

# Satoyama 4



Convention on  
Biological Diversity

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**Ahmed Djoghlaif**, *United Nations Assistant Secretary General; Executive Secretary, Convention on Biological Diversity*

# Fulfilling our promise to our children, and to all the children of the world

**T**wenty years ago, at the United Nations Conference on Environment and Development—the “Earth Summit”, held in June 1992 in Rio de Janeiro, the United Nations Convention on Biological Diversity (CBD) was opened for signature. It represented the strong commitment of the international community at the highest political level to save the diversity of life and build the foundations for sustainable development.

Ten years ago, in 2002, the World Summit on Sustainable Development was convened in Johannesburg to review progress made and to map out a way ahead towards achieving the goal of sustainable development. In both the WEHAB concept and in the 2010 Biodiversity Target, biodiversity was recognised as one of the key

to the sustainable development question. The Convention on Biological Diversity is one of the main pillars of our future.

Of the 500 or so environmental conventions, the CBD is a unique multilateral environment treaty at the service of the sustainable development agenda. It is first of all, a Rio Convention, thus incorporating the principles of the Rio Declaration into a legally binding instrument. It has three mutually supportive objectives, namely conservation of biological diversity, the sustainable use of biological diversity, and the access to genetic resources and the fair and equitable sharing of the benefit arising for their utilisation. It promotes the ecosystem approach to protecting life on Earth and puts the well-being of mankind at the heart of its

well-defined, universally-accepted targets that are now accepted as the basis for policies that protect biodiversity at local, national and global levels. With its Cartagena Protocol on Biosafety, its Kuala Lumpur Nagoya Supplementary Protocol on Liability and Redress, as well as the Nagoya Protocol on Access and Benefit-Sharing, it now has the tools needed to realise its three mutually supportive objectives while contributing to the successful implementation of the two other Rio Conventions, namely the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification.

Achieving the Aichi Targets by 2020 is an obligatory first step if we are to fulfill the longer-term 2050 vision adopted

*Achieving the Aichi Targets by 2020 is an obligatory first step if we are to fulfill the longer-term 2050 vision adopted in Nagoya of a world where ‘biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.’*



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elements for sustainable development, with the full implementation of the CBD being seen as a *sine qua non* of realisation of this future vision.

In June 2012 world leaders will once again assemble in Rio de Janeiro at the “Rio+20” meeting to look at the global institutional order that underpins sustainable development, and to look at the foundations of the Green Economy. Biodiversity represents the natural capital upon which the green economy is built. The Convention, as one of the legacies of the 1992 Earth Summit, is one of the institutional responses

processes. It has 193 Parties and has succeeded in forging a strategic partnership with all major stakeholders including local authorities, mayors, parliamentarians, business, indigenous people, non-governmental organizations, youth, and the scientific community.

Indeed, this Convention, also known as the Convention for Life on Earth, has come a long way since its inception in 1992. It has come from being an idea with the promise of protecting biodiversity and contributing to sustainable development, to a well-developed legal instrument, with

in Nagoya of a world where “biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.”

Achieving the 20 Aichi Targets calls for their urgent integration at national and local levels through the revision of National Biodiversity Strategies and Action Plans. Thanks to the leadership of Japan, the Secretariat in 2011 organized, through the Japan Biodiversity Fund, 12 regional and sub-regional workshops and assisted 175 Parties to translate the Aichi

Targets into national biodiversity frameworks. The challenge facing the biodiversity family is to ensure the successful implementation at national and local levels of the new generation of National Strategies and Action Plans.

Indeed, the Strategic Plan for Biodiversity for 2011–2020 is not just the concern of the Parties to the Convention. It is the foundation of all protection of the natural capital of our world. It is the basis for models of development that respect and protect the

diversity of life on this planet and recognise the intimate relationship between human communities and the ecosystems in which they live and thrive. It is one of our tools in the struggle against the impacts of climate change. It is a unique agreed biodiversity framework to ensure that our children will continue to benefit from the goods and services provided by nature. It is the commitment of the present generation to future generations. Therefore the Aichi Biodiversity Targets cannot be missed

and need to be successfully implemented by all Parties and their partners as soon as possible, and no later than 2020.

As world leaders gather in Rio de Janeiro to re-design a new road map to achieving sustainable development, I call upon all members of the big biodiversity family to take urgent action at all levels to ensure the successful implementation of the Nagoya Biodiversity Compact. Indeed biodiversity is life, and biodiversity is our life... and the life of our children. ✨



**Ban Ki-moon**, *Secretary-General, United Nations*

## Message for *Satoyama* magazine on the Convention on Biological Diversity

**T**wenty years ago, in Rio de Janeiro, the world made a commitment to a sustainable future. Nations agreed that our future and the future of our children rested on actions and commitments that would sustain the variety and biological richness of our world, upon which all life depends. They marked their promise with the adoption of the United Nations Convention on Biological Diversity, which now also includes protocols on biosafety and on access and benefit-sharing.

Over the years, the principles and goals of these three global instruments have become integrated into national policies, the work of the development community and, increasingly, in the minds of citizens everywhere. Yet we also face tremendous economic, environmental and social challenges, including the growing impacts of climate change. It is time to take stock of where we are and where we are going.

To date, the 193 Parties to the Convention on Biological Diversity, along with their partners and stakeholders, have undertaken wide-ranging efforts to ensure the conservation and sustainable use of biodiversity, and the fair and equitable sharing of the benefits from the use of the planet’s genetic resources. This work has brought biodiversity into

the heart of economic and social development, and has begun to change the relationship between human societies and the environments in which they live.

The world now has a global system of protected areas that covers close to 13 per cent of Earth’s terrestrial area. We now understand the economic value of biodiversity in providing the goods and services that make our civilization possible. We are doing more to acknowledge the important role played by traditional knowledge held by indigenous and local communities. The new Nagoya Protocol on Access and Benefit Sharing is a welcome example of the world readiness to integrate equity into the development process.

But we also have to be honest and acknowledge the shortcomings. The pressures on biodiversity from conventional approaches to economic growth are increasing. A growing global population has resulted in tremendous stress on species and ecosystems. The extinction rate is the highest in human history, and can even be compared with the great extinctions of early history. Some of the grandest ecosystems of the planet—such as the Amazon rainforest, coral reefs, and lake and river systems—are under such

strain that they could reach tipping points beyond which they may not recover.

The troubling reality is that our responses are still not commensurate with what scientists, economists and people on the frontlines are telling us about the state of biodiversity. We need heightened efforts to ensure universal ratification of the Convention and its two protocols. We must set aside more protected areas, in particular the oceans and marine environments; continue pressing for climate change mitigation and adaptation; and provide the necessary financing for conservation and other activities aimed at implementing the Convention. We must also make the most of the crucially important UN Conference on Sustainable Development, which offers a major opportunity to steer the world towards a greener, more sustainable and more equitable path—a path that protects the world’s biodiversity.

Business as usual has not been an option for a long time. As the Convention marks its 20<sup>th</sup> anniversary and the world reunites in Rio, my hope is that the famous “spirit of Rio” will inspire us to change course, keep our promises and achieve the goals that will ensure our shared survival and well-being. ✨





## Biodiversity and the Road to Rio+20

**T**wenty years ago, the 1992 Earth Summit in Brazil set the course for contemporary sustainable development including the establishment of three landmark treaties on climate, desertification and biodiversity.

The Convention on Biological Diversity (CBD) was agreed in response to growing concerns that the natural and nature-based resources underpinning all life on Earth were disappearing at an alarming rate and that the sharing of these resources was neither fair nor equitable.

Twenty years on—as governments prepare for Rio+20 to review, reshape and re-engage on the future trajectory of sustainable development—the challenge of more intelligently managing the world’s biological diversity has become even more urgent than it was two decades ago.

Assessment after assessment underlines that without a serious change in course species are likely to be lost at escalating rates and ecosystems—from forests to coral reefs and their vital services—pushed beyond irreversible boundaries or tipping points.

Yet in the run up to the last meeting of the CBD in Nagoya, Japan it became clear that the 2010 target to significantly reverse the rate of biodiversity loss, affirmed eight years before, would not be met.

But the global numbers and trends often mask real progress among many countries and communities to meet the aims and aspirations of the convention and indeed the many other targets and timetables of the wider spectrum of multilateral environment agreements.

Whether it be the establishment of marine protected areas in the Cook Islands or the Bahamas; the reduced deforestation rates in Brazil and the restoration of the Mau forest complex in Kenya, positive action is happening.

There is also a new spirit perhaps inspired by a new realism—in part triggered by the ongoing economic and financial crisis—that in a world of seven billion,



*Rio+20 represents an opportunity to put in place the policies that can assist nations meet the targets and timetables agreed in Nagoya.*

rising to over nine billion people by 2050 the way in which economies manage or mismanage their natural resources will in large part define their prosperity in a resource constrained world.

This is one reason why the new set of targets and timetables, agreed as part of the Strategic Plan for biodiversity in Nagoya in 2010 may indeed be realized.

That optimism is also buoyed by the fact that after some two decades of sometimes fractious negotiations, governments also agreed on the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from Biodiversity and the rate of ratification since has been formidable.

There are other encouraging signs and signals as Rio+20 approaches under the twin themes of a Green Economy in the context of sustainable development and poverty eradication and an institutional framework for sustainable development.

Both the global and regional preparations and submissions by nations to the

conference indicate near universal support for a transition to a low carbon, resource efficient Green Economy.

Meanwhile, there is now real and growing engagement on how the organizational structure and architecture needed to deliver that economy might be reformed and evolved.

Rio 1992 and the establishment of the CBD was a landmark decision: the Convention has played a crucial role in focusing attention on one of the great challenges facing humanity while catalyzing positive action both politically and practically.

Rio+20 represents an opportunity to put in place the policies that can assist nations meet the targets and timetables agreed in Nagoya.

It also represents an opportunity to scale-up and to accelerate the transformations towards a Green Economy already underway and an opportunity for a new generation of world leaders to fulfill the aims and ambitions of a previous one. ♣



**Yoshihiko Noda**, Prime Minister of Japan

# Protect the web of life to ensure our future

The year 2012 marks the 20th anniversary of the adoption and opening for the signature of the Convention on Biological Diversity (CBD). At this opportunity, it is a tremendous honor for me to be able to extend this message as the COP 10 Presidency.

The loss of biodiversity is one of the greatest environmental issues the international community is facing today. Our earth is made up of a web of numerous life forms, of which humanity is a part. Throughout its long history, mankind has survived through receiving various benefits from nature, such as food, water resources, timber, and medication. Biodiversity truly is the foundation of our livelihoods.

However, with the world's growing human population and the expansion of human activities including development, we destroyed the ecosystems and accelerated the extinction of many species, which has driven us into the situation in which we are unable to receive the benefit from nature.

Spurred by this sense of crisis, the CBD was born out of the "United Nations Conference on Environment and Development" (Earth Summit) held in Rio de Janeiro in June 1992. Today, twenty years later, the Convention has been joined by nearly all the world's nations, and developed into one of the largest-scale environmental agreements. The CBD demonstrated substantial achievements by providing guidance to the key issues confronting biodiversity and promoting international cooperation.

On the other hand, over the twenty years since the Convention was adopted, the loss of global biodiversity has proceeded at an unprecedented pace. If it continues at the current rate, the situation will become irreversible for future generations. Now is the time to take urgent actions to halt the loss of biodiversity and restore ecosystems.

Under the theme "Life in Harmony, into the Future," the 10th meeting of the

Conference of the Parties to the Convention on Biological Diversity (COP 10) was held in Nagoya City, Aichi Prefecture, in October 2010. Thanks to the efforts and cooperation of all the participants, historic achievement was made.

One of the major achievements at COP 10 was the adoption of the new global targets on biodiversity, the Aichi Biodiversity Targets. These targets clearly set out what actions the international community should take over the coming 10 years. Another achievement was the agreement of the Nagoya Protocol on access and benefit-sharing of genetic resources, which had been the issue unsettled since the time the Convention was drawn up.

At COP 10, the long-term vision to create a world "living in harmony with nature" was adopted. Human beings have accumulated wealth upon benefits from nature. To realize sustainable development, it will be essential to maintain rich biodiversity for optimizing the ecosystem services.

To coincide with the 20th anniversary of the "Earth Summit" where biodiversity was discussed for the first time at the summit level, the year 2012 marks an important year to reaffirm such recognition.

Furthermore, we will move one step closer to achieving the Aichi Biodiversity Targets at COP 11 to be held in the coming October.

Japan, based on the Aichi Targets, is preparing its new National Biodiversity and Action Plans for the conservation and restoration of the nation's natural environment. In addition, by collaborating with various stakeholders, we will advance our efforts to restore Satoyama, and thus to realize that, Crested Ibis and Oriental White Stork, now endangered but once-familiar birds fly in our skies again.

With a view to promote concrete actions by all relevant stakeholders in the international community, the United Nations Decade on Biodiversity was launched in 2011. Now more than ever, we should renew our commitments and take actions to tackle the loss of biodiversity.

Our earth is often referred to as a spaceship floating through the universe. By protecting the life on earth, we can not only ensure our own continued existence, but also protect our children's future. To hand over the beautiful earth to our children, together we can consolidate our wisdom and exert our utmost effort. ♡

*To realize sustainable development, it will be essential to maintain rich biodiversity for optimizing the ecosystem services.*



# Empowering the custodian of biodiversity through fairer global measures



As the world reflects and prepares for the Conference on Sustainable Development or Rio+20 which is scheduled to take place in Rio de Janeiro in June 2012, it is important for us all to have very clear expectations, which hopefully will translate into a greener world economy. For too long the reports published by the United Nations agencies and also from individual states and civil society, on the status of biodiversity, have been simply too depressing and alarming. So far the world has desperately failed to control the underlying forces which are the driving forces behind the unprecedented and unparalleled loss of biodiversity that we are witnessing today. While many governments across the globe are prepared to negotiate and agree to international targets and action plans, albeit with great difficulty and sacrifice, most of these remain unfortunately unmet and in many cases translate into missed opportunities. In October 2010, the Nagoya biodiversity summit adopted the 2011–2020 Biodiversity Plan or Aichi Targets aimed amongst others at halving and reducing the rate of loss of biodiversity of natural habitats including forests. The Aichi Targets provide us all with a very clear opportunity to change the self-destructive course of the world.

For this to happen, however, we will require strong individual and collective commitment and the engagement of world citizens at all levels of society. A global green movement or partnership of a magnitude never seen before with new and innovative thinking, and practices that cut across world trade, fisheries, agriculture, industry, energy and business. For too long unfair trade patterns and agreements have pushed governments, local producers and communities in developing

countries to adopt unsustainable production patterns and practices. Today, poverty and limited alternative livelihoods are two of the main anthropogenic driving forces behind the destruction of the natural environment in the developing world. Faced with the dire need to feed their families and meet other short term basic needs farmers, foresters and fishermen in the developing world have limited choices even when they know that their actions are destroying the very natural resources that they depend on to survive and prosper. In many instances they are forced to adopt unsustainable production and har-

*The cost of inaction today will be beyond our combined limited means tomorrow.*

vesting methodologies to obtain sufficient goods and amounts of money because they have to undersell their products at unfair prices. Recent reports indicate that 80% of the world's fisheries are fully or over-exploited, but countries with important fishing grounds, like Seychelles, find it difficult to curb fishery permits due to the socio-economic impact on the country. If, however, we were to earn a fairer share of the financial reward our tuna brings we would not hesitate to make the necessary change.

In addition to the Aichi Targets, Nagoya provided us with another golden agreement and opportunity in the form of the 'Nagoya Protocol on Access and Benefit-Sharing on Genetic Resources'. Such an agreement, if implemented effectively, should improve local capacity and political will to conserve biodiversity because, for the first time, part of the benefits accrued from the use of such natural resources will be channelled back to the communities

conserving these resources. For this to happen, however, there is a need for clear legal and administrative measures at both national and international levels to be in place. Amongst others these measures must also strongly facilitate the transfer of green technology and knowledge back to these communities. It is this kind of agreement that the world needs if it is to create more incentives and empower the custodians of biodiversity in the developing world to engage positively in the conservation and protection of life on earth as we know it today.

At the regional level, Seychelles has joined forces with the Global Island Partnership (GLISPA) to actively promote the Western Indian Ocean Coastal Challenge. This is in response to sea-level rise and climate change, which threaten the very existence of low-lying islands and coastal zones and their inhabitants and the biodiversity they rely on. Faced with such colossal threats there is an urgency for the peoples and governments of the sub-region to form partnerships. Together, a clear strategy and action plan should be developed and implemented to surmount challenges common to the region, which threaten human, food and water security, biodiversity and sustainable livelihoods. As co-chair I am committed to engage with other governments in the region, civil society and international agencies to drive this important initiative because the cost of inaction today will be beyond our combined limited means tomorrow.

We in Seychelles have long understood that the main two sectors of our economy, i.e. tourism and fisheries, are heavily dependent on the quality of our natural environment or our 'blue gold'. Although having limited capacity and resources we are successfully conserving and protecting the biodiversity within our jurisdiction.



Seychelles has already exceeded the Aichi Targets for terrestrial and inland waters with over 51% of its terrestrial area soon to be declared as protected area. Similarly we are currently undertaking consultative activities in an effort to extend our marine and coastal waters under legal protection. Today, through a

well established and comprehensive education and awareness programme our citizens are fully aware and participate in environment activities and events. During this Decade on Biodiversity, 2011–2020, we hope to strengthen such programmes further and continue to play a meaningful role in the preservation of biodiversity. As

a Small Island Developing State we are prepared to act as the conscience of the world and play an important role in halting and reversing the alarming destructive trend which is resulting into the sixth mass extinction of biodiversity on earth caused purely by the negative actions of humanity. ♡



**Lee Hong-koo**, *Chairman of the Korean Organizing Committee for the 2012 IUCN World Conservation Congress and former Prime Minister, Republic of Korea*

## Conservation of biodiversity, our challenge to ensure the future and happiness of humanity

**T**he year 2012 is expected to be a crucial year for the international efforts to halt the ongoing loss of biological diversity and to promote its sustainable use.

It marks the 20th anniversary of the adoption of the Convention on Biological Diversity (CBD), and the 11th Meeting of the Conference of the Parties to the CBD will be held in October in India.

The Rio+20 summit will also be held in 2012, which will evaluate the achievements in addressing various environmental challenges for humans and set our future goals and strategies to fully overcome the challenges.

In addition, the IUCN World Conservation Congress will also be held in September 2012 in Jeju, Republic of Korea. The Congress will help create a framework for international cooperation to seek and practice possible solutions to environmental challenges such as biodiversity and habitat loss. In addition, it will serve as a platform where government and non-government participants from approximately 180 countries can discuss urgent and emerging issues in the field of nature conservation.

