

Andean indigenous farmers tending to their potato crops in Huama, Peru. MILAGROS SALAZAR/IPS

Putting life on the front page

These guidelines were written by Pankaj Sekhsaria, edited and translated by Laura Pérez, as part of the "Communicating Biodiversity in 2010" initiative led by IPS Inter Press Service in partnership with Bioversity and the International Federation of Environmental Journalists, under COM+ the sustainable development communications alliance.

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Foreword

Biodiversity is not an easy word. It is neither immediately understandable nor particularly compelling. Breaking it down into its basic components of 'biological diversity' makes it only slightly less impenetrable to the ordinary reader. Why, then, should journalists and the media take up the issue of biodiversity?

Life itself is complex -an inextricable web of relations and systems that make our existence on Earth possible. Biodiversity basically describes the variety of life that is essential to sustain the systems that provide us with water, food, clean air and fuel. As human beings we depend on it, but we also have the power to protect or destroy it.

Today we are witnessing the greatest extinction of species since the dinosaurs disappeared 65 million years ago. And this current extinction is largely due to human activities.

The very food we eat could be at risk because of this biodiversity crisis. The diverse plants and animals that humans depend on are rooted in the breeding and cultivation of livestock and plant varieties that are highly productive, resistant to pests and diseases, highly nutritious or resilient in the face of harsh weather conditions.

Yet, according to FAO estimates, about three-quarters of the genetic diversity in agricultural crops has been lost over the last century, and 29 percent of documented animal breeds are at risk of extinction or have already become extinct.

The citizens of the 21st century are facing very difficult challenges. Climate change is likely to become the first driver of biodiversity loss by the end of the century, according to the Millennium Ecosystem Assessment.

The celebration of the International Year of Biodiversity in 2010 provides an enormous opportunity to engage the media and journalists on this issue and to highlight biodiversity and its linkages to food security and climate change.

However, much effort is needed for biodiversity to be featured on the front page and to uncover the myriad of relevant stories buried beneath those difficult words, stories that are waiting for journalists to discover them.

IPS Inter Press Service has taken the lead in this effort, partnering up with Bioversity International and the International Federation of Environmental Journalists (IFEJ), under COMplus, the Sustainable Development Communications Alliance. Together we have prepared these "Biodiversity Reporting Guidelines - Putting life on the front page" to provide journalists with tools and tips to better understand, accurately report on and make the most of biodiversity issues.

Stories, features and chronicles on biodiversity can be as vibrant, exciting and compelling as life itself.

MARIO LUBETKIN

Director General

IPS Inter Press Service

Putting life on the front page

The "Biodiversity Reporting Guidelines - Putting life on the front page" consist of three documents. The main document provides context and definitions, as well as examples of significant linkages between biodiversity and a range of sectors. The document includes ideas for writing biodiversity stories and how to pitch them to editors and present them to readers. It also outlines key reporting and journalism principles.

This main document is accompanied by:

- a. A calendar of biodiversity-related events (meetings, conferences, etcetera) held around world over the May 2010-January 2011 period. The list also includes significant dates celebrated worldwide, which can be useful as pegs or opportunities for reports and stories.
- A list of international conventions, treaties and agreements linked directly or indirectly to biodiversity, with links to institutional web sites and, in some cases, a brief description of the instrument.



Woodcutter in the Chocó rainforest, Colombia. JESÚS ABAD COLORADO/IPS

Note: The links provided below are only meant as an indication. They are not comprehensive and do not seek to privilege one kind of information or source over any other.

Visit our biodiversity website to read current news features http://www.ipsnews.net/new_focus/biodiversity/

Context

According to the Convention on Biological Diversity (http://www.cbd.int), the term biodiversity describes the variety of life on Earth, which is essential for sustaining the living networks and systems that provide us with health, wealth, food, fuel and a range of vital services that our lives depend upon.

As human beings we are an integral part of this diversity and unique in that we have the power to protect or destroy it.

There is significant evidence that human activity is causing biodiversity to be lost at a very fast pace, as a result of climate change, habitat destruction, over-harvesting, pollution, the spread of invasive species and many other activities. The magnitude of this loss is such that the International Union for Conservation of Nature (IUCN) has warned that we are facing a global species extinction crisis. Agricultural biodiversity is also under enormous threat, and this in turn raises concerns and poses huge challenges, including to food and nutritional security.

Wild biodiversity

It has been estimated that, due to human activities, daily biodiversity loss today is 1,000 times higher than the natural rate. We are witnessing the greatest extinction crisis since the dinosaurs disappeared from our planet 65 million years ago.

Facts gathered by IUCN (http://www. iucn.org) give an indication of the rate of biodiversity loss:

- Coral reefs provide food, protection from storms, recreational benefits, jobs and other sources of income for more than 500 million people worldwide, and yet 70 percent of the world's coral reefs are threatened or have been destroyed;
- Of the 47,677 assessed species worldwide, 17,291 are threatened with extinction;
- Of the world's 5,490 mammals, 79 have gone extinct, 188 are critically endangered,

- 449 are endangered and 505 are vulnerable;
- Amphibians are the most threatened group of species known to date, with 1,895 of the planet's 6,285 amphibians in danger of extinction.

Agricultural biodiversity

One of the least understood and recognised dimensions of biological diversity is that of agricultural biodiversity.

Agricultural biodiversity encompasses the wide variation within plant and animal species that human communities critically depend on for survival and sustenance. This diversity has allowed for the development of a range of plant varieties and livestock breeds that are highly productive in their specific contexts, can resist pests and diseases, have good nutritional value and are also capable of coping with a changing climate.

Biodiverse agriculture as is still practised in various parts of the world is crucial for the survival of many marginalised agricultural and tribal communities. Input costs are low, fewer chemicals are used, and resistance to disease and pests is high. This is important considering the estimated one billion people, most of them young women and children, who are currently suffering from malnutrition. Agricultural biodiversity underpins dietary diversity, which delivers better nutrition and greater health. Healthier people are more productive.

The benefits multiply.

Agricultural biodiversity also reduces yield variations. Harvests in diversified production systems are more stable from one year to the next. This is important for small farmers in rural areas as it helps them minimise risks and guarantees that their families will have food year round. It has also been argued that greater diversity is agriculture's best hope for dealing with the threat posed by climate



Different varieties of corn grown in the villages of the Garhwal Himalayas, India. PANKAJ SEKHSARIA

change. The most diverse systems -those that have and use the highest diversity- are likely to be the most adaptable to changing climatic conditions.

Unrecognised and undervalued

Despite their enormous value, wild and agricultural biodiversity have been little understood and scarcely recognised. A telling example of this is the Europe-wide survey on the attitude towards the issue of biodiversity conducted a few years ago. Of the 25,000 Europeans interviewed, a surprising 70 percent were unable to say what the term biodiversity means.

