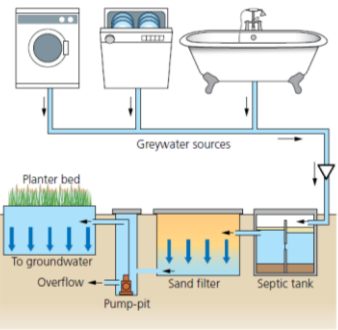
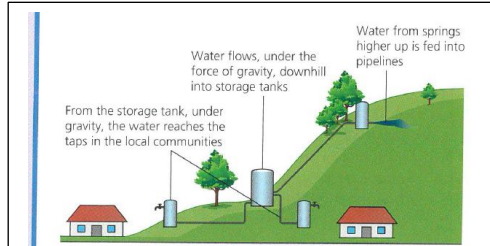


**Grey water treatment**



▲ Figure 24.19 Advanced grey water treatment



▲ Figure 24.24 A gravity-fed water system

The principle behind a gravity fed water system, as used in Hitosa, Ethiopia

**Case study: SNWTP China**

▼ Figure 24.17 Some costs and benefits from the SNWTP

Costs	Benefits
Displacement of huge numbers of people	Provides reliable water supply in the water-deficient north
Wildlife and ecosystems badly disturbed	Improves availability of safe water therefore reduces health risks
Loss of antiquities	Water for industrial growth
Huge capital investment - taxpayers to pay	Water for irrigation
Water exports might run the south dry	
Evaporation losses from canals	



▲ Figure 24.14 Water availability in China

**Resources key terms:**

<b>Agribusiness:</b> Application of business skills to agriculture.	<b>Geothermal energy:</b> Energy generated by heat stored deep in the Earth
<b>Carbon footprint:</b> A measurement of all the greenhouse gases we individually produce.	<b>Hydro(electric) power:</b> Electricity generated by turbines that are driven by moving water.
<b>Energy mix:</b> The range of energy sources of a region or country, both renewable and non-renewable.	<b>Nuclear power:</b> The energy released by a nuclear reaction, especially by fission or fusion
<b>Food miles:</b> The distance covered supplying food to consumers.	<b>Renewable energy sources:</b> A resource which is not diminished when it is used; it recurs and cannot be exhausted.
<b>Resource management:</b> The control and monitoring of resources so that they do not become depleted or exhausted.	<b>Solar energy:</b> The Sun's energy exploited by solar panels, collectors or cells to heat water or air or to generate electricity
<b>Biomass:</b> Renewable organic materials, such as wood, agricultural crops or wastes, especially when used as a source of fuel or energy.	<b>Solar energy:</b> The Sun's energy exploited by solar panels, collectors or cells to heat water or air or to generate electricity
<b>Energy conservation:</b> Reducing energy consumption through using less energy and becoming more efficient in using existing energy sources.	<b>Sustainable development:</b> Development that meets the needs of the present without limiting the ability of future generations to meet their own needs.
<b>Energy security:</b> Uninterrupted availability of energy sources at an affordable price.	<b>Wind energy:</b> Electrical energy obtained from harnessing the wind with windmills or wind turbines.

**Resources key ideas:**

- Food, water and energy are fundamental to human development.
- The changing demand and provision of resources in the UK create opportunities and challenges.
- Demand for water resources is rising globally but supply can be insecure, which may lead to conflict.
- Different strategies can be used to increase water supply.

**Resources case studies/examples:**

<b>An example of a large scale water transfer scheme to show how its development has both advantages and disadvantages.</b>	<b>South-North Water transfer scheme, China</b>
<b>An example of a local scheme in an LIC or NEE to increase sustainable supplies of water.</b>	<b>Gravity fed water system, Ethiopia</b>
<b>Decision-making exercise- Paper 3 practice</b>	<b>Reservoir building, Oxford</b>