The theme of the upcoming Congress is ‘Resilient Nature’, which reflects the urgency facing nature today. Nature is inherently strong. Even the most fragile-looking

*The 2012 IUCN World Conservation Congress is an opportunity to take a leap forward towards conserving biodiversity.*

plant, animal or ecosystem is relatively tough, and their survival instincts have been honed over generations of evolution. However, human civilization has undermined our environment and the fundamental natural infrastructure that supports our lives, communities, and economies for the past years.

The Congress will explore many of our most pressing environmental and development challenges from this perspective and how strong and resilient nature is intricately linked to these issues. In particular, the issue of biodiversity conservation will be discussed to keep ecosystems healthy and enhance the resilience of nature.

The upcoming Congress will also serve as an opportunity to examine the situation facing endangered plants and animals and measures to protect them, and it can also provide a channel to share experiences and know-how of each country to conserve biodiversity.

The Republic of Korea, the host of the Congress, would like to play its part of the role in strengthening international efforts to protect biodiversity by advancing its

nation nature conservation agenda. Among these are conservation of three ecosystems on the Korean peninsula, such as the Demilitarized Zone, Baekdudaegan (White-head Great-ridge) and marine ecosystem, and protection of plants and animals living in those ecosystems. Sharing green growth strategies in which Korea has shown its leading role will also be included in the agenda.

In the face of rapidly decreasing biodiversity around the world, it is no surprise that the conservation and wise use of biodiversity has become our top priority to sustain the existence and wellbeing of humanity. In addition, conservation and sustainable use of biological resources can be achieved only when countries around the world work together.

In this regard, I hope that the 2012 IUCN Congress will provide an opportunity to bring together countries and relevant organizations around the world and enable them to share experiences and efforts to conserve biodiversity and discuss possible solutions to tackling the issues of biodiversity conservation. ♡



Felipe Calderón, *President of Mexico*

# Mexico's commitment to biodiversity and environmental conservation

**T**he twentieth anniversary of the Earth Summit gives us the opportunity to assess the international community's compliance with the commitments established in 1992 for biodiversity conservation, and to identify future challenges posed by changes in the economic, social and environmental arenas.

Mexico is a country with a rich and extensive biodiversity. Therefore, we are fully aware of the value of protecting and preserving our natural resources for the well-being of Mexicans. We are privileged to have this biological treasure, but with this privilege also come great responsibility. That is why Mexico proposed the creation of the Group of Like-minded Megadiverse Countries, which is made up of the nations that together represent more than 70 % of the earth's biological wealth and has among its goals fostering an international regime that promotes and protects the fair and equitable distribution of the benefits of the use of genetic resources. This effort was crystallized in the Nagoya Protocol. Also, for twenty years Mexico has been actively involved in strengthening the Convention on Biological Diversity, the most important global instrument for the conservation and sustainable exploitation of our natural capital.

However, we have not been active only in the international arena. In 2009, we published *Capital Natural de México* (The Natural Capital of Mexico), the most comprehensive summary of our country's biodiversity to disseminate its extent and promote its sustainable use and conservation. In my administration we are fully convinced that the conservation of our biodiversity relies on our knowledge of it and its use for the benefit of society. Therefore, we decided to implement a series of strategies, and three of the most important are:

Firstly: The consolidation of the National System of Natural Protected Areas to ensure the conservation of the most representative

ecosystems in Mexico. We currently have 25.38 million hectares as part of the Natural Protected Areas managed by the federal government. That is close to 13 % of Mexico's land area and equivalent to the whole of the United Kingdom.

Secondly: Sustainable management of the habitat and the flora and fauna in 36 million hectares. That is 18.4 % of our land area and equivalent in size to Germany.

Thirdly: Preserving the ecosystem services of forests, jungles and the vegetation of arid zones through payment for environmental services, reforestation, and soil conservation. Nowadays, 4.65 million hectares of forests in the country –an area larger than Denmark– are preserved and managed in a sustainable way thanks to the support of ProÁrbol, the most successful forestry program in the history of Mexico. These actions have allowed us to progress in the rational use of our forests and jungles and to reward the communities that work in their conservation. These actions, among others, have contributed to reduce the deforestation rate in Mexico, which according to the FAO went down from 354 thousand hectares annually between 1990 and 2000 to 155 thousand hectares annually from 2005 to 2010.

Under the current circumstances, it is important to draw attention to a phenomenon that might have an important effect on the loss of global biodiversity and affect the quality of life of our people. I am referring to Climate Change, a global challenge that threatens our present and compromises the future of humankind. It is an issue that the international community must deal with decisively before it is too late.

Mexico has assumed its responsibility and has established a clear commitment to respond to the challenges posed by this phenomenon. We were the first developing country to implement a program to address Climate Change, to put in place voluntary emission reduction goals and

to come up with a comprehensive policy that covers a wide range of issues, from energy saving and efficiency programs to the promotion of major clean energy projects. This has led to significant actions at both domestic and international levels.

At the domestic level, we have promoted the implementation of projects and programs to reduce our greenhouse gas emissions, both on a large scale through energy generation using renewable sources and by means of energy saving and efficiency programs. Thus, during my administration we have commissioned seven wind generation plants, 14 more are under construction, and in the near future we will start the construction of another five plants. By virtue of this, in 2011 Mexico became the country with the highest mean annual growth rate in its wind energy generation capacity. Likewise, we presented the Atlas of Wind and Solar Renewable Resources of Mexico, which shows the great potential that our country has in clean energy generation. Also, we implemented the Green Mortgage program to give loans to buy houses equipped with ecotechnologies that result in economic benefits for the families and contribute to environmental conservation. Thanks to the program Sustainable Light, the most ambitious of its type in the whole world, we have already replaced more than 14 million light bulbs with energy-saving lamps, and with the Home Appliances Replacement program, we have helped families replace nearly one million 400 thousand refrigerators. Thanks to these programs, we have achieved significant savings for Mexican families and reduced greenhouse gas emissions.

In the international arena and as COP 16 hosts, we have acted as facilitators in the settlement of the Cancun Agreements, especially the implementation of the Green Climate Fund, and in Durban, during the recent COP 17 conference, we pushed to make this fund operational as soon

as possible so it can start giving funds, mainly to developing countries, to carry out actions to mitigate climate change and to adapt to its effects.

Being fully aware of the importance of preserving the natural wealth of our planet

and of reinforcing the climate change fight, in Rio+20 we must be proactively involved to push for the agreements required to establish a framework for the work and international cooperation necessary to achieve greater congruence between

economic and social development and respect for the environment.

The stakes have never been higher. We are only just in time to act and Mexico will continue to implement actions in favor of the environment and in favor of humanity. ❖



Jean Charest, *Premier ministre du Québec, Canada*

## Le Québec voit grand

L'environnement fait partie de ce que nous sommes. Au même titre que notre héritage culturel, notre patrimoine naturel nous définit. Il nous nourrit, nous soigne et contribue à notre bien-être par les nombreux services écologiques inestimables qu'il nous rend, tout à fait gratuitement. Collectivement, nous sommes tributaires de la diversité biologique et c'est pourquoi les efforts de conservation doivent être déployés sans ménagement. Avec le temps, les enjeux liés à la sauvegarde de la biodiversité évoluent, et la Convention sur la diversité biologique s'y adapte en proposant des objectifs de conservation à la fois toujours plus précis et plus grands.

Fort heureusement, une part croissante de la communauté internationale est sensibilisée à ces enjeux. Partout à travers le monde, des réseaux d'aires protégées se consolident et s'agrandissent. Le Québec se fait un point d'honneur à se hisser au rang des gouvernements les plus proactifs à ce chapitre.

Notre réseau compte plus de 2 500 aires protégées qui répondent aux plus hauts critères de protection de l'Union internationale pour la conservation de la nature. Le *Portrait du réseau d'aires protégées au Québec période 2002-2009* illustre l'évolution de notre réseau, qui est passé de moins de 1 % à plus de 8 % en à peine 7 ans, pour atteindre plus de 135 000 km<sup>2</sup>. Ce portrait exhaustif nous a permis d'évaluer la qualité de notre réseau sur le plan de la représentativité des milieux naturels et des espèces, de mesurer son efficacité à préserver la biodiversité, et d'établir de nouvelles orientations stratégiques pour le Québec.

Nos efforts de conservation s'articuleront

dorénavant autour de 5 grandes thématiques : la représentativité, la consolidation, la gouvernance du public et des communautés autochtones, les enjeux socio-économiques et les connaissances scientifiques. Ces orientations stratégiques nous guideront dans l'atteinte de notre objectif actuel, qui est de protéger 12 % du territoire québécois d'ici 2015. Notre réseau atteindra alors quelque 200 000 km<sup>2</sup>, soit une superficie qui équivaut à deux fois celle de l'Islande.

Nos efforts, bien sûr, ne s'arrêteront pas là. Le Québec entend également poursuivre les objectifs fixés en octobre 2010 lors de la 10<sup>e</sup> Conférence des Parties tenue à Nagoya, au Japon, et porter la proportion des territoires voués à la conservation à 10 % du milieu marin et à 17 % du milieu terrestre, d'ici 2020.

L'atteinte de ces cibles sera entre autres facilitée par l'un des plus grands projets de développement social, économique et environnemental de l'histoire du Québec : le Plan Nord. Nous voulons faire de ce plan, qui couvre un territoire de 1,2 million de km<sup>2</sup> au nord du 49<sup>e</sup> parallèle, une référence mondiale en matière de développement durable.

À toutes les étapes de planification et de réalisation des projets mis de l'avant dans le cadre du Plan Nord, la protection de l'environnement, des écosystèmes et de la biodiversité sera au cœur des décisions. Ces projets devront non seulement se conformer à l'ensemble des lois et des règlements en vigueur au Québec quant au respect de l'environnement, mais devront également se soumettre à des analyses environnementales rigoureuses avant d'obtenir l'aval du gouvernement.

Un autre de nos engagements est de

mettre à l'abri 50 % de la superficie du territoire du Plan Nord pour les consacrer à des fins autres qu'industrielles, à la protection de l'environnement et à la sauvegarde de la biodiversité, et ce, dès 2035. Il s'agit d'un engagement de très grande envergure, voire unique au monde de par son ampleur. On parle en effet d'une étendue de 600 000 km<sup>2</sup>, soit l'équivalent, en superficie, d'un pays comme la France.

Déjà, des projets de parcs nationaux sont en cours de réalisation et la gestion de plusieurs d'entre eux sera confiée à des communautés autochtones du Nord québécois. Je crois que cette façon de faire reflète bien notre volonté de développer ce territoire avec les gens et les collectivités qui y vivent, dans le plus grand respect de leurs connaissances, de leurs activités et de leurs valeurs traditionnelles.

Le Plan Nord est un projet de société stimulant. Pour l'ensemble des Québécois, c'est le chantier d'une génération. Un chantier dont l'envergure nous rappelle toute l'importance des enjeux qui entourent la sauvegarde de la biodiversité.

En effet, les défis actuels et à venir en matière de conservation de la nature sont grands, et pour les relever avec brio, nos actions doivent l'être tout autant. C'est pourquoi j'invite tous les dirigeants qui participeront à la Conférence des Nations Unies sur le développement durable (Rio+20), en juin prochain, à réitérer leur engagement envers la protection de l'environnement. Il nous incombe à tous de trouver l'équilibre entre les occasions qui nous sont offertes aujourd'hui et celles que nous léguerons aux prochaines générations. C'est le défi de notre temps : croître aujourd'hui en harmonie avec demain. ❖





# “We do not inherit the world from our fathers, we borrow it from our children”

I'm honoured by the opportunity to share my reflections on this 20th anniversary of the United Nations Convention on Biological Diversity and the upcoming Rio+20 anniversary of the 1992 Earth Summit.

On the road to Rio 2012, it may be helpful to recall the legacy of Rio 1992, as the most important environmental event since the landmark Stockholm Conference of 1972.

The enduring importance of the Earth Summit is not that leaders from 130 nations and 30,000 delegates and media attended from around the world.

The lasting achievement of Rio was the universal acceptance of sustainable development as the central tenet of environmental policy. As I put it in my keynote address to the Summit on June 12, 1992: “Economic development and environmental protection are mutually reinforcing, not mutually exclusive.”

As I also said that day: “This is not just about the atmosphere. It is not just about the environment. It is about the future of the planet itself.”

Two major UN conventions were signed by 130 nations at Rio, the Climate Change Accord and the Biodiversity Accord, which Canada was the first country to endorse, over the opposition of our good friends in the United States.

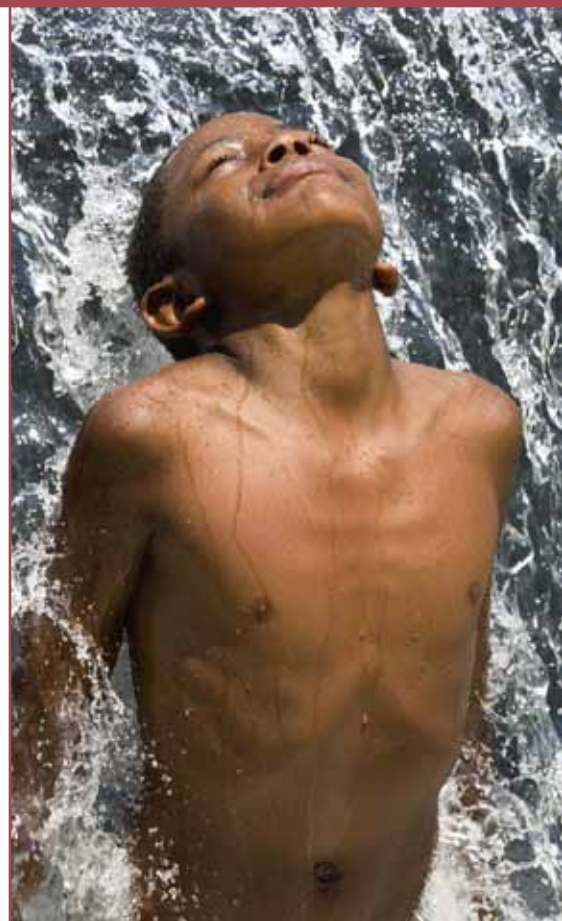
These historic global accords marked the culmination of nearly a decade of environmental action by the Canadian government. First, in 1985, we negotiated an agreement with our provinces to reduce acid rain emissions by 50 percent. Then Canadian leadership resulted in the Montreal Protocol of 1987, the UN agreement on ozone depletion. At the G7 Summit in Toronto in 1988, we endorsed sustainable development as recommended by the Brundtland Commission. At the G7 Summit in Houston in 1990, Canada called for measures to promote

sustainable development and conservation of the world's forests. And in March 1991 in Ottawa, the first President Bush and I signed the Canada-US Air Quality Accord, which has resolved the problem of acid rain.

The next steps at Rio were the Climate Change and Biodiversity Accords. The Climate Change Convention established the framework agreement that would eventually lead to the Kyoto Accord of 1997. More achievable targets were adopted at the Copenhagen Conference of the Parties in 2009. But the point remains that at Rio in 1992, the world's leaders recognized climate change and global warming as an imminent threat to the future of planet Earth. Since then, we have also recognized that there is no solution to climate change without the participation of emerging economies such as China and India, which account for much of the increase in greenhouse gas emissions.

The world also recognized at Rio that conserving biological diversity had become an urgent global issue. Biodiversity nurtures life and produces a wealth of environmental by-products upon which our ecosystem, our health, and our prosperity depend. For example, it is a well-established fact that one-fourth of all North American pharmaceutical products have ingredients derived from plants. In Canada alone at the time, more than 200 animal and plant species, including wetlands and old forests, were acknowledged to be at risk. Protecting habitats was one of the keys to protecting biodiversity. As the first leader to sign the Biodiversity Accord at Rio, I also committed Canada's Parliament to ratifying the agreement by the end of 1992.

The Rio Conference not only raised the awareness of environmental issues worldwide, it also resulted in Agenda 21, an ambitious environmental Action Plan for the 21st century. The Rio Declaration, the Convention on Biodiversity and the



Framework Convention on Climate Change were all landmark events.

Twenty years on, the United Nations has declared 2011–2020 as the Decade on Biodiversity. Nothing could be more appropriate. Nothing could be more urgent.

As you look ahead to Rio+20 in June 2012, two of the challenges for the United Nations Conference on Sustainable Development will be the issues of a green economy and eradicating poverty, especially child poverty, in the world.

As citizens of the world, and of our own countries, we are all responsible for building a sustainable planet.

The Inuit of Canada's North have a saying: “We do not inherit the world from our fathers, we borrow it from our children.” ❧



Gro Harlem Brundtland, *Former Prime Minister of Norway, and former Director-General, World Health Organization*

# The real value of biological diversity

In 1987, when I delivered the report of the World Commission for Environment and Development (WCED) to the Secretary General, we were five billion people living together on this planet. Last year we passed seven billion. In 1987 we recommended that the rich part of the population limit and modify their consumption and contribute to a better life for the poor and for future generations. Today we are happy to see that the number of comparatively wealthier people who have risen out of poverty has increased substantially. However, resources are limited and the earth cannot support all seven billion with today's consumption patterns of the rich. The environmental challenges have reached a more dangerous level than in 1987. I am still optimistic that we will manage to transform our societies towards sustainable patterns, as we recommended in 1987.

The Rio Conference on Environment and Development in 1992 created great hopes. The world succeeded in achieving global agreement on the establishment of conventions for biological diversity, climate change and desertification as well as an agenda for local actions (Agenda 21).

The need for sustainable management of biological diversity in order to achieve the Millennium Development Goals is by now well documented.

Biological diversity represents the natural wealth of the earth and the lifeline of the poor. Poverty reduction programs rely on biological resources and restoration of degraded ecosystems, given that the poor are the most vulnerable to the loss of biodiversity and ecosystems, now increasingly caused by climate change. The drivers of degradation of biological diversity are much more related to over-consumption by the wealthy than to the needs of the poor. Good environmental management boils down to a question of good governance to address this issue.

The Convention on Biological Diversity (CBD) has been the main global instrument to secure sustainable management of biological resources since its adoption twenty years ago. The value of CBD's 2010

target to achieve a significant reduction in the rate of loss of biological diversity has played an invaluable role for policy development in this field. At the moment several initiatives and developments show promise to reinforce CBD's work.

The project "The Economics of Ecosystems and Biodiversity" (TEEB) show the global economic benefits of biodiversity, and the growing costs of biodiversity loss and ecosystem degradation. TEEB is essentially a "Stern Review" on biological diversity and has been an eye opener for public and private decision-makers.

