



Accord de coopération environnementale
Acuerdo de Cooperación Ambiental
Agreement on Environmental Cooperation

THE CANADA–CHILE COMMISSION FOR ENVIRONMENTAL COOPERATION

2010

Annual Report



Canada

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Aussi disponible en français sous le titre *Rapport annuel 2010 de la commission de coopération environnementale entre le Canada et le Chili*.

También esta disponible en español bajo el título *Informe Anual del Comisión Chile-Canada para la Cooperación Ambiental 2010*.

Annual Report at a Glance

PURPOSE OF THE ANNUAL REPORT

The Canada–Chile Agreement on Environmental Cooperation entered into force in 1997 at the same time as the Canada–Chile Free Trade Agreement and the Canada–Chile Agreement on Labour Cooperation. Its main objectives are to foster the protection and enhancement of the environment in both countries; to promote sustainable development policies; and to promote transparency and public participation in the development and improvement of environmental laws, regulations, policies and practices.

The Canada-Chile Commission for Environmental Cooperation was established under the Agreement and provides a forum for the two Parties to cooperate on environmental issues. The Commission is composed of a Council, a Joint Submissions Committee and a Joint Public Advisory Committee. The Commission is supported by two National Secretariats, Canadian and Chilean, established in the Ministries of the Environment in each country.

The Agreement calls for the preparation of an annual report by the Commission for Environmental Cooperation and specifies a range of areas that the report must cover, including

- a) activities and expenses of the Commission during the previous year;
- b) the approved program and budget of the Commission for the next year;
- c) the actions taken by each Party in connection with its obligations under this Agreement, including data on the Party's environmental enforcement activities;
- d) relevant views and information submitted by non-governmental organizations (NGOs) and persons, including summary data regarding submissions, and any other relevant information the Council deems appropriate;
- e) recommendations made on any matter within the scope of this Agreement; and
- f) any other matter that the Council instructs the National Secretariats to include.

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1 | EXECUTIVE SUMMARY

The Council of the Canada–Chile Commission for Environmental Cooperation met for its Eleventh Regular Session on July 13, 2011, in Santiago. Canada and Chile signed the Canada–Chile Environmental Cooperation Agreement in 1997 in parallel to the bilateral Canada–Chile Free Trade Agreement. This agreement offers a model for environmental cooperation in the context of expanding integration, based on the principle that trade should not occur at the expense of environmental protection.

The past year has been one of change for the Canada–Chile Commission on Environmental Cooperation. Most significantly, Chile's National Commission for the Environment (CONAMA), which hosts the Chilean National Secretariat, became the Ministry of the Environment (MMA) in 2010, heralding a new era for environmental management in Chile. The new ministry is responsible for the design and implementation of policies, plans and programs for the protection of the environment; the conservation of biological diversity, renewable natural resources and water resources; the promotion of sustainable development; and the integrity of environmental policy and its regulatory framework.

Alongside this new institutional context, officials from both countries have worked toward improving the implementation of cooperative activities by focusing on better communication and reporting of the results of projects. This is reflected in the new format for the 2010 Annual Report, which includes summaries from project leaders on their progress in advancing mutual environmental priorities. Implementation of projects over the last year resulted in

- conservation and community outreach activities to protect the Pink-footed Shearwater;
- detections of 1,300 banded Hudsonian Godwits and Whimbrels, and compiling five years worth of data to advance knowledge of the non-breeding ecology of the species;
- surveys of the Red Knot population, the results of which are being used internationally;
- information sharing for improved environmental risk and contaminated sites management;
- multi-sector (government, industry, civil society) engagement in the development of a plan to monitor the environmental impacts of the pulp and paper sector on the Bío Bío watershed;
- a three-month train-the-trainer internship provided to a Chilean bander; and
- Chilean participation at the International Network for Environmental Compliance and Enforcement's (INECE) 9th International Conference hosted by Canada to advance international collaboration, which resulted in the establishment of a Latin American Compliance and Enforcement Network.

The Commission has also worked with the Joint Public Advisory Committee (JPAC) to improve public engagement under the Agreement. During the Eleventh Council Session, JPAC hosted a public session on renewable energies with guest speaker Hugh Rudnick, from the Pontifical Catholic University of Chile. Canada and Chile met with the public during this session, had a discussion, and appreciated the insights provided on improving the implementation of the Agreement and ensuring that related work is transparent and relevant to the needs of citizens.

Canada and Chile remain committed to the Agreement, look forward to its continued success in the future and will meet again under the auspices of the Twelfth Regular Session of the Canada–Chile Commission for Environmental Cooperation in Canada in 2012.

Dean Knudson
Executive Secretary
Canadian National Secretariat

Ricardo Irarrázabal Sanchez
Executive Secretary
Chilean National Secretariat

2 | REPORT ON THE SEVENTH WORK PROGRAM AND BUDGET

This section outlines the cooperative activities undertaken by government experts from Canada and Chile and their partners between May 2010 and July 2011. It also presents proposed projects for the year ahead.

Cooperative Activities

THEME 1: MIGRATORY SPECIES, BIODIVERSITY AND CONSERVATION

Recovery Actions for Pink-footed Shearwaters in Chile (Phase I)

The Pink-footed Shearwater (*Puffinus creatopus*) is a species that is known to nest at only three sites in the world, all of which are located in Chile. During the non-nesting season, the birds leave their nesting colonies and spend all their time at sea, with some travelling as far north as the southern Gulf of Alaska. The birds face various threats throughout their range, and have therefore been designated under species at risk legislation in several countries; in Canada, they have been designated as Threatened under the Canadian Species at Risk Act (SARA), and in Chile, they have been designated as Endangered under the Regulation for the Classification of Wild Species. The biology of this species is such that international conservation efforts and cooperation are essential to its recovery.



In January 2011, a workshop and meeting with local residents was sponsored in order to collaborate on and prioritize conservation actions for the species. Isla Mocha is the largest known colony of the species, with approximately 19,000 birds nesting there.

The meeting was divided into three phases. The first phase consisted of presentations made by biologists studying various aspects of the shearwater's ecology, including biological parameters, threats and possible ways to achieve conservation measures. Presentations included the monitoring work that is being conducted on the Isla Mocha colony by Oikonos Ecosystem Research and by park rangers from the Corporación Nacional Forestal (CONAF), and results from surveys conducted at sea by researchers from the University of Andrés Bello, near Valdivia, Chile. A member of the Albatross Task Force (of BirdLife International) presented results from observer programs that document seabird bycatch and work with local fisheries to develop measures to minimize seabird bycatch. Staff from CONAF presented a summary of their survey of residents of Isla Mocha pertaining to the number of domestic pets on the island and the level of interest of residents in having the pets spayed or neutered. Studies conducted at other seabird colonies have found that domestic animals such as cats and dogs can cause significant mortality to nesting seabirds. As well, the Chilean Ornithological Union presented a draft environmental education plan (developed by a biologist and an anthropologist) for residents on the island. The draft plan includes short-term elements such as "Discover Your Island" aimed at schoolchildren, which includes factsheets on the biology and geology of the island and on broader environmental themes, such as waste disposal. The plan also includes medium- and long-term elements, such as bringing researchers to the island to discuss various elements of natural history that may be of interest to residents, and the creation of a group of environmental stewards who would be responsible for outreach programs both on and off the island.

The second phase of the meeting involved an open forum with members of the public. Biologists from Oikonos Ecosystem Research gave a presentation on the biology of the Pink-footed Shearwater, the findings of their studies, threats to the birds on Isla Mocha, and conservation initiatives currently underway on Robinson Crusoe Island. Key threats highlighted and discussed with residents included predation by domestic animals (cats and dogs), mortality from bycatch in fisheries, and the harvesting of chicks from their nest burrows. There were also discussions about

possible ways for the community to reduce or eliminate some of those threats. Island residents were interested in learning more about the birds and the importance of their island with respect to the conservation of the Pink-footed Shearwater. They also expressed the desire for continued communication and interaction with government officials in order to deliver conservation initiatives over the long term.

The third part of the meeting consisted of a discussion among the various agencies on priority actions, and commitments from participants to achieve them. Future actions are to include continued monitoring, research and conservation initiatives when the birds are at their nesting colonies and when they are at sea; and continued delivery of outreach and environmental education programs.

The main goals of the workshop and meetings were to improve outreach with the island residents, to promote transparency and public participation in the conservation of the Pink-footed Shearwater, and to raise awareness of the need for environmental protection for the well-being of future generations of Isla Mocha residents. The workshop has provided opportunities for greater cooperative efforts between Canada and Chile to deliver on the conservation and protection of the Pink-footed Shearwater, and ultimately, to achieve species recovery by increasing the growth rate of the population.

Private-sector Participation in the Conservation of Biodiversity and Protected Areas: The Chilean and Canadian Experience

This project is planned for implementation in 2011–2012. It proposes to advance dialogue and planning for an Integrated National Protected Areas System in Chile that will cover public, private, land and marine areas. A teleconference call took place on April 15, 2011, where technical counterparts discussed each country's protected areas systems and the way forward for cooperation.

