PAPER #3:

Constitutional Recognition of the Right to a Healthy Environment: Making a Difference in Canada

EXECUTIVE SUMMARY

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Constitutional Recognition of the Right to a Healthy Environment: Making a Difference in Canada

How would constitutional recognition of the right to a healthy environment and the accompanying responsibility to protect the environment make a tangible difference in Canada? Based on the experiences of other nations, this paper will discuss cross-cutting changes or systematic improvements that include stronger laws, less possibility of environmental rollbacks, improved enforcement of existing laws and a greater emphasis on ecological tax shifting. The paper also discusses concrete examples of how constitutional recognition of environmental rights and responsibilities could improve air quality, the cleanup of toxic hotspots, drinking water safety, Canada's record on climate change and protection of biodiversity.

Stronger Environmental Laws

Constitutional recognition of the right to a healthy environment provides a powerful impetus for governments to strengthen environmental laws. In 80 of 98 nations where this right enjoys constitutional status, environmental laws were subsequently revised to require improved protection. In some cases—Argentina, Portugal, the Philippines and South Africa—the entire environmental governance paradigm shifted from minimizing damage to proactively securing the right to a healthy environment.

Prevent Environmental Law Rollbacks

In a number of nations where the constitutional right to a healthy environment is recognized (e.g., Belgium, France, Hungary), legislatures are not allowed to weaken levels of environmental protection. Thus undemocratic actions such as the weakening of the Canadian Environmental Assessment Act, Fisheries Act, Navigable Waters Protection Act and many provincial environmental laws and regulations could be prevented if Canada recognized the constitutional right to a healthy environment.

Environmental Enforcement

The experience of other nations shows that incorporating environmental rights and responsibilities into the constitution results in improved implementation and enforcement of environmental laws and policies. More resources are allocated, citizens are more involved and the level of prosecutions increases. A leading example is Brazil, where constitutional amendments in 1988 led to a dramatic increase in environmental enforcement. If environmental rights and responsibilities had constitutional status in Canada, it is likely that environmental enforcement would improve substantially.

Ecological Tax Shifting

In countries where the constitution recognizes the right to a healthy environment and government's duty to protect the environment, ecological tax shifting enjoys enhanced support. The support may be explicit, as in Portugal where the constitution requires the government to ensure "that tax policy renders development compatible with the protection of the environment and the quality of life." In other nations, the right to a healthy environment has been used to defend environmental taxes from attacks claiming that such taxes violate property rights or are beyond a particular government's powers.

Addressing Air Pollution

Wealthy industrialized nations with constitutional environmental rights and/or responsibilities have been more effective in improving air quality. For example, emissions of nitrogen oxides fell 10 times faster in these countries than in countries without similar constitutional provisions. It is common for constitutional changes to spur enactment or strengthening of air quality laws and regulations. Constitutional recognition of the right to a healthy environment could contribute to strong, legally enforceable air quality standards in Canada, improving human and environmental health.

Tackling Industrial Pollution Hotspots

Recognition of the constitutional right to a healthy environment could improve the quality of life of Canadians who are subjected to disproportionate quantities of pollution. Canada has many toxic hotspots, such as Sarnia (Canada's Chemical Valley), the Sydney tar ponds, Fort Chipewyan, Hamilton, Uranium Lake, and Boat Harbour. Citizens in a diverse range of nations—Costa Rica, Spain, Italy, India, the Philippines, Colombia, Brazil, Thailand and Russia—have been able to force governments and industry to clean up pollution hotspots by wielding the constitutional right to a healthy environment to achieve stronger laws, stricter standards and more effective enforcement.

Cleanup And Restoration Of The Great Lakes

There have been almost 40 years of on-again, off-again efforts to clean up and restore the Great Lakes, and huge challenges remain. Recent developments in Argentina and the Philippines, nations that are far less wealthy than Canada, demonstrate the power of the constitutional right to a healthy environment to produce dramatic progress in cleaning up polluted ecosystems. In Argentina and the Philippines, citizens empowered by their constitutional right to live in a healthy environment succeeded in holding governments accountable. In both countries, the Supreme Court ordered various levels of government to develop and implement extensive cleanup, restoration and pollution-prevention activities. For example, the World Bank already approved US$2 billion in financing for Argentina's Riachuelo Basin Sustainable Development Project, which the Bank acknowledges is intended to contribute to compliance with the Supreme Court's order.

Ensuring Access To Safe Drinking Water For All Canadians

The right to a healthy environment includes access to safe drinking water. In South Africa, constitutional recognition of the right to water had a significant effect on water laws and policies, contributed to major investments in infrastructure and spurred the extension of potable water to 10-million South Africans (predominantly black and poor) in 10 years. Nelson Mandela describes increased access to safe drinking water for millions of South Africans as "amongst the most important achievements of democracy in our country."

As of 2013, more than 100 First Nations in Canada face ongoing boil-water advisories. Worse yet, thousands of people in First Nations communities live in homes that lack running water and indoor toilets. Constitutional recognition of the right to a healthy environment could serve as an impetus for Canadian governments to treat the lack of safe drinking water in aboriginal communities as the urgent crisis that it is, requiring an investment in infrastructure, training for system operators and legal standards that no longer treat aboriginal people as second-class citizens. All Canadians could benefit from the enactment of binding national standards for drinking water quality.

Greenhouse Gas Emissions

The wealthy industrialized nations whose constitutions include environmental rights and responsibilities have a significantly better record in controlling greenhouse gas emissions. Countries that have articulated the goal of eventually becoming zero-carbon and begun moving in that direction (e.g., Norway, Costa Rica and Sweden) all enjoy constitutional environmental provisions.

