



# How Humans Damage Ecosystems and Habitats

KS4 BIOLOGY

KS3 GEOGRAPHY

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## What Are Ecosystems and Habitats?

An **ecosystem** is a community of living things (plants, animals, fungi, and bacteria) that all depend on each other and their environment to survive. A **habitat** is the specific place where an organism lives, like a forest, ocean, or wetland. These systems have existed for thousands of years, perfectly balanced so everything works together.

However, humans are now damaging these delicate systems in many ways, and the effects are spreading quickly across the planet.

## Pollution: Poisoning Air, Water, and Soil

One of the biggest ways we damage ecosystems is through **pollution**. When factories release chemicals into rivers, or cars pump exhaust into the air, we poison the homes of countless animals and plants. **Plastic pollution** particularly harms ocean ecosystems—millions of fish and sea mammals accidentally eat plastic, which blocks their stomachs and kills them.

Think of it like inviting someone to your home and then filling it with rubbish. Plants and animals can't escape, so they suffer.

## Deforestation: Destroying Habitats

**Deforestation** means cutting down large areas of forest to use the land for farms, cities, or other human needs. Forests are home to approximately **80% of Earth's land animals**. When we remove trees, we don't just lose wood—we destroy entire homes for millions of species. Animals like orangutans, jaguars, and countless insects lose their habitats and often cannot survive elsewhere.

## Climate Change: Heating the Planet

**Climate change**, caused mainly by burning fossil fuels that release greenhouse gases, is warming the planet. This seems invisible, but it's devastating. Ice melts, sea

levels rise, and habitats shift. Animals like polar bears struggle to find food on shrinking ice, while coral reefs die from warming oceans. Plants and animals that depend on specific temperatures cannot adapt fast enough.

Think of it like slowly turning up the temperature in a room. If it changes too fast, the animals inside can't adjust and may die.

## **Overexploitation: Taking Too Much**

**Overexploitation** means hunting or harvesting animals and plants faster than they can reproduce. Overfishing has collapsed fish populations, and illegal hunting has brought species like rhinos and elephants dangerously close to extinction. Once a species disappears, it can never return.

## **What Can We Do?**

The good news is that humans can also protect ecosystems. We can reduce pollution, support sustainable farming, protect forests, and switch to renewable energy. Every small action helps restore balance to the natural world.