

the natural resources we draw on, the biodiversity they support, and how both are conserved

Natural resources

- a **natural resource** is anything obtained from nature and used by us: air, water, soil, forests, minerals and fuels
- **renewable** resources are replaced naturally within a useful time: sunlight, wind, water, forests and wildlife
- **non-renewable** resources exist in a fixed store and are used far faster than they form: coal, petroleum, natural gas and minerals
- even a renewable resource can be exhausted if used faster than it renews, which is what overfishing and deforestation are
- forests are called **green lungs** because they take in carbon dioxide and release oxygen
- soil takes centuries to form and can be lost in a single season, which is why it is treated as effectively non-renewable

Natural resources



the two branches every resource falls into: the left is replaced by natural processes within a useful time, the right is drawn from a store that is not being refilled at any rate that matters to us

Biodiversity

- **biodiversity** is the variety of living things in a place, counted across species, within a species, and across ecosystems
- a **diverse ecosystem is more stable**, because if one species fails others can take its place in the web
- **endemic** species are found in one region and nowhere else, so losing that region loses them entirely
- **endangered** species are at serious risk of extinction, and **extinct** ones are gone permanently
- India is one of the world's **megadiverse** countries, and the Western Ghats are among its richest areas
- **extinction is irreversible**, which is what separates this loss from most other environmental damage

What threatens them *

- **habitat loss** is the largest single cause, from clearing land for farming, building and industry
- **deforestation** also brings soil erosion, reduced rainfall and more carbon dioxide left in the air
- **overexploitation**: hunting, overfishing and collecting faster than populations can recover
- **pollution** of air, water and soil, which harms species that cannot move away
- **introduced species** can displace native ones that have no defence against them
- **climate change** shifts the conditions a species is suited to, sometimes faster than it can adapt