Offshore Drilling

There is a booming oil and gas industry on Canada's East Coast, and ongoing development in the Arctic. Nations that recognize the constitutional right to a healthy environment take a stricter approach to offshore oil and gas exploration. For example, based on environmental concerns, Costa Rica's Constitutional Court struck down a large oil company's approvals for offshore oil and gas exploration. In Brazil and Norway, offshore oil and gas development faces more stringent rules than in Canada or the U.S.

Conserving Biodiversity

In Canada, when economic considerations clash with concerns about biodiversity, the former usually emerge victorious. In nations where the constitution includes the right to a healthy environment, a better balance may be achieved. Countries from Costa Rica to Spain have passed strong laws to protect endangered ecosystems and species from harmful human activities, recognizing the inherent value of nature. In Europe, courts have played a substantial role in using the right to a healthy environment to protect biodiversity. Examples include protecting lakes from development, striking down efforts to privatize forests, protecting the habitat of an endangered species of salamander, protecting different species of birds and their habitat, and rejecting major water-diversion projects. Based on the experiences of other nations, recognition of the constitutional right to a healthy environment in Canada would likely improve the odds for the survival and recovery of many endangered species, from sea turtles to woodland caribou.

Conclusion

The constitutional right to a healthy environment is not a silver bullet that will address all of Canada's environmental challenges. However, the examples in this paper, drawing on the experiences of other countries, demonstrate that it is a powerful tool that could be harnessed to close the gap between the actions and rhetoric of Canadians.

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The Government of Canada holds the position that existing laws, policies and programs are already sufficient to ensure that Canadians breathe clean air, drink safe water and live in a healthy environment, even in the absence of formal recognition of this right.[1] Of course, the evidence of Canada's poor environmental performance and extensive adverse health effects, presented in Paper #1: The Importance of Constitutional Recognition of the Right to a Healthy Environment, makes a mockery of this claim. The suggestion that Canadian governments already protect the right to a healthy environment is refuted year after year by tens of thousands of premature deaths, millions of illnesses, billions of dollars in preventable health care expenditures, hundreds of endangered species and dismal ratings on international comparisons of environmental performance. But how would constitutional recognition of the right to a healthy environment and the accompanying responsibility to protect the environment make a tangible difference in Canada?

The experiences of other nations will be drawn upon in this paper to demonstrate that constitutional recognition of environmental rights and responsibilities could:

- provide a stimulus for strengthening Canada's weak environmental laws;
- bolster the inadequate implementation and enforcement of existing environmental laws, regulations and policies;
- protect environmental laws and regulations from rollbacks under future governments;
- promote democracy through greater participation of Canadians in decisions and actions to protect the environment, in part via access to information, participation in decision-making and access to justice;
- increase accountability by empowering citizens, communities and courts to enforce the right to a healthy environment;
- ensure a level playing field in decision-making by establishing a better balance with competing economic and social rights;
- foster environmental justice by protecting the environmental rights of all Canadians, particularly vulnerable populations; and
- play an educational role, reflecting and reinforcing the environmental values expressed by Canadians, and ratcheting political expectations upwards.

As well, this paper will offer a variety of concrete examples of how constitutional recognition of environmental rights and responsibilities could strengthen protection of human health, climate change, water and biodiversity (marine and terrestrial).

Of course it is impossible to predict precisely what consequences would flow from constitutional recognition of the right to a healthy environment in Canada. Many other factors will also come into play on any particular issue. Nevertheless, there are dozens of nations whose experiences can be drawn upon in creating this forecast.

I. Cross-cutting Changes

Stronger Environmental Laws

For several decades, polls have consistently indicated that Canadians want stronger laws to protect the environment. Yet the international comparisons summarized in Paper #1 demonstrate the weakness of Canadian laws, standards and guidelines governing air quality, drinking water, food safety, greenhouse gas emissions and protection of biodiversity.

Constitutional recognition of the right to a healthy environment provides a powerful impetus for governments to strengthen environmental laws. In 80 out of 98 nations where this right enjoys constitutional status, environmental laws were revised to require improved protection.[2] In some cases—Argentina, Portugal, the Philippines and South Africa—the entire environmental governance paradigm shifted from minimizing damage to proactively securing the right to a healthy environment. In Argentina after the constitutional amendment in 1994, all federal environmental laws were upgraded, new laws were written, provincial constitutions amended and provincial environmental laws improved. A similar transformation is now underway in France.[3] The OECD and the UN Economic Commission for Europe both confirm that constitutional changes were an essential impetus for the major upgrades in European environmental laws.[4]

A comparison can be drawn to the process that occurred in Canada in the early 1980s with the comprehensive equality rights provisions of the Charter of Rights and Freedoms. The charter was enacted in 1982 but the equality provisions did not come into force until 1985. During this period, federal and provincial governments conducted an extensive review of existing laws and regulations and made the changes necessary to comply with the guarantee of the right to equality in the charter. As well, all new laws passed after the charter are pre-screened by government lawyers to ensure that they are charter-compliant.

Similarly, recognition of the constitutional right to a healthy environment in Canada would trigger a review of existing laws, policies and standards. Given their relative weakness, many of these instruments would have to be strengthened. For example, unenforceable air- and water-quality guidelines that are substantially weaker than binding standards in other industrialized nations would be impossible to defend, as would the continued approval of pesticides not permitted in other jurisdictions because of health and environmental concerns. To raise several specific examples, the Canada Wide Standard for sulphur dioxide would have to be strengthened as it currently allows four times the lawful level in the U.S. and is merely a guideline, whereas the U.S. standard is legally binding. The Canadian rule allowing lead, a dangerous neurotoxin, in fruit juices at 20 times higher than the concentration permitted in water would have to be strengthened to protect children. The registration of atrazine, a pesticide banned throughout the European Union because of serious concerns about adverse health and environmental effects but still among the most heavily used pesticides in Ontario, would have to be revoked. All future laws related to environmental protection and the management of activities with potentially adverse environmental impacts would undergo pre-screening to ensure that they either advanced recognition and fulfillment of the right or did not authorize activities that would violate the right. Over time, these systemic legal changes would likely lead to substantial improvements in environmental performance.

