

**forest:** Any ecosystem characterized by a high density of trees.

**forest type:** A category of forest defined by its predominant tree species.

**canopy:** The upper level of tree leaves and branches in a forest.

**subcanopy:** The middle level of trees in forest.

**understory:** The layer of a forest consisting of small shrubs and trees above the forest floor and below the subcanopy, usually shaded by foliage above it.

**snags:** A dead tree that is still standing. They are valuable for wildlife.

**deforestation:** The clearing and loss of forests.

**primary forest:** Natural forest uncut by people.

**secondary forest:** Forest that has grown back after primary forest has been cut. Consists of second-growth trees.

**concession:** The right to extract a resource, granted by a government to a corporation.

**conservation concession:** A type of concession in which a conservation organization purchases the right to prevent resource extraction in an area of land, generally to preserve habitat in developing nations.

**Reducing Emissions from Deforestation and Forest Degradation (REDD):** A proposed international program, still being developed, to encourage the conservation of forests globally for the purpose of reducing greenhouse gas emissions to control climate change. A key mechanism is the transfer of funds from wealthy nations to poorer forest-rich nations. Initially REDD, the program became known as REDD+ as it expanded in scope.

**forestry:** The professional management of forests.

**resource management:** Strategic decision making about how to extract resources, so that resources are used wisely and conserved for the future.

**maximum sustainable yield:** The maximum harvest of a particular renewable natural resource that can be accomplished while still keeping the resource available for the future.

**ecosystem-based management:** The attempt to manage the harvesting of resources in ways that minimize impact on the ecosystems and ecological processes that provide the resources.

**adaptive management:** The systematic testing of different management approaches to improve methods over time.

**national forest:** An area of forested public land managed by the U.S. Forest Service. The system consists of 191 million acres (more than 8% of the nation's land area) in many tracts spread across all but a few states.)

**even-aged:** Condition of timber plantations—generally monocultures of a single species—in which all trees are of the same age. Most ecologists view plantations of even-aged stands more as crop agriculture than as ecologically functional forests.

**uneven-aged:** Term describing stands consisting of trees of different ages. Uneven-aged stands more closely approximate a natural forest than do even-aged stands.

**clear-cutting:** The harnessing of timber by cutting all the trees in an area. Although it is the most cost-efficient method, clear-cutting is also the most ecologically damaging.

**seed-tree:** Timber harvesting approach that leaves small number of mature and vigorous seed-producing trees standing so that they can reseed a logged area.

**shelterwood:** Timber harvesting approach that leaves small number of mature trees in place to provide shelter for seedlings as they grow.

**selection systems:** Method of timber harvesting whereby single trees or groups of trees are selectively cut while others are left, creating an uneven-aged stand.

**multiple use:** A principle guiding management policy for national forests specifying that forests be managed for recreation, wildlife habitat, mineral extraction, water quality, and other uses, as well as for timber extraction.

**National Forest Management Act:** Legislation passed by the U.S. Congress in 1976, mandating that plans for renewable resource management be drawn up for every national forest. These plans were to be explicitly based on the concepts of multiple use and maximum sustainable yield and be open to broad public participation.

**new forestry:** A set of ecosystem-based management approaches for harvesting timber that explicitly mimic natural disturbances. For instance, "sloppy clear-cuts" that leave a variety of trees standing mimic the changes a forest might experience if hit by a severe windstorm.

**roadless rule:** A 2001 Clinton administration executive order that put 31% of national forest land off-limits to road construction or maintenance.

**wildland-urban interface:** A region where urban or suburban development meets forested or undeveloped lands.

**prescribed fire:** The practice of burning areas of forest or grassland under carefully controlled conditions to improve the health of ecosystems, return them to a more natural state, reduce fuel loads, and help prevent uncontrolled catastrophic fires.

**salvage logging:** The removal of dead trees following a natural disturbance. Although it may be economically beneficial, salvage logging can be ecologically destructive, because snags provide food and shelter for wildlife and because removing timber from recently burned land can cause erosion and damage to soil.

**sustainable forest certification:** A form of ecolabeling that identifies timber products that have been produced using sustainable methods. The Forest Stewardship Council (FSC) and several other organizations issue such certification.

**national wildlife refuge:** An area of public land set aside to serve as a haven for wildlife and also sometimes to encourage hunting, fishing, wildlife observation, photography, environmental education, and other uses. The system of more than 560 sites is managed by the U.S. Fish and Wildlife Service.

**wilderness areas:** Federal land that is designated off-limits to development of any kind but is open to public recreation, such as hiking, nature study, and other activities that have minimal impact on the land.

**land trusts:** A local or regional organization that preserves lands valued by its members. In most cases, land trusts purchase land outright with the aim of preserving it in its natural condition.

**biosphere reserves:** A tract of land with exceptional biodiversity that couple preservation with sustainable development to benefit local people. Biosphere reserves are designated by UNESCO (the United Nations Educational, Scientific, and Cultural Organization) following applications by local stakeholders.

**world heritage sites:** A location internationally designated by the United Nations for its cultural or natural value. There are more than 1000 such sites worldwide.

**debt-for-nature-swap:** A transaction in which a conservation organization pays off a portion of a developing nation's international debt in exchange for a promise by the nation to set aside reserves, fund environmental education, and better manage protected areas.

**edge effects:** An impact on organisms, populations, or communities that results because conditions along the edge of a habitat fragment differ from conditions in the interior.

**island biogeography theory:** Theory initially applied to oceanic islands to explain how species come to be distributed among them. Researchers have increasingly applied the theory to islands of habitat (patches of one type of habitat isolated within "seas" of others). Aspects of the theory include immigration and extinction rates, the effect of island size, and the effect of distance from the mainland.

**species-area curves:** A graph showing how number of species varies with the geographic area of a landmass or water body. Number of species commonly doubles as area increases 10-fold.

**SLOSS:** Abbreviation for "single large or several small." The debate over whether it is better to make reserves large in size and few in number or many in number but small in size.

**corridors:** A passageway of protected land established to allow animals to travel between islands of protected habitat.