

# Water key to war or peace in Mideast

by Scott Thompson

Hydroelectric generation at Egypt's Aswan Dam could be shut down by July, if the water level drops further, announced President Hosni Mubarak on May 1. The water level has already fallen to 150 meters, a level not anticipated before July. If the water reaches 147 meters, the Egyptian government will shut down the hydroelectric plant.

The choice that faces the Egyptian government is that 25% of Egypt's electricity is generated by the Aswan Dam, which is also essential for water for irrigation of agricultural production. President Mubarak made the decision to cut off electricity generation, and to continue to supply the water essential to farming. (Egypt currently imports 50% of its food through international grain cartels, largely because of shortages of water for major agro-industrial projects that would make the country self-sufficient.) There are already power shortages in several parts of the country.

The low water levels are due to the combined effects of: years of African drought, which have especially devastated Ethiopia and Sudan in the Nile River Basin; work on the Jonglei canal in southern Sudan, intended to increase water supply for both countries, was halted in 1985, when the chief engineer was kidnaped by southern Sudanese insurgents, who said that Egypt planned to steal Sudan's water; and, a new dam that is being built with Soviet aid in Ethiopia, where almost 85% of the waters of the Nile originate in steep valleys that a government hostile to Egypt could try to block if provided with the necessary technology.

## The scope of the problem

A study by Joyce Starr for the Center for Strategic and International Studies, titled "U.S. Foreign Policy on Water Resources in the Middle East," which was done to accompany a Marshall Plan proposal for Middle East development, points out, "By the year 2000, water—not oil—will be the dominant resource issue of the Middle East." Water will also be the first economic issue encountered in any serious peace

effort for the Arab-Israeli conflict. If there is to be peace, a settlement will have to be made on the use of the Jordan River, as well as its principal tributary, the Yarmuk, which respectively divide Israel and Jordan and Jordan and Syria.

With headwaters originating in the Syrian and Lebanese highlands, the Jordan River has an average annual discharge of 1.287 billion cubic meters. By the year 2000, Israel's water needs may exceed supply by 30%, with Jordan experiencing a 20% discrepancy. The upper Jordan River is already highly developed, and there are plans between Syria and Jordan for construction of the proposed Unity/Maqarin Dam along the Yarmuk—the only major undeveloped tributary—which will fully utilize this resource.

Israel is already using 95% (of an estimated total of 1.755 billion cubic meters per annum) of its renewable resources, and it consumes five times more water per capita than its neighbors. Estimates are that by the year 2000, through increased agricultural projects, Israel will face a shortfall of 800 million cubic meters per annum—almost half its present consumption. According to the West Bank Data Project, "The main water potential of the West Bank, shared with Israel, is exploited to its limit, in a ratio of 4.5% to the West Bank and 95.5% to Israel. Already, Jewish settlements in the West Bank have exceeded their water quotas by almost one-third, leaving less water for Arab agriculture. The water situation in the Gaza Strip has been described as a 'time bomb waiting to explode.'" Already the large Gaza Strip aquifer, which supplies all of the area's water needs, is being seriously overpumped. Clearly, any peace settlement for the occupied territories will have to make major provisions for desalination projects, as well as allocation of existing resources.

Turkey is undertaking an ambitious development project known as the Southeast Anatolian Project (GAP), which is reducing the discharge of the Euphrates, thereby affecting both Syria and Iraq. Turkey has offered to build a \$20 billion "peace pipeline" from the Ceyhan and Seyhan rivers: An eastern pipeline would serve Kuwait, the eastern coast of Saudi Arabia, Bahrain, Qatar, and the UAE, while a western pipeline would serve selected cities in Turkey, Syria, Jordan, the West Bank, and the western section of Saudi Arabia. So far, Turkey has been unable to raise the capital for this project to supply water for municipal use.

Syria may face a general deficit as high as 1 billion cubic meters by the year 2000, assuming present patterns of consumption. Syria is already confronting mounting shortages as a result of the reduced flow of the Euphrates, and major cities like Damascus and Aleppo suffer from constant water and electricity shortages (from hydroelectric sources), especially during the summer months. The Syrian government has sharply increased the amounts budgeted for water and hydroelectric projects in 1988. These areas will account for 43.5% of the government's investment budget in 1988, compared with only 10% in earlier budgets. Targeted projects include badly needed water and sewage systems in Damascus, Aleppo, Homs, and Hama.