



The background features several silhouettes of people in various poses and sizes, colored in yellow and blue. A large, light blue ampersand (&) is positioned to the left of the main title.

CONTRIBUTORS & ORGANISATIONS

ANNEX

A

LEARN MORE ABOUT THE PEOPLE WHO WROTE AND HELPED DEVELOP THIS BOOK AND ABOUT THE INSTITUTIONS WHICH HAVE BEEN INVOLVED IN ITS PREPARATION

The following annex contains information on the people and institutions which contributed to this guide, who hope that you have found the guide interesting and useful, but most of all, that you are now passionate about biodiversity and will now undertake your own actions to safeguard the world's biodiversity.

David Ainsworth is the focal person for the International Year of Biodiversity at the Secretariat of the Convention on Biological Diversity where he encourages people around the world to learn about the beauty and importance of biodiversity for our lives.

Nadine Azzu has a background in environmental management, and currently focuses on the conservation and sustainable use of biodiversity for food and agriculture. She is an Agricultural Officer at the Food and Agriculture Organization of the United Nations.

Daniel J. Bisaccio is Director of science education (Master of Arts in Teaching) and Clinical Professor in education, in Brown University's Education Department. He is the founder of HabitatNet and a lead organiser of both the 2005 and 2009 International Youth Symposia on Biodiversity.

Dominique Bikaba has a degree in Rural Development and a specialisation in Regional Planning. He is the Executive Director of the Strong Roots. Previously, he coordinated the Pole Pole Foundation, which won the UNDP-Equator Initiative finalist prize in 2006.

Kate Buchanan is Programme Development Coordinator for the World Association of Girl Guides and Girl Scouts (WAGGGS). She develops educational programmes for girls and young women, including activities to help them learn about the UN's Millennium Development Goals and how to set up community action projects.

Zeynep Bilgi Bulus has studied business administration and agro-food economy. Her professional career has been spent as a nature conservationist, first in the Turkish Society for the Protection of Nature, and later in the GEF-SGP hosted by the UNDP. She currently lives on a farm in Turkey and continues to give volunteer and professional consultancies to civil society and international organisations.

David Coates works on inland waters biodiversity at the Secretariat of the Convention on Biological Diversity. He works in particular on land and water management issues and the role of inland water ecosystems in supporting sustainable development.

Jennifer Corriero is a social entrepreneur and youth engagement strategy consultant with a Masters in Environmental Studies from York University. She is co-founder and Executive Director of TakingITGlobal, and has been recognised by the World Economic Forum as a Young Global Leader.

Carlos L. de la Rosa is the Chief Conservation and Education Officer for the Catalina Island Conservancy, in Southern California, USA. He holds a doctorate in aquatic ecology and has worked for over 20 years in conservation issues in Latin America and North America. Currently he oversees many projects and initiatives in biodiversity conservation and environmental education.

Amanda Dobson is a graduate of John Cabot University, Rome. She is currently a Programme Assistant at the Global Crop Diversity Trust. She interned for the Diversity for Life campaign during the summer of 2009.

Maria Vinje Dodson is a Communications and Development Officer at the Global Crop Diversity Trust.

Cary Fowler has worked in the conservation and use of crop diversity for more than 30 years. He is currently the Executive Director of the Global Crop Diversity Trust and chair of the Advisory Council of the Svalbard Global Seed Vault.

Christine Gibb is a Consultant for the Secretariat of the Convention on Biological Diversity and for the Food and Agriculture Organization of the United Nations. Her current projects focus on youth and biodiversity issues.

Jacqueline Grekin is a Programme Assistant at the Secretariat of the Convention on Biological Diversity. Her work includes inland waters biodiversity, marine and coastal biodiversity, island biodiversity and agricultural biodiversity.

Caroline Hattam is an Environmental Economist at Plymouth Marine Laboratory. She works on projects that aim to encourage the sustainable use and management of the marine environment.

Terence Hay-Edie joined the GEF-SGP to provide technical support to the country programmes in the areas of biodiversity, protected areas and projects relating to indigenous peoples. Prior to UNDP, he worked with the UNESCO World Heritage Centre and Man and the Biosphere programmes.

Saadia Iqbal was the Former Editor of the World Bank's Youthink! Web site. Her projects included writing and producing multimedia content, as well as outreach and collaboration with partner organisations. She is currently writing a children's book.

Leslie Ann Jose-Castillo was the Development Communication Expert at the ASEAN Centre for Biodiversity. Her work focused on communication, education and public awareness, programme promotion and media relations.

