

Gibreel Abdel-Fattah has lived in Garf Hussein on Lake Nasser for 16 years. Four of his six children were born here. The small mud-brick house he built with his own hands looks out onto a picture-postcard perfect view of palm trees on calm blue waters.

Despite the view, Gibreel's life on these shores has been difficult. His only water source is a pump near his house that lifts water directly from the lake. His children's one-room school is a three kilometer walk away and provides only primary education, so his two eldest children were sent to live with their grandparents in the city of Esna, about 290 km away. His wife depends on traditional forms of medicine or must find transport to get modern care in Aswan, 140 km distant.

Nevertheless, he has little to complain about. He is proud of his land, which produces berseem, tomatoes, aubergines, and onions. He raises cattle, and boasts that he owns one of the most fertile bulls in the area.

Desolate land

In Egypt's deep south, along the shores of the country's largest strategic water reserve, ambitious efforts are under way to green the desert. The government plans to resettle one million people around Lake Nasser by 2017. Small agricultural communities have already started sprouting up in this desolate land, but lack of basic amenities has so far been a hindering factor in this project realizing its true potential. Yet even in the face of enduring hardship, these settlers from all over the country are determined to make a future for themselves and for their families.

Lake Nasser, formed behind the Aswan High Dam across the Nile, is – at 550 km long and 35 km at its widest point – one of the world's largest artificial lakes. In 1974, the Egyptian government formed the General Authority for the Development of Lake Nasser (GADLN). "GADLN was established in order to conduct research and to determine what the various natural resources of the Lake Nasser region are," explained Dr. Hani Sabry, head of its central administration for



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Greening Desert

NADIA EL-AWADY, in a personal account, reports on a pioneering programme to turn desert into productive agricultural land



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agricultural development. "It is also responsible for establishing a plan of action for the proper management and utilization of these resources."

The lake holds Egypt's strategic water supply – with a storage capacity of some 157 km³ of water – and supplies 40 per cent of the country's fish. The surrounding region is rich in granite and marble, and has good tourism potential. But most importantly, GADLN – together with the governorate of Aswan and such organizations as the World Food Programme (WFP) – is resettling Egyptians in the area to benefit from its high agricultural potential.

Selection criteria

The scheme has not been without difficulties. So ambitious have been the efforts that hundreds of people have been assigned lands before the infrastructure has been provided to support them. Depending on the phase of land handover and on the authority responsible for a particular area, selection criteria can form a heavy burden on applicants. Some lands are only assigned to farmers if they commit to settling on them with their wife and children, even though such basic needs as water, sanitation, schooling and health-care are at a bare minimum. Semi-regular inspections are made by the authorities to make sure that the families remain on the land: farmers who are discovered to have sent their wives and children back to their hometowns are subject to possible expulsion.

Nevertheless, Egyptians are determined to succeed in making the best of a difficult situation. Community development projects are being established to help the settlers help themselves. One such is being spearheaded by the Near East Foundation's (NEF) regional office in Egypt. Funded by the International Development Research Center (IDRC), it aims at conducting what it calls participatory community-based research. By involving both the settlers and the main stakeholders in the region, NEF is establishing a problem-solving framework that can continue even after the project is completed. Another main concern is exploring agro-ecology and eco-health to improve livelihoods and

protect the lake's ecosystem from potential pollutants.

The use of chemical pesticides and fertilizers in the Lake Nasser region is prohibited by the Egyptian government, but they have been used nonetheless. The NEF project has attempted to establish transparency with GADLN about their use, and to work together to teach farmers how to use safer ones and to obtain and use organic pesticides and fertilizers.

Dr. Lamia El-Fattal, IDRC programme officer, explained that the project "anticipates an outcome and chooses to deal with it before it happens". There are concerns that resettling one million people in the region could have a negative impact not just there but on the entire Nile valley. The project therefore aims, she said "to ensure that there is minimum damage to the environment through pollution and resource degradation by encouraging good practices of farmers using agro-ecological production techniques to minimize impact". She hopes it will create "champions of the environment" among the settlers to "influence the people that would be moving into the new settlements once they are created".

Environment champions

In Garf Hussein, `Am ("Uncle") Barsi, – as he is called by those that know him – is one such champion. A strong advocate of the project, he has been one of many farmers who have attended NEF meetings aiming at identifying and prioritizing the problems facing the settlers .

He has participated in seminars given by agricultural specialists on the best types of crops to grow in the harsh climate of southern Egypt, and visited with farmers in neighbouring communities to learn how they succeeded in exporting their produce to Europe. He also attended a meeting organized by NEF with local traders to discuss the possibilities of providing organic pesticides and fertilizers to Lake Nasser's farmers.

Standing barefoot in his land 67-year-old `Am Barsi proudly showed me his crop of tomatoes grown from hybrid seedlings designed to resist heat that can reach 55°C. Although more expensive than the local

variety most commonly grown in other parts of Egypt, these tomato plants produce at least twice as many tomatoes.

His neighbour – `Am Salah, recognizing the agricultural engineer who was accompanying me – called out for advice on his sickly aubergine plants. The group walked over. "This is where your role comes in, `Am Barsi," said Ehab Ezzeldin, NEF project coordinator. "Explain to `Am Salah what the problem is," he said. `Am Barsi examined the plants that had turned a sandy yellow colour, diagnosed the disease and prescribed the proper treatment. Ezzeldin beamed with pride. "This is why we're here," he said.

El-Fattal shares his optimism. She hopes that this project will be able to feed information to the Egyptian government for better policy-making when settling people in other new lands.

Thus where arid desert meets water, enduring hardship meets hope. And the likes of Gibreel, Barsi, and Salah will give root to communities that can hopefully perpetuate sustainable agricultural practices for generations to come ■

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A major multi-million pound initiative by the High Dam Lake Development Project under the Ministry of Agriculture is currently setting up model villages: one – Bashayer El Kheir – is virtually inside the Garf Hussein area. The village is constructed on a food-for-work basis with assistance from WFP and includes excellent beneficiary housing; a well equipped school (pre-school, primary and preparatory stages); permanent irrigation to enable year-round instead of seasonal cultivation; and a well-equipped health unit with an ambulance. Bashayer El Kheir is the only operational village to date, but two others are under construction in Thomas & Afia and in Kalabsha. The project plans to expand with construction of five model villages around the Lake, and these are intended to act as nuclei to be expanded according to the same plan.

Ayoub E-Aljaloudi, Deputy Director of WFP's Egypt Office.