Prevent Environmental Law Rollbacks

Since 2006, the Conservative government led by Stephen Harper has quietly sabotaged important Canadian environmental laws and eliminated key programs intended to target climate change. In the 2008-09 budget,

the Conservative government changed several key elements of the Navigable Waters Protection Act, eliminating mandatory environmental assessments for major developments on Canadian rivers, including bridges, booms, dams and causeways and exempting some types of works and some types of waterways from requiring approval.[5] Whether there will be an environmental assessment now depends on the discretion of the minister of transport. The changes to the Navigable Waters Protection Act also authorize the use of Ministerial Orders to make a wide range of decisions—e.g., potentially excluding projects on major rivers from requiring approval—without any public notice or consultation.[6] The Federation of Canadian Municipalities described these powers as broad and arbitrary.[7] A Senate Committee concluded there was inadequate consultation and the revised act "provides too much discretionary power through Ministerial Orders to the Minister of Transportation."[8] The government ignored these criticisms, claiming that the changes were made to "streamline the approval process for infrastructure and natural resource projects to address the current economic downturn."

In the 2010 budget, detrimental changes were made to the Canadian Environmental Assessment Act, exempting infrastructure projects from assessment, re-assigning responsibility for assessing energy projects to the National Energy Board and the Canadian Nuclear Safety Commission, and increasing the environment minister's discretion to determine the scope of a project for purposes of environmental assessment.[9] The latter change reversed a Supreme Court of Canada decision in the Red Chris Mine case that rejected the federal government's attempt to artificially narrow the scope of environmental assessment. The anticipated beneficiaries of the changes include the tar sands, mining companies and nuclear companies. According to environmental lawyer Dianne Saxe, these changes "make it less likely that cumulative impacts will be evaluated, such as climate change," in assessing new projects.[10]

Again, in the 2012 budget, the Conservatives made damaging changes to the Canadian Environmental Assessment Act, imposing short time periods for the completion of assessments, transferring decision-making powers to provincial and territorial governments, limiting public participation and exempting thousands of smaller projects from review.[11] These environmental rollbacks were intended to accelerate the approval of controversial mega-projects such as the proposed Northern Gateway pipeline and its associated supertankers for exporting tar sands oil to China. Also in 2012, the Fisheries Act and Species at Risk Act were weakened while the Kyoto Protocol Implementation Act was completely repealed.

What is particularly nefarious about the changes to these environmental laws is their undemocratic nature. The laws were not weakened through specific pieces of legislation that underwent public debate and scrutiny by Parliament's Environment Committee. Instead the changes were buried deep in lengthy budget implementation laws. (The 2009 and 2010 budget laws were 528 and 880 densely written pages, respectively.) This pernicious tactic, borrowed from the U.S., offers several advantages to a minority government: it avoids contentious public debate and prevents the opposition from voting against the bill because it is considered a confidence motion whose defeat would trigger an election. Public debate is undesirable because the majority of Canadians support stronger environmental laws, not weaker laws. And opposition parties, despite unanimously opposing the environmental rollbacks, were loath to burden the Canadian electorate with another election so soon after the one in 2008.

Environmental rollbacks also occur at the provincial level. Damaging environmental rollbacks occurred in Ontario under Premier Mike Harris in the 1990s, including changes that contributed to the Walkerton water

disaster.[12] In B.C., recent rollbacks have weakened pesticide regulations, pulp mill pollution standards, logging practices, provincial environmental assessment legislation and air-quality rules.[13] For example, a regulation that required all beehive burners in the province to cease operations by December 31, 1995, was repealed. Beehive burners produce prodigious volumes of air pollution and have been banned in the U.S. since the early 1970s. As of 2013, some of B.C.'s beehive burners are still in operation, with the deadline, a moving target, now extended to 2016.[14] Another example involves regulation of mercury emissions in Nova Scotia. In 2005, Canadian environment ministers established so-called Canada Wide Standards for mercury emissions from power plants, which are the largest source of mercury emissions in Canada. The Nova Scotia Air Quality Regulations were supposed to require a 70 per cent reduction by 2010, but the target date has been pushed back to 2014.[15]

The existence of a constitutional right to a healthy environment could have thrown a roadblock in front of these environmental rollbacks. In a number of nations where this right is recognized (Belgium, France, Hungary), legislatures are not allowed to weaken levels of environmental protection. For example, in a 1994 case, decided on the basis of citizens' right to a healthy environment, Hungary's Constitutional Court struck down provisions of a law that privatize forested lands that had previously been declared protected. The court interpreted the Hungarian Constitution as imposing upon the government a binding obligation to maintain a high level of environmental protection. This high level of environmental protection, according to the court, could only be diminished if necessary to fulfill other constitutional rights.[16] In a 1997 nature conservation case, Hungary's Constitutional Court recognized the greater difficulties and higher costs associated with restoring damaged ecosystems, and ruled, "The implementation of the right to environment requires not only keeping the present level of protection, but also that the state should not step backward towards liability based protection from the preventive measures."[17]

Similarly, Belgian authorities are precluded from weakening levels of environmental protection except in limited circumstances where there is a compelling public interest.[18] In other words, existing environmental laws and standards represent a baseline that can be improved but not weakened. For example, a Belgian court ruled that an attempt to relax noise and air-quality rules to allow urban motor racing violated the standstill aspect of the right to a healthy environment.[19] In France, the principle is known as the "ratchet effect" or "non regression."[20]

Undemocratic actions such as the weakening of the Canadian Environmental Assessment Act, Navigable Waters Protection Act, Fisheries Act and many provincial environmental laws and regulations could be prevented if Canada recognized the constitutional right to a healthy environment.

