

Entangled in the web of life: biodiversity and the media

An IIED Briefing

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Biodiversity — the variety of genes, species and ecosystems on the planet — is disappearing faster than at any time since the demise of the dinosaurs. The implications are profound, for humanity and for our efforts to tackle poverty and climate change. Yet the media has under-reported this urgent environmental challenge, partly because researchers and policymakers have failed to communicate the issues in a way that is relevant to most people. This briefing explains why biodiversity loss will be an increasingly important story in the coming years. It suggests ways for journalists to improve their reporting and make it mean more to their audiences.

KEY POINTS:

- **Biodiversity is essential to human wellbeing but is under threat world over. Yet media coverage does not match the scale of the problem, not least because the term 'biodiversity' is itself poorly understood.**
- **Journalists need to gear up to tell this story better by learning more about the issues and framing them in ways that make sense to their audiences.**
- **Researchers and policymakers must also do more to explain the importance of nature to people, using jargon-free language and examples that help make the issues real.**
- **Key to successful communication will be an ability to show that people are part of biodiversity, reliant on its richness and deeply affected by its loss.**
- **This will grow in importance in the coming years, as major international storylines unfold and climate change takes hold.**

Everywhere and nowhere

Free medicine...clean water and nutritious food...a stable climate...daily inspiration, recreation and secure livelihoods for all. These are things our ancestors got for free from nature and what we, by driving its destruction, risk denying our descendants and ourselves. The variety of life on Earth — and the ways different elements of this biodiversity interact — provide us with a range of services that we depend on without always realising it.

That variety is fast eroding, however. The last time anything comparable happened was 65 million years ago, when a third of all species, including the dinosaurs, were killed off in a mass extinction. In recent years, we have been repeatedly warned that the current rate of loss has profound

implications for everyone on the planet. The UN Millennium Ecosystem Assessment showed in 2005 that many services nature provides us — such as fisheries — are under severe stress and could collapse. Last year, the UN Environment Programme's 4th Global Environment Outlook report warned that the ongoing loss of biodiversity would restrict future development options for rich and poor alike.

Yet looking at the media now, it would be easy to assume that climate change is the sole global environmental challenge. Apart from a handful of journalists, the media rarely tells the story of biodiversity loss in depth. Journalists could do much to improve their coverage, to hold politicians to account on the promises they have made, and to empower people to make better-informed choices about their lives. At the same time, the experts journalists rely on for information have often failed to communicate these issues in a meaningful way. They will need to do more to describe the importance of nature to human wellbeing and explain the real costs of its loss. Part of the problem lies in the concept of biodiversity itself.

What is it and why does it matter?

Biodiversity is complex and not the easiest of concepts to define. The word was only coined in the 1980s and it is still widely misunderstood and misused. The media often reports on the plight of rare charismatic species such as tigers, or on threats to tropical forests and coral reefs. But biodiversity means more than just wildlife or wild places. It encompasses the full variety of genes, species and ecosystems on the planet.

It includes the crops we eat and the insects that pollinate them; the plants we use for both traditional medicines and

modern drugs; the bacteria that help create the soil that sustains farming; and the microscopic plankton at the base of food chains that end with fish on our dinner plates. It includes ecosystems such as forests that regulate water supplies and climate. And it includes the variety within and between genes, species and ecosystems that creates a range of livelihoods for people. These are nature's safety nets. They help societies face uncertainties such as climate variability.

The natural world is critical to human wellbeing everywhere, but especially for the rural poor in developing countries, where most of the world's species are found and where threats to them are greatest. In the coming years, major storylines will unfold and put the links between people and biodiversity back on the global political agenda (see Box, opposite). We will learn the results of a major effort to discover the economic value of the variety of life on Earth. We will pass the deadline for governments to agree how to share fairly the benefits this variety provides. And we will learn whether nations have met their pledges to stem its loss. With both good and bad news on the horizon, journalists and their sources must prepare to tell this story better.

