

Glossary

Coming to terms with forests and climate

Climate change has spawned many new technical words and phrases.

This list offers some helpful definitions.

Adaptation: adjustments in natural or human systems that try to reduce the damage caused by climate change or to exploit the benefits.

Afforestation: planting new forest on land that has not previously supported forest.

Anthropogenic emissions: greenhouse gasses associated with human activity, such as deforestation or forest degradation from logging.

Biofuels: fuel from renewable biological sources in either solid or liquid form. Biofuel crops associated with deforestation include palm oil, sugar cane and soya.

Cap and trade: a two-part regulatory system in which the 'cap' is a government-imposed limit on carbon emissions, and the 'trade' is a government-created market to buy and sell greenhouse gas credits. Companies that generate less than the allowed emissions can sell credits allowing others to emit more gases than the cap allows.

Carbon dioxide (CO₂): a gas occurring naturally in the atmosphere. This gas is produced as a by-product of combustion when, for example, fossil fuels and biomass decay or burn. Carbon dioxide can also be emitted with changes in land use and during industrial processes.

Carbon markets: financing bodies and mechanisms that can exchange the carbon credits generated from verified REDD activities. This could take the form of 'voluntary markets' (that are formed under agreed bilateral mechanisms between the trading parties) or 'compliance market' (that are legally regulated to meet emission reduction target under multilateral agreements).

Carbon trading: transaction of verified or certified carbon credits generated from REDD in monetary terms.

Carbon pool: A system which has the capacity to accumulate or release carbon. Examples of carbon pools are forest biomass, wood products, soils and atmosphere.

Carbon sequestration: the uptake and storage of carbon. Trees absorb carbon dioxide and release oxygen via photosynthesis. Trees also store carbon in their biomass.

Carbon sink: any process or mechanism of absorbing carbon dioxide and retaining stocks of carbon in organic matter such as forests, oceans and soil.

Carbon tax: a surcharge levied on consumers who emit carbon dioxide into the atmosphere.

Clean Development Mechanism (CDM): a scheme that helps industrialised countries meet their Kyoto Protocol emission targets in two ways besides reducing their own emissions: they can invest in reducing greenhouse gas emissions or in enhancing greenhouse gas sinks in developing countries.

Climate change: a change in the mean meteorological parameters that define climate or their variability. These parameters include temperature, rainfall and wind speed.

Co-benefits: benefits from implementing REDD schemes in addition to reducing greenhouse gas emissions, such as poverty alleviation, biodiversity protection, and improvement in forest governance.

Conference of the Parties (COP): a decision-making body comprised of the parties that have ratified the UN Framework Convention on Climate Change.

Deforestation: the change of forested land to treeless land.

Ecosystem: a community of organisms and their physical environment.

Ecosystem services: the benefits that an ecosystem provides to humans. For example, forests provide food, water, timber and fibre. They regulate climate, floods, disease and water quality. They also provide recreational, aesthetic and spiritual benefits.

Global warming: the increase in the Earth's average temperatures year to year, which leads to changes in the climate.

Greenhouse effect: when gases such as carbon dioxide prevent the energy generated by the sun and radiated back from the earth in the form of heat to escape the Earth's atmosphere.

Greenhouse gas sink: any process or mechanism which removes a greenhouse gas, an aerosol, or a precursor of a greenhouse gas from the atmosphere.

Intergovernmental Panel on Climate Change (IPCC): a joint UN Environment Programme–World Meteorological Organisation body responsible for providing the scientific and technical foundations for the UN Framework Convention on Climate Change.

Kyoto Protocol: an international agreement covering the period 2008–2012 to slow climate change. Under the protocol industrialised countries agreed to reduce their collective greenhouse gas emissions by 5.2 percent from 1990 levels.

Leakage: what occurs when a reduction of emissions in one area leads to an increase in emissions in another area. For example, a REDD project that protects

forest in one area, but leads to increased deforestation activities elsewhere. Leakage is also known as emission displacement.

Liability: the obligation of the REDD implementing project or country to ensure that the emission reductions that have been credited are permanent.

Mitigation: actions to reduce greenhouse gas emissions and to enhance carbon sinks to curb climate change.

Nationally appropriate mitigation action (NAMA): voluntary or mandatory action by a developing country to reduce its carbon emissions in line with its economic, environmental, social and political context.

Payments for environmental services (PES): schemes where beneficiaries of ecosystem services pay those who manage them to ensure the services continue.

Peat: an accumulation of partially decayed vegetation matter. Peat forms in wetlands, including bogs, moors and peat swamp forests.

Permanence: the duration and reversibility of reduced greenhouse gas emissions.

Planted forest: wooded land where trees have been established through planting or seeding.

Primary forest: wooded land of native species largely untouched by human activities and where ecological processes are not disrupted.

REDD, or reducing emissions from deforestation and forest degradation: a mechanism to reduce global greenhouse gas emissions by compensating countries for avoiding deforestation and degradation.

REDD+: broader REDD frameworks which include forest conservation, sustainable forest management or enhancement of forest carbon stocks to encourage greater participation in REDD and to reward countries that are already protecting their forests.

Reduced impact logging (RIL): planned and carefully controlled tree felling to minimise its impact on the surrounding environment. RIL can also reduce the carbon emissions that logging activities cause.

Reforestation: establishment of forest plantations in areas regarded as former forest lands.

Stern Review: Sir Nicholas Stern's report in 2006 for the British government that examines the effect of climate change on the world economy. The Stern Review was not the first such report but it is perhaps the most influential.

UN Framework Convention on Climate Change (UNFCCC): 1992 treaty calling for the stabilisation of greenhouse gas concentrations in the atmosphere at a level that would not 'dangerously' affect the earth's climate.