The late **Marie Aminata Khan** was the Gender Programme Officer for the Secretariat on Biological Diversity. She also worked on communications and outreach activities within the division of Outreach and Major Groups.

Conor Kretsch is an environmental scientist specialising in ecosystems conservation and management and the links between the environment and human well-being. He is the Executive Director at the COHAB Initiative Secretariat.

Ping-Ya Lee was the Coordinator of the Tread Lightly programme, a climate change education and youth engagement initiative developed by TakingITGlobal. She worked on developing new content for the programme and also promoted the free tools and resources to teachers and schools. She is currently a master of landscape architecture candidate at the University of Toronto.

Michael Leveille is a science teacher at St-Laurent Academy Elementary and Junior High School in Ottawa, Canada. He is the Executive Director of the Second International Youth Symposium for Biodiversity and the founder of the Macoun Marsh Biodiversity Project.

Claudia Lewis is a conservation biologist and psychologist by training, and an environmental educator by trade. She currently works as an environmental consultant and as the Executive Director of Plan C Initiative, in Florida. She has devoted over 20 years of her career to educate and empower individuals of all ages, but especially communities, to conserve biodiversity and live more sustainably.

Charlotte Lusty is a scientist at the Global Crop Diversity Trust, working with national genebanks and international partners to help regenerate unique collections and secure them in long-term conservation.

Ulrika Nilsson works for the Cartagena Protocol on Biosafety at the Secretariat of the Convention on Biological Diversity as an Associate Information Officer. She works on public awareness and participation, including media and outreach in the field of biosafety.

Kieran Noonan-Mooney works at the Secretariat of the Convention on Biological Diversity where he helped to prepare the third edition of the Global Biodiversity Outlook (GBO-3).

Kathryn Pintus has a background in zoology and conservation, and now works for the IUCN's Species Programme, where she contributes to the advancement of biodiversity conservation through communications.

Neil Pratt is the Senior Environmental Affairs Officer at the Secretariat of the Convention on Biological Diversity. He oversees outreach, communication and education issues with each of the major stakeholders, including children and young people.

Ruth Raymond is the Communications Manager of Programmes and Regions at Bioversity International. She has more than 20 years of experience in raising awareness about the value of agricultural biodiversity.

John Scott is a descendant of the Iningai people of central Queensland, North Eastern Australia. He is currently the Programme Officer for article 8(j) (Traditional Knowledge) at the Secretariat of the Convention on Biological Diversity and the focal point for indigenous peoples and local communities. The focus of his work is on the legal protection of traditional knowledge.

Reuben Sessa is a Programme Officer at FAO developing and coordinating programmes on climate change. He is also FAO focal point for youth, coordinator of the YUNGA initiative and member of the Inter-Agency Network on Youth Development.

Junko Shimura works on taxonomy and invasive alien species at the Secretariat of the Convention on Biological Diversity. She works on capacity development for countries to identify, monitor and manage biodiversity, including the control of pathways for the introduction of invasive alien species.

Ariela Summit is completing a Master's Degree in Urban and Regional Planning at UCLA, with a focus in environment and community economic development. She formerly worked at Ecoagriculture Partners in Washington DC coordinating the US programme and managing outreach efforts.

Giulia Tiddens works for YUNGA coordinating activities related to social media and events such as the biodiversity World Food Day event with other 450 children. She is also involved in the preparation of materials and activities related to biodiversity and forests.

Tamara van 't Wout works for FAO on projects strengthening young people's and countries' capacities for disaster risk reduction and climate change adaptation.

Jaime Webbe works for the Secretariat of the Convention on Biological Diversity. She is responsible for the biodiversity of dry and subhumid lands and for the interactions between biodiversity and climate change.



www.aseanbiodiversity.org

The ASEAN Centre for Biodiversity is an intergovernmental regional centre of excellence which facilitates cooperation and coordination among ASEAN Member States and with relevant national governments, regional and international organisations on the conservation and sustainable use of biodiversity and the fair and equitable sharing of benefits arising from the use of such biodiversity.



www.bioversityinternational.org

Bioversity International is the world's largest international research organisation dedicated solely to the conservation and use of agricultural biodiversity.



www.biodiversitymatters.org

At the Second International Youth Symposium for Biodiversity, 100 students and their chaperones gathered in Ottawa, Canada in July 2009. The International Youth Accord for Biodiversity was initiated, and was presented at COP-10 in Japan in 2010. The Macoun Marsh Project, an award-winning youth biodiversity project of St-Laurent Academy, hosted the Symposium.



