

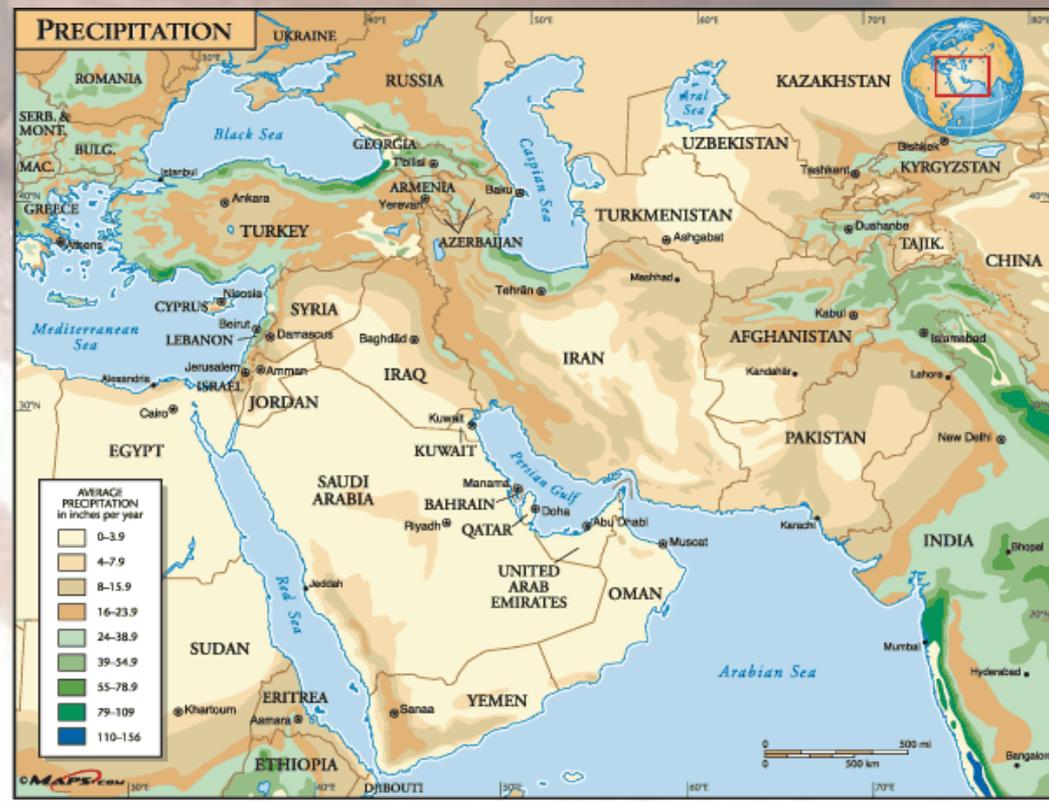
A photograph of a desert canyon with two people in black robes walking away on a path. The scene is brightly lit, creating long shadows on the ground. The canyon walls are made of reddish-brown rock.

Resources of Southwest Asia/Middle East

Water and Oil Issues

Water

- Water is a natural resource that is distributed unevenly in the Middle East.
- Some countries, like Turkey and Iraq, have major rivers that provide enough drinking water for farming communities.
- These two countries share the Tigris and Euphrates river systems.
- Israel, Syria, and Jordan share the Jordan River.

