

# **AGRICULTURAL BIODIVERSITY**

## **CSO PREPARATORY MEETING** **FOR CBD / MOP 4 / COP 9**

**BERLIN 22, 23 May 2007**

Introductory remarks

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# EVENTS & PROCESSES

## Formal Sector

- FAO / CGRFA 11, Rome, June 2007
- CBD / SBSTTA 12, Paris, July 2007
- FAO Livestock Diversity conference, Interlaken, Sept 2007
- FAO / 2<sup>nd</sup> Governing Body, Int'l Seeds Treaty, Rome, Oct 2007
- CBD / SBSTTA 13, Rome, Feb 2008
- CBD / MOP4 / COP 9, Bonn, May 2008

## Informal Sector

- CBD Alliance
- *Ad hoc* network of CSOs on Farmers Rights and Livestock Keepers Rights

## Parallel processes

- ☯ European Peasants' Seeds network
- ☯ Food sovereignty movement / IPC, follow up to Nyéléni 2007

# AGRICULTURAL BIODIVERSITY

## Programme of Work

- 1996: Promote the positive and mitigate the negative impacts of agriculture on biodiversity and biodiversity on agriculture  
See: **CBD COP Decision III / 11, especially Annex 1**
- 1996: Leipzig Global Plan of Action – 20 Priority Actions concerning *in situ* and on-farm use and conservation, *ex situ* conservation, capacity and institutional development
- **2000: CBD COP Decision V/5 on Agricultural Biodiversity, including Programme of Work (PoW)**
- 2001: IT PGRFA especially articles 5 and 6
- 2007: Interlaken Global Plan of Action agreed at FAO Livestock Diversity Conference
- **2008: COP 9 Review of Decision V/5 + PoW**

# AGRICULTURAL BIODIVERSITY

## Programme of Work

### CBD COP V / 5

- Four elements of the programme of work on agricultural biodiversity:
  1. Assessments
  - 2. Adaptive Management**
  - 3. Capacity Building** and
  4. Mainstreaming
- Also international initiatives on pollinators, food and nutrition, and soil biodiversity.
- ***Context: Farmers' Rights and Terminator / GURTS***
  - » [Comments to Linda.Collette@fao.org](mailto:Linda.Collette@fao.org)

# ECOSYSTEM APPROACH

## applied to food and agriculture

### **Scope:**

- Agricultural Biodiversity (target + associated species + ecosystems that support)
- Levels of diversity of genes, species, ecosystems

### **Process beyond CBD/COP9:**

- State of the World's Biodiversity for Food and Agriculture to include ecosystem approach (CGRFA 16 in 2017 !)

### **Key issues:**

- Control by Farmers, Livestock Keepers, Fisherfolk (technologies and processes cannot be privatised)
- Increase agroecosystem resilience (e.g. to Climate Change and other pressures)
- Need to dismantle the industrial food system + agreements that protect it...
- ...and replace with the Food Sovereignty policy framework

# Six Pillars of Food Sovereignty

- **1. Focuses on Food for People**
  - **2. Values Food Providers**
  - **3. Localises Food Systems**
  - **4. Puts Control Locally**
  - **5. Builds Knowledge and Skills**
  - **6. Works with Nature**
- **1. Focuses on Food for People** and rejects the proposition that food is just another commodity or component for international agri-business.
  - **2. Values Food Providers** and respects their rights and rejects those policies, actions and programmes that undervalue them, threaten their livelihoods and eliminate them.
  - **3. Localises Food Systems**, bringing food providers and consumers closer together, and resists governance structures, agreements and practices that depend on and promote unsustainable and inequitable international trade and give power to remote and unaccountable corporations.
  - **4. Puts Control Locally** over territory, land, grazing, water, seeds, livestock and fish populations and rejects the privatisation of natural resources through laws, commercial contracts and intellectual property rights regimes.
  - **5. Builds Knowledge and Skills** that conserve, develop and manage localised food production and harvesting systems and rejects technologies that undermine, threaten or contaminate these, e.g. genetic engineering. and
  - **6. Works with Nature** and uses the contributions of nature in diverse, low external input agroecological production and harvesting methods that maximise the contribution of ecosystems and improve resilience and adaptation, especially in the face of climate change; it seeks to heal the planet so that the planet may heal us; and rejects methods that harm beneficial ecosystem functions, that depend on energy intensive monocultures and livestock factories, destructive fishing practices and other industrialised production methods, which damage the environment and contribute to global warming.

*[For more detail see Synthesis Report, Nyéléni 2007 -  
Forum for Food Sovereignty [www.nyeleni2007.org](http://www.nyeleni2007.org).]*

# CBD COP Decision III/11 Annex 1

## BASIS FOR ACTION

### A. Impact of biological diversity on agriculture

1. Biological diversity has enabled farming systems to evolve since agriculture was first developed some 12,000 years ago, and an understanding of the dynamic evolutionary and environmental processes which shape and influence agricultural biodiversity is fundamental to improving the sustainable management and conservation of agricultural ecosystems today. In recent years, as the world's population continues to grow and agricultural production must meet the rising demand for food, agricultural expansion into forests and marginal lands, combined with overgrazing and urban and industrial growth, has substantially reduced levels of biological diversity over significant areas. Current patterns of agricultural land use based on limited numbers of species and varieties have also diminished the biological diversity within agricultural ecosystems and are undermining the long-term sustainability of agricultural production itself.
2. Agricultural intensification has the potential to balance the world's need for increasing food supplies while reducing pressures to expand agricultural areas still further, but it is also harmful when accompanied by excessive dependence on agrochemicals and external energy and water inputs. Agro-ecological forms of intensification can, however, blend improved knowledge about agricultural ecosystems, intercropping, uses of diverse species, integrated pest management and the efficient use of resources. Beneficial mixes of land use also raise the overall level of biodiversity in agricultural landscapes. These approaches currently represent a small but growing portion of intensification efforts. Meeting the imperative of increasing agricultural production in such sustainable ways while conserving and prudently using biological diversity is the major challenge which we must urgently address.

# CBD COP Decision III/11 Annex 1

## BASIS FOR ACTION

### **A. Impact of biological diversity on agriculture (continued)**

3. The importance of agricultural biodiversity is of widespread and complex significance to society, encompassing socio-cultural, economic and environmental elements. It is essential to food security and poverty alleviation and much of the knowledge about agricultural biodiversity is maintained by farmers themselves, many of whom are women. All domesticated crops and animals result from human management of biological diversity, which is constantly responding to new challenges to maintain and increase productivity. Biological diversity itself presents opportunities for naturally controlling pests and reducing the use of pesticides, while maintaining high yields, and a large proportion of crops depend on insect pollinators for good yields. Landraces and wild species of animals and plants are the essential source of genetic variability for responding to biotic and abiotic stress through genetic adaptation.
4. The biological diversity of the soil is responsible for nutrient circulation and fertility within agricultural ecosystems. Diversified agricultural production provides protection against uncertainties in the market, especially for less capitalized producers, and increases the opportunities to add value and exploit new markets. Farmers all over the world have also managed a variety of wild species and habitats which benefit the sustainability of both agricultural and natural ecosystems.



# CBD COP Decision III/11 Annex 1

## BASIS FOR ACTION

### A. Impact of biological diversity on agriculture (continued)

5. At the more fundamental level, the living organisms which constitute agricultural biodiversity play an important role in the resilience of all natural, life-support processes. They are essential agents for, inter alia, nitrogen, carbon, energy and water cycles. Moreover, the species composition and their relationships will affect the functioning and yields of agricultural ecosystems themselves. A diverse environment also offers a shield for agricultural ecosystems against perturbations, natural or man-made, contributing to their resilience and that of their surrounding ecosystems.
6. Agricultural production utilizes natural resources of diverse ecosystems worldwide and is the economic activity most representative as far as extensive land-use is concerned - nearly one third of the world's land area is used for food production. Serious adverse effects may occur on biological diversity at on and off-farm levels. Most of the world's biological diversity on land is harboured by areas under exploitation by humans; consequently, conserving biological diversity implies improving the ways in which agricultural ecosystems are managed.

# CBD COP Decision III/11 Annex 1

## BASIS FOR ACTION

### **B. Impacts of agriculture on biodiversity**

7. Different agricultural practices lead to diverse impacts upon biological diversity. These impacts occur at the ecosystem, species and genetic levels.
  - (a) Unsustainable agricultural practices have caused negative impacts on biological diversity, world-wide, at all levels - ecosystem, species and genetic - on both natural and domestic diversity. They have resulted in the large-scale degradation of agricultural biodiversity and habitats through the destruction of biotic and abiotic resources, as well as by threatening the natural resource base to agriculture and through socio-economic problems created by destruction of the local resource base. Inappropriate reliance on monoculture, over-mechanization, and misuse of agricultural chemicals diminish the diversity of fauna, flora and micro-organisms, including beneficial organisms. These practices normally lead to a simplification of the components of the environment and to unstable production systems. Expansion of agriculture to frontier areas, including forests, savannahs, wetlands, mountains, and arid lands, combined with overgrazing, and inadequate crop management and pest control strategies contribute to degradation of biological diversity, as well as to the loss of the cultural diversity of traditional communities.
  - (b) Agricultural practices have, however, also facilitated enhanced biodiversity as a result of both traditional and modern sustainable farming practices. Agricultural ecosystems can provide habitats for plants, birds and other animals. Many agriculturalists have made strong efforts to preserve biological diversity important to agriculture, both in situ and ex situ. Currently, progress is being made in many regions of the world in implementing biological diversity-friendly agricultural practices in soil conservation, withdrawing production from marginal areas, mastering chemical and nutrient runoff, and breeding crop varieties which are genetically resistant to diseases, pests and abiotic stresses.