

# The World Around Us: 2.1 ECOSYSTEMS AND THE PLANET

28 lessons in total for this unit.

**2.1.1** Ecosystems consist of interdependent components.

**Ecosystems include abiotic (weather, climate, soil) and biotic (plants, animals, humans) components which are interdependent.**

**2.1.1.1** What is an ecosystem?

**2.3.4** The global circulation of the atmosphere controls weather and climate.

**Distribution of the main climatic regions of the world.**

**2.3.4.1** Global climatic regions

**Outline how the global circulation of the atmosphere is controlled by the movement of air between the poles and the equator.**

**2.3.4.2** The tri-cellular model of atmospheric circulation

**2.1.2** Ecosystems have distinct distributions and characteristics.

**Overview of the global distribution of polar regions, coral reefs, grasslands, temperate forests, tropical rainforests, and hot deserts.**

**2.1.2.1** Global distribution of named ecosystems.

**Overview of the climate, plants and animals within these ecosystems.**

**2.1.2.2** The climate, plants and animals within the polar regions.

**2.1.2.3** The climate, plants and animals within grasslands.

**2.1.2.4** The climate, plants and animals within the temperate forests.

**2.1.2.5** The climate, plants and animals within the hot deserts.

**2.1.3** There are major tropical rainforests in the world.

**2.1.5** Bio-diverse ecosystems are under threat from human activity.

**The location of the tropical rainforests including the Amazon, Central American, Congo River Basin, Madagascan, South East Asian and Australasian.**

**2.1.3.1** Location of the tropical rainforests.

**2.1.3.2** The climate within the tropical rainforests.

**2.1.3.3** The plants and animals within the tropical rainforests.

**The processes that operate within tropical rainforests, including nutrient and water cycles.**

**2.1.5.1** Water cycles in the rainforest

**2.1.5.2** Nutrient cycles in the rainforest

**Case study of a tropical rainforest**

**2.1.5.3** The interdependence of climate, soil, water, plants, animals and humans.

VIDEO HOURS x 2

**2.1.5.4** The value of rainforest to humans and to the planet.

**2.1.5.5** Threats to biodiversity in the rainforest.

**2.1.5.6** Attempts to mitigate threats through sustainable use and management.

**2.1.4** There are major coral reefs in the world.

**2.1.5** Bio-diverse ecosystems are under threat from human activity.

**The location of warm water coral reefs including the Great Barrier Reef, Red Sea Coral Reef, New Caledonia Barrier Reef, the Mesoamerican Barrier Reef, Florida Reef and Andros Coral Reef.**

**2.1.4.1** Location of globally significant coral reefs.

**2.1.4.2** The climate and conditions necessary for coral growth.

**2.1.4.3** The food web in coral reefs

**Case study of a coral reef**

**2.1.5.3** The interdependence of climate, soil, water, plants, animals and humans.

	VIDEO HOURS x 2
2.1.5.4	The value of coral reefs to humans and to the planet.
2.1.5.5	Threats to biodiversity in coral areas.
2.1.5.6	Attempts to mitigate threats through sustainable use and management.

## The World Around Us: 2.2 PEOPLE OF THE PLANET

38 lessons in total for this unit.

### 2.2.1 The world is developing unevenly.

Social, economic and environmental definitions of development and the concept of sustainable development.

2.2.1.1 What is development?

2.2.1.2 What is sustainable development?

**Different development indicators, including GNI per capita, Human Development Index and Internet Users, and the advantages and disadvantages of these indicators.**

2.2.1.3 What are development indicators?

2.2.1.4 The strengths and weaknesses of GNI as an indicator.

2.2.1.5 The Human Development Index.

2.2.1.6 Can we use the Internet as a development indicator?

**How development indicators illustrate the consequences of uneven development.**

2.2.1.7 Looking at uneven development using different indicators

**Current patterns of advanced countries (ACs), emerging and developing countries (EDCs) and low-income developing countries (LIDCs).**

2.2.1.8 Mapping development across the world.

2.2.1.9 Who's on the up? Emerging economies.

2.2.1.10 Staying stubbornly poor? – the LIDCs

### 2.2.2 There are many causes of uneven development

**Outline the reasons for uneven development, including the impact of colonialism on trade and the exploitation of natural resources.**