Green gold and 'doom-and-gloom'

The media has long reported on the state of the natural world through a lens of doom and gloom, inspired in part by the messages from nongovernmental organisations and researchers. We hear of urgency and war (either on nature or to save it), of a 'library of life' that is being burnt before its books can be read, of 'ecological Armageddon'. But research shows that this disaster narrative soon becomes a turnoff. This is especially true when reporting focuses on distant species or considers biodiversity on a global scale. Such approaches can give the impression that problems are elsewhere, when in fact biodiversity loss is a local issue the world over.

More recently, the media began to provide a positive parallel to the disaster narrative, one that highlights the economic and social benefits of preserving the natural world. These positive stories focus on things such as conservation successes or on 'green gold' – new ways for businesses to turn a profit with products or services derived from nature. This form of reporting is more empowering. It directs people to products that are better for biodiversity (and people) and demonstrates the market values of intact ecosystems.

Despite this shift, biodiversity reporting tends to be flat and one-sided. Stories often describe a promise (such as researchers 'bioprospecting' for potential drugs from rainforest plants) or a threat (such as 'biopiracy', when researchers misappropriate biological resources and/or traditional knowledge for commercial gain). But only rarely do the media presents a balanced appraisal of two competing claims. In both of the dominant narratives, the negative and the positive, there is often another, untold side to the story.

Reports of biodiversity loss rarely ask hard questions about how much we can afford to lose. They tend not to mention that some biodiversity loss may be essential to sustain and

improve human livelihoods. Nor do they point out that many landscapes are rich in species or habitats precisely because humans have modified the environment. Take, for example, agricultural areas rich in both crop varieties and the wild species that thrive in disturbed, open habitats.

The positive stories rarely analyse whether conservation initiatives or apparently biodiversity-friendly products are fair or truly sustainable, and who stands to gain from them. The media also tends not to air voices and views of those most dependent on nature, such as indigenous people and rural communities in developing countries. These people are often custodians of biodiversity and have a wealth of relevant traditional knowledge, but they have little say in deciding what is important to save, and how to conserve and make best use of it.

Bringing biodiversity home

It is hard to explain the threats to millions of species when most people — especially urban dwellers — are personally familiar with so few. Half the calories we eat, for instance, come from just three of the world's 30,000 edible plants (rice, wheat and corn). The challenge for media and their sources alike is to tell stories that relate the wealth of nature to people's everyday lives. With a number of big global stories emerging (see Box, opposite), journalists will have to find ways of making them locally relevant. The following lenses suggest ways for journalists to provide more relevant context by seeking interesting angles and interviewees.

- **Money** Some people are making a lot of money out of the destruction of biodiversity, others from using it sustainably. How are these riches being shared? How can the impacts that economic activities have on the natural world be brought onto the balance sheet?
- **Human rights** Conservation objectives can easily collide with people's needs, especially when human rights are ignored. How do communities that depend heavily on nature get their say in the way biodiversity is managed? This is not just a question of people versus parks. As well as the issue of community rights to access to land, water and natural resources, there are questions to ask about their rights to retain control of traditional knowledge and biological resources taken from their ancestral lands. In 2007 the UN General Assembly adopted the Declaration on the Rights of Indigenous Peoples, which urges nations to give indigenous peoples more control over their traditional land and resources. However, the declaration is not legally binding and was opposed at the time by Australia, Canada, New Zealand and the United States (Australia has now adopted it).
- **International politics** The UN Convention on Biological Diversity (CBD) legally binds 190 nations and the European Union to conserve biological resources, use them sustainably, and share the benefits arising from the use of genetic resources fairly and equitably. (The United States has signed but not ratified the CBD.) Parties to the CBD meet regularly to negotiate how to implement the convention and there is plenty of political intrigue and pressure from vested interests such

as multinational corporations. Journalists rarely cover these talks in depth, but this is perhaps unsurprising. The CBD process is highly technical, rich in jargon, and split across numerous working groups. It is hard for journalists who are new to the CBD to understand what is going on. Unlike the UN Framework Convention on Climate Change, whose Kyoto Protocol created binding targets and rules, the CBD's decisions are harder to relate to change in the real world.

