



Mass Extinctions in the Cards Absent Urgent Action

By Bo Normander and Supriya Kumar*

WASHINGTON, May 23, 2012 (IPS) - This past Tuesday, May 22, marked World Biodiversity Day, but it came and went without too much public interest.

The loss of biodiversity has not received the same amount of attention as other environmental problems such as climate change, in part because there is less scientific knowledge and consensus on the subject, but not because it is a less urgent threat to life on Earth.

According to the Millennium Ecosystem Assessment (MA), the rate at which species are becoming extinct is estimated to be up to 1,000 times higher today than pre-industrial times. Scientists have called this the sixth mass extinction in Earth's history - and the only one caused by a single living creature: humans.

Over the last few decades humans have changed ecosystems to a degree that has not previously been seen. To sustain economic growth and the increasing demand for food, resources, and space, large parts of the planet's natural areas have been transformed into cultivated systems such as agriculture and plantations and into built environment.

But what is biodiversity and why should we care about it? According to the Convention on Biological Diversity (CBD), it is the "variability among living organisms from all sources". To understand the importance of biodiversity in a given habitat or ecosystem, think of biodiversity as a gigantic house of cards, with each card representing a single species or ecosystem function.

A few cards can be removed without any significant change to the house. But if the wrong card is pulled out, the whole house can collapse.

In the same way, biodiversity is a complex system of literally millions of different species - from tiny microorganisms to the top predators - interlinked through food webs, pollination, predation, and many other chemical and biological interactions, many of which we don't even know about. Damaging part of the system - wiping out a few key species, for instance - may lead to the collapse of the whole system.

The world's oceans and forests are particularly threatened. Industrial fishing, with trawls from large vessels, causes extensive damage to both marine health and species biodiversity. Strong global policies, such as the phasing out of existing industrial fishing subsidies, are needed to bring fishing yields to a sustainable level and protect marine biodiversity.

Deforestation is another major cause of biodiversity loss. Between 1990 and 2010, the global forest area shrank by 3.4 percent, or 1.4 million square kilometers - an area roughly the size of Mexico. Deforestation continues at a high rate in many countries, mainly in the form of conversions of forests to agricultural land, much of which is done illegally.

Preserving the world's forests and natural habitats requires actions at the local, national, and global levels, but so far there has been a lack of political success. In 2002, the CBD committed to achieve "a significant reduction of the current rate of biodiversity loss" by 2010. But when delegates met in Nagoya, Japan in 2010, they concluded that the target had not been met, whether measured globally, regionally, or nationally.

The target was renewed with the adoption of the Strategic Plan for Biodiversity 2011–2020, with 20 new targets, known as the Aichi Biodiversity Targets. In early 2011, an intergovernmental panel agreed to create the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) with the aim of making 2020 biodiversity targets reachable.

On a national level, stronger policies need to be adapted and subsidies that drive deforestation must be phased out. Workers in the often illegal logging industry should be assigned jobs that help protect the forest ecosystems rather than destroying them.

Such an approach can be replicated in other areas. In Brazil, for example, the TAMAR sea turtle programme hires ex-turtle poachers and pays them wages to protect rather than exploit the turtle population.

Cooperation between governments is also necessary to raise global awareness of biodiversity loss and to create targets to reverse this loss. The upcoming Rio+20 conference presents a great opportunity to renew and fortify global and national commitments to halt biodiversity loss.

Combating the sixth mass extinction will require a number of concrete measures to protect the world's common biological wealth, and it is important that international leaders stand up and start making real decisions that can help protect nature.

*Bo Normander is Director of Worldwatch Institute Europe and author of "Biodiversity: Combatting the Sixth Mass Extinction" in the Worldwatch Institute's annual flagship report State of the World 2012: Moving Toward Sustainable Prosperity. Supriya Kumar is the Interim Communications Manager at Worldwatch.