**Proposal for definition and scope of agricultural biodiversity (based on approved text of both CBD decisions and FAO documents)**

**Input to African Regional Workshop on Sustainable Use (focus on Agricultural Biodiversity), Nairobi, 12-15 December 2006**

**1 – Towards a definition of Agricultural biodiversity**:

AB includes all components of biological diversity of **relevance to food and agriculture:** the variety and variability of plants**, animals and micro-organisms at genetic, species and ecosystem level** which are necessary to sustain, **key functions** in the agro-ecosystem, its structures and processes.

In Definition include farmers and herders

Of particular importance in regard to the structures and processes are the soil biodiversity, other associated species important for providing ecosystem functions, as well as the interactions and associations among various domesticated and non domesticated species in the farming system and wider landscape (hedgerows; field borders; trees etc. ).

**Local knowledge and cultural diversity** can be considered an essential part of agrobiodiversity as it is the human activity of agriculture which conserves this biodiversity.

1.b) AB is the diversity of genetic resources (varieties, breeds – review on animal species, species; cultivated, reared or wild) used directly or indirectly for food and agriculture; the diversity of species that support production (soil biota, pollinators, predators, etc.) and those in the wider environment that support agroecosystems (agricultural, pastoral, forest and aquatic), as well as the diversity of the agroecosystems themselves.

1.c) Agroecosystems are those ecosystems that are used for agriculture, and comprise polycultures, monocultures, and mixed systems, including crop-livestock systems (rice - fish), agroforestry, agro-silvo-pastoral systems, aquaculture as well as rangelands, pastures and fallow lands.

**2 – The scope of agricultural biodiversity**

The Conference of Parties has recognized "the special nature of agricultural biodiversity, its distinctive features, and problems needing distinctive solutions". The distinctive features include the following:

(a) Agricultural biodiversity is essential to satisfy basic human needs for food and livelihood security;

(b) Agricultural biodiversity is managed by farmers; many components of agricultural biodiversity depend on this human influence; indigenous knowledge and culture are integral parts of the management of agricultural biodiversity;

(c) There is a great interdependence between countries for the genetic resources for food and agriculture;

(d) For crops and domestic animals, diversity within species is at least as important as diversity between species and has been greatly expanded through agriculture;

(e) Because of the degree of human management of agricultural biodiversity, its conservation in production systems is inherently linked to sustainable use;

(f) Nonetheless, much biological diversity is now conserved ex situ in gene banks or breeders' materials;

(g) The interaction between the environment, genetic resources and management practices that occurs in situ within agro-ecosystems often contributes to maintaining a dynamic portfolio of agricultural biodiversity.

The following dimensions of agricultural biodiversity can be identified:

(a) Genetic resources for food and agriculture, including:

(i) Plant genetic resources, including pasture and rangeland species, genetic resources of trees that are an integral part of farming systems;

(ii) Animal genetic resources, including fishery genetic resources, in cases where fish production is part of the farming system, and insect genetic resources;

(iii) Microbial and fungal genetic resources.

These constitute the main units of production in agriculture, including cultivated species, domesticated species and managed wild plants and animals, as well as wild relatives of cultivated and domesticated species;

(b) Components of agricultural biodiversity that provide ecological services. These include a diverse range of organisms in agricultural production systems that contribute, at various scales to, inter alia:

`(i) Nutrient cycling, decomposition of organic matter and maintenance of soil fertility;

(ii) Pest and disease regulation;

(iii) Pollination;

(iv) Maintenance and enhancement of local wildlife and habitats in their landscape,

(v) Maintenance of the hydrological cycle;

(vi) Erosion control;

(vii) Climate regulation and carbon sequestration;

(c) Abiotic factors, which have a determining effect on these aspects of agricultural biodiversity;

(d) Socio-economic and cultural dimensions since agricultural biodiversity is largely shaped by human activities and management practices. These include:

(i) Traditional and local knowledge of agricultural biodiversity, cultural factors and participatory processes;

(ii) Tourism associated with agricultural landscapes;

(iii) Other socio-economic factors.