

RCEN Biodiversity Caucus

ENGO Consultation on COP-10 Issues & Gap Analysis of the Canadian Implementation of the CBD Strategic Plan



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From
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I. PURPOSE OF THE DOCUMENT

This paper is the result of ongoing collaboration between the Canadian Environmental Network (RCEN) and Environment Canada to solicit input from Canadian environmental nongovernmental organizations (ENGOS) on national and international biodiversity issues, particularly those related to the United Nations Convention on Biological Diversity (CBD). In advance of the 10th Conference of the Parties (COP-10) to the CBD, taking place in Nagoya, Japan in October 2010, the RCEN is producing a suite of papers consolidating ENGO views and priorities related to issues on the agenda of COP-10, including:

- Paper 1) a preliminary ENGO analysis of the new Strategic Plan of the Convention,
 - a. a gap analysis and ENGO consultation paper on major issues related to COP-10
- Paper 2) a report summarizing a civil society dialogue on the new Strategic Plan, and
- Paper 3) an ENGO position paper on the development of domestic access and benefit-sharing (ABS) policy within the context of the negotiation of an International Regime on ABS at COP-10.

The purpose of the current gap analysis and ENGO consultation paper on major issues related to COP-10 is two-fold. Part One of the paper looks at some of the more important thematic issues that are being addressed within the official COP-10 agenda, exploring key concerns from a Canadian ENGO perspective. However it does not include relevant targets and indicators for biodiversity post-2010 since these will be addressed in the companion paper to follow on the Strategic Plan. Part Two of the paper identifies gaps in outreach and biodiversity conservation/sustainable use strategies within the Canadian context and concludes with recommendations to improve civil society engagement to reduce biodiversity loss.

Though the Strategic Plan and ABS are central COP-10 issues, in the interest of avoiding duplication, the authors refer the reader to the forthcoming papers of this series for an in-depth consideration of consolidated Canadian ENGO views on the new Strategic Plan of the CBD (Paper 2) and consolidated ENGO views on the development of ABS policy in Canada (Paper 3). The Canadian Environmental Network is grateful to Environment Canada for supporting ENGOS to provide input into Canada's priorities for key issues on the COP-10 agenda and to facilitate a dialogue within civil society on global biodiversity issues and their implications for Canadians.

II. REVIEW OF SELECTED ISSUES FOR IN-DEPTH CONSIDERATION

1. Inland Waters Biodiversity

As water is absolutely necessary for the survival of all life, the importance of the thematic area of Inland Waters Biodiversity cannot be overstated. Inland Waters Biodiversity is the thematic area where our fresh water system is considered and countries need to recall that while water is renewable, the global amount of water available for species and ecosystems is finite. As such, the water needs of all species and ecosystems needs to be included in approaches to

inland waters biodiversity. In light of the importance of this fundamental finite resource, management approaches at all scales need to proceed with caution as to the availability and use of inland waters and ensure and enhance the integrity and resiliency of these complex hydro-ecological systems. The consideration of water security and inland waters should be a priority area for all countries and efforts to encourage taking responsibility for the protection of inland waters should be increased. A goal and target for freshwater in the strategic plan for implementation of the CBD must therefore be included. In reviewing the Recommendations Adopted by the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) at its fourteenth meeting (Nairobi, 10-22 May 2010), we support the direction and agree strongly with the recommendations being brought forward in section XIV/2 which deal with Inland Waters and Biodiversity. We echo the concerns in section XIV/2 and underscore that the pressures on Inland Waters and Biodiversity are human induced and efforts must be made to ensure that water is managed sustainably so that the anthropogenic impacts that are undermining the hydrologic system are brought under control.

We recognize the appropriateness of the Programme of Work for Inland Waters and Biodiversity and agree that its implementation needs to be enhanced. As such, we recommend that Parties to the CBD give the Secretariat a mandate to establish an in-house division to implement the Programme of Work. The work of this implementation division would allow for, among other things, the better integration of work between existing multilateral treaties and United Nations agencies dealing with matters related to inland waters as well as focus on actions on reducing anthropogenic pressures and impacts on inland waters biodiversity.

We also call upon governments and civil society to increase their efforts towards ensuring water quantity, availability, efficiency and quality. In this vein we call upon countries to:

- Update on a fixed schedule country water withdrawal for fresh water
- Increase research into water technologies that reduce the amount of water used
- Implement grey water systems, especially within the global north
- Phase out subsidies that continue to degrade inland water systems
- Ensure that Integrated Water Resource Management is understood and enabled at all governance levels
- Use watersheds and sub watersheds as a natural unit for water management
- Limit development within the carrying capacity of the watershed
- Ensure that land use in a watershed does not continue to degrade the water system

The state of knowledge and understanding about fresh water systems is in need of attention. Such knowledge is necessary for understanding the linkages between inland water hydrological systems including groundwater, rainfall and surface water and terrestrial ecosystems such as forests and wetlands. The relevance of species and genetic diversity to inland water ecosystems is also in need of increased research. Together, the hydrologic system, terrestrial ecosystems and species diversity make up the natural infrastructure necessary for the maintenance of inland waters biodiversity. But just as we need to improve our understanding of ecological systems, we also need to clarify the political and legal interactions between multilateral treaties

if we are to secure our water future. Consideration should be given to using TEMETEA, an issue-based framework available on the internet to streamline biodiversity-related international conventions,¹ as a starting point for considering interaction between treaties.

We also call upon governments to establish stricter requirements for toxic substance levels in our water system. Water has long served as “the solution to pollution”; using these bodies to dilute toxic substances. This is particularly relevant to the surface water system, into which pollutants have traditionally been released. Over time, our water system has come to be impacted by airborne toxicities and pollutants as well. Given this disturbing trend, we recommend that a programme of work on chemicals and inland waters, including air borne toxicities and enhancement of water monitoring be considered. Another related concern emerging is that surface water systems are being introduced into ground water and the upper reaches of the inland water systems. These negative impacts (i.e. pollution, introduced species) into more pristine environments should be addressed.

We also recognize that the human population in urban centres is increasing at a substantial rate with urban dwellers now forming a greater percentage of the world population. Given this trend, it is essential to consider inland waters within the urban agenda. Finally we would be remiss to not mention the cross cutting issue of climate change and inland waters. The protection of inland waters is urgently needed to help mitigate the impacts that climate change will have upon them.

