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EGYPT'S AGE-OLD DREAM COMING TRUE

by Thomas Land

GENEVA, IDRC -- Egypt intends to blast a canal through the low hills of its Western Desert to fill the gigantic Quattara Depression, the lowest point on the African continent, with water from the Mediterranean. The scheme would produce enough electric power to fuel several cities planned for the area. It may well cost up to US$3 billion, and take a decade to complete.

First proposed early this century, the scheme would exploit the world's biggest dry basin by transforming it into a 20,000 square kilometre lake with depths of over a hundred metres below the level of the Mediterranean. The flow of the sea water towards the Depression would yield enough electric power to supply several cities, as well as a network of vast agricultural projects planned in the region. And the volume of the flow would be synchronized eventually with the level of evaporation at the new lake, theoretically assuring a continued flow, and therefore power generation for ever.

Egypt's determination to turn the promise of the Quattara Depression into ample cheap energy yields without further delay is explained by the simple economics of survival.

During the past decade, two hydro-power complexes on the Nile have provided about two-thirds of Egypt's total electricity consumption. They have enabled the country to introduce electric power to three-quarters of the villages -- bringing education as well as modern medicine, and increasing food production. Yet the expansion of agricultural output still lags behind the accelerating

growth of population which produces an estimated 1.2 million new consumers annually. If it is to avert disaster, Egypt must now begin to create the future conditions essential for them to earn their keep.

Hydro-power has allowed Egypt to invest the bulk of its revenues from oil production -- which is now flowing at the rate of about 580,000 barrels a day -- into the thriving agro-industries. Land reclamation is an essential aspect of the country's long-term economic development plan, partly to feed a population projected at 60 to 70 million by the end of this century, and partly to redress the loss of potentially fertile land to the expanding cities.

The age-old dream of Egypt's agricultural planners, to break out of the confines of the fertile Nile valley, is thus coming to fruition under the relentless pressure of population growth. Desert reclamation is an expensive business, claiming an investment of up to US$10,600 per hectare in Egypt. The country has reclaimed about 365,000 hectares over the past 20 years, and plans to bring another 200,000 hectares under the plough by the middle of this decade, and 1.2 million hectares by the end of the century.

The Quattara scheme occupies a position of crucial importance in these plans because the cost of energy is an essential component of the price of land reclamation.

Principal areas already reclaimed in the Quattara zone include the Siwa Oasis and large parts of Tahrir Province. Big land reclamation projects are also scheduled at the Bahariya and Farafa Oases. The development plans of all these regions include the establishment of major new population centres in what are at present desert areas, to be powered by energy from the Quattara complex.

A four-year feasibility study of the Quattara scheme carried out by West German consultants dismissed the reservations expressed by the World Bank, and shared in many quarters, about possible adverse effects on the environment resulting from the creation of a vast salt water lake. The consultants concluded that it would have no significant effect on the weather of the agriculturally vital Nile valley downwind.

In their report, presented last year, the West German approved the project, and prescribed nuclear means of excavating the canal. Environmental considerations led to the rejection of this suggestion, however, and Egypt recently signed an agreement with Sweden for a further study exploring the non-nuclear options. Using conventional means of excavating the canal is expected to add to the cost of the project.

The new study team must start by reviewing the work already carried out by previous teams from five countries, recommending a dozen different schemes for power generation, and eight different routes for the canal. The route at present under consideration would begin at El Almein on the coast west of Alexandria, follow a southward path blasted through low hills, and cross an optional minor reservoir before the big drop into the giant Depression.

The fresh study may well be completed in only eight months, however, because the Swedes can make use of investigations and calculations that have gone into the six volumes of the West German report. So the initial stages of the project may well get underway very soon.

Despite its ambitious scope, the Quattara scheme is expected to provide only five percent of the nation's total energy consumption by the year 2000. But the potential of that energy source as a tool for reclaiming the desert gives it a far greater significance.

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