1. Discuss the environmental and socio-economic problems generally associated with freshwater resources

Aral Sea introduction on case study
- Aral Sea in central Asia is drying up.
- Though it was once the fourth largest freshwater lake in the world
- It has shrunk dramatically since 1960.
- It lies in the republics of Kazakhstan and Uzbekistan in central Asia.
- The whole region has a continental and semi-arid climate
- filled by rivers that brought rain and snow melt to it from distant mountains

Environmental + Economical
- Rivers that once flowed into the lake have been diverted to irrigate crops.
- introduced commercial cotton production and promoted more extensive irrigation systems along the two major rivers (historical input, effect the past has now on the present day)
- Crops being the economical reason behind the diversion into irrigated crops
- With the decrease in the amount of water flowing into the lake, evaporation has became the dominant process.
- As fresh water evaporates from the lake and is not replenished
- The amount of dissolved minerals (salts) in the water increases and the area of land covered by the water decreases. Environmental problems that occur from the economical demands from the sea
- decreasing size of the Aral Sea has also had an impact on the regional climate (discuss winter, spring relationship)

- The change in water chemistry (increased salinity) wiped out huge populations of fish.
- The decline of the fish populations, in turn, wiped out the commercial fishing industry on the lake = due to the impact on the environment it also affects the economy of the people living around the sea and what they depend on

Social issues
- Approximately 40 million people lived in the Aral Sea basin.
- fishing boats sit in the desert many kilometers from the water's edge.
- The lakebed sediments that are now exposed on the desert floor can be picked up by wind quite easily = contributing to large dust storms in the region, which has a social effect on the people around
- This causes people to migrate to other areas with more easily accessible water or land to grow crops on
- many diseases but especially those of the respiratory tract, cancers of the throat, leukaemia, kidney and liver failure
- region infant mortality is 110 per thousand live births (related to the social issues of the impacts from the environmental issues caused)