2. Marine and Coastal Biodiversity

Oceans are fundamentally linked to other global ecological systems, contributing to climate change regulation, providing habitat for countless species and ensuring the livelihoods of numerous people around the globe who are dependent on coastal areas. Complex issues affect marine and coastal ecosystems and species because of their great expanse; all lakes and rivers drain into them. As a result one source of major impacts on marine/coastal biodiversity is upstream land uses. To date there is still insufficient knowledge about these impacts.

Marine protected areas (MPAs) lag far behind terrestrial protected areas with only 1% total marine areas protected whereas 15% of terrestrial areas are protected. While terrestrial protection is itself inadequate, there is an urgent need to achieve progress on MPAs especially in light of issues such as ocean acidification, coral depletion, dead zones, overfishing and pollution. Recent advocacy for geoengineering measures such as ocean fertilization represent a new threat to marine and coastal biodiversity, although for the time the CBD has set a moratorium on such activities (see Biodiversity and Climate Change). Given the major threats to marine and coastal biodiversity from so many sources, Parties to the CBD and other relevant organizations must work toward mitigating the negative impacts and risks of human activities.

¹ <http://www.tematea.org>

3. Mountain Biodiversity

Mountains cover roughly 27% of the Earth's land mass and are important habitat for many species of life. Many cultures and Indigenous ways of life are intrinsically tied to mountain ecosystems while mountains are also central to the global fresh water system. The relevance of mountains to the preservation and maintenance of biodiversity is evident in many instances, providing for example the habitat for highly specialized species and often the last areas for which many species can seek refuge from landscape level anthropogenic impacts. They are significant for migratory pathways and act as corridors within an ever increasing urban landscape. We call upon all countries to submit, on a regular basis, their country reports on mountain ecosystems and call upon the CBD to further define what is considered a mountain.

Large-scale resource extraction in mountainous areas (e.g. mountain top mining, mining, forestry) is generally not sustainable and often permanently changes the ecological function, destroys species habitat and disrupts or destroys traditional ways of life. Given the remoteness of some mountain systems, the impact from anthropogenic activities may occur with little or no oversight—in both developed and developing country scenarios.

Given the unique role of mountains, we recommend consideration of applying the Biosphere Reserves approach towards all mountains in order to identify core protected areas and buffers to ensure the survival of mountain species and ecosystem services. We are not suggesting that all mountains be designated as Biosphere Reserves, but the approach for identification of the different Biosphere Reserve Zones be applied. We also encourage ramping up efforts to integrate sustainable consumption and production into mountain resource extraction activities and to further explore and develop the ecosystems services provided by mountains.

4. Protected areas

It is the view of the ENGO community that the natural home for global policy coordination for Protected Areas is within the CBD. This is evidenced by the extent of comments made by the in-depth review of the Implementation of the Programme of Work on Protected Areas.² We recognize the work of SBSTTA in this area and support their recommendations. The recommendations reflect the importance of having Protected Areas on the landscape and seascape as safe havens for the conservation of biodiversity. In some instances, these are the last stands for species on the brink of extinction.

To enhance work in Protected Areas, we suggest that the relationship with the World Database on Protected Areas (WDPA)³ be further developed and that this site be established as the central repository for information on protected areas within the CBD framework. Housing all the data around protected areas in a central location would facilitate a more comprehensive understanding of the state of Protected Areas, and also enable more focused work on targeting regions deficient in Protected Areas. Given that the WDPA currently assists the CBD in several areas, a more synergistic partnership would benefit the work on Protected Areas. As we

² Section XIV/4, Recommendations adopted by SBSTTA at its 14th Meeting, Nairobi, 10-22 May 2010

³ <http://www.wdpa.org>

progress through the 10 year workplan, the WDPA could also be considered to house monitoring data relevant to the Protected Areas, and create meta data sets for analysis.

We recognize and share concern about the state of marine protected areas (MPAs) and urge governments to increase these areas in their countries. This is especially critical for areas that are particularly vulnerable to industrial development – these should be a priority for protection. Canada needs to support this approach and take immediate action by committing to protect marine areas along the B.C. coast, the Gulf of St. Lawrence, the Georgia Strait and the Arctic. Along a similar tract, while the number of terrestrial Protected Areas is steadily increasing, the extent of Protected Areas is still far from being sufficient for the protection of biodiversity and ecosystem services. The same holds true for the need to increase Protected Areas that include Inland Water areas, both within and outside the criteria established within the Ramsar Convention. As mentioned above, while additional terrestrial ecosystem protected areas are needed, urgent attention must be given to increasing MPAs and Inland Water Protected Areas outside of those included in the Ramsar Convention.

We also call upon all countries to include and recognize in their Protected Areas all areas designated for species conservation such as important bird areas, habitat for migratory species and habitat to meet all life cycle needs of species considered endangered as per the IUCN Red List. Additionally, all countries should be encouraged to protect the habitat for species considered endangered within their national borders. Steps should also be considered to develop an overarching plan to begin to reconnect fragmented ecosystems and Protected Areas.

Lastly, throughout the work around Protected Areas, the traditional livelihoods and ways of life of Indigenous People should not be considered inappropriate or incompatible. All sub-national and local governments must also be engaged in the work around Protected Areas.

5. Sustainable Use of Biodiversity

The sustainable use of biodiversity, conservation of biodiversity and fair sharing of the benefits of biodiversity are the three underpinning goals of the CBD around which all the work has, and continues, to evolve. The sustainable use of biodiversity is fundamental to a secure and healthy future. In considering the sustainable use of biodiversity, the concepts of sustainable consumption and production, values of biodiversity and ecological goods and services as well as the carrying capacity of ecosystems must be included.

In reviewing the *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity*,⁴ we recommend that these principles be incorporated into not only Canadian national policy and legislation, but also brought to sub-national and local governments. A concerted effort to do this is warranted and critical at this juncture in order to address the root causes of the continued loss of biodiversity and ecosystem function. There is however a basic need to enhance the implementation of the *Addis Ababa Principles and Guidelines for the Sustainable*

⁴ www.cbd.int/doc/publications/addis-gdl-en.pdf

Use of Biodiversity and we recommend that consideration be given as to how this can be achieved.

The sustainable use of biodiversity hinges upon realigning our current consumptive behaviour. Countries are currently developing a 10 Year Framework of Programmes for sustainable consumption and production (SCP) under the Marrakech Process.⁵ We underscore the fact that the CBD has a significant contribution to make in the preparation of such frameworks. As such, we recommend that the Secretariat be considered a resource to help countries prepare their SCP frameworks and that the frameworks should be included as a cross-cutting issue in the programme of work for the Secretariat. We further recommend that additional resources be allocated to the Secretariat to ensure there is capacity to assist in work concerning the 10 Year Framework of Programmes, if necessary.

