

Woman in Alexandria, Egypt



Alexandria harbour, Egypt



# Nile River delta: tough choices

Adaptation to climate change demands major investments. At the same time, many countries are trying to deal with other urgent issues: over-population, shortages of drinking water and food, and drought. Which is more urgent: tackling your current problems or protection for the future? In Egypt, the UNDP is working on an integrated approach to coastal zone management.

RIA DE WIT

The coastline around the Nile Delta is 240 kilometers in length; Alexandria is the westernmost city and Port Said the farthest to the east. Fifty percent of the population of Egypt lives in the Delta and forty percent of its industry is established there. The area hosts unique ecosystems while the majority of fishery and agricultural production comes from the Nile Delta. Moreover, there are very many valuable, historic locations. Alexandria alone attracts two million visitors from all around the world every year.

## Pressure on the water system

Less rain has fallen on Egypt in recent years, while the population has expanded rapidly. Alexandria alone has a population of five million. The great demand for water from Egypt's agriculture means the Nile has great difficulty satisfying the growing need for drinking water. The residents of Alexandria regularly turn on the tap to no effect. To solve the problem the city draws water from Lake Mariut, but this has consequences for the water quality and the fish stocks.

Many fishermen depend on Lake Mariut for their income. According to Dr Khaled Abu-Zeid, Regional Water Resources Programme Manager at the Centre for Environment and Development for the Arab Region and Europe (CEDARE), the

situation in Lake Mariut poses a dilemma to the decision makers: "What should we do? Solve the present problems or work on protection for the future? Which is more certain? The fishermen's problem now or the rise in sea level a century hence?"

## A comprehensive solution

Dr Mohamed Bayoumi, an environment specialist, addressed the conference 'Deltas in Times of Climate Change' on behalf of the United Nations Development Programme (UNDP) about Lake Burullus. This vast brackish lake, with a surface area of 70,000 hectares, is also located in the Nile Delta, east of Alexandria. The lake provides a living to 50,000 fishermen and their families, with an annual yield of some 50,000 tons of fish. Lake Burullus had comparable problems to those of Lake Mariut, but they have to a large extent been resolved by an integral approach, with support from the UNDP. Bayoumi says, "We brought the key stakeholders together so we could work

on an integral solution. Every conceivable party was involved in the talks, including the fishermen." Despite conflicting roles, the talks led to concrete actions, says Bayoumi. "The water quality in the lake has improved, partly thanks to dredging its opening to the sea and by hydraulic measures in the lake itself, which help the water to circulate better."

Besides these technical measures, a social-economic approach was also adopted, says Bayoumi. "Fishermen are being trained to take up another trade than fishing. That's a way to reduce the pressure on the lake. Illegal fishing has been tackled, too, and free-fishing zones have been indicated."

According to Dr Bayoumi the combined approach, with support from all the parties involved, both within and outside Government, is the solution for the entire Nile coastal zone. During the conference he spoke in favour of developing an "integrated coastal zone management plan for the Nile Delta coast." This, he believes, will allow present problems to be tackled, as well as future ones caused by sea-level rise. ■

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