www.brown.edu

At Brown University, students study education from a variety of disciplinary perspectives, including anthropology, economics, history, political science, psychology, biological/ physical sciences, and sociology. The faculty teaches a wide array of undergraduate and graduate courses, and conducts research on important educational issues.



www.catalinaconservancy.org

The Catalina Island Conservancy is a land trust located on Catalina Island, in Southern California. Part of the California Channel Islands and the California Floristic Province Hot Spot for Biodiversity, the Conservancy stewards its 42 000 acres of land through a balance of conservation, education and recreational activities. A non-profit and public charity organisation, the Conservancy partners with state, national and international organisations in developing solutions for the most pressing biodiversity issues.



www.cohabnet.org

The COHAB (Co-operation on Health and Biodiversity) Initiative is an international programme of work addressing the gaps in knowledge, awareness and action on the links between biodiversity and human health. COHAB works around the world to promote greater awareness of the importance of biodiversity to human health and well-being, and supports projects to improve community health through conservation.



www.cbd.int and bch.cbd.int/protocol

The Convention on Biological Diversity is an international agreement that commits governments to maintaining the world's ecological sustainability through conservation of biodiversity, sustainable use of its components, and the fair and equitable sharing of the benefits arising from the use of genetic resources. The Cartagena Protocol on Biosafety is one of the key international agreements contributing to environmental conservation and sustainable development by reducing the potential negative effects that living modified organisms may pose to biodiversity.



www.ecoagriculture.org

EcoAgriculture Partners strives for a world where current agricultural lands are increasingly managed as ecoagriculture landscapes to achieve three complementary goals: to enhance rural livelihoods; conserve biodiversity; and sustainably produce crops, livestock, fish, and forest products. As a non-profit organisation, EcoAgriculture Partners helps to scale up successful ecoagriculture approaches by catalysing strategic connections, dialogue, and joint action among key actors at local, national and international levels.



www.fao.org

The Food and Agriculture Organization of the United Nations (FAO) leads international efforts to defeat hunger. FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy. Forums on biodiversity hosted by FAO include the Commission on Genetic Resources for Food and Agriculture (CGRFA), the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture and the Commission on Phytosanitary Measures (which governs the International Plant Protection Convention - IPPC). FAO is also a source of knowledge and information, helping countries to modernize and improve agriculture, forestry and fisheries practices and ensure good nutrition for all.



www.croptrust.org

The Global Crop Diversity Trust's mission is to ensure the conservation and availability of crop diversity for food security worldwide.



www.iucn.org

The International Union for Conservation of Nature (IUCN) helps the world find pragmatic solutions to our most pressing environment and development challenges by supporting scientific research; managing field projects all over the world; and bringing governments, NGOs, the UN, international conventions and companies together to develop policy, laws and best practises. IUCN is the world's oldest and largest global environmental network with more than 1 000 government and NGO members, and almost 11 000 volunteer scientists and experts in 160 countries.



www.plancinitiative.org

Plan C Initiative is an organisation based in Florida, USA, whose mission is to empower local urban communities and municipalities to develop landscapes that support people and wildlife, utilising strategies that enhance community connections and ecological function. The organisation endeavours to create a paradigm shift that leads to ecological landscaping becoming the prevailing approach to urban landscaping. The vision is that natural areas in Florida become interconnected via a large urban ecological landscape that supports increased biodiversity and provides a variety of services to humans and wildlife.



www.pml.ac.uk

Plymouth Marine Laboratory (PML) is an independent, impartial provider of scientific research, contract services and advice for the marine environment. PML's work focuses on understanding how marine ecosystems function and reducing uncertainty about the complex processes and structures that sustain life in the seas and their role in the Earth system.



www.sgp.undp.org

Established in 1992, the year of the Rio Earth Summit, the GEF Small Grants Programme (SGP) provides financial and technical support to community-based projects that conserve and restore the environment while enhancing people's well-being and livelihoods. SGP demonstrates that community action can maintain the fine balance between human needs and environmental imperatives in five focal areas: biodiversity conservation, mitigation of climate change, combating land degradation, phasing out of persistent organic pollutants, and protection of international waters.