Civil society and certain governments are also seeking to introduce mechanisms to measure biodiversity and ecological goods and services—a national environmental accounts system—into the system of national accounts. This direction is strongly supported by the Canadian ENGO community. Such an integrated system would put national environmental information on the same footing as national socioeconomic information. Integrating these two systems of accounts makes it possible to measure the contribution of the environment to the economy and the impact of the economy on the environment.

We do have concerns about the way in which this effort could proceed and would caution about how nature is valued. We support the current direction of The Economics of Ecosystems and Biodiversity (TEEB) study⁶ which recommends integrating the values of nature into current economies, and also considering the impacts of inaction if we do not stem the loss of biodiversity and ecosystem services. This must be the guiding principle behind work to incorporate the values of ecological goods and services and biodiversity, as well as payment for them, into current economic systems. In this way, externalities not included in the current economic system will be internalized and the true costs of environmental degradation and biodiversity loss will begin to appear on balance sheets. The recent agreement to establish the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES)⁷ is much welcomed by the Canadian ENGO community. We believe that the IPBES will have a positive impact on reversing biodiversity loss by furthering the understanding and development of a system of national environmental accounts.

The pressures that humans are placing on the planet have surpassed the Earth's carrying capacity, while the basic needs of two billion people are still not being met. Life-support systems are being eroded, which directly affects our health, well-being and livelihoods. The limits to growth have been reached and are being surpassed. Currently, our total ecological footprint is 1.4 times the carrying capacity of the planet; this means that it takes the earth one

⁵ <http://esa.un.org/marrakechprocess/tenyearframework.shtml>

⁶ <http://www.teebweb.org>

⁷ <http://southasia.oneworld.net/globalheadlines/green-signal-for-intergovernmental-body-to-save-green>

year and five months to regenerate the resources we use and absorb the wastes we produce in one year.⁸ We are living beyond our means. The goal of curbing this overshoot must be a significant part of the CBD's work if we are to prevent the further species and degradation of ecosystems loss. A key value of natural infrastructure is annual return. We call upon governments to establish the ecological footprint method as a mandatory reporting element in the integrated system of national accounts.

6. Biodiversity and climate change

One of the biggest threats to biodiversity worldwide is climate change. Climate change adaptation and mitigation are crucial for biodiversity conservation. It follows that to stem biodiversity loss, Canada must act immediately to meet our climate change commitments under the Kyoto Protocol and UN Climate Change Conference.

Reducing emissions from deforestation and forest degradation in developing countries to address climate change, as per the REDD+ program, will contribute to forest biodiversity conservation. However it is critical that all policies and incentives for such carbon offsets address the concerns of local communities, including Indigenous peoples. Although REDD+ does not apply to Canada, there is a major opportunity to address climate change through the conservation of our vast boreal forest which covers a large part of the country. This forest contains a significant amount of carbon. The ENGO community supports conservation of this forest to help address climate change, while at the same time ensuring that the rights of First Nations are met.

Several specific issues that relate to both biodiversity and climate change are addressed in the subsequent section.

III. REVIEW OF OTHER SUBSTANTIVE ISSUES ARISING FROM DECISIONS OF THE CONFERENCE OF THE PARTIES

1. Agriculture, Biofuels and Biodiversity

Numerous recent studies raise concerns about the impacts of biofuels (referred to as agrofuels by ENGOs). If deforestation and massive pesticide and fertilizer use needed for agrofuel production are accounted for, the environmental benefits — notably any contribution to climate change mitigation — may actually be zero. Consequently, the ENGO community has grave concerns about the global movement toward industrial agrofuel expansion as a strategy to address global climate change. The substantial changes in land use that will take place as a result of large-scale industrial agrofuel production will transform landscapes and lives around the world. We are concerned that this direction will minimize benefits to local communities and small farmers, invariably favouring corporate earnings over the environment and investment

⁸ http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint

returns over human rights. Agrofuels contribute to rising food prices in poor countries. Instead of producing food, farmland in the Global South is being monopolized by sugar cane and African palm for the production of agrofuels.

The ENGO community does not support this direction in the absence of greater scientific consensus and effective legislation to protect farmers, workers, consumers, the environment, and the global food supply. It is our perspective that climate change will not be remedied by large-scale agrofuel expansion that displaces food production and native forests. Rather, what is fundamentally needed is a shift in consumption patterns globally, and most urgently in the Global North. Such a transition requires moving away from large-scale, industrial farming to small-scale, organic agriculture and a decrease in worldwide fuel consumption through conservation measures. We recommend that Canada takes a position to ensure that all countries, including our own, retain the right to achieve food sovereignty via agroecologically-based, local food production systems, land reform, access to water, seeds and other resources. In addition to the above, Canada should promote domestic farm and food policies that respond to the true needs of farmers and all consumers, especially the poor.

We encourage Canada to make decisions regarding agrofuels that are consistent with comprehensive studies on the social and environmental impacts of agrofuels in comparison with the expected benefits.⁹ This includes the law concerning agrofuels in Canada, Bill C-33—an Act to Amend the Canadian Environmental Protection Act of 1999 (adopted in June 2008)—which authorizes the Canadian government to establish the minimum content levels of agrofuels in gasoline sold in Canada starting in 2010. This regulation, which had a public consultation period until June 2010, fixes the agrofuel level in gasoline at 5 percent by the end of 2010 and the renewable content level in diesel at 2 percent by 2012. As it stands, Bill C-33 is anticipated to result in importing grain from the United States to supply the agrofuels.¹⁰ This prospect raises major concerns given that the diversion of U.S. grain stocks for agrofuel production is largely held responsible for the global food crisis in late 2008. We therefore urge Canada to extend the consultation period so that the House of Commons Committee on Environment and Sustainable Development is able to study the regulation in greater depth in terms of the global impacts.

2. Forest Biodiversity

Current global trends in forestry continue to be marked by increases in unsustainable forest harvesting, continued and serious net losses in biodiversity, as well as inadequate recognition of the rights of Indigenous Peoples and other marginalized forest communities. It is therefore imperative that these issues be at the forefront of all negotiations regarding forests and biodiversity.

⁹ For example, see Samson, R., & Bailey-Stamler, S. (2009). *Going Green for Less: Cost-Effective Alternative Energy Sources*. Toronto: CD Howe Institute.

