensured that solutions will last a long time.