www.strongrootscongo.org

Strong Roots is a local organisation based at the Kahuzi-Biega National Park (KBNP) in eastern Democratic Republic of Congo (DRC). It involves indigenous and local communities in the long-term preservation of the park through sustainable development projects. Strong Roots has programmes on environmental education, carving, reforestation, crop production and food security, sustainable land management, health, conservation and small business activities.



www.tigweb.org

TakingITGlobal is a non-profit organisation with the aim of fostering cross-cultural dialogue, strengthening the capacity of youth as leaders, and increasing awareness and involvement in global issues through the use of technology.



www.wagggsworld.org

The World Association of Girl Guides and Girl Scouts (WAGGGS) is a worldwide movement providing non-formal education where girls and young women develop leadership and life skills through self-development, challenge and adventure. Girl Guides and Girl Scouts learn by doing. The Association brings together Girl Guiding and Girl Scouting Associations from 145 countries reaching 10 million members around the globe.



www.youthink.worldbank.org

Youthink! is the World Bank's Web site for youth. It informs and engages young people on development issues.



www.yunga.org

YUNGA: the Youth and United Nations Global Alliance is a partnership of different UN agencies, civil society organisations and other groups related to children and youth. The objective of the alliance is to create resources and activities to educate and engage children and young people in activities of key environmental and social concern at the national and international levels. YUNGA also seeks to empower children and young people to have a greater role in society, raise awareness and be active agents of change.

PLEASE NOTE THAT THE INVOLVEMENT OF AN INSTITUTION OR INDIVIDUAL DOES NOT IMPLY ITS OR THEIR ENDORSEMENT OR AGREEMENT WITH THE CONTENT OF THIS GUIDE.





LIST OF SPECIES

ANNEX B

SCIENTIFIC NAMES

In addition to one or more common names, every internationally recognised species has a unique scientific name. It consists of two names, usually Latin or Greek words, that are always italicised (or underlined if the name is written by hand). The first name is the genus (generic name), and begins with a capital letter; the second is the species (specific name), and is written in lower-case.

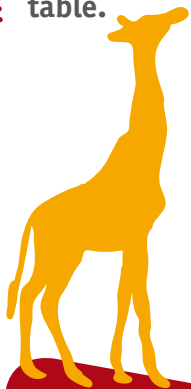
Scientific names are given according to a taxonomic classification system called 'binomial nomenclature'. The system was first introduced in the eighteenth century by a Swedish botanist named Carl von Linné (sometimes called Carolus Linneaus).



The binomial nomenclature system has several benefits:

- it's **simple** (only two names)
- it's **clear** (a single species could have many common names in several languages, but it only has one scientific name)
- it's **stable over time** (with some exceptions)
- it's **used extensively** around the world.

The common and scientific names of the species described in this publication are listed in the following table.



COMMON NAME	SCIENTIFIC NAME
African elephant	<i>Loxodonta africana</i>
African forest elephant	<i>Loxodonta cyclotis</i>
Alpine ibex	<i>Capra ibex</i>
Amazon River dolphin, Boto	<i>Inia geoffrensis</i>
Auroch	<i>Bos primigenius</i>
Australian honey possum	<i>Tarsipes spenserae</i>
Black and white jumping spider	<i>Phidippus audax</i>
Black and white ruffed lemur	<i>Lemur varius</i>
Black bear	<i>Ursus americanus</i>
Blue whale	<i>Balaenoptera musculus</i>
Bornean orangutan	<i>Pongo pygmaeus</i>
Bottlenose dolphin	<i>Tursiops truncatus</i>
Brown pelican	<i>Pelecanus occidentalis</i>
Burrowing bettong	<i>Bettongia lesueur</i>
Cane toad	<i>Bufo marinus</i>
Cerulean warbler	<i>Dendroica cerulean</i>
Chum salmon	<i>Oncorhynchus keta</i>
Colossal squid	<i>Mesonychoteuthis hamiltoni</i>
Cycad species	<i>Encephalartos brevifoliolatus</i>
Dodo	<i>Raphus cucullatus</i>
Domestic cow	<i>Bos taurus</i>
Eastern common chimpanzee	<i>Pan troglodytes schweinfurthii</i>
Eastern lowland gorilla	<i>Gorilla beringei</i>
Eastern spinner dolphin	<i>Stenella longirostris</i>
Everglade kite	<i>Rostrhamus sociabilis</i>
Firefly squid	<i>Watasenia scintillans</i>
Florida panther	<i>Puma concolor coryi</i>
Fly agaric mushroom	<i>Amanita muscaria</i>
Ganges River dolphin, Susu	<i>Platanista gangetica</i>
Giant clam	<i>Tridacna gigas</i>
Giant panda	<i>Ailuropoda melanoleuca</i>
Gile monster lizard	<i>Heloderma suspectum</i>
Giraffe	<i>Giraffa camelopardalis</i>




