



Biodiversity is life



Biodiversity is our life

## Agricultural Biodiversity

Biodiversity is the foundation of agriculture. Agricultural biodiversity includes ecosystems, animals, plants and microorganisms related to food and agriculture. Today most species of crops and domesticated livestock are the result of thousands of years of human intervention such as selective breeding and other farm practices.

Agricultural biodiversity provides food and raw materials to produce goods. Moreover, every plant, animal and microorganism plays its part in the regulation of essential ecosystem services, such as water conservation, decomposition of waste and nutrient cycling, pollination, pest and disease control, climate regulation, erosion control and flood prevention, carbon sequestration and many more.

While modern agriculture has enabled food production to increase, contributing much to improving food security and reducing poverty, it has also been responsible for considerable damage to biodiversity, primarily through land-use conversion but also through overexploitation, intensification of agricultural production systems, excessive chemical and water use, nutrient loading, pollution and introduction of alien species.

It is better to use and manage agricultural landscapes wisely and sustainably. Although farmers' traditional knowledge is central to both sustaining biodiversity and ensuring global food security, today it is as well considered by many to be part of the much-threatened global commons. Farmers are requested to both preserve biodiversity and contribute to meet the nutritional needs of a growing population. However, they do not control all factors involved including those related to agricultural policies, incentives, markets or consumption patterns, and therefore need support from government policy.

To ensure food security, adequate nutrition and stable livelihoods for all human beings, we must adopt sustainable and efficient agriculture, sustainable consumption and preserve biodiversity.



Convention on  
Biological Diversity

[www.cbd.int/agro](http://www.cbd.int/agro)



## Fast Facts

- ▶ Close to a quarter of the world's population (1.3 billion people) work in agriculture
- ▶ Over 826 million people are chronically hungry and need 100-400 more calories per day
- ▶ 32% of pre-school children worldwide are underweight
- ▶ Agriculture accounts for 44% of methane emissions and about 70% of nitrous oxide gases
- ▶ Deforestation in the tropics and sub-tropics leads to a reduction in regional rainfall
- ▶ Water withdrawals from lakes and rivers have doubled since 1960
- ▶ 20% of the 6,500 breeds of domesticated animals face extinction
- ▶ 20% of CO<sub>2</sub> emissions in the 1990s originated from land use changes, mostly deforestation (MA)
- ▶ There are over 25,000 bee species (MA)
- ▶ Soil worldwide is being lost at a rate of 13 to 18 times faster than it is being formed.

## Learn More

International Day for Biological Diversity 2008: "Biodiversity and Agriculture"

▶ [www.cbd.int/idb/2008](http://www.cbd.int/idb/2008)

Food and Agriculture Organization of the United Nations (FAO)

▶ [www.fao.org/biodiversity](http://www.fao.org/biodiversity)

Land and plant nutrition management service—FAO

▶ [www.fao.org/ag/agl/agll/index.stm](http://www.fao.org/ag/agl/agll/index.stm)

Policy-making on genetic diversity at FAO ▶ [www.fao.org/ag/cgrfa](http://www.fao.org/ag/cgrfa)

Bioversity International ▶ [www.biodiversityinternational.org](http://www.biodiversityinternational.org)

World Agroforestry Centre ▶ [www.worldagroforestry.org](http://www.worldagroforestry.org)

Ecoagriculture Partners—Natural biocides in West Africa ▶ [www.ecoagriculturepartners.org](http://www.ecoagriculturepartners.org)

The Global Crop Diversity Trust - Seed banks ▶ [www.croptrust.org](http://www.croptrust.org)

International Center for Agricultural Research in the Dry Areas (ICARDA)

▶ [www.icarda.org](http://www.icarda.org)

International Livestock Research Institute (ILRI) ▶ [www.ilri.org](http://www.ilri.org)

Consultative Group on International Agricultural Research (CGIAR) ▶ [www.cgiar.org](http://www.cgiar.org)

Living Modified Organisms (LMOs) ▶ [www.cbd.int/biosafety](http://www.cbd.int/biosafety)

International Potato Center—Potato blight ▶ [www.cipotato.org](http://www.cipotato.org)

## Secretariat of the Convention on Biological Diversity

413, Saint Jacques Street, suite 800  
Montreal, Quebec, H2Y 1N9  
Canada

Tel.: +1 514 288 2220  
Fax: +1 514 288 6588  
iyb2010@cbd.int

[www.cbd.int/agro](http://www.cbd.int/agro)