

Annexes



Kapchorwa District, Uganda.

Annex 1

Glossary⁶

Adaptation	The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. <i>www.ipcc.ch/pdf/glossary/ar4-wg2.pdf</i>
Adaptive capacity	The ability of a system to adjust to climate change (including climate variability and extremes), to moderate potential damage, to take advantage of opportunities, and to cope with the consequences. <i>www.ipcc.ch/pdf/glossary/ar4-wg2.pdf</i>
Adaptive management	The process by which research and learning is continuously incorporated in management planning and practice. Specifically, the integration of design, management and monitoring to systematically test assumptions in order to adapt and learn. <i>www.fao.org/agriculture/crops/core-themes/theme/spi/soil-biodiversity/initiatives/adaptive-management/en/</i>
Afforestation	Establishment of forest through planting and/or deliberate seeding on land that, until then, was not classified as forest. <i>www.fao.org/docrep/017/ap862e/ap862e00.pdf</i>
Agroforestry	Traditional or modern land-use systems in which trees are managed together with crops and/or animal production systems in agricultural settings. <i>www.fao.org/forestry/9469/en/</i>
Aquaculture systems	The breeding and rearing of fish, shellfish, etc., or the growing of plants for food in special ponds. <i>www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=689</i>

⁶ This glossary has been compiled from various sources to assist readers in using these guidelines. The definitions given here are not necessarily official FAO definitions.

- Biodiversity** The variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, among species and of ecosystems.
www.fao.org/docrep/017/ap862e/ap862e00.pdf
- Biodiversity conservation** The designation of a forest area primarily for the conservation of biodiversity. Includes, but is not limited to, areas designated for biodiversity conservation within a protected area.
www.fao.org/docrep/017/ap862e/ap862e00.pdf
- Biofuel** Fuel produced directly or indirectly from biomass such as fuelwood, charcoal, bioethanol, biodiesel, biogas (methane) or biohydrogen. However, most people associate biofuel with liquid biofuels (bioethanol, biodiesel and straight vegetable oil).
www.fao.org/fileadmin/templates/nr/sustainability_pathways/docs/Factsheet_BIOENERGY.pdf
- Buffer zone** An area between a core protected area and the surrounding landscape or seascape which protects the network from potentially damaging external influences and which is essentially a transitional area.
www.cbd.int/doc/publications/cbd-ts-23.pdf
- Carbon market** A popular (but misleading) term for a trading system through which countries may buy or sell units of GHG emissions in an effort to meet their national limits on emissions, either under the Kyoto Protocol or under other agreements, such as that among member states of the European Union. The term comes from the fact that CO₂ is the predominant GHG, and other gases are measured in units called “CO₂ equivalents”.
http://unfccc.int/essential_background/glossary/items/3666.php
- Carbon sink** Any process, activity or mechanism which removes a GHG, an aerosol or a precursor of a GHG from the atmosphere. Forests and other vegetation are considered sinks because they remove CO₂ through photosynthesis.
http://unfccc.int/essential_background/convention/background/items/2536.php

Carbon source	<p>Any process, activity or mechanism that releases a GHG, an aerosol or a precursor of a GHG or aerosol into the atmosphere (e.g. forest fires).</p> <p><i>http://unfccc.int/essential_background/convention/background/items/2536.php</i></p>
Clean Development Mechanism	<p>A mechanism established in the Kyoto Protocol to allow countries with emission-reduction or emission-limitation commitments under the Kyoto Protocol to implement emission-reduction projects in developing countries.</p> <p><i>http://unfccc.int/kyoto_protocol/mechanisms/clean_development_mechanism/items/2718.php</i></p>
Climate change	<p>A change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.</p> <p><i>http://unfccc.int/essential_background/convention/background/items/2536.php</i></p>
Climate variability	<p>Variation in the mean state and other parameters (such as standard deviation and the occurrence of extremes) of the climate at any temporal or spatial scale beyond those of individual weather events. May be due to natural processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability).</p> <p><i>www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=689</i></p>
Coastal forests	<p>Interface or transition areas between land and sea, including large inland lakes. Coastal forests are dynamic and diverse in function and form and do not lend themselves well to definition by strict spatial boundaries. Unlike watersheds, there are no exact natural boundaries that unambiguously delineate coastal forests.</p> <p><i>www.fao.org/forestry/icam/4302/en/</i></p>
Contour planting	<p>The alignment of planting rows and tillage lines at right angles to the normal flow of runoff. Contour planting creates detention storage within the soil surface horizon and slows the rate of runoff, thus giving water time to infiltrate into the soil. The effectiveness of contour planting for water and soil conservation depends on the</p>