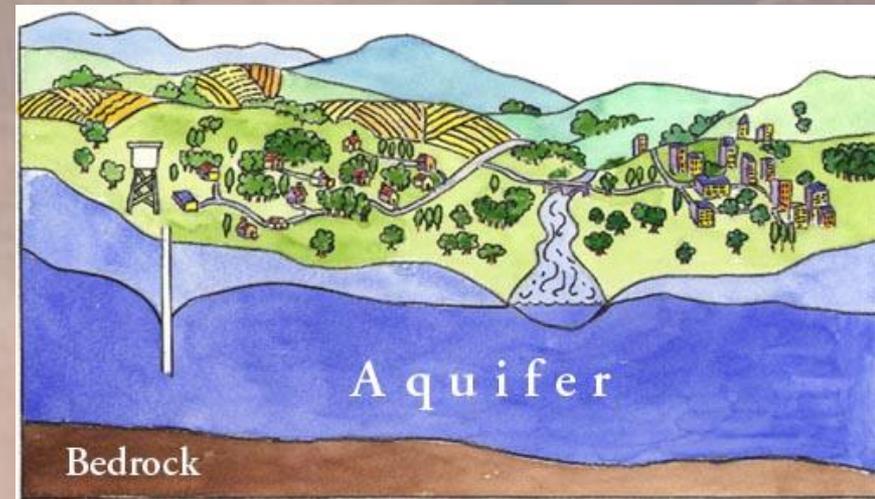


- Others, like Saudi Arabia, have almost no water.
- They are mostly made up of desert.
- Others, like Iran, have areas with access to rivers and areas that are made up of deserts.
- Because water is in short supply in so many parts of Southwest Asia, irrigation has been necessary for those who want to farm and raise animals for market.

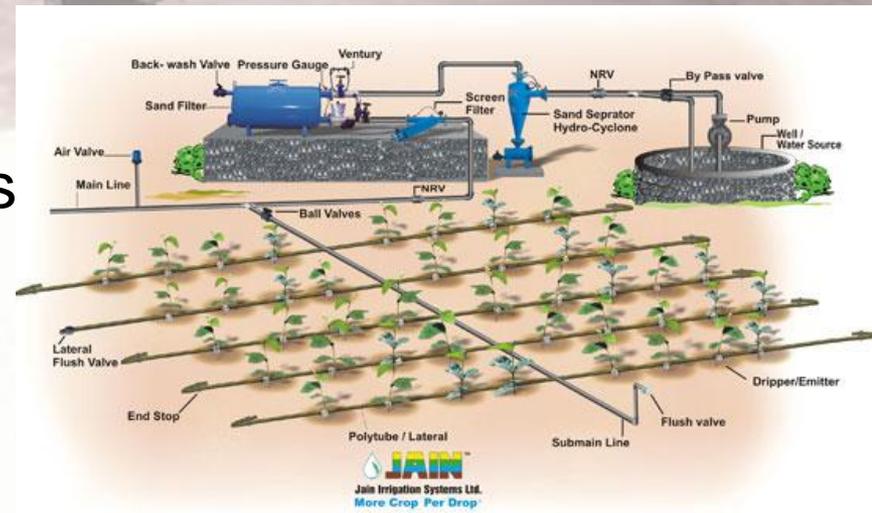


Irrigation

- Many types of irrigation can be found in Southwest Asia as farmers struggle to bring water to their fields from local rivers and from underground **aquifers** (layers of underground rock where water runoff from rains and streams is trapped.)
- Some farmers use water from wells that tap into **fossil water** (water that has been underground for centuries).
- Rains and streams do not replace this water, and once it is used, is gone forever.



- Farmers in very rural areas still use methods used by their ancestors to irrigate their fields, including water wheels, irrigation ditches and canals, and animal power to lift water from underground wells.
- Farmers in countries with more technology use modern irrigation techniques.
- Israel and Saudi Arabia have developed systems of **drip irrigation** using computers that measure out how much water each plant receives.
- There has also been a lot of work done to learn how to take water from the ocean and desalinate it to use for drinking and irrigation.
- **Desalination** (the process of removing salt and other chemicals from seawater) is very expensive and requires complex technology.