Attitudes, however, are changing, and there is a growing awareness and acceptance of the importance of biological diversity in underpinning sustainable development and human welfare. Well-managed natural resources foster peaceful communities, promote more balanced economic growth, and contribute to poverty reduction. Healthy biodiversity is essential to help us adapt to shifting conditions, including a changing climate. This recognition must be urgently translated into conservation action.

It is in this context that the United Nations declared 2010 the International Year of Biodiversity.

Definitions

Some key terms are defined below, mostly taken directly from the Convention on Biological Diversity (http://www.cbd.int/convention/articles.shtml?a=cbd-o2).

"Biological diversity" is the variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this comprises diversity within species, between species and of ecosystems. A major component of biological diversity includes the diversity of animals and plants that support food production and agriculture. This is generally known as agricultural biodiversity or agrobiodiversity.

"Biological resources" include genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

"Biotechnology" means any technological application that uses biological systems, living organisms, or their derivatives, to make or modify products or processes for specific uses.

"Domesticated or cultivated species" are species whose evolutionary process has been influenced by humans to meet human needs.

"Ecosystem" is a dynamic complex of plant, animal and microorganism communities and their non-living environment interacting as a functional unit.

"Ex-situ conservation" means the conservation of components of biological diversity outside their natural habitats.

"Food Security," as defined by the Food and Agriculture Organisation of the United Nations (FAO) in The State of Food Insecurity 2001, is a situation that exists when all people, at



Migratory waterfowl on the Mula-Mutha River, in the heart of the city of Pune, India.

PANKAJ SEKHSARIA

all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

"Genetic material" means any material of plant, animal, microbial or other origin containing functional units of heredity.

"In-situ conservation" is the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

"Sustainable use" means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

The value of biodiversity

That biodiversity has important links to a range of different human needs has only recently been understood and acknowledged, with international agreement and political acceptance having been reached just 18 years ago with the signing of the Convention on Biological Diversity (CBD). This can be a useful point of entry for journalists because it allows them to incorporate biodiversity angles into their reporting and writing on related issues. Linkages exist and can be shown to exist with industry, art and culture, indigenous rights, international conflicts and co-operation, food security, famine and migration, women's rights, and health and nutrition.

Here are some examples of such linkages and how journalists can promote them:

Biodiversity, food security and nutrition

The strong link between biodiversity and food security is made evident by human dependence on natural resources for survival. In particular, agricultural, tribal and forest-dependant communities derive their food and nutrition almost entirely from the diversity they are part of. Researchers, NGOs and communities have been aware



Woman farmer planting in Durban, South Africa. KRISTIN PALITZA/IPS

of the linkages between food security and biodiversity for more than three decades, and the international community has now explicitly accepted this link as evident. In 2004, FAO made "Biodiversity for Food Security" the theme of that year's World Food Day. http://www.fao.org/newsroom/EN/news/2004/42621/index.html

The conservation and sustainable use of biodiversity is now considered a key factor in ensuring food security for the world's people, particularly for those in developing countries, where agricultural biodiversity is important to support a productive agriculture on often marginal lands.

FAO estimates that about three-quarters of the genetic diversity found in agricultural crops has been lost over the last century, and around 20 percent of the world's breeds of cattle, goats, pigs, horses and poultry are currently at risk of extinction, with another 9 percent already extinct. The healthcare of an estimated 60% of the population of developing countries relies on traditional medicine, a significant part of which is plant based. Not surprisingly the herbal medicine market worldwide is worth billions of dollars.

The link between biodiversity, food and health was also the subject of an international conference held in Chennai, India in February 2010, which concluded with the Chennai Declaration, a nine point action plan for boosting biodiversity. Key actions included:

- Addressing biodiversity loss caused by habitat destruction, monoculture crop systems and invasion by alien species;
- Pursuing 'biodiverse agriculture' to boost the genetic diversity of a given area;
- Developing new research programmes for characterisation and use of wild crop species to transfer genes for drought, flood and salinity tolerance into crops;
- Promoting the conservation of valuable plant and animal genetic material under

- both ex-situ and in-situ conditions;Introducing changes in water use and
- Introducing changes in water use and environmental risk management;
- Integrating government departments
 across all sectors, including those
 concerned with rural development, food
 security and climate change, towards
 ensuring biodiversity conservation and
 food security (seeking an integrated
 approach so that all dimensions of
 governance work together, instead of in a
 piecemeal manner as is often the case);
- Developing markets for diverse agricultural products and raising biodiversity awareness across all age groups through a "biodiversity literacy campaign."

Biodiversity and climate change

Climate change is considered to be one of the biggest challenges faced by biodiversity today. The Millennium Ecosystem Assessment (http://www.millenniumassessment.org/en/index.aspx) has predicted that climate change is likely to become the leading driver of biodiversity loss by the end of the century. A rise in temperatures along with the growing uncertainty and unpredictability of natural events (rainfall, storms, drought, etc.) has increased the vulnerability of human and natural systems.

Ongoing research is revealing interesting examples and evidence of the impacts of climate change on plants and animals: variations in plant flowering and bird migration times and patterns; expansion or contraction of the geographical range of species; increase in pest load; etc.

It is widely acknowledged now that the loss of biological diversity will seriously impair the capacity of communities to adapt to climate change. A newly emerging concept and area of research is that of resilience. The Stockholm Resilience Centre (http://www.stockholmresilience.org/) defines resilience as the capacity of a system to withstand change while continuing to develop. The more biodiverse an ecosystem, the greater stability and resilience it will have, thus increasing its ability to adjust to shocks and offer alternative options.

This is evident in agriculture where:

a. In a situation of increasing salinity in coastal areas as a result of the rise in sea level, salt

- tolerant species of crops (rice, for example) can play an important role in ensuring food security. (http://www.scidev.net/en/news/gene-for-salt-tolerance-found-in-rice.html).
- b. Traditional agriculture based on millets in dryland regions is extremely sturdy and tolerant to water scarcity and stress, so that in a situation of increased temperatures and water shortages this kind of agriculture is bound to be more resistant.
- c. Recent research has also provided compelling evidence of how climate change is threatening wild relatives of crops that are key for food security. (http://www.bioversityinternational.org/news_and_events/news/news/article/climate-change-threatens-wild-relatives-of-key-crops.html)

For more on crop diversity and its value, see http://www.croptrust.org/main/ldiversity.php.



Air breathing roots of the mangroves, Andaman Islands, in the Bay of Bengal, India

The conservation of wild biodiversity is important in the context of climate change:

- Forests are important carbon sinks and their protection and regeneration are important tools to counter global warming.
- b. Forests are also habitats for a wide diversity of plant and animal life. They are important water catchments and also the source of rivers in most parts of the world. The health of forest depends, in turn, on the availability of water and the presence of animals, which have been likened to gardeners of Eden because of the role they play in sustaining and expanding forests,

- through, for example, seed dispersal by a host of agents such as bats, mammals, rodents and birds. (http://www.jstor.org/pss/2663943)
- c. Ecological interactions and dependencies in natural ecosystems are intricate and complex. The destruction of one element could lead to an unexpected impact on another. Many plants, for example, depend on just one or two species of pollinators or seed dispersers for their propagation. If the pollinator is wiped out on account of disease or chemical use, the plant is bound to suffer and can even become extinct. This could set off a chain reaction where everything affects some other part of the system in a complex relationship.

