



Appendix C

Keynote Address

Dr. Delfin Ganapin Jr.
Global Manager, UNDP GEF Small Grants Programme, New York, USA
(Representing Dr. Ahmed Djoghlaf, Executive Secretary,
Convention on Biological Diversity, Montreal, Canada)

Dr. Delfin Ganapin, Jr. was a National Science Development Board scholar at the College of Forestry, University of the Philippines Los Baños (UPLB). He organized and headed the Samahang Ekolohiya (Ecological Society), the first environmental organization at the time, as well as the Society of Future Filipino Foresters. He graduated Magna cum Laude in 1977 and became a faculty of the College until 1988, where he also finished his master's degree in forest ecology through a SEARCA scholarship. He finished his PhD in Environmental Planning and Policy from the State University of New York and Syracuse University in 1987 as a United Nations University and Ford Foundation fellow. His other awards included Most Outstanding Young Forester (1986), National "Likas Yaman" (Natural Wealth) Awardee (1988), Ten Outstanding Young Men (TOYM) of the Philippines Awardee (1987), and Most Distinguished UPLB Alumnus Award (1997).

Dr. Ganapin's career posts included serving as Team Leader of the European Commission-sponsored Palawan Integrated Environmental Program; Consultant in USAID's Rainfed Resources Development Program; Director of the Environmental Management Bureau; Assistant Secretary and concurrent OIC Undersecretary for Environment and Research; and Undersecretary for Environment and Program Development. He was a member of the Global Environment Facility (GEF) Council and of the Executive Committee of the Multilateral Fund of the Montreal Protocol. He was also involved in the negotiations for the biodiversity and climate change conventions as well as in leading senior Philippine environment officials to the Earth Summit and succeeding UNCSDs. He also chaired meetings of senior environment officials of ASEAN and APEC. After working for the government, he was tapped as consultant for various projects of the UNDP, ADB, WB, USAID, and AUSAid on environmental planning, program development, policy analysis, and strategic assessments and evaluations.

Dr. Ganapin is currently working at the GEF Small Grants Programme (SGP), where he supervises and coordinates the program in 95 countries (as of August 2006) and strategically plans the support allocation for the more than 7,000 community projects worldwide.

Friends and Colleagues,

When I discussed with Dr. Djoghlaf the invitation for him to give the keynote address for this important conference, he readily accepted but noted that he would have to virtually present his keynote address through me as he is unfortunately already committed to another critical event in the work of the CBD Secretariat.

I also saw no issue with the arrangement given that the CBD is already fully committed to the link between its work and that of climate change as well as the achievement of the Millennium Development Goals. It is thus very easy for me to be the presenter of this keynote address given the clarity of vision on this matter by Dr. Djoghlaf and the CBD Secretariat.

Realizing Challenges, Exploring Opportunities

**Proceedings of the International Conference-Workshop on Biodiversity
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The CBD Secretariat, particularly with Dr. Djoghlaif as its Executive Secretary, also shares the same strong concern as that of the GEF Small Grants Programme for the poor and vulnerable communities who will bear the worst of biodiversity loss and climate change impacts. We both also believe that these same poor and vulnerable communities are the critical stakeholders that

hold the key to successful efforts in biodiversity conservation as well as climate change mitigation and adaptation.

Actually, all of us are joined together and must work together given the dire consequences of the double impact of biodiversity loss and global warming. When I was looking for a word, just one word, to link the two together, the word that came to my mind is that of “extinction”. In the past we used to say that biodiversity loss is like “dying with a whimper” as species are lost with people not even knowing what they had lost. The concern was also on specific spots where loss is relatively fast, areas we then called “biodiversity hotspots”.

Global warming, however, drastically changes the equation of extinction. It would be total and global and it will not be just for rare and endangered species. The ecological feedback goes full cycle, with the species most responsible for biodiversity loss and global warming, which is us *Homo sapiens sapiens*, itself directly endangered. There is still confidence that we would adapt and survive. But we would definitely be much poorer, in many senses, with the already poor further declining to the worst of conditions.

Dr. Djoghlaif thus starts his address by noting that:

According to the Intergovernmental Panel on Climate Change, if temperature increases exceed 1.5-2°C, 20-30% of plant and animal species assessed will be at risk of extinction. This is especially relevant for those species already at risk due to factors such as low populations, restricted patchy habitats, and limited climatic ranges. Overall, as many as one million species may face increased threats of extinction as a result of climate change.

Climate change has already begun to affect the functioning, appearance, composition and structure of ecosystems. Recently observed changes in the climate, have caused changes in species distribution and population sizes, timing of reproduction or migration events, and increase in frequency of pest and disease outbreaks.

