

Key Terms

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<i>Biocapacity:</i>	the land and water needed to provide resources for humanity
<i>Ecological Footprint:</i>	the hypothetical area of land required by a society, group or individual to fulfil all their resource needs and assimilate all their waste, measured in global hectares (gha)
<i>Nexus:</i>	the interrelationship, interdependence and interactions of food, energy and water
<i>Food Security:</i>	the "availability and access to sufficient, safe and nutritious food to meet the dietary needs and food preferences for an active and healthy life" (FAO)
<i>Energy Security:</i>	access to clean, reliable and affordable energy sources for cooking, heating, lighting, communications and productive uses
<i>Water Security:</i>	continuing access to safe drinking water and sanitation
<i>Embedded water:</i>	the way in which water is transferred from one country to another through its exports

Case Studies

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Resource Security in Countries:

South Asia and the Himalayan Region - South Asia has just 3% of global land but 25% of the world population, thus water and food security are vital. South Asian countries are also home to 40% of the world's poor population, half of that population is food-energy deficient and about 20% lack access to safe water. In the Himalayans, there is seasonal water scarcity and difficulties for importing food, although 53 million people live in the region

South Africa - studies have looked at the potential impact of climate change on maize and potato production in South Africa. 10% reduction in rainfall is likely to lead to a 4% reduction in yield, whereas increase in rain will increase in maize yields but decreases in potato yields. To overcome this, adaptations have taken place, the most favourable being sprinkler irrigation to water crops, as water is the main limiting factor

Resource Stewardship Strategies:

A Circular Economy - the Ellen MacArthur Foundation established in 2010. Focuses on: insight and analysis, business and government, education and training, communications. This foundation collaborated with Google to develop circular business alternatives. Another collaboration was with the IB to develop systems thinking and the circular economy perspective in the curriculum to create awareness and take part in future developments in the circular economy