Biodiversity and economics



Selling fruits in a market in Chiapas, Mexico.
MAURICIO RAMOS/IPS

Biodiversity offers a wide range of economic services:

- Food security, which depends on agricultural diversity;
- Livelihood security, particularly for rural and forest-dwelling communities;
- Ecosystem services, such as carbon sinks, sewage treatment, water catchments and pest control;
- Medicines;
- Fibre, energy, lubricants and pharmaceuticals for industrial purposes;
- Tourism and recreation;
- Pollination services.

The Economics of Ecosystems and Biodiversity study provides some examples of how the

economic value of biodiversity is tabulated in hard figures (http://www.teebweb.org):

- i. In India an estimated 480 million people derive their livelihood from small-scale farming, animal husbandry, informal forestry, fisheries and other such activities. If tabulated against conventional GDP, the contribution of ecosystem services comes to about 7 percent. However, if only the GDP of the poor is considered, the contribution of ecosystem services jumps to 57 percent;
- ii. A plan to drain the Nakivubo Swamp, in Kampala, Uganda, with the aim of saving the government an estimated US\$ 235,000 per year in maintenance costs, was abandoned when the swamp was found to perform crucial sewage treatment and water cleaning functions, and it was determined that building a facility of equal capacity would take nearly ten times the amount of outlay. The swamp was subsequently declared a protected area;
- iii. Examples from different parts of the world (e.g. Orissa in India or North Vietnam) have shown that mangrove forest areas suffer much less damage in storms and typhoons compared to regions where mangroves had been destroyed;
- iv. Twenty-five percent of the coral reef area of St. Lucia was closed to fishing in 1995 following the establishment of the Soufriere Marine Management Area. As a result adjacent artisanal fisherfolk have shortened their fishing trips while increasing their catches;
- v. A large number of agricultural crops worth billions of dollars worldwide depend every year on pollinators such as bees. The destruction of forests threatening insect populations, or the loss of insect populations on account of pesticide and chemical use or disease leads directly to huge economic losses. The United Nations Environmental Programme (UNEP) has estimated, for example, that the pollination of crops by honeybees alone is worth US\$2-8 billion. For the most recent developments in this area in North America, see 'Citizen Scientists on the Trail of Disappearing Bees' http://www.ipsnews. net/news.asp?idnews=51257.

A different point of view

While there are strong reasons to investigate and report on the various economic valuations of nature and the services it provides, it is important to keep in mind that there is also a very different (and opposing) perspective on these issues. This can offer important opportunities for journalists to make their stories interesting by bringing in a diversity of points of view and increasing the space for discussion and debate.

There is a strong and well-articulated position that maintains that an economic evaluation of biodiversity is too anthropocentric and that everything offered by nature should not be seen in terms of economics and money. It is criticised as being too 'western,' 'modern' and reductionist in its approach to the value of biodiversity and as a way of dealing with the crisis faced by biodiversity today.

In this sense, indigenous approaches argue for a more holistic and open-ended engagement with nature and its elements, including the cultural and spiritual dimensions and the element of overall well-being of nature, which cannot necessarily be assessed in hard numbers. These approaches focus on value systems rather than on economic systems, and some claim that these are the approaches that will ultimately succeed.

Biodiversity and culture

There is a strong connection between biodiversity and culture. As stated by UNEP in 2007, "Biodiversity also incorporates human cultural diversity, which can be affected by the same drivers as biodiversity, and which has impacts on the diversity of genes, other species, and ecosystems." Everything in human culture -be it clothes, food, cooking, songs, music, language or sports- is influenced by the environment and elements of biodiversity located within it.

An excellent example of this is the link between biodiversity and language. Just as there are endemic species of plants and animals, certain languages that are only found in restricted areas are considered endemic. Such is the case of the language of the Andamanese tribal community of the Andaman Islands in the Bay of Bengal, who



Indigenous men performing the "Bate-palo" dance in Dourados, Brazil. MARIO OSAVA/IPS

measure time by a calendar based on the names of the flowers that bloom in each particular time of the year and their inherent relationship with the availability of honey (http://www.andamanese.net). There are innumerable examples in every culture of how language is affected by agriculture and by people's dependence on plants for food, medicine, shelter and fibres.

The link with language

The non-profit organisation Terralingua (http://www.terralingua.org) works with the concept of 'biocultural diversity,' which holds that language, knowledge, and the environment have been intimately related throughout human history. It maintains that just as with biological species, languages and cultures evolve and change naturally over time, and just as with species, the world is now undergoing a massive human-made extinction crisis of languages and cultures. It has found, for instance, that the regions with the greatest biological diversity are also the regions where the largest number of languages is spoken. Nine "megadiversity" countries account for more than half of the languages spoken in the world, and two of these have over 500



A fisherman in Akarakumo, Nigeria TOLUWA OLUSEGUN/IPS

languages each: Papua New Guinea (850) and Indonesia (670). Not only do plant and animal extinctions put languages at risk; the reverse is also true, because the extinction of communities and their cultures leads to complete and irretrievable loss of their knowledge of local biodiversity and its uses. (For a detailed paper on the 'inextricable link between linguistic and biological diversity,' see http://www.terralingua.org/activities/DiscPapers/DiscPaper3.html).

Traditional knowledge and wisdom are the greatest assets that thousands of communities across the world possess.

Knowledge that is specific to local ecosystems, situations and contexts has been the fundamental basis for the survival of human societies for millennia. Now societies are appreciating their value in modern contexts, whether it be in the production of new medicines or in the development of new, more resistant and productive crops.

Traditional crafts and livelihoods Many traditional crafts and livelihood practices are intricately linked to availability of and access to products that are elements of

biodiversity:

- a. Traditional natural yarn dyeing techniques (used for cotton, wool and silk) are dependant on a number of different plant products (bark, fruit, roots, seeds) and, in some cases, insects as well.
- b. Traditional toy makers (http://www. etikoppaka.com/drupal/node/3) in India and wood-working communities (http:// www.frommoroccowithlove.com/ moroccan-thuya-wood.html) in Morocco depend on specific kinds of timber to make products with certain qualities.

The destruction of forests or the existence of regulations that restrict access have a direct bearing on the survival of traditional practices and the livelihood security of these craftspeople.

Biodiversity and women

A dimension of biodiversity that has drawn some, but perhaps not enough, attention in recent times is how it relates to women.

The responsibility for meeting the primary needs of a household in rural and tribal communities -food, medicine (plants), housing material, livestock, fodder, fuel wood and water- rests on the shoulders of women. A degraded environment means a shortage of these resources, and that directly increases women's burden and responsibilities. In African countries, for instance, a majority of farmers are women, and their dependence on diversity and natural resources is critical for the well-being of the entire family.