Increasing the Scientific Understanding of Hudsonian Godwits and Whimbrels Spending the Boreal Winter on Chiloé Island, Chile

The Hudsonian Godwit (*Limosa haemastica*) and the Whimbrel (*Numenius phaeopus*) are two species of shorebirds that have been identified as species of high conservation concern in the U.S. and Canada. This status is a result of small population sizes of less than 70,000 individuals, suspected population declines, restricted breeding and non-breeding distributions and high threats during the non-breeding season. Chiloé Island is the most important site on the Pacific Coast for Hudsonian Godwits and it also supports a high proportion of Whimbrels wintering along the Pacific Coast. Since 2006, the U.S. Fish and Wildlife Service (USFWS) and its partners have conducted research and monitoring on godwits and Whimbrels on Chiloé Island. The project supported the participation of four volunteers to join an international team for three weeks in January 2011 to continue this work.



Myriam Lambany – Volunteer from the Université du Québec à Rimouski

I consider myself very fortunate to have taken part in this study. I not only increased my knowledge of the biology of these two species, but also developed skills in resighting, capturing and handling shorebirds, which will definitely be of use in my future work in this field.

The international team consisted of 12 students and biologists from Chile, Canada and the U.S., co-led by Jim Johnson and Brad Andres from the USFWS. The volunteers included representatives from an Alaskan NGO called Southeast Alaska Wilderness Exploration Analysis & Discovery (SEAWEAD), the University of Chile, the Université du Québec à Rimouski, as well as from a local NGO dedicated to conservation on Chiloé Island (the Centro de Conservación del Patrimonio Natural (CECPAN)).

The project contributed to improving the knowledge of adult survival at overwintering areas, as well as increasing the understanding of non-breeding ecology for two high-priority species of shorebirds. The team recorded nearly 1,300 detections of banded godwits and Whimbrels, which comprised 310 of 665 (47%) banded godwits and 168 of 315 (53%) banded Whimbrels. In addition to their efforts in the Castro area, they also surveyed 20 secondary sites known to support godwits and Whimbrels throughout Chiloé Island. They recorded 39 banded godwits at these sites and did not observe a banded Whimbrel. The banding and resighting efforts also helped to clarify migratory connectivity of Red Knots banded in Argentina, Chile and North America; the team found evidence that Red Knots overwintering on Chiloé Island are from the West Atlantic Flyway *rufa* population, not from the Pacific Flyway *roselaari* population. Furthermore, incidental counts of Red Knots on Chiloé since 2007 suggest that the regional overwintering population has remained stable in the low hundreds.



In addition to these findings - which will be used by the governments of Chile, Canada and the U.S. - through the interaction of international staff with local residents, the project helped foster and develop links for collaboration with local and international stakeholders. By involving local residents in monitoring and conservation efforts it is expected that the project will help maintain the environment for the well-being of present and future generations. A funding proposal to the Packard Foundation for the implementation of the Chiloé Island Shorebird Conservation Coalition Action Plan was submitted and approved, providing an additional US\$230,000 towards these efforts on the island.

Status and Surveys of the Endangered Red Knot (*Calidris canutus rufa*) on Its Major Wintering Grounds in Tierra del Fuego

The population of Red Knots (*Calidris canutus rufa*), a shorebird species “wintering” in southern South America and breeding in the central Canadian Arctic, has fallen from over 50,000 from the 1980s to 2000, to fewer than 17,000 by 2010 at major sites in Tierra del Fuego in Chile, a decline of 70–75% over the past decade. Most of the remaining birds spend the non-breeding (northern winter) season at Bahía Lomas, Tierra del Fuego, in Chile, a site discovered during Environment Canada surveys in the 1980s. Owing to this decline, *Calidris canutus rufa* was designated as Endangered by the Committee on the Status of Endangered Wildlife in Canada in April 2007. The Red Knot is one of the most important shorebird species shared between Chile and Canada, two of the three countries (Argentina is the third) containing key habitats that are essential to the successful future conservation of the species. The Red Knot has long been considered a flagship species for shorebird conservation, owing to its trans-hemispheric migrations, dependence on a relatively small number of key wintering and stopover areas, and its vulnerability to a wide range of climate change effects and other environmental factors. The Red Knot situation could be described as one of the defining shorebird conservation issues of our time.

An annual count of the population is needed in order to assess the ongoing status of the population, to judge whether conservation and management actions are being effective, and to identify factors causing declines in the population. The best place to carry out the count is in Tierra del Fuego, where the bulk (estimated 98%) of the birds stay in a relatively small area. In January 2011, the surveys carried out by Canada and Chile indicated that

the Red Knot population had undergone another substantial decline to fewer than 10,000 birds—35% fewer than in 2010 and over 80% fewer than in 2000.

These results emphasize the need for conservation and management at key sites, particularly the main wintering area at Bahia Lomas in Chile, and will strengthen the present designation of Bahia Lomas as a Ramsar site¹ and as a Western Hemisphere Shorebird Reserve Network site. The 2011 results are expected to be highly influential in supporting renewed applications to have the species listed as Endangered in the U.S. It will also stimulate research into possible reasons and mechanisms for the declines, both in Chile and elsewhere throughout the range of the species. The surveys provide essential, basic information required for the management and conservation of Red Knots and their habitats.

Strengthening Bird-banding Capacity in Chile: Train-the-Trainer Internship

A proposal was submitted in January 2011 to seek funding to provide a three-month train-the-trainer internship to a Chilean bird bander from April to June 2011. Funding was granted and a more detailed report is expected for the 2011 Annual Report. The project seeks to aid Chile in developing its bird-banding program to a high international standard in support of migratory bird protection and conservation, ensuring that there is continued data sharing between Canada and Chile.

THEME 2: CONTAMINATED SITES

Contaminated Sites in Canada and Chile: Focus on Environmental Risk Management and the Management of Contaminated Sites

Environment Canada and Aboriginal Affairs and Northern Development Canada, in cooperation with the Chilean Ministry of the Environment (MMA), delivered a two-day workshop in Santiago, Chile, to foster the protection and improvement of the environment in both countries for the well-being of present and future generations, and to promote economically efficient and effective environmental measures as well as pollution prevention policies and practices.

The workshop reached an audience of over 25 participants from government and non-governmental organizations. Discussions addressed the following issues: environmental risk management, mine closures, legislation and regulations, as well as guidelines, policies and tools. Case studies from both countries were also presented, including mine closures at the Faro lead-zinc mine and the Discovery gold mine, both in northern Canada, and Chile's mitigation plans in Arica as well as bioremediation of hydrocarbon-contaminated sites in Punta Arenas.

Evaluations of the workshop were very positive, with 90% of respondents agreeing that the workshop met their expectations and its objective of "sharing best practices and lessons learned in the remediation of contaminated sites in Canada and Chile." More importantly, 90% of respondents also agreed that as a result of the workshop they had "identified at least one best practice on the remediation of contaminated sites that [could] be used in [their own] work."

The project allowed both Canada and Chile to establish contacts that will enable the continued exchange of information, and generated interest in further collaboration on contaminated sites, including abandoned mines. Ultimately, the project sought to enhance environmental management in both countries, advancing the objectives of the Canada–Chile Agreement on Environmental Cooperation (CCAEC).

¹ Ramsar sites are designated wetlands of international importance under the Ramsar Convention on Wetlands. The Convention's mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world". Visit: www.ramsar.org

THEME 3: CHEMICALS MANAGEMENT

Development of a Pilot Environmental Effects Monitoring Program in Chile (Phase II)

The South American pulp mill industry is undergoing a period of rapid development and expansion. Despite this explosive growth, Chilean mills are operating without adequate baseline environmental studies. In Canada, Environment Canada's Environmental Effects Monitoring (EEM) Program is a science-based regulatory tool that can detect and measure changes in aquatic ecosystems potentially affected by human activity (i.e., effluent discharges). This tool can be used to help assess the effectiveness of existing environmental regulations and management measures. The Canadian program is unprecedented in the world, and the goal of this multi-phase project was to set down the foundation for the development of such a program in collaboration with the newly established Chilean Environment Ministry.

In January 2009, a first meeting and information exchange took place, hosted by the University of Concepcion, where presentations were delivered to key stakeholders. The meeting was attended by 25 representatives from Chilean academia, the private sector (Arauco Ltd.), Chilean government representatives from CONAMA (*Comisión Nacional del Medio Ambiente*) and the Fisheries Service (*Servicio de Pesca*).

The culmination of phase II of the project was a Pilot EEM workshop held in early March 2011, where over 50 Chilean participants spent two days developing a framework for a pilot EEM project for the Bio Bio watershed in Chile. This included incorporating all existing monitoring programs, determining existing data gaps and establishing additional reference sites towards the development of a watershed monitoring framework.