An example of the value of genetic diversity is the discovery of the drug Cyclosporin. The soil fungus *Tolypocladium inflatum*, found in soil samples from Norway's Hardangervidda National Park in 1969, turned out to produce a compound called Cyclosporin A, which is now used in organ transplants to reduce the risk of organ rejection. In 1997 the annual sales revenue from Cyclosporin-based products totalled US\$1.2 billion. In the absence of benefit sharing legislation at that time, Norway was not able to capture a share of these financial benefits. This is a situation many developing countries find themselves in today. A global instrument to regulate the access to such genetic resources and the benefit sharing from their use is now in place through the Nagoya Protocol to CBD. Hopefully, this will turn out to be a successful financial instrument for many developing countries that have abundant genetic resources.

Reducing Emissions from Deforestation and Forest Degradation (REDD+) is another mechanism based on sustainable management of biological resources. Primarily a mechanism to mitigate climate change, it also has the potential to deliver "co-benefits" such as poverty alleviation.

REDD+ will channel large funds to developing countries for their deliveries of the ecosystem service of climate regulation produced by forests. There are challenges to overcome with this concept, but I nevertheless see REDD+ as one of the few available mechanisms that have the potential to combine the monetization of forest carbon with the needs of local communities that manage the forests.

Twenty-five years have now passed since the Commission on Environment and Development delivered its conclusions. This June we will again meet in Rio de Janeiro to discuss our common future.

We know that business as usual will not do and that inclusive green growth and low-emission economic strategies are needed. It is my firm belief that the elements of biological diversity that lie behind TEEB and REDD+ will be a backbone of green growth strategies.

I remain convinced that the Convention on Biological Diversity, through its efforts to secure sustainable management of biological resources, will continue to play a key role in developing a more just and sustainable world.

I salute you on the occasion of the 20<sup>th</sup> anniversary! ❖







## Conserving China's rich and unique biodiversity: Led by government, participated by the public

**B**iodiversity in China is rich and unique. China takes up about six percent of the total land area in the world. It has around 10% known species in the world. Among them, 34,984 species are higher plant species, ranking third in the world; and 6,445 species are vertebrates, accounting for 13.7% of the world total. There are over 10,000 species of identified fungi, accounting for 14% of the world total. China has 594 various kinds of terrestrial ecosystems such as forest, shrubs, meadow, grassland, desert and wetlands; and four marine ecosystems including the Yellow Sea, East China Sea, South China Sea and Kuroshio Basin. China is also rich in biological genetic resources. It is the origin of important crops such as rice and soybean and main origins of wild and cultivated fruit trees. China's biodiversity resources are not only rich, but also have the characteristics of originating from ancient times; complex and diversified spatial pattern and rich unique species and geneses. China plays a unique role in global biodiversity.

Since China's ratification of the Convention on Biological Diversity (CBD), with the great importance the Government attached, extensive participation and proactive action of the whole society, fruitful achievements have been obtained on biodiversity conservation. Looking back to China's fulfillment of the Convention over the past 20 years, the conservation of biodiversity in China has undergone three stages:

The first stage: Consolidating the basis (1993–2002). In order to implement the CBD and strengthen the conservation work on biodiversity, China set up the Coordination Group for the Implementation of the Convention on Biological Diversity with the former State Environmental Protection Administration as the lead agency. The working mechanism for biodiversity conservation was primarily established. In 1994 the Chinese

Government issued the China Action Plan for Biodiversity Conservation. Since then, China's work on biodiversity conservation has received clear direction and guidance on actions. In 1998, the Government released the Report on China Biodiversity Country Study and basically grasped China's biodiversity baseline.

The second stage: Making breakthroughs in key areas (2003–2009). Species are the main structure and functional unit of biodiversity. To enhance the conservation and management of the resources of biological species, China in 2003 established the inter-ministry joint meeting mechanism for the conservation of biological species resources with the former State Environmental Protection Administration as the lead agency and 17 other agencies as members. The National Expert Committee for Conservation of Species Resources was also established. The forces of different stakeholders have been gathered together to jointly push forward the conservation of species resources. In 2007, approved by the State Council, the Outline of National Plan for Conservation and Utilization of Biological Species Resources (2006–2020) was released, which identified the objectives, key areas and tasks of the conservation of species resources.

The third stage: Comprehensively deepening the conservation action (2010–). In 2010, the China National Committee for the 2010 International Year of Biodiversity was established. Over 20,000 biodiversity conservation activities were carried out across the country with the guidance of National Committee, which greatly aroused the enthusiasm of the communities and the public to participate in biodiversity conservation. In September 2011, the China National Biodiversity Conservation Strategy and Action Plan (2011–2030) was promulgated, which defined the guiding ideas, basic principles and milestone targets for biodiversity conservation, delimited 35 priority regions for biodiversity conservation;

and identified 10 priority areas, 30 priority actions and 39 priority projects. It is a programmatic document for the conservation and sustainable utilization of biodiversity over the next 20 years and indicates the new era for biodiversity conservation in China. At the end of 2010, the policy on zoning the major functional areas nationwide was implemented, which put the key eco-functional zones including nature reserves into the category of prohibiting from development. Meanwhile, innovative measures have also been taken to further enhance the management of nature reserves and better conserve species resources. In June 2011, the China National Committee for the 2010 International Year of Biodiversity was officially renamed the China National Committee on Biodiversity Conservation. The conservation of biodiversity in China has been uplifted to a more important strategic position. Conservation efforts have been further deepened.

With the efforts for biodiversity conservation in the past 20 years, the legal system was established initially, the working mechanism was gradually improved, and the capacity of baseline investigation, scientific research and monitoring and management was enhanced continuously. Great progress was also made on international cooperation and exchanges. Significant ecological projects have been carried out, such as returning farmland to forest, returning pastureland to grassland, returning cropland to lakes, the conservation of natural forests, conservation of wild fauna and flora, and development of nature reserves. These projects have effectively conserved 85% types of land ecosystems, 47% of natural wetlands, 20% of natural forests, most of the natural relics, 65% types of higher plant communities and most of the rare and endangered wild animals and plant species. In particular, *in-situ* conservation has obtained remarkable achievements. By the end of 2010, 2588 nature reserves had been



established, with the total area taking up 14.9% of the land area of the country. The number of key wild animal and plant species remains stable with some increase, distribution areas get wider and the habitat environment is improved continuously.

Although remarkable achievements have been made in biodiversity conservation, we recognize that biodiversity conservation in China is still facing a grave situation. The tendency of biodiversity loss cannot be reversed within a short period of time. Due to climate change and the impact of human activities, some ecosystems have been degraded; and the functions of forest ecosystems are relatively weak. The area of grassland and wetlands is reduced and suffering from serious degradation. The state of over-consumption of wild animal

and plant resources is still outstanding and the habitats of some important species are under threat. Incidents of invasion of alien species occur with frequency, and genetic resources are subject to significant drain and loss. In addition, the laws and policy system are far from perfect, the basic situation is not clear and investment for conservation is not sufficient. Management capacity needs to be further improved. There is also uneven distribution of nature reserves, imperfect management institutions, the lack of management and conservation infrastructure, and insufficient capacity in addressing new issues on biodiversity conservation. There is still a long way for China to go to conserve biodiversity.

The conservation of biodiversity matters

to national ecological safety and sustainable development, as well as for the future of the world. The next 10 years will be a key period for biodiversity conservation. Only through the joint efforts of international communities and by further strengthening conservation efforts can we fundamentally reverse the trend of biodiversity loss and achieve the 2020 biodiversity targets. Conserving China's rich and unique biodiversity resources need the attention and support of the world. China will adhere to the scientific development; implement the China National Biodiversity Conservation Strategy and Action Plan (2011–2030) in an all-around way, and strive for the achievement of a society with great harmony between man and nature. ❖



**Caroline Spelman**, *Secretary of State for Environment, Food and Rural Affairs, United Kingdom*

## The Convention at 20: No time for complacency

The odds were stacked against last year's summit in Nagoya. Previous biodiversity targets had failed; and after the disappointing climate change talks in Copenhagen, doomsayers had decided that global environmental governance was dead.

The doomsayers were confounded. Out of the ashes of Copenhagen, Nagoya produced a groundbreaking agreement.

So what did it take?

Firstly, it took political will. There were big differences to overcome, big compromises to be made. But when the world's environment ministers sat down round that table in Nagoya, it became clear that the will was there. Copenhagen had not defeated us; it had hardened our resolve. We were absolutely determined to succeed.

Mobilising that political will were the outstanding leadership capabilities of our Japanese hosts. Japan's Minister of the Environment Ryo Matsumoto appointed an ambassador for the summit, who worked

tirelessly with individual countries in the run-up to the event. At the event itself, he appointed facilitators from all over the world, ensuring roles of equal weight for the different interest groups. During those long and difficult days of negotiation, Japan's diplomatic skills kept saving the day.

It also took the tenacity and sheer hard work put in by government officials. Their weeks of complex negotiations before ministers arrived cleared the way for a narrowing of focus onto the three thorniest and most crucial tasks. These were: agreeing a Strategic Plan to 2020, with targets to succeed the failed 2010 targets; agreeing a Resource Mobilization Strategy to ensure all countries had the capacity to meet these new targets; and finalising the text to a legally binding protocol on the use of genetic resources.

Crucially, it took science. Science is critical to the elaboration of biodiversity policy. At Nagoya the science

showed us the trends in global biodiversity, spelling out the urgent need for more action. The science overturned the political difficulties, especially in the wording of the ambitious yet achievable new 'Aichi' targets in the Strategic Plan. We also welcomed the agreement that a new Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) should be established.

The really big breakthrough was the protocol on access to, and benefit sharing of, genetic resources. The draft protocol had taken 18 years of negotiation, and there was still disagreement between countries on key issues. Developing countries wanted greater protection for their genetic resources. Developed countries wanted to ensure that such protection would not stifle scientific work that would not only benefit society but also encourage biodiversity conservation.

Negotiations were tense and there were many twists and turns. As time started to

run out, the Japanese hosts told us they would have to present a take-it or leave-it text. Time and time again we tried to resolve differences. Late on the final night of the summit there was still fundamental disagreement; but there was also trust, and on trust you can build compromise. The dedication of the Japanese came to the fore. Their unwavering attention throughout every detail of the negotiations meant they were able to table a precisely balanced text that, although not ideal to anyone, was acceptable to everyone. The gong was banged at 2am and we got to our feet and cheered.

Nagoya was a breakthrough. But there's no time for complacency. We need to keep the momentum going.

COP 11 in Hyderabad will be the CBD's 20<sup>th</sup> birthday: a time for celebration, and a focus for resolve. By then, it's hoped that countries will have prepared their new national biodiversity strategies and action plans. All plans will be vital for the achievement of the Aichi Targets. In the UK we've already published our new biodiversity strategy for England, and are working with Scotland, Wales and Northern Ireland to produce a UK-wide strategy. In December 2011, with EU colleagues, I agreed a way forward for the new EU biodiversity strategy.

Nagoya set the direction. Hyderabad must drive us forwards. The slogan for Hyderabad is *Prakruti Rakshati Rakshita*: Nature protects if she is protected. The logo symbolizes the cycle of life, with animal forms circling a human being holding a basket of grain. This powerful image signals the criticality of our work on biodiversity; and the need to go wider the CBD and its targets. Environment ministers need to extend their influence, and help the world understand the links between biodiversity, climate change and poverty. Defeating poverty, stopping climate change, and protecting nature are all the same fight, and for victory we need united global action.

Between now and Hyderabad, there's Rio+20, the UN summit on sustainable development. This is a key opportunity to get the world on track to green economic growth: growth that enhances rather than impedes the cycle of life; that protects all life on Earth. ♣



# Montréal souhaite un joyeux 20<sup>e</sup> anniversaire à la Convention sur la diversité biologique



## La région métropolitaine de Montréal exprime son très grand intérêt pour la protection de la diversité biologique.

En 2012, nous célébrons le 20<sup>e</sup> anniversaire de la signature de la Convention sur la diversité biologique, une belle occasion d'évaluer l'évolution de la situation durant ces deux décennies, d'émettre des souhaits pour l'avenir, en somme de faire le point quant à l'atteinte des objectifs fixés et de rappeler l'importance des enjeux qui sont sur la table.

## La diversité biologique du Grand Montréal : une richesse à la rencontre de deux climats

Le Grand Montréal couvre une superficie totale de 4 360 km<sup>2</sup> dont plus de la moitié est occupée par des terres agricoles protégées (57,8 %). Distinguant le territoire des autres régions métropolitaines, les plans d'eau occupent 12 % de la superficie du

territoire alors que les milieux forestiers et humides occupent respectivement 19,2 % et 4,6 %. Cœur du réseau hydrographique, le fleuve Saint-Laurent, avec un débit moyen de 9 000 m<sup>3</sup>/s, se classe au dixième rang des plus grands cours d'eau du monde. Occupant 12 % du territoire métropolitain, les plans d'eau sont ponctués de plus de 325 îles, dont certaines sont toujours à l'état naturel, et s'étirent sur plus de 1 800 kilomètres de berges. En milieu terrestre, quatre montérégiennes présentent des caractéristiques géologiques différentes de leurs milieux, contribuant ainsi à la diversité biologique du territoire. Le dernier inventaire métropolitain, réalisé en avril 2009, révèle que le couvert forestier occupe seulement 19,2 % du territoire terrestre du Grand Montréal. Or, il est généralement admis qu'une baisse significative de la diversité biologique est observée lorsque le couvert forestier d'une région passe sous le seuil



de 30 % de la surface d'un territoire. Étés chauds et hivers froids, caractéristiques de notre climat continental, ont façonné les écosystèmes de l'archipel de Montréal qui abritent une richesse faunique et floristique.

### **Une Communauté permettant le développement d'une vision métropolitaine**

Créée le 1<sup>er</sup> janvier 2001, par le gouvernement du Québec, la Communauté métropolitaine de Montréal (CMM) est un organisme de planification, de coordination et de financement qui regroupe 82 municipalités, soit 3,7 millions de personnes réparties sur plus de 4 360 kilomètres carrés. La Communauté a notamment compétence en matière d'aménagement et de développement du territoire. Pour assumer cette compétence, elle doit adopter et maintenir en vigueur, sur l'ensemble de son territoire, un plan métropolitain d'aménagement et de développement (PMAD).

### **Un plan métropolitain alliant développement et protection des milieux naturels**

Le PMAD définit des orientations, des objectifs et des critères aux fins d'assurer la compétitivité et l'attractivité du Grand Montréal dans la perspective d'un aménagement et d'un développement durables du territoire métropolitain. Sur un horizon de 20 ans, le PMAD porte, entre autres choses, sur la planification du transport terrestre; la protection et la mise en valeur du milieu naturel, des paysages et du patrimoine; la définition de seuils minimaux de densité, etc. Par opposition à certains exercices de planification du même type, les orientations, les objectifs et les critères du PMAD s'appliqueront sur l'ensemble du territoire par le biais de la réglementation municipale à la suite d'un rigoureux exercice de conformité. Le 28 avril 2011, le conseil de la Communauté métropolitaine de Montréal a adopté, aux fins d'une consultation publique, un projet de *Plan métropolitain d'aménagement et de développement* (PMAD).

### **La population s'exprime**

Participation étonnante en comparaison aux exercices similaires tenus au cours des dernières années, 17 séances de consultation publique ont permis à 389

citoyens et organismes de bonifier le projet de PMAD au cours des 55 heures qu'ont duré les séances dans tous les secteurs du Grand Montréal. Principal constat environnemental : « La biodiversité du territoire doit être au coeur des préoccupations du PMAD et elle doit être protégée et mise en valeur par la mise en place d'une ceinture ou d'une trame verte et par des objectifs révisés ». Plus de la moitié des mémoires présentés rappellent aux instances métropolitaines l'importance de protéger et de mettre en valeur les milieux naturels à titre de contribution à l'attractivité du territoire. Les médias sociaux, plus particulièrement Facebook et Twitter, ont également été mis à contribution, notamment au moment des audiences publiques, afin de relayer rapidement les informations circulant sur le Web et de susciter l'intérêt des usagers de la Toile pour la consultation.

### **Un projet de plan métropolitain amélioré**

Devant une telle unanimité exprimée à l'égard de la protection et de la mise en valeur des milieux naturels de l'archipel, le PMAD vise dorénavant un objectif de protection de 17 % (9,6 % en 2009) de son territoire en exigeant des mesures concrètes d'interdiction d'abattage d'arbres, de protection de milieux humides, de rives, de berges et des plaines inondables. En parallèle, des initiatives de reboisement contribueront à porter à 30 % le couvert forestier actuellement évalué à 19,2 %. Enfin, un fonds permettra d'appuyer financièrement les initiatives municipales d'aménagement, de protection et de mise en valeur de milieux naturels lorsque la capacité d'accueil des écosystèmes le permettra. Reliant plans d'eau, grands espaces verts, réseaux cyclables (loisir et utilitaire), navigables et de transport en commun et intégrant de nombreux points d'intérêt du patrimoine bâti et des paysages, une trame verte et bleue offrira aux citoyens du Grand Montréal une multitude de points d'accès à un réseau d'espaces bleus et verts, proposant une multitude d'activités sportives, culturelles, de détente et de loisir. Le Plan métropolitain d'aménagement et de développement du Grand Montréal fut adopté par le conseil de la Communauté métropolitaine de Montréal le 8 décembre 2011.

### **Canada, Québec, Montréal... et la diversité biologique**

Les gouvernements du Canada et du Québec adhèrent aux objectifs de la Convention des Nations Unies sur la diversité biologique et ont élaboré des stratégies en faveur du maintien de la biodiversité. Au Québec, cela s'est traduit notamment par une augmentation des superficies d'aires protégées, passant de 1 % du territoire de la province en 2003 à 8,12 % en 2009. Le Grand Montréal se situe dans le sud du Québec, soit le territoire qui accueille le plus grand nombre d'espèces végétales et animales. Le PMAD fixe des objectifs ambitieux, malgré l'urbanisation du territoire, contribuant ainsi aux objectifs de protection des milieux naturels. La Conférence des parties de la Convention a déjà reconnu l'importance du rôle des administrations locales et régionales en adoptant un plan d'action dans le but de les impliquer dans l'atteinte des objectifs de la Convention. Il s'avère donc essentiel de poursuivre les initiatives amorcées, car ce sont les villes et les métropoles qui gèrent au quotidien l'aménagement du territoire. Des outils méthodologiques, financiers et autres doivent être à leur disposition pour assurer la mise en place de projets concrets de protection et d'intégration des espaces de vie en milieu urbain. Plus de la moitié de la population mondiale vit en milieu urbain. Outre l'habitat des populations, les industries, commerces, institutions doivent également trouver leur place. Plus que jamais, il est primordial d'impliquer et d'appuyer les efforts des administrations locales et régionales dans la protection et le maintien de la diversité biologique.

