

GENETIC RESOURCES AND BIODIVERSITY FOR FOOD AND AGRICULTURE

A treasure for the future

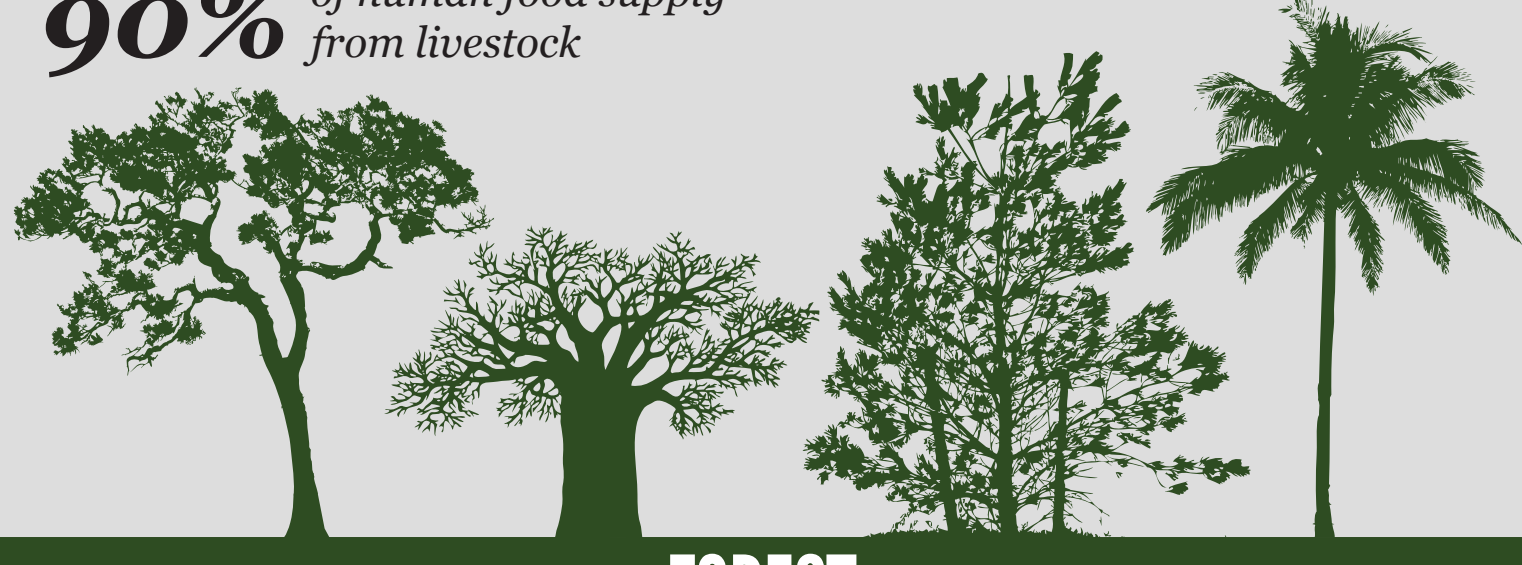
Genetic resources for food and agriculture are not only of actual but even more of potential value to food security, nutrition and livelihoods. However, biodiversity, and in particular genetic diversity, is being lost at an alarming rate.



ANIMAL

Only **14** of the more than **30** domesticated mammalian and bird species provide **90%** of human food supply from livestock

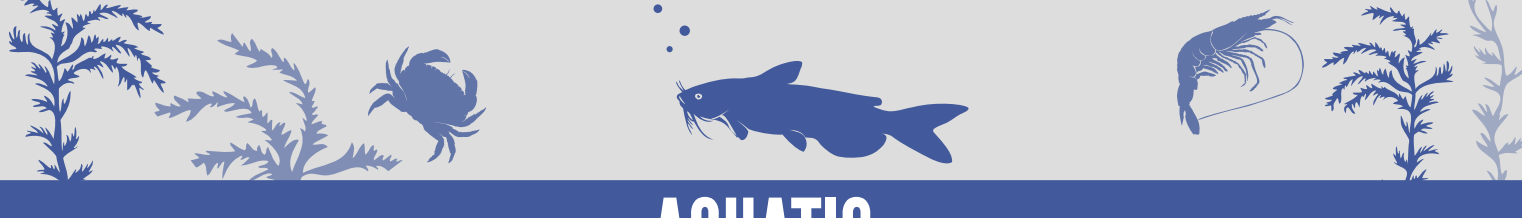
There are about **8 800** breeds of which **7%** are extinct and **17%** at risk of extinction



