

# The Living World Flash Cards

**Give an example of a small scale UK ecosystem**

Pond

**An ecosystem is made up of Biotic and Abiotic parts. What does this mean?**

**Abiotic** = Non-living - ie water, rainfall, temperature rocks etc

**Biotic** = Living - ie plant life, animals, fish, insects etc

**Give an effect of changing one component of the ecosystem.**

Any applicable ie Fertilisers from farming cause algae to grow which cuts oxygen in the water and kills fish which leads to reduction in otters and fish catching birds

**Name two global ecosystems (Biomes)**

Rainforests, Deserts, coniferous forest, Tundra etc

**Global atmospheric circulation is the main reason for the distribution of large scale global ecosystems. Describe the 'Hadley Cell'**

- Warm air at the equator rises and spreads out high in the atmosphere North and South of the equator.
- The air cools and descends over the Tropic of Cancer and the tropic of Capricorn.
- Air from the tropics is drawn back to the equator to complete the circulation.

**Describe the climate of a tropical rainforest**

- Temperature high and constant throughout the year
- High rainfall
- Rainfall varies throughout the year

**Describe the physical structure of a rainforest**

- Ground layer – Lower canopy – Middle canopy – Top canopy (Emergent trees)

**Give 2 examples of how vegetation adapts to the physical conditions of the rainforest**

- **Buttress roots**
- **Drip tip leaves**
- **Shallow roots**
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**What are the causes of deforestation?**

Farming, logging, road building, mining, energy development, settlement, population growth

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## What are the impacts of rainforest deforestation?

**Bad** - Soil erosion, loss of biodiversity, increases global warming,  
**Good** - provides jobs and economic development

## State 3 reasons why rainforests should be protected

The discovery of future medicines threatened, slow down climate change, protect the indigenous (Local) tribes people, protect wildlife etc

## What strategies can be used to manage the rainforest sustainably?

– Selective logging and **replanting**, conservation and **education**, **ecotourism** and international **agreements** about the use of rare hardwoods and **debt reduction** so that these poor countries do not have to exploit their rainforests

## What are the physical characteristics of a hot desert Biome (Ecosystem)

Found in two belts around 30 degrees north and south of the equator = **The tropics**  
The descending air produces **clear skies** with hot days and cold nights.  
Receive less than **250mm** of rain per year.  
**Poor** soils.

## How are desert plants adapted to the climate?

Long roots, thick waxy skins to reduce evaporation (Cactus), dormant seeds waiting for rain to germinate,

## How are desert animals adapted to the climate?

Most are **nocturnal** to avoid the heat of the day. Many hide **underground** during the day. To avoid wasting water, animals like **snakes** and **insects** have waterproof skin to reduce evaporation and reabsorb body waste so they only excrete crystals. **Camels** have many adaptation to survive many days without water in the desert

## What sort of development opportunities are there in the Thar Desert between India and Pakistan?

Mining ie Gypsum  
Energy – Coal, oil, wind, solar  
Farming – **Irrigation** now allows **cotton** and other valuable crops to be grown.  
Tourism – Desert safari's becoming popular

## What are the challenge of developing the desert?

Extreme temperatures, water supply, inaccessibility (hard to get to)

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**Areas on the fringe of hot deserts are at risk of desertification;**

**What are the causes of desertification?**

Climate change, population growth, removal of trees, overgrazing, soil erosion.

**What strategies are being tried to reduce the risk of desertification?**

Water and soil **management** - simple walls to store water behind

Tree **planting** – Holds soil together to prevent soil erosion

**Appropriate** technology – Use methods appropriate to the areas level of development