Unit 7 - Water and Food Supply:

7.1 Which areas in the world have problems with food and water supply?

Most of the areas which suffer from hunger and contaminated water are in LEDCs. Some parts of MEDCs can suffer from water shortages, but usually they are rich enough to be able to cope with the problem.

- more than 1 billion people suffer from hunger (a sixth of the world population)
- hunger kills an estimated 24,000 people a day
- nearly half the world's people don't have access to safe water
- contaminated water causes 80% of disease in LEDCs and kills 10 million people a year

Causes of poor food supply	Causes of poor water supply
• poverty - people can't afford enough food • lack of available farm land • production of cash crops has reduced food production • war can disrupt farming and food supply • overgrazing reduces vegetation and leads to desertification • drought and a lack of reliable water	• lack of reliable rainfall • poverty - people can't afford to buy clean water • some areas don't have the infrastructure (pipes, cleaning stations etc) to get clean water to people • water pollution, from sewage, farms or industry • rapid growth of urban areas leads to shortage

Desertification is the spread of desert-like conditions. Overuse of the land and deforestation leads to soil erosion which makes the soil less fertile. Climate change could also be reducing rainfall - all of which means that desert areas start to get bigger and less food is able to be grown (e.g. the Sahel in Africa - countries like Ethiopia and Sudan)

7.2 What are the impacts of poor water and food supply on people?

- water-borne diseases like cholera and dysentery
- lack of water to irrigate crops
- increased soil erosion if land is not irrigated
- migration - lack of food and water acts as a push factor
- malnutrition - lack of the right kinds of food. Malnutrition leads to problems such as rickets (effects bones)
- poverty - crops can't be sold if there aren't enough of them
- starvation - and a decrease in life expectancy
- weakness - as people have less to eat/drink they become weaker and less able to work or farm - so the problem gets worse as they can't earn or grow enough to recover

7.3 How can food and water supplies be improved?

Schemes can vary between large projects costing millions of pounds (but often too expensive for LEDCs to manage properly) to small-scale local projects effecting only a few people.

- **large scale water management projects**, such as the **Aswan Dam** in Egypt, aim to provide large numbers of people with safe water for drinking and irrigation. This can also increase crop production - e.g. cash crops such as cotton, which help to provide money. Electricity from Hydro-Electric Power Stations also provides some benefits. But there are problems such as paying for the scheme which often produces debt, the lack of fertile silt being deposited further down the valley, people being forced to move to build the dam and health problems such as bilharzia. Often the poorest people don't actually benefit very much from large schemes.
- **large scale food production projects** tend to supply machinery, fertilizer and pesticides and especially bred seeds. These can produce much better food yields or increased production of cash crops, but are very expensive and need money spent on them each year. Fertilizer and pesticides can also effect the environment badly - e.g. by polluting water supplies.
- **small scale projects** - **FARM-Africa** provides equipment and training to drill small wells close to villages, supplies livestock such as goats and educates people - for example, about bunds (lines of stones which trap rainwater on fields and help produce more food - a very simple, cheap method of helping). These schemes tend to be cheap and sustainable (they don't effect the environment badly) but rely on charity and can only really help small numbers of people.