¹⁰ Statistics Canada. 2007. Corn: Situation and Outlook". Volume 20 Number 04 | ISSN 1207-621X | AAFC No. 2081/E. online <http://www.agr.gc.ca/mad-dam/index_e.php?s1=pubs&s2=bi&s3=php&page=bulletin_20_04_2007-03-23>

Other specific issues of major concern to civil society relating to forest biodiversity and the rights of forest-dependent and indigenous peoples are genetically engineered (GE) trees and wood-based agrofuels. Decision VIII/19 on forest biodiversity adopted at COP 9 recommended that Parties take a precautionary approach when addressing the issue of genetically engineered (GE) trees. This decision followed civil society's efforts to achieve an international ban on GE trees at COP 9. African Governments proposed a suspension of all field trials and plantings of GE trees but Canada, Colombia and Brazil fought to stop it. The COP 9 decision on GE trees was founded on recognition of the uncertainties related to the potential environmental and socio-economic impacts—including long-term and transboundary impacts—of genetically engineered trees on global forest biological diversity as well as on the livelihoods of indigenous and local communities. This is all the more important given the absence of reliable data and the limited capacity of some countries to undertake risk assessments and to evaluate those potential impacts.

Wood-based agrofuels also pose a threat to forest biodiversity and communities, particularly where genetically engineered trees are being considered for their production. Increased support for burning wood to produce energy (bioenergy) is triggering increased logging and expansion of industrial tree plantations in the U.S. and a number of developing countries. These plantations are in some cases being established with genetically engineered trees, as in the case of GE eucalyptus that is being operationally deployed in the southern U.S. GE tree research is being propelled forward at breakneck speed due to speculation of the role GE trees could play as an agrofuel for cellulosic ethanol.

The ENGO community calls upon the Canadian government to support other governments at COP 10 in establishing a moratorium on the field testing, planting and commercial use of genetically engineered trees because of the serious risks they pose to biological diversity and to forest ecosystems in Canada and throughout the world.

3. New and Emerging Issues

Geoengineering

Geoengineering involves large-scale technological proposals to address climate change by deliberately altering weather patterns, oceans and the atmosphere. Geoengineering schemes include dumping nutrients into the sea to grow algal blooms (ocean fertilization), turning extensive monoculture plantations into charcoal to bury in the soil (biochar) and deliberately polluting the upper atmosphere with sulphur or aluminium particles to reflect sunlight (stratospheric aerosols) as well as cloud-whitening. All of these experiments have large potential impacts on the environment, biodiversity and livelihoods, especially for people in the Global South.

Geoengineering advocates argue that there is no time for a global political agreement to address the real causes of climate change, so we must instead turn immediately to such technofixes. As a result, there are now several geoengineering experiments that have been implemented without any global oversight framework in place and larger experiments are planned. The largest experiment to date was the LOHAFEX ocean fertilization experiment in the Southwest Atlantic Sector of the Southern Ocean in early 2009 that spanned 300 square

kilometers.¹¹ This experiment breached the terms of the CBD moratorium on ocean fertilization which Canada played a key role in securing. Advocates have recently proposed voluntary guidelines rather than full independent multilateral oversight of the field. Civil society groups worldwide are insisting experiments be stopped while governments examine the implications. A formal recommendation will be submitted by a coalition of global civil society groups concerned about the issue, asking for a moratorium on all climate geoengineering activities at COP-10. Canadian ENGOs support this call for a moratorium on all geoengineering experiments and urge Canada to provide support. Such a moratorium would follow suite to the adoption of the 2008 CBD ocean fertilization moratorium.

Synthetic Biology

A new set of genetic technologies known as Synthetic Biology applies digital and engineering approaches to building life-forms from scratch using synthetic DNA and other human-made parts. Synthetic biology has received billions of dollars in investment and boasts a growing number of startup companies partnering with multinational energy, chemical, forestry, pharmaceutical and agribusiness corporations. The largest segment of commercial investment is in synthetic microbes and enzymes for agrofuel production or production of chemicals and plastics made from biomass.

The newly manufactured synthetic organisms pose risks that are not covered by existing regulations on genetic engineering. The proposed use of synthetic microbes in the production of the next generation of fuels, medicines and chemicals may massively increase human impact on biodiversity, while accelerating biopiracy outside of the access and benefit sharing (ABS) provisions of the CBD. Applications of synthetic biology risk causing invasions of these artificial life forms in the wild and potentially exhibiting unexpected pathogenicity with consequences for both ecosystem and human health. Their use will also lead to increased demand on land, biomass, water and other natural resources.

At SBSTTA 14, synthetic biology was discussed under the topic of biofuels and biodiversity and also under new and emerging issues. The decision on biofuels to be forwarded to COP-10 includes a proposal to convene an Ad Hoc Technical Expert Group (AHTEG) on synthetic biology and urges a de-facto moratorium on the environmental release of synthetic organisms until there is an adequate scientific basis to justify such a release and environmental and socio-economic risks have been duly considered. Appropriate oversight and international governance rules need to be put in place to ensure that synthetic biology does not further threaten biodiversity and livelihoods while pilfering genetic resources. The CBD is the authoritative body on this matter.

The ENGO community is broadly supportive of the three decisions communicated by SBSTTA 14 on Synthetic Biology and further recommends that:

¹¹ http://www.eurekalert.org/pub_releases/2009-01/haog-lai011309.php

- Decisions taken regarding synthetic biology and the development, handling and use of synthetic organisms or synthetic genetic parts should be subject to the strict application of the precautionary principle
- There should be no environmental release of synthetic organisms whatsoever
- Commercial use of synthetic organisms should not proceed until the direct and indirect impacts on conservation and sustainable use of biodiversity are better understood and assessed, including cultural and socioeconomic impacts and the impacts of traditional knowledge and the rights of Indigenous peoples, farmers, fisherfolk and pastoralists. This includes the impacts of procuring feedstocks for biorefineries.
- The Working Group on Article 8J should be asked to consider the impact of Synthetic Biology developments on Traditional Knowledge, Innovations and Practices

IV. REFLECTING ON CANADIAN CONTRIBUTIONS

1. Canada's Progress Towards the 2010 Biodiversity Targets

Canada's 4th National Report to the CBD addresses progress towards meeting the objectives of the Convention and specifically the 2010 biodiversity targets through the Canadian Biodiversity Strategy (CBS). The report describes the various approaches taken by different jurisdictions to advance biodiversity planning and management. However there are noteworthy omissions of some jurisdictions such as P.E.I., Manitoba and the Yukon. These jurisdictions do not appear to have developed stand-alone strategies to date, despite the fact that 15 years have passed since the release of the CBS. While in some of these cases the principles of biodiversity conservation were intended to be integrated into provincial programs (e.g. Manitoba) this is not necessarily taking place in a comprehensive way. Although all jurisdictions are required to respond to the CBS, whether or not they develop their own strategies, we feel that there should be a requirement by the federal government for a strategic approach to implement the CBS.