	<p>design of the system as well as on soil, climate, slope, aspect and land use. www.fao.org/docrep/T1696e/t1696e02.htm</p>
Cutting cycle	<p>The planned time interval between major harvesting operations within the same stand of trees (usually in uneven-aged stands). http://woodlandstewardship.org/?page_id=2347</p>
Deforestation	<p>The conversion of forest to other land use or the permanent reduction of the tree canopy cover below the minimum 10 percent threshold. www.fao.org/docrep/017/ap862e/ap862e00.pdf</p>
Degradation	<p>The reduction of the capacity of a forest to provide goods and services. www.fao.org/docrep/017/ap862e/ap862e00.pdf</p>
Disturbance regime	<p>An environmental fluctuation and destructive event that disturbs forest health, structure, and/or changes resources or physical environment at any given spatial or temporal scale. ftp://ftp.fao.org/docrep/fao/008/A0400E/A0400E00.pdf</p>
Early-warning system	<p>A system of data collection and analysis to monitor people's well-being (including security), in order to provide timely notice when an emergency threatens and thus to elicit an appropriate response. www.fao.org/ag/againfo/programmes/en/lead/alive_toolkit/pages/pageD_whatEWS.html</p>
Ecosystem service	<p>Ecological process or function having monetary or non-monetary value to individuals or society at large. www.ipcc.ch/publications_and_data/ar4/wg2/en/annexessglossary-e-o.html</p>
Extreme weather event	<p>An event that is rare within its statistical reference distribution at a particular place. An average of a number of weather events over time (e.g. rainfall over a season) that is itself extreme. The characteristics of what is called extreme weather may vary from place to place. www.ipcc.ch/publications_and_data/ar4/wg2/en/annexessglossary-e-o.html</p>

- Fire-smart landscape** A landscape designed to mitigate the likelihood of large, high-intensity, high-severity fires and the risk associated with such fires. Can maximize the positive ecological effects of fire while reducing its negative economic and social impacts.
http://srd.alberta.ca/Wildfire/FireSmartLandscapes/documents/taskforce_final_tor.pdf
- Forest** Land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 percent, or trees able to reach these thresholds *in situ*. Does not include land that is predominantly under agricultural or urban land use.
www.fao.org/docrep/017/ap862e/ap862e00.pdf
- Forest carbon stock** The quantity of carbon in a “pool”, meaning a reservoir or system that has the capacity to accumulate or release carbon. Examples of carbon pools are: living biomass (including aboveground and belowground biomass); dead organic matter (including dead wood and litter); and soils (soil organic matter).
<ftp://ftp.fao.org/docrep/fao/008/A0400E/A0400E00.pdf>
- Forest-dependent communities** Communities of people living inside or near forests who are directly reliant on forests for their livelihoods. Includes indigenous people and people from minority ethnic groups. May also include people engaged in forest-based commercial activities such as trapping, collecting minerals and logging.
www.fao.org/docrep/w7732e/w7732e04.htm
- Forest fragmentation** Any process that results in the conversion of formerly continuous forest into patches of forest separated by non-forested lands.
www.cbd.int/forest/definitions.shtml
- Forest management** The administrative, economic, legal, social and technical measures involved in the conservation, protection and use of natural and planted forests. Involves various degrees of human intervention to safeguard a forest ecosystem and its functions and resources.
www.fao.org/docrep/w4345e/w4345e04.htm

- Forest management plan** Translates national or regional forest policies into a thoughtfully prepared and well coordinated operational programme for a forest and for regulating forestry activities for a set time period through the application of prescriptions that specify targets, action and control arrangements. It is an indispensable part of a forest management system and should regulate protection, inventory, yield determination, harvesting, silviculture, monitoring and other forest operations.
www.fao.org/docrep/w8212e/w8212e00.htm
- Forest management unit (FMU)** A clearly demarcated area of land covered predominantly by forests, managed to a set of explicit objectives and according to a long-term forest management plan. May vary in size from a fraction of a hectare to hundreds and even thousands of hectares. May include subunits managed for differing goals.
www.fao.org/docrep/003/x6896e/x6896e0e.htm
- Forest manager** An individual or entity responsible for the planning, implementation and monitoring of forest management measures.
- Forest productivity** The capacity of a forest to produce specific products (e.g. biomass, timber and non-wood forest products) over time as influenced by the interaction of vegetative manipulation and abiotic factors (e.g. soil and climate).
www.termwiki.com/EN:forest_productivity
- Global warming** The recent and ongoing global average increase in temperature near the Earth's surface.
www.epa.gov/climatechange/glossary.html
- Green Climate Fund** A fund established by the UNFCCC in 2010 to provide simplified and improved access to funding for countries' mitigation and adaptation actions.
http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf
- Greenhouse gases (GHGs)** Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere and clouds. This property causes the greenhouse effect.