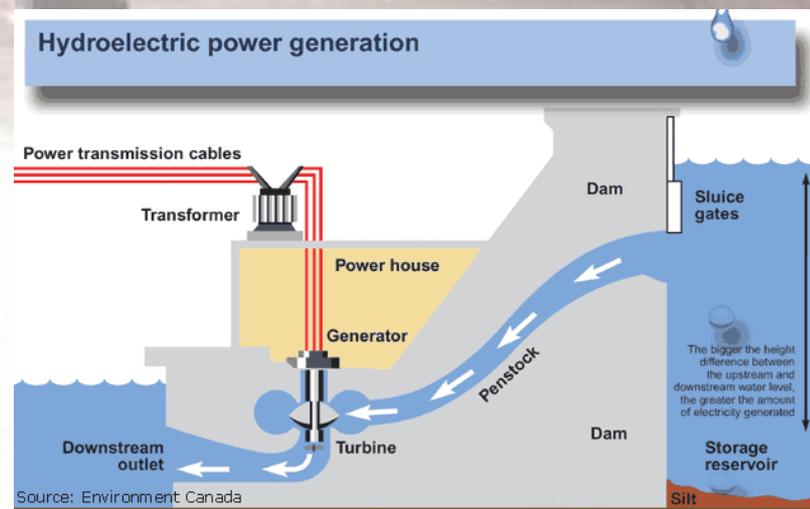
Water Problems

As the demand for irrigation to expand farming has increased countries in the Middle East have worked to modernize their systems of agriculture

- Water pollution has been a growing problem.
- Increases lead to overuse of rivers and streams.
- Many farmers have begun to use chemical fertilizers, which have contaminated water supplies through runoff into these same rivers and streams.
- Constant planting and fertilizer use have led to the build-up of salt levels in soils, eventually making it impossible to farm in those areas.

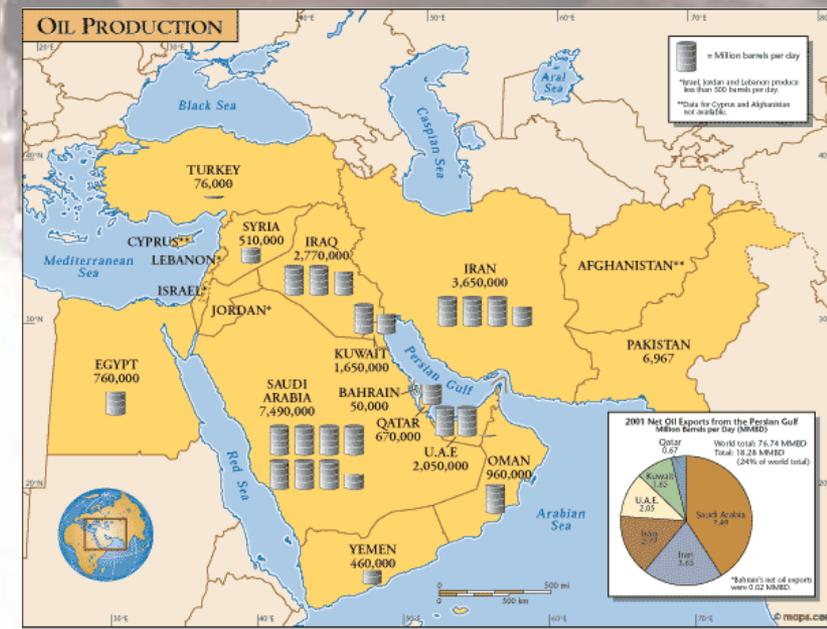


- In the rush to develop industry, many cities and towns have grown rapidly, but the people living there have been slow to create effective ways to manage garbage and treat sewage.
- Access to water is also a source of conflict, especially among countries that share a river system.
- Dams built along a river to create lakes for irrigation and the production of **hydroelectric power** (electricity produced from the energy of running water) in one country reduce the amount of water available to other countries located further downstream.



Oil in the Middle East

- Two of the most important natural resources found in Southwest Asia are natural gas and oil.
- These two resources bring wealth into the region because they are needed for much of the world's economy.
- **Over half of the world's known oil reserves are found in this part of the world.**
- This has made some of these countries extremely rich and has led them to have a lot of control over the global economy.