While some jurisdictions such as the NWT are at the forefront in terms of biodiversity strategy development and implementation (using a process that clearly engages civil society), and other jurisdictions have made significant progress in developing strategies and implementing some actions (e.g. British Columbia and Ontario), others lag far behind in their response. For example, although New Brunswick developed a biodiversity strategy this past year, there has been no implementation to date and biodiversity objectives have been glaringly omitted from all forest management objectives. In Alberta, despite the development of a strategy and the establishment of the Alberta Biodiversity Monitoring Institute, the environmental oversight budget and staff have essentially been gutted; oil (particularly tar sands) and other industries trump biodiversity conservation for water resources, wetlands and forests every time, with little public recourse. In British Columbia, where extensive efforts were made to develop a strategy through a broad multi-stakeholder process, since the advent of the economic downturn in 2008 the provincial government has made little progress on implementation which

has now stalled other than a few small initiatives being implemented on the ground. Implementation is not currently a priority with the B.C. government and no comprehensive monitoring is taking place.

The situation is only marginally better in Ontario, where a strategy has been developed, but significant progress on actions is limited due to lack of funding and a coordinated, strategic implementation approach. In addition, the strategy appears to focus mostly on biodiversity issues in southern Ontario and contains little of relevance that would engage citizens in the vast northern part of the province. One program that does attempt to do so is the Biodiversity Education and Awareness Network, a sub-component of the Ontario Biodiversity Council.¹² The network has provided a small amount of funding to ENGOs and other groups to do biodiversity outreach activities in the province for IYB. Such education and outreach programs should be an integral part of biodiversity strategies in all jurisdictions, especially given that the low levels of public awareness of the CBS and biodiversity.

There has been recent progress in legislation to protect endangered species in some jurisdictions such as Ontario, which is now working on implementation of its 2007 Endangered Species Act. However in other cases such as in B.C., there is still no such legislation in place despite ENGOs' and others' grave concerns about the lack of it. Although Canada implemented federal species at risk legislation in 2003 (SARA), the legislation is very weak and fails to protect all threatened species throughout the country. The ENGO community therefore urges the strengthening of SARA as integral to the implementation of the new biodiversity strategic plan. The revised legislation should be based on a more appropriate framework that would make it illegal to kill any endangered species in Canada.

The ENGO community feels that in order to fully engage civil society in biodiversity conservation, a first step must be accountability for our CBD commitments through the CBS, and its implementation in all jurisdictions through either provincial/territorial biodiversity strategies or a strong response to the CBS itself. There must be some mechanism put into place to provide accountability for the implementation of biodiversity strategies within a reasonable timeframe as well as for subsequent evaluation and monitoring. The Ecosystem Status and Trends Report¹³—to be released by the federal government sometime in the fall of 2010—is progressive in terms of assessing biodiversity outcomes. However much more needs to be done. Furthermore, to ensure effective civil society engagement, once strategies are developed and implemented there must be information sharing relating to all stages: strategy development, implementation and monitoring.

¹² www.biodiversityeducation.ca

¹³ <http://www.cbin.ec.gc.ca/ecosysteme-ecosystem/default.cfm?lang=eng>

2. Gaps in Implementation of Canada's Biodiversity Strategies

The following sections discuss gaps in Canada's progress for several areas as presented in the 4th national report. For each of the areas discussed we outline progress that can be made to engage civil society in implementing Canada's biodiversity strategies.

i. Resource Sectors

Forestry

The main institution for meeting forest commitments under the CBD (Forest Programme of Work, FPOW) in Canada is the National Forest Strategy (NFS). Since the development of the two 5-year National Forest Strategies up until 2008, a new approach has been taken to address Canada's forestry commitments under the CBD: A Vision for Canada's Forests, 2008 and Beyond.¹⁴ The ENGO community has grave concerns about the approach associated with the Vision.

The last 2003-2008 NFS was developed with the best of intentions by a broad multi-stakeholder process that engaged civil society extensively. Regardless, the strategy did not prove adequate for meeting the FPOW commitments. The latest version, in the form of the Vision eliminated the involvement of civil society in the development of a national forest strategy. We have serious concerns about this change and urge a return to the prior approach.

One gap in the recent strategy reflects the lack of civil society involvement in that it does not include community-based forest management as an approach. This approach is being demanded by civil society across the country as a means to enable the sustainable development of forest-dependent communities, which is an integral aspect of the FPOW. As in earlier versions, the current national forest strategy needs to show leadership in moving toward this approach in order to encourage to civil society. Even for jurisdictions such as Ontario that are revising their forest tenure policies to be more inclusive of Aboriginal and local citizen participation in decision-making, strong leadership is needed from the federal government to promote greater movement in this direction. There is also a movement in Ontario, as in some other jurisdictions, for a more community-based approach to forest management. However it is unclear to date whether the new tenure system will effectively engage citizens in forest management planning. What is most needed to achieve conservation and sustainable use of forest biodiversity is greater movement toward multi-stakeholder participation in strategic and forest management planning.

Agriculture

Major issues of concern relating to biodiversity in the Canadian agricultural sector are the ongoing loss of agricultural biodiversity, the lack of support for sustainable local agriculture, the disconnect between farmers and consumers and the accelerating disappearance of prime farmland in highly developed regions. With increasing urbanization and development, there is

¹⁴ www.ccfm.org/pdf/Vision_EN.pdf

an even greater need to implement policies that will support both farmers and consumers within a framework of sustainable, local agriculture.

Several approaches within the agricultural sector can foster civil society engagement to move in this direction. As a fundamental approach to improving agricultural biodiversity conservation, every ecoregion in which agriculture takes place needs an agri-environmental management plan including biodiversity considerations. Such a plan would set targets for lowering pollution levels and maintaining agricultural biodiversity as well as minimum proportions of natural habitat and natural resources to be conserved or restored for each ecosystem in the ecoregion. Canada's efforts in the National Agri-Environmental Standards Initiative (NAESI)¹⁵ are an important step towards identifying the levels of environmental performance required for agriculture to maintain ecosystem health. Funding for this program must be extended to allow the development of performance standards for maintaining biodiversity, as well as for long-term monitoring. Now that the world has adopted the Global Plan of Action for Animal Genetic Resources and the Interlaken Declaration on Animal Genetic Resources,¹⁶ Canada needs to develop national strategic plans for implementation. Strategic plans, programs and performance standards for all of these initiatives should be developed through multi-stakeholder, participatory processes that engage civil society.