Montréal se réjouit d'être le siège du Secrétariat de la Convention sur la diversité biologique. J'en profite pour le féliciter pour son action. Cette présence représente pour nous une fierté mais également une exigence, celle de nous montrer bon élève, de montrer l'exemple. En 2010, Année internationale de la biodiversité, nous avons fait nôtres les objectifs d'Aichi qui proposent de Vivre en harmonie avec la nature, et nous comptons bien continuer sur cette voie! Il nous revient maintenant d'assumer pleinement notre rôle durant la Décennie des Nations Unies pour la biodiversité. ♣





Luciano Ducci, *Mayor of Curitiba, Brazil*

## A common objective for a fairer and more sustainable world

**T**he greatest challenge for cities around the world is to reconcile their natural dynamics and development. While the world's population grows continually—and, in the same proportion, so do their demands—environmental issues are revealed, that, local conditions respected, are common in spite of appearing in different scales.

In order to meet this challenge, the understanding that continuity of life with quality is intrinsically linked to biodiversity conservation is crucial.

Since the very first conventions on the environment, there has existed doubt with respect to our ability to reconcile development with the conservation of nature. It must be understood that there is a close connection between the social and environmental crises. However, the main observation is that we are experiencing, above all, a crisis of perception, of being separated from the natural world.

During Rio 92, when 175 countries agreed on the need to establish standards

and principles for the use and conservation of biodiversity on the planet, the possibility of responding to the existing issue was glimpsed. From there, the idea that a single goal is essential, coupled with the diversity of solutions that include respect for local peculiarities.

In this context, the guidelines of the Convention on Biological Diversity (CBD) have reinforced decisions at the national level and contributed to alternatives for deployment at the local level in tackling issues. Based on technical and financial cooperation, the CBD has driven the establishment of spaces for recognition of the importance of biodiversity conservation and design strategies in implementing the necessary policies.

Twenty years after Rio, we are getting ready for a new historic meeting, when the results generated by the agreements established in a not too distant past will be evaluated.

We cannot deny that there are imminent risks for the conservation of biodiversity.

However, solutions are being built by many hands and range from simple strategies that can be adapted and used in multiple ways in articulation between the different scales of action at national, regional or local levels.

The dissemination of the concept of “biodiversity” in the different segments of society shows that its conservation has become part of the agenda not only for experts but also for managers, economists, researchers and citizens.

We are convinced that we must work through biodiversity issues globally, and also simultaneously and tirelessly, locally. In this context, the city of Curitiba has sought to put into practice, throughout its history, a public policy that reconciles urban development and environmental preservation.

In 1989, Curitiba pioneered selective garbage collection in Brazil. Today, the municipality is 100% covered with collection of organic household and recyclable waste, with a 23% rate of separation, one of the highest in the country.





**Monique Barbut**, *Chief Executive Officer and Chairperson of the Global Environment Facility*

## Twenty years of partnership

Curitiba also stands out in the conservation of green areas. Today, we have 51.5 m<sup>2</sup> of green area per inhabitant, and a consolidated system of conservation areas consisting of 36 parks and forests.

We have also sought tools that support the maintenance and expansion of our green space. Recently, we created the Private Reserves of Natural Municipal Heritage (RPPNM), a way of motivating owners of private green areas to preserve them through incentives and tax breaks.

We have also prioritized the recovery of our rivers. A good example is the Viva Barigui Project, which includes infrastructure works, implementation of new linear parks, activities in Environmental Education and inspection, and the transfer of families living on the banks of rivers to safe and decent housing.

Ongoing investments in modernizing the public transportation system to make it more efficient and comfortable are other concrete examples of our environmental focus. The renewal of the fleet, the use of biodiesel and biofuel and commitment to implementing new modals—like the subway—are some of the actions designed to attracting more users and contributing to good air quality in the city.

We are also betting on actions in environmental education, which have disseminated the need for widespread adoption of sustainable practices in our society and called for shared management with the government, a strategy for good results. This, indeed, is one of the major differences in Curitiba. Over the past decades, our population has adopted the best practices proposed by the government, a stance of those who believe that each one of us, every day, is central to the task of making Curitiba a better city to live.

We believe it is in cities, with local actions, that we reveal our power to innovate. We believe in solidarity and cooperation, which reflect the true meaning of being “human” and the ongoing mobilization of the collective towards the consolidation of a quality environment for all of us.

The recognition of a common fate with all other living beings opens up the possibility of reinventing life, reconciling us with nature, and endeavoring to achieve equality among peoples. ♡

**T**he Convention on Biological Diversity (CBD) celebrates its 20<sup>th</sup> Anniversary in 2012. This tenure has been characterized by a series of singular achievements in the field of global biodiversity policy-making and biodiversity conservation many of which can be traced to the work of the CBD and its strong collaboration with the Global Environment Facility (GEF) over the course of two decades.

Let’s step back for a moment to celebrate and recognize the distinguished accomplishments that the CBD and its Parties have achieved as governments the world over embark on the implementation of the CBD’s new strategic plan for the next 10 years.

- The Convention on Biological Diversity was the first multilateral environmental agreement that put a distinctly environmental concern—biodiversity—into a sustainable development framework through the formulation of the CBD’s three objectives: conservation, sustainable use, and access and benefit sharing. This framework laid the conceptual foundation for the advances that we have seen in the conservation and mainstreaming of biodiversity. GEF’s biodiversity program has been supporting the implementation of these objectives since the establishment of the GEF pilot phase in 1991.
- Since the GEF became the financial mechanism of the CBD, unprecedented financial support to advance the biodiversity agenda has materialized: more than \$3.1 billion of GEF resources has leveraged \$ 8.3 billion in cofinancing to support implementation of more 1,000 projects in 155 countries to conserve and sustainably use biodiversity.
- The CBD enjoys almost universal participation with 193 Parties having ratified the CBD; a demonstration of wide support to the objectives to

which the CBD aspires. GEF provides support to all GEF eligible countries under the CBD.

- Articles 6a and 6b of the CBD serve as effective tools to accelerate the integration of biodiversity into non-environmental sectors, a prescient recognition of the importance of biodiversity mainstreaming. The National Biodiversity Strategy and Action Plans (NBSAPs) have become established as mainstreaming policy tools with more than 50 parties already developing their second plan and 146 countries receiving GEF support for strategy development.
- The Cartagena Protocol on Biosafety came into force in September 2003 and seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology. With GEF support 123 countries have developed and implemented biosafety frameworks.
- A precursor to the Millennium Ecosystem Assessment and the TEEB study, GEF’s investments in the first generation of Payment for Ecosystem Services (PES) projects piloted this innovative biodiversity financing mechanism in Latin America. Iterations of these original schemes have been replicated throughout the world as a proven biodiversity financial mechanism and demonstrated that the ecosystem services provided by biodiversity have an economic value that can be translated into cash when buyers and sellers can be brought together, a true demonstration of synergy.
- The GEF-supported Millennium Ecosystem Assessment supported thousands of scientists around the world to collaborate on a global effort to conceptualize biodiversity through a completely different lens: biodiversity as a provider of





*The expansion of the global protected area network is arguably the single most measurable result of the CBD, and GEF's biodiversity program provided substantial support to achieve this goal.*

ecosystem goods and services essential for planetary functioning thus accentuating the direct and indirect use value of biodiversity to society and economic development.

- The Akwe:Kon Guidelines and the Code of Ethical Conduct promote consideration on indigenous and local communities in sustainable development and biodiversity management. GEF's new Policy on Agency Minimum Standards on Environmental and Social Safeguards ensure that these issues are now uniformly and comprehensively addressed across all the GEF agencies in all GEF projects and programs.
- The global community achieved the 10% target of protection of terrestrial ecosystems and buoyed by this success, it set an audacious protection coverage target at COP 10 for both terrestrial (17% of terrestrial and inland water ecosystems) and marine ecosystems (10% of coastal and marine ecosystems) going forward. The expansion of the global protected area network is arguably

the single most measurable result of the CBD, and GEF's biodiversity program provided substantial support to achieve this goal. Since the GEF's inception, more than \$1.9 billion have been invested in the creation or management of over 2,302 protected areas covering more than 634 million hectares.

- The CBD was the first MEA to have a Gender Plan of Action which acknowledged the importance of gender considerations in biodiversity conservation. GEF's new Policy on Gender Mainstreaming furthers the goal of gender equity in the context of GEF operations.
- Global policy makers painstakingly developed a series of Programmes of Work over time on specific thematic areas of great importance to biodiversity management (protected areas, forest biodiversity, invasive alien species, etc). These technically robust Programmes of Work laid the technical foundation for the development of the Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets. The GEF-5

biodiversity strategy responds to the CBD strategic plan and the Aichi Targets, a demonstration of the increased strategic cohesiveness between the CBD and the GEF that began at COP 9.

- At COP 10, Parties agreed on a way forward for the development of national strategies for resource mobilization to help achieve the Aichi Biodiversity Targets, a first for any MEA. GEF is providing support to drafting these strategies as part of the ongoing NBSAP revision process.
- With the approval of the Nagoya Protocol in Japan, the third objective of the Convention has been made operational, setting the stage to unleash the economic potential of biodiversity. The GEF-5 biodiversity strategy includes a discrete objective to support capacity-building in ABS and GEF established the Nagoya Protocol Implementation Fund with donations of \$12.2 million from Japan, \$1.2 million from Switzerland, and a pledge of \$1.3 million from France, to catalyze implementation of concrete ABS agreements.
- Marine areas beyond national jurisdiction (ABNJ) have gained increasing attention given the wealth of marine biodiversity located therein. In 2011, the GEF supported a large pilot program (US\$ 45 million which has leveraged \$223 million in cofinancing) on ABNJ to advance this aspect of the marine biodiversity agenda.

Going forward, the roadmap agreed at the COP 10 is clear and the objectives ambitious as defined in the Aichi Targets. Producing a similar list of success stories in 10 years' time as I have provided above will require a concerted effort on the part of all key stakeholders. The GEF is committed to building on the strong ethos of collaboration that we have established with the CBD under the leadership of its current Executive Secretary, Mr. Ahmed Djoghlaif, to help our clients achieve the Aichi Targets. Together, the GEF and the CBD have set the standard for another 20 years of partnership characterized by achievement. ❖





**Michel Jarraud**, *Secretary-General, World Meteorological Organization; UN-Water Chair-Elect*

# Weather, climate and water for sustainable biodiversity

I would like to thank Mr Ahmed Djoghlaif, Executive Secretary of the Convention on Biological Diversity (CBD), for the kind invitation to contribute to this special edition of *Satoyama* magazine.

As we approach Rio+20, it becomes increasingly relevant to recall that the CBD opened for signature during the historic June 1992 Rio “*Earth Summit*”, where the international leadership concurred on the need for a comprehensive and sustainable development agenda to meet the needs of our future generations, whilst ensuring that we would also be bequeathing them a healthy and viable world. Accordingly, this CBD anniversary is an exceptionally auspicious occasion, for which I wish to congratulate you wholeheartedly on behalf of the World Meteorological Organization (WMO), as well as on my own behalf.

For millions of years, generation and extinction of biological species has been a continuous process, occasionally perturbed by major extinction periods (which, incidentally, some theories have attributed to climate tipping points). At a much more recent point in our evolutionary scale, the presence of man began to be perceived as a habitat loss, in particular through hunting, fishing and deforestation, as well as his introduction in some areas of locally exotic species. Even more recently, an additional emerging issue is anthropogenic climate change.

The threat to ecosystems has never been greater in mankind’s times and biodiversity extinction presses forward at an alarming rate, in particular since climate change occurs so rapidly that some species with limited mobility are unable to keep pace with their habitat’s geographic shift.

WMO had a key facilitating role in another biodiversity threat when it contributed to the process leading to the Vienna Convention for the Protection of the Ozone Layer and its landmark Montreal Protocol. In the early 1970s, the WMO Global Ozone Observing System, established for the 1958 International Geophysical Year, allowed

scientists to determine that human activities were putting biodiversity at risk by gradually reducing the thickness of our invisible UV radiation shield.

In 1976 WMO issued the first authoritative statement on the accumulation of carbon dioxide in the atmosphere and the potential impacts on our climate. Subsequently, WMO and the United Nations Environment Programme jointly established the Intergovernmental Panel on Climate Change in 1988, which has since regularly provided successive and increasingly authoritative assessments of climate change science, impacts and policy options.

In 1979 and 1990 WMO organized with partners the First and Second World Climate Conferences, thereby also contributing to the establishment of the World Climate

CO<sub>2</sub> emissions have been absorbed by the oceans, so corals are now under the dual siege of ocean warming and acidification.

Mounting climate change impacts in the form of more severe and/or more frequent droughts and floods, higher average temperatures, precipitation pattern changes and sea level rise, are projected to affect the future availability of water resources and to further deteriorate water quality, an issue which is expected to predominantly affect the poorest and most vulnerable societies, in particular in LDCs and SIDS.

Water resources and how they are managed will impact on almost all societal aspects and on the economy. Water issues are highly relevant to the ultimate achievement of several of the Millennium Development Goals, and climate change is adding up urgency for action;

*Climate change threatens to overwhelm our adaptive capacities and those of the biosphere over the coming decades, but it is encouraging that key stakeholders have recognized the need to address it in urgency.*

Research Programme, the Global Climate Observing System and the present United Nations Climate Change Conference convention process. The Third World Climate Conference (WCC-3) was a UN System-wide event which unanimously agreed in 2009 on the need for a Global Framework for Climate Services (GFCS), in particular to support natural disaster risk reduction and climate change adaptation by reinforcing the climate information and services knowledge-base required by decision-makers to provide enhanced socio-economic benefits for all sectors.

The oceans span 70 percent of our planetary surface, forming our largest biodiversity preserve, including in particular coral reefs, which are home to about 25 percent of all marine species. However, close to one-quarter of anthropogenic

however, without improved water resources management, progress towards poverty reduction targets and sustainable development is likely to be jeopardized in all of its dimensions.

Water is a key constituent of the WMO mandate, as well as those of several other UN System Organizations. To cope with present and future impacts of natural disasters and climate change on water issues, which threaten sustainable development markedly, many vulnerable societies are turning for guidance to the UN mechanism established to facilitate inter-Agency coherence in water issues: UN-Water, which I will have the honour to chair for two years from February 2012. From this perspective, I would like to offer you my commitment to consider CBD priorities highly.

Sustainable water management practices

will contribute significantly to future climate change resilience and water security in all societies. Innovative technologies and integrated solutions will be required at the appropriate scales, but they must firstly be well assessed to prevent any inadvertent adverse effects, in particular on health and the environment.

However, I am pleased to reassure *Satoyama* readers that there is unanimous commitment to proceed with GFCS development and implementation as a major issue in 2012–2015 and beyond, for which the four initial priorities will be disaster risk reduction, food security, health and water.

Furthermore, the GFCS will provide the opportunity to strengthen the linkages between three vital issues: i) natural disasters risk reduction; ii) climate change adaptation; and iii) water resources management.



Therefore, on behalf of WMO, I would like to inform your readership that we look forward to enhancing key partnerships with the Convention on Biological Diversity in all the relevant areas. Climate change threatens to overwhelm our adaptive capacities and those of the biosphere over the coming decades, but it is encouraging that key stakeholders have recognized the need to address it in urgency; for example, the UN Secretary-General, who in his *Priorities for Action* has acknowledged reducing poverty and minimizing the risks of dangerous climate change as two of the most pressing challenges of our time.

Yes, some changes will be unavoidable, but it is not too late to prevent them from becoming even more serious threats to our biodiversity and—paraphrasing the historic Brundtland Commission Report—to our common future. ♡

## From green economies to green societies: UNESCO's commitment to sustainable development

The 2012 United Nations Conference on Sustainable Development—Rio+20—offers an extraordinary opportunity to reset the world on a path to sustainable development.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) will bring a contribution to this conference that makes the most of the transformative power of education, the sciences, culture and media. Our vision is clear: sustainable development calls for more than green investment and low carbon technologies. Beside its economic and environmental dimensions, the social and human dimensions are central factors for success. Ultimately, we must focus our efforts on building green societies. This is the message we must bring to Rio. To be lasting, sustainable development policies must take into account all facets and sectors of society.

This revolution starts in the schools. Education brings sustainability to development efforts—it is the way to make green economies and societies possible. As the lead agency for the United Nations Decade of Education for Sustainable Development, UNESCO works across the world to develop education and public awareness on biodiversity.

The loss of biodiversity is a main battleground for sustainability. Biodiversity is the foundation for healthy ecosystems and sustainable human development. It touches on all aspects of our lives—from our security to our welfare, from our social relations to our health.

Global and national efforts to conserve biodiversity remain insufficient. Policy responses must be as multi-faceted as are the challenges posed by biodiversity

loss. The complexity and diversity of the range of services that flow from biodiversity are often unknown or undervalued. The impact of the increasing loss of biological and cultural diversity is rising on the ability of ecosystems to provide critical services for human well-being.



Twenty years after the adoption of the Convention on Biological Diversity (CBD), UNESCO commends the achievements of collective efforts to raise awareness around the world about the fragility of our ecosystems and the need to protect them.

The Conference of the Parties (COP 10) to the CBD in Nagoya in 2010 made a major contribution by defining a comprehensive framework for collective action. Countries now have a renewed agenda through the Biodiversity Strategic Plan for 2011–2020. From addressing the underlying causes of biodiversity loss, to building knowledge and capacity for efficient biodiversity governance, UNESCO is committed to translating the Nagoya outcomes into tangible action and to take forward the United Nations Decade on Biodiversity (2011–2020).

Rio+20 is a first major opportunity to do so, and UNESCO will spare no efforts to raise the profile of biodiversity conservation.

Science must drive the green transition. The new UNESCO Biodiversity Initiative will make our expertise more accessible to Member States. We need to pursue comprehensive assessments of biodiversity and ecosystem services, involving scientists and including also local and indigenous communities.

At UNESCO, we believe that capitalizing on the link between cultural and biological diversity is a prerequisite

for sustainable development. Culture is an accelerator. It is a priority for UNESCO and we will take forward the joint Programme with the Secretariat of the Convention on Biological Diversity to enhance this link. We are determined to make the most of all World Heritage sites. In 2012, we celebrate the 40th anniversary of the World Heritage Convention, with a focus on the role of local communities to foster sustainable development. This is just one example of the synergies we are building between culture and science.

Our Biosphere Reserves are another unique global network for testing green economy initiatives for sustainable development—for instance, through payments for ecosystem services to avoid deforestation and forest degradation, and through public-private partnerships for the sustainable

*At UNESCO, we believe that capitalizing on the link between cultural and biological diversity is a prerequisite for sustainable development.*

use of biodiversity and natural resources. The only designated areas within the United Nations system dedicated to demonstrating a balanced relationship between man and nature and to responding to climate change, Biosphere Reserves are places for innovation—for taking forward on the ground the concepts of sustainable living, sustainable tourism, and organic agriculture.