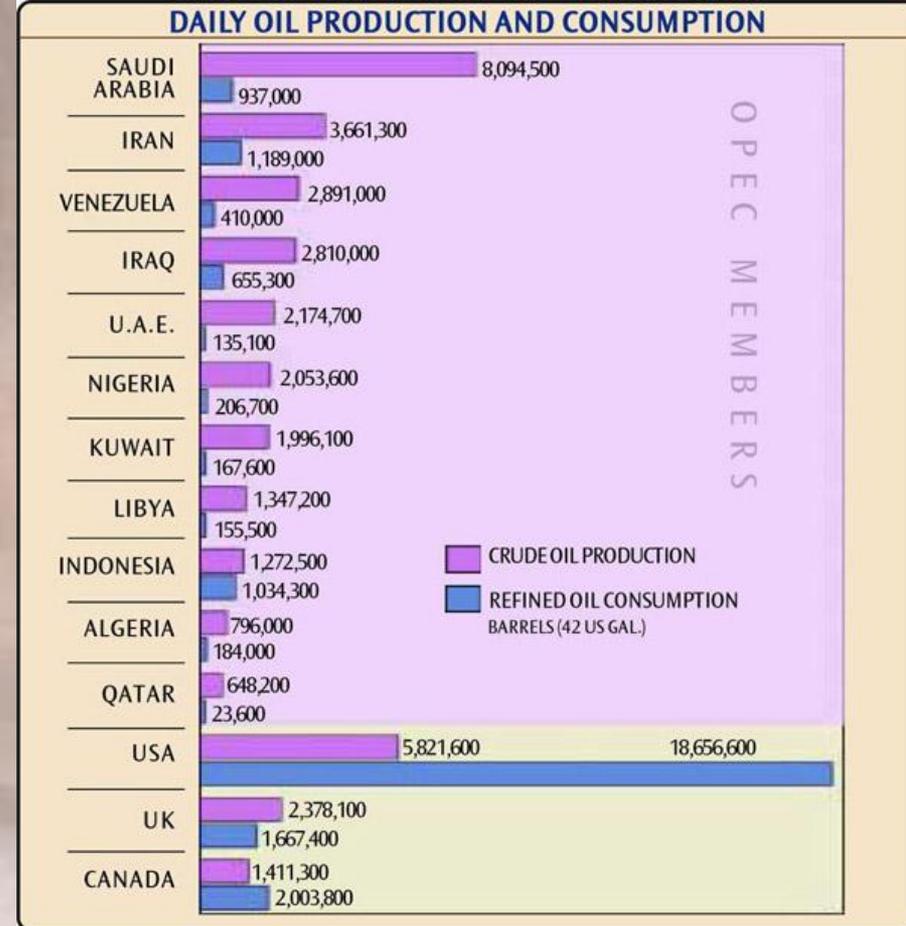
OPEC



- In the 1960s, several of these Southwest Asian countries joined with other oil-rich countries around the world to create the **Organization of Petroleum Exporting Countries (OPEC)** in order to have more control over the price of oil on the world market, by controlling the supply.
- OPEC (a confederation of voluntary members) has called for an embargo, or a slow-down or temporary halt, to oil supplies at different times in the past to get political and economic agreements from the other countries in the world.
- While some countries in the Middle East have grown very rich due to their oil production, others have struggled to help their populations make a decent living.

Who has the oil?

- The Middle Eastern nations with the **greatest reserves of natural gas and oil are Saudi Arabia, Iraq, Iran, and Kuwait.**
- Some other countries have smaller reserves, especially those found around the Persian Gulf.
- These countries have enjoyed tremendous growth in national wealth and an improved standard of living in the past fifty years.
- **Those countries without oil reserves have a much harder time improving living conditions for their populations.**
- This difference in wealth in some of the Middle East has led to conflicts among the nations.



Farming

- Many people in the Middle East practice **subsistence agriculture**, growing small amounts of crops, to take care of their local needs.
- Because the climate is so dry, agriculture nearly always depends on irrigation, directing water from small rivers and streams to the farmers' fields.
- There is some **commercial agriculture** (growing crops for industrial markets), but even that is limited by lack of water.