Other impacts of climate change on ecosystem functions include the widespread bleaching of corals, instances of wetland salinization and salt water intrusion, the expansion of arid and semi-arid lands at the expense of grasslands and acacia trees, poleward and upward shifts in habitats, replacement of tropical forests with savanna, and shifting desert dunes. In fact, climate change impacts every ecosystem and these impacts can also reflect on the health of the biodiversity in surrounding ecosystems.

In Asia, for example up to 50% of biodiversity is at risk due to climate change while as much as 88% of reefs may be lost over the next 30 years. Furthermore, as many as 1522 plant species in China and 2835 plants in Indo-Burma could become extinct.



With regards to agriculture, parties to the Thirteenth Meeting of the Subsidiary Body for Scientific, Technical and Technological Advice, have considered the integration of climate change impact and response activities within the programme of work on agricultural biodiversity. The reasons for doing this are clear. A warming of greater than 3°C is projected to have negative impacts on agricultural production in all regions while elevated carbon dioxide levels are expected to have negative impacts on livestock health, especially in low-nitrogen environments.

In South-east Asia, precipitation extremes will increase with shifts in the timing of important precipitation events. In Indonesia, for example, climate change is expected to increase the chance of a 30-day delay in the onset of monsoon rains by as much as 40% by 2050.

Indigenous and local communities are particularly vulnerable to the negative impacts of climate change. They tend to be among the first to face the adverse consequences of climate change as a result of their dependence on and close relationship with the environment.

Impacts of climate change on indigenous and traditional livelihoods include increased weed infestations in grazing lands throughout the world and increased exposure of livestock to disease. Loss of livelihoods and traditional practices of populations living in vulnerable ecosystems are already significant.

The Role of Biodiversity in Climate Change Adaptation and Mitigation

Even if greenhouse gas emissions were to decrease significantly tomorrow, climate change would continue to affect ecosystems for hundreds of years due to global climate feedback mechanisms. As such, it is critically important that immediate attention is given to adaptation.

Biodiversity contributes to many ecosystem services including the provision of food and fodder, nutrient cycling and the maintenance of hydrological flows. As such, maintaining biodiversity and associated ecosystem functions is an important component of adaptation. Likewise, biodiversity resources such as land races of common crops, mangroves and other wetlands and vegetative cover can form an integral part of adaptation plans.

This is particularly true when considering agricultural ecosystems. On average worldwide, in cereal cropping systems, adaptations based on biodiversity resources and sustainable land management, such as changing varieties and planting times, enable avoidance of a 10-15% reduction in yield under 1-2°C local temperature increases.

Other biodiversity-based adaptation activities for agricultural systems include: the conservation of agricultural genetic resources, the reduction of other threats to agricultural biodiversity, the restoration of degraded land with native species, integrated land and water management, disease control programmes for native livestock, and invasive species management planning.



The conservation and the resilience of ecosystems are therefore crucial to climate change adaptations as they constitute coping strategies and thus reduce negative impacts.

Biodiversity also contributes to climate change mitigation. Forests account for as much as 80% of the total above-ground terrestrial carbon while peat lands, which only cover 3% of the world's terrestrial surface, store 30% of all global soil carbon or the equivalent of 75% of all atmospheric carbon. As such, healthy forests and wetland ecosystems have the potential to capture a significant portion of projected emissions.

Each year about 13 million hectares of the world's forests are lost due to deforestation. Deforestation is currently estimated to be responsible for 20% of the annual human induced CO₂ emissions. Because of the role of forests in storing carbon and providing essential goods and services, the conservation of forest biodiversity can considerably reduce emissions and have potential co-benefits for adaptation and sustainable development.

Moreover, sustainable land management in agricultural areas can increase carbon sequestration in the soil through techniques such as integrated pest management, conservation tillage, intercropping, and the planting of cover crops. In fact, when cover crops are used in combination with conservation tillage, soil carbon content can increase annually for a period of up to 50 years. The sustainable management of grazing land can provide similar co-benefits since such lands contain between 10 and 30% of the world's soil carbon stocks.

Another emerging role of biodiversity in greenhouse gas mitigation is the use of bioenergy, which derived from renewable sources, are considered to be carbon-neutral, since in theory the carbon released during the combustion can be taken up by growing plants. However, the greenhouse gas reduction potential ultimately depends on the type of biomass used and the associated production practices. If produced in a sustainable way, the use of biomass to produce bioenergy can efficiently mitigate climate change impact while enhancing biodiversity, especially on degraded lands.

The Role of the Convention on Biological Diversity

Global warming and its consequences are therefore not just the concern of the United Nations Framework Convention on Climate Change (UNFCCC). The Convention on Biological Diversity will have to be its major partner.

The Convention on Biological Diversity (CBD) is the international framework for the conservation and sustainable use of biodiversity and the equitable sharing of its benefits. With 190 Parties, the CBD has near-universal participation among countries that have committed to preserving life on Earth.



The CBD seeks to address all threats to biodiversity and ecosystem services, including threats from climate change, through scientific assessments, the development of tools, incentives and processes, the transfer of technologies and good practices and the full and active involvement of relevant stakeholders including indigenous and local communities, youth, non-governmental organizations (NGOs) and women.

As one of the main drivers of change for biodiversity, climate change is reflected in the 2010 biodiversity target to significantly reduce the rate of biodiversity loss. Target 7 which aims to maintain and enhance resilience of the components of biodiversity to adapt to climate change is crucial in the battle against biodiversity loss.

The Convention's cross-cutting issues on biodiversity and climate change and the ecosystem approach allow for the comprehensive consideration of the issue, at all levels, as well as traditional knowledge and the local and indigenous communities. For instance, the CBD Secretariat, with the support of the Government of Canada, developed a web-based guidance on the integration of biodiversity considerations within climate change adaptation planning (<http://adaptation.cbd.int/>).

The three Rio Conventions—on Biodiversity, Climate Change and Desertification—derive directly from the 1992 Earth Summit. Each instrument represents a way of contributing to the sustainable development goals of Agenda 21 and, as such, in 2001, the Conventions established a Joint Liaison Group (JLG) to enhance the exchange of information and explore opportunities for synergistic activities.

Activities for enhanced synergies on adaptation, as identified by the Joint Liaison Group (JLG), include providing focal points of all Conventions with up-to-date information on relevant assessments, research programmes and monitoring tools; collaborating on the development of common messages; developing educational materials; and establishing joint web-based communication tools.

More specifically, the CBD and the United Nations Convention on Climate Change (UNFCCC) collaborate on issues related to the Nairobi work programme on impacts, vulnerability and adaptation to climate change. Further collaborative action is being undertaken on reducing emissions from deforestation in developing countries (RED-DC) and approaches to stimulate action.

The CBD and the United Nations Convention to Combat Desertification are also joining forces with regards to the biodiversity of dry and sub-humid lands. These ecosystems are vulnerable to the combined effects of biodiversity loss, desertification and climate change. Since these areas are usually dominated by agricultural activities there are also significant linkages to the CBD programme of work on agro-biodiversity.



Dr. Djoghlaf, therefore, welcomes this workshop as a significant contribution to the implementation of the programmes of work of the CBD as well as that of UNFCCC.

But ultimately, strategic global work programmes have to be put into an operational framework and acted upon at national and local levels. It is here that SEARCA's role and those of its partners play a vital role.

(SEARCA has had experience in these matters. In its implementation of the Biodiversity Research Programme in a focused landscape in the south of the Philippines, with support from the Netherlands government, SEARCA saw that biodiversity conservation invariably impinge upon efforts to bring about agricultural and rural development, thus making it a major factor in poverty alleviation efforts and the achievement of the Millennium Development Goals.

SEARCA has now taken the task to expand these kinds of efforts, linking biodiversity conservation, climate change and the achievement of the MDGs as part of the mandate given by its 11 member countries to address problems that affect agricultural and rural development.

SEARCA, however, cannot do it alone. Just as in the organization of this conference, its network of partners, each with the capacity to provide vital parts of the needed expertise and resources as well as experience in the development, coordination and implementation of regional development programs have to be fully involved. With partnerships, concerted efforts towards the formidable task of addressing both biodiversity and climate change concerns can be effectively implemented.

SEARCA and its partners must also strategically focus resources and choose the niche where the best contribution to the overall effort can be made. SEARCA has taken this first bold step of convening this Conference which in essence is a stakeholder consultation aimed at determining what concerted efforts governments, development organizations, academic institutions, donors and others can best undertake in research, knowledge management, capacity building and policy development to address local, regional and global concerns on biodiversity and climate change. In essence our efforts in this conference are aimed to initiate a regional South East Asia-wide strategy and program and better still a road map to ensuring that this program gets off the ground).

These are quite ambitious objectives, as they must be. The stakes are enormous and intergenerational. Time is also short. Thus, Dr. Djoghlaf as his concluding statement "wishes SEARCA and all the participants in this conference a most fruitful event" – one that will bind us together as partners across sectors, agencies and countries.