

Southwest Asia's ENVIRONMENTAL ISSUES

STANDARDS:

SS7G6 The student will discuss environmental issues across Southwest Asia (Middle East).

a. Explain how water pollution and the unequal distribution of water impacts irrigation and drinking 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

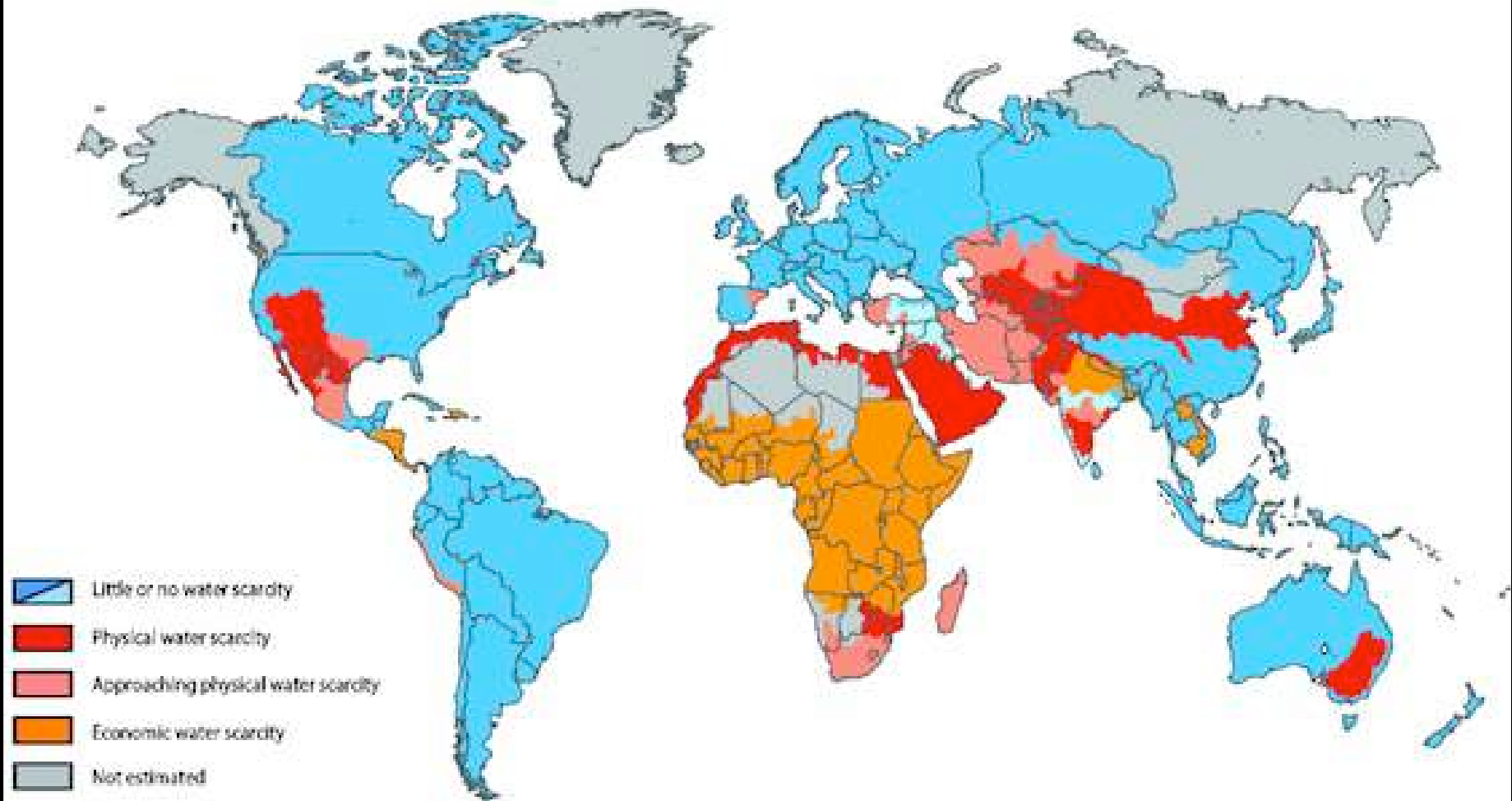
Tigris River Pollution



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).