2.2.2.1 Physical causes of under-development

2.2.2.2 The impact of colonialism and conflict on under-development

2.2.2.3 The impact of unequal trade on under-development

**Different types of aid and their role in both promoting and hindering development.**

2.2.2.5 Overview of the different types of aid.

2.2.2.3 Bilateral and multilateral aid - benefits and drawbacks

2.2.2.4 Charitable aid – benefits and drawbacks

2.2.2.5 Large Scale projects – case study

2.2.2.6 Small scale aid projects – case study

### 2.2.3 Many factors contribute to a country's economic development.

**Case study of one LIDC or EDC.**

2.2.3.1 Introduction to the case study country – development indicators

**The influence of and interrelationships between: country's geographical location and environmental context.**

2.2.3.2 The landscape, climate and ecosystems.

2.2.3.3 Availability and type of natural resources.

**Changing economic development, the country's political development and relationships with other states .**

2.2.3.4 The changing face of economic development.

2.2.3.5 Regional and global relationships with other states.

<b>Principal imports and exports and the relative importance of trade the role of international investment</b>	
2.2.3.6	Imports and exports and flows of international investment
2.2.3.7	Changing employment structure over time
<b>Population and employment structure changes over time. Social factors, including access to education and healthcare provision</b>	
2.2.3.8	Changing population structure over time
2.2.3.9	Access to education and healthcare.
<b>Using the case explore Rostow's model to determine the country's path of economic development.</b>	
2.2.3.10	Rostow's Model of economic development
<b>How is technology affecting development</b>	
2.2.3.12	Can technology help or hinder development?
<b>Case study of one aid project.</b>	
2.2.3.13	How has aid helped development?
2.2.4	The majority of the world's population now live in urban areas.
<b>Definition of city, megacity and world city. The distribution of megacities and how this has changed over time.</b>	
2.2.4.1	What is, and where are, the mega-cities?
<b>How urban growth rates vary in parts of the world with contrasting levels of development.</b>	
2.2.4.2	The changing pace of urbanisation
2.2.5	There are causes and consequences of rapid urbanisation in LIDCs.
Overview of the causes of rapid urbanisation in LIDCs including push and pull factors, and natural growth.	
2.2.5.1	What are the causes of rapid urbanisation
<b>Outline of the social, economic and environmental consequences of rapid urbanisation in LIDCs.</b>	
2.2.5.2	What are the impacts of rapid urbanisation
2.2.6	Cities have distinct challenges and ways of life, influenced by its people and culture.
<b>Case study of one major city in an LIDC or EDC.</b>	
2.2.6.1	Introduction to the city – location with the region, country and wider world
<b>Migration (national and international) and its impact on the city's growth and character</b>	
2.2.6.2	The role of migration
<b>The ways of life within the city, such as culture, ethnicity, housing, leisure and consumption</b>	
2.2.6.3	Living in the modern city
<b>Contemporary challenges that affect urban change, including housing availability.</b>	
2.2.6.4	Investigating contemporary challenges in the modern city
<b>Transport provision and waste management issues</b>	
2.2.6.5	Managing transport and waste in the modern city
<b>Sustainable strategies to overcome one of the city's challenges.</b>	
2.2.6.6	Sustainability – a city for the future

# The World Around Us:

## 2.3 ENVIRONMENTAL THREATS TO OUR PLANET

16 lessons in total for this unit.

### 2.3.1 The climate has changed from the start of the Quaternary period.

Overview of how the climate has changed from the beginning of the Quaternary period to the present day, including ice ages. Key periods since 1000AD, including the medieval warming, Little Ice Age and modern warming.

1.3.1.1 How has the global climate changed during the Quaternary?

1.3.1.2 How has the climate change more recently?

**Evidence for climate change, including global temperature data, ice cores, tree rings, paintings & diaries.**

1.3.1.3 What is the evidence for climate change?

### 2.3.2 There are a number of possible causes of climate change.

**Theories of natural climate change: variations in solar energy, changes to Earth's orbit & volcanic activity.**

2.3.2.1 Theories of natural climate change

**How human activity is responsible for the enhanced greenhouse effect which contributes to global warming.**

2.3.2.2 The enhanced greenhouse effect

2.3.2.3 Sources of and changes in greenhouse gases.

### 2.3.3 Climate change has consequences.

**Summary of a range of consequences of climate change currently being experienced across the planet.**

1.3.3.1 What are the consequences of climate change?

### 2.3.4 The global circulation of the atmosphere controls weather and climate.

How the global circulation of the atmosphere leads to extreme weather conditions (wind, temperature, precipitation) in different parts of the world.

2.3.4.3 Extreme weather conditions – floods and fire

2.3.4.4 Extreme weather conditions – tropical storms

### 2.3.5 Extreme weather conditions cause different natural weather hazards.

**Outline the causes of extreme weather conditions associated with the hazards of tropical storms and drought.**

2.3.5.1 What is a tropical storm?

2.3.5.2 What are the consequences of tropical storms – case study

2.3.5.3 What are the consequences of severe drought?

**The distribution and frequency of tropical storms and drought, and whether these have changed over time.**

2.3.5.4 Are tropical storms getting more frequent?

2.3.5.5 Are severe droughts getting more frequent?

### 2.3.6 Drought can be devastating for people and the environment.

**Case study of one drought event caused by El Niño/La Niña: how the extreme weather conditions of El Niño/La Niña develop and can lead to drought.**

2.3.6.1 How can solar energy impact on people and the environment?

**Effects of the drought event on people and the environment and ways in which people have adapted to drought in the case study area.**

2.3.5.6 Coping with an El Niño drought