FOREST

Forests are home to over **80%** of terrestrial biodiversity

There are over **80 000** tree species, yet less than **1%** have been studied in any depth for their present and future potential



AQUATIC

Fish provides about **3 billion people** with almost **20%** of their intake of animal protein



10 species groups account for about **30%** of the world marine capture fisheries production

The world's aquatic ecosystems contain over **175 000** species of fish, molluscs, crustaceans and aquatic plants

Out of those **0,3%** are farmed for food and other uses in fresh, saline, brackish and marine waters



PLANT

Plants account for over **80%** of the human diet

30 000 terrestrial plants are known to be edible

7 000 are cultivated or collected by humans for food

30 crops feed the world

5 cereal crops provide **60%** energy intake of the world population



Rice, wheat, maize, millet and sorghum

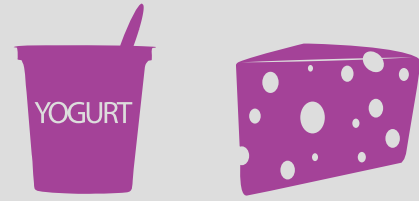
Some **7.4 million** samples of crop diversity are stored in **1 750 genebanks** around the world

Crop improvement accounts for **50%** of the world's food

MICRO-ORGANISMS and INVERTEBRATES

The so called "hidden" biodiversity is an array of species so numerous it is incalculable

Micro-organisms and invertebrates contribute to ecosystem services, such as disease and pest control, decomposition of organic matter and nitrogen fixation



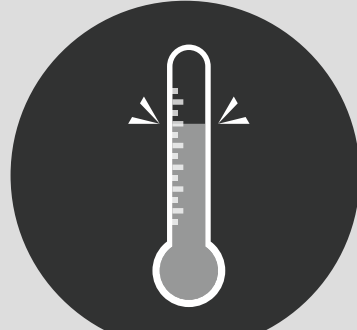
They are essential in many food and agro-industrial processes



Pollination services by insects and other animals, affect

35% of the world's crop production

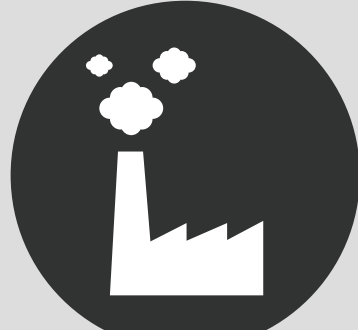
THREATS TO GENETIC DIVERSITY INCLUDE



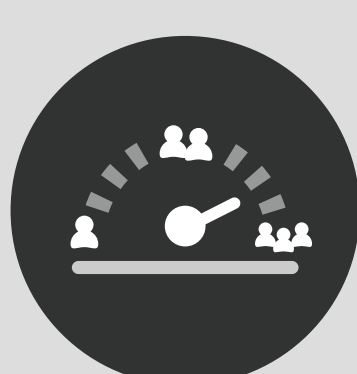
climate change



loss of natural habitats



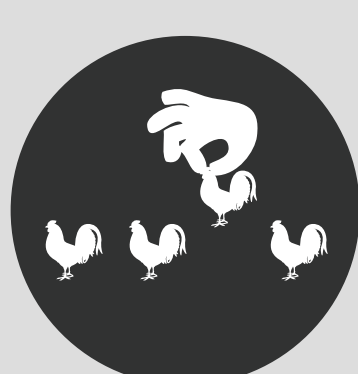
environmental degradation



effects of increasing population pressure



change in consumer demand



development and use of a few species, varieties and breeds

FOR A SUSTAINABLE FUTURE FOR GENETIC RESOURCES



Improve policy and legal frameworks



Integrate genetic resources and biodiversity into the development agenda and strengthen conservation and sustainable use



Facilitate access to genetic resources and their related knowledge

COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

The Commission provides the only permanent forum for governments to discuss and negotiate matters specifically relevant to biological diversity for food and agriculture. The main objectives of the Commission are to ensure the conservation and sustainable use of genetic resources for food and agriculture, and the fair and equitable sharing of benefits derived from their use, for present and future generations.

www.fao.org/nr/cgrfa



Food and Agriculture Organization of the United Nations

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