COMMON NAME	SCIENTIFIC NAME
Gnu, blue wildebeest	<i>Connochaetes taurinus</i>
Great crested tern	<i>Sterna bergii</i>
Green lacewing	<i>Chrysoperla rufilabris</i>
Green turtle	<i>Chelonia mydas</i>
Hippopotamus	<i>Hippopotamus amphibious</i>
Hula painted frog	<i>Discoglossus nigriventer</i>
Human	<i>Homo sapiens</i>
Indus River dolphin	<i>Platanista minor</i>
Irrawaddy River dolphin, Mekong River dolphin	<i>Orcaella brevirostris</i>
Jaguar	<i>Panthera onca</i>
King penguin	<i>Aptenodytes patagonicus</i>
Long-horned bee	<i>Tetraloniella spp.</i>
Night blooming jasmine	<i>Cestrum nocturnum</i>
Pacific yew tree	<i>Taxus brevifolia</i>
Pig-footed bandicoot	<i>Chaeropus ecaudatus</i>
Plains zebra	<i>Equus quagga</i>
Polar bear	<i>Ursus maritimus</i>
Potato (cultivated)	<i>Solanum tuberosum</i>
Potato (wild)	<i>Solanum megistacrolobum</i>
Red wriggler worm	<i>Eisenia foetida</i>
Ringed seal	<i>Pusa hispida</i>
Sea otter	<i>Enhydra lutris</i>
Siberian crane	<i>Grus leucogeranus</i>
Stem rust	<i>Puccinia graminis</i>
Striped lychnis moth	<i>Shargacucullia lychnitis</i>
Thomson's gazelle	<i>Eudorcas thomsonii</i>
Tiger	<i>Panthera tigris</i>
Traveller's tree, traveller's palm	<i>Ravenala madagascariensis</i>
Tucuxi	<i>Sotalia fluviatilis</i>
Wood stork	<i>Mycteria americana</i>
Woolly-stalked begonia	<i>Begonia eiromischa</i>
Yangtze River dolphin, Baiji	<i>Lipotes vexillifer</i>





A F

H

N

GLOSSARY



Action: an activity that will help you to achieve your goal(s).

Action plan: a strategy that helps you to break your project down into specific activities, resources, responsibilities and deadlines. Planning these activities in detail will ensure the success of your project.

Agricultural biodiversity: the components of biodiversity important for agriculture.

Agricultural productivity: the ratio of agricultural outputs to agricultural inputs. When productivity is high the farmer harvests much more than he or she puts into the land.

Agro-ecosystem: an ecosystem where there is agricultural activity. Agro-ecosystems include land used for crops, pasture and livestock; the adjacent uncultivated land that supports other vegetation and wildlife; and the associated atmosphere, underlying soils, groundwater and drainage networks.

Amphibians: a large group of animals that usually have moist skins and live in or in association with freshwater - including frogs, toads, newts and salamanders. Most have eggs without shells, which are laid or develop in water or moist environments.

Anther: the male part of a flower that produces pollen.

Aquaculture: the cultivation of marine or freshwater animals (e.g. fish, molluscs and crustaceans) and aquatic plants.

Background rate: the normal extinction rate, based on the fossil record before humans became a major contributor to extinctions.

Ballast water: ballast refers to anything used by ships to help them create stability. Sea water is the usual form of ballast.

Biodiversity: the variety of life on Earth, at each of the genetic, species and ecosystem levels, and the relationships between them.

Biodiversity hotspot: an area especially rich in plant and animal life, but in grave threat of being destroyed. To be recognised as a biodiversity hotspot, the area must: have at least 1 500 endemic species of vascular plants, and have lost at least 70 percent of its original habitat.

Biofuel: a fuel made from living or recently living biological materials such as marine algae, maize or sugarcane.

Biomagnification: the accumulation of substances in organisms that increase in concentration up the food chain, as smaller organisms are eaten by larger organisms.

Biomass: in ecology, biomass is the mass of living organisms in an ecosystem at a given time.

Bioprospecting: the study and potential commercialisation of useful plant and animal species.

Biosafety: efforts to reduce possible risks from modern biotechnology and its products, including measures to ensure the safe transfer, handling and use of living modified organisms created through modern biotechnology.