- Water vapour, CO₂, nitrous oxide, methane and ozone are the main GHGs in the Earth's atmosphere.
www.ipcc.ch/publications_and_data/ar4/wg1/en/annexessglossary-e-o.html
- Intergovernmental Panel on Climate Change** The leading international body for the assessment of climate change. Established by the United Nations Environment Programme and the World Meteorological Organization in 1988 to provide the world with a clear scientific view on the current state of knowledge on climate change and its potential environmental and socio-economic impacts.
www.ipcc.ch/organization/organization.shtml#UYVTdaJHJuI
- Integrated fire management** The integration of science and fire management with socio-economic elements at multiple levels. Implies a holistic approach to addressing fire issues that considers biological, environmental, cultural, social, economic and political interactions.
www.fao.org/forestry/firemanagement/en/
- Invasive species** Species that are non-native to a particular ecosystem and whose introduction and spread in such an ecosystem cause, or are likely to cause, sociocultural, economic or environmental harm, or harm to human health.
www.fao.org/forestry/aliens/en/
- Joint Implementation** A market-based implementation mechanism defined in Article 6 of the Kyoto Protocol allowing Annex I countries or companies from these countries to implement projects jointly that limit or reduce emissions, or enhance sinks, and to share the emissions reduction units.
www.ipcc.ch/ipccreports/tar/wg3/index.php?idp=463
- Kyoto Protocol** An international agreement that stands on its own, and requires separate ratification by governments, but is linked to the UNFCCC. Among other things, it sets binding targets for the reduction of GHG emissions by industrialized countries.
http://unfccc.int/essential_background/glossary/items/3666.php

- Landscape connectivity** The degree to which a landscape facilitates or impedes the movement of species between resource patches.
www.cbd.int/doc/meetings/cop/cop-11/information/cop-11-inf-19-en.pdf
- Landscape management** The process of formulating, articulating and developing a set of strategies geared to enhancing a specific landscape and improving the quality of human life, as part of a sustainable development approach using the appropriate instruments and implementing the programmes and actions set out in a landscape management project.
[www.coe.int/t/dg4/cultureheritage/heritage/landscape/reunionconf/6conference/CEP-CDPATEP\(2011\)13_en.pdf](http://www.coe.int/t/dg4/cultureheritage/heritage/landscape/reunionconf/6conference/CEP-CDPATEP(2011)13_en.pdf)
- Land-use change** A change in the use or management of land by humans, which may lead to a change in land cover.
www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_appendix.pdf
- Leakage** The portion of cuts in GHG emissions by developed countries (countries trying to meet mandatory limits under the Kyoto Protocol) that may reappear in other countries not bound by such limits.
http://unfccc.int/essential_background/glossary/items/3666.php#L
- Mangrove forest** Trees and shrubs growing below the high-water level of spring tides, where their root systems are regularly inundated with saline water.
www.fao.org/forestry/mangrove/en/
- Mitigation** A human intervention to reduce the sources or enhance the sinks of GHGs. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching to solar energy or wind power, improving the insulation of buildings, and expanding forests and other carbon sinks to remove greater amounts of CO₂ from the atmosphere.
http://unfccc.int/essential_background/glossary/items/3666.php#L

