

2 Prompts:

- 1) *Using at least one example, examine why access to water resources is an increasingly important international issue in arid regions.*
- 2) *Competition for water is a major cause of international conflicts in arid areas. Using examples, explain why such conflicts exist.*

From the outset, water shortage is not a regional issue anymore. It became more and more globalized during the past few decades. Water deficit have become a common problem for many countries all over the world, no matter LEDCs or MEDCs. For example, in many regions of India, the water table is falling by 1-3 meter per year. In some areas, the consumption of water is even 2 times bigger than the recharge. Similarly, the water table is falling by 2-3 meters per year under much of the North China plain. USA, one of the world most developed countries, is also facing similar problems. In its Southern Great Plain, where irrigation is heavily dependent on Ogallala aquifer, “also known as the High Plains Aquifer, is a vast yet shallow underground water table aquifer located beneath the Great Plains in the United States”. In Texas, Oklahoma, and Kansas, the aquifer is depleted. As a result of this, irrigated areas are shrinking in these regions.

Annually, 10% of world water withdrawal is used for domestic uses, 20% for industrial uses, and 70% for irrigated agriculture. Agriculture is heavily dependent on water withdrawal, and water deficit will bring disastrous impact to irrigated agriculture. Needless to say, the next step of water shortage will be food shortage. It is already a serious problem at present. It has been estimated that water shortage in terms of aquifer over pumping is 160 billion tons annually in India, China, the United States, North Africa, and Saudi Arabia. Assuming that 1,000 tons of water can produce 1 ton of grains that means the 160 million tons of grain can be provided in the world. The current consumption for grain is 300 kg per person. By doing a simple math division problem, it is estimated that merely 533 million out of 6.1 billion can escape from the clutches of starvation. What is more, needs for drinking water was even not taken into account. The situation is predicted to be even worse in the future. Back to the three countries, India, China, and USA. These three countries account for nearly 50% of total world grain output. And it is mentioned previously, they are all experiencing water shortage at present as their water tables in irrigated areas are falling annually. This directly affects food production in these three countries. As food supply drops, this will create even greater starvation in the world.

Water shortage will not only lead to starvation, but also hinder economic development as almost all economic activities are dependent on water. This another reason for why that access to water resources is an increasingly important. Water shortage will affect both supply side and demand side of the economy. For instance, in Canada, water shortage causes lower lake levels. This led to a reduction in shipping loads as well as water availability for clean hydro-electric power on the Great Lake. Similarly, as water shortage decreases production of crops. It will also affect some power-producing industries as crops can also be used to generate energies. On the demand side of the economy, the influences of water are also significant. Water price goes up as a result of water scarcity. Simultaneously, it will lead a rise of price in other sectors of the whole economy, as water is the fundamental resource of almost every economic activity. As a result this,

consumption is restricted. Moreover, it causes instability of the economy, such as inflation and unemployment.

Water conflicts are another cost of water shortage. They are mainly caused by scarcity of water and inability of peace agreement between countries among water issues. The incident took place between Israel and Jordan is a good example of water conflict. Israel and Jordan have been sharing Yarmouk river for many years. As water is become more scarce, both countries intended to dominate the water resources of Yarmouk River. In 1951 since Jordan announced decided to divert part of the Yarmouk River through the East Ghor Canal. Israel started to build it Nation Water Carrier in 1953 in response of Jordan's action. This led to military conflicts between these two countries in 1964. In that year, the NWC started to diverting water from Yarmouk River. Afterwards, a plan that suggests to diversify headwater of Jordan River to Syria and Jordan was passed at Arad summit during same year. Along with other minor factors,, Israel started its military action on Jordan between 1965 to 1966, an attack to the construction of water-diverting projects. This conflict led to the Six Day War in 1967. Meanwhile, Syrian diversion project was totally destroyed. Israel also took control of the Jordan's headwater including Golan Height, the West bank and the Gaza Strip. A similar attack on East Ghor Canal took place in 1969 because Israel suspected that Jordan was diverting excess amount of water. Water is essential to human survival, livelihoods and most forms of economic production. Similar to oil, it is spark of conflicts between countries. As availability of water resources is reduced, countries are obliged to obtain more water resources. One way of doing this is to extract more water from original water resources. In arid areas, many countries share one same river. They all want to divert the river in order to main their food production and economic development. But the water resources are limited. In addition, even though many countries attempted to eliminate the conflicts by using peace agreement. But these agreements rarely worked out. This is another for existence of water conflict in arid regions. So these countries use military actions to ensure their dominance over the water resources. This is how conflicts arise in these areas. .