**Unit Assessments**

**Environmental Economics and Sustainable Development**

• Natural capital provides goods (such as tangible products) and services (such as climate regulation) that have value. This value may be aesthetic, cultural, economic, environmental, ethical, intrinsic, social, spiritual or technological.

• The concept of a natural capital is dynamic. Whether or not something has the status of natural capital, and the marketable value of that capital varies regionally and over time and is influenced by cultural, social, economic, environmental, technological and political factors. Examples include cork, uranium and lithium.

• Renewable natural capital can be generated and/or replaced as fast as it is being used. It includes living species and ecosystems that use solar energy and photosynthesis, as well as non-living items, such as groundwater and the ozone layer.

• Non-renewable natural capital is either irreplaceable or can only be replaced over geological timescales; for example, fossil fuels, soil and minerals.

• Renewable natural capital can be utilized sustainably or unsustainably. If renewable natural capital is used beyond its natural income this use becomes unsustainable.

• The impacts of extraction, transport and processing of a renewable natural capital may cause damage, making this natural capital unsustainable.

• Sustainability is the use and management of resources that allows full natural replacement of the resources exploited and full recovery of the ecosystems affected by their extraction and use.

• Natural capital is a term used for natural resources that can produce a sustainable natural income of goods or services.

• Natural income is the yield obtained from natural resources.

• Ecosystems may provide life-supporting services such as water replenishment, flood and erosion protection, and goods such as timber, fisheries, and agricultural crops.

• Factors such as biodiversity, pollution, population or climate may be used quantitatively as environmental indicators of sustainability. These factors can be applied on a range of scales, from local to global. The Millennium Ecosystem Assessment (MA) gave a scientific appraisal of the condition and trends in the world’s ecosystems and the services they provide using environmental indicators, as well as the scientific basis for action to conserve and use them sustainably.

• An ecological footprint (EF) is the area of land and water required to sustainably provide all resources at the rate at which they are being consumed by a given population. If the EF is greater than the area available to the population, this is an indication of unsustainability.