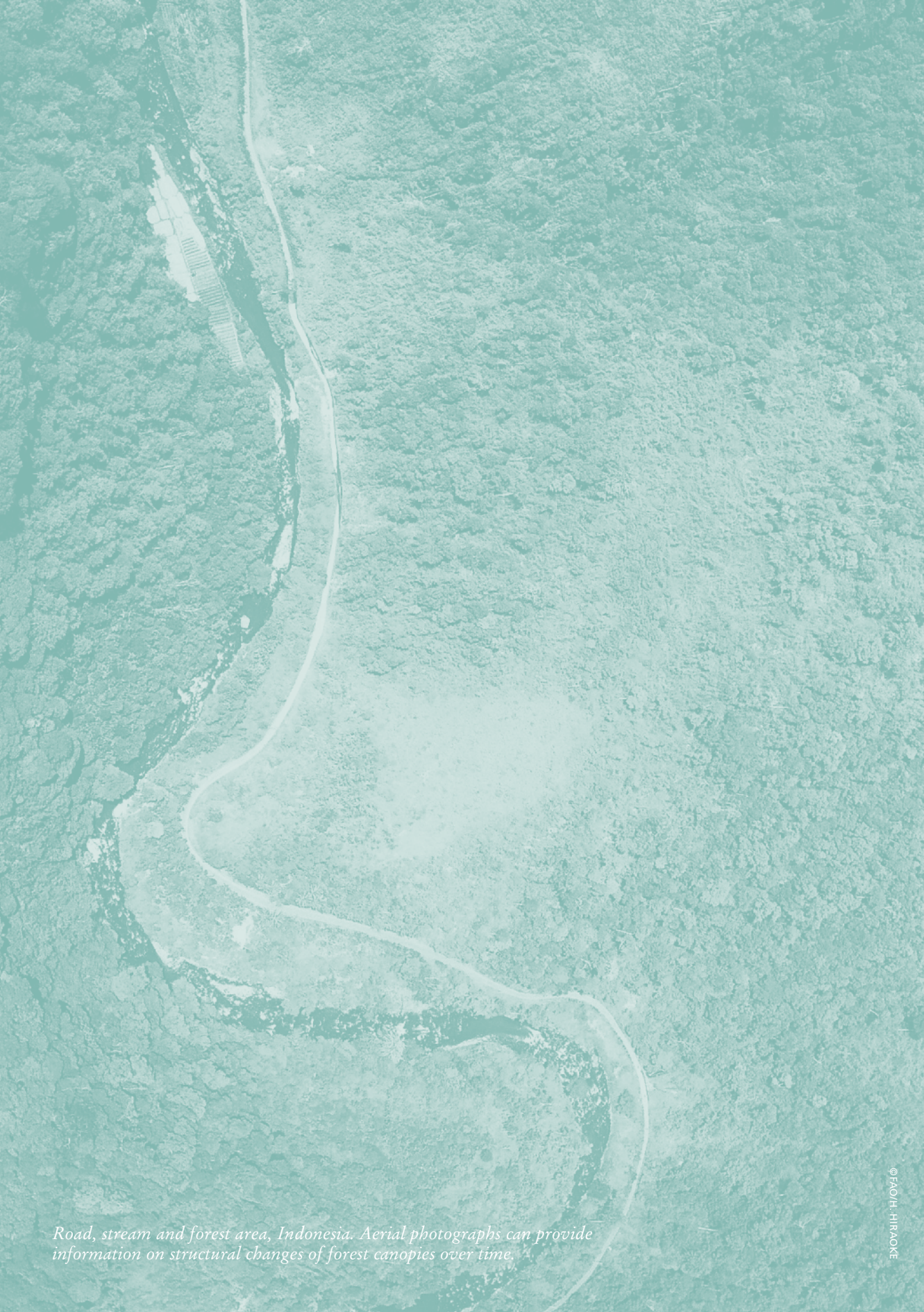
Multiple use	Forest area designated primarily for more than one purpose and where no single purpose is considered as the predominant designated function. www.fao.org/docrep/017/ap862e/ap862e00.pdf
Natural forest	A forest composed of indigenous trees and not classified as planted forest. ftp://ftp.fao.org/docrep/fao/003/Y1997E/FRA%202000%20Main%20report.pdf
Payment for ecosystem services	A voluntary transaction where a well-defined ecosystem service (or a land-use likely to secure that service) is “bought” by a (minimum one) ecosystem service buyer from a (minimum one) ecosystem service provider if and only if the ecosystem service provider secures ecosystem service provision (conditionality). www.cifor.org/publications/pdf_files/OccPapers/OP-42.pdf
Peatland	Wetland with a thick waterlogged organic soil layer (peat) made up of dead and decaying plant material. Includes moors, bogs, mires, peat swamp forests and permafrost tundra. www.wetlands.org/?TabId=2737
Permanence	The longevity of a carbon pool and the stability of its stocks, given the management and disturbance environment in which it occurs. www.ipcc.ch/ipccreports/sres/land_use/index.php?idp=13
Photosynthesis	The process by which green plants, algae and some bacteria take CO ₂ from the air (or bicarbonate from water) to build carbohydrates. www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_appendix.pdf
Planted forest	Forest composed predominantly of trees established through planting or deliberate seeding. www.fao.org/docrep/017/ap862e/ap862e00.pdf
Production forest	Forest designated primarily for the production of wood, fibre, bioenergy and/or non-wood forest products. www.fao.org/docrep/017/ap862e/ap862e00.pdf

- Protected area** An area dedicated to the protection and maintenance of biodiversity, and of natural and associated cultural resources, and managed through legal or other effective means.
www.fao.org/docrep/017/ap862e/ap862e00.pdf
- Reduced impact logging** A method of harvesting trees with minimal damage to remaining trees and degradation of the forest site through the use of pre-harvesting, harvesting and post-harvesting planning and design. Not a fixed prescription but rather an adaptation of the best possible harvesting techniques to suit local site and market conditions.
www.fao.org/forestry/harvesting/11834/en/
- Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon (REDD+)** An instrument agreed by the UNFCCC to provide incentives to countries achieving verified emissions reductions or atmospheric GHG removals through forestry interventions.
<http://unfccc.int/methods/redd/items/7377.php>
- Reforestation** Re-establishment of forest through planting and/or deliberate seeding on land classified as forest.
www.fao.org/docrep/017/ap862e/ap862e00.pdf
- Resilience** The amount of change a system can undergo without changing state.
www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=689
- Riparian zone** The interface between terrestrial and aquatic environments that provides important chemical, physical and biologic functions within a watershed, including processing nutrients, delivering woody debris and organic matter to a stream, providing shade, stabilizing soils, regulating microclimate, and many other important functions.
www.fao.org/docrep/008/a0039e/a0039e05.htm
- Risk assessment** An impact assessment that considers the uncertainty associated with the consequences of climate variability or climate change in a specific area of interest.
<http://climatechange.worldbank.org/content/note-3-climate-risk-assessment-concepts-and-tools>

Semi-natural forest	Forest or other wooded land of native species, established through planting, seeding or assisted natural regeneration. <i>ftp://ftp.fao.org/docrep/fao/008/A0400E/A0400E00.pdf</i>
Silviculture	The science and art of cultivating (such as growing and tending) forest crops. <i>ftp://ftp.fao.org/docrep/fao/008/j4290e/j4290e.pdf</i>
Soil conservation	The protection of soil from erosion and other types of deterioration so as to maintain soil fertility and productivity. Generally includes watershed management and water use. <i>http://stats.oecd.org/glossary/detail.asp?ID=2502</i>
Stakeholder dialogue	An interactive, working communication process that involves all types of stakeholders in decision-making and implementation efforts. <i>http://siteresources.worldbank.org/EXTGOVACC/Resources/MultiStakeholderweb.pdf</i>
Substitution	Any use of wood that replaces other inputs of production in providing an equivalent service or function (e.g. using wood instead of fossil fuels or wood instead of non-wood materials). <i>www.cepe.ch/download/staff/reinhard/miti_substitution_paper_final.pdf</i>
Sustainable forest management (SFM)	A dynamic and evolving concept that aims to maintain and enhance the economic, social and environmental values of all types of forests, for the benefit of present and future generations. <i>www.un.org/esa/forests/pdf/session_documents/unff7/UNFF7_NLBI_draft.pdf</i>
United Nations Framework Convention on Climate Change (UNFCCC)	An international agreement adopted on 9 May 1992 in New York and signed at the 1992 Earth Summit in Rio de Janeiro by more than 150 countries and the European Community, with the ultimate objective of achieving the “stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”. <i>www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_appendix.pdf</i>

- Vulnerability** The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. A function of the character, magnitude and rate of climate variation to which a system is exposed, its sensitivity and its adaptive capacity.
www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_appendix.pdf
- Vulnerability assessment** An evaluation with three main goals: to identify the degree of future risks induced by climate change and sea-level rise; to identify the key vulnerable sectors and areas within a country; and to provide a sound basis for designing adaptation strategies and their implementation.
www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=636
- Water conservation** The control and management of subsurface drainage water, through, for example, source reduction through sound irrigation water management; shallow water-table management; groundwater management; and land retirement.
www.fao.org/docrep/005/y4263e/y4263e08.htm
- Wind erosion** The movement of material by the wind, which occurs when the lifting power of moving air is able to exceed the force of gravity and the friction that holds soil particles to the surface (e.g. the movement of sand dunes).
<ftp://ftp.fao.org/agl/agll/docs/mmsoilc.pdf>





Road, stream and forest area, Indonesia. Aerial photographs can provide information on structural changes of forest canopies over time.