UNESCO’s Intergovernmental Oceanographic Commission is coordinating the United Nations inter-agency Report on Oceans (known as the ‘Blue Paper’) to strengthen international ocean governance as well as the national capacity to monitor marine biodiversity, which is today under

threat. The “blue economy” of the ocean is central to our daily lives, and we must ensure that the “green” includes the “blue”.

All of this calls for strengthening the interface between biodiversity science and policy. In this respect, UNESCO will continue to play an important role with the Intergovernmental Science-policy platform on Biodiversity and Ecosystem Services.

Rio+20 must be remembered as a turning point—the beginning of a global green transition. Drawing on UNESCO’s profound belief in human creativity and resilience, I am confident that—if we consolidate our efforts in this area—we can build a more sustainable future. But we must start now. ✨

**Helen Clark**, *Administrator, United Nations Development Programme; Former Prime Minister of New Zealand*



## UNDP and the Convention on Biological Diversity: Partners in advancing biodiversity for sustainable development

In the twenty years since the UN Conference on Environment and Development in Rio de Janeiro and the creation of the Convention on Biological Diversity (CBD), the world has witnessed significant progress across the pillars of sustainable development, not least in the achievement of a number of the Millennium Development Goals (MDGs) on health, poverty, and education.

This progress is tempered, however, by increasing disparities in wealth distribution, gender and social inequalities, food and energy crises, and by losses in global biodiversity and the undermining of our planet’s ecosystem.

The realities of global biodiversity loss and ecosystem decline are well documented, as are the implications of those losses for economies, communities, and human

*The CBD prioritized poverty reduction in its work at a time when much of the conservation and development communities occupied different worlds.*

well-being. Concerted action is needed to reverse these trends and to find lasting and sustainable development solutions.

The CBD prioritized poverty reduction in its work at a time when much of the conservation and development communities occupied different worlds. Since then, there is much more awareness of the direct link between biodiversity conservation and development. A biodiversity target was included in the MDG framework. The United Nations Development Programme has prioritized biodiversity in its own work, and now oversees one of the largest biodiversity portfolios in the

world, with more than 175 initiatives under implementation in 120 countries, many of them supported by funding from the Global Environment Facility.

Among the important outcomes achieved at the Tenth Conference of the Parties to the Convention on Biological Diversity was the adoption of the Nagoya Protocol on Access and Benefit Sharing and the Aichi Targets. New and innovative finance which mixes and matches public and private resources will help the world meet those targets. The UNDP is committed to assisting governments to access, catalyze, combine, and sequence multiple



sources of environmental and development finance to help fund biodiversity management needs.

The CBD has been far-sighted in setting a high standard for engagement and consultation with civil society and indigenous peoples' organizations in the implementation of its work plan. This progressive leadership mirrors UNDP's own commitment to working with those on the front lines of environment and development challenges. Through the UNDP/GEF-Small Grants Programme, over US\$450 million in grants have been delivered to local and indigenous communities in 122 countries, 7,500 of which have focused on biodiversity conservation and sustainable use. Through the Equator Initiative, local best practices in biodiversity conservation and poverty reduction are identified, and local and indigenous voices are positioned to inform national and international policymaking.

Conservation and sustainable management of biodiversity and ecosystems is essential for building equitable, inclusive, and sustainable economies, particularly for poor and economically marginalized communities. For these individuals, biodiversity and ecosystem services provide more than a lifeline; they are the foundation of livelihoods, the basis of food security, and the source of health. Half of all malnutrition worldwide is attributable to environmental factors, such as water pollution and drought-driven food scarcity.

Climate change presents new and additional challenges to the poor by altering ecosystems and their services, disrupting growth, livelihoods, and food production, changing disease patterns, and increasing vulnerability to natural disasters. UNDP works to ensure that biodiversity conservation and sustainable use can be an effective vehicle for delivering inclusive, climate-resilient development and economic growth.

However challenging the global context is, we must address the drivers of environmental degradation, poverty and social inequity. The upcoming Rio+20 conference offers an opportunity to focus on the challenge of securing growth which is inclusive and equitable, halts biodiversity loss, and conserves the ecosystems upon which all of our lives depend. ♣



## Agricultural development and biodiversity –the vital link

**T**he twentieth anniversary of the adoption of the United Nations Convention on Biological Diversity (CBD) comes at a time of renewed attention to agricultural development, as well as mounting concern about the future of our planet. The world's population has reached 7 billion and is projected to top 9 billion by 2050. Pressure on finite and often fragile resources continues to grow; the rates of environmental degradation and loss of biodiversity are accelerating. Whether we are able to feed present and future generations, lift 1.4 billion people out of extreme poverty, and preserve the incredible diversity of life on this planet are interrelated challenges.

There is another anniversary that is very much in our minds today: the twentieth anniversary of the 1992 Earth Summit which launched Agenda 21, charting a vision for sustainable development. When the United Nations Conference on Sustainable Development takes place in Rio de Janeiro, Brazil, in June 2012, agriculture will need to be at the centre of the debate—and of

action. We are particularly concerned that the needs and the challenges of the people who work on the world's 500 million small farms are addressed. They are responsible for feeding a large part of humanity, as well as being custodians of a significant share of the world's ecosystems. In fact, the areas of richest biodiversity are in developing countries.

The International Fund for Agricultural Development (IFAD) is both a United Nations specialized agency and an international financial institution. Our mandate is to enable poor rural people to overcome poverty. Of the 1.4 billion people in the world who live on less than US\$1.25 a day, around 70% are in rural areas and rely directly on ecosystems for their food, water and fuel. Poor rural people are disproportionately affected by the depletion of natural capital, just as they bear the brunt of climate change. They often inhabit highly marginalized and fragile landscapes, including hillsides, deserts and floodplains. Climate change multiplies the threats facing smallholders, endangering the natural assets they depend on.

Agriculture and ecosystem health are inseparable. The productivity of agricultural ecosystems depends on numerous species, such as soil micro-organisms, pollinators, predators of agricultural pests and the genetic diversity of crops and livestock. Agricultural ecosystems serve as important habitats for many wild plant and animal species. Biodiversity enhances poor farmers' and indigenous peoples' resilience to climate change, pests, diseases and other threats.

At IFAD we have long recognized that poor rural people are important custodians of biodiversity, and have found ingenious ways of conserving it, for instance through sacred groves. However, we need to ensure that rural smallholders can benefit from both traditional (or indigenous)





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*We have found that local knowledge about biodiversity differs between the genders, and this has important implications for poverty reduction, biodiversity management and conservation, and agricultural development. Women make up a large proportion of smallholder farmers. Thus, women's empowerment is closely linked to preserving biodiversity.*

knowledge and knowledge from research and technology, such as drought- and flood-tolerant seed varieties.

We have also found that local knowledge about biodiversity differs between the genders, and this has important implications for poverty reduction, biodiversity management and conservation, and agricultural development. Women make up a large proportion of smallholder farmers. Thus, women's empowerment is closely linked to preserving biodiversity.

Cross-cutting problems need to be addressed through coordinated and comprehensive responses. This calls for working in partnership. IFAD has funded some 80 investment projects and grants that refer to biodiversity, with a cumulative value of more than half a billion dollars. We work in conjunction with many partners, including governments, NGOs, CGIAR centres (such as ICRAF and Bioversity), other UN agencies, the International Treaty on Plant Genetic Resources for Food and Agriculture, and the private sector. Our most important partners are rural people themselves.

Sustainable agricultural practices can help enhance ecosystem services and achieve multiple benefits for poor rural people. To ensure future food security, we need to disseminate knowledge, employ less destructive and input-intensive methods such as low-till cultivation and integrated pest management, and be more efficient harnessing of precious water resources. Sustainable agricultural intensification is a key focus of IFAD's work. In addition, the blending of Global Environment Facility (GEF) initiatives with IFAD-sponsored interventions has helped IFAD to prioritize biodiversity issues within project design and mainstream conservation, rural sustainable development, integrated land management and combating land degradation within our activities. IFAD also promotes the conservation of indigenous crop varieties, and approaches that blend traditional and new knowledge and technologies, in particular those that maintain biological processes and ecosystems.

IFAD supports the CBD process, and actively participated in the CBD Conference

of Parties in Nagoya, Japan, as well as signing the MoU on the implementation of the Strategic Plan and the Achievements of the Aichi Biodiversity Targets. We support the Benefit Sharing Fund of the International Treaty for Plant Genetic Resources on Food and Agriculture, as well as projects managed by Bioversity International and Oxfam that focus on addressing the nexus between biodiversity and rural poverty reduction.

Agriculture's potential to do environmental good is still too often ignored. But policy-makers and donors are beginning to prioritize agriculture after at least two decades of relative neglect. Agriculture is a key motor of the global economy, and particularly relevant to poverty reduction in developing countries. The main challenge for the agricultural sector is to simultaneously secure enough high-quality agricultural production to meet demand; conserve biodiversity and manage natural resources; and improve human health and well-being, especially for poor rural people in developing countries. ♻️





**Luc Gnacadja**, Executive Secretary, United Nations Convention to Combat Desertification

# Can we afford to wait another decade or two?

**W**hat a difference a decade or two makes in the field of environment! The Stockholm Conference was convened nearly a decade after Rachel Carson published *The Silent Spring* drawing attention to the environmental threats for humanity. By the 1992 Rio Earth Summit, commemorating two decades since the 1972 Stockholm Conference, the threat to biodiversity was undeniable, leading heads of state and government to readily adopt the Convention on Biological Diversity (CBD) in Rio de Janeiro as a commitment to contain the high rates of biodiversity loss.

Contention remained, however, among policy-makers over the significance of climate change for humanity and the polar bear, while many questioned the global relevance of desertification, land degradation and drought. In the last two decades, both the science and experience have exposed the dangers of climate change to humanity and biological diversity, thus, the desire for international collaboration has grown.

The first decade of the 21st Century will perhaps be remembered as the enlightenment period of the global ramifications of desertification, land degradation and drought. The question is, will we wait for another decade for public awareness and political will to catch up with the science and ground experience before reaching consensus on a target to contain land degradation, or shall we act before the cost becomes too high?

The UN Conference on Sustainable Development (Rio+20) will assess what has been achieved and the challenges that remain. Commemorating the twentieth anniversary of the adoption and opening of signature of the Convention on Biological Diversity is thus, also a moment to reflect critically on the progress and challenges. The Convention's objectives are to conserve biological diversity, to sustainably use its components, and to ensure the fair and equitable sharing of the benefits arising from the utilization of its genetic resources, including through technology

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transfer and funding support.

Thanks to the efforts of the CBD, the value of the Earth's biological diversity is now a priority matter for all; from policy-makers, to scientists and local communities as well. The adoption of the Nagoya Protocol on Access and Benefit Sharing (ABS) last year moves the agenda one step closer to benefit-sharing. The celebration of these developments is well-deserved, but we must not lose sight of the fact that the conservation of biodiversity for posterity is far from sure if our measure of success is a healthy life-web. These achievements mask the global disparities in the valuation of biological diversity, the priority measures financed and the beneficiaries. Going forward, action in three

areas seems particularly pertinent to the achievement of these global objectives.

First, addressing biodiversity loss is contingent upon preventing land degradation and rehabilitating, restoring and recovering degraded land because biodiversity loss marks the first step towards land degradation, which with time, evolves into a mutually-reinforcing downward spiral. Considering that 23 hectares of land is degraded every minute through desertification and drought alone, and that globally 1.5 billion people are affected by land degradation, the impacts on biodiversity conservation are self-evident. Simply put, sustainable land management is a prerequisite for biodiversity conservation.

Second, increased attention must be



given to the conservation of the biological diversity in the drylands. Drylands habitats have a high species diversity of large mammals and are a sanctuary for some migratory birds. They are also a bio reserve or the natural bank of many of the plants not only under cultivation today, but that underpin global food security; from wheat to barley, oat to rye, potato to tomato, olive and cabbage. However, according to Conservation International, of the 25 biodiversity hotspots in the world, eight are in the drylands. For the conservation of these resources, greater attention is needed to ensure the benefits from the ABS accrue to both the world's indigenous and pastoral communities and the poor who both preserve and live off these habitats and their resources.

Third, the synergies in implementing the desertification, biodiversity and climate change agreements must be maximized. The time overlap in the United Nations Decade on Biodiversity (2011–2020) and the United Nations Decade for Deserts and the Fight against Desertification (2010–2020) present an opportunity for joint awareness-raising. To rehabilitate the nearly two billion hectares of degraded land with potential for restoration is to recover some of the lost biological diversity. The pursuit and diffusion of sustainable land management and promotion of a goal to become land degradation neutral are crucial strategies for biodiversity conservation. And a systematic approach at the national level to mainstream gender and indigenous and rural local communities in the national development plans are essential.

We know the negative impacts that climate change and biodiversity will have on the long-term productivity of the land in many regions. Given the relative costs of action versus inaction today and in light of the heightened rates of land degradation, can we afford to wait out one more decade before establishing the mechanisms needed to prevent land degradation and restore degraded land? We cannot and we should not. We need to establish an instrument to address land degradation in all ecosystems and agree on a goal of becoming land degradation neutral urgently. Will we make it happen in Rio in 2012? ❖

## From Rio to Nagoya and beyond: CBD at twenty

**T**wenty years after its birth at the Rio Earth Summit, the Convention on Biological Diversity (CBD) is today a nearly universally ratified global agreement that brings together governments and non-government partners from every corner of the planet to work together for conservation of biodiversity, its sustainable use, and the fair and equitable sharing of benefits arising from the utilization of genetic resources.

The Convention's objectives and IUCN's vision of "a just world that values and conserves nature" are remarkably close, and this is no mere coincidence.

The main elements of the CBD were identified at the General Assembly of IUCN held in Christchurch, New Zealand in 1981, which called on IUCN's Secretariat to "analyze the technical, legal, and economic and financial matters relating to the conservation, accessibility and use of genetic resources with a view to providing the basis for an international arrangement and for rules to implement it."

In the years that followed, the Convention has become one of the heartland issues for IUCN Members, and for the organization as a whole. It would be fair to say that the CBD is the international instrument in which IUCN has invested most throughout the years, and remains deeply committed to its further development and implementation.

IUCN played a key role in many of the Convention's milestones and achievements. For example, after the Convention's entry into force in 1993, IUCN assisted over 75 countries in developing their National Biodiversity Strategies and Action Plans (NBSAPs). The 2003 IUCN World Parks Congress laid the foundations for the adoption of the Convention's highly successful Programme of Work on Protected Areas in 2004 and our Union has been a driving force behind its implementation ever since.

IUCN was present and active at every CBD meeting over the past 20 years. Most recently, we have worked closely



with the CBD Secretariat and the Japanese Presidency in preparing for the CBD COP 10, and were proud to bring our science-based contribution towards the success of Nagoya.

The next challenge is to turn the Nagoya commitments into meaningful action on the ground during this 2011–2020 UN Decade on Biodiversity. As the latest update of the IUCN Red List of Threatened Species reveals, the global biodiversity crisis shows no sign of abating. In fact, in some cases it is threatening to reverse the conservation achievements of the past decades.

Thanks to Nagoya, we have the new deadline for saving life on Earth: 2020. And we also have the new Strategic Plan for Biodiversity 2011–2020 with 20 Aichi Biodiversity Targets to help us meet this deadline. How can we best equip the Convention, and the global biodiversity community as a whole, to achieve these objectives? How can we overcome challenges that question the ability of the Convention to respond effectively and rapidly to the biodiversity crisis?

First, we must urgently address the implementation gap through the revision of NBSAPs, the development of national targets and indicators of progress. It is clear that we do not lack the knowledge or the means to revert the negative trends; what we lack is more effective ways to mainstream biodiversity into economic and political decision making and to build

partnerships for action.

Second, if we are to achieve the 2020 targets, finance is perhaps the toughest challenge facing us. The analysis of development finance trends over the past decade shows that less than 3% of global ODA is directed to biodiversity. What is more, ODA represents but a fraction of global financial flows that impact biodiversity conservation.

The study on The Economics of Ecosystems and Biodiversity (TEEB) has given us the much-needed economic argument to challenge the *status quo*—we must now press ahead with making it happen. It is high time for countries to act collectively on the widely shared objective of reforming the economy so that it supports—rather than undermines—poverty reduction, ecosystem functions, and sustainable development.

Third, in order to effectively halt the loss of biodiversity, the Convention needs to keep abreast of the latest scientific advancements, such as synthetic biology,

geo-engineering, biofuels, genetically modified organisms, and other rapidly advancing technologies and techniques which seek to improve human livelihoods and well-being but may not have always been sufficiently tested for their environmental impacts. Here, the interface between the Convention’s science advisory body, SBSTTA, and the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services (IPBES) will in many ways determine the way the CBD responds to the constantly changing environmental context.

I am nevertheless optimistic that the Parties to the Convention will find the way forward to implement the numerous commitments made under the CBD. The adoption of the Strategic Plan gives us reason to be hopeful. The Plan and its 20 targets provide a global, comprehensive, ambitious yet flexible framework to channel common efforts towards the effective implementation of the Convention while mainstreaming biodiversity conservation

at all levels and sectors and building upon ongoing initiatives.

The Convention’s twentieth anniversary is a joyful occasion and we must take advantage of returning to its Rio origins. IUCN is thus bringing a positive message to the Rio+20 Summit. First, that healthy and robust nature is at the heart of sustainability, and second, that nature-based solutions to the most pressing challenges of our time such as climate change or food security are both possible and desirable.

All of this is, of course, needs to be based on a renewed model of environmental governance which is inclusive of civil society’s needs and concerns, is bottom-up, follows the principle of subsidiarity, and ensures the protection of the rights of the most vulnerable.

IUCN is ready to “roll up its sleeves” and join forces to take the Convention to a next level as it enters its third decade of existence with a bold framework of action which does not shy away from the challenges ahead. ♡

*It is clear that we do not lack the knowledge or the means to revert the negative trends; what we lack is more effective ways to mainstream biodiversity into economic and political decision making and to build partnerships for action.*





**Maurice Strong**, *Former Executive Director, United Nations Environment Programme*

# Strengthening the CBD is a priority

**2**012 marks an important milestone on the road to a secure and sustainable future for the human community and the opportunity to give much needed new impetus to our progress along this road. No event is of greater consequence than the adoption and opening for signature of the United Nations Conference on Biological Biodiversity of which we mark the 20<sup>th</sup> anniversary. Coinciding with the Rio+20 Conference on the 20<sup>th</sup> anniversary of the historic Earth Summit which gave birth to the Convention it must now inspire us to accelerate our progress along this road.