Areas of physical and economic water scarcity



Scarcity

- Water is a precious resource and there is simply not enough 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.



Turkey

- Turkey has a “water advantage” over other Middle Eastern countries because the Tigris and Euphrates rivers form here.
- 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.

Turkey's Ataturk Dam



Turkey

- Unfortunately, the country has had to deal with the increasing problem of water pollution.
- Chemical fertilizers from agriculture and industrial wastes from industries pollute the rivers.
- Pollution also comes from oil spills in the Black Sea.

Water Pollution in Istanbul



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.



Syria

- 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 and rice production has decreased dramatically, and many farmers are now without jobs.



Iraq

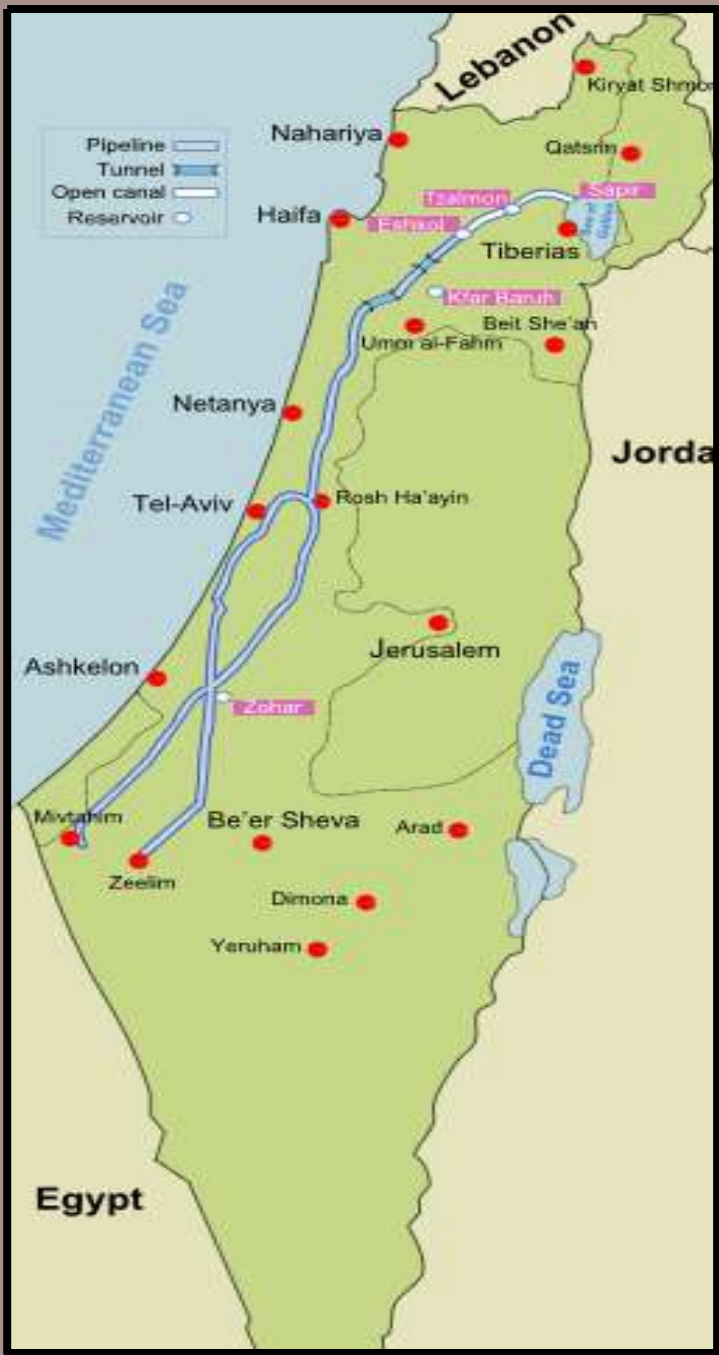
- Iraq also faces water pollution problems as a result of industry and petroleum drilling equipment.
- Also, three decades of warfare have caused damage to Iraq's water treatment plants.