Brackish water: water that is saltier than fresh water, but not as salty as seawater. It occurs in transitional areas between rivers and the sea, such as estuaries and mangrove swamps.

Breeding: the production of plant or animal offspring. Breeding can refer to the intentional breeding of specially selected parents by farmers or researchers.

Carrying capacity: the population size of a species that the environment can sustain indefinitely, given available food, space, light, water and nutrients.

Cell: the basic building block of life. All organisms are made up of one or more cells.

Civil society organisation (CSO): an organisation that is not part of a government. In addition to NGOs, the term CSO includes trade unions, faith-based organisations, indigenous people movements, foundations and many others.

Climate change: a direct driver of biodiversity loss. It is a change in the overall state of the Earth's climate caused by both natural and human causes such as the build-up of greenhouse gases, like carbon dioxide, in the Earth's atmosphere.

Clone: a genetically identical copy of a cell or individual.

Conservation: changing needs or habits with the aim of maintaining the health of the natural world, including land, water, biodiversity and energy.

Complementary interests: when different parties share the same interest in the same parcel of land (e.g. when members of a community share common rights to grazing land, etc.).

Competing interests: when different parties contest the same interests in the same parcel (e.g. when two parties independently claim rights to exclusive use of a parcel of agricultural land).

Crop wild relative: a non-cultivated species that is more or less closely related to a crop species (usually in the same genus). Crop wild relatives are not normally harvested for food but they can occur in farmers' fields (e.g. as a weed or a component of pasture or grazing lands), and are important sources of diversity for crop improvement.

Dead zone: coastal sea areas where water oxygen levels have dropped too low to support marine life. They often result from the build-up of nutrients, usually carried from inland farming areas where fertilisers wash into watercourses. The nutrients promote the growth of phytoplankton that die and decompose on the seabed, using up the oxygen in the water and threatening fisheries, livelihoods and tourism.

Desertification: the degradation of land in arid and semi-arid areas causing the deterioration of the ecosystem or the loss of agricultural production.

Direct driver: a direct cause of biodiversity loss. The five main ones are: habitat loss and fragmentation, climate change, invasive alien species, pollution and overexploitation of resources / unsustainable use.

Drylands: dry and subhumid lands that include everything from deserts to savannas to Mediterranean landscapes.

Ecology: the scientific study of the relationships between and among organisms, and of all aspects of their environment.

Ecosystem: the combined physical and biological components of an environment, and their interactions. An ecosystem is relatively self-contained and is defined by the types of organisms found there and their interactions (e.g. forest, grassland, lake).

Ecosystem goods and services: the benefits that the environment, including humans, obtains from ecosystems. These benefits include cleaning the air and water, and providing food and materials to build houses. There are four types of ecosystem services: provisioning, regulating, cultural and supporting.

Endemic: a species that is native to a particular area or environment and not found naturally anywhere else.

Environmental footprint analysis: a useful tool for examining the impact that individuals have on the world around them, in terms of the resources they consume.

Equity: something that is fair and just.

Eutrophication: a process whereby water bodies receive excess nutrients that stimulate excessive plant growth. In turn, this enhanced plant growth reduces dissolved oxygen in the water and can cause other organisms to die.

Evaporation: the process whereby a liquid turns into a gas.

Evolution: the gradual process of genetic change that occurs in populations of organisms, eventually leading to new species. It requires natural selection, diversity, inheritability and time.

Ex situ conservation: off-site conservation in which plants or animals are removed from their natural habitat and placed in a new location such as a zoo or seed bank.

Extinction: the state whereby no live individuals of a species remain.

Forage crops: plants that are eaten by livestock animals. Examples of forage plants are different kinds of grasses, or herbaceous legumes such as clover or alfalfa.

Fragmentation: a direct driver of biodiversity loss. It is a process whereby parts of a habitat become separated from one another because of changes in a landscape. Fragmentation makes it difficult for species to move throughout a habitat, and poses a major challenge for species requiring large tracts of land.

Gender: the social roles that men and women play and the power relations between them, which usually have a profound effect on the use and management of natural resources.

Gene: a section of DNA which encodes information about the characteristics of the organism; it is a unit of heredity and is passed down from parent to offspring.

Genebanks: institutions where genetic diversity is conserved and documented for use by farmers and researchers. The most specialist institutions are able to keep species and varieties in good health in storage for several decades.

Gene pool: the total number of genes belonging to every individual in an interbreeding population.