In many agricultural communities women have a thorough knowledge of climatic cycles, soil conditions and crops. It is women who are often the seed-keepers in these communities and they therefore play an invaluable role in ensuring food security and also in keeping alive the knowledge of agricultural diversity.

The preamble to the CBD specifically highlights the role that women play in the conservation and sustainable use of biological diversity.

On this subject, see http://us.macmillan.com/womenandplants.

Biodiversity in urban areas

An important feature of the current stage of human history is that societies are leaning prominently towards urbanisation. While large parts of the world continue to live in rural and non-urban settings, urbanisation is advancing rapidly and irreversibly.

The changing patterns in land and resource use that accompany the process of urbanisation are contributing significantly to the loss of natural habitats and biodiversity, and this in



FERDINANDO CASAGRANDE/IPS



Coral reefs in Quintana Roo, Mexico. MAURICIO RAMOS/IPS

itself is an interesting and important subject for research and investigation.

Urban areas, however, have another dimension, which is only now receiving attention. Although there is no denying that as far as biodiversity is concerned cities are generally poorer than rural or forest settings, it is also true that they are not totally devoid of biodiversity. Recent research in different parts of the world has shown that significant and interesting elements of biodiversity can still be found in cities -most prominently birds and reptiles, and in some cases small mammals as well. Many cities often contain natural landscapes such as rivers, lakes and forests, and these can and do support a strikingly rich range and number of plants and animals.

Readers in urban areas are bound to find news and reports on biodiversity in their vicinity interesting. Such biodiversity is within their reach and can thus be enjoyed. And it also feels close enough to home for them to care about and take action if needed. These stories can make readers aware of larger issues of biodiversity conservation in other parts of the planet.

There is also an increasing trend in urban and peri-urban agriculture that should be highlighted in this context.

See also http://www.jilac.jp/URBIO2010/doku.php?id=start.

Conceptual categories

Conceptually speaking, the above uses and values assigned to biodiversity can be classified into three general categories:

a. Functional: Natural systems are essential for the survival of any life. Nature and

- ecosystems provide services that we often fail to understand or fully value;
- Ethical: The fundamental right that every element of nature has to life and existence has been the justification for human beings to support and protect biodiversity;
- c. Aesthetic: The beauty, power and mysterious ways of nature have always evoked wonder in the human species.
 Whether it is to seek inspiration or solace, human beings naturally turn to nature.

While they may fall into one of these three categories, it is also important to remember that they are not objective or neutral realities with universal values. These concepts are constructed in and by social systems that have hierarchies, inequities, exploitations and greed embedded within.

Nor are the three categories necessarily in harmony with one another. An efficient functional system may not be rich in diversity. It also depends on what aspect of functionality is considered. The ethical value of the right to life is routinely violated in the human endeavour to eliminate pests and vermin. And often the quest by one set of human beings to preserve 'aesthetic' values results in the rights of others being completely ignored, as when the creation of protected areas for flora and fauna conservation leads to the curtailment of rights of traditional communities or even their forced displacement.

This complexity underlies biodiversity conservation and protection and increases the challenges and responsibilities for journalists seeking to cover issues of biodiversity.

Story ideas



Red-tailed hawk, Mexico MAURICIO RAMOS/IPS

The following examples illustrate some general ideas and opportunities that journalists can use to research and create stories to pitch to their editors:

It is a well-known fact that big events are important and effective pegs for stories -pegs that work for editors and publishers and also for readers. The nature of such events and their association with prominent people create opportunities for journalists, as pitching a story around them is easier and more acceptable. It is important therefore that reporters be equipped with information of upcoming events (see attached calendar of events) to plan and present stories in advance to capitalise on the events and the interest they generate.

Another possibility is hitching the story to one (or more) of the many 'special days' that have been declared internationally. April 22, for instance, is World Earth Day; May 22 is the International Day of Biodiversity; and June 5 is World Environment Day. There is a general awareness of and interest in these 'days' both among the media and the public, and stories can be tied to these opportunities (see attached document for a list of these important days).

Unexpected events, such as disasters or crises, offer excellent opportunities for reporting and writing feature stories with in-depth analyses of related issues. The challenge is to go beyond what is visible on the surface, because every event has an immediate cause and an underlying cause. The immediate cause is the most visible and obvious link. Reporters must reveal what lies beneath, because more often than not the underlying causes are more important. Exploring and exposing the underlying causes makes for good journalism, by adding new information, new insights and new understandings. For example:

- A big coastal storm can be used to explore the status of mangrove destruction in the region and its relationship with the severity of the storm and losses experienced by the community;
- A flash flood in a mountainous region could be linked to the larger issue of deforestation in catchment forests;
- A threat of extinction of a charismatic animal species can be investigated for its relationship with and impact on other related species. (For an excellent recent example between the possible relationship between whales and barnacles, see http://www.scienceline. org/2010/03/22/how-do-barnaclesattach-to-whales/);
- A failed crop could be an opportunity to explore the underlying causes of crop failures, such as pollinators being wiped out by pesticide use, or pest infestation resulting from pest predators being killed by excessive pesticide use; (http://scholar.google. co.in/scholar?q=pollinator+and+cr op+failure&hl=en&as_sdt=o&as_ vis=1&oi=scholart);
- The disappearance of a traditional practice, like natural dyeing or toymaking, could on the surface be due to the high price of the product, the



River transportation in the South Atlantic Autonomous Region, Nicaragua.

GERMÁN MIRANDA/IPS

absence of a market for them, or even the practice being abandoned by the community. But the underlying reason could also be the impossibility of accessing the raw material on account of an extinction or the strict implementation of conservation laws;

- Deaths in an earthquake could be investigated to report on the nature and quality of construction used in housing in the region.
- 3. Human interest stories: One of the best known and established genres in journalism is the human interest story, where journalists go behind the scenes to look at the human element of an event, be it a disaster, a crisis or a successful initiative. Giving the story a 'human face' always makes it attractive to editors and readers.
- Success stories and positive initiatives:
 Pieces that deal with successes and positive initiatives are always welcomed and appreciated by editors and the reading public.

Sources of information and ideas

Journalism can gain a great deal from interactions with the academic world in matters related to the environment and biodiversity:

a. Natural sciences: The scientific community has played an important role in informing the world of the various aspects of biodiversity and its value. It has also been the primary source of information on the serious crisis faced by biodiversity today. The huge amount of research on biodiversity that is being conducted all over the globe provides excellent material

and ideas for stories, which journalists can and should use.

It would be important therefore to establish contacts with scientists and researchers in international, national and local research institutions.

The scientific community is generally more than willing to share information with interested and serious journalists, as this is the most effective mechanism for bringing research to a larger audience, including policymakers and those in positions of power. It should, however, be borne in mind that scientists are also often suspicious of journalists, as they feel the press too often tells a 'black or white' story and is not sufficiently interested in communicating the nuances of the issues involved.

