The Iraqi Marshlands

A casualty in the Tigris-Euphrates River Basin

"North Hamar 278." *Iraqi Marshlands Observation System (UNEP)-Photos*. Web. 4 Dec 2009. <http://imos.grid.unep.ch/modules/myalbum/photo.php?lid=278>.

"Giant Reeds." *Iraqi Marshlands Observation System (UNEP)-Photos*. Web. 4 Dec 2009. <http://imos.grid.unep.ch/modules/myalbum/photo.php?lid=19>.

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A River in the Desert

Fig. 1 Basic political map of the Tigris and Euphrates river basin (Tigris 496)

- Over 70% of the entire inflow to the river system comes from the narrow bedrock channels in Turkey (Altinbilek 18).
- The rivers flow through the low, poorly drained plains of southern Iraq and become wide and meandering. (Euphrates River 353)
- Seepage, irrigation and evaporation in these plains greatly decrease the output of the rivers before they reach the Persian Gulf. (Tigris River 496)
- A system of dams and channels reallocates water and transfers water from the Tigris, which is prone to overflow, to the Euphrates, which is being overdrawn (Altinbilek 20). See Fig. 2 below.
- The climate of southern Iraq is extremely arid, but a nearly horizontal gradient and poor drainage has resulted in extensive wetlands fed by the two rivers (McCoy 260-261).
- The Tigris-Euphrates basin experiences extremely variable flows; the maximum annual flow for the Tigris may be 80 times its minimum (Altinbilek 18-19).

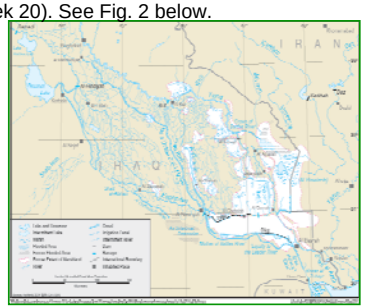

Fig. 2 A map of major natural and manmade channels. ("Drainage Schemes in Southern Iraq 2001-2005.)

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A Hydraulic Society

- In the preindustrial era, basin management was characterized by the desire to minimize risks to crop growth, such as salinization and flooding, the pressure to create efficient irrigation systems, and the reality that only a small proportion of the system discharge was used (Beaumont 169).
- Political water conflicts were non-existent among the riparian states until the mid 20th century, when pressures to develop industry and agriculture required greater quantities of water.(Altinbilek 16)
- Water development projects often involved foreign companies. The Main Outfall Drain (see Fig 2) was completed by Iraq's government in 1992, but was originally planned by American engineers in 1953 (Hillel 100-101).
- Syria, Turkey and Iraq have never come to a consensus about water distribution. Each of the states has continued its own development plans without regard for the other states' consumption.
- Turkey's GAP hydro-development project included the creation of the Ataturk Dam. This dam and its enormous reservoir have created a major change in flow pattern that directly affects Syria and Iraq; the reservoir can store nearly the entire annual output of the Euphrates (Beaumont 173; Richardson 487).

Fig. 3 A map of dams and land use patterns(*Tigris and Euphrates River Fragmentation*).

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History of the Iraqi Marshlands

- The Al-Hawizeh, Al-Hammar and Central marshes constituted three separate marshes in south eastern Iraq.
- During Saddam Hussein's regime, the marshlands were drained so that less than 10% of its original 20,000 square kilometers remained (Richardson and Hussain 477).
- Approximately 75,000 Ma'adan, peoples who subsisted on the marsh habitat, became refugees hosted by Shiite Iran, to return in 2004 to find their homelands completely gone. (Richardson and Hussain 478).
- Accounts of Saddam Hussain's military actions depict a strategic and systematic expulsion of Shiite Ma'dan peoples during the Gulf War and the deliberate poisoning of marsh ecosystems (Alwash).

Fig. 4 A typical reed Ma'adan homestead. ("North Hamar 107")

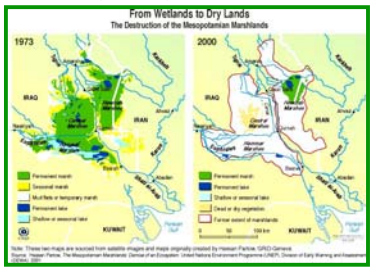

Fig. 5 This map shows the extent of the destruction of the marshlands. (*From wetlands to dry lands*)

- Officially, no country took responsibility for the ecological destruction. Iraq blamed Turkey's dam project and Turkey blamed Saddam Hussein's drainage canals.
- After the US invasion of Iraq in 2003, local peoples destroyed levees and canals and re-flooded 39% of the original marshlands by 2005.(Richardson and Hussain 480)
- The finite water resources of the Tigris-Euphrates river system puts the marshes in direct competition with other water needs like agriculture and industry, as well as the already tense consumption situation between the riparian states.

Evolving Attitudes

- In 1958 the government of Iraq possessed "the urgent desire to raise the level of living of the people of Iraq," and considered "general development in Iraq…[as] directed to a considerable extent toward agricultural expansion," (Al-Khashab 16-17)
- When Israel instituted policies and projects similar to Saddam Hussein at mid-century, they were applauded by Westereners as modern developers (Beaumont 182).
- Today, the U.S. congress has discontinued American sponsorship of the "Eden Again" restoration project, revealing its ambivalence on the issue of marsh restoration (Alwash).
- The animosity towards Saddam Hussein has influenced Western perception of the causes of marsh destruction, ultimately blaming the entire "ecocide" on the actions of this leader's regime, giving no weight to the actions of Turkey (Beaumont 182).
- Early on, Turkish leaders felt wrongly accused by the UNEP and non-governmental organizations: "The main cause of the disappearance of the marshlands was the construction of drainage engineering works…by Iraq. The voice of Turkey was not heard in the international community," (Altinbilek 30).
- The Ma'dan people have turned to farming and animal husbandry, a more lucrative practice, and many do not want the full restoration of all marshlands, but rather both development *and* restoration (Lawler).

Fig. 6 Azzam Alwash, director of Eden Again project and Iraqi ex-pat working to restore the Marshlands. (Lawler)