- **Climate change** Public awareness of climate change is high and rising, and this provides journalists with a new entry point to cover biodiversity, and plenty of questions to ask. How will climate change — and efforts to tackle it — affect the natural world? Is it all bad news or will some species gain and bring benefits to people? What are the impacts of the production of biofuels on forests, crop diversity, indigenous people and local communities? How do UN conventions on biodiversity and climate change work together, and when do their objectives clash? Is it better to protect intact, biodiverse forests for the sake of conservation, or to do more to manage low-diversity plantations that can bring commercial gains, as well as storing carbon to mitigate climate change?
- **Health** The natural world affects health in many ways. It is the source of both a balanced diet and of many new diseases, such as SARS and Ebola. Nature also serves as a medicine cabinet. More than half of commonly prescribed drugs — tens of billions of dollars' worth — are derived from natural products. And about 60 per cent of people in developing countries rely on traditional medicines — mostly plant-based — for their health care. But species are going extinct before their potential for curing diseases can be assessed. Also affecting health is the food we eat, most of which comes from species that are parts of complex functioning ecosystems, either wild or agricultural. Threats to biodiversity with potential knock-on effects that could harm human nutrition include diseases hitting populations of pollinating bees, and the decline of seed-dispersing fruit bats, birds and primates resulting from hunting and habitat destruction. Meanwhile, the diversity of crops is declining in many areas as industrial monocultures replace traditional mixed farming. If these trends persist and climate change takes hold, there is a danger that people will have fewer food and livelihood options. Yet people can also use agricultural biodiversity to cope with the impacts of climate change, such as using crop diversity to select varieties better suited to changing conditions.
- **Religion** Most faiths see the natural world and our relation to it as having a spiritual dimension. They ascribe the variety of life on Earth to divine creation and urge followers to respect and look after nature. Yet even in strongly religious societies, biodiversity is in steep decline and the media rarely seeks comment from religious leaders about this loss. Recently, religious groups in a number of settings have begun to make public statements on the state of the environment. This is an angle that journalists could explore in greater depth as it has such relevance to large audiences.

Stories on the horizon

What is it worth? We can no longer expect nature to provide a free lunch, and efforts to protect it could depend on our putting a price tag on the goods and services it provides us. The European Union and the German government are undertaking a Stern Review-style assessment to do just this. The results will be published at the end of 2009 and look set to focus policymakers' attention on biodiversity loss in the way the Stern Review did for climate change. The figures are likely to be large. The UN Environment Programme's 2007 GEO-4 report states that the pollination of crops by honeybees alone is worth US\$2-8 billion, while the global herbal medicine market was worth US\$43 billion back in 2001.

Who benefits? The UN Convention on Biodiversity (CBD) entered into force nearly 15 years ago but there is still no international regime for pursuing one of its three main aims: to ensure fair and equitable sharing of benefits arising from access to genetic resources. Parties to the CBD have set themselves a 2010 deadline to resolve this and time is running out. Genuine conflict exists in negotiations but this hardly sees the light of day in the media. How can a legally binding regime be achieved by 2010 and what are the key elements? Not all stakeholders (such as indigenous peoples) are even in favour of an international regime, binding or not, so another questions is, who would benefit from one? And in some countries, corruption and a lack of transparency may mean that people deserving of the benefits never see them.

Can we save it? The CBD has also set a 2010 deadline for stemming the loss of biodiversity, and this aim has since been incorporated into the UN Millennium Development Goals. Are we on track to hit the target and if not, how much will we miss it by? And with only a fraction of the world's species named and described, how can progress towards the 2010 target be assessed in a meaningful way?

How do we do it? As *The Economist* wrote in April 2008: 'Although the science has improved over the years, the continued emphasis on what to save, rather than how to do it, seems like cataloguing deck chairs on the *Titanic*... It is hard to escape the conclusion that the energy and brains of many of these brilliant hotspot scientists might be put to better use if they looked at the really difficult problem of how governments, private industry and innovative environmental-finance schemes could help fund conservation.' Parties to the CBD have pledged to create a global network of terrestrial protected areas by 2010 and of marine protected areas by 2012. How will this happen and how will it be funded?