Biodiversity encompasses vast numbers and diversity of species of plants, animals and micro-organisms with their great variety of genes which comprise the Earth's main ecosystems of deserts, marine life and rainforests. As the main components of nature on which human life and well-being depend, almost every aspect of our lives depends on the services which these ecosystems provide. These range from protection of water resources, formation and protection of soils to climate stability, all depend on the biological resources nourished and maintained by the ecosystems which provide the natural capital to which we attach no economic value but without which life as we know it would not be sustainable.

Already the increases in human numbers and the intensity of human impacts on nature provides have led to accelerated extinction of many of the great varieties of life forms that have existed on earth. Indeed, some estimates indicate that less than one percent of the species that have existed on earth remain. While much of this occurred before the emergence of human life the process of extinction and reduction of biodiversity resulting from human activities, notably habitat destruction, has led to an ominous increase in these destructive processes.

It is the greater awareness of this and of the need to take action to protect biological resources from further

degradation that led to the agreement at the Earth Summit in 1992 to establish the Convention on Biological Diversity. With modest resources, a small but very dedicated and effective Secretariat, in cooperation with other Convention Secretariats and related organizations, the support of parties to the Convention and the United Nations Environment Programme has made notable progress. On this milestone occasion it is now well prepared to undertake a major and much needed expansion of its activities. Rio+20 must recognize the priority with which this must now be accorded and elicit the commitment of governments and other sources of finance to provide the expanded financial support that this will require.

I am persuaded that nothing is more important to ensuring the security and sustainability of life on earth and the protection of its biological resources. The Convention on Biological Diversity is the principal means by which this can be achieved. It is the centrepiece of a network of others whose contributions to this process are essential. Of special importance is the role of the International Union for the Conservation of Nature and Natural Resources (IUCN). A unique organization comprising both governmental and non-governmental members, its global constituency, programs and policy influence its special role in monitoring and protection of endangered species is strongly supportive of the CBD.

*To perform its role the CBD needs significant additional support and one of the highest priorities of Rio+20 must be to ensure the mobilization of this support.*

There could be no higher environmental priority: Nature's capacity to continue to provide the services on which we depend. Financial support must be seen as an essential investment in the maintenance of these services. We must not allow nature's natural capital to continue to be squandered.

The Convention on Biological Diversity cannot be considered in isolation from the other Conventions and cooperative activities of which it is an integral part. While each is distinctive in its mandate, and the parties which subscribe to it and its administration, the systemic nature of their respective roles requires close and affective coordination. Strengthening this must be a key priority for the period ahead. The Convention is by its very nature at the centre of this process and is well equipped to contribute to its leadership and implementation.

Much greater support for these and other programs that contribute to its purposes must be a high priority for Rio+20. This will be difficult to achieve at a time when governments are preoccupied with severe economic and financial problems. New and innovative sources of finance must be tapped, primarily from private sources, to meet these needs. Preparation for Rio+20 are focussed on this, including the establishment of "Earth Bonds" to enable private investors to invest in sustainable development projects of developing countries including such projects that will support projects to protect biodiversity.

To perform its role the CBD needs significant additional support and one of the highest priorities of Rio+20 must be to ensure the mobilization of this support. Only this will ensure that the road from Rio will lead to the secure and sustainable future to which we all aspire. ♡





**Liz Dowdeswell**, *President and Chief Executive Officer, Council of Canadian Academies; Former Executive Director, United Nations Environment Programme*

## Rededication to action

**T**wenty years ago in Rio de Janeiro world leaders adopted and opened for signature the United Nations Convention on Biological Diversity. This was the convention about life on earth. The rhetoric was powerful. We spoke of a contract between people and nature and designed a legal instrument built on mutual reliance, solidarity and equity.

At several milestone moments over the years we reflected upon the past and sought evidence of progress. Often the theme was one of being in a state of becoming or bringing about genuine transformation. The designation of the United Nations Decade on Biodiversity, the release of the third Global Biodiversity Outlook and the movement towards an Intergovernmental Science—Policy Platform on Biodiversity and Ecosystems Services, have been major accomplishments in keeping the profile of biodiversity before policy-makers.

Notwithstanding the farsighted work of scientists to address gaps in our knowledge, the persistence and dedication of non-governmental organizations and the passionate leadership of certain countries and individuals, it is clear that we still have a long road to travel. The image of the environmental web that sustains all life unraveling with species and habitats disappearing at an alarming pace is as relevant today as it was in the 1980s. This year is an opportunity to again inject a discipline and urgency in fully implementing the convention.

The recent adoption of the *Strategic Plan for Biodiversity 2011–2020* and the *Aichi Biodiversity Targets* is ambitious and provides a shared vision. But to achieve alignment and equilibrium among society, the economy and the regenerative capacity of ecosystems, purposeful and sustained action unprecedented in scope will be required. Such action must be based on a continuing search for knowledge and understanding and models of governance that are inclusive.

Knowledge is not static and everyday more unanswered questions surface. What

do we know about the impact of instability and climate change on biodiversity? What can we learn about vulnerability and resilience given changing circumstances in the far North? How do we acknowledge the precautionary principle while we seek the benefits of fast-paced biotechnology discoveries for improving health and stimulating the economy? How do we reflect traditional knowledge? What do we mean by sustainable use? How do we place an economic value on biodiversity?

All too often scientists don't understand why policymakers don't act on the evidence they present, while policymakers are

to the economy, to the health of populations, to culture and the sustainability of our world.

Our mutual vulnerability is surely becoming more evident, but history teaches us that it is action that will determine whether or not our societies are strengthened or collapse. A firm foundation has been built, an agenda set, and shared responsibility is becoming the norm. Although paralysis in implementation remains a worry, this is the moment to hold each other accountable and to rededicate ourselves to genuine action. It is within our power to walk more lightly on this Earth. ❖

*The science of biodiversity must be accessible to citizens if change is to be mobilized. Yet there is incomplete recognition of our total dependence on the critical interactions between genes, species and habitats for life. This is the real threat to the implementation of the Convention—no evident public support and sense of urgency that would demand political attention.*

frustrated that scientists don't appreciate the multiple social, economic and geopolitical factors they must take into account when formulating policy. New models of governance must be designed—models that embrace transparency of decision-making, participation of stakeholders and the development of mechanisms for dispute avoidance and resolution. Strong oversight, clear responsibility and accountability, agility and a long-term perspective are all required.

The science of biodiversity must also be accessible to citizens if change is to be mobilized. Yet there is incomplete recognition of our total dependence on the critical interactions between genes, species and habitats for life. This is the real threat to the implementation of the convention—no evident public support and sense of urgency that would demand political attention. The challenge for us is to present the biodiversity story completely, to ensure that it links





## A defining moment

The Rio+20 Summit occurs at a defining moment in the conservation of our planet's species and ecosystems. The coming decade must become the turning point at which we stop the global decline of biodiversity, start the restoration of environmental services, and work together for a transition towards a more sustainable future. To achieve these goals, the world's governments agreed to a list of ambitious targets for 2020 at the global biodiversity conference (tenth meeting of the Conference of the Parties to the Convention on Biological Diversity) in Nagoya in 2010.

The protection of biodiversity is sometimes falsely seen as luxury. There is growing awareness that human development and well-being are intrinsically tied to the world's natural assets. Biodiversity underpins ecosystem functioning and the provision of essential services. It provides food security, human health, clean water and air and medicine. Without biodiversity, we have no chance to address climate change. Yet biodiversity diminishes continually and unconstrained, estimated at a decline rate 1000 times higher than natural. The impoverished, being most vulnerable to extreme events and catastrophic changes in ecosystems, are hit hardest. Hundreds of millions of people, for example, depend on coastal or coral ecosystems for their food and livelihoods. Yet fish populations are overexploited, corals are bleaching and mangroves are being destroyed. Land degradation and erosion of soils threaten food and water safety for many of the poorest people.

The reports on the Economics of Ecosystems and Biodiversity (TEEB) have clearly shown that biodiversity and ecosystem conservation makes economic sense. Particularly during financial crisis we cannot afford to continue subsidising economic activities that are environmentally harmful and we will drain public budgets in the future. Europe's heavily subsidised agricultural policy is still considered to be the major cause of biodiversity decline. We must instead invest in

biodiversity, integrate its costs and benefits into our economic system and ensure that new funding instruments that meet actual needs are put in place. Economic incentives can play a major role in influencing the way we use our "natural capital". Realigning subsidies, taxes, market prices and other economic signals must be made priority in a way that they internalise environmental costs and more fully reflect the "polluter pays principal". New approaches to valuing natural wealth present ways of moving beyond the narrowness of the GDP and to developing more comprehensive indicators for wealth or well-being.

nature. Global food security and health are closely related to property-right arrangements. We therefore need to carefully balance private, public and common property rights.

Despite the accelerating loss of biodiversity, there are also encouraging signs of hope. Since its adoption at the last Rio Conference in 1992, the Convention on Biological Diversity has been pushing the global community unrelentingly towards sustainability. At a time when the global community often found it challenging to decide on common environmental aims, Parties to the Convention on Biological

*Twenty years after the first Rio Conference, humankind stands at a cross road. To make the United Nations Decade on Biodiversity a success story, we must now scale-up our efforts and ensure that the ambitious targets set in Nagoya will be delivered, not only through the CBD and its bodies, but through environmental cooperation and governance at all levels.*

The direct causes of biodiversity loss, such as pollution, habitat degradation, land-use change, overexploitation, climate change and invasive alien species are well known. They can only be addressed if ecosystem concerns are fully integrated into all relevant policies, budgets and economic decision making-both in the public and private sectors. However, while significant progress has been made in direct nature conservation, e.g. through the designation of protected areas or regulation of wildlife trade, the sectorial integration has largely failed. If we still want to meet our objectives for 2020, reform must take place now. For example, Europe currently has the unique chance to reform its Common Agriculture and Fisheries Policies for the period of 2014–2020. Solutions for sustainable reform are on the table, the year 2012 will show if we will be able to deliver the commitments made in Nagoya.

We also need to ensure fair access to public goods and services provided by

Diversity have set an example: At their tenth meeting, in Nagoya, Japan, they agreed to encouraging developments in the protection of biodiversity, such as the creation of an Intergovernmental Platform on Biodiversity and Ecosystem Services, the adoption of the Nagoya Protocol on Access and Benefit-Sharing and the establishment of the world's first regional network of marine protected areas. This exemplifies the modern approach to nature conservation.

Twenty years after the first Rio Conference, humankind stands at a cross road. To make the United Nations Decade on Biodiversity a success story, we must now scale-up our efforts and ensure that the ambitious targets set in Nagoya will be delivered, not only through the CBD and its bodies, but through environmental cooperation and governance at all levels. Heads of States and Governments, together with the entire global community, have come to this defining moment; it is a great challenge, but a great opportunity as well. ❖



**Patrick Weiten**, *President of the Moselle General Council, France*

# Nature can only protect if she is protected

**P**rotecting Nature: this is what the greenhouse gas reduction objectives asserted a few weeks ago in Durban are aimed at, as is the protection of biodiversity concretised by the Nagoya Protocol. It will also be the key phrase for the 11th Conference of the Parties to the Convention on Biodiversity which will meet in Hyderabad next October.

All the actors, whether they are political or economic actors, from the public or private sector, or just everyday citizens, must take up this motto and set about turning the objectives of the Rio Summit into concrete realities.

As a public-sector actor, the Moselle General Council has made environmental protection and maintaining biodiversity an important cause. It adopted this motto a long time ago!

The Moselle General Council wishes to demonstrate that nature is accessible to everyone. Training, teaching and educating people from an early age to respect and preserve our natural environment constitutes one of our policy's major orientations. The elected officials of our region energetically strive to achieve this on a daily basis. Local institutions have a moral responsibility, an economic responsibility, and an ethical responsibility, and must make sure that our children benefit from the same advantages and the same environments as the ones that we inherited from our parents.

Twenty years after the Rio Summit, the first major meeting for setting a roadmap for sustainable development, there is a realisation that we still have a long way to go! However we must not falter in our efforts, or take the easy way out.

With the reserves at Montenach and Hettange-Grande, the continental saltwater wetlands of the Seille Valley, the 300 Sensitive Natural Areas, and not forgetting those sites that belong to the General Council such as the Lindre Lake or the Laquenexy Fruit Gardens, the Moselle is an outstanding area for biodiversity. It can

in the Laquenexy Fruit Gardens. As the United Nations Convention on Biological Diversity recommends, we are aiming to promote the conservation and rational use of these special sites through local and national-level initiatives, and via international co-operation. I am also very proud that one of the Moselle's products, our illustrated apples, has become

one of the emblems of the Nagoya Protocol and that they were systematically presented to its signatories as the symbol of fair, equitable sharing of resources!

Being a land that offers biodiversity, and cultural and historic diversity right in the heart of Europe does not prevent the Moselle from being an industrial area. We hear the voices of those who, faced with the fragile nature of the environmental balance, are calling for mankind to give up economic development. But there are others, and I am one of them, who consider industry, along with its research and innovation environment, to be necessary for saving mankind and the Earth's ecosys-

tem. Sustainable solutions are now within our reach, simultaneously enabling good industrial performance, development of the economy (particularly at local level and in relation to employment), and fulfilment of the requirements of human development, whilst at the same time preserving the environment.

The Moselle will continue to be a land offering biodiversity and the General Council will continue to promote it, preserve it and give it positive reinforcement. ♡

(The Moselle is one of the 101 French Départements, located in eastern France, and it has a population of 1 million people.)



*Local institutions have a moral responsibility, an economic responsibility, and an ethical responsibility, and must make sure that our children benefit from the same advantages and the same environments as the ones that we inherited from our parents.*

also be proud of having been mindful of the environment for a long time: Jean-Marie Pelt, the renowned botanist, has worked there for many years in order to preserve biodiversity and founded the European Ecology Institute there in 1971.

I would like to show that the Moselle is taking part in objectives towards a sustainable development that is now essential: it protects the Lindre Lake, a wetland of major international importance, and one of the sites designated by the Ramsar Convention, and it continues to develop the leading fruit tree collection in France, with 1,600 species of fruit trees preserved



Masaru Onishi, *President, Japan Airlines*



## JAL remains committed to raising biodiversity awareness

One year has passed since the United Nations Decade on Biodiversity was declared, following the historical success of the tenth meeting of the Conference of the Parties (COP 10).

Last year, while implementing the corporate reorganization plan of Japan Airlines (JAL) with the support of many stakeholders, we worked determinedly to maintain our environmental activities in deep gratitude to society. As it was the International Year of Biodiversity, with Japan hosting COP 10, we considered what we could do as an airline of the host country to promote this significant cause. Considering the first step for carrying out conservation activities is to increase public awareness of biodiversity, we decided to disseminate this vital message to as many people as possible. Utilizing our features as an airline, we operated COP 10 Eco Jets bearing the COP 10 logo and promoted biodiversity in our inflight magazine, inflight video and through the distribution of origami, and such.

As a small supporter carrying out these activities, we were delighted with the great success of COP 10. At the same time, we deepened our understanding that COP 10 was not a goal, but the start of a continuous process, and realized the significance of putting the results of COP 10 into action to actually protect biodiversity. I believe our activities should not end there, but should be carried out for the long term. Personally, participation in this worthy activity has reaffirmed my belief that the human race is supported by nature, and naturally, even our airline business, which serves to bridge diversity on a global scale, could not exist without biodiversity.

In 2011, JAL adopted the red crane-shaped logo, and operated a charter flight using the first aircraft painted with the crane motif to Kushiro in Hokkaido

*As an airline bridging countries and peoples around the world, JAL is firmly committed to making joint efforts to pass on a beautiful and abundant planet which co-exists with nature to future generations.*

at the end of February. While watching red-crowned cranes in the snow fields, a signing ceremony was held with Mr. Watanabe, Director-General of the Nature Conservation Bureau of the Ministry of the Environment. JAL pledged to lend support to the UN Decade on Biodiversity, and protect and promote the conservation of beautiful Japanese nature, including the Japanese crane. One of our activities to increase awareness of nature and biodiversity conservation was the unveiling of an aircraft called JAL Eco Jet “Nature”, decorated with the UN Decade on Biodiversity logo in late September. This winter, we will sponsor a Japanese Crane Photo Contest to remind more people of the beauty of Japanese nature and promote conservation activities. In such ways, we will make continuous efforts to convey the messages of the UN Decade on Biodiversity.

All stakeholders must be engaged in achieving the Aichi Targets adopted at COP 10 in the decade following 2011. Companies can participate in various ways depending on their business operations and business category. For JAL, we will actively strive towards:

- Target 1—concerning awareness of the values of biodiversity and steps to conserve and use it sustainably, we will continue conducting public awareness activities.
- Target 5—concerning the loss of natural habitats, including forests, we will continue looking out for and alerting relevant authorities about forest-fires.

- Target 9—concerning the invasion of alien species, we will strive to prevent their unexpected transportation.
- Target 10—concerning impacts of climate change, we will conduct atmospheric observations and various global warming prevention activities.

Furthermore, we as an airline would like to encourage passengers to renew their appreciation for the culture and nature of their own country through travel experiences to places with those attributes.

2011 was the first year of the UN Decade on Biodiversity for establishing a society that lives in harmony with nature. Poignantly, in this same year, Japan was struck by successive unprecedented disasters such as earthquakes, tsunamis, and typhoons, while Thailand was engulfed in floods. Nature demonstrated its overwhelming force to the world. In the face of these disasters, many people were reminded of the importance of ties with family and friends, and the word “*kizuna*” which means “bonds” in Japanese was chosen as the most significant and representative word for this year. It seems the time has come to re-evaluate the relationship between mankind and nature, and make efforts to repair this bond.

As an airline bridging countries and peoples around the world, JAL is firmly committed to making joint efforts to pass on a beautiful and abundant planet which co-exists with nature to future generations. ♡



**Thomas Lovejoy**, *Chief biodiversity adviser to the President of the World Bank; Senior advisor to the president of the United Nations Foundation; President of the Heinz Center for Science, Economics, and the Environment*

## The growing importance of biological diversity

**B**iological diversity was not even a decade old when Mostafa Tolba invited a small group to Nairobi in 1987 to discuss what might be the outlines of a convention on biological diversity. It was a special moment when science was asked to inform global policy. I remember impressive openness on the part of the Executive Director to all of our suggestions—even when I interjected that if something wasn’t also done about climate change we “could forget about biological diversity”. Undoubtedly something was already underway about a convention to deal with climate change. In any case, in 1992 the two Rio conventions on biodi-

as separate entities, all the environmental threats in the end affect the biology of the planet, i.e., biodiversity integrates all environmental stresses. From this perspective, the planetary boundaries, put forth by Rockstrom and the Stockholm Environment Institute, are quite instructive. For those for which sufficient data exist, the three boundaries currently exceeded are those of climate change, nitrogen and biodiversity. According to their calculations the biodiversity boundary has been exceeded the most, in part because of the impact of the other two in addition to things like habitat destruction and alien species.

is clear that two degrees warming will be too much for ecosystems yet that currently is the negotiators target. To stop at two degrees global emissions have to peak in 2016.

