Secretariat of the
**Convention on Biological Diversity**

CBD

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Biodiversity and Climate Change

**Statement delivered on behalf of**
**Ahmed Djoghlaf, Executive Secretary of the Convention on Biological Diversity**

**At the**
**International Forum on Soil, Society and Global Change**

**Selfoss, Iceland, 31 August 2007**

Mr. President,
Distinguished delegates,
Ladies and gentlemen,

The Millennium Ecosystem Assessment has made it clear; over the past 50 years we have changed ecosystems at a rate never before seen in human history. These changes are disrupting nutrient and water cycling, reducing outputs of food and fodder and posing serious threats to biodiversity. At the same time that ecosystem degradation and biodiversity loss is accelerating, the demand for natural resources is rising and climate change is placing increasing stress on almost all natural systems.

The links between the degradation of ecosystems and the loss of biodiversity is perhaps most severe when the very basis of production is lost – namely, soil. Soil biodiversity is extremely diverse and is a critical resource, not only to agricultural production and food security but also to the maintenance of most life processes. The detrimental effects of land degradation, soil erosion and desertification on biodiversity and biodiversity-based livelihoods can be seen throughout the world. In Mexico, more than 45% of soils are affected by degradation, while in Zimbabwe, estimates of annual economic losses as a result of soil degradation reach 9% of Agricultural Gross Domestic Product. Once covered with bushes, trees and grass, Iceland has now the biggest desert in Europe.

Therefore, I welcome the initiative of the Government of Iceland to organize this International Forum on Soil, Society and Global Change**.** It's a great honor to join you today and to be given the opportunity to address this important gathering.

Soil degradation emerges as one of the major challenges for global agriculture. The severity, frequency and extent of soil erosion are likely to be exacerbated by changes in climate, rainfall and wind. The Intergovernmental Panel on Climate Change's reports are unambiguous: climate change is real, it affects the whole Earth and it is caused by human activity. The recent release of the United Nations Environmental Programme entitled "Global Outlook for Ice and Snow" is another undeniable proof of the impact of climate change.

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Soil organisms are an integral part of agricultural and forestry ecosystems; and they play a critical role in maintaining soil health, ecosystem functions and production. Therefore, soil erosion and the loss of soil biodiversity put global food security at risk. With the world population likely to increase to nine billions by the mid century, this is something we cannot afford.

On the other hand, the conservation and sustainable use of biodiversity has multiple-benefits for soil and society. Direct and indirect benefits of improving soil biological management in agricultural systems include economic, environmental and food security benefits. Healthy soil is the basis for many livelihoods, provides a buffer against the negative impacts of global change on water resources, production and nutrient cycling. It is estimated that the value of ecosystem services such as organic waste disposal, soil formation, nitrogen fixation, bioremediation and biocontrol provided each year by soil biota in agricultural systems worldwide may exceed US$ 1,542 billion.

Healthy soil also represents a significant terrestrial carbon store. Peat bogs for instance sequester twice as much carbon dioxide as all the world's forests even though they only represent 3% of the Earth's surface. This example shows that the conservation and sustainable use of biodiversity can contribute to both climate change mitigation and adaptation activities. The interlinkages between climate change and biodiversity need to be urgently understood and considered in all relevant activities whether it is action on the ground or legislation.

The objectives of the Convention on Biological Diversity and its legal, policy and practical procedures play an important role in the implementation of activities in support of the conservation of soil biodiversity and the restoration of damaged soils, vegetation and ecosystems.

Soil biodiversity has been identified as an area requiring particular attention under the programme of work on agricultural biodiversity of the Conference of the Parties (COP) to the Convention on Biological Diversity. This programme was initiated in 1996 at COP-3 in Buenos Aires, Brazil to promote the positive and mitigating the negative impacts of agricultural activities on agricultural biological diversity; the conservation and sustainable use of genetic resources of actual or potential value for food and agriculture; and the fair and equitable sharing of benefits arising out of the use of genetic resources. The programme of work was subsequently developed, with the support of the Food and Agriculture Organization of the United Nations (FAO), in collaboration with partners, and on the basis of advice and recommendations of the Subsidiary Body for Scientific, Technical and Technological Advice (SBSTTA) and was launched at COP-5 in Nairobi in 2000.

Furthermore, in recognition of the close links between biodiversity and desertification, the Convention has adopted a Joint Work Programme with the United Nations Convention to Combat Desertification towards the conservation and sustainable use of the biodiversity of dry and sub-humid lands. In recognition of the importance of soil to the achievement of the objectives of this programme of work, the sixth meeting of the

Conference of the Parties called, through the Global Taxonomy Initiative, for increasing knowledge of the organisms that maintain the soil crust. At the same meeting, the Conference of the Parties decided to establish an International Initiative for the Conservation and Sustainable Use of Soil Biodiversity as a cross-cutting initiative within the programme of work on agricultural biodiversity.

Enhancing the synergies among the three Rio Conventions, namely the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change and the United Nation Convention to Combat Desertification, is of strategic importance in ensuring that biodiversity is given the best chance possible to adapt to climate and in considering biodiversity as an integral part of the climate solution. For that reason, in 2001, the Joint Liaison Group bringing together the Executive Secretaries and chairs of the subsidiary bodies of the three Conventions was established to explore opportunities for synergistic activities and increased coordination.

The eight meeting of the Conference of the Parties to the Convention, followed by the twelfth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice called attention to the increasing challenges facing biodiversity at all levels as a result of global change in general and climate change in particular.

As global changes are manifested it is more important than ever that we turn our attention to that biodiversity which forms the basis of production. Because of difficulties in assessing and monitoring soil biodiversity, the information available on the status and trends of this resource is sparse. Addressing this gap will better enable us to implement climate change response activities in a manner which considers soil biodiversity and all the services it provides.

Considering the need for more knowledge to address the global challenge of climate change and biodiversity loss, the Convention on Biological Diversity established a consortium of 8 major scientific institutions including the Muséum National d'Histoire Naturelle de France, the Smithsonian National Museum of Natural History, the Royal Botanic Gardens Kew, the Royal Belgian Institute of Natural Sciences, the German Federal Agency for Nature Conservation, the National Commission for Wildlife Conservation and Development of the Kingdom of Saudi Arabia, the Mexican Secretary of Environment and Natural Resources and the Museum Nature Montreal. The main objective of the Consortium is to improve scientific cooperation and knowledge sharing.

The application of the ecosystem approach, also promoted by the Convention, adopts a broad, inclusive approach to the management of all components of ecosystems including people and biodiversity. In addition to the ecosystem approach, the programme of work on agricultural biodiversity is scheduled for in-depth review of implementation at the ninth meeting of the Conference of the Parties. At this time, the links between soil, biodiversity and production will be discussed on the role of soil and other below-ground biodiversity in supporting agricultural production systems, especially in nutrient cycling. Moreover, next year celebration of the International Biodiversity Day will focus on agricultural biodiversity. There is a need for promoting coordinated actions and concerted attention on soil biodiversity with a view to enhancing its contributions to agricultural

productivity and sustainability and to combating land degradation and the restoration of soil fertility.

For all these reasons, this International Forum on Soil, Society and Global Change celebrating the centenary of Icelandic soil conservation and restoration is very timely and very important for knowledge sharing. On this day of celebration, I wish you a very successful meeting and I look forward to see the outcomes of your discussions.

Thank you for your kind attention.