Genetic diversity (or variability): the variation and richness of genes in a population or species.

Genetic erosion: the loss of genes from a population or the loss of species from an ecosystem.

Genus: a low-level rank used to classify living and fossil organisms.

Goal: a desirable outcome.

Grassroots action: an action undertaken by individuals or groups not associated with the government.

Habitat: the local environment in which an organism is usually found.

Habitat loss: a direct driver of biodiversity loss. It occurs when natural environments are transformed or modified to serve human needs.

Homogeneous: similar. Homogeneous groups are the same or very similar.

Horticultural crops: crops including fruits, berries, nuts and vegetables. Horticulture is the practice of cultivating plants.

Hypoxic: a place is said to be hypoxic when the level of oxygen available in water to living organisms is below the level that these organisms need to survive.

Indicator: a measure of success to make sure you stay on track of your goal.

Indigenous people: any ethnic group which inhabits a geographic region with which they have the earliest known historical connection.

Inheritability: the ability to transfer resources, in this case traits or genes, from parent to offspring.

In situ conservation: on-site conservation in which plants or animals are protected in their natural habitats, either by protecting or cleaning up the habitat, or by defending the species from disease, competitors and predators.

Invasive alien species (IAS): a direct driver of biodiversity loss. IAS are species that have spread outside of their natural habitat and threaten biodiversity in the new area. IAS may also cause economic or environmental damage, or adversely affect human health.

Invertebrate: an animal that does not have a backbone.

Land tenure: the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land. Land tenure constitutes a web of intersecting interests.

Livelihood: the means by which a person supports him or herself – whether through business, agriculture, hunting or other means.

Living modified organism (LMO): an organism produced by modern biotechnology in which scientists have taken a single gene from a plant, animal or micro-organism, and inserted it into another organism. LMOs are commonly known as genetically modified organisms (GMOs).

Marine biodiversity hotspots: these are areas of high species and habitat richness that include representative, rare and threatened features.

Micro-organism: a living thing too small to be seen by the human eye alone, but that can be seen through a microscope. In ecosystems, micro-organisms help in recycling nutrients.

Mission statement: a short clear sentence of your purpose.

Morphology: the study of the form and structure of individual organisms (what the organism looks like).

Mulching: in an agro-ecosystem that produces crops, mulching is the practice of leaving a cover of organic material on the soil. Mulching provides material for worms to digest and recycle into nutrients for plants, but it also has other benefits for the environment. For example, it prevents loss of water from evaporation, helps to reduce erosion, and helps to suppress weed growth.

Multilateral: involving a large number of parties.

National sovereignty: the power of a state to do everything necessary to govern itself, such as making, executing, and applying laws; imposing and collecting taxes; making war and peace; and forming treaties or engaging in commerce with foreign nations.

Natural resource: something from nature that can be used to make something else; farmers need natural resources, such as land, air, water and sunlight, to grow food.

Natural selection: the survival of animals and plants that adapt successfully to their environment and produce healthy offspring enabling the transfer of their genes and traits.

Networking: building a team and getting connected to people who can help you to achieve your goal(s).

Non-governmental organisation (NGO): an organisation that is not part of a government. It exists for the purpose of advancing and promoting the common good, working in partnerships with communities, governments and businesses in realising important goals that benefit all of society. These organisations can work at the local, national and/or international levels.

Ocean acidification: a decrease in ocean pH due to increased levels of atmospheric carbon dioxide dissolving in seawater.

Omnivore: an organism that eats a wide variety of foods, including foods of plant and animal origin.

Orchard: an example of an agro-ecosystem that is used for growing fruit or nut trees for consumption and/or commercialisation.

Organism: an individual living creature such as a spider, walnut tree or human.

Overexploitation: a direct driver of biodiversity loss. It happens when biodiversity is removed faster than it can be replenished. It is also called “unsustainable use”.

Overriding interests: when a sovereign power (e.g. a nation or community) has the power to allocate or reallocate land.

Overlapping interests: when several parties are allocated different rights to the same parcel of land (e.g. one party may have lease rights, another may have a right of way, etc.).

Patient capital: a type of long-term funding available to start or grow a business with no expectation of turning a quick profit.

Peatland: an area with a thick, naturally accumulated organic layer of peat on its surface. Peat is made of dead and partially decomposed plant remains that have accumulated on the spot under waterlogged conditions. Peatlands include wetlands such as moors, bogs, fens, mires, swamp forests or permafrost tundra. They are found in all biomes, particularly the boreal, temperate and tropical areas of the planet. Peatlands are important for carbon storage, water retention, biodiversity, agriculture, forestry and fisheries.