Clearly the biology of the planet is signaling that compartmentalized approaches to environmental problems are far from sufficient, and that we have to manage the planet as a whole—as the biophysical system that it actually is.

For climate change and the carbon cycle the way forward is pretty clear. We have to wean ourselves off fossil fuels or find ways to burn them without releasing CO<sub>2</sub> to the atmosphere. As much as half the current excess CO<sub>2</sub> in the atmosphere actually comes from the destruction and degradation of ecosystems over the past three centuries. A significant portion of that can be taken back from the atmosphere by proactive planetary scale ecosystem restoration. That has important side benefits in ecosystem goods and services, and simultaneously makes those ecosystems more resilient to the stresses they will experience. In no small way it will raise public consciousness of the importance of biology and biodiversity. We will also need to find economical non-biological ways to remove carbon dioxide from the atmosphere and convert it into something inert.

All this has to be achieved in a world still adding two to three more billion people. That represents a major challenge in terms of increased agricultural production with less—not more—nitrogen pollution and further destruction of natural ecosystems. That in turn is an enormous challenge for the life sciences but also means that biodiversity is ever more important. Each species represents a set of pretested solutions to a unique set of biological problems so, in the end, biodiversity is also an enormous living library from which we can derive a better future for humanity and the living planet we call home. ♡

*Clearly the biology of the planet is signaling that compartmentalized approaches to environmental problems are far from sufficient, and that we have to manage the planet as a whole—as the biophysical system that it actually is.*

versity and climate change were adopted and opened for signature. The Global Environment Facility came into existence and not long after, a third convention followed on desertification/land degradation.

With Rio+20 looming it is useful to look back at the time of the Earth Summit in 1992. In the two decades, the global number of protected areas has increased dramatically from under 50,000 to in excess of 70,000. In 2010, total marine and terrestrial area protected was close to 12% of the surface of the planet. In that period, The Global Environment Facility (GEF) invested \$3.1 billion in biodiversity projects in 1,000 projects in 155 countries, and leveraged an additional \$8.3 billion. This included creation or improved management of 2,302 protected areas comprising 630 million hectares.

What is clear is that while the Rio and other environmental conventions exist

Nitrogen, while less appreciated as a global issue, looms large. There is twice the normal level of biologically active nitrogen available in the world today, derived in significant degree from agricultural fertilizers. The resultant nitrogen in run-off creates major imbalances in aquatic communities, and, in particular, creates dead zones such as in the Gulf of Mexico. The global number of dead zones has doubled every decade for the last 40 years.

The impact of climate change on the biology of the planet is becoming quite pronounced: changing annual life cycles, changes in geographical ranges, and more disturbingly, ecosystem collapse. Coral reefs are bleaching more frequently every year. There is major coniferous tree dieback in western North America, and the Amazon is edging towards dieback in the southern and south-eastern Amazon. It



**Sara Oldfield**, *Secretary General, Botanic Gardens Conservation International*

# The crucial role of plants in biodiversity conservation

The Strategic Plan for Biodiversity takes centre stage in international policy to conserve and restore our damaged earth, ensuring natural resilience to global climate change and the continuing supply of ecological goods and services. All terrestrial ecosystems are based on plant diversity and conservation of plant resources is therefore vital for our future. Parties to the Convention on Biological Diversity (CBD) have committed to conserving plant diversity through the adoption of the Global Strategy for Plant Conservation (GSPC) and the CBD Secretariat is playing a crucial coordinating role in facilitating its delivery.

Do we need to make a special case for conserving plants within the broader biodiversity framework? The answer is yes! In the history of biodiversity conservation, plants have always fared poorly in capturing the popular and political imagination, particularly in the Western world. Despite the importance of plants for the supply of food, medicines, timber, ornamentals; for regulating atmospheric gases, stabilising soils and providing the structure of virtually all terrestrial habitats, the role of plants is taken for granted and “plant blindness” has become an accepted term.

At a time when botanical capacity is decreasing and the threats to wild plant diversity grow ever greater, the GSPC has galvanised action. First agreed in 2002 with 16 ambitious targets to be met by 2010, the GSPC has been very effective in bringing together all who are interested in conserving plants to work towards a common agenda at a local to global level. The Strategy has motivated the botanic garden community worldwide and has linked their work more directly with national governments, conservation and development NGOs and the agriculture and forestry sectors. One of the main practical successes of the GSPC has been the development of a comprehensive consolidated online list of plant species available for the first time in 2010. Coordinated

by the Royal Botanic Gardens, Kew and Missouri Botanical Gardens, with a wide range of partners, in response to Target 1 there is now a yardstick for measuring plant diversity, its loss and its conservation. The total number of accepted plant species names currently documented is 298,000.

Another success of the GSPC has been to identify the Important Plant Areas for conservation. To date 66 countries around the world have taken steps to identify and protect nationally important sites for the conservation of plant diversity in line with Target 5 of the Global Strategy. Plantlife International is championing this work that helps to ensure that the maximum amount

the GSPC becomes increasingly embedded in institutional policies and are united through the Global Partnership for Plant Conservation. Tools are being developed to share experiences and best practices around the world with the online GSPC toolkit being developed in a number of languages. Workshops are underway to link GSPC activities with National Biodiversity Strategies and Action Plans development, ensuring that plant conservation is not seen as an isolated specialist activity. BGCI and IUCN, working with universities, forestry institutions and other expert networks, are committed to evaluate the conservation status of all the world’s trees

*Despite the importance of plants for the supply of food, medicines, timber, ornamentals; for regulating atmospheric gases, stabilising soils and providing the structure of virtually all terrestrial habitats, the role of plants is taken for granted and plant blindness has become an accepted term.*

of plant diversity is conserved as part of the Ecosystem Approach. Conserving plant species in *ex situ* collections has also received a significant boost as a result of coordinated efforts in line with Target 8 of the GSPC. At least 40 percent of the world’s threatened plant species are conserved in living collections and seed banks as monitored by Botanic Gardens Conservation International (BGCI).

Of course much work remains to be done to ensure that plant species do not needlessly become extinct. An updated version of the GSPC was adopted in 2010 with ambitious targets to be met by 2020. This could be interpreted as moving the goal posts but I believe that it rather reflects an increasing commitment to conserve the maximum amount of plant diversity as a matter of urgency. The organisations involved in supporting national activities are better placed to meet the challenge as

by 2020. This is increasingly possible because of advances in bioinformatics and the sociology of sharing information. A new Ecological Restoration Alliance of botanic gardens has been formed to utilise *ex situ* collections in restoration of the world’s damaged ecosystems building on the achievements of GSPC Target 8.

Twenty years ago, the Convention on Biological Diversity, marked a turning point in global efforts to conserve biodiversity, recognising the fundamental importance of sustainable use and equitable sharing of the benefits of biodiversity. Ten years later the Global Strategy for Plant Conservation was agreed setting out an agenda specifically for plants. Looking ahead, over the next decade we need to ensure that the successes of plant conservation are celebrated, shared and replicated and that the fundamental importance of plants is understood by all. ♡





**Jeffrey A. McNeely**, *Senior Science Advisor, International Union for Conservation of Nature*

# Building civil society into the work of the CBD: The role of the Global Biodiversity Forum

**B**ack in 1990, when the Convention on Biological Diversity (CBD) was still a dream, or at least a fond hope, several of us published a book titled *Saving the World's Biological Diversity*, followed soon after by *Global Biodiversity Strategy*. Both of these recognized that governments needed to take the lead in conserving biodiversity and supported the development of an international convention toward this end.

But both of these books also recognized that government alone was insufficient to meet the challenge, and that civil society also needed to support the conservation of biodiversity and the sustainable use of biological resources. And while governments could set the policy framework for equitable sharing of the benefits arising from the use of genetic resources, it would be up to conservation organizations, corporations, scientists, local communities, and even individuals to make this a reality. Thus was born the Global Biodiversity Forum, supported by the International Union for Conservation of Nature (IUCN), the World Resources Institute (WRI), the African Centre for technology Studies (ACTS), and the United Nations Environment Program (UNEP). It started its pioneering efforts to convene multi-stakeholder dialogues in 1992, as the CBD matured into its final form, and then participated actively in the development of the Convention after it entered into force in 1993.

Over the subsequent 15 years, the GBF held some 25 sessions and attracted dozens of additional partners as co-convenors, helping to build a broad public constituency for conservation, benefit sharing, and sustainable use of biological resources. It also attracted multiple donors, led by the Swiss Agency for Development Cooperation (SDC) but also including the Global Environment Facility, WWF, Conservation International, and

numerous government agencies.

From its very beginning, the GBF worked closely with the Secretariat of the CBD and the Conference of Parties (COP). Many of its dialogues were held prior to the opening of the COP, and the GBF was invited to share its results in a brief statement at the opening plenary of each session of the COP. A fuller written report of the conclusions from the GBF was widely distributed at each COP.

But the GBF did not stop there; it also recognized that achieving the objectives of the CBD would require that other

conventions. GBF 11 was held at the Conference of Parties of the Climate Change Convention and highlighted the impacts of climate change on biodiversity. While these impacts were coming under increasing scrutiny from scientists, they were not being addressed very seriously by the Climate Change Convention until the GBF helped give the issue a higher profile. Subsequent closer cooperation between the two conventions has benefitted both, though neither can yet claim that the problems of climate change and biodiversity are being adequately

*As climate change becomes a more obvious problem, it is also becoming increasingly apparent that conserving biodiversity—maintaining the widest range of options—is an essential element for adapting to the changes that are sure to come.*

international agreements would also need to incorporate biodiversity concerns into their work. It therefore held sessions at Conferences of Parties of the Convention on Wetlands of International Importance (Ramsar), the Convention on International Trade in Endangered Species, the Framework Convention on Climate Change, the Convention to Combat Desertification, the UN Commission on Sustainable Development, and even the World Trade Organization. It also provided a specific link of biodiversity to the Millennium Development Goals, and held numerous sessions at the regional level. The latter were designed to help Parties consider the options for addressing the key issues at upcoming sessions of the Conference of Parties and its subsidiary body.

Two examples will illustrate how the GBF promoted cooperation among the

addressed. As climate change becomes a more obvious problem, it is also becoming increasingly apparent that conserving biodiversity—maintaining the widest range of options—is an essential element for adapting to the changes that are sure to come.

GBF 17, held in Valencia, Spain at the COP of the Wetlands Convention, went into considerable detail about the common interests between the CBD and Ramsar, leading ultimately to a formal cooperative agreement between the two conventions. While the respective secretariats of the conventions deserve the credit for making this agreement a reality, the exposure of the issues by the GBF provided a significant boost and helped to develop practical demonstrations of putting the ideals of the CBD into practice in wetlands.

By providing a venue for the interests of civil society, freely open to all points of

view, the GBF also gave governments an opportunity to discuss informally some of the key issues that would be discussed subsequently during the Conference of Parties. Issues such as marine protected areas, invasive alien species, access and benefit-sharing, biotechnology, and traditional knowledge were all addressed through workshops and informal discussions, helping governments to formulate their positions on these significant elements of the CBD.

After 15 years and 25 sessions, the Secretariat of the Global Biodiversity Forum, provided by IUCN, decided that the GBF had achieved the goals that were established back in the early 1990s. Biodiversity had entered the public vocabulary, the CBD had become a mature negotiating body where all Parties were well informed about the key issues, the other international agreements had built biodiversity into their discussions, CBD protocols on Biosafety and on Access and Benefit-Sharing had been agreed, the value of traditional knowledge had been widely recognized, and significant funds were flowing into the implementation of the CBD at global, national, and local levels. A quick look at GBF on Google will provide about 2.5 million opportunities to discover more about the effectiveness of the Global Biodiversity Forum in bringing science, policy, and civil society into a productive dialogue. The coming years will challenge society to find ways to live in a sustainable balance with biodiversity, but the GBF has showed a positive way forward. ❖



## A CBD retrospective

**T**wenty years ago at the Rio summit, we believed we had finally turned the tide on environmental issues with three significant international agreements: biodiversity, climate change and desertification. There was a sense of urgency, but also a sense of satisfaction with the perhaps naïve expectation that, with these treaties, the planet would soon be a better place. All that was needed was to get them signed, ratified and implemented. Signatures and ratification were relatively easy.

The biodiversity negotiations started routinely, based on IUCN's early drafting. We were excited about the prospect of a comprehensive international approach to conservation. In Canada, our preparations for each negotiating session were extensive and demanding. All potentially affected Canadian interests were involved in developing the positions we took into the negotiations and most of those interests were represented on our delegations.

Our detailed preparations provided major benefits. We soon realized that by addressing the diverse interests at home, we had already foreshadowed the actual negotiations. As importantly, when it came to our decision on ratification, all interests had been so engaged throughout that political approval was quickly secured. It helped that the leader of the Canadian delegations, Arthur Campeau, an appointee of the Prime Minister, was able to provide him the needed assurances. This enabled Prime Minister Mulroney at Rio to commit Canada to ratification and, indeed, to become the first industrialised country to do so a few months later.

Nevertheless, there were some surprises emerging from the negotiations which had the effect of lifting the CBD from a routine conservation treaty to a potentially influential global instrument for trade and development. It has the as-yet unfulfilled potential to help developing economies and impoverished populations to, with a little help, become more self-sufficient through biodiversity conservation and sustainable use.



The prominence given to the special circumstances of indigenous and local communities, which Canada played a significant role in negotiating, has been an especially interesting innovation. In no other treaty have the voices of such interests been given such prominence to such positive effect. While the decisions are ultimately taken by governments, the unfettered voices of indigenous and local community representatives in the formal negotiations of the 8j Working Group have been very influential in raising global awareness of their relevance and importance. This unique CBD feature needs not only to be preserved and enhanced, but emulated elsewhere. The Nagoya Protocol demonstrates the feasibility of this.

Other ideas, unusual in conservation treaties, but given prominence in the language of the Convention and reinforcing the importance of national implementation, included: benefit sharing; access to and transfer of technology; technical and scientific cooperation; research and training, and new and additional financial resources. Taken together and effectively supported, these terms have the intent to enable all nations to make beneficial, sustainable use of their natural heritage to achieve conservation as well as poverty reduction objectives. Twenty years on, the achievement of these objectives remains elusive. One glimmer of hope is the success of community-based achievements through such programs as the Equator Initiative of UNDP. Canada helped initiate this at Rio+10 in Johannesburg and it remains an important indicator of the power and potential of minimally-funded local



sustainable livelihood initiatives. A second potential avenue for positive results, highlighted at COP 10 in Nagoya, is the greater involvement of businesses in the ongoing pursuit of the Convention objectives. Businesses are exhibiting a growing awareness of the importance of conservation to their sustainability. The business-led Canadian Business and Biodiversity Council is an example of this interest.

The Biosafety and ABS protocols are important, hard-won instruments which bring into pragmatic focus key economic and business-related elements of the Convention. Governmental commitment to their implementation, coupled with strategies for the achievement of the Aichi 2020 targets agreed in Nagoya, offer opportunity for a renewed global attempt to reduce the rate of loss of biodiversity. With the help of TEEB, the 'business case' for action is becoming more evident.

For this Canadian, other vivid and proud early memories of the CBD include Elizabeth Dickson's prominent role for the preparation of the entry into force of the Convention, played an instrumental role in the preparation of COP 1 and was also responsible for selecting the CBD's now-famous 3-leaf logo. COP 2 in Jakarta was the setting for Montreal being voted host of the CBD Secretariat. The appointment of Canadian Tim Hodges to co-chair the ABS negotiations was also recognition of the constructive, balanced approach to the Convention we had consistently tried to take.

On the lighter side, many international meetings held in Montreal following the establishment of the Secretariat proved, in the dead of winter, to be a trial for our visitors from the tropics—so much so that we decided to provide the loan of winter military parkas and snow boots for delegates needing them (some having arrived in open sandals). The enduring memory is of small groups of delegates standing in the snow outside the ICAO building taking photos of each other huddled under their parkas to show those back home how to cope with Canada's weather in January. Even more fun were the ice-skating parties where brave visitors who had trouble enough walking on the slippery streets, donned skates for the first time in a display of high spirits, if not proficiency. ❧

## Lest we forget

**T**he successful conclusion of negotiations for the Convention on Biological Diversity (CBD) in 1992 before the Earth Summit in Rio was considered by many as a victory for developing countries. It was seen as the first time when the legitimate concerns of Third World countries for their sovereign natural resources were recognised.

I would say that it is not so much a victory or defeat for any side. As I see it, biodiversity emerged as the victor after months of intense and often agonising sessions of the negotiating process. The hundreds of square brackets confronting delegates at the final session seemed insurmountable, but there was a sense of urgency that the treaty must be ready for the Rio Earth Summit of June 1992. It must be said that it took a lot of arm-twisting, horse-trading and good sense to bring about a clean text for adoption in the wee hours of the last session of the negotiations.

However, for those who viewed the successful negotiations of the Convention on Biodiversity as a proud achievement for developing countries, the sense of 'victory' would be short-lived. The follow-up process before the Convention came into force and the subsequent Conferences of the Parties became the stage for a re-play or re-enactment of the difficult negotiating process.

The same problematic areas were debated anew in the sessions of the Conference of the Parties when it would be fair to expect difficult discussions only on the main contentious issue of financial resources as this was unresolved and a conditional acceptance of the GEF allowed the text of the Convention to be adopted before the Rio Earth Summit. Be that as it may, there has been to date no clear initiatives to restructure the GEF so that it can be accepted definitively as the financial mechanism of the Convention. This is, of course, intentional.

Many of us did not realise that the



developed countries had decided in advance that they would put a stop to the establishment of a fund for every environment convention. The first casualties were the Convention on Biodiversity and the Convention on Desertification. This decision was put into place just before

the Rio Earth Summit and so a Biodiversity Fund was strongly resisted by the developed countries throughout the negotiations. Instead, all funding requirements were channelled to the GEF under the auspices of the World Bank.

The GEF has a different governance and to have this 'external' entity in control of financial disbursements is tantamount to subjecting the decisions of the sovereign Parties of the Convention to another round of scrutiny by a separate financial governance which may have no appreciation of environment priorities and sensitivities. It makes a mockery of the Convention's sovereignty and reduces its decisions to a question of dollars and cents.

It is particularly galling to note that some delegates from developed countries seemed to come to the COP meetings with the sole mandate of rejecting every request with financial implications. In this respect, there is much to be said for promoting South-South co-operation and consultation and putting an end to the cycle of humiliation faced by developing countries at every Conference of the Parties. It is also time to put an end to the 'ODA' or Overseas Development Aid mentality of those who attend environment meetings for developed countries.