Throughout this project Environment Canada and the University of New Brunswick have also continued their scientific exchanges with professors and students at the University of Concepcion. Their collaborative studies downstream of one of the most modern pulp and paper mills in the world have resulted in the publication of two peer-reviewed manuscripts and in documentation showing that these modern facilities do have environment impacts; it will therefore be necessary to accompany any adoption of best available technologies (BAT) with other targeted measures to improve effluent quality. This work will contribute significantly to the conservation and protection of the environment in Chile. The results are also being used in Canada to support the development of "Smart" regulations for the pulp and paper sector.

THEME 4: INFORMATION MANAGEMENT

Management of Information Systems: Support for the Systematic Production of Environmental Statistics

Although a project in this area was discussed during the May 2010 Council Session, no corresponding project was formulated. The original concept for this cooperation was to convene a meeting on environmental statistics at the time of the International Association for Official Statistics's (IAOS) conference on official statistics and the environment, held in Santiago, October 20–22, 2010. Unfortunately, this could not occur due to human resource constraints during the transition from the Chilean National Commission for the Environment (CONAMA) to the present-day Ministry of the Environment (MMA), which took place in October 2010.

ADDITIONAL COOPERATION UNDER THE WORK PROGRAM

Sponsorship of Chilean Participation at the International Network for Environmental Compliance and Enforcement's (INECE) 9th Conference

Canada hosted the INECE's 9th Conference in Whistler, British Columbia, June 20–25, 2011. The five-day conference, which focused on the theme of "Enforcement Cooperation: Strengthening Environmental Governance," was preceded by a one-day pre-conference skills training day on June 19, 2011. The INECE conference was an opportunity for practitioners to convene with peers at an international level for events exclusively dedicated to the practice of environmental compliance and enforcement. To facilitate participation from Latin America, Canada

sponsored the nomination and participation of Mr. Jaime Manuel Lira Correa, the Superintendent of the new Superintendency for the Environment. As part of the Conference, he and his Peruvian counterpart (sponsored under the Canada–Peru Environment Agreement) inaugurated the formation of a Latin American Compliance and Enforcement Network by planting a tree in Whistler.

OTHER COOPERATION

Workshop on the Discovery of *Didymosphenia geminata* in Chile

In 2010, the globally invasive riverine diatom alga (*didymo*) was first discovered in two rivers in the southern part of Chile frequented by international fly fishermen. A workshop entitled “Our Rivers in Danger: *Didymosphenia geminata*” was organized by Senator Antonio Horvath in Puerto Varas, September 23–24, 2010, to discuss potential responses. Dr. Max Bothwell, an Environment Canada expert on the *didymo* alga, participated in the event and was awarded a Chilean Congressional Medal for his service.

Budget

The costs of implementing the Agreement involve three areas: (1) cooperative activities, including the Council sessions and project implementation; (2) the Joint Public Advisory Committee (JPAC); and (3) the citizen submission process described in articles 14 and 15. The costs of these budget items were shared by the Parties.

Commission Expenses from January 2010 to April 2011 ²								Totals	
Cooperative Activities				Public Engagement					
Work Program		Council and Annual Reports		JPAC		Citizen Petitions			
CLP	CAD	CLP	CAD	CLP	CAD	CLP	CAD	CLP	CAD
25,222,330	52,308	7,056,528	14,634	7,937,138	16,459	20,505,669	42,523	60,721,665	125,924

In addition to the amounts provided by the Commission, projects leveraged \$60,292 CAD or \$28,950,816 CLP³ in contributions from other sources. Government officials and project partners provided 348 days of in-kind support to implement projects.

The cost to operate the National Secretariats is not included above, nor are the in-kind contributions provided by the National Secretariats, the JPAC and the JSC.

² Based on July 11, 2011, exchange rates.

³ Based on July 11, 2011, exchange rates.

Future Work Program and Budget

The following is the proposed program and budget of the Commission for 2011–2012 and is subject to final approvals by both Parties:

THEME 1: MIGRATORY SPECIES, BIODIVERSITY AND CONSERVATION		
Project	Description	Estimated Budget ⁴
10.1.1. Recovery actions for the Pink-footed Shearwater (Phase II)	Implement conservation measures on Isla Mocha and the Juan Fernandez Islands for the Pink-footed Shearwater.	\$11,000 CAN / \$5,289,462 CLP
10.1.2 Participation of the private sector in the preservation of biodiversity and protected areas: Chilean and Canadian experiences	Share Chilean and Canadian experiences and learning regarding private initiatives in the conservation of biodiversity and private protected areas.	\$17,800 CAN/ \$8,559,311 CLP
10.1.4 Status and surveys of the endangered Red Knot on its major wintering grounds in Tierra del Fuego	Collect information required to understand the decline of the Red Knot population and contribute to its conservation and recovery.	\$16,500 CAN/ \$7,934,193 CLP
10.1.5 Strengthening bird-banding capacity in Chile: Train-the-trainer internship	Strengthen the Chilean bird-banding program by providing a train-the-trainer internship to a Chilean bander. The Chilean bander will ultimately be able to provide standardized training to other Chilean banders.	\$2,000 CAN/ \$961,929 CLP
THEME 2: CONTAMINATED SITES		
10.2.1 Remediation of contaminated sites (Phase II)	Support ongoing information exchange on contaminated sites, in preparation for a Chilean delegation to Canada in 2012.	\$1,000 CAN/ \$480,964 CLP
THEME 3: CHEMICALS MANAGEMENT		
10.3.1 Development of a pilot environmental effects monitoring program (EEM) in Chile (Phase III)	Strengthen the effectiveness of environmental enforcement and compliance activities for aquatic dischargers, specifically pulp and paper mills, in Canada and Chile.	\$5,500 CAN/ \$2,645,363 CLP
THEME 4: INFORMATION MANAGEMENT: <i>No projects anticipated</i>		

Please consult the National Secretariats for more details on these proposed projects.

⁴ Based on exchange rates 1 CAD = 480.860 CLP (May 17, 2011).

3 | REPORT ON SUBMISSIONS ON ENFORCEMENT MATTERS

Under the Agreement, any non-governmental organization or person can assert that a Party to the Agreement is failing to effectively enforce its environmental law by presenting a submission on enforcement matters (SEM).⁵ If the SEM meets, among other things, initial screening criteria as to its purpose, and it contains sufficient information, it is then forwarded to an independent committee (the Joint Submissions Committee) to determine whether the submission merits requesting a response from the Party, and in light of any response, whether the preparation of a factual record against the Party is warranted. If the Council agrees with the recommendation of the Joint Submissions Committee, the Party that is not the subject of the complaint will commission an expert in environmental matters to prepare the factual record on the submission. The Council shall make the factual record public at the request of either Party.

In 2010, the following submission process was completed:

SEM-08-01: “Patagonia Chilena sin Represas”

Submission SEM-08-01 was made on June 12, 2008, by Marcelo Castillo, lawyer of the firm Estudio Jurídico Etcheberry, representing the group “Patagonia Chilena sin Represas” [“Chilean Patagonia without Dams”], a coalition of organizations and individuals.

The submitters asserted that Chile was failing to effectively enforce its environmental laws with respect to a proposed hydro project [Proyecto Hydroaysén] in two waterways close to the Chile–Argentina border (the rivers Pascua and Baker). In particular, the submitters argued that the Chilean authorities had not effectively ensured compliance with the following legislation:

- Article 19, number 8 of the Political Constitution of the Republic of Chile.
- Additional Specific Protocol regarding shared Water Resources between the Republic of Chile and the Argentine Republic created as a result of the 1991 Environment Treaty between the Republic of Chile and the Argentine Republic.

On December 19, 2008, the National Secretariats concluded that the submission satisfied the initial screening criteria under the Agreement and notified the petitioners to this effect. Accordingly, the submission was referred to an independent committee (the Joint Submissions Committee) for review.

On June 10, 2009, the National Secretariats acknowledged receipt of a second submission, intended by the petitioners as supplemental information. On January 25, 2010, the National Secretariats formally notified the petitioners that the submission satisfied the initial screening criteria and that the submission would be considered supplemental to the original submission, SEM-08-01.

The submissions were considered by the Joint Submissions Committee and a request for a response was submitted to the Chilean National Secretariat on March 15, 2010.

On May 11, 2010, the Government of Chile responded to the submitter’s claims, maintaining that the submission should be dismissed and that Chile has enforced all of its environmental legislation as it pertains to the Hydroaysén project.

⁵ Article 14 of the Agreement stipulates that any Canadian citizen or organization that submits a request under the Canada–Chile Agreement must agree not to also submit the issue to the North American Commission for Environmental Cooperation. It should be kept in mind that, given Canada’s large volume of trade with the United States and Mexico, Canadians are more familiar with the North American Commission for Environmental Cooperation (NACEC) and are therefore more likely to submit a request under the NACEC. To consult submissions against Canada under the NACEC, visit www.cec.org/Page.asp?PageID=1226&SiteNodeID=210&BL_ExpandID=156

The response described how the Hydroaysén project is currently under consideration through the Environmental Impact Assessment System in conformity with the law. In particular, the Government of Chile pointed out that the Coyhaique Court of Appeals and the Supreme Court found that the appropriate administrative processes were followed by Chile's Regional Environmental Commission (COREMA) with regard to the Hydroaysén project. The Government of Chile also stated that the Court of Appeals and the Supreme Court found the petitioner's claims to be premature, since they referred to future undetermined actions (anticipating the results of the environmental impact assessment). The Government of Chile stated that no environmental damage was caused due to the granting of a provisional electric concession (now expired), whose intent was to allow for preliminary studies only. Finally, it claimed that the petitioners have not exhausted all possible domestic avenues for complaint as stipulated in the Agreement, given that the project's environmental impact assessment is still pending a final decision.

In light of the response provided by the Government of Chile, the Committee determined that the submission did not warrant the development of a factual record. The reasons for the above determination, among others, were that the Committee was not convinced that Chile has breached its own domestic legislation, and more importantly, that the Committee did not see sufficient evidence of environmental damages as a consequence of the alleged infractions (the granting of the provisional electric concession).

The submitters were notified of the Committee's determination on October 27, 2010, and the process was thereby considered terminated.

An online registry of petitions is available at:

www.ec.gc.ca/can-chil/default.asp?lang=En&n=D3DE2C48-1

If you would like an electronic copy of the document, please use the "contact us" section of the website:

www.ec.gc.ca/default.asp?lang=En&n=DA294545-1

4 | COUNTRY PROGRESS REPORTS

Under the Agreement, each Party is required to report on the actions they have taken in connection with the obligations set out under Part 2 of the Agreement (Articles 2 through 7), including data on each Party's environmental enforcement activities. The following chapters present Canada and Chile's reports; for more detailed information on each country's activities, please contact the relevant National Secretariat.

Canada Report

The following section outlines Canada's activities with regard to meeting the obligations articulated in the Agreement.

STATE OF THE ENVIRONMENT REPORTS

Article 2(1)(a) of the Agreement provides that each Party shall, with respect to its territory, periodically prepare reports on the state of the environment and make them publicly available.

Canada is committed to improving its environmental monitoring and reporting tools to better inform Canadians about the state of the environment. Environment Canada produces a wide variety of reports and publications, which are available on the Department's website, at www.ec.gc.ca/Publications.

Since 2005, under the Canadian Environmental Sustainability Indicators (CESI) initiative, Canada has reported annually on environmental indicators in the areas of air quality, water quality and greenhouse gas emissions. For more information on CESI, visit www.ec.gc.ca/indicateurs-indicators/default.asp. The CESI interactive website allows users to access indicator results at regional and local levels, representing a step forward in engaging citizens with direct environmental information.

In 2010, the following notable strategies and reports were published:

- **The Federal Sustainable Development Strategy for Canada.** This strategy provides a federal government-wide approach to improving environmental decision making by: a) providing an integrated, whole-of-government picture of government actions and concrete results to achieve environmental sustainability; b) forging a clear link between sustainable development planning and reporting and the Government's core expenditure planning and reporting system; and c) setting the stage for effective measurement, monitoring and reporting in order to track and report on progress to Canadians. For more details, see www.ec.gc.ca/dd-sd/default.asp?lang=En&n=E19EE696-1.
- **Canadian Biodiversity: Ecosystem Status and Trends 2010 report.** This assessment is a collaborative project of the Canadian federal, provincial and territorial governments. This report is the first assessment of Canada's biodiversity from an ecosystem perspective. It presents 22 key findings derived from technical background reports. It assesses progress towards the goal of "healthy and diverse ecosystems" and two desired conservation outcomes: i) productive, resilient, diverse ecosystems with the capacity to recover and adapt; and ii) restoration of damaged ecosystems. It forms part of Canada's commitment to the Convention on Biological Diversity. Authors and reviewers include hundreds of experts from across Canada. For more details, see www.biodivcanada.ca/default.asp?lang=En&n=83A35E06-0.

ENVIRONMENTAL EMERGENCY PREPAREDNESS MEASURES

Article 2(1)(b) of the Agreement provides that each Party shall, with respect to its territory, develop and review environmental emergency preparedness measures.

Environment Canada's Environmental Emergencies Program uses legislative and regulatory authorities, science (meteorological, wildlife and hazardous substances), and partnerships to reduce the frequency and consequences of environmental emergencies involving the unplanned, uncontrolled or accidental release of hazardous substances.

Environment Canada works in partnership with other federal departments, other levels of government, industry and communities to

- develop contingency plans that outline how to deal with emergencies;
- train personnel to apply the plans; and
- review and exercise these plans to clarify roles, develop working relationships, test capabilities and strengthen their effectiveness.

For more information about the Environmental Emergencies Program, visit www.ec.gc.ca/ee-ue.

Milestones

The National Environmental Emergencies Centre (NEEC) assists regional emergency offices and key responding agencies in coordinating environmental incident response support. The NEEC also helps communicate key information within Environment Canada and to other federal partners such as Public Safety Canada. In 2010, 42 NEEC Advisories were sent within Environment Canada and to federal partners on the most significant environmental emergencies, including 2 industrial chemical spills, 14 land transport (road, rail) accidents, 7 industrial fires, 2 water contamination incidents from sewage overflows, 5 major pipeline leaks/spills and 11 offshore marine transport incidents. These 42 incidents represent a fraction of the total number of pollution incidents in which the Environmental Emergencies Program's regional offices are involved.

In 2010, Environment Canada continued the development of a notification system for environmental emergency incidents in Canada. The new system, to be finalized in 2011, designates a specific organization and 24-hour telephone number to receive emergency notifications from the public or regulated stakeholders in various regions of Canada. The new notification regulations will formalize existing systems and agreements.

In 2010, the Department also continued work towards an update of Canada's *Environmental Emergency Regulations* that will require emergency plans at more facilities that handle or can store hazardous materials over certain quantities.

Following the accident on the BP *Deepwater Horizon* oil rig in the Gulf of Mexico in April 2010, Environment Canada's Emergencies Science and Technology Section (ESTS) was contacted by the U.S. federal government to contribute its expertise in a number of areas, including oil forensic analysis and advice on effective response measures.

Environment Canada science experts also participated at a special international meeting on dispersants in Baton Rouge, Louisiana, in May 2010, and on a committee of experts that created a tool to provide a scientifically validated estimate of where the spilled oil ended up in the environment, was washed ashore, or was burned off.

Additionally, staff from the Environmental Emergencies Program visited the Gulf of Mexico region during the *Deepwater Horizon* incident under the International Observers Program. The visit provided an opportunity to gather first-hand knowledge on all aspects of marine oil spill response management from a planning, operational and logistics perspective.

ENVIRONMENTAL EDUCATION

Article 2(1)(c) of the Agreement provides that each Party shall, with respect to its territory, promote education in environmental matters, including environmental law.

Environment Canada has developed and adopted an education and outreach strategy, whose mission is “to support Canadians in adopting sustainable practices and lifestyles in order that natural capital is preserved and health and safety of Canadians is protected.” A website has been established to promote environmental education programs and information to Canadians: www.ec.gc.ca/education

Environment Canada also manages a unique environmental museum, the Biosphere (www.ec.gc.ca/biosphere), which celebrated 15 years of environmental education achievements in 2010. As part of celebrations, the Biosphere installed two green roofs and created an indoor garden that reproduces three Canadian ecosystems. In addition to exhibitions and educational products, the museum has also produced *A Sustainable Development Guide for Canada's Museums*.

SCIENTIFIC RESEARCH AND TECHNOLOGY DEVELOPMENT

Article 2(1)(d) of the Agreement provides that each Party shall, with respect to its territory, further scientific research and technology development in respect of environmental matters.

Science and technology (S&T) play a significant part in Canada's efforts to protect and conserve our air, water, wildlife and spaces. More than 70% of Environment Canada's budget and two-thirds of its employees are devoted to S&T. Eighty percent of Environment Canada's research is conducted and published in collaboration with external researchers, and mobilizing national and international environmental science capacity in this area is part of Environment Canada's responsibilities. More information can be found on the Environment Canada science and technology website, at www.ec.gc.ca/scitech.

In January 2010, a state-of-the-art facility for aquatic science was opened in Burlington, Ontario. The \$4.6 million Aquatic Life Research Facility at the Canada Centre for Inland Waters (CCIW), jointly funded by Environment Canada and Fisheries and Oceans Canada, will dramatically increase the scope, capacity and energy efficiency of aquatic research at the CCIW, allowing researchers from both federal departments, as well as external partners, to pursue important new projects. This facility will conduct research on municipal wastewater effluent exposures, pulp mill effluent exposures, oil sands testing, chemicals management plan testing, and Randle Reef sediment exposures (Randle Reef in Hamilton Harbour is listed as one of North America's areas of concern and is significantly contaminated by organic chemicals and metals).

ENVIRONMENTAL IMPACT ASSESSMENT

Article 2(1)(e) of the Agreement provides that each Party shall, with respect to its territory, assess, as appropriate, environmental impacts.

The Canadian Environmental Assessment Agency (CEAA) is responsible for administering the *Canadian Environmental Assessment Act* and for broadly promoting environmental assessments across the federal government through training, guidance, funding for public participation, and providing recommendations during the environmental assessment process. Individual departments conduct environmental assessments for their own projects, working with the CEAA.

More information about the CEAA can be found on their website, at www.ceaa.gc.ca.

The CEAA also maintains the Canadian Environmental Assessment Registry, which aims to help the public find information and records related to current environmental assessments conducted under the Act. The Registry is available online at www.ceaa.gc.ca/050/index-eng.cfm.

ECONOMIC INSTRUMENTS

Article 2(1)(f) of the Agreement provides that each Party shall, with respect to its territory, promote the use of economic instruments for the efficient achievement of environmental goals.

Canada promotes the use of economic instruments for the efficient achievement of environmental goals. In Canada, economic instruments are being considered more and more. The federal, provincial and territorial governments are involved in a range of instruments such as economic incentives, green taxes and tradable permit programs.

EXPORT CONTROLS

Article 2(3) of the Agreement provides that each Party shall consider prohibiting the export to the territory of the other Party of a pesticide or toxic substance whose use is prohibited within the Party's territory. When a Party adopts a measure prohibiting or severely restricting the use of a pesticide or toxic substance in its territory, it shall notify the other Party of the measure, either directly or through an appropriate international organization.

In 1999, the *Canadian Environmental Protection Act, 1999* (CEPA 1999) was enacted. The Act governs all matters regarding export controls. Detailed information can be found at www.ec.gc.ca/CEPARRegistry.

In 2010, progress was made towards the proposed *Export of Substances on the Export Control List Regulations*, which will be published in the summer of 2011 in the *Canada Gazette*, Part I. The purpose of these proposed regulations is to reduce the regulatory burden and duplication by merging two existing export regulations—the *Export Control List Notification Regulations* and the *Export of Substances under the Rotterdam Convention Regulations*. The *Export of Substances on the Export Control List Regulations* will also introduce provisions to provide regulatory certainty that Canadian exports comply with the export provisions of the Stockholm Convention. In addition, work was undertaken on a proposed order adding 15 substances to Schedule 3 (the Export Control List) of CEPA 1999.

Also, Canada submitted three notifications of final regulatory action to the Secretariat of the Rotterdam Convention in 2010. The notifications, which pertained to Perfluorooctane Sulfonate (PFOS), Pentabromodiphenyl Ether (PentaBDE) and Octabromodiphenyl Ether (OctaBDE), detailed the environmental and health effects of these substances and the regulatory action that Canada has taken regarding their use. These notifications are shared with all Parties to the Rotterdam Convention, including Chile, by the Secretariat. The information is also made public and can be accessed by countries that are not Parties to the Rotterdam Convention, such as the United States. Notifications are a step towards the review of these substances to determine if they meet the criteria for Prior Informed Consent of exports under the Rotterdam Convention.

LEVELS OF PROTECTION

Article 3 of the Agreement provides that each Party shall ensure that its laws and regulations provide for high levels of environmental protection and shall strive to continue to improve those laws and regulations.

Environment Canada implements a number of laws and regulations that provide for high levels of environmental protection:

Species at Risk Act

The goals of the *Species at Risk Act* (SARA) are to prevent wildlife species from becoming extinct or extirpated; to provide for the recovery of species that are extirpated, endangered or threatened as a result of human activity; and to manage species of special concern. SARA ensures that species are assessed under a rigorous and independent process that considers the best available biological and Aboriginal traditional knowledge, and it ensures that species deemed at risk are considered for listing under the Act.

In 2007, the Government of Canada allocated \$275 million over five years to implement SARA, reinforcing Canada's commitment to improve science, recovery work and the overall implementation of SARA.

Over the 2009–2010 period, the federal government has more than doubled the number of proposed and final recovery strategies for species at risk since the previous year. As of March 31, 2011, recovery strategies for 152 species have been published on the Species at Risk Public Registry.

More information can be found at www.sararegistry.gc.ca/default_e.cfm.

Migratory Birds Convention Act, 1994

The Government of Canada is responsible under the *Migratory Birds Convention Act, 1994* for ensuring that populations of migratory birds are maintained, protected and conserved. As birds live and move across frontiers, their conservation is a shared responsibility.

In 2010, the Status of Birds in Canada website was developed to help manage migratory bird conservation planning and monitoring. This interactive website is designed to provide an overall picture of the current bird population in Canada and its evolution over the last 40 years.

More information can be found at www.ec.gc.ca/soc-sbc/index-eng.aspx?sl=e&sY=2010.

Toxic Substances

The Government of Canada has many laws and programs dedicated to protecting human health and the natural environment from chemical risks. Its primary legal tool for assessing and managing chemical substances in the environment is CEPA 1999, jointly administered by Environment Canada and Health Canada.

Through the Chemicals Management Plan, the Government of Canada will improve the degree of protection against hazardous chemicals. The plan includes a number of new, proactive measures to make sure that chemical substances are managed properly.

More information can be found at www.chemicalsubstanceschimiques.gc.ca/index-eng.php.

In 2010, over 454 New Substances Notifications (NSNs) were received and 411 NSNs were assessed, with the remainder of the assessments in progress.⁶ Draft risk assessment reports⁷ were published for 118 existing substances or classes of substances, and final assessment reports were published for 49 substances or classes of substances. In addition, 35 risk management⁸ scope documents and 11 proposed risk management approach documents were published addressing the risks of chemicals listed under the Chemicals Management Plan (see www.chemicalsubstanceschimiques.gc.ca/challenge-defi/index-eng.php).

⁶ Any person who intends to import or manufacture a new substance in Canada must submit a notification to the New Substances Program prior to importing or manufacturing the substance. The *New Substances Notification Regulations* (NSNR) apply to chemicals, polymers, biochemicals, biopolymers and animate products of biotechnology. Products of biotechnology include micro-organisms, such as bacteria and fungi, and organisms other than micro-organisms, such as genetically modified fish and livestock. The NSNR apply to new substances manufactured in or imported into Canada.

⁷ A risk assessment is a scientific evaluation of a chemical substance to determine the potential harm or danger it can cause to human health and/or the environment, as well as the nature and exposure pathways of this danger. This allows the federal government to identify the control measures needed to avoid or prevent the potential harm.

⁸ Risk management is the decision-making process to identify, evaluate, select and implement actions to reduce risk to human health and the environment. Risk management includes pollution prevention, control, reduction or elimination of a toxic substance.

PUBLICATION

Article 4 of the Agreement provides that each Party shall ensure that its laws, regulations, procedures and administrative rulings of general application respecting any matter covered by this Agreement are promptly published or otherwise made available in such a manner as to enable interested persons and the other Party to become acquainted with them.

The *Canada Gazette* is the official newspaper of the Government of Canada and is one of the vehicles that Canadians can use to access the laws and regulations that govern their daily lives. The *Canada Gazette* plays an important role in Canada's regulatory process, by serving as official notice to Canadians and allowing citizen participation in the regulatory process.

Government departments and agencies are required by law to publish certain information in the *Canada Gazette*. The *Canada Gazette* contains formal public notices, official appointments, proposed regulations, regulations and public Acts of Parliament from government departments and agencies.

The *Canada Gazette* can be found here: www.gazette.gc.ca

Environment Canada and other government departments also provide information resources on their websites, including a range of publications such as laws, regulations and procedures. Consultations with the public can be found on the CEPA, SARA and CEAA registries:

www.ec.gc.ca/CEPAREgistry

www.sararegistry.gc.ca/default_e.cfm

www.ceaa.gc.ca/050/index-eng.cfm

In 2010, Environment Canada proposed 14 regulations, amendments or statutory orders that were published in the *Canada Gazette*, Part I. These included 11 proposed regulations under CEPA, 2 under the *Fisheries Act* and 1 listing order under SARA. One of the *Fisheries Act* regulations, the SARA listing order and three of the CEPA regulations were also finalized during 2010.

Also during 2010, Environment Canada published in the *Canada Gazette*, Part II, 37 items receiving the Statutory Orders and Regulations (SOR) designation. Of these, 21 were amendments to the Domestic Substances List (DSL). The remaining 16 items fell under the following statutes: CEPA (9), the *Fisheries Act* (1), the *Financial Administration Act* (1), MBCA (1), the *Canada Wildlife Act* (1), SARA (2) and the *Antarctic Environmental Protection Act* (1).

In 2010, Environment Canada issued the *Final Notice: Pollution Prevention Planning in Respect of Mercury Releases from Dental Amalgam Waste* (P2 planning notice) and two proposed P2 plans for Tolerable Daily Intake (TDI) and Bisphenol A (BPA).

GOVERNMENT ENFORCEMENT ACTION

Article 5 of the Agreement provides that each Party shall (1) effectively enforce its environmental laws and regulations through appropriate governmental action; and (2) ensure that judicial, quasi-judicial or administrative enforcement proceedings are available under its law to sanction or remedy violations of its environmental laws and regulations. Also, that these sanctions and remedies shall, as appropriate

- (a) take into consideration the nature and gravity of the violation, any economic benefit derived from the violation by the violator, the economic condition of the violator, and other relevant factors; and*
- (b) include compliance agreements, fines, imprisonment, injunctions, the closure of facilities, and the cost of containing or cleaning up pollution.*

Canada ensures that organizations and individuals comply with the laws and regulations that protect the natural environment and its biodiversity. This enforcement work is carried out across Canada in cooperation with other federal, provincial and territorial governments and international organizations.

Enforcement information, reports and statistics can be found on Environment Canada's website, at www.ec.gc.ca/alef-ewe. This site also includes historical court decisions on guilty parties, as well as press releases and media advisories.

In December 2010, the new *Environmental Enforcement Act* (EEA) came into force. It delivers on Canada's promise to bolster protection of water, air, land and wildlife through tougher enforcement. The EEA is the latest in a series of measures to deter polluters, poachers and smugglers of wildlife, and toxic waste.

Once fully implemented, the EEA will give Canadians an effective environmental enforcement regime by introducing stiffer fines and new sentencing powers, and by strengthening the government's ability to investigate infractions. The legislative changes supplement significant increases in resources for environmental enforcement over the last four years, which saw Environment Canada acquire new technologies, expand funding and increase the number of enforcement officers in the field.

PRIVATE ACCESS TO REMEDIES

Article 6 of the Agreement provides that each Party shall ensure that (1) interested persons may request the Party's competent authorities to investigate alleged violations of its environmental laws and regulations and shall give such requests due consideration in accordance with law; and (2) persons with a legally recognized interest under its law in a particular matter have appropriate access to administrative, quasi-judicial or judicial proceedings for the enforcement of the Party's environmental laws and regulations. Also, private access to remedies shall include rights, in accordance with the Party's law.

In Canada, persons with a recognized legal interest have access to remedies before administrative tribunals and the courts. Interested persons, in addition to being able to institute private prosecutions, may also put forth, to a competent authority, a request to investigate alleged violations of environmental laws and regulations.

For example, under CEPA 1999 a person has the statutory right to apply to the Minister of the Environment for an investigation concerning any alleged offense under that Act. As well, persons with a recognized legal interest in a particular matter have access to administrative, quasi-judicial and judicial proceedings for the enforcement of Canada's environmental laws and regulations. In this regard, CEPA 1999 has introduced the concept of "environmental protection actions," which allow any person to seek a court order prohibiting a continued violation of the statute and/or to mitigate harm caused by a violation of the statute. As well, under CEPA 1999 a person has the statutory right to request the review of administrative decisions or proposed regulations.

PROCEDURAL GUARANTEES

Article 7 of the Agreement provides that each Party shall (1) ensure that its administrative, quasi-judicial and judicial proceedings are fair, open and equitable; (2) provide that final decisions on the merits of the case in such proceedings are (a) in writing and preferably state the reasons on which the decisions are based, (b) made available without undue delay to the parties to the proceedings and, consistent with its law, to the public, and (c) based on information or evidence in respect of which the parties were offered the opportunity to be heard; (3) provide, as appropriate, that parties to such proceedings have the right, in accordance with its law, to seek review and, where warranted, correction of final decisions issued in such proceedings; and (4) ensure that tribunals that conduct or review such proceedings are impartial and independent and do not have any substantial interest in the outcome of the matter.

Canada has administrative, quasi-judicial and judicial proceedings available for the enforcement of environmental laws and regulations. Both the *Canadian Charter of Rights and Freedoms* and the courts have ensured that persons

are given an opportunity, consistent with the rules of procedural fairness and natural justice, to make representations to support or defend their respective positions and to present information or evidence. Decisions are provided in writing, are made available without undue delay, and are based on information or evidence on which the parties were offered the opportunity to be heard. In accordance with its laws, Canada provides parties to such proceedings, as appropriate, the right to seek review and, where warranted, correction of final decisions by impartial and independent tribunals. An example of fair, open and equitable proceedings at the administrative level is the Board of Review process available under CEPA 1999.

In 2010, one Notice of Objection was filed in connection with Vanadium Pentoxide, assessed as part of the Chemicals Management Plan; however, this Notice of Objection did not result in the establishment of a Board of Review, an inquiry process that the Minister may establish under CEPA 1999.

Chile Report

This section outlines Chile's commitments and responsibilities fulfilled during 2010 under the Canada–Chile Agreement on Environmental Cooperation (CCAEC).

STATE OF THE ENVIRONMENT REPORTS

Article 2(1)(a) of the Agreement provides that each Party shall, with respect to its territory, periodically prepare reports on the state of the environment and make them publicly available.

The most significant advances on the state of the environment in Chile during this period are in six areas: environmental institutions, energy efficiency and the development of non-conventional renewable energies (NCRE), air quality management, strengthening of aquaculture regulations, in situ conservation policies and the sustainable management of forest resources, and climate change.

In 2010, Chile's **environmental institutions** were redesigned with the creation of the Ministry of the Environment (MMA), the Ministerial Council for Sustainability, the Environmental Assessment Service and the Superintendency for the Environment. These new institutions will be complemented by the creation of environmental tribunals and the Biodiversity and Protected Areas Service, whose draft legislation is currently before Congress. The creation of these new environmental institutions responds to two government priorities: to increase the importance of environmental matters in the administration of national government, and to coordinate and clearly define responsibilities in the various fields that contribute to sustainable development.

In matters of **energy efficiency and NCRE development**, in 2006 the National Energy Efficiency Program (now known as the Chilean Energy Efficiency Agency) was created to lead national policy development in this area. Today, this agency is part of the Ministry of Energy, which was created in 2010. Regarding NCRE, in order to create a legal basis and provide appropriate economic incentives for these sources of energy, Law 20.057 was passed in 2008 to promote and develop NCRE, and in 2009, the Centre for Renewable Energy was created.

In terms of **air quality management**, progress can be measured based on three areas: strengthening and updating regulations, developing and implementing prevention and decontamination plans, and creating a national air quality program. Notable advances have been made in strengthening regulations including the establishment of the Air Quality for Fine Particulate Matter Regulation (PM_{2.5}), which will come into force in 2012, and the Emission Standards for Power Plants Regulation, which is in the last stage of approval. In accordance with the declaration of overly polluted areas (*zonas saturadas*), updates and reformulations were carried out on the Prevention and Decontamination Plan for the Santiago Metropolitan Region (2009), the Decontamination Plan for the Municipalities of Temuco and Padre de Las Casas (2009), and the Decontamination Plan for the Municipality of Tocopilla (2010), while six other plans

are in progress. In addition to these plans and standards, the MMA created the National Clean Air Program in 2010 to address cross-cutting issues that impact air quality on a national level, particularly in cities with high pollution levels.

The following progress has been made in **aquaculture**: Law 20.434 was published in April 2010, amending the General Law on Fishing and Aquaculture in terms of the conditions necessary for large-scale aquaculture in the country. This law adopted measures to substantially improve the prevention of environmental impacts, the containment of disease outbreaks and the reinforcement of compliance mechanisms. The health measures emphasize reorganizing where the industry is permitted to work, limiting it to defined aquatic zones. Also, environmental quality monitoring activities in the surrounding areas and underneath aquaculture farming centres are now being conducted by the government rather than the private sector. In addition, the law created the National Aquaculture Unit within the National Fisheries Service as a means to strengthen its monitoring function.

Another important initiative during this period was the promulgation in 2007 of Law 20.283 on the Recovery of Native Forest and Forestry Development. This law is the most significant in terms of the **protection, sustainable management and reforestation of native forest**. Together with diverse measures aimed at guaranteeing proper management and conservation of these resources, the law includes a fund for recovery, conservation and management of the native forest.

In regard to **in situ conservation**, the most important action was the submission to Congress of the bill to create the Biodiversity and Protected Areas Service. This new agency will replace the National Forestry Corporation as part of an effort to better define the role of government in nature conservation.

Since 2006, the country has had a **National Strategy for Climate Change**, which was followed in 2008 by the National Action Plan on Climate Change (2008–2012), giving political viability to the commitments that the country has made in this area. Along the same lines, another notable action was the creation of the National Climate Change Office within the Ministry of the Environment. This office is responsible for formulating and articulating climate change policies within the government.

ENVIRONMENTAL EMERGENCY PREPAREDNESS MEASURES

Article 2(1)(b) of the Agreement provides that each Party shall, with respect to its territory, develop and review environmental emergency preparedness measures.

Chile suffered the devastating effects of the earthquake and tsunami of February 27, 2010. As a result of this milestone event, since 2010 there has been an ongoing process to diagnose and evaluate what measures are required to handle the environmental impacts caused by the natural disasters to which Chile is periodically exposed due to its geographical position and geological characteristics, and to develop contingency plans. The Ministry of the Environment oversees this process.

ENVIRONMENTAL EDUCATION

Article 2(1)(c) of the Agreement provides that each Party shall, with respect to its territory, promote education in environmental matters, including environmental law.

In 2010, more work was carried out concerning diagnostic processes and public and citizen involvement in the National Educational Policy on Sustainable Development. At the local and national levels, working groups were set up and diagnostic processes were implemented. The set of ministries that make up the Council of Ministers for Sustainability participated in the development of common objectives for the training and educational programs that each of them is developing, in addition to evaluating their levels of integration. INTEGRA and JUNJI (agencies responsible for pre-school education) joined the National Certification Committee of the National System for the Environmental Certification of Educational Institutions, thus beginning a period of hard work to certify kindergarten care.

A local environmental education model has been developed, known as the PRODEEM project, which aims to use environmental education to strengthen local capacities. The goal is to position environmental education as a support tool for the residents of a specific geographical area with common socio-environmental problems.

Under the 13th Environmental Protection Fund Competition – 2010, 149 initiatives were funded, totalling approximately \$1,027,000,000 Chilean Pesos (CLP). The themes involved in this competition were climate change (69 projects completed), conservation of biodiversity (39 projects completed), environmental education (15 projects completed) and non-conventional renewable energies (26 projects completed).

In 2010, 12 municipalities joined the Local Environmental Certification System, consolidating the promotion of local environmental management. The purpose of this certification system is to allow municipalities to act as models of environmental management, with municipal ecology, infrastructure, staffing, internal processes and the services provided by the municipality to the community taken into consideration as environmental factors in municipal operations. Currently there are 33 municipalities in the system.

With respect to the Public Environmental Participation (PAC) program, 10 processes were developed last year, including, among other standards, revisions of NO, hydrocarbon and CO emission standards, noise emissions from light- and medium-weight vehicles and motorcycles, thermoelectric emission standards, and secondary standards for Lago Villarrica. In total, 41 PAC workshops were held across the country and each one included a citizen consultation process for each standard.

SCIENTIFIC RESEARCH AND TECHNOLOGY DEVELOPMENT

Article 2(1)(d) of the Agreement provides that each Party shall, with respect to its territory, further scientific research and technology development in respect of environmental matters.

In 2010 there were no specific activities in this area related exclusively to the environment. Environmental issues are addressed horizontally across most science and technology development projects.

ENVIRONMENTAL IMPACT ASSESSMENT

Article 2(1)(e) of the Agreement provides that each Party shall, with respect to its territory, assess, as appropriate, environmental impacts.

Law 20.417, which modified the General Environmental Framework, created the Environmental Assessment Service (SEA) as a public organization whose function is the environmental assessment of investment projects.

In 2010, 1,339 projects from the Environmental Impact Assessment System (SEIA) were assessed, of which 42 were environmental impact assessments (EIA, projects of high environmental impact, as defined by the law) and 1,297 were environmental impact statements (DIA, low-impact projects). In terms of declared investment, over \$35 billion in projects were evaluated. In accordance with the law, citizen participation processes were implemented every time EIAs were included in the system. One hundred and ten citizen participation workshops were held, with an attendance of approximately 1,900 people. About 2,300 citizens provided feedback.

In addition to project evaluation, and in order to address the requirements stipulated by Law 20.417, meetings and workshops were held where each legal amendment to the law was analyzed along with the new corresponding proposal for regulation of the SEIA. Guides and manuals were drafted in coordination with all governmental organizations with environmental competency in order to reduce uncertainty associated with the environmental requirements. Also, to facilitate citizen participation, practical features were added to the electronic platform, thereby improving Web-based participation and access to information for citizens.

ECONOMIC INSTRUMENTS

Article 2(1)(f) of the Agreement provides that each Party shall, with respect to its territory, promote the use of economic instruments for the efficient achievement of environmental goals.

In the broadest sense, economic instruments include any type of pollution management mechanism liable to influence consumer demand in such a way that social and/or environmental costs are included in consumer decisions. This framework may include instruments such as environmental taxes, subsidies and consumer information. Also, mechanisms such as tradable emission permits can be considered an economic tool since they minimize the cost of reducing emissions, thereby making the supply of emission reduction permits more flexible.

The economic mechanisms in place in Chile in 2010 for the purpose of controlling contamination include government-backed preferential rates for purchasing cleaner vehicles, subsidies for insulating homes and for exchanging wood-burning stoves for ones that are less polluting, incentives for renewing trucks, energy efficiency incentives for exchanging light bulbs and installing solar panels, subsidies for promoting sustainable forest management (Decree N° 701), financial support during the pre-investment phase for non-conventional renewable energies, emission trading systems in the city of Santiago, water rights transaction systems at the national level, and fishing quotas. At the same time, five labelling systems have been implemented for environmentally sustainable products: labelling for energy efficiency and emissions for light vehicles, sustainable forest management labelling, firewood certificates, organic product certificates, and voluntary clean production certificates. We need to make progress in the use of taxes on emissions and emission transaction systems at the national level.

EXPORT CONTROLS

Article 2(3) of the Agreement provides that each Party shall consider prohibiting the export to the territory of the other Party of a pesticide or toxic substance whose use is prohibited within the Party's territory. When a Party adopts a measure prohibiting or severely restricting the use of a pesticide or toxic substance in its territory, it shall notify the other Party of the measure, either directly or through an appropriate international organization.

Chile signed the Rotterdam Convention on the Prior Informed Consent Procedure for certain internationally traded pesticides and hazardous chemical products. The agreement was ratified in 2005. With regard to the enforcement of this convention, Chile notifies the corresponding Secretariat of the restrictions it is imposing, based on local pesticide management conditions.

In particular, the Agriculture and Farming Service - which is part of the Ministry of Agriculture and is the designated national authority under this Agreement - implements certain prohibitions by issuing statements on specific types of restrictions and substances. As an example, in 2001, Resolution N° 909 was passed, restricting the use and handling of pesticides that contain the active ingredient Paraquat; in 2002, Resolution N° 90 prohibited the importation, manufacture, sale, distribution and application of pesticides for agricultural use that contain Hexachlorobenzene; and Resolution N° 78 (2004) prohibits the importation, trade and application of pesticides for agricultural use that contain Pentachlorophenol and its salts.

LEVELS OF PROTECTION

Article 3 of the Agreement provides that each Party shall ensure that its laws and regulations provide for high levels of environmental protection and shall strive to continue to improve those laws and regulations.

In January 2011, a bill was introduced before Parliament on the creation of the Biodiversity and Protected Areas Service, which will be responsible for the protection of biodiversity within the country. Based on the analysis that served to prepare the bill in 2010, the protection of biodiversity was divided among various public services with 29 different types of official protection, ranging from national parks to non-fishing and non-hunting zones. The bill will separate the functions of the promotion of sustainable use of non-conventional renewable resources from conservation activities, both of which are currently implemented by a single service.

In accordance with the Convention on Biological Diversity, Chile has made a commitment to protect 10% of all relevant ecosystems. In this regard, there are shortcomings in the protection of land biodiversity in Mediterranean ecosystems, with 77 ecosystems being under-represented. Chile has therefore made an effort in the past six years and has incorporated seven new protected areas in the Mediterranean zone, including the Robles de Loncha National Reserve (for the protection of the species *Nothofagus glauca*, *Nothofagus macrocarpa* and *Beilschmiedia berteriana*, the last of these being in critical danger of extinction); the Altos de Lircay National Park (for the protection of the Maulino de Montaña Forest); the Queules National Reserve (for the protection of *Gomortega keule*, which is in critical danger of extinction and is the only member of the Gomortegaceae family of the Laurales order); extension of the Los Riles national reserve (for the protection of *Nothofagus alessandri* and *Pitavia punctata*, both of which are in critical danger of extinction); and the Bellotos del Melado Park (for the protection of *Beilschmiedia berteriana*, which is in danger of extinction). The new legislation establishes the obligation to create plans to recover species in danger of extinction and provides greater administrative and legal guarantees for the protection of species under conservation.

As for marine biodiversity, on October 6, 2010, the Motu Motiro Hiva marine park and non-fishing zone (Salas and Gómez islands) were created, covering 150,000 square km, increasing this protection from 0.03% to 4.41% of Chile's jurisdictional waters.

PUBLICATION

Article 4 of the Agreement provides that each Party shall ensure that its laws, regulations, procedures and administrative rulings of general application respecting any matter covered by this Agreement are promptly published or otherwise made available in such a manner as to enable interested persons and the other Party to become acquainted with them.

In Chile, generally applicable legislation and regulations are published in their entirety in the Official Gazette. Other general standards that are usually ordered by the public service for internal use or to establish legal or regulatory provisions are published on the website of the corresponding service under the banner "Transparent Government." Pursuant to Law 19.300 (General Environmental Framework Act), draft legislation on environmental quality and emissions standards, pollution control and prevention plans, and proposals for species classification is published in the Official Gazette and in a national paper in the form of an abstract. However, in accordance with the stipulations of Law 20.500—which, among other legislation, enshrines the principle of "citizenship participation in public management"—each of the country's administrative organizations must inform the public of relevant information concerning its policies, plans, programs, activities and budgets, while ensuring that this information is timely, complete and widely available. They must also ensure consultation with citizens on matters that concern them and when it is necessary to know public opinion.

GOVERNMENT ENFORCEMENT ACTION

Article 5 of the Agreement provides that each Party shall (1) effectively enforce its environmental laws and regulations through appropriate governmental action; and (2) ensure that judicial, quasi-judicial or administrative enforcement proceedings are available under its law to sanction or remedy violations of its environmental laws and regulations. Also, that these sanctions and remedies shall, as appropriate

(a) take into consideration the nature and gravity of the violation, any economic benefit derived from the violation by the violator, the economic condition of the violator, and other relevant factors; and

(b) include compliance agreements, fines, imprisonment, injunctions, the closure of facilities, and the cost of containing or cleaning up pollution.

Until the new environmental tribunals are set up and begin to operate, the enforcement functions required to fulfill the Environmental Qualification Resolutions rests, as of October 2010, with the highest regional environmental authority (the Regional Ministerial Secretariat – SEREMI). However, SEREMI acts solely as coordinator of multi-sector enforcement, delegating the work to services with competency in this area.

As enforcement is not a permanent function of the regional authorities (coming to an end in 2012, when the Superintendency for the Environment assumes its monitoring duties along with the establishment of the environmental tribunals), these regional authorities have handled enforcement cases in a number of ways. In some cases, no enforcement has taken place, and in others, such as in the Tarapacá region, private companies or government agencies with competency in this area are asked to conduct air quality recordings and monitoring - work that is clearly related to multi-sector enforcement. Enforcement operations have also taken place in the transportation of hazardous waste in the city of Iquique and in the town of Pozo Almonte.

In the Valparaíso region, a handbook of procedures on monitoring and enforcement was drafted, taking into account whether a complaint focuses on an existing project already evaluated in the Environmental Impact Assessment System (SEIA) or a project currently being evaluated. In Valparaíso as well, all enforcement action is coordinated by SEREMI (Environment) in coordination with relevant agencies. This includes determining where the complaint should be sent and arranging a visit by the inspector. If a possible offence exists, follow-up on the complaint is coordinated and a series of measures is implemented, such as a written consultation with the individual, a visit by the inspector, and/or a written consultation with a relevant agency. Other regional secretariats have issued news releases locally and nationally in the written press and on local television, as well as on the ministry's website.

On September 13, 2010, in the region of Arica and Parinacota, on route 11-CH Arica-Tambo Quemado Km 90, in the Copaquilla district, a Grisel RSL truck from Bolivia overturned. It was carrying 32,000 litres of oil and affected an area of approximately 1,200 m². Contingency operations were carried out and approximately 3,000 litres of spilled petroleum were recovered by using absorbent rags and by extracting the oil from contaminated water and land. Furthermore, an operational working plan, executed by the company Gestión Ambiental Ltda., was implemented to clean up the area.

PRIVATE ACCESS TO REMEDIES

Article 6 of the Agreement provides that each Party shall ensure that (1) interested persons may request the Party's competent authorities to investigate alleged violations of its environmental laws and regulations and shall give such requests due consideration in accordance with law; and (2) persons with a legally recognized interest under its law in a particular matter have appropriate access to administrative, quasi-judicial or judicial proceedings for the enforcement of the Party's environmental laws and regulations. Also, private access to remedies shall include rights, in accordance with the Party's law.

In Chile, Law 19.300 establishes the actions necessary to compensate for environmental damages. The law recognizes individual claimants who have suffered injury or damages, as well as municipalities and the State, which are processed through the State Defence Council (Consejo de Defensa del Estado).

However, any individual can file a complaint to the Superintendency for the Environment regarding the failure to apply environmental management standards and regulations. The sanctioning and enforcement powers of the recently created Superintendency have been suspended until the environmental tribunals begin operating, upon final approval from the National Congress. Nevertheless, persons who believe that their right to live in a pollution-free environment has been compromised may resort to the Supreme Courts in order to avail themselves of the rule of law and ensure themselves the protection to which they are legally entitled.

PROCEDURAL GUARANTEES

Article 7 of the Agreement provides that each Party shall (1) ensure that its administrative, quasi-judicial and judicial proceedings are fair, open and equitable; (2) provide that final decisions on the merits of the case in such proceedings are (a) in writing and preferably state the reasons on which the decisions are based, (b) made available without undue delay to the parties to the proceedings and, consistent with its law, to the public, and (c) based on information or evidence in respect of which the parties were offered the opportunity to be heard; (3) provide, as appropriate, that parties to such proceedings have the right, in accordance with its law, to seek review and, where warranted, correction

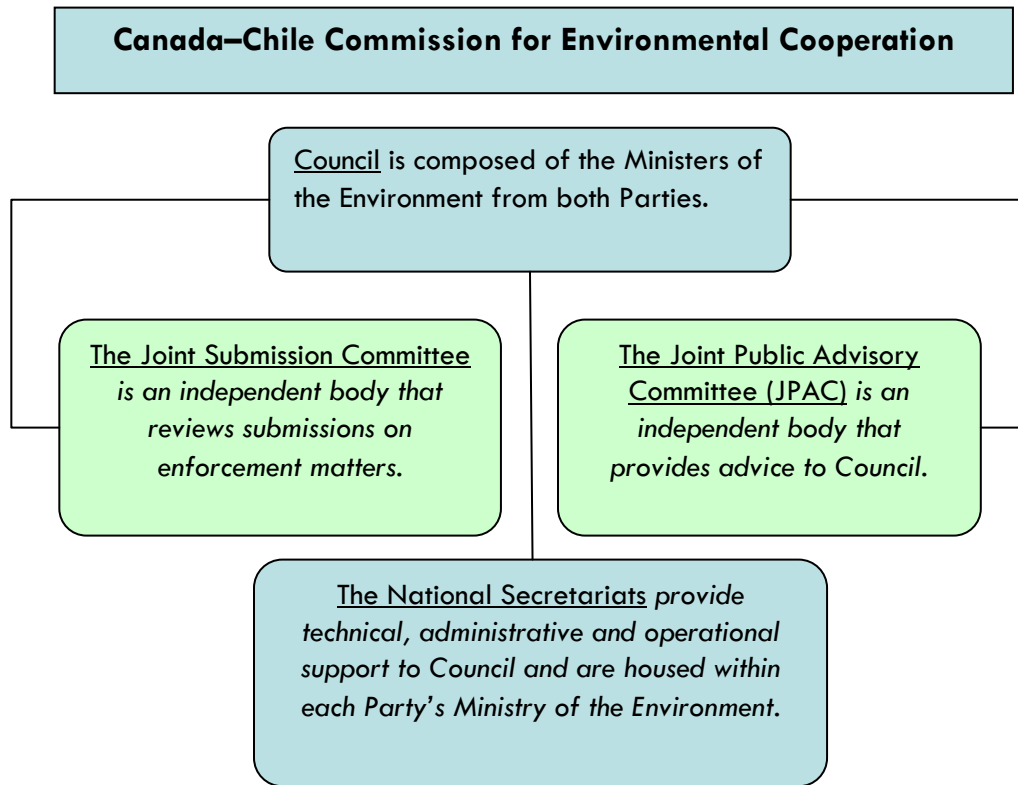
of final decisions issued in such proceedings; and (4) ensure that tribunals that conduct or review such proceedings are impartial and independent and do not have any substantial interest in the outcome of the matter.

The political constitution of the Republic of Chile establishes the right of every person to due process. Under our country's laws and regulations, this guarantee is implemented and described in detail, enabling action before the courts and government agencies. This includes civil, penal and preventative procedures in court, with the corresponding appeal processes. With regard to government agencies, general or special administrative processes exist, offering the possibility of an appeal to the public administration itself or to a court of law, if appropriate.

5 | ANNEX

Commission for Environmental Cooperation

Established under the Canada–Chile Agreement for Environmental Cooperation, the Canada–Chile Commission for Environmental Cooperation consists of a Council, a Joint Public Advisory Committee (JPAC) and a Joint Submission Committee (JSC). The Commission is assisted in the implementation of the Agreement by two National Secretariats, respectively located in each country's Ministry of the Environment.



National Secretariat Executive Directors: Dean Knudson (Canada), Ricardo Irarrázabal Sánchez (Chile).

Members of the Joint Public Advisory Committee: Eduardo Quiroga (Canada), Dominique Bellemare (Canada), Andrés Varela (Chile), Raúl O’Ryan (Chile), Robert Fraser (Canada)

Members of the Joint Submissions Committee: Julio Arboleda (Canada), Jorge Correa Sutil (Chile)

For more information about the Canada–Chile Agreement for Environmental Cooperation (CCAEC), visit our websites: www.ec.gc.ca/can-chil and www.mma.gob.cl/chilecanada