



## **The Convention on Biological Diversity: how does Nitrogen fit into the plans?**

James Williams, Joint Nature Conservation Committee.

[James.Williams@jncc.gov.uk](mailto:James.Williams@jncc.gov.uk) [www.jncc.gov.uk](http://www.jncc.gov.uk) [www.cbd.int](http://www.cbd.int)

The Convention on Biological Diversity (CBD) was negotiated at the Earth Summit in Rio in 1992. It entered into force on 29 December 1993, and there are now 192 parties (168 signatures). The Convention has 3 main objectives:

1. To conserve biological diversity,
2. The use biological diversity in a sustainable fashion,
3. To share the benefits of biological diversity fairly and equitably.

To focus effort, the Convention works to achieve its vision and mission through a strategic plan containing sub-targets, delivered through programmes of work on a thematic basis, all organised through a multi-year programme of work. A key part of the Convention's work is the 2010 target on biodiversity: **“to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth”**. It is worth emphasising that this was adopted not just by parties to the CBD, but by the World Summit on Sustainable Development, and as part of the Millennium Development Goals – it has been given a big political emphasis.

Most countries are implementing the Convention through national biodiversity strategies and action plans (NBSAP). Most Parties (167) have an NBSAP, and with the newer and revised NBSAPs we see a more strategic focus on policy and institutional change and greater emphasis on mainstreaming; integration into local level planning. We now have a wealth of experience and good practice to build on and much to learn through exchange of this experience and expertise.

Let's quickly look at what has been achieved towards the 2010 target. The information below is based on the second edition of Global Biodiversity Outlook (GBO-2, <http://www.cbd.int/gbo2/>, 2006), and the Millennium Ecosystem Assessment (MA, [www.maweb.org](http://www.maweb.org), 2005). Information is currently being updated, through country reports and global analyses, for the third edition of Global Biodiversity Outlook (<http://www.cbd.int/gbo3/>).

To measure progress towards the 2010 target, the CBD created a flexible framework of indicators. Nitrogen is part of that framework, under the 'Threats' focal area. Indicators have been created at a variety of scales - at Global, European, National and country level, enabling policy makers to use evidence to explore whether the pressures are continuing or declining. It is worth noting that the different indicators are actually measuring slightly different things at different scales – for example NO<sub>2</sub> at the Scottish level, and critical loads in Europe. It is important to understand what each of them is saying at the scale at which its

being used, but it isn't necessary that they are the same – the key point is that they show whether the pressure is getting reducing or increasing.

Almost all the indicators in GBO-2 show negative trends. The picture today is broadly the same. One outcome of the MA was to identify five principal factors which lead directly to change in biodiversity, and therefore to the services provided by ecosystems. These direct drivers, as they are known, are: habitat change, climate change, invasive species, over-exploitation (for example hunting or fishing beyond replacement rates), and pollution, including by excessive nitrogen and phosphorous nutrients.

The impact of each these drivers is either constant or increasing in every type of ecosystem on the planet, with the exception of temperate forests where more habitats are becoming available. We are not likely to achieve the 2010 target. If there is to be any prospect of slowing biodiversity loss, policies must squarely address these drivers and reduce their impacts.

One of the areas which has started to get more attention over the past few years is ecosystem services. Ecosystem services are defined as services provided by the natural environment that benefit people, for example by providing food, clean air and clean water. While there is no single, agreed method of categorising all ecosystem services, the MA framework is widely accepted and is seen as a useful starting point. The MA reviewed the state of 24 services and found that 15 – three quarters of them – are in decline. Measuring, and addressing changes in, ecosystem services is likely to be a key aspect of any post-2010 target, and is an area which this workshop could help the CBD: by providing ideas on how nitrogen inputs can be effectively measured at a variety of scales, and critically, what the impact of different levels of nitrogen (in its various forms) is on biodiversity, at a variety of scales.

Looking forward, the 10<sup>th</sup> CBD Conference of the Parties in Nagoya Japan, October 2010, will be a milestone for biodiversity in a milestone year. There are many parallel strands of activity, three key aspects being:

- Countries, through their fourth National Reports, have been assessing the state of biodiversity and progress towards the 2010 target. The results are being synthesised in the 3<sup>rd</sup> edition of Global Biodiversity Outlook – GBO-3.
- Looking beyond 2010, discussions are occurring in a number of fora about what should be the target beyond 2010 and how the strategic plan of the Convention should be refreshed, probably with a greater focus on practical implementation of the Convention.
- And the Access and Benefits Sharing negotiations, a key aspect of the convention for many developing countries, will be continuing, aiming to reach a binding agreement.

2010 is the International Year of Biodiversity. It is an opportunity for all the world to recognise the importance of biodiversity for all life on Earth, to reflect on our achievements to safeguard biodiversity and focus on the urgency of our challenge for the future.