The interaction between the media and the academic world can be mutually beneficial and useful. (Journalists, however, must apply the general principle of rigorous reporting and cross-checking in order to ensure that situations like the recent misreporting of the glacier melt in the Himalayas is avoided.) http://ipsnews.net/news.asp?idnews=50103

b. Humanities and social sciences: There is also significant work being done in the humanities and social sciences, which could be connected in interesting ways to the work on the environment and biodiversity underway in the natural sciences. Issues of importance, like affluence, poverty, social equity, gender, migration and conflict, among others, have direct and indirect links with environmental matters.

Examples of possible links include the following:

- How environmental causes of biodiversity loss (water scarcity, desertification, rising sea levels) are connected with large-scale migration from rural to urban areas;
- Access to or denial of resources and the resulting changes in power equations within communities, either challenging or reinforcing power hierarchies in societies;
- The impact of natural resource loss (crop and animal diversity, water, fuel wood, fodder, etc.) on women.



Children dipping in water courses of Hyderabad, Sindh province, Pakistan.

ZOFEEN EBRAHIM/IPS

c. Communities and non-governmental stakeholders: Indigenous, rural and agricultural communities, grassroots movements and local NGOs are at the forefront of unfolding developments -be it climate change, biodiversity loss, falling agricultural production or an impending water crisis. Poor, rural and indigenous communities are facing the impact of the changes and at the same time responding and adapting in different ways to deal with the situation. Theirs is the first interface with the situation on the ground, and therefore it is vital that it be understood. These could be contexts and pegs for major stories.

Some ideas on the linkages between climate change, biodiversity and human welfare

 a. The impact of climate change on the Sundarbans mangrove forests in India and Bangladesh: Implications for agriculture, wildlife and human communities.

- Rising sea levels are reported to be significantly and visibly impacting the islands of the Sundarbans Delta in Bangladesh and India, South Asia. http://ipsnews.net/news. asp?idnews=38o35
- Changing climate patterns and the rise in sea level is also reported to have increased the impact of natural events like Cyclone Aila, which hit the Sundarbans in May 2009, killing thousands of people, destroying billions of dollars worth of property, and submerging and salinising thousands of hectares of agricultural lands, leaving them unproductive;
- Loss of land, agricultural fields and crop production is forcing human communities to move, increasing pressure in already inhabited areas in the Sundarbans and other parts of the country. The economic and social costs of these forced migrations is huge;
- The situation is also believed to be forcing many Bangladesh nationals to illegally migrate to neighbouring Indian states.
 The presence of illegal Bangladeshi immigrants in India has become a huge political issue and also a source of conflict between Bangladesh and India;
- It has also been suggested (though definitive evidence is still unavailable) that the land and forest loss is forcing wild animals, such as tigers, to move into human settlements, leading to problems and loss of both human lives and tigers. http://ipsnews.net/news. asp?idnews=39746.

The above idea illustrates the links between biodiversity, climate change, agricultural production, food security, human migration, human-animal conflicts, inter and intracommunity relationships and conflicts, and even international relations.

Similar situations and scenarios are bound to exist across ecosystems, regions, countries and international boundaries.

b. Climate change and changes in biodiversity.
 There are a number of research projects
 and initiatives seeking to investigate and
 understand the specific links between



Coca crops in the mountains of Los Yungas, Bolivia.

DIANA CARIBONI/IPS

climate change and plant and animal species. This information can be used as a forewarning of changes to come and at the same time as evidence of changes that are already in motion.

A very interesting dimension of these studies is that of citizen science, where the scientific community is collaborating with common citizens to document and investigate the influence of climate change on patterns in nature. These can provide very exciting examples of subjects for journalists to report on. Examples include:

- Christmas Bird Count a census of birds in the Western Hemisphere. (http://www.audubon.org/bird/cbc/);
- World Water Monitoring Day. (http:// www.worldwatermonitoringday.org/ index.html);

- Community Collaborative Rain, Hail and Snow network in the USA. (http:// www.cocorahs.org/);
- Project BudBurst, USA a project for collecting important climate change data based on the plant leafing and flowering times. (http://www. windows.ucar.edu/citizen_science/ budburst/);
- Earthdive: A worldwide project for studying the state of the oceans, involving marine biologists, divers and snorkellers. (http://www. earthdive.com);
- Migrantwatch: A programme in South Asia for documenting the arrival and departure of migratory birds. (http://www.migrantwatch.in).

Some basic journalism principles to keep in mind

- a. Objectivity and rigour are core tenets of good journalism. One of the best ways of ensuring the greatest objectivity and rigour possible is by giving voice to all the stakeholders involved in the issue reported. Stories and information should be checked with multiple sources. Being well-informed is the best method for guaranteeing quality and avoiding bias and incorrect reporting.
- b. It is also important to keep in mind that in the real world there is no such thing as 'absolute' objectivity or neutrality. A journalist has to make a choice always and exercises individual judgement as to the choice of subject to write about, the choice of interviewee, the choice of quotes to use, the choice of the focus of the article, etc. This is unavoidable, but it is important to be 'self-aware' and conscious of the implications of the choices made.
- c. In every issue there is always a range of stakeholders involved: politicians, bureaucrats, academics, the corporate world, the media, local communities, even biodiversity itself can be considered a stakeholder.

It is important to bear in mind that there are always certain stakeholders that are more privileged than others, depending on the general context and on more specific details. These privileges may be education, access to money and resources, proximity to power, access to the media, fluency in a particular language, gender, social class, etc.

Special efforts should be made to ensure that the more marginalised stakeholders are given a space and a voice in the stories. Journalist must strive to be objective with regard to heeding the voices of all stakeholders.

d. A clear distinction must be made between news and information, on the one hand, and opinion, on the other, particularly the journalist's own opinion. The job of a journalist should be to report information and, if relevant, provide the opinions of the stakeholders involved. Personal opinion is best avoided in reporting, and its rightful space is in the editorial and opinion pages of publications.

Calendar of Events for May 2010—January 2011

MAY

o1-31 MAY – SHANGHAI, CHINA: Shanghai World Exposition.

o3-o7 MAY – PARIS, FRANCE: Global Oceans Forum.

o5-o8 MAY – CHANIA, CRETE, GREECE: Conservation and Sustainable Use of Wild Plant Diversity (CSUWPD2010).

10-21 MAY – NAIROBI, KENYA: Fourteenth Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, Convention on Biological Diversity (CBD - SBSTTA/14).

13-28 MAY – NAIROBI, KENYA: International Year of Biodiversity (IYB) Celebrations at SBSTTA/14 and WGRI/3.

24-28 MAY – NAIROBI, KENYA: Third Meeting of the Working Group on Review of Implementation, Convention on Biological Diversity (CBD – WGRI/3)

19-21 MAY – NAIROBI, KENYA: Ecological Conference. Climate Change and Natural Resource Use in Eastern Africa: Impacts, adaptation and mitigation.