Fisheries

Reducing the loss of biodiversity in aquatic ecosystems involves a combination of actions including:

- 1) Reducing by-catch and unsustainable fishing practices,
- 2) Linking harvest strategies to efforts to better understand habitat and ecosystems,
- 3) Integrating the divisive institutional frameworks for management at the local or regional level,
- 4) Increasing incentives, particularly through community-based fisheries management, for coastal fishing communities in order foster the preservation of local fisheries and maintain their potential to contribute to conservation in ways not possible for central agencies, and
- 5) Increasing incentives to develop value-added markets, which in turn can reduce pressures to overharvest.

These actions must be achieved by implementing both ecosystem-based management which looks at all components and interactions in the fishery system and the integration of fisheries into a multiple-use context of integrated coastal and oceans management (ICOM). Community-based fisheries management (a form of co-management in which fishers and their communities participate in decision-making about the various aspects of marine resource stewardship and fishery management) can enhance fishery sustainability and the overall benefits the fishery

¹⁵ <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1209128121608&lang=eng>

¹⁶ <http://www.fao.org/docrep/010/a1404e/a1404e00.htm>

produces since fishers — together with others in coastal communities living in close proximity to the fish stock — have a significant level of responsibility for and control over managing the resources.

Canada's Oceans Act (1997) and federal oceans policy provide a strong basis for community-based management of coastal and large ocean resources. Although the implementation of the Oceans Act and oceans policy has resulted in some steps toward participatory governance in Canada's fisheries, it has not adequately provided the mechanisms for a strong role for communities in ICOM. Canadian fishery policy has been implemented largely without public discussion, thus leading to a grass-roots interest in community-based approaches to fisheries management. To address both fisheries sustainability and advance participatory governance of fisheries the creation of an enabling environment for participatory policy and capacity-building in this sector are needed. Existing policy and legal frameworks must be adapted to enable communities to move from an advisory mode in fisheries management to one where there is greater sharing of authority through community-based and co-management arrangements.

The recommended approach is to implement ICOM where the full range of stakeholders, including government and First Nations, participate. Civil society involvement in the fishery management process would therefore include policy, participation in collaborative research and monitoring as well as collaborative management through the development of Integrated Fisheries Management Plans (IFMPs).¹⁷ In the Pacific, implementation of IFMPs has been recommended by marine conservation groups as a parallel process to interim protection for threatened deep sea corals and sponges, since there are currently no areas set aside for the protection of deep sea corals in Canada's Pacific waters. They recommend that DFO completes a rigorous and science-based Pacific Region Coral and Sponge Conservation Strategy with a concrete timeline that involves both of these approaches, with the input of the fishing industry, marine conservation groups and other stakeholders. This recommendation applies to address threatened marine species in all regions.

ii. **Protected Areas**

The federal government has made significant progress in the establishment of terrestrial protected areas with the involvement of civil society and Aboriginal peoples. An excellent example is the 2009 permanent protection of Sahoyue-AEhdacho National Historic Site in NWT, the area to be protected through the NWT Protected Area Strategy (PAS).¹⁸ The PAS is a good model for the inclusion of civil society in the protected area establishment process. Signed in 1999 between the government of NWT and INAC on behalf of the Government of Canada, the PAS uses both scientific and traditional knowledge to identify areas of cultural and natural value, particularly at a local level. The PAS involves a community-driven process to protect natural and cultural lands and core representative areas in the NWT. It is a partnership between communities, regional organizations, governments, environmental groups and industry.

¹⁷ <http://www.glf.dfo-mpo.gc.ca/e0008079>

¹⁸ www.nwtpas.ca

The PAS approach is an excellent model that could be adopted for other regions for the expansion of all types of protected areas, both terrestrial and marine, demonstrating best-practice for the involvement of ENGOs and broader civil society. A greater use of this approach would simultaneously allow civil society to be involved in conserving biodiversity through the expansion of protected areas, and address Aboriginal concerns regarding the establishment of protected areas within their traditional territories. Because the establishment of MPAs is sorely lagging behind that of terrestrial protected areas—so much so in fact that it is expected that the 2012 biodiversity target for marine protected areas (MPAs) will now not be met—efforts should be made to engage the full range of actors in marine conservation issues in Canada. To date, the work to develop policy, guidelines and approaches to MPAs in Canada has been done behind the closed doors of the federal government. This approach alienates many of the key players who can contribute valuable knowledge and experience.

3. Mainstreaming of Biodiversity

There are several key areas that are addressed as aspects of mainstreaming biodiversity in the 4th national report where significant progress can be made to better engage civil society. These are 1) education 2) issues relating to Aboriginal peoples, and 3) assessment of the valuation of ecosystem goods and services.

i. Education

Education and outreach relating to biodiversity is regarded as a major strategic issue that must be addressed to achieve the objectives of the CBD. The 4th National Report highlights various efforts with respect to education and research that have been accomplished in this regard throughout Canada.

The report also indicates how educating citizens about biodiversity at the local level has begun in a few Canadian cities (e.g. Sudbury, Montreal, Winnipeg and Edmonton) through initiatives, programs and competitions. Environment Canada has also provided funding over the past three years for ENGOs to conduct International Biodiversity Day activities in each Canadian jurisdiction. Such programs should be expanded to include many more communities.

While these are all positive steps in terms of increasing awareness and understanding about biodiversity, and ENGOs support the expansion of all of the described approaches, they are really just a beginning. The 4th National Report for the most part demonstrates a larger focus on research and data collection than on comprehensive biodiversity education. One critical element that is not addressed is a strategic approach to integrating biodiversity education into elementary and high schools. Instead, the described educational approaches are mostly voluntary and/or non-formal. They leave individuals with a choice as to whether or not to engage in them. While all of these voluntary approaches and programs are an essential part of an overall approach to biodiversity education, in order to attain a broad level of citizen awareness and engagement on biodiversity, we must move beyond such voluntary and ad hoc approaches to one that is systematic and mandatory.

Given that the federal government does not have jurisdiction over education in the provinces and territories, it will be critical that provincial/territorial governments include biodiversity education in curricula and through engaging youth in extracurricular activities. One example is BC Park's Get Outdoors¹⁹ and the Child and Nature Alliance²⁰ programs. The BC Parks Get Outdoors curriculum guide was developed in partnership with Parks Canada, Metro Vancouver and Wild BC and it promotes the idea of school educators taking their students outside. Teaching colleges should also include programs that assist teachers in acquiring the skills needed to include biodiversity-related content in their educational programs, particularly those who are in science.