Persistent organic pollutants (POPs):

organic compounds that do not easily break down through chemical, biological and photolytic processes. They accumulate in the environment and can be hazardous to human health and the environment.

Phenology: the timing of biological events such as flowering and fruiting of plants.

Photophore: a special body part found on deep sea creatures that is bioluminescent (produces light).

Phylogenetics: the study of evolutionary relationships, using genetics to look at how closely related different species are.

Phylum: a technical term used in the classification of living creatures, and refers to a broad group of related organisms.

Phytoplankton: microscopic aquatic plants that drift in the upper parts of the ocean.

Pollinator: an animal that carries pollen from one seed plant to another, unwittingly helping the plant to reproduce. Common pollinators include bees, butterflies, moths, birds and bats.

Pollution: a direct driver of biodiversity loss. It occurs where contaminants, such as chemicals, energy, noise, heat and light are introduced into an environment and destabilise or harm the ecosystem.

Protected areas: places that receive protection because of their environmental or cultural value.

Ratification: official adoption, in this case, of an international agreement.

Renewable resource: a natural resource that can replenish itself.

Reptiles: snakes, lizards, crocodiles, turtles and tortoises, etc. Some are terrestrial (land-living), others live on both land and in water, some exclusively in water (e.g. freshwater turtles). Most produce eggs with shells which are laid and develop out of water.

Services: see ecosystem services.

Sexual dimorphism: the occurrence of physical differences between individuals of different sexes (not including primary sexual characteristics) but of the same species. Male and female peacocks, for instance, look very different: the males have large, colourful tail feathers that the females lack.

Species: a group of similar organisms which are able to breed together and produce healthy, fertile offspring (offspring that are able to produce young).

Stakeholders: those that have an interest in a particular decision, either as individuals or as representatives of a group. It includes people who influence a decision, or can influence it, as well as those affected by it.

Stigma: the female part of a flower which receives pollen.

Subspecies: a taxonomic rank below species. Subspecies of a species will be different from one another in some way, but the differences are not so great as to consider them separate species. Geographic isolation of populations of a species may result in the evolution of certain traits, which in turn may lead to the formation of a subspecies.

Sustainable development: development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Symbiosis: a relationship which provides a mutual benefit. A symbiotic relationship is a mutually beneficial relationship between two species.

Taxonomy: the science of naming, describing and classifying organisms.

Terrestrial biodiversity: all of the animals and plants and micro-organisms that live on land, and also land habitats, such as forests, deserts and wetlands.

Trait: a characteristic or distinguishing feature that identifies an organism, for instance curly hair or tallness. In agriculture, important traits include those that affect a plant's yield or resistance to disease. Some traits are heritable and others are not.

Transparency: when all negotiation and dialogue take place openly, information is freely shared, and participants are held responsible for their actions before, during, and after the process.

Transpiration: a process in which plants return water to the atmosphere.

Unsustainable use: a direct driver of biodiversity loss. It happens when biodiversity is removed faster than it can be replenished. It is also called "overexploitation".

Vector: any living or non-living carrier that transports living organisms intentionally or unintentionally.

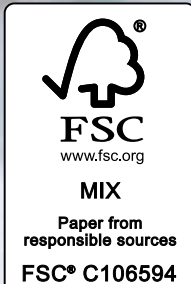
Vertebrates: animals that have a backbone or a spinal cord. Some examples of vertebrates are mammals, birds, sharks and reptiles.

Water footprint: the total volume of fresh water that is used to produce the goods and services consumed by an individual, business or nation.

Wetland: an area of land covered either permanently or temporarily with water, usually shallow, covered by plants (including trees) which grow out of the water or mixed with areas of open water.

Zooplankton: microscopic aquatic animals that drift in the upper parts of the ocean.

THE YOUTHGUIDE TO BIODIVERSITY



© FAO 2013

**PRINTED ON ECOLOGICAL PAPER
FSC (FOREST STEWARDSHIP COUNCIL)
CERTIFIED**

Art direction and layout:

Pietro Bartoleschi

Layout assistants:

Arianna Guida and **Cristina Sanna** (studio@bartoleschi.com)

Studio Bartoleschi's contributions and photo editing:

Elisabetta Cremona, Loretta Di Paola, Sabrina Varani, Pietro Zoli