21-22 MAY – NEW YORK, US: IYB Celebrations at the Permanent Forum for Indigenous Issues.

23 MAY - VENUE TO BE CONFIRMED: Meeting of the Bureau of the Conference of the Parties to the Convention on Biological Diversity.

19-23 MAY – ROME, ITALY: La Settimana della Biodiversità, Bioversity International.

JUNE

30 MAY-25 JUN – AGADIR, MOROCCO: Sixty-second Annual and Associated Meetings of the International Whaling Commission.

o2-o4 JUN – BRAGA, PORTUGAL: European Consortium for the Barcode of Life (ECBOL2).

o3-o5 JUN – SRINAGAR, KASHMIR, INDIA: International Conference on Wildlife and Biodiversity Conservation vis-à-vis Climate Change.

o7-o8 JUN – POKHARA, NEPAL: International Conference on Forest-People Interaction.

13-18 JUN – MONTPELLIER, FRANCE: Fifth International Symposium-Workshop on Frugivores and Seed Dispersal.

28 JUN-02 JUL – EDINBURGH, SCOTLAND, UK: 18th Commonwealth Forestry Conference. Restoring the Commonwealth's Forests: Tackling Climate Change.

JULY

JUL – NEW YORK, US (TENTATIVE):
IYB Celebrations at the
High-Level Segment of the
United Nations Economic and
Social Council (ECOSOC).

21-24 JUL – QUITO, ECUADOR: International Conference on Biodiversity Conservation in Transboundary Tropical Forests (International Tropical Timber Organisation).

19 JUL – BALI, INDONESIA: 2010 International meeting of the Association for Tropical Biology and Conservation (ATBC).

19-23 JUL – MONTREAL, CANADA: UNESCO International Congress on Biological and Cultural Diversity.

AUGUST

19-20 AUG – VALMIERA, LATVIA: Solutions on Harmonising Sustainability and Nature Protection with Socio-Economic Stability.

23-28 AUG – SEOUL, KOREA: 23rd World Congress of the International Union of Forest Research Organizations: IUFRO 2010 - Forests for Future: Sustaining Society and the Environment.

SEPTEMBER

o8-o9 SEP — GENT, BELGIUM: Biodiversity EU-Presidency Event 2010.

20 SEP – NEW YORK, US: UN General Assembly High-Level Segment on Biodiversity, with the participation of Heads of State.

20-24 SEP – BERGEN, NORWAY: OSPAR Commission / Ministerial Meeting 2010, Convention for the Protection of the Marine Environment of the North-East Atlantic.

26-30 SEP – PERTH, SCOTLAND, UK: Global Change and the World's Mountains.

OCTOBER

11-15 OCT – NAGOYA, JAPAN: Fifth Meeting of the Conference of the Parties to the Convention on Biological Diversity Serving as the Meeting of the Parties to the Cartagena Protocol on Biosafety (COP-MOP 5).

18-29 OCT – NAGOYA, JAPAN: Tenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 10).

18-29 OCT – NAGOYA, JAPAN: Side events at the margins of the Tenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 10).

27-29 OCT – NAGOYA, JAPAN: High-Level Ministerial Segment at the Tenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 10).

DECEMBER

11-12 DEC – KANAZAWA, JAPAN: Closing of IYB and Launching of the International Year of Forests.

21-22 DEC – MONTREAL, CANADA: Media Meeting - Keeping the 2010 IYB Momentum Alive.













Dates of importance

FEBRUARY

o2: World Wetlands Day

MARCH

14: International Day of Action for Rivers

20: World House Sparrow Day

21: World Forestry Day22: World Water Day

23: World Meteorological Day

APRIL

o7: World Health Day

18: World Heritage Day

22: World Earth Day

MAY

o3: International Migratory Bird

22: International Day for Biological diversity

23: World Turtle Day

31: Anti Tobacco Day

JUNE

o5: World Environment Day

o8:World Oceans Day

17: World Day to Combat Desertification and Drought

JULY

11: World Population Day

AUGUST

og:International Day of the World's Indigenous People

SEPTEMBER

16: World Ozone Day

21: Zero Emissions Day

22: Car Free Day

28: Green Consumer Day

OCTOBER

1-7: World Wildlife Week

04: World Animal Welfare Day

1st Monday of October: World Habitat Day

Natural Disaster Reduction

2nd Wednesday of October: International Day for

16: World Food Day

NOVEMBER

o6:International Day for
Preventing the Exploitation
of the Environment in War
and Armed Conflict

DECEMBER

o5: World Soil Day

11: International Mountain Day

List of International Conventions, Treaties and Agreements

INTERNATIONAL

BIODIVERSITY

Convention on Biological Diversity (CBD), Nairobi, 1992.

www.cbd.int/

Cartagena Protocol on Biosafety.

The Cartagena Protocol on Biosafety is an international agreement on biosafety, as a supplement to the Convention on Biological Diversity.

www.cbd.int/biosafety/

International Treaty on Plant Genetic Resources for Food and Agriculture.

This treaty, which is popularly known as the International Seed Treaty, is a comprehensive international agreement in harmony with the Convention on Biological Diversity, which aims to guarantee food security through the conservation, exchange and sustainable use of the world's plant genetic resources for food and agriculture, as well as the fair and equitable sharing of the benefits arising from its use. It also recognises the rights of farmers to freely access genetic resources, unrestricted by intellectual property rights, to be involved in relevant policy discussions and decision making, and to use, save, sell and exchange seeds, subject to national laws.

www.planttreaty.org/

WILDLIFE

CITES 1973.

Convention on the International Trade in Endangered Species of Wild Flora and Fauna. http://www.cites.org/

China-Australia Migratory Bird Agreement.

The China-Australia Migratory Bird Agreement is a treaty between Australia and China aimed at minimising the harm caused to major areas used by birds that migrate between the two countries. www.austlii.edu.au/au/other/dfat/treaties/1988/22.html

Convention on the Conservation of Migratory Species of Wild Animals (CMS), Bonn, 1979. The convention (also known as CMS or Bonn Convention) aims to conserve terrestrial, marine and avian migratory species throughout their range. It is an intergovernmental treaty, concluded under the aegis of the United Nations Environment Programme, concerned with the conservation of wildlife and habitats on a global scale.

www.cms.int/

International Convention for the Regulation of Whaling (ICRW), Washington, 1946.

The convention seeks to provide for the proper conservation of whale stocks, thus making possible the orderly development of the whaling industry. It governs the commercial, scientific and aboriginal subsistence of the whaling practices of fifty-nine member nations.

www.iwcoffice.org/commission/convention.htm

HABITAT RELATED

Convention on Wetlands of International Importance especially as Waterfowl Habitat, Ramsar. The Ramsar Convention, as it is popularly known, is an international treaty that provides the framework for national action and international cooperation for the conservation and sustainable utilisation of wetlands, towards stemming the progressive encroachment on and loss of wetlands, recognising the fundamental ecological functions of wetlands and their economic, cultural, scientific and recreational value. It is named after the Iranian city of Ramsar, where it was adopted.

www.ramsar.org/cda/en/ramsar-home/main/ramsar/1%5E7715_4000_0_

United Nations Convention to Combat Desertification (UNCCD), Paris, 1994.