It is recommended that The Council of Ministers of Education, Canada (CMEC), in close collaboration with the Ministry of Environment and ENGOs develop a strategy to begin including biodiversity and environment related issues in school curricula. The Canadian Network for Environmental Education and Communication,²¹ Let's Talk Science,²² Leave No Trace Canada²³ and the Nova Scotia Environmental Network²⁴ would also be valuable partners in such an initiative. The CBD's Communication, Education and Public Awareness (CEPA) program has developed a comprehensive toolkit that Canada may use for guidance in mainstreaming biodiversity across all major sectors.²⁵ There also seems to be little collaboration between universities and ENGOs which if established may have a large impact and enable many students to get hands on experience via volunteer placements in exchange for credit hours.

ii. Stewardship

Stewardship activities have been increasing in Canada as more and more Canadians become involved in activities pertaining to biodiversity, land, water and air management. Stewardship is a shared responsibility between organizations, communities and individuals to manage and protect our environment and ecosystems. According to the 4th National Report there are millions of active environmental stewards in Canada. Stewardship operating principles were proposed in Canada's Stewardship Agenda (CSA) and approved by the Federal-Provincial-Territorial Resource Ministers in 2002.²⁶ Provincial and territorial initiatives can be viewed in the 2009 State of Stewardship in Canada report which was prepared by the Centre for Environmental Stewardship and Conservation (CESC).

Some examples of the kinds of stewardship programs operating in Canada that we support and we would like to see more of include:

¹⁹ <http://wildbc.org/index.php/programs/get-outdoors>

²⁰ <http://www.childnature.ca>

²¹ <http://www.eecom.org>

²² <http://www.letstalkscience.ca>

²³ www.leavenotrace.ca

²⁴ www.nsen.ca

²⁵ <http://www.cbd.int/cepa>

²⁶ <http://www.ec.gc.ca/Publications/default.asp?lang=En&xml=E055469B-C740-4688-A934-68230B5420C9>

- Ontario Stewardship Program which includes 42 community-based stewardship councils.²⁷ Some of the projects under this program involve natural resource education, wildlife habitat enhancement and shoreline restoration. The outcomes of such projects have been significant; 1,500 hectares of wetlands and headwaters have been restored and more than 40 kilometers of shoreline have been rehabilitated.
- The Environmental Monitoring and Assessment Network's (EMAN) species monitoring programs such as Wormwatch, Frogwatch, Icewatch and Plantwatch.²⁸ EMAN is composed of linked organizations and individuals involved in ecological monitoring in Canada to better detect, describe, and report on ecosystem changes. The network is a cooperative partnership of federal, provincial and municipal governments, academic institutions, aboriginal communities and organizations, industry, environmental non-government organizations, volunteer community groups, elementary and secondary schools and other groups/individuals involved in ecological monitoring. The EMAN program is an effective means to foster civil society awareness and engagement in biodiversity conservation.

There are current initiatives looking at the development of strategies to connect Canadians to nature, with a focus on youth, in order to cultivate a generation of stewards. An example of this is the establishment of a youth advisory panel by the Canadian Parks Council Youth Engagement Working Group which is assisting in the development of a national strategy and toolkit for youth engagement. The RCEN Youth Caucus is also focusing on biodiversity, coordinating a Canadian youth delegation to COP-10.

A nationwide program, My Parks Pass which came out of the Minister's Round Table on Parks Canada, was also launched in 2010.²⁹ The program, developed by Parks Canada, Nature Canada and the Historica-Dominion Institute, will offer 400,000 8th graders across the country a Parks Pass which will provide them with free access to 27 national parks and 68 national historic sites.

iii. Aboriginal Peoples

The 4th National Report stresses the importance of engaging Aboriginal peoples in biodiversity-related initiatives and cross-sectoral partnerships in order to achieve Canada's CBS goals. The ENGO community strongly supports this perspective and is interested in strengthening ENGO/Aboriginal partnerships in order to contribute to these goals.

Despite the progress that has been made in recent years to create resource management arrangements that are closest to real co-management (e.g. forest management in Clayoquot Sound with Nuu-chah-nulth First Nations), a great challenge remains to incorporate traditional knowledge into the resource management process. Part of the difficulty is that traditional knowledge has a highly spiritual and ceremonial context around it, so that it cannot be

²⁷ www.ontariostewardship.org

²⁸ <http://www.icewatch.ca/english/wormwatch>

²⁹ www.myparkspass.ca

separated from this cultural context without losing its meaning. Traditional knowledge, or more accurately described as a worldview called by some a “way of knowing”, provides information that expands our perceptions and understanding. It is clear that for Canada to achieve both its domestic and international potential to help sustain and improve the quality of life for all and reverse the alarming destruction of biodiversity, it must address its failure to embrace its Aboriginal peoples and their traditional knowledge. Therefore the first major step is for non-Aboriginal members of society to work toward a better understanding of traditional knowledge.

Secondly, further work is needed to incorporate traditional knowledge into all areas of natural resource management. Outreach and biodiversity conservation/sustainable use strategies will be greatly enhanced when all levels of government commit to the sharing of knowledge, management and evaluation of efforts and the engagement of civil society. One way of accomplishing this is to engage cross-culturally in community-based efforts to protect the natural wealth we have been entrusted to protect for future generations.

A recent initiative known as the Boreal Learning Network began in 2008 to improve cross-cultural connections between First Nations and ENGOs in relation to boreal forest conservation.³⁰ Such initiatives are rare and more are urgently needed. NRCan’s Forest Communities³¹ program also contributes to building cross-cultural connections between First Nation and non-First Nation communities who are working together to develop solutions for sustainable approaches to forest management in their local forests. In the fisheries sector, a grassroots initiative known as *Turning the Tide* is supporting community fishery approaches in Canada’s Maritime Provinces and helping to build linkages between native and non-native participants in the fishery.³² Participants include several First Nations, universities, community-based fishermen associations and the Bay of Fundy Marine Resource Centre, a civil society organization that links a range of fishery and community groups and provides facilitation, networking, and GIS services. The initiative has been motivated by the desire of participants for community-based fishery management and, in particular, the recent opportunity for First Nations to enter the commercial fishery on a community basis. The role played in *Turning the Tide* involves: 1) workshops, networking, and capacity-building; 2) exchange visits; and 3) development of resource materials.

There is a need for grassroots initiatives such as this to be complemented by governmental policy and logistical support for community-based management. Expanding such programs would further the recommended cross-cultural connections, where traditional knowledge is integrated into resource-management approaches to support resource-based communities while enhancing biodiversity conservation through resource stewardship.