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 –

A pipeline that transfers water from the Sea of Galilee to the highly populated center and arid

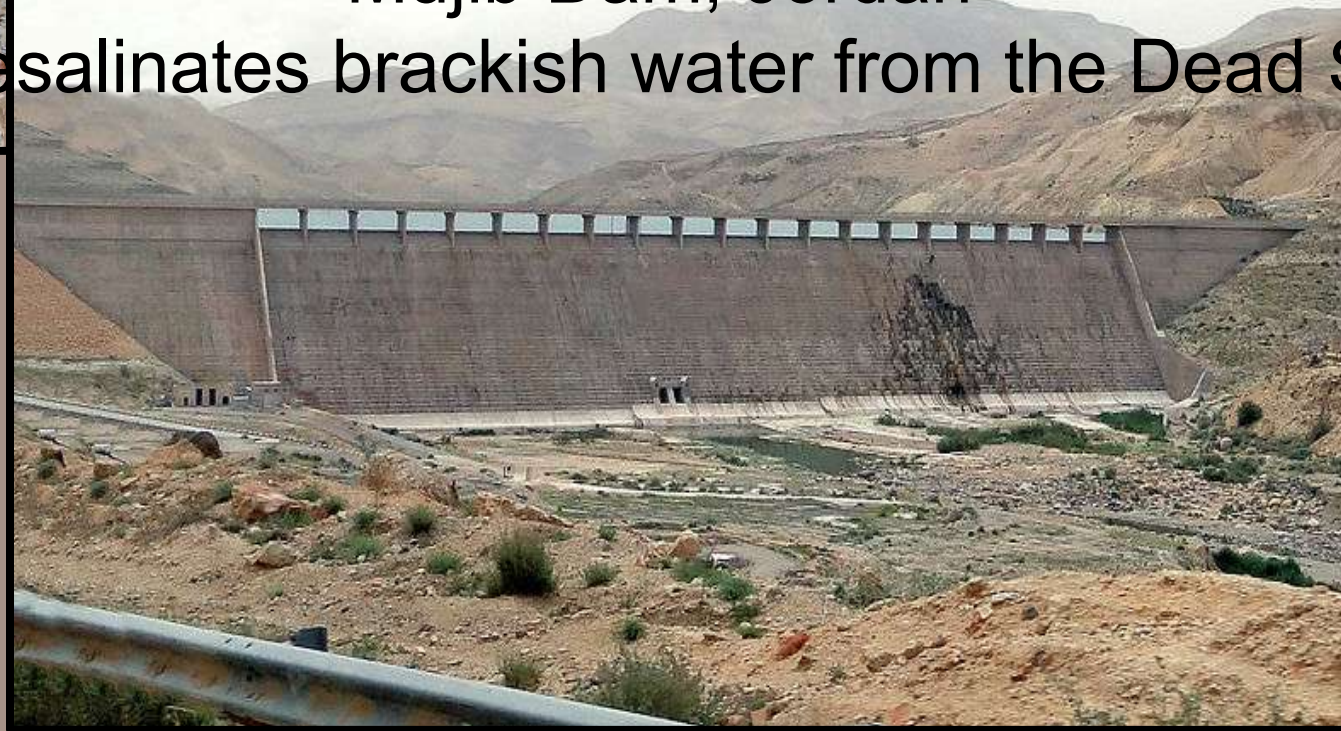


Jordan

- Jordan is one of the ten most water scarce countries in the world.
- 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.
- The country's major surface water sources are shared with Israel and Syria, who leave only a small amount for Jordan.



Mujib Dam, Jordan –
Desalinates brackish water from the Dead S



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.

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

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