The CCD seeks to combat desertification and mitigate the effects of drought through national action programmes that incorporate long-term strategies supported by international cooperation and partnership arrangements.

http://www.unccd.int/main.php

OCEANS/FISHERIES

United Nations Convention on the Law of the Sea (UNCLOS).

The United Nations Convention on the Law of the Sea, also called the Law of the Sea Convention or Treaty, is the international agreement that resulted from the Third United Nations Conference on the Law of the Sea, and defines the rights and responsibilities of nations in their use of the world's oceans, establishing guidelines for businesses, the environment, and management of marine natural resources.

www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm

Convention on Fishing and the Conservation of Living Resources of the High Seas, Geneva. This Convention is an agreement designed to solve through international cooperation the problems involved in the conservation of living resources of the high seas, considering that because of the development of modern technology some of these resources are in danger of being overexploited.

untreaty.un.org/ilc/texts/instruments/english/conventions/8_1_1958_fishing.pdf

Fisheries Convention, London, 1964

sedac.ciesin.columbia.edu/entri/texts/acrc/fish64.txt.html

Convention on the Continental Shelf, 1958

http://sedac.ciesin.columbia.edu/entri/texts/continental.shelf.1958.html

Convention on the Territorial Sea and the Contiguous Zone, 1958

http://sedac.cies in.columbia.edu/entri/texts/territorial.contiguous.zone.1958.html

London Convention and Protocol - Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter, 1972 and 1996.

Known as the "London Convention" or "LC '72" for short, it is one of the first global conventions to protect the marine environment from human activities. Its objective is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter.

http://www.imo.org/home.asp?topic_id=1488

International Convention for the Prevention of Pollution from Ships (MARPOL 73/78). Marpol 73/78 is one of the most important international marine environmental conventions. It was designed to minimize pollution of the seas, including dumping, oil and exhaust

pollution. Its stated object is to preserve the marine environment through the complete elimination of pollution by oil and other harmful substances and the minimization of accidental discharge of such substances.

http://www.imo.org/Conventions/mainframe.asp?topic_id=258&doc_id=678

CLIMATE CHANGE

United Nations Framework Convention on Climate Change (UNFCCC), New York, 1992. UNFCCC is an international treaty signed by the majority of the world's countries over a decade ago with the aim of seeking solutions to reduce global warming and to cope with any inevitable temperature increases.

http://unfccc.int/286o.php

Kyoto Protocol - Greenhouse Gas Emission Reductions.

The Kyoto Protocol is an international and legally binding agreement to reduce greenhouse gas emissions (GHG) worldwide, which entered into force on February 16, 2005, in connection with UNFCCC, but containing more powerful measures. The major distinction between the Protocol and the Convention is that while the Convention encouraged industrialised countries to stabilize GHG emissions, the Protocol commits them to do so.

unfccc.int/resource/docs/convkp/kpeng.html

Asia-Pacific Partnership on Clean Development and Climate.

The Asia-Pacific Partnership on Clean Development and Climate, also known as APP, is an international non-treaty agreement between Australia, Canada, India, Japan, the People's Republic of China, South Korea and the United States for cooperation on development and transfer of technology to enable reduction of greenhouse gas emissions, which is consistent with and complementary to the UN Framework Convention on Climate Change and the Kyoto Protocol.

www.asiapacificpartnership.org/

HAZARDOUS MATERIALS

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Rotterdam, 1998.

This is a multilateral treaty to promote shared responsibilities in relation to hazardous chemical imports. The convention promotes open exchange of information and calls on exporters of hazardous chemicals to use proper labelling, include directions on safe handling, and inform purchasers of any known restrictions or bans.

http://www.pic.int/en/ConventionText/RC%2otext_2008_E.pdf

Stockholm Convention on Persistent Organic Pollutants Stockholm, 2001.

The Stockholm Convention on Persistent Organic Pollutants is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically and accumulate in the fatty tissue of humans and wildlife.

http://chm.pops.int/

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Basel, 1989.

The Basel Convention is the most comprehensive global environmental agreement on hazardous and other wastes, and aims to protect human health and the environment against the adverse effects resulting from the generation, management, transboundary movements and disposal of such wastes.

http://www.basel.int/

Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985

http://www.unep.ch/ozone/Publications/VC_Handbook/VC-Handbook-2009.pdf

Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 1989

http://ozone.unep.org/Publications/MP_Handbook/Section_1.1_The_Montreal_Protocol

OTHER INTERNATIONAL TREATIES

Convention Concerning the Protection of the World Cultural and Natural Heritage, Geneva, 1972 http://whc.unesco.org/archive/convention-en.pdf

Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD), 1976.

The ENMOD Convention, adopted by the UN General Assembly in 1976, prohibits using the environment as a weapon in conflicts.

http://www.un-documents.net/enmod.htm

Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 1991. The Convention obliges States that have agreed to be bound by the Convention to carry out an environmental impact assessment of certain activities at an early stage of planning. It also establishes the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries.

http://www.unece.org/env/eia/

International Tropical Timber Agreement, Geneva 1994.

The objective of this agreement is to promote the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests and to promote the sustainable management of tropical timber producing forests.

http://www.itto.int/en/itta/

Convention on Long-Range Transboundary Air Pollution.

The aim of the Convention is that Parties shall endeavour to limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution. Since 1979 the Convention has addressed some of the major environmental problems of the region of the United Nations Economic Commission for Europe, through scientific collaboration and policy negotiation.

http://www.unece.org/env/lrtap/

Aarhus Convention, 1998

The subject of the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, or Aarhus Convention, is not only an environmental agreement, it is also a Convention about government accountability, transparency and responsiveness, and goes to the heart of the relationship between people and governments.

http://www.unece.org/env/pp/

REGIONAL

CARIBBEAN

Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Cartagena de Indias, 1983

http://eelink.net/~asilwildlife/carri marine.html

Protocol Concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region, 1983 www.sedac.ciesin.columbia.edu/entri/texts/acrc/Caribbprot.txt.html

AFRICA

African Convention on the Conservation of Nature and Natural Resources, 1968

 $http://www.africa-union.org/root/au/Documents/Treaties/Text/Convention_Nature \% 20 \& \% 20 Natural_Resources. \\ pdf$

Agreement for the Establishment of a Commission for Controlling the Desert Locust in the Eastern Region of its Distribution Area in South-West Asia (as amended), 1963

http://sedac.ciesin.columbia.edu/entri/texts/desert.locust.south.west.asia.1963.html