³⁰ sustainabilitynetwork.ca/boreal.html

³¹ www.cfs.nrcan.gc.ca/index/fcpgm

³² <http://www.marineresourcecentre.ca/activities>

iv. Assessment of the Value of Ecosystem Goods and Services

The 4th National Report describes how research and development is being done in Canada on the valuation of ecosystem goods and services in order to make recommendations to various sectors of society, including industry, government and stakeholders. ENGOs strongly support this direction as a critical component of achieving biodiversity conservation. The full value of all our ecosystem goods and services must be accounted for in order to raise consciousness about biodiversity within the broader public. We therefore applaud Environment Canada for taking steps to integrate this approach into our economic system. At the same time we are concerned about the lengthy amount of time it is taking to implement this approach.

A critical aspect of moving forward in this realm is the development of a standard approach to ecosystem goods and services valuation. This approach would determine the value of biodiversity and ecosystems in monetary terms such that these “externalities” in our current economic system are internalized and accounted for. While this economic valuation of biodiversity will help to make the invisible visible (e.g. ecological goods and services such as water and air purification, carbon capture and storage, etc.), there is nevertheless a risk that biodiversity commoditization could facilitate further degradation by placing a price tag on its destruction. The aim of valuation must therefore be to promote conservation and sustainable use policies, with biodiversity offsets as a “last resort” after considering not only the immediate but also the long term value of all other options.

The development of an appropriate biodiversity offset scheme would need to address similar concerns that have been raised with regard to international efforts to reduce deforestation (i.e., REDD+) and ensure that all policies and incentives address the concerns of local communities, including indigenous peoples, in all relevant sectors. Such an offset scheme would need to ensure that it is used for conservation purposes and not as a licence for industry to destroy biodiversity and ecosystems.

In Canada, we strongly encourage the development of a standard method for the valuation of ecosystem services and biodiversity in a timely and transparent fashion. ENGOs would like to see civil society involvement—as well as all other relevant actors—in the development of such a standard. We are concerned that it may be developed solely by government without participation of civil society. It would be important that ENGOs be consulted in the decision on the best valuation methodology and minimum acceptable level of data to establish the standard. We also believe that it is necessary to create a standard which requires trained professionals to undertake the valuation (not just any employees within an organization).

v. Biodiversity and Business

Engaging the business community when developing and implementing national biodiversity strategies and action plans is an integral part of the strategic plan. In May 2008, G8 Environment Ministers adopted the *Kobe Call for Action for Biodiversity*³³ that promotes cooperation and joint activities among various stakeholders including the business sector, NGOs

³³ www.env.go.jp/en/focus/attach/080610-a3.pdf

and researchers, in order to mainstream biodiversity in society and encourage corporate social responsibility.

The recently formed Canadian Business and Biodiversity Program (CBBP) aims to help Canada achieve these objectives by assisting Canadian businesses that seek to show leadership in biodiversity conservation through partnerships involving business, government, non-government and academia.³⁴ The CBBP is composed of various businesses, federal government agencies (Agriculture and Agri-Food Canada, Environment Canada), the Secretariat of the CBD, two NGOs (ABMI, Wildlife Habitat Canada), and one university (U. Guelph). While this response to mainstreaming biodiversity into the Canadian business community is a good first step, we feel that there needs to be more than one ENGO and university involved to ensure broader representation of civil society.

V. SUMMARY OF KEY RECOMMENDATIONS TO IMPROVE CIVIL SOCIETY ENGAGEMENT ON BIODIVERSITY

Issue	Recommendation
Canadian Biodiversity Strategy	<ul style="list-style-type: none"> • Jurisdictions must complete all provincial/territorial strategies • Establish timelines with accountability measures to ensure that provinces/territories are developing and implementing the strategies in a reasonable timeframe • Establish an approach for information sharing/dissemination of all data relating to biodiversity strategies • Strengthen SARA so that it is based on a coherent framework that effectively protects all threatened species
Resource Sectors	<ul style="list-style-type: none"> • Strategies and programs to implement targets/standards to maintain ecosystem health in resource sectors (agriculture, fisheries, forestry) and strategic or operational management plans to manage resources and should be developed through multi-stakeholder, participatory processes that involve civil society

³⁴ www.businessbiodiversity.ca

Protected Areas	<ul style="list-style-type: none"> • Civil society should be further engaged in the establishment of protected areas. While this is already happening in some regions, it is still the exception not the rule and needs to be encouraged. • The federal government should organize a national level dialogue on Canada’s national MPA network involving ENGOs, research organizations, provinces, territories, Aboriginal governments and local stakeholders to enrich and accelerate the delayed process in an attempt to meet the 2012 biodiversity target
Education	<ul style="list-style-type: none"> • Raise biodiversity awareness in relevant governmental departments and agencies by showing linkages between biodiversity and other concepts such as climate change • Ensure that governmental departments address biodiversity in their Sustainable Development Strategies • Promote expansion of biodiversity initiatives at the local level, such as city biodiversity strategies. These strategies are critical especially for engaging the majority of Canadians who now live in cities. • Organize and frame nationwide events around biodiversity themes to reach the greatest audience possible • Celebrate biodiversity related success stories on a national scale • Strengthen government partnerships with ENGOs to increase their capacity to lead on the ground projects and to mobilize stewards • Encourage ENGOs and industry to work together • Mobilize resources to achieve these recommendations. Governments need to increase funding for biodiversity education activities such as those done by the RCEN, Ontario’s Biodiversity Education and Awareness Network, city biodiversity strategy initiatives, citizen science programs such as EMAN, supporting ENGO/government partnerships, biodiversity celebrations and activities such as the RCEN IYB and IBD activities.

<p>Aboriginal Peoples/Traditional Knowledge</p>	<ul style="list-style-type: none"> • All levels of government need to engage cross-culturally in community-based efforts • Increase federal government support and expand cross-cultural initiatives like the Boreal Learning Network and Forest Communities program to foster greater cross-cultural connections between Aboriginal communities and civil society, as well as with government • Establish similar initiatives in relation to a wider range of sectors relating to biodiversity conservation, such as fisheries, mining and agriculture
<p>Assessment of the Value of Ecosystem Goods and Service</p>	<ul style="list-style-type: none"> • Establish a multi-stakeholder national working group to study ecosystem services in general with a focus on valuation, develop best practices and share data • Environment Canada should chair the working group and provide funding
<p>Biodiversity and Business</p>	<ul style="list-style-type: none"> • Expand the CBBP to include a wider range of civil society representatives