Environmental Enforcement

Enforcement of environmental laws in Canada ranges from lackadaisical to non-existent.[21] When the Canadian Environmental Protection Act was introduced in 1988, Prime Minister Mulroney's environment minister, Tom MacMillan, touted it as "the toughest environmental legislation in the western world." But what good is a tough environmental law if it is never enforced? The total amount of fines imposed under the Canadian Environmental Protection Act from 1988 through 2010 (22 years) was $2,466,352.[22] By comparison, the Toronto Public Library collected $2,685,067 in fines for overdue books in a single year, 2009.[23] In 2012, the U.S. Environmental Protection Agency hammered lawbreakers with over $204 million in civil penalties (administrative and judicial), and secured court judgments requiring defendants to pay $44 million in criminal fines.[24] The agency also sent executives or managers from corporate polluters and despoilers to prison for ninety years and forced lawbreakers to invest over $19 billion to comply with their legal obligations.[25] The U.S. EPA also sent executives

or managers from corporate polluters and despoilers to prison for 72 years and forced lawbreakers to invest over $12 billion to come into compliance with their legal obligations. In other words, federal enforcement of environmental laws in the U.S. for a single year (even at the tail end of eight years of an environmentally hostile Bush administration) dwarfs the entire history of enforcement of Canada's most important environmental law.

Law-and-order governments in Canada like to portray themselves as tough on crime. During the federal election campaign in September 2008, the Conservatives promised a "crackdown on environmental crime." They subsequently enacted the Environmental Enforcement Act.[26] If and when the law comes into force, penalties for the most serious environmental crimes will be up to $1 million for individuals, $6 million for corporations and $12 million for repeat offenders. The notoriously anti-environmental Conservative government in Ontario led by Premier Mike Harris enacted the Toughest Environmental Penalties Act in 2000, raising potential fines for environmental violations to $10 million (at the time, the highest in the world).[27] Yet huge potential fines are meaningless when there are no enforcement officers to carry out investigations and lay charges. The Harris government had already eliminated the Ministry of Environment's capacity to enforce the law, with devastating budget cuts (from $290 million in 1995 to $165 million in 1998).[28] By 2000, Ontario's Ministry of Environment employed 41 per cent fewer people than it did in 1994–95 (58 per cent fewer if contract and temporary job assignments are included).[29] Although the federal government has hired additional environmental enforcement personnel since 2007, the amount of enforcement has declined further from levels that were already abysmally low.[30]

It's not as if there are no violations of environmental laws occurring in Canada. From coast to coast, air is being polluted, water and soil contaminated and natural habitat destroyed daily. Data obtained through freedom of information requests by environmental lawyers from Ecojustice (after long battles to gain access) document that governments are aware of thousands of violations of environmental laws every year.[31]

The experience of other nations shows that incorporating environmental rights and responsibilities into the constitution results in improved implementation and enforcement of environmental laws and policies. More resources are allocated, citizens are more involved and the level of prosecutions increases. A leading example is Brazil, where amendments to the Constitution in 1988 incorporated the right to a healthy environment, empowered the Ministerio Publico (an arms-length enforcement agency previously limited to criminal matters) to conduct investigations and enforce environmental laws, and created new forms of legal action to protect the environment.[32] The result was a dramatic increase in environmental enforcement. A Brazilian judge wrote that "hundreds of pages would be needed to mention all the precedents" set by Brazilian courts in recent years dealing with constitutional protection for the environment.[33] In the state of Sao Paolo alone, between 1984 and 2004, the Ministerio Publico filed over 4,000 public civil actions in environmental cases addressing issues ranging from deforestation to air pollution.[34]

If environmental rights and responsibilities had constitutional status in Canada, environmental enforcement would likely improve substantially.

Ecological Tax Shifting

It is widely recognized that restructuring the tax system can have a powerful positive influence in promoting a shift toward sustainability.[35] Unfortunately, Canada lags far behind other nations, particularly in Europe, in reaping the benefits of environmental taxes. There is substantial public opposition to new taxes, and politicians

have done a poor job of explaining the virtues of tax-shifting. In 2008, Prime Minister Harper claimed a carbon tax would "wreak havoc on Canada's economy, destroy jobs, [and] weaken business."[36] Also contributing to Canada's failure is the fact that experts are divided over the federal government's jurisdiction to take strong steps such as imposing a carbon tax on industry.[37]

In countries where the constitution recognizes the right to a healthy environment and government's duty to protect the environment, ecological tax shifting enjoys enhanced support. The support may be explicit, as in Portugal where the Constitution states:

> Art. 66(2) In order to ensure enjoyment of the right to the environment within an overall framework of sustainable development, acting via appropriate bodies and with the involvement and participation of citizens, the state shall be charged with:
>
> ...
>
> h) Ensuring that tax policy renders development compatible with the protection of the environment and the quality of life.

In other nations, constitutional support for ecological tax shifting is implicit. The right to a healthy environment has been used to defend environmental taxes from attacks claiming that they violate property rights or are beyond a particular government's powers. For example, in a case challenging the legality of a tax on water pollution, Slovenia's Constitutional Court held that the relevant provisions of the Environmental Protection Act were valid, based on the constitutional right to a healthy environment.[38] In Spain, courts have also relied on the right to a healthy environment to justify environmental taxes.[39]

Ii. Protecting Human Health

Addressing Air Pollution

Based on the most recent evidence, the adverse health effects of air pollution are substantially larger than the health costs of other environmental problems in Canada. One in two Canadians lives in an area where they are exposed to unsafe levels of air pollution.[40] The Canadian Medical Association reports that more than 20,000 premature deaths annually are attributable to air pollution, through a combination of cardiovascular and respiratory diseases.[41] Dr. François Reeves, a cardiologist and professor of medicine at the Université de Montréal, observed in a blog written for DSF's Docs Talk feature, "I can often tell how busy my day will be based on the air-quality rating."[42]

Among the 25 wealthiest members of the OECD, Canada is 25th in per capita emissions of volatile organic compounds and carbon monoxide, worst in the OECD. Canada is 24th of 25 wealthy OECD nations in per capita sulphur dioxide emissions, and produces more than three times the OECD average. Canada is 23rd of 25 wealthy OECD nations in per capita nitrogen oxide emissions, and produces more than twice the OECD average.[43] Environment Canada reports that average levels of smog are up 13 per cent since 1990.[44]

Prior to the 2006 election, the federal Conservatives pledged they would bring in tough new regulations to clean up our air. The promised Clean Air Act, including the toughest regulations in the world, would reduce industrial air pollution 50 per cent by 2010. The promise was repeated in 2008, with the timeline for the 50 per cent reduction bumped back to 2015. As of 2013, there is still no Clean Air Act.

As noted in Paper #1, wealthy industrialized nations with constitutional environmental rights and/or responsibilities have been more effective in improving air quality (e.g., Sweden, Norway, Germany, Switzerland and the Netherlands).[45] Emissions of nitrogen oxides fell 10 times faster in these countries than in countries without similar constitutional provisions. Emissions of sulphur dioxide fell by 85 per cent in countries with constitutional environmental provisions compared to 53 per cent in nations without these provisions. It is common for constitutional changes to spur the enactment or strengthening or air-quality laws and regulations. For example, the constitutional recognition of the right to a healthy environment in the Philippines led to a strong Clean Air Act (1999) that expanded upon the substantive and procedural aspects of the right as follows:

> S. 4. Recognition of Rights. Pursuant to the above-declared principles, the following rights of citizens are hereby sought to be recognized and the State shall seek to guarantee their enjoyment:
> (a) The right to breathe clean air;
> (b) The right to utilize and enjoy all natural resources according to the principles of sustainable development;
> (c) The right to participate in the formulation, planning, implementation, and monitoring of environmental policies and programs and in the decision-making process;
> (d) The right to participate in the decision-making process concerning development policies, plans, programs, projects, or activities that may have adverse impact on the environment and public health;
> (e) The right to be informed of the nature and extent of the potential hazard of any activity, undertaking, or project and to be served timely notice of any significant rise in the level of pollution and the accidental or deliberate release into the atmosphere of harmful or hazardous substances;
> (f) The right of access to public records that a citizen may need to exercise his or her rights effectively under this Act;
> (g) The right to bring action in court or quasi-judicial bodies to enjoin all activities in violation of environmental laws and regulations, to compel the rehabilitation and cleanup of affected areas, and to seek the imposition of penal sanctions against violators of environmental laws; and
> (h) The right to bring action in court for compensation of personal damages resulting from the adverse environmental and public health impact of a project or activity.

Basing their decisions on the constitutional right to a healthy environment, the Supreme Courts of Argentina, India, Nepal and Sri Lanka have forced governments to enact or strengthen air-quality regulations.[46] In Brazil, a lawsuit brought by Sao Paolo's Ministerio Publico and an ENGO forced the government to enact stronger standards for diesel fuel.[47] In Portugal, a court decided that a gas station could not be built beside an elementary school because the constitutional right to a healthy environment justifies preventive action to ensure clean air.[48] Courts in Colombia, Costa Rica, Ecuador and other countries have ordered industries generating excess air pollution to clean up their operations.

Constitutional recognition of the right to a healthy environment could spur the enactment of strong, legally enforceable air-quality standards in Canada, improving protection of both human health and the environment. Clean-air advocates would have a stronger case for arguing that Canadian air-quality rules should be as good as or better than the rules being implemented in Europe and the U.S. It would be more difficult for governments to defend the status quo, which effectively treats Canadians as second-class citizens. If Canadian governments

refused to improve today's inadequate air-quality guidelines, then concerned citizens would have recourse to the courts to seek protection of their constitutional right to a healthy environment.

Tackling Industrial Pollution Hotspots

Recognition of the constitutional right to a healthy environment could improve the quality of life of Canadians who are subjected to disproportionate quantities of pollution. Canada has many toxic hotspots, such as the Sydney tar ponds, Fort McKay and Fort Chipewyan downstream of the tar sands, Hamilton, Uranium Lake, Boat Harbour, Giant Mine and Kitimat.[49] However, perhaps the most notorious example is Sarnia, Ontario, known as Canada's Chemical Valley. More than 60 major petroleum and petrochemical facilities are located in a 25-kilometre radius, spewing over 130-million kilograms of toxic substances into the air, pollutants that cause cancer, cardiovascular disease, respiratory illness and a host of other adverse health effects ranging from organ damage to birth defects.[50] Corporations provide these data, and independent audits indicate that the figures can be grossly underestimated. For example, estimated benzene emissions reported to the National Pollutants Release Inventory by oil and gas companies in Alberta were 60 per cent lower than actual emissions as measured by independent researchers.[51] Another way of putting Sarnia's air pollution in perspective is that in 2005, industrial facilities in this 25-kilometre circle pumped out more toxic air pollution than the entire provinces of Manitoba, Saskatchewan or New Brunswick. Among the leading substances of concern are toluene and mercury, chemicals known to impair the neurological development of fetuses, infants and children; dioxins, one of the most dangerous carcinogenic substances ever encountered; and the air contaminants associated with smog.

The Aamjiwnaang First Nation (formerly known as the Chippewas of Sarnia) lives on a small reserve surrounded by these industrial plants. A peer-reviewed scientific study recorded a disturbing disparity in the number of baby boys born in the area. Since the early 1990s, the proportion of male babies born on the Aamjiwnaang reserve has fallen from normal levels (slightly more than half of all births) to less than 35 per cent of births in the five years from 1999 to 2003.[52] Researchers suspect this dramatic change may be related to exposure to chemicals that have disrupted the reproductive systems of people in this community. Signs along a small creek running through the reserve warn the public, "Keep Out! Talfourd Creek contains toxic substances known to cause serious health risks." A Health Canada study found elevated rates of death, disease and hospitalization.[53] Leukemia rates for women aged 25-44 were double the provincial average, while the proportion of men with Hodgkin's disease was 80per cent higher than the overall rate for Ontario.[54] Studies show elevated rates of hospital admissions among Sarnia residents for respiratory and cardiovascular disease, compared to residents of Windsor and London.[55] Sarnia residents also have higher than normal rates of cerebral palsy.[56] More than one in five Aamjiwnaang children have asthma. One in four Aamjiwnaang children struggles with learning or behavioural problems. Four in 10 women reported having a miscarriage or stillbirth. A survey of more than 400 residents identified a nightmarish list of health impacts, including cancer, asthma, fever and chronic headaches, learning disabilities and skin rashes. The most commonly cited health impact was fear—of the outdoors, the frequent warning sirens when there was a spill or unexpected release and unreported problems.[57]

Despite evidence chronicling the extensive health and environmental damage imposed on local residents, corporations continue to expand operations at Sarnia, adding to the pollution burden. Governments continue to give industry the green light without studying cumulative effects or the unjust distribution of pollution, and recently approved an increase in emissions from Suncor's refinery. Unlike in the U.S. and other nations, no

law or policy in Canada requires industry or government to assess whether a proposed industrial project or expansion poses a disproportionate threat to the health of a vulnerable population.

In contrast, citizens in a diverse range of nations—Costa Rica, Spain, Italy, India, the Philippines, Colombia, Brazil, Russia—have been able to force governments and industry to clean up air pollution by wielding the constitutional right to a healthy environment to achieve stronger laws, stricter standards and more effective enforcement. In Thailand, the Supreme Administrative Court ordered a halt to dozens of industrial projects in Map Ta Phut, a heavily industrialized area similar to Sarnia. Map ta Phu is home to 117 industrial plants, including 45 petrochemical factories, eight coal-fired power plants, 12 chemical fertilizer factories and two oil refineries. Air quality in the region is poor.[58] Seventy-six projects worth billions of dollars were initially subject to the court's injunction, while 11 projects were subsequently given the green light when the court determined they would not impose significant health or environmental effects.[59] The basis of the court's judgment was the failure to conduct health assessments, violating people's constitutional right to live in a healthy environment. In Brazil, the city of Cubatao used to be notorious for extreme levels of pollution released from industrial facilities, earning it the nickname "Valley of Death" and a place on top 10 lists of the world's most polluted locations. Since the constitutional changes in Brazil in 1988 that recognized the right to a healthy environment, many charges have been laid against offending polluters and more than $1.2 billion has been spent to clean up Cubatao's air, water and land, with positive results.[60] Cubatao, in a newly industrializing nation, has made more progress in tackling excessive industrial pollution than Sarnia, in one of the world's wealthiest countries.

If the right to a healthy environment were constitutionally protected in Canada, the residents of Sarnia and other communities who bear a disproportionate share of the burden of pollution would have stronger tools available in their struggle for environmental justice.

Iii. Fresh Water

Cleanup And Restoration Of The Great Lakes

The Great Lakes straddling the Canada-U.S. border are among the world's largest freshwater bodies, and provide drinking water and recreational opportunities for millions of Canadians. Yet the Great Lakes suffer from extensive damage inflicted when nobody gave a second thought to dumping toxic substances, because nature's capacity for absorption and resilience seemed infinite. The days of deliberate naïveté are behind us now.

There have been almost 40 years of on-again, off-again efforts to clean up and restore the Great Lakes, dating back to the Canada-U.S. Great Lakes Water Quality Agreement signed by Prime Minister Trudeau and President Nixon in 1972. Despite many lofty promises, progress has been painfully slow. For example, in 1994 the federal government announced a $125 million initiative to clean up the Great Lakes. A follow-up audit by the Commissioner for Environment and Sustainable Development found that less than 12 per cent of the funding materialized.[61] Concentrations of highly toxic and long-lasting PCBs are still approximately 100 times higher than agreed upon water-quality objectives. The Great Lakes are the subject of extensive fish consumption advisories warning that eating fish can cause birth defects and other serious health effects. Areas with high levels of pollution tend to be areas with high levels of poverty, while low levels of pollution are associated with low levels of poverty.[62] Communities living near hazardous waste sites in the Great Lakes region of North America region experience elevated levels of infant mortality, premature births, low birth weights and cancer.[63]

In the Great Lakes region, the industrial heartland of both Canada and the U.S., a surprising picture emerges: on a per facility basis, Canadian facilities emitted to the air, on average, almost three times more carcinogens and more than twice the reproductive/developmental toxins compared to U.S. facilities.[64] Only one-third of the polluting facilities are Canadian, but they discharged 60 per cent of the industrial pollution released in the Great Lakes–St. Lawrence River basin in 2007. The top carcinogens included formaldehyde, benzene, ethylbenzene, trichloroethylene, acetaldehyde and dichloromethane, while the chemicals harmful to reproduction and development included toluene, benzene, carbon disulfide, chloromethane and N-methyl-2-pyrrolidone.

A 2008 report by the Commissioner of Environment and Sustainable Development noted that little progress has been made by the Canadian government to fulfill the objectives on the areas of concern under the Great Lakes Water Quality Agreement. After more than 20 years, only three out of 17 areas of concern were restored sufficiently to be delisted.[65]

From 1990 to 2010, the federal government invested approximately $130 million in cleaning up and restoring the Great Lakes, or roughly $7 million per year.[66] Budget 2010 provided Environment Canada with $8 million per year to continue to implement its action plan to protect the Great Lakes, and the 2011 budget promised an additional $5 million over two years.[67] These amounts are woefully inadequate compared to the scale of the problem. The 2011 Alternative Federal Budget produced by the Canadian Centre for Policy Alternatives called for $3.375 billion for Great Lakes restoration over five years.[68] Estimates say $2.4 billion is required for improving municipal wastewater treatment infrastructure, $150 million for cleanup of contaminated sediment and $90 million for Hamilton's harbour alone.[69]

Recent developments in Argentina and the Philippines, two nations with far less economic wealth than Canada, demonstrate the power of the constitutional right to a healthy environment to produce dramatic progress in cleaning up polluted aquatic ecosystems. In 2004, a group of concerned citizens sued the national government, the provincial government and the City of Buenos Aires, along with 44 industrial facilities, for polluting the Riachuelo River, asserting a violation of their right to a healthy environment.[70] Millions of people, many of them poor, live near the Riachuelo, one of the most polluted rivers in South America. In 2006, Argentina's Supreme Court ordered the government to conduct an environmental assessment of the state of the river and initiate an environmental education program. The court also required all of the polluting industries in the watershed to provide information about their wastewater treatment equipment, programs and practices.[71] In 2007, the Supreme Court ordered the government to establish a comprehensive cleanup and restoration plan for the river. Recognizing the limits of its own expertise in evaluating this plan, the court commissioned an independent evaluation by scientists at the University of Buenos Aires. The expert review and comments from both the plaintiffs and ENGOs identified extensive weaknesses in the draft plan. The court also convened five public hearings to ensure that broad-based community participation informed its judgment. In 2008, the Supreme Court issued a comprehensive final ruling in which it ordered:

- inspections of all polluting enterprises, creation of wastewater treatment plans and implementation, all on a strict schedule;
- closure of all illegal dumps;
- redevelopment of legal landfills;
- cleaning up of the riverbanks;
- improvement of the drinking-water treatment systems in the river basin;

- improvement of the sewage treatment and storm-water discharge systems;
- development of a regional environmental health plan, including contingencies for possible emergencies;
- supervision, by the federal auditor general, of the budget allocation for implementation of the restoration plan;
- formation of a committee of NGOs involved in the litigation to monitor compliance with the court's decision;
- creation of a public information registry;
- ongoing judicial oversight of the implementation of the plan, with a federal court judge empowered to resolve any disputes related to the court's decision; and
- that any violations of the timelines established by the court would result in daily fines against the President of the Matanza-Riachuelo Watershed Authority (the new intergovernmental body responsible for implementing the restoration plan).

The court's decisions were grounded on Articles 41 and 43 of Argentina's Constitution, recognizing the right to a healthy environment and the citizens' power to defend their rights through the judicial system. The remedies are intended to restore past damage as well as prevent future degradation of the river system. The decision reflects the growing use of creative approaches to ensuring compliance with court orders, including daily fines, reports to the judge and entrusting compliance to a third party.[72] Juan Carballo, an attorney who worked on Constitutional Law and Natural Resources and Environmental Law Departments at the National University of Cordoba, concluded that "the court made it clear that extraordinary measures may be required on the side of judges where environmental issues and interests are at stake."[73]

Substantial on-the-ground progress has already been made. The World Bank has approved US$2 billion in financing for the Matanza-Riachuelo Basin Sustainable Development Project, which it acknowledges was triggered by the decision of the Supreme Court of Argentina and is intended to contribute to compliance with that court's order.[74] The Argentine government will increase the number of environmental inspectors in the region from three to 250.[75] Progress made by mid-2011 included provision of clean drinking water to one-million people, a new sewage treatment system serving half a million, 167 polluting companies closed, 134 garbage dumps closed and the creation of 139 sampling points for monitoring water, air and soil quality.[76] The Supreme Court continues to hold quarterly public hearings in which it questions the federal environment minister and the head of the watershed authority on progress toward fulfilling the court's order. International scholars have hailed the litigation for its "remarkable policy impact" and positive social impact on previously marginalized communities.[77] As the World Bank observed, there have been previous pledges to restore the Matanza-Riachuelo watershed, but the Supreme Court ruling ensures an unprecedented degree of political and legal accountability.[78]

In 2008, the Supreme Court of the Philippines released a globally significant judgment based on the right to a healthy environment in the Concerned Residents of Manila Bay case.[79] According to the Supreme Court:

> The importance of the Manila Bay as a sea resource, playground, and as a historical landmark cannot be over-emphasized. It is not yet too late in the day to restore the Manila Bay to its former splendor and bring back the plants and sea life that once thrived in its blue waters. But the tasks ahead, daunting as they may be, could only be accomplished if those mandated, with the help and cooperation of all civic-

> minded individuals, would put their minds to these tasks and take responsibility. This means that the State, through petitioners, has to take the lead in the preservation and protection of the Manila Bay.
>
> The era of delays, procrastination, and ad hoc measures is over. Petitioners must transcend their limitations, real or imaginary, and buckle down to work before the problem at hand becomes unmanageable. Thus, we must reiterate that different government agencies and instrumentalities cannot shirk from their mandates; they must perform their basic functions in cleaning up and rehabilitating the Manila Bay.

