



Tuesday March 10, 2009
11:00 to 12.30

Lyon Convention Center
France

IGNORED ASPECTS OF BIODIVERSITY

Moderator

- **Ismail Serageldin**, Director, Bibliotheca Alexandrina, Egypt

Speakers

- **Neville Ash**, Head of IUCN's Ecosystem Management Program (International Union for Conservation of Nature), Switzerland
- **Léon C. Braat**, Senior Researcher International Nature Policy, Alterra, The Netherlands
- **Guillermo Castilleja**, Executive Director, Conservation of WWF International, Switzerland
- **Jean Weissenbach**, Director, Centre National de Séquençage, France

Summary

- We haven't explored the whole biodiversity yet. Many species are still to be discovered.
- New bacterial communities can be studied using different very innovative techniques such as molecular approach, 16S rDNA, FISH and metagenomics.
- Marine metagenomics enabled to identify 1800 new families of proteins including viral proteins and some eukaryote-specific. When sequencing metagenomes we can also identify which species are abundant and which are rare.
- Among all species, the corals are those decreasing the most compared to birds, amphibians and mammals. This can be partially explained by conservation actions towards those latter species.
- Out of 45,000 species assessed, 17,000 species are threatened today. 1,8 M species have been described and 15,000 to 20,000 new species are described each year
- World protected areas are one way of reducing rate of biodiversity loss. It increased from 7M km² in 1980 to 18M km² in 2006 (from 40,000 to 100,000 areas).
- Biodiversity and services it provides need to be valued. As long as society does not see this value it will not be induced to protect it.
- Acting to reduce the rate of biodiversity loss is not an easy challenge but what is even more challenging is dealing with the cost of inaction. Indeed doing nothing would impact food security, fresh water supply, human health and severity of climate related disasters.
- For instance, bees currently disappear and we still don't know why. If bees ever disappear, the consequences for the human kind would be dramatic.
- The economic value of the loss of biodiversity is so far estimated at 14 Billion euros in 2050 only.
- Ecosystem and poverty are linked since ecosystem services represent 57% of "GDP of the poor" whereas it amounts to 7% of "classical GDP".



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- Biotechnology and organic farming can be part of the solution but we have to take a precautionary approach: understand benefits, downsides and mitigate the risks. We should not fall into the fallacy that biotechnology will bring us more food, it is also about how food is produced and distributed.
- Efforts to identify new species continue in particular with the Tara Oceans Plankton exploratory expedition, which will last three years. The main purposes of this expedition are to collect samples and data and explore sites of special interests.
- The scientific community has decided to go towards a science policy platform on biodiversity and ecosystem services called IPBES (Intergovernmental Platform on Biodiversity and Ecosystem).
- Building on IMoSEB (International Mechanism of Scientific Expertise on Biodiversity), IPBES proposes to address four themes:
 1. General knowledge through targeted assessment
 2. Horizon scanning
 3. Providing policy support
 4. Capacity building for integration science into policy
- As a leading species, we are responsible for what we are going to do not just for our children but also for all the other species that we are ignoring or accelerating the extinction.

Quotes

"Progress in biotechnology will depend on the identification of new enzymes catalyzing additional reactions both for chemical production and biodegradation"
Jean Weissenbach

"The challenge is to do a better job, improving measurement of biodiversity. Other measures are required: variety, abundance, distribution and processes"
Neville Ash

"Losing biodiversity means a lot of things for everybody but a lot for community in terms of reducing our ability to secure human kind future"
Guillermo Castilleja

"There is no price tag associated to every aspect of biodiversity but if we don't act now it will have a major cost to society"
Guillermo Castilleja

"A lot of people in this world, maybe more than half a billion, are directly dependant on fish for their protein. The children will not grow very well, not very intelligent if they don't get those proteins. It is very close form of genocide."
Léon C. Braat

"We have acquired the means to master the earth, the question is can we turn our minds around [...] and recognize we have the responsibility to nurture the earth as she nurtured us"
Ismail Serageldin