



# Cross-sectorial matters

## TAKING A BROAD VIEW OF GENETIC DIVERSITY

**A** universe of thousands of individual species and their genetic variability provide the biological foundation for the world's food production. The genetic diversity of crops, farm animals, forest trees, aquatic organisms, micro-organisms and invertebrates – from bacteria invisible to the human eye that support agricultural soils to thundering yak that inhabit the highest elevations of the Himalayas – plays a critical role in achieving a world without hunger.

While the different components of biodiversity for food and agriculture have distinct characteristics, they also share common features. All contribute to meeting the basic needs of food and livelihood security and many, such as farm animals, depend on human management. The different components face both unique management challenges, as well as common threats, such as climate change.

Conserving and using the reservoir of genetic diversity can provide the options needed for coping with climate change. Yet, at the same time, climate change may also contribute to genetic erosion. Maintaining genetic diversity is therefore both important and urgent. The Commission on Genetic Resources for Food and Agriculture has officially recognized the need to address climate change and agriculture in its future work.

### The Commission's Multi-Year Programme of Work

In a Multi-Year Programme of Work approved in 2007, the Commission expressed a long-term goal of producing an overview strategic assessment: the *State of the World's Biodiversity for Food and Agriculture*. This monumental undertaking will not only integrate state of the world reports produced for all components of biodiversity relevant for food and agriculture, it will address cross-sectorial and common themes, including the management of biodiversity in complex agricultural ecosystems. The reports on plant and animal genetic resources will be updated and activities are underway to develop assessments on forest, aquatic, micro-organism and invertebrate genetic resources for food and agriculture.

### THE COMMISSION

#### Exploring cross-sectorial matters

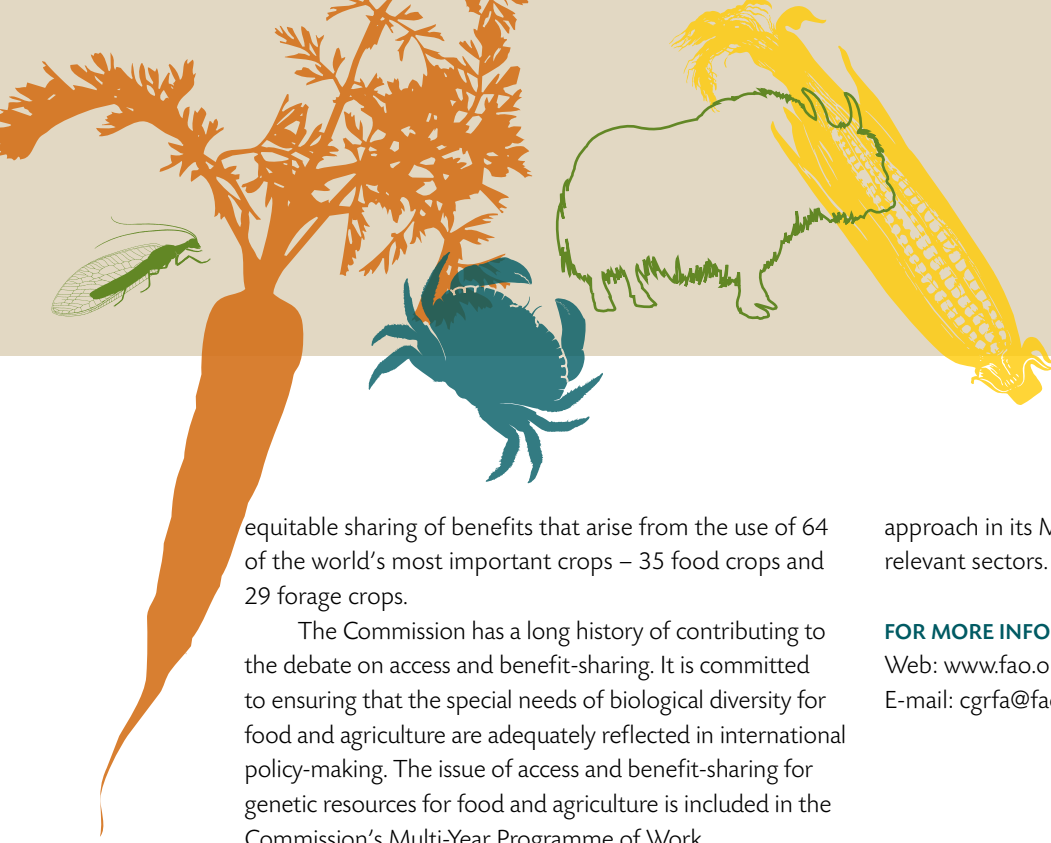
The Commission is committed to addressing cross-cutting issues that can impact any or all components of biodiversity for food and agriculture, such as:

- policies for access to genetic resources and for the sharing of benefits derived from their utilization;
- application of biotechnologies in the conservation and utilization of genetic resources;
- targets and indicators for genetic diversity conservation; and
- ecosystem approaches to biodiversity management.

A number of international bodies deal with these issues. However, the Commission provides a permanent forum where Governments discuss all matters, including cross-sectorial matters, *specifically* relevant to genetic resources for food and agriculture. It follows carefully policy developments in other international fora and aims to ensure policy coherence through close collaboration with other international organizations. The Commission's mandate allows it to ensure that the specific needs and features of genetic resources for food and agriculture are adequately reflected in the development of international policies.

#### Access and benefit sharing

Two binding international agreements already exist that regulate access and benefit-sharing for genetic resources: the Convention on Biological Diversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture. Both are based on the premise that nations have the sovereign right over their natural resources. The Treaty, negotiated by the Commission and ratified in 2004, established a Multilateral System of Access and Benefit-Sharing that facilitates access to, and fair and



equitable sharing of benefits that arise from the use of 64 of the world's most important crops – 35 food crops and 29 forage crops.

The Commission has a long history of contributing to the debate on access and benefit-sharing. It is committed to ensuring that the special needs of biological diversity for food and agriculture are adequately reflected in international policy-making. The issue of access and benefit-sharing for genetic resources for food and agriculture is included in the Commission's Multi-Year Programme of Work.

approach in its Multi-Year Programme of Work covering all relevant sectors.

**FOR MORE INFORMATION:**

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### **Biotechnology**

The Commission has a key interest in technical and policy developments regarding biotechnologies as they relate to genetic resources for food and agriculture. FAO undertook an overview survey of biotechnology issues and trends for the Commission in order to identify those relevant to FAO and the Commission, and to determine what remains to be done in terms of policy and technical assistance. A review of the application and integration of biotechnologies in the conservation and utilization of genetic resources is another milestone of the Commission's Multi-Year Programme of Work.

### **Targets and indicators**

The Commission is working with FAO experts and members of the scientific community on determining indicators and targets that could best be used to characterize and monitor genetic diversity in terms of what is being gained and lost. The development of targets and indicators will make it possible to measure the effectiveness of programmes set up to slow down genetic erosion and improve conservation.

### **Ecosystem approach**

The ecosystem approach is widely used to ensure that ecosystems are maintained in a sustainable manner. This means protecting their goods and services as well as maintaining their biodiversity. By promoting *in situ* conservation and sustainable farming systems, the ecosystem approach contributes to the conservation and sustainable use of genetic resources for food and agriculture. As the ecosystem approach has been particularly effective in efforts to achieve sustainable forest management, sustainable fisheries, and is being applied to specific aspects of agriculture, the Commission has included the ecosystem