Agreement for the Establishment of a Commission for Controlling the Desert Locust in North-West Africa (as amended), 1970

http://sedac.ciesin.columbia.edu/entri/texts/desert.locust.south.west.asia.1963.html

Phytosanitary Convention for Africa, 1967

 $http://www.africa-union.org/root/au/Documents/Treaties/Text/Phyto_Sanitary\%2oConvention_for_Africa.pdf$

Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, 1985

http://www.unep.ch/regionalseas/main/eaf/eafconv.html

Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region, 1981

http://www.unep.org/Abidjan Convention/docs/Abidjan % 20 Convention % 20 English.pdf

Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, 1991

http://sedac.ciesin.org/entri/texts/acrc/bamako.txt.html

Convention of the African Migratory Locust Organization, 1962

http://fletcher.tufts.edu/multi/texts/tre-o320.txt

AMAZON

Treaty for Amazonian Cooperation, 1978

http://sedac.ciesin.columbia.edu/entri/texts/amazonian.cooperation.1978.html

Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources, 1980

http://sedac.ciesin.columbia.edu/entri/texts/acrc/mlandp.txt.html

Protocol on Protection of the Black Sea Marine Environment Against Pollution from Land Based Sources, 1992

http://sedac.ciesin.columbia.edu/entri/texts/acrc/BlackSeaLBP.txt.html

Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment, 1982

http://sedac.ciesin.org/entri/texts/red.sea.gulf.of.aden.1982.html

ANTARCTIC

The Antarctic Treaty, 1961

http://www.nsf.gov/od/opp/antarct/anttrty.jsp

Convention for the Conservation of Antarctic Seals, 1972

http://sedac.ciesin.columbia.edu/entri/texts/antarctic.seals.1972.html

Protocol on Environmental Protection to the Antarctic Treaty, 1991

The Protocol on Environmental Protection to the Antarctic Treaty, also known as the Antarctic-Environmental Protocol, is part of the Antarctic Treaty System. It provides for comprehensive protection of the Antarctic environment and dependent and associated ecosystems.

http://www.antarctica.ac.uk/about antarctica/geopolitical/treaty/update 1991.php

Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), Canberra, 1980 The Convention for the Conservation of Antarctic Marine Living Resources is part of the Antarctic Treaty System. The Convention is implemented by the Commission for the Conservation of Antarctic Marine Living Resources, headquartered in Tasmania, Australia.

http://www.nsf.gov/od/opp/antarct/anttrty.jsp

ASIA

Protocol to the Kuwait Regional Convention for the Protection of the Marine Environment Against Pollution from Land-Based Sources, 1990

http://sedac.ciesin.columbia.edu/entri/texts/acrc/kuwaitprot.txt.html

ASIA PACIFIC

Plant Protection Agreement for the South-East Asia and Pacific Region (as amended), 1956

http://sedac.cies in.columbia.edu/entri/texts/plant.protection.south-east.asia.pacific.1956.html

ASEAN

ASEAN Agreement on the Conservation of Nature and Natural Resources, 1985

http://sedac.cies in.columbia.edu/entri/texts/asean.natural.resources. 1985. html

ASEAN Agreement on Transboundary Haze Pollution

The ASEAN Agreement on Transboundary Haze Pollution is an environmental agreement signed in 2002 between all ASEAN nations to reduce haze pollution in Southeast Asia

http://www.aseansec.org/

http://haze.asean.org/

ATLANTIC

Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 1992. The Convention for the Protection of the Marine Environment of the North-East Atlantic, or OSPAR Convention, is the current legislative instrument regulating international cooperation on environmental protection in the North-East Atlantic.

http://www.ospar.org/

Cooperation Agreement for the Protection of the Coasts and Waters of the North-East Atlantic against Pollution, 1990

http://sedac.ciesin.columbia.edu/entri/texts/protect.coasts.waters.go.html

Convention for the Conservation of Salmon in the North Atlantic Ocean, 1982

http://sedac.ciesin.columbia.edu/entri/texts/salmon.north.atlantic.1982.html

Agreement on Cooperation in Research, Conservation and Management of Marine Mammals in the North Atlantic, 1990

http://sedac.ciesin.columbia.edu/entri/texts/NAMMCO.html

EUROPEAN

Convention on the Conservation of European Wildlife and Natural Habitats (or Berne Convention) 1979

http://conventions.coe.int/treaty/en/Treaties/Html/104.htm

Bonn Agreement

Following several oil spills in 1969, the coastal nations of the North Sea signed the Bonn Agreement to ensure mutual cooperation in the avoidance and combating of environmental pollution. The agreement was revised in 1983 to include the European Union.

http://www.bonnagreement.org/eng/html/welcome.html

Convention on the Protection and Sustainable Development of the Carpathians

The Carpathian Convention provides the framework for cooperation and multi-sectoral policy coordination, a platform for joint strategies for sustainable development, and a forum for dialogue between all stakeholders involved.

http://www.carpathianconvention.org/index.htm

Convention for the Protection and Development of the Marine Environment and Coastal Region of the Mediterranean Sea (Barcelona Convention), 1976

The Barcelona Convention of 1976, amended in 1995, and the Protocols drawn up in line with this Convention aim to reduce pollution in the Mediterranean Sea and protect and improve the marine environment in the area, thereby contributing to its sustainable development.

 $http://europa.eu/legislation_summaries/environment/water_protection_management/l28084_en.htm$

INDIAN OCEAN

Agreement on the Organization for Indian Ocean Marine Affairs Cooperation, 1990

www.sedac.ciesin.columbia.edu/entri/texts/acrc/IndianO.txt.html

NORTH AMERICA

North American Agreement on Environmental Cooperation

This is an environmental agreement between the United States of America, Canada and Mexico that came into effect on January 1, 1994 as a side-treaty of the North American Free Trade Agreement.

http://www.cec.org

Western Regional Climate Action Initiative

WCI is an initiative, started by states and provinces along the western rim of North America, to combat climate change caused by global warming, independent of their national governments.

http://www.westernclimateinitiative.org/

PACIFIC

Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, 2000

http://sedac.ciesin.columbia.edu/entri/texts/fish.west.cent.pac.2000.html

Interim Convention on Conservation of North Pacific Fur Seals, 1957

http://sedac.ciesin.columbia.edu/entri/texts/acrc/1957FS.txt.html

Convention for a North Pacific Marine Science Organisation (PICES), 1990

http://sedac.ciesin.columbia.edu/entri/texts/acrc/PICES.txt.html

Agreement Establishing the South Pacific Regional Environment Programme (SPREP), 1993

http://sedac.ciesin.columbia.edu/entri/texts/acrc/SPEnviro.txt.html

Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, 2000

http://sedac.ciesin.columbia.edu/entri/texts/fish.west.cent.pac.2000.html

Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, Nouméa, 1986

http://sedac.cies in.columbia.edu/entri/texts/natural.resources.south.pacific.1986.html

Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region, 1992

http://sedac.cies in.columbia.edu/entri/texts/acrc/Niue.txt.html