Another contentious negotiation area was the question of access and benefit-sharing. However, after many sessions of difficult negotiations a Protocol was put together. Its successful conclusion and adoption at the 10th Conference of the Parties at Nagoya, Japan, was made possible by the tenacity and commitment of the host country as well as the constant diligence and focus of the CBD Secretariat under the leadership of its Executive Secretary.



Indeed, it had also taken some very difficult negotiations to project access and benefit-sharing as one of the three main objectives of the CBD. This was indeed a notable achievement as it was a step in the right direction to deal with the concern for bio-piracy. As for the Protocol, it remains to be seen how the blanks will be filled in and how the implementation process will proceed. It will take the vigilance of developing countries to ensure the use of their natural resources will have their prior informed consent and that the approved usage will be based on appropriate benefits. In this connection, previous donations made in good faith to seed banks will also merit scrutiny for proper usage.

The question of biosafety was also eagerly debated during the CBD negotiations. Initially, the developed countries were somewhat startled when biosafety was proposed into the draft text by the Malaysian delegation. In any event, early apprehension and resistance gave way to acceptance and the final outcome in calling for a Protocol certainly went beyond our initial desire to flag the importance of biosafety in a convention on biodiversity. Now, we have a Protocol on Biosafety in place and in the process of implementation.

Another area of contentious debate was the question of conservation. To what extent the CBD should pursue the conservation of our natural resources without curtailing the opportunities of utilization. This was when the term 'sustainable' gained greater respectability and currency as a convenient description of 'extent of utilization without irreversible damage to the integrity of the natural resources'.

It was interesting that one delegation had come to the negotiations with the sole intent of making the CBD a 'National Parks' convention. This would have meant a convention solely on conservation. However, the negotiators realised that a CBD had to give an honest assessment, and found the three objectives which would capture the reality of biodiversity in all its manifestation viz. Conservation, sustainable use and access and sharing of benefits. These became the three main objectives of the CBD. Credit must go to some of the main negotiators from the developed countries who, after almost two years of intense negotiations, had to concede to



*Those who seek to undermine the legal authority of the CBD under the guise of science would do well to remember that terrestrial biodiversity, mainly forest and agricultural biodiversity, are sovereign resources within national boundaries unlike the atmosphere and the oceans which are in the global commons.*

the insistence of the developing countries that their legitimate concerns for the sovereignty of their natural resources, should be respected.

So it can be said that the CBD captured the aspirations of the developing countries and apart from the contentious financial issues can look forward to some meaningful implementation of the convention. However, this has not been the case. As it turned out, developing countries had to contend with much more than the expected financial problems. Very often and without realising it, delegates to the Conferences of the Parties have been, as it were, put in a position of 're-negotiating' the CBD. It is clear that those delegates who lost out on their pet theories during the negotiations, are now seeking to re-insert them in the process of implementation.

It is no wonder that COP meetings are a bewildering experience with multifaceted proposals introduced at every turn. Admittedly, biodiversity is a vast and complex subject, but it would be prudent for delegates to ascertain which section or article of the CBD a new proposal seeks to implement. In this respect, the staff of the CBD Secretariat must be commended

for making sense and order out of the various proposals, some of which have hardly any relevance to the CBD.

Regrettably, it continues to be a source of concern that some countries use the implementation process to re-introduce elements which they lost during the negotiations of the Convention. Of equal concern is the trend to set up new panels and platforms to further their agenda to cripple the CBD as if their consistent efforts to unravel the Convention were not enough! Recent reports on preliminary discussions of what a particular 'platform' would and could do after it is set up, read more like an obituary for the CBD and its subsidiary body SBSTTA! I can only say that those who seek to undermine the legal authority of the CBD under the guise of science, would do well to remember that terrestrial biodiversity, mainly forest and agricultural biodiversity, are sovereign resources within national boundaries unlike the atmosphere and the oceans which are in the global commons. Of course, the CBD is not the only victim of such sabotage! Some other conventions have met the same fate with one particular convention even going to the extent of implementing programmes

of action which are in direct contradiction to its original intent and objective.

It is timely at Rio+20 to call a halt to such unproductive tactics and focus on genuine implementation. IMPLEMENTATION should be the clarion call of Rio+20. The creation of new organisations and platforms should be carefully assessed for their viability and relevance to existing environment bodies and treaties. It is evident that the required scientific data and assessments already exist and await implementation. The establishment of additional structures will only deploy essential financial resources away from the main tasks.

In actual fact, what is most needed is a new mindset as implementation depends on that. This is the conclusion I reached

from more than a dozen years of involvement in international environment negotiations. During this time, I have not seen any change in the mindset that had bedevilled our negotiations ever since the preparatory process prior to the Rio Earth Summit in 1992. This same mindset is now driving the preparations for Rio+20. Principally, this mindset seeks to control the Third World's usage of its sovereign natural resources. In doing this, consultation takes a back seat while prescriptive measures enjoy a free ride. This kind of mindset impoverishes the environment debate and can only destroy what it seeks to save.

We desperately need to eradicate this 'destructive' mindset and seek to re-ignite

the spirit of partnership and joint endeavour which the Rio Earth Summit had endorsed. Tactics of force and intimidation should give way to a more consultative and technology-accessible approach which is receptive to the economic aspirations of developing countries and their difficult struggle to remain on the path of sustainable development. The Rio+20 Summit should seize the opportunity to initiate a framework for all environment meetings to adopt this new consultative and supportive approach. Catchy phrases and colour slogans alone will not do the job!

Let us be part of the solution so that this earth's legacy of wonderful biodiversity can be passed on to future generations. ✨

**Veit Koester**, *External professor, Roskilde University; Visiting Professor, United Nations University—Institute of Advanced Studies*



## The biodiversity convention regime: Personal reflections on the past, present, and future from a legal perspective

**B**eing involved to some extent in the process of elaborating the IUCN Draft Convention on Biodiversity *inter alia* by attending a workshop discussing the draft at the 17<sup>th</sup> IUCN General Assembly in San José, Costa Rica in early 1988, I had no idea that this process would become a minor part of a much wider process, leading to the adoption of a biodiversity convention and successively evolve into a true biodiversity convention regime.

Similarly, such a perspective was certainly not on my mind when I in November 1988 was elected chairperson of a working group established by the United Nations Environment Programme (UNEP) pursuant to a Governing Council decision with a view of analysing existing MEAs to identify possible gaps in the international law for biodiversity conservation, and address how to fill such gaps.

Neither could I predict that the first meeting of the UNEP Working Group would mark the beginning of a most interesting, and extremely challenging, but, seen from a personal angle, at times also a very difficult and frustrating process, related to my almost on-going chairing functions from 1988 to 2009 when my chairmanship of the Compliance Committee of the Cartagena Protocol on Biosafety came to an end.

COP 11 in 2010 in Nagoya was the first COP I did not attend, but since I chaired the negotiations in 1990–1992 resulting, *inter alia*, in CBD Article 15 on Access to Genetic Resources, I published in May 2011 an article in a Danish legal periodical on the Nagoya Protocol on Genetic Resources in order to make the Danish law community aware of the Protocol and its internal and external implications. This, however, also demonstrates that having

once been deeply involved in the CBD process it is rather difficult to escape from keeping track of the process. The same is probably true for a number of my former colleagues.

As a lawyer it is obviously quite natural to assess the CBD from a legal point of view. Seen in that perspective there is no doubt that CBD is an instrument of far-reaching importance, including by confirming existing principles and introducing new concepts or principles. Suffice to mention e.g.

- The principle of sovereign rights over natural resources
- Prior informed consent in respect of access to genetic resources
- Conservation of biological diversity as a common concern of humankind
- Sustainable use of biodiversity
- Reflection of the precautionary principle

- Provisions on EIA in a non-transboundary context
- Incorporation of the no-harm Principle 21 of the Stockholm Declaration
- Sharing of benefits arising from the utilization of traditional knowledge.

To this should be added what presently constitutes the CBD regime, namely, save CBD itself as supplemented by a vast number of COP-decisions interpreting, fleshing out and providing implementation guidance on most substantive provisions, the three CBD-related protocols: The 2000 Cartagena Protocol on Biosafety (supplemented by a number of important COP-MOP decisions), the 2010 Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress Protocol, and, the 2010 Nagoya Protocol on Genetic Resources, all regulating completely new areas of international environmental law. And more are in process of being casted, such as the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) and issues relating to the general problematic of governance, both areas

with implications also for other biodiversity-related global conventions.

CBD was during its first years of life criticized by a number of international environmental law scholars, mainly due to its conditional drafting language and a number of allegedly unclear provisions. However, as rightly observed by Philippe Sands (in *Principles of International Law, Second Editions*, Cambridge University Press 2003, at p. 615) conservation of biodiversity probably presents greater regulatory challenges to international law than any other environmental issue. Furthermore, the CBD regime has gained a continuously growing respect in textbooks on international environmental law. This statement is based on an examination of almost a dozen textbooks on international environmental law published in various countries over the course of the last ten years, but the present reflections are not appropriate for presenting more detailed evidence.

A solid legal basis, however, does not necessarily result in the attainment of the goal and objectives of the instrument at hand. There is no doubt that there has

been—even after the entry into force of the CBD in 1993—and still exists, a steady and probably progressively growing loss of biodiversity. But would it be right to blame the CBD regime in that respect?

First, nobody can assess what the situation would have been without the CBD regime, but I venture to claim that the situation would in such circumstances have been even worse. Second, the basic international legal machinery, including in respect of the solidarity obligations of industrialized countries, is at hand and in good shape, although it is rather complex and something is probably still lacking with regard to infrastructure. Nevertheless, my allegation is that real and effective implementation of what has been accomplished in a legal sense, encompassing also several COP decisions providing guidance on implementation, would most likely have the potential to reverse the present situation. Presently, however, this is essentially not a legal problem, but rather a question of political will, including ratifying and implementing the two new recently adopted protocols. ❖

**Nay Htun**, *Research Professor, Stony Brook University, State University of New York; former Deputy Executive Director, United Nations Environment Programme*

## Rio to Rio+20: The journey forward



The need for an international Convention on Biological Diversity was first proposed in 1974, soon after the establishment of the United Nations Environment Programme (UNEP). The work on the Convention, started since 1983, was actively negotiated throughout 1990 and 1991 under the leadership of UNEP. It was opened for signature on 5 June 1992 at the United Nations Conference on Environment and Development (the Rio “Earth Summit”).

The Preamble of the Convention by the Contracting Parties still hold true now as

it was in 1992, *“Conscious of the intrinsic value of biological diversity and of the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components.”*

Twenty years ago only specialized experts in the field of natural sciences were aware of the critically important role biological diversity plays in the ecosystem. There was limited understanding on the value and functions of biological diversity by public and private sectors planners and decision makers, legislators and even less

by the general public. I recall one of our United Nations Conference on Environment and Development Secretariat colleagues mentioned during the Earth Summit that his mother-in-law, a sprite lady of over 90 years of age and who had never left her small village in central Spain, telephoned her daughter and asked what is this “biodiversity” treaty that the President of the US said he would not sign. She was much relieved when it was patiently explained what biodiversity is and that it is not a nuclear issue. It became world news when a US President attending the Earth Summit



would not sign the Convention, when other heads of State and government who were there did. International awareness of biodiversity was significantly boosted

The world community has since got to know that the effects of massive biodiversity destruction and loss now occurring, will have consequences as dire as a nuclear holocaust, not immediately as visible, dramatic and awesome, but surely and insipidly.

### Knowledge and transformation

During the past two decades, awareness of the importance of biodiversity in ecosystem services, human welfare and well-being has increased very significantly.

The United Nations Decade on Biodiversity 2011–2020 is energizing extensive local, national and international activities. The tenth meeting of the Conference of the Parties in Nagoya, Japan, was very successful, heightening global actions and commitments. The recently published Highlights of the International Year of Biodiversity provide a very powerful snapshot of the world coming together to protect and conserve biological diversity.

The Strategic Plan for Biodiversity 2011–2020 provides a very good road map for concerted international action. Funding commensurate with the critically important role and value of biodiversity should be made available to implement the Plan. There could not be a better investment.

The data base is improving. New and powerful scientific tools are providing large amount of data at all levels of biological systems: molecular, organism, population, species and ecosystem, improving understanding on species, ecosystem, genetic and molecular biodiversities. Data from the highest mountains to the deepest oceans are now providing new information on the existence of extraordinary organisms and life forms. An increasingly improved knowledge of the complex interconnectedness of the atmosphere, lithosphere, geosphere and hydrosphere and their influence on and by biodiversity is emerging.

The indispensable role of biodiversity in nutrient recycling, photosynthesis, CO<sub>2</sub> sequestration, water purification, regulating climate systems, soil erosion, agriculture

and food production, pharmaceuticals and countless other services, are beginning to be recognized.

A promising area of emerging research and study is in the field of biomimetics, offering the prospects of an endless variety of materials and systems that would mimic the efficiency and effectiveness of nature's conversion of energy and use of natural elements and compounds in production processes. The discovery of *Crassiorophium bonellit*, a small marine crustacean, with the ability to produce a material with the adhesive properties of super glue and the strength of spider-like silk, is one of the examples that will spur greater R&D to respond to a world that is becoming more resource constrained and unsustainable.

An important aspect of biodiversity, not generally recognized two decades ago, is the role of corals, mangroves and wetlands in attenuating the destructive forces of extreme weather and enhancing natural resilience. The damage costs avoided have not been reliably calculated, but it is estimated to be in the high billions of dollars.

Knowledge on the cause and effect of climate change and biodiversity loss needs to be expanded. While there is a heightened concern with the release of methane from permafrost melting, much more needs to be known on the release and transport of micro organisms from the exposed soil. What will be the impacts of the released pathogens and invasive alien species on human health, agriculture, silviculture and mariculture?

### Value and pricing

The value of biodiversity is being quantified, providing a much needed determinant for planning and decision making. Current estimates in the range of US\$ 33 trillion per year, at best a low estimate, is double that of global GDP. This figure provides a starting point to refine and improve knowledge on the intrinsic value of biodiversity to enable a better pricing of its unique services.

The UNEP work on The Economics of Ecosystem and Biodiversity provides telling case studies on the benefits ecosystem services provide in preventing sedimentation in Venezuela, dyke maintenance in Vietnam,

and in the protection of Guatemala's Maya Biosphere Reserve that is generating an annual income of close to US\$50 million a year, created 7,000 jobs and boosted local family incomes.

The conservation and sound management of biodiversity will be improved with more robust knowledge on its value. Countries need to carry out *in-situ* studies to determine the benefits of ecosystem services for their communities. Even when quantification is improved, it would be very difficult to assign a value and quote a price on the aesthetic and cultural role biodiversity plays in the history and life of the people of a country.

### At Rio+20 and beyond

The Convention on Biological Diversity has catalyzed many important initiatives, increased awareness on the state of biological diversity and delineated the indispensable functions it performs in support of human welfare and well-being.

There is a need to study the vast number of species beyond recording their existence. Some estimate the amount of unknown species to be around 99 per cent. Most of these are microbial, in the soil and in the oceans. With the rate of extinction, it is imperative to undertake a global study to augment the Millennium Ecosystem Assessment findings, access the gaps in knowledge and focus on critical ecosystem functions in the context of sustainable development, resilience and human security.

The Rio+20 Conference in June 2012 will be an occasion to launch such a collaborative programme.

Importantly, to commemorate and celebrate the 20<sup>th</sup> anniversary of the adoption and opening of signature of the CBD at Rio de Janeiro, the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), should be endorsed

The Intergovernmental Platform will further strengthen the integration of biodiversity and ecosystem sciences with policy. Best available scientific knowledge would be systemically marshaled and evaluated to support informed decision making for the conservation and sustainable use of biodiversity, promoting multiple benefits for current and future generations. ❖



Secretary-General Ban Ki-moon

## Message on the launch of the United Nations Decade on Biodiversity Kanazawa, Japan, 17 December 2011

*(Delivered by Mr. Kiyo Akasaka, Under-Secretary-General for Communications and Public Information)*

I am pleased to greet all the leaders and partners who have gathered to launch the United Nations Decade on Biodiversity. Thank you for supporting this important cause.

It is essential for all the world's people to understand not only the value of biodiversity, but what they can do to protect it.

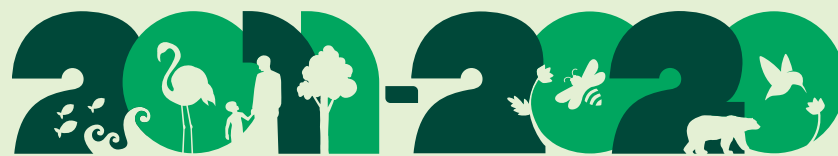
The global rate of biodiversity loss is unmatched in human history. Many ecosystems are verging on tipping points beyond which they will not recover. These trends are being compounded by climate change.

This year, the human family reached seven billion people—a milestone with important implications for collective well-being. Ensuring truly sustainable development for our growing human family depends on biological diversity and the vital goods and services it offers. While the poor suffer first and worst from biodiversity loss, all of society stands to lose from this mass extinction. There are also the opportunity costs: what cures for disease, and what other useful discoveries, might we never know of because a habitat is destroyed forever, or land is polluted beyond all use?

For too long, our natural capital has been seen as an endless reserve, instead of the limited and fragile resource we now know it to be. Fortunately, it is not too late to stem the tide. The twenty Aichi Biodiversity Targets included in the 2011–2020 Strategic Plan for Biodiversity are ambitious but realistic. But achieving them will require greater engagement by all relevant actors and partners.

I commend Japan for its leadership in supporting the Strategic Plan and the Decade. And I thank all who are helping to mobilize global support. Japan Air Lines, for example, which is supporting this event, is making a concerted effort to raise public awareness.

I call on all the Parties to the Convention on Biological Diversity and to all the biodiversity-related conventions, as well as all members of the United Nations system, the private sector, civil society groups and individual citizens and consumers worldwide to rally to the call of the United Nations Decade on Biodiversity. Let us work together to live in harmony with nature; let us preserve and wisely manage nature's riches for prosperity today and for the future we want.



**United Nations Decade on Biodiversity**





**SECRETARIAT OF THE CONVENTION  
ON BIOLOGICAL DIVERSITY**

World Trade Centre  
413 St. Jacques Street, Suite 800  
Montreal, Quebec, Canada H2Y 1N9  
Phone: 1 (514) 288 2220 Fax: 1 (514) 288 6588  
E-mail: [secretariat@cbd.int](mailto:secretariat@cbd.int) Website: [www.cbd.int](http://www.cbd.int)



Convention on  
Biological Diversity