In a judgment reminiscent of the Argentine Supreme Court's ruling in the Mendoza case, the court ordered 12 government agencies to develop a comprehensive plan, within six months, to rehabilitate and restore Manila Bay to a level of water quality adequate for all kinds of recreation. More specifically, the Court ordered the responsible agencies to:

- install and operate sewage-treatment facilities;
- clean up hazardous and toxic wastes;
- prevent pollution and waste from ships;
- develop adequate facilities and programs for the proper disposal of solid waste;
- remove structures that obstruct the free flow of waters to Manila Bay;
- revitalize the marine life by re-introducing indigenous aquatic species;
- require septic and sludge companies to use adequate treatment facilities;
- prevent all forms of illegal fishing;
- establish a comprehensive environmental education program; and
- allocate a budget sufficient to carry out the restoration plan.

The court adopted the extraordinary remedy of continuing mandamus, giving itself ongoing supervision of the implementation of the restoration plan with the goal "of ensuring that its decision would not be set to naught by administrative inaction or indifference."[80] The government agencies are required, by court order, to submit quarterly progress reports. The Supreme Court also established an expert advisory committee to review the government's reports and ensure that progress is satisfactory. In conclusion, the court stated that the responsible government agencies "cannot escape their obligation to future generations of Filipinos to keep the waters of the Manila Bay as clean and clear as humanly possible. Anything less would be a betrayal of the trust reposed in them."[81]

Both the similarities and the differences between Canada's Great Lakes, Argentina's Riachuelo River and Manila Bay in the Philippines are striking. In all three cases, a generation of political leaders repeatedly promised to clean up these environmental disasters but took few concrete steps. Canada, despite its far greater economic wealth, continues to dither and allocate inadequate resources to restoring the Great Lakes. In Argentina and the Philippines, citizens empowered by their constitutional right to live in a healthy environment succeeded in holding governments accountable. In both cases, a host of government agencies and corporations were ordered to perform a series of cleanup, restoration and pollution-prevention activities that will cost billions of dollars. The legal processes were open and flexible, and relied on independent experts for scientific assistance. The court orders incorporated innovative mechanisms to ensure compliance. P.B. Velasco Jr. (Associate Justice,

Supreme Court of the Philippines) responded to criticism of the Manila Bay judgment by stating, "Surely, it is not judicial activism when courts carry out their constitutionally assigned function of judicial review and in the process enjoin those charged with implementing a law to so implement the law."[82]

Ensuring Access To Safe Drinking Water For All Canadians

A minimum supply of potable water is a vital prerequisite for life, health, dignity and the realization of other human rights.[83] Unfortunately, some rural communities in Canada still do not have access to safe drinking water.[84] Inadequate investments in water infrastructure and the lack of national standards for water quality jeopardize the health of all Canadians.[85] First Nations people on reserves are the most likely to face serious water quality problems.[86] As of 2013, more than 100 First Nations still face ongoing boil-water advisories (out of roughly 600 First Nations in Canada).[87] Many of these deplorable situations have been dragging on for years.[88] The federal government estimates that there are approximately 5,000 homes in First Nations communities (representing an estimated 20,000+ residents) that lack running water and indoor toilets.[89] Compared to other Canadians, First Nations' homes are 90 times more likely to be without running water.[90] Examples of First Nations communities where, as of 2011, the majority of residents still lack running water, access to safe drinking water and indoor toilets include Pikangikum in Ontario, Kitcisakik in Quebec, St. Theresa Point, Wasagamack, Red Sucker Lake and Garden Hill in Manitoba, and Little Buffalo in Alberta.[91] The lack of access to safe drinking water has adverse physical and psychological effects. The federal government admits, "The incidence of waterborne diseases is several times higher in First Nations communities than in the general population, in part because of the inadequate or non-existent water treatment systems."[92]

In contrast, constitutional provisions explicitly requiring the protection and/or provision of clean water are found in at least 17 nations, and are increasingly prevalent in new constitutions.[93] For example, both the Dominican Republic and Kenya enacted new constitutions in 2010 that recognize the right to water, as did Morocco in 2011.[94] In South Africa, explicit constitutional recognition of the right to water has had a significant effect on water laws and policies, and has contributed to major investments in infrastructure.[95] In 2000, South Africa also passed legislation implementing the procedural rights entrenched in the constitution (e.g., access to information), which are essential for the full enjoyment of substantive rights.[96] Recognition of the constitutional right to water is credited with spurring the extension of potable water to 10-million South Africans (predominantly black and poor) in 10 years.[97] Nelson Mandela describes increased access to safe drinking water for millions of South Africans as "amongst the most important achievements of democracy in our country."[98] In Uruguay, the constitutional provision guaranteeing the right to clean water also prohibits privatization of the water supply. UN data show that 100 per cent of Uruguayans enjoy access to improved sources of drinking water, consistent with their constitutional right.

In a number of nations where there is no explicit constitutional right to water—including Argentina[99], Belgium[100], Brazil[101], