

## Authors

### Neil Adger

Tyndall Centre for Climate Change Research  
University of East Anglia, School of Environmental  
Sciences  
Norwich, NR4 7TJ  
United Kingdom  
Tel: +44 1603 59 3732  
E-mail: n.adger@uea.ac.uk

### Matthew P. Ayres

Department of Biological Sciences  
Dartmouth College  
Hanover, NH 03755  
USA  
Tel: +1 603 646 2788  
E-mail: Matthew.P.Ayres@Dartmouth.edu

### Trevor H. Booth

Climate Adaptation Flagship  
Commonwealth Scientific and Industrial Research  
Organisation (CSIRO)  
GPO Box 284, Canberra, ACT 2601  
Australia  
Tel: +61 6242 1600  
E-mail: Trevor.Booth@csiro.au

### Outi Berghäll

Ministry of the Environment, Finland  
(retired 1.8.2008)

### Susan Braatz

Forestry Department  
Food and Agriculture Organization of  
the United Nations (FAO)  
Viale delle Terme di Caracalla, 00153 Rome  
Italy  
Tel: +39 0657054318  
E-mail: susan.braatz@fao.org

### Maria Brockhaus

Center for International Forestry Research  
(CIFOR)  
06 BP 9478 Ouagadougou 06  
Burkina Faso  
Tel: +226 50 30 4742  
E-mail: m.brockhaus@cgiar.org

### Carol J. Pierce Colfer

Center for International Forestry Research  
(CIFOR)  
P.O. Box 0113 BOCBD, Bogor 16000  
Indonesia  
Tel: +62 251 8622 622  
E-mail: c.colfer@cgiar.org

### Talaat Dafalla Abdel Magid

Upper Nile University  
Faculty of Forestry and Range Science,  
Upper Nile University, Southern Sudan  
C/O Forests National Corporation PO Box 658  
Khartoum  
Sudan  
Phone: +249 918 110 780  
E-mail: talaat1957@yahoo.com

### Andreas Fischlin

Systems Ecology ETH Zurich  
Universitaetstrasse 16, CHN E21.1  
8092 Zurich  
Switzerland  
Tel: +41 44 633 60 90  
E-mail: andreas.fischlin@env.ethz.ch

### Peter Glück

Groissaustrasse 4  
3001 Mauerbach  
Austria  
Tel: +43 1 47654 4401  
E-mail: peter.glueck@boku.ac.at

### John Innes

Forest Resources Management  
University of British Columbia  
Forest Sciences Centre  
2nd Floor - 2424 Main Mall  
Vancouver, British Columbia V6T 1Z4  
Canada  
Tel: +1 604 822 6761  
E-mail: john.innes@ubc.ca

### Linda A. Joyce

U.S. Forest Service, Rocky Mountain Research  
Station  
240 West Prospect, Fort Collins, CO 80526  
USA  
Tel: +1 970 498 2560  
E-mail: ljoyce@fs.fed.us

### David F. Karnosky (Deceased in 2008)

Michigan Technological University  
School of Forest Resources & Environmental  
Science  
101 U.J. Noblet Forestry Building  
1400 Townsend Drive  
Houghton, MI 49931-1295  
USA

**Seppo Kellomäki**

Faculty of Forest Sciences  
University of Joensuu  
P.O. Box 111, 80101 Joensuu  
Finland  
Tel: +358 13 251 111  
E-mail: seppo.kellomaki@joensuu.fi

**Craig Loehle**

National Council for Air and Stream Improvement  
(NCASI)  
552 S.Washington St. #224  
Naperville, IL 60540  
USA  
630-579-1190  
cloehle@ncasi.org

**Bastiaan Louman**

Tropical Agricultural Research and Higher  
Education Center (CATIE)  
Turrialba 7170  
30501 Costa Rica  
Tel: +506 2558 2321  
E-mail: blouman@catie.ac.cr

**Alan A. Lucier**

National Council for Air and Stream Improvement  
(NCASI)  
PO Box 13318  
RTP, NC 27709 3318  
USA  
Tel: +1 919 941 6403  
E-mail: ALucier@NCASI.org

**Nico Marcar**

Commonwealth Scientific and Industrial Research  
Organisation (CSIRO)  
Sustainable Ecosystems  
GPO Box 284, Canberra ACT 2601  
Australia  
Tel: +61 2 6242 1600  
E-mail: nico.marcar@csiro.au

**Johnson Nkem**

Center for International Forestry Research  
(CIFOR)  
P.O. Box 0113 BOCBD, Bogor 16000  
Indonesia  
Tel: +62 251 8622 622  
E-mail: jnkem@cgiar.org

**Aynsle Ogden**

Government of Yukon, Department of Energy,  
Mines and Resources, Forest Management Branch  
PO Box 2703, Whitehorse, Yukon  
Canada Y1A 2C6  
Tel: +1 867 633 7908  
E-mail: aeogden@gov.yk.ca

**Chin Ong**

17 Charnwood Avenue  
Sutton Bonington  
Loughborough  
Leics LE12 5NA  
England  
Tel: +44 1509 670069  
E-mail: ongck48@googlemail.com

**Balgis Osman-Elasha**

Climate Change Unit/Higher Council for  
Environment & Natural Resources (HCENR)  
P.O.Box 10488  
Khartoum  
Sudan  
Tel: +249 183 786903  
E-mail: balgis@yahoo.com

**John A. Parrotta**

U.S. Forest Service  
Research & Development, RP-C 4<sup>th</sup> floor  
1601 North Kent Street  
Arlington, VA 22209-2105  
USA  
Tel: +1 703 605 4178  
E-mail: jparrotta@fs.fed.us

**Kevin E. Percy**

K.E. Percy Air Quality Effects Consulting Ltd.  
207-230 Wilson Drive  
Fort McMurray, Alberta T9H 0A4  
Canada  
Tel: +1 780 748 1178  
E-mail: kepercy@shaw.ca

**Gian-Kasper Plattner**

Environmental Physics Group  
Institute of Biogeochemistry and Pollutant  
Dynamics  
ETH Zurich, CHN E31.1  
CH-8092 Zurich  
Switzerland  
E-mail: gian-kasper.plattner@env.ethz.ch

**Jeremy Rayner**

Department of Political Science  
University of Regina  
3737 Wascana Parkway, Regina, Sask., S4S 0A2  
Canada  
Tel: +1 306 585 5679  
E-mail: Jeremy.Rayner@uregina.ca

**Geoff Roberts**

Climate Change Division  
Australian Department of Agriculture, Fisheries  
and Forestry  
GPO Box 858  
Canberra ACT 2601  
Australia  
Tel: +61 2 6272 4937  
E-mail: Geoff.Roberts@daff.gov.au

**Carmenza Robledo**

Swiss Foundation for Development and  
International Cooperation  
P.O. Box 6724  
Maulbeerstrasse 10  
CH-3001 Berne  
Switzerland  
Tel: +41 31 385 10 35  
E-mail: crobledo@intercooperation.ch

**Heru Santoso**

Center for International Forestry Research  
(CIFOR)  
P.O. Box 0113 BOCBD, Bogor 16000  
Indonesia  
Tel: +62 251 8622 622  
E-mail: h.santoso@cgiar.org

**Robert (Bob) Scholes**

Natural resources and Environment  
Council for Scientific and Industrial Research  
(CSIR)  
P.O. Box 395, Pretoria 0001  
South Africa  
Tel: +27 12 841 2598  
E-mail: bscholes@csir.co.za

**Brent Sohngen**

Department of Agricultural, Environmental and  
Development Economics  
The Ohio State University  
2120 Fyffe Road, Columbus 43210  
USA  
Tel: +1 614 688 4640  
E-mail: sohngen.1@osu.edu

**Chris Swanston**

US Forest Service  
Northern Research Station  
410 MacInnes Dr  
Houghton MI 49931  
USA  
Tel: + 1 906 482-6303 x20  
E-mail: cswanston@fs.fed.us

**Ian D. Thompson**

Canadian Forest Service  
1219 Queen St. east,  
Sault Ste. Marie, Ont.  
Canada P6A 2E5  
Tel: +1 705 541 5644  
E-mail: ian.thompson@nrcan.gc.ca

**Anita Wreford**

Scottish Agricultural College (SAC)  
Kings Buildings, West Mains Road,  
Edinburgh EH9 3JH  
United Kingdom  
Tel: +44 131 535 4025  
E-mail: anita.wreford@sac.ac.uk

**Dmitry Zamolodchikov**

Forest Ecology and Production Center  
Russian Academy of Sciences  
Profsovnaya ul., 84/32  
Moscow, 117810, Moscow  
Russian Federation  
Tel: +7 495 33269 90  
E-mail: dzamolod@mail.ru



## Glossary

The selection of the terms and their definitions has been done in cooperation with the authors of this report. The definitions describe the key terms and the meaning in which they have been used in this report. The glossary builds on internationally agreed concepts, terms and definitions. Most of the given definitions are agreed by the Intergovernmental Panel on Climate Change (IPCC) and/or the Food and Agriculture Organization of the United Nations (FAO). Other definitions have been used where no IPCC or FAO definitions exist or where other definitions better convey the understanding of the term in this report. A reference is provided for each term and definition.

### ADAPTATION

Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

- ◆ Anticipatory adaptation: Adaptation that takes place before impacts of climate change are observed.
- ◆ Autonomous adaptation: Adaptation that does not constitute a conscious response to climate stimuli but is triggered by ecological changes in natural systems and by market or welfare changes in human systems. Also referred to as spontaneous adaptation.
- ◆ Planned adaptation: Adaptation that is the result of a deliberate policy decision, based on an awareness that conditions have changed or are about to change and that action is required to return to, maintain, or achieve the desired state (IPCC 2007a).

**ADAPTIVE CAPACITY** (in relation to climate change impacts)

The ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences (IPCC 2007a).

### ADAPTIVE MANAGEMENT

A dynamic approach to forest management in which the effects of treatments and decisions are continually monitored and used, along with research results, to modify management on a continuing basis to ensure that objectives are being met (IUFRO 2005).

### AEROSOLS

A collection of air-borne solid or liquid particles, with a typical size between 0.01 and 10 µm, that reside in the atmosphere for at least several hours. Aerosols may be of either natural or anthropogenic origin. Aerosols may influence climate in two ways: directly through scattering and absorbing radiation, and indirectly through acting as condensation nuclei for cloud formation or modifying the optical properties and lifetime of clouds (IPCC 2007a).

### AFFORESTATION

Establishment of forest plantations on land that, until then, was not classified as forest. Implies a transformation from non-forest to forest (FAO 2001a).

### AGROFORESTRY

Practices of growing trees with agricultural crops and/or animals, in interacting combinations as well as the interdisciplinary subject area embracing land use system, from field to global level, that involve deliberate retention, introduction, or mixture of trees in crop and animal production systems to take advantage of economic or ecological interactions among the components (IUFRO 2005).

### ALIEN SPECIES

(non-native, non-indigenous, foreign, exotic) means a species, subspecies, or lower taxon occurring outside of its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could not occupy without direct or indirect introduction or care by humans) and includes any part, gametes or propagule of such species that might survive and subsequently reproduce (IUCN 2000).

### 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, between species and of ecosystems (CBD 1992).

### BIOFUEL

A fuel produced from organic matter or combustible oils produced by plants. Examples of biofuels include alcohol, black liquor from the paper-manufacturing process, wood and soybean oil (IPCC 2007a).

### BIOMASS

Organic material both above-ground and below-ground, and both living and dead, e.g. trees, crops, grasses, tree litter, roots, etc. Biomass includes the pool definition for above- and below-ground biomass. Above-ground biomass: all living biomass above the soil including stem, stump, branches, bark, seeds and foliage. Below-ground biomass: all living biomass of live roots. Fine roots of less than (suggested) 2mm diameter are sometimes excluded because these often cannot be distinguished empirically from soil organic matter or litter (FAO 2004).

### BIOME

Major and distinct regional element of the biosphere, typically consisting of several ecosystems (e.g. forests, rivers, ponds, swamps) within a region of similar climate. Biomes are characterised by typical communities of plants and animals (IPCC 2007a).

**BOREAL FOREST DOMAIN**

The boreal domain is found only in the higher latitudes of the Northern Hemisphere between 50–55 and 65–70 degrees. It has at least one and up to 4 months with an average temperature above 10°C. Another feature is the large annual range of temperature. Rainfall is low, generally below 500mm (FAO 2001b). See Chapter 3 for more detailed description.

**CAPACITY BUILDING**

In the context of climate change, capacity building is developing the technical skills and institutional capabilities in developing countries and economies in transition to enable their participation in all aspects of adaptation to, mitigation of, and research on climate change, and in the implementation of the Kyoto Mechanisms, etc. (IPCC 2007a)

**CARBON SEQUESTRATION**

The process of increasing the carbon content of a reservoir/pool other than the atmosphere (IPCC 2007a).

**CARBON SINK**

Any process, activity or mechanism that removes a greenhouse gas, an aerosol, or a precursor of a greenhouse gas or aerosol from the atmosphere. (IPCC 2007a)

**CARBON SOURCE**

Any process, activity, or mechanism that releases a greenhouse gas, an aerosol, or a precursor of a greenhouse gas or aerosol into the atmosphere (IPCC 2001).

**CARBON STOCK/RESERVOIR**

A component of the climate system, other than the atmosphere, that has the capacity to store, accumulate or release a substance of concern (e.g. carbon or a greenhouse gas). Oceans, soils, and forests are examples of carbon reservoirs (IPCC 2007a).

**CLIMATE**

Climate in a narrow sense is usually defined as the ‘average weather’, or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. These quantities are most often surface variables such as temperature, precipitation and wind. Climate in a wider sense is the state, including a statistical description, of the climate system. The classical period of time is 30 years, as defined by the World Meteorological Organization (IPCC 2007a).

**CLIMATE CHANGE**

Climate change refers to any change in climate over time, whether due to natural variability or as a result of human activity. This usage differs from that in the United Nations Framework Convention on Climate Change (UNFCCC), which defines ‘climate change’ as: “a change of climate which 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” (IPCC 2007a). See also climate variability.

**CLIMATE CHANGE IMPACT, ADAPTATION AND VULNERABILITY (CCIAV) ASSESSMENT**

In the context of climate change the assessment of impacts, adaptation (see adaptation) and resulting vulnerability (see vulnerability) for a specific natural or anthropogenic system, sector, or region. Depending on circumstances (goals, scope, methodology) there are several approaches for CCIAV (IPCC 2007b).

**CLIMATE MODEL**

A numerical representation of the climate system based on the physical, chemical and biological properties of its components, their interactions and feedback processes, and accounting for all or some of its known properties. The climate system can be represented by models of varying complexity (i.e., for any one component or combination of components a hierarchy of models can be identified, differing in such aspects as the number of spatial dimensions, the extent to which physical, chemical, or biological processes are explicitly represented, or the level at which empirical parameterisations are involved. Coupled atmosphere/ ocean/sea-ice General Circulation Models (AOGCMs) provide a comprehensive representation of the climate system. More complex models include active chemistry and biology. Climate models are applied, as a research tool, to study and simulate the climate, but also for operational purposes, including monthly, seasonal and inter-annual climate predictions (IPCC 2007a).

**CLIMATE (CHANGE) SCENARIOS**

A plausible and often simplified representation of the future climate, based on an internally consistent set of climatological relationships and assumptions of radiative forcing, typically constructed for explicit use as input to climate change impact models. A ‘climate change scenario’ is the difference between a climate scenario and the current climate (IPCC 2007a).

**CLIMATE SENSITIVITY**

The equilibrium temperature rise that would occur for a doubling of CO<sub>2</sub> concentration above pre-industrial levels (IPCC 2007a).

**CLIMATE VARIABILITY**

Climate variability refers to variations in the mean state and other statistics (such as standard deviations, statistics of extremes, etc.) of the climate on all temporal and spatial scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability) (IPCC 2007a). See also climate change.

**CONFIDENCE**

See uncertainty.

**DEFORESTATION**

The conversion of forest to another land use or the long-term reduction of the tree canopy cover below the minimum 10% threshold.

Explanatory notes:

- ◆ Deforestation implies the long-term or permanent loss of forest cover and implies transformation into another land use. Such a loss can only be caused and maintained by a continued human-induced or natural perturbation.

- ◆ Deforestation includes areas of forest converted to agriculture, pasture, water reservoirs and urban areas.
- ◆ The term specifically excludes areas where the trees have been removed as a result of harvesting or logging, and where the forest is expected to regenerate naturally or with the aid of silvicultural measures. Unless logging is followed by the clearing of the remaining logged-over forest for the introduction of alternative land uses, or the maintenance of the clearings through continued disturbance, forests commonly regenerate, although often to a different, secondary condition. In areas of shifting agriculture, forest, forest fallow and agricultural lands appear in a dynamic pattern where deforestation and the return of forest occur frequently in small patches. To simplify reporting of such areas, the net change over a larger area is typically used.
- ◆ Deforestation also includes areas where, for example, the impact of disturbance, overutilisation or changing environmental conditions affects the forest to an extent that it cannot sustain a tree cover above the 10% threshold (FAO 2001a).

### DESERTIFICATION

Desertification means land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities.

Land degradation means reduction or loss in arid, semi-arid and dry sub-humid areas of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns, such as: (i) soil erosion caused by wind and/or water; (ii) deterioration of the physical, chemical and biological or economic properties of soil; and (iii) long-term loss of natural vegetation (UN 1994).

### DOMAIN

Broadest entity or level in classification, equivalent to the five thermic Köppen – Trewartha climatic groups and including the tropical, subtropical, temperate, boreal and polar domain (FAO 2001b).

### DYNAMIC GLOBAL VEGETATION MODEL (DGVM)

Models that simulate vegetation development and dynamics through space and time, as driven by climate and other environmental changes (IPCC 2007a).

### ECOSYSTEM SERVICES

Ecological processes or functions having monetary or non-monetary value to individuals or society at large. There are (i) supporting services such as productivity or biodiversity maintenance, (ii) provisioning services such as food, fibre or fish, (iii) regulating services such as climate regulation or carbon sequestration, and (iv) cultural services such as tourism or spiritual and aesthetic appreciation (IPCC 2007a).

### EL NIÑO-SOUTHERN OSCILLATION (ENSO)

El Niño, in its original sense, is a warm-water current that periodically flows along the coast of Ecuador and Peru, disrupting the local fishery. This oceanic event is associated with a fluctuation of the inter-tropical surface pressure pattern and circulation in the Indian and Pacific Oceans, called the Southern Oscillation. This coupled

atmosphere-ocean phenomenon is collectively known as El Niño-Southern Oscillation. During an El Niño event, the prevailing trade winds weaken and the equatorial counter current strengthens, causing warm surface waters in the Indonesian area to flow eastward to overlie the cold waters of the Peru current. This event has great impact on the wind, sea surface temperature, and precipitation patterns in the tropical Pacific. It has climatic effects throughout the Pacific region and in many other parts of the world. The opposite of an El Niño event is called La Niña (IPCC 2007a).

### EMISSIONS SCENARIO

A plausible representation of the future development of emissions of substances that are potentially radiatively active (e.g. greenhouse gases, aerosols), based on a coherent and internally consistent set of assumptions about driving forces (such as demographic and socio-economic development, technological change) and their key relationships. In 1992, the IPCC presented a set of emissions scenarios that were used as a basis for the climate projections in the Second Assessment Report. These emissions scenarios are referred to as the IS92 scenarios. In the IPCC Special Report on Emissions Scenarios (SRES) (Nakicenovic et al. 2000), new emissions scenarios – the so-called SRES scenarios – were published (IPCC 2007a).

### EXTREME WEATHER EVENT

An event that is rare within its statistical reference distribution at a particular place. Definitions of ‘rare’ vary, but an extreme weather event would normally be as rare as or rarer than the 10th or 90th percentile. By definition, the characteristics of what is called ‘extreme weather’ may vary from place to place. Extreme weather events may typically include floods and droughts (IPCC 2007a).

### FOREST

Land spanning more than 0.5ha with trees higher than 5m and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use.

Explanatory notes

- ◆ Forest is determined both by the presence of trees and the absence of other predominant land uses. The trees should be able to reach a minimum height of 5m in situ. Areas under reforestation that have not yet reached but are expected to reach a canopy cover of 10% and a tree height of 5m are included, as are temporarily unstocked areas, resulting from human intervention or natural causes, which are expected to regenerate.
- ◆ Includes areas with bamboo and palms provided that height and canopy cover criteria are met.
- ◆ Includes forest roads, firebreaks and other small open areas; forest in national parks, nature reserves and other protected areas such as those of specific scientific, historical, cultural or spiritual interest.
- ◆ Includes windbreaks, shelterbelts and corridors of trees with an area of more than 0.5 ha and width of more than 20m.
- ◆ Includes plantations primarily used for forestry or protection purposes, such as rubber wood plantations and cork oak stands.
- ◆ Excludes tree stands in agricultural production systems, for example in fruit plantations and agroforestry systems. The term also excludes trees in urban parks and gardens (FAO 2004).

**FOREST DEGRADATION**

Changes within the forest which negatively affect the structure or function of the stand or site, and thereby lower the capacity to supply products and/or services (FAO 2001a).

**FOREST DEPENDENT PEOPLE**

Encompasses people and communities that have a direct relationship with forests and trees and live within or immediately adjacent to forested areas, and depend on them for their sustenance (FAO 1996).

**FOREST ECOSYSTEM**

An ecological system composed of interacting biotic and abiotic components of the environment, in which trees are major constituent (IUFRO 2005).

**FOREST MANAGEMENT**

The processes of planning and implementing practices for the stewardship and use of forests and other wooded land aimed at achieving specific environmental, economic, social and/or cultural objectives. Includes management at all scales such as normative, strategic, tactical and operational level management (FAO 2004).

**FOREST PLANTATION**

Forest stands established by planting or/and seeding in the process of afforestation or reforestation. They are either of introduced species (all planted stands), or intensively managed stands of indigenous species, which meet all the following criteria: one or two species at plantation, even age class, regular spacing (FAO 2004).

**FOREST REHABILITATION**

The process of restoring the capacity of a forest to provide goods and services again, where the state of the rehabilitated forest is not identical to its state before (CPF 2005).

**FOREST RESOURCE**

For the purposes of the global forest resources assessments, forest resources include those found in forests and other wooded land and as trees outside forests (FAO 2004).

**FOREST RESTORATION**

The process of restoring a forest to its original state before degradation (same functions, same structure, same composition) (CPF 2005).

**GOVERNANCE**

Refers to the rules, institutions and systems of the state operating at international, national and local levels. It also refers to how the state interacts with citizens, private businesses and civil society organisations (IUFRO 2005).

**GREENHOUSE GAS**

Greenhouse gases are those 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 (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>) and ozone (O<sub>3</sub>) are the primary greenhouse gases in the Earth's atmosphere. As well as CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub>, the Kyoto Proto-

col deals with the greenhouse gases sulphur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) (IPCC 2007a).

**HUMAN SYSTEM**

Any system in which human organisations play a major role. Often, but not always, the term is synonymous with 'society' or 'social system' e.g. agricultural system, political system, technological system and economic system are all human systems (IPCC 2007a).

**IMPACTS**

The effects of climate change on natural and human systems. Depending on the consideration of adaptation, one can distinguish between potential impacts and residual impacts:

- ◆ Potential impacts: all impacts that may occur given a projected change in climate, without considering adaptation.
- ◆ Residual impacts: the impacts of climate change that would occur after adaptation. (IPCC 2007a).

**INDIGENOUS KNOWLEDGE**

See local knowledge.

**INDIGENOUS PEOPLES**

No internationally accepted definition of indigenous peoples exists. Common characteristics often applied under international law, and by United Nations agencies to distinguish indigenous peoples include: residence within or attachment to geographically distinct traditional habitats, ancestral territories, and their natural resources; maintenance of cultural and social identities, and social, economic, cultural and political institutions separate from mainstream or dominant societies and cultures; descent from population groups present in a given area, most frequently before modern states or territories were created and current borders defined; and self-identification as being part of a distinct indigenous cultural group, and the desire to preserve that cultural identity (IPCC 2007a).

**INVASIVE ALIEN SPECIES**

Any species that are non-native to a particular ecosystem and whose introduction and spread causes, or are likely to cause, socio-cultural, economic or environmental harm or harm to human health (FAO 2008a).

**INVASIVE SPECIES**

Organisms (usually transported by humans) which successfully establish themselves in, and then overcome pre-existing native ecosystems (IUFRO 2005).

**KYOTO PROTOCOL**

The Kyoto Protocol was adopted at the Third Session of the Conference of the Parties (COP) to the UN Framework Convention on Climate Change (UNFCCC) in 1997 in Kyoto, Japan. It contains legally binding commitments, in addition to those included in the UNFCCC. Countries included in Annex B of the Protocol (most member countries of the Organisation for Economic Cooperation and Development (OECD) and those with economies in transition) agreed to reduce their anthropogenic greenhouse gas emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>) by at least 5% below 1990 levels in the commitment period 2008 to 2012. The Kyoto Protocol entered into force on 16 February 2005 (IPCC 2007a).

**LIVELIHOOD**

Livelihoods consist of the capabilities, assets – both material and social resources – and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, and provide net benefits to other livelihoods locally and more widely, both now and in the future, while not undermining the natural resource base (FAO 2008b).

**LOCAL KNOWLEDGE, INDIGENOUS KNOWLEDGE**

Indigenous Knowledge (IK) can be broadly defined as the knowledge that an indigenous (local) community accumulates over generations of living in a particular environment. This definition encompasses all forms of knowledge – technologies, know-how skills, practices and beliefs – that enable the community to achieve stable livelihoods in their environment. A number of terms are used interchangeably to refer to the concept of IK, including Traditional Knowledge (TK), Indigenous Technical Knowledge (ITK), Local Knowledge (LK) and Indigenous Knowledge System (IKS). IK is unique to every culture and society and it is embedded in community practices, institutions, relationships and rituals. IK is considered a part of the local knowledge in the sense that it is rooted in a particular community and situated within broader cultural traditions (UNEP 2008).

**MANAGED FOREST**

A managed forest is a forest subject to forest management (CPF 2005).

**MITIGATION**

An anthropogenic intervention to reduce the anthropogenic forcing of the climate system; it includes strategies to reduce greenhouse gas sources and emissions and enhancing greenhouse gas sinks (IPCC 2007a).

**NATIONAL ADAPTATION PROGRAMME FOR ACTION (NAPA)**

The process for preparation of the National Adaptation Programmes for Action was established in the 7th Conference of the Parties of the UNFCCC in 2001. NAPAs identify and prioritize the adaptation needs in the least developed countries (LDCs), and communicate priority activities addressing the urgent and immediate needs and concerns regarding adaptation to the adverse effects of climate change (UNFCCC 2002).

**NATIONAL FOREST PROGRAMME (NFP)**

A country specific policy and planning framework to achieve sustainable forest management as a contribution to sustainable development. NFP is based on a set of principles, including a participatory inter-sectoral approach for the formulation of policies, strategies and plans of action, their implementation, monitoring and evaluation for the conservation, management and sustainable development of a country's forests (IUFRO 2005).

**NATURAL FOREST**

Forest stands composed predominantly of native tree species established naturally. This can include assisted natural regeneration, excluding stands that are visibly offspring/descendants of planted trees (CPF 2005).

**NON-TIMBER FOREST PRODUCT (NTFP)**

All biological materials other than timber, which are extracted from forests for human use. Forest refers to a natural ecosystem in which trees are a significant component. In addition to trees forest products are derived from all plants, fungi and animals (including fish) for which the forest ecosystem provides habitat (IUFRO 2005).

**NON-WOOD FOREST PRODUCT (NWFP)**

A product of biological origin other than wood derived from forests, other wooded land and trees outside forests (FAO 2008c).

**OTHER WOODED LAND**

Land not classified as Forest, spanning more than 0.5ha; with trees higher than 5m and a canopy cover of 5–10%, or trees able to reach these thresholds in situ; or with a combined cover of shrubs, bushes and trees above 10%. It does not include land that is predominantly under agricultural or urban land use (FAO 2004).

**PLANTED FOREST**

Forest stand in which trees have predominantly been established by planting, deliberate seeding of coppicing, where the coppicing is of previously planted trees. Includes all stands established by planting or seeding of both native and non-native species (CPF 2005).

**PLANT FUNCTIONAL TYPE (PFT)**

An idealised vegetation class typically used in dynamic global vegetation models (DGVM) (IPCC 2007a).

**POLAR FOREST DOMAIN**

Polar domain experiences long, cold winters and short, cool summers. Mean annual temperature ranges from around  $-20^{\circ}\text{C}$  in the most northern part to  $-7^{\circ}\text{C}$  in the south; summer mean temperatures range from  $-6^{\circ}\text{C}$  to  $+6^{\circ}\text{C}$ ; winter mean temperatures from  $-35^{\circ}\text{C}$  to  $-17.5^{\circ}\text{C}$ . The annual precipitation varies from 100mm to 600mm. Snow may fall any month of the year and usually persists on the ground for at least 10 months (September to June). Permafrost is continuous and may extend to a depth of several hundred meters (FAO 2001b).

**POLICY INSTRUMENTS**

(= Policy tools) Tools designed to regulate citizens' behaviour and define their legal rights. Substantive policy instruments direct government intervention that required or motivated a certain course of behavioural change. They comprise regulatory (e.g. laws, regulations), financial (e.g. subsidy, taxation) and informational (e.g. education, planning) policy means, which act directly on the addressees. Procedural policy instruments act on the process indirectly through institutional or organisational means by which policy is created. (adapted from IUFRO 2005).

**PRIMARY FOREST**

Forest of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed (FAO 2004).

**RADIATIVE FORCING**

Radiative forcing is the change in the net, downward minus upward, irradiance (expressed in  $W\ m^{-2}$ ) at the *tropopause* due to a change in an external driver of *climate change*, such as, for example, a change in the concentration of *carbon dioxide* or the output of the Sun. Radiative forcing is computed with all tropospheric properties held fixed at their unperturbed values, and after allowing for stratospheric temperatures, if perturbed, to readjust to radiative-dynamical equilibrium. Radiative forcing is called *instantaneous* if no change in stratospheric temperature is accounted for. For the purposes of this report, radiative forcing is further defined as the change relative to the year 1750 and, unless otherwise noted, refers to a global and annual average value. Radiative forcing is not to be confused with *cloud radiative forcing*, a similar terminology for describing an unrelated measure of the impact of clouds on the irradiance at the top of the *atmosphere* (IPCC 2007c).

**REFORESTATION**

Establishment of forest plantations on temporarily unstocked lands that are considered as forest (FAO 2004).

**RESILIENCE**

The ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organisation, and the capacity to adapt to stress and change (IPCC 2007).

**SCENARIO**

A plausible and often simplified description of how the future may develop, based on a coherent and internally consistent set of assumptions about driving forces and key relationships. Scenarios may be derived from projections, but are often based on additional information from other sources, sometimes combined with a 'narrative storyline' (IPCC 2007a). See also *climate (change) scenario*, *emissions scenario* and *SRES*.

**SECONDARY FOREST**

Forest regenerated largely through natural processes after significant human or natural disturbance of the original forest vegetation.

Explanatory notes:

- ◆ The disturbance may have occurred at a single point in time or over an extended period;
- ◆ The forest may display significant differences in structure and/or canopy species composition in relation to nearby primary forest on similar sites (FAO 2004).

**SENSITIVITY**

Sensitivity is the degree to which a system is affected, either adversely or beneficially, by climate variability or change. The effect may be direct (e.g. a change in crop yield in response to a change in the mean, range or variability of temperature) or indirect (e.g. damages caused by an increase in the frequency of coastal flooding due to sea-level rise) (IPCC 2007a).

**SEQUESTRATION (of carbon)**

The process of increasing the carbon content of a reservoir/pool other than the atmosphere. (IPCC 2007a)

**SRES**

The storylines and associated population, GDP and emissions scenarios associated with the Special Report on Emissions Scenarios (SRES) (Naki enovi et al. 2000), and the resulting climate change and sea-level rise scenarios. Four families of socio-economic scenario (A1, A2, B1 and B2) represent different world futures in two distinct dimensions: a focus on economic versus environmental concerns and global versus regional development patterns (IPCC 2007a).

**STABILITY (in ecosystems)**

A set of self-perpetuating and mutually reinforcing structures and processes that maintains a relatively constant assemblage of forest species (Lewontin 1969 combined with Peterson et al. 1998).

**SUBTROPICAL FOREST DOMAIN**

The subtropical domains are located between 25 to 40 degrees in the northern and southern hemispheres. They are areas with at least 8 months above the mean monthly temperature of  $10^{\circ}C$  (FAO 2001b). See Chapter 3 for more detailed description.

**SUSTAINABLE FOREST MANAGEMENT**

Sustainable forest management, as a dynamic and evolving concept, aims to maintain and enhance the economic, social and environmental values of all types of forests, for the benefit of present and future generations. The seven thematic elements of sustainable forest management are: (a) extent of forest resources; (b) forest biological diversity; (c) forest health and vitality; (d) productive functions of forest resources; (e) protective functions of forest resources; (f) socio-economic functions of forests; and (g) legal, policy and institutional framework. The thematic elements are drawn from the criteria identified by existing criteria and indicators processes, as a reference framework for sustainable forest management (UN 2007).

**TRADITIONAL FOREST-RELATED KNOWLEDGE**

Traditional forest-related knowledge can be defined as a cumulative body of knowledge, practice and belief, handed down through generations by cultural transmission and evolving by adaptive processes, about the relationship between living beings (including humans) with one another and with their forest environment (UNFF 2004).

**TREES OUTSIDE FOREST**

Trees outside forests include all trees found outside forests and outside other wooded lands:

- ◆ stands smaller than 0.5ha;
- ◆ tree cover in agricultural land, e.g. agroforestry systems, homegardens, orchards;
- ◆ trees in urban environments;
- ◆ along roads and scattered in the landscape (FAO 2004).

**TEMPERATE FOREST DOMAIN**

The temperate domain is found at middle latitudes – usually between the subtropical domain equator-wards and the boreal domain pole-wards. The boundaries with the subtropical and boreal domain are 8 months and 4 months, respectively, with average temperatures of  $10^{\circ}C$  or above (FAO 2001b). See Chapter 3 for more detailed description.

**TROPICAL FOREST DOMAIN**

In the tropical domains the mean temperature of all months is over 18°C. Their approximate location is between the Tropic of Cancer 23°N and the Tropic of Capricorn 23°S (FAO 2001b). See Chapter 3 for more detailed description.

**UNCERTAINTY**

Where uncertainty is assessed more quantitatively using expert judgment of the correctness of underlying data, models or analyses, then the following scale of confidence levels is used to express the assessed chance of a finding being correct: very high confidence at least 9 out of 10; high confidence about 8 out of 10; medium confidence about 5 out of 10; low confidence about 2 out of 10; and very low confidence less than 1 out of 10.

Where uncertainty is assessed qualitatively, it is characterized by providing a relative sense of the amount and quality of evidence (that is, information from theory, observations or models indicating whether a belief or proposition is true or valid) and the degree of agreement (that is, the level of concurrence in the literature on a particular finding). This approach is used by WG III through a series of self-explanatory terms such as: high agreement, much evidence; high agreement, medium evidence; medium agreement, medium evidence; etc. (Bates et al. 2008).

**UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)**

The Convention was 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. Its ultimate objective is the “stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”. It contains commitments for all Parties. Under the Convention, Parties included in Annex I aim to return greenhouse gas emissions not controlled by the Montreal Protocol to 1990 levels by the year 2000. The Convention entered in force in March 1994 (IPCC 2007a). See also ‘Kyoto Protocol’.

**VULNERABILITY**

Vulnerability is the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude and rate of climate change and variation to which a system is exposed, its sensitivity and its adaptive capacity (IPCC 2007a).

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