



Southwest Asia's
**Environmental
Issues**



Pollution &
Unequal Distribution of Water

Pollution

- Many countries in Southwest Asia are experiencing the increasing problem of water pollution.
- Farmers have begun using chemical fertilizers that run off from the fields and contaminate water supplies.
 - Chemicals also lead to salt build-up in the soil, which eventually makes farming in those areas impossible.
- Rapid growth of industry in cities and towns has caused garbage and sewage to build up in rivers and streams.

Tigris River Pollution



Enough Water?

- Water availability is a major concern in Southwest Asia.
 - Less than 1% of the world's fresh water is available to the area's inhabitants (5% of the world's population).
- There is simply not enough water available to meet the population's needs.
 - Middle Eastern countries are constantly in conflict over these water problems.
- Let's take a look at how water is distributed in several of these countries.



Water availability in Iraq will halve by
2050

Turkey

- Turkey has a “water advantage” over other Middle Eastern countries because the Tigris and Euphrates rivers form in the country’s highlands.
- Turkey has developed the Southeastern Anatolia Project, which consists of 22 dams and 19 hydroelectric plants along the Euphrates River.
 - This project has greatly improved the standard of living for Turkey’s citizens.
- Unfortunately, the country has had to deal with the increasing problem of water pollution.
 - In addition to chemical fertilizers and industrial wastes, the rivers have also been affected by oil spills in the Black Sea.



Ataturk Dam -- Turkey

Syria

- The dams that Turkey built along the Euphrates have greatly reduced the amount of water reaching Syria (40% less).
- Syria already suffers from food shortages, and irrigating new land is extremely difficult with the diminished water supply from the Euphrates.
- In order to keep some water in the country, Syria has also built dams along the river.
 - This has reduced the river's flow into Iraq, thus causing more conflict.

Lake Assad –
Syria's largest reservoir was created in 1974

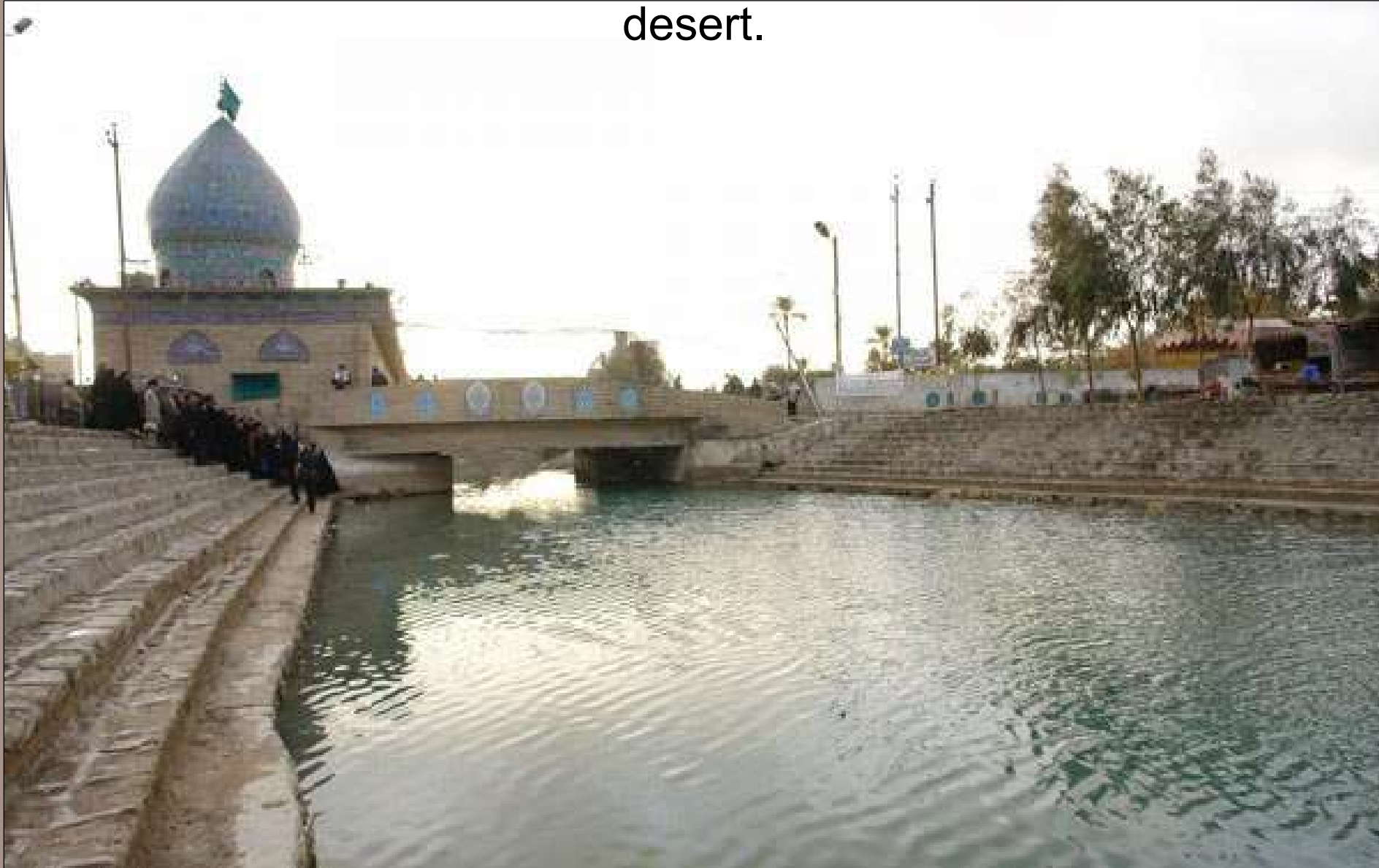


Iraq

- The dams that Turkey & Syria built along the Euphrates have also greatly reduced the amount of water reaching Iraq (80% less).
 - This has negatively impacted the country's food supply.
 - Wheat & rice production has decreased dramatically, and many farmers are now without jobs.
- Iraq also faces water pollution problems as a result of industry and petroleum drilling equipment.
 - Also, three decades of warfare have caused damage to Iraq's water treatment plants.

The Glory Canal (built by Saddam Hussein in 1993) was a disastrous project that diverted natural water flow from the country's marshes and converted wetlands into

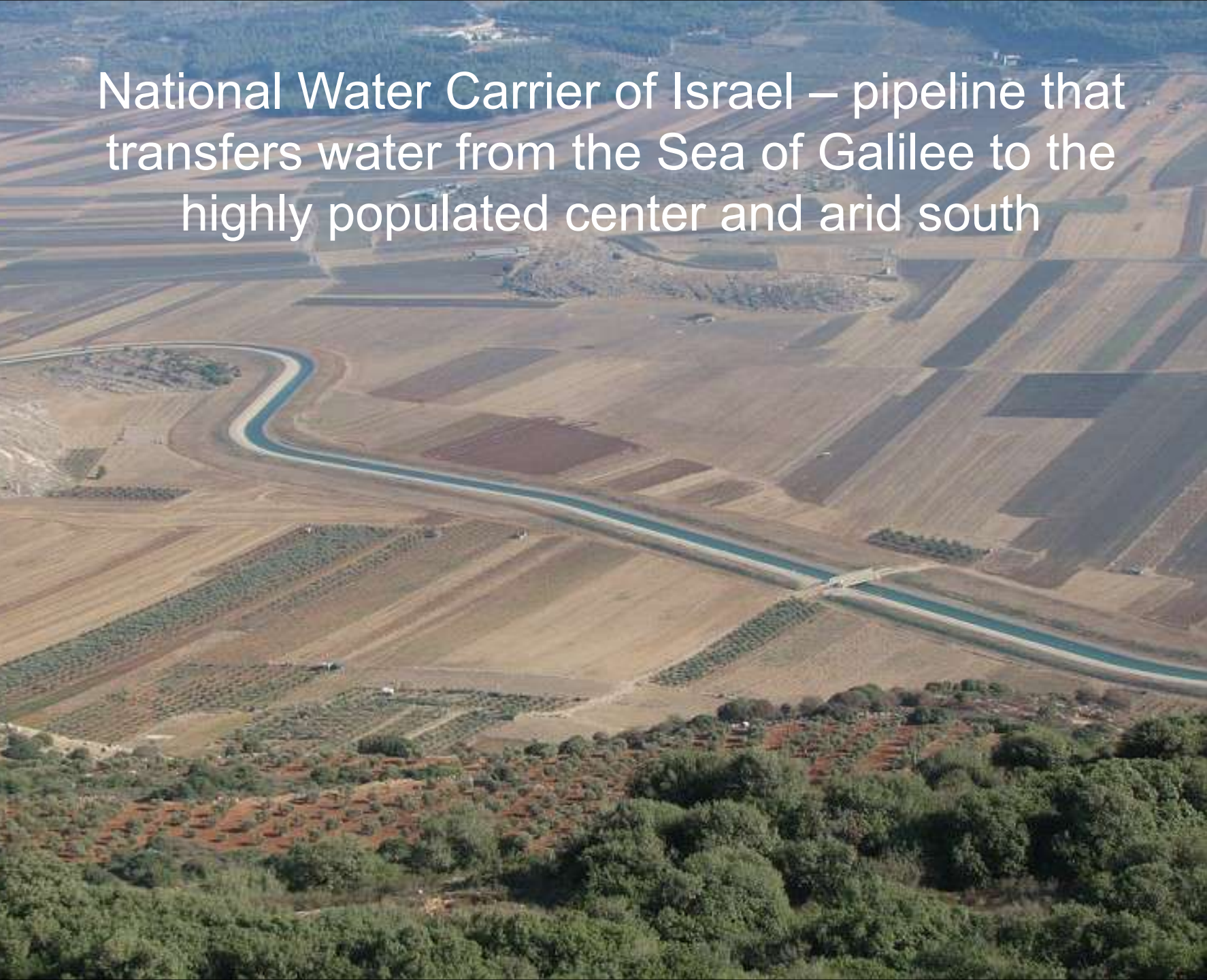
desert.



Israel

- Since its creation in 1948, Israel has developed new technology and advanced farming techniques that have turned the once-barren desert land into farmland.
- Because rainfall is down, Israel has to rely on drawing water from its aquifers (underground layer of rock and sand that contains water).
 - Unfortunately, the aquifers are in jeopardy because more water is taken out than is replenished by rain.
- Israel has been involved in many conflicts over water rights to the Jordan River with Syria, Jordan, and Palestine.

National Water Carrier of Israel – pipeline that transfers water from the Sea of Galilee to the highly populated center and arid south



Jordan

- Jordan is one of the ten most water scarce countries in the world.
 - The country's major surface water sources are shared with Israel and Syria, who leave only a small amount for Jordan.
- Israel has built pipelines that redirect the river's water away from Jordan and into its own lands.
 - Jordan & Israel have been involved in military battles over water rights.
- Jordan cannot meet the basic needs of its people and has to ration the water supply.
 - Citizens can only get water two days a week.



Mujib Dam, Jordan –
desalinates brackish water from the Dead Sea

Saudi Arabia

- Saudi Arabia has a desert climate and has struggled to meet the water needs of its growing population.
- Water is scarce in the country, and what little water that is available is of poor quality because of salt water intrusion.
- The country has built a number of desalination plants that provide most of the country's drinking water.
 - Desalination is the process of taking salt out of seawater and using it for drinking water.



World's Largest Desalination Plant – Jubail Industrial City, Saudi Arabia

Water Issue Prescription

Directions: You are the doctor! Write a prescription to cure one of the Southwest Asian countries' water "ailments".



Name: _____

MD Signature: _____

Ailment:

Prescription:

