



CBD

Secretariat of the Convention on Biological Diversity

Message from
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Executive Secretary

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International Day for Biological Diversity



Biodiversity and Climate Change



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To **International Conference in Defense of the Quality of the Night Sky and the Right to Observe the Stars**

“A child is a person who is going to carry on what you have started. He is going to sit where you are sitting, and when you are gone; attend to those things, which you think are important. You may adopt all policies you please, but how they are carried out depends on him. He will assume control of your cities, states and nations. All your books are going to be judged, praised or condemned by him. The fate of humanity is in his hands. So it might be well to pay him some attention.”

Abraham Lincoln

The above quote from one of the greatest statesman of this world says it best: we have not inherited this Earth but have simply borrowed it from our children. Yet our reckless and relentless exploitation is eroding our very resource base, jeopardizing the existence of life on Earth, including our own existence.

For thousands of years, observing the night sky was fundamental to human life and survival. The sky was a major symbol in the natural world of order and cyclic repetition. Studying the skies brought a sense of normalcy to people's lives. Movement of the planets and stars helped farmers determine when to plant and harvest crops and guided ritual and religious observances. Interpretations of the celestial bodies varied widely among cultures, but often the sky was considered the abode of gods — a place humans could never touch.

Yet this simple pleasure is denied to 90 percent of the world's population. Not only is light pollution an aesthetic problem, but it also affects our sense of perspective. Most of the world's population can no longer ponder Earth's place in the universe because light pollution of the night sky shrinks the visible universe down from millions of light years to a few miles. One of our most ancient and universal cultural values is threatened and may become extinct.

We have only just begun to understand the decisive impact of the clarity of the sky on the conservation of biological diversity and ecosystems. As over half of the creatures living on this planet are nocturnal, any degradation in the quality of sky, by day or by night, will have a profound effect on their behaviour and on the equilibrium of the biosphere. Extensive information is now available on the effects of artificial lighting on certain migratory species guided by starlight, or concerning such obvious phenomena as the mass mortality through dehydration suffered by certain sea turtles disorientated by light on their home beaches. But the spreading out of



artificial light into the natural environment has other consequences. Scientists estimate that about 100 million birds across the US are killed every year by crashing into windows or die from exhaustion after becoming confused while trying to navigate by artificial lights instead of stars. Many birds and animals are affected by stray light intruding into their night world, confusing their natural patterns, deterring them from reaching established foraging areas, and affecting their breeding cycles.

Besides light pollution, climate change is also a significant driver that impacts the quality of the night sky. Climate change and the loss of biological diversity are the two most important global environmental challenges facing humankind, with far-reaching ecological, economic, financial, social, cultural, ethical, and security implications.

It has been demonstrated that climate change is one of the major driving forces behind the unprecedented loss of biodiversity on our planet. The second volume of the report of the Intergovernmental Panel on Climate Change, on impacts, adaptation and vulnerability to climate change, finalized and released just a few days ago, makes this very clear. Over the last century, species extinction rates rose by a factor of 1,000, paving the way to the greatest wave of mass extinction of animal species in 65 million years. Unless action is taken now, by 2100, two thirds of the Earth's remaining species are likely to be extinct. Climate change thus poses a major security threat to the very foundation of life on Earth.

It is for this reason that the international community will celebrate the International Day for Biodiversity on 22 May 2007 under the theme "biodiversity and climate change". It is for this reason also that the ministers of the environment of the G8+5, at their historic meeting held in Potsdam, Germany, from 15 to 17 March 2007, "agreed that biodiversity and climate are intertwined, and more efforts are needed to coherently address biodiversity and climate change issues together".

In the face of global change, protected areas are the best bet to tide over adverse effects and to develop resilience and adaptation strategies. Some of the darkest and clearest night skies in the world are found in national parks such as Yellowstone, Glacier, Bryce, Canyon, Torrance Barrens, Arches, and Potawatomi Wildlife Park.

The adoption of the programme of work on protected areas by 190 Parties to the Convention on Biological Diversity is of particular relevance to this international conference. The programme of work offers a unique opportunity for global coordinated actions for the conservation of the world's wilderness areas, especially through implementation of activity 1.1.2, , which calls the Parties to take action to establish or expand protected areas in "any large, intact or relatively unfragmented or highly replaceable natural areas". Protection of marine wilderness areas can also be undertaken through the establishment of marine protected areas that prohibit extractive activities. Although the primary aim of such marine protected areas is the conservation of biodiversity on the level of ecosystems, species and genetic resources, they can also provide for sustainable use in the surrounding marine environment, through, for example, the spillover of fish and larvae, as well as for adapting to climate change.

I am pleased that this international conference seeks to strengthen the importance of clear skies for humankind, emphasizing and introducing the value of this endangered heritage for science, education, culture, tourism and, obviously, as a quality-of-life factor and for the conservation of life on our planet. It is befitting that this conference is being held in La Palma, a beautiful Canary island, a Biosphere Reserve and home to one of biggest telescopes in the world. I wish you very successful deliberations.