Back to nature

For years, media editors have pushed environmental stories to the periphery. The arrival of climate change on public and political agendas is changing this, but

journalists must remember that there are other global environmental challenges to cover.

In particular, the story of how humanity depends on nature but is driving its destruction needs to be told in a more sophisticated way. While warnings about the current extinction crisis do hit the headlines, they tend to melt away from the media agenda. What is often missing is the human angle, and this serves to distance the problem from people's minds.

Both journalists and the experts they rely on for information can do more to communicate about biodiversity in a way that makes sense to people. This means avoiding jargon – including the word 'biodiversity', which as we've seen is a convenient catch-all but poorly understood and not easy to describe.

There are plenty of opportunities to tell stories with strong human angles that demonstrate directly the benefits the natural world brings to local people's lives. These stories also need to tell people what is at stake if the destruction of nature goes unchecked.

A simple example is the mangrove forest. This swampy habitat found along coasts throughout the tropics and subtropics is often viewed as wasteland ripe for development. But local communities have for generations obtained food, medicines and building materials from the mangroves. Many species of commercially important fish breed among the mangrove trees' submerged roots and the forests help to remove toxins from rivers before they enter the sea. The trees also protect coastal areas from the force of cyclones and tidal surges. Research has shown that the economic value of the natural goods and services mangroves provide is many times greater than what their conversion to agriculture or shrimp farming would bring. Sadly, it took the devastation wrought by the 2004 tsunami in the Indian Ocean for many policymakers to realise the risks of mangrove deforestation.

The variety of life surrounds us and perhaps its richness blinds us to its value and its vulnerability. A major challenge is to remind people that they are part of the web of life, not separate from it. Without this it is all too easy to forget that our wellbeing — and that of future generations — is tightly connected to the fates of other forms of life on Earth.

Further reading:

Millennium Ecosystem Assessment (2005) *Ecosystems and Human Well-Being*. Biodiversity Synthesis Report. World Resources Institute, Washington DC. See www.millenniumassessment.org/documents/document.354.aspx.pdf.

UNEP Global Environment Outlook 4. See www.unep.org/geo/geo4/media.

Convention on Biological Diversity (CBD)
www.cbd.int.

CBD News headlines
www.cbd.int/information/news.shtml.

Mongabay news
www.mongabay.com/.

Like-Minded Megadiverse Countries
www.lmmc.nic.in.

CBD Alliance (NGO coalition)
www.cbdalliance.org/

Shanahan, M. (2007) *Climate Change and the Media*. An IIED Briefing. IIED, London. See www.iied.org/pubs/pdfs/17029IIED.pdf.

SciDev.Net biodiversity news
<http://scidev.net/en/agriculture-and-environment/biodiversity/>

World Conservation Union (IUCN)
<http://cms.iucn.org/>

IUCN Red List of threatened species
www.iucnredlist.org/

Väliverronen, E. and Hellsten, I. (2002) From 'burning library' to 'green medicine': the role of metaphors in communicating biodiversity. *Science Communication* 24(2), 229-245. See www.valt.helsinki.fi/staff/valiverr/scicomm.pdf.

Conserving biodiversity is a business opportunity, say IUCN and Shell. See <http://cms.iucn.org/index.cfm?uNewsID=585>.

Chivian, E. and Bernstein, A. *Sustaining Life: How human health depends on biodiversity* (2008) Oxford University Press, Oxford. See <http://chge.med.harvard.edu/programs/bio/index.html>.

UN Permanent Forum on Indigenous Issues
www.un.org/esa/socdev/unpfii/

Biodiversity Reporting Award
www.biodiversityreporting.org/

Reuters-IUCN Environmental Media Awards
http://cms.iucn.org/media/media_awards/index.cfm

Earth Negotiations Bulletin coverage of biodiversity
www.iisd.ca/process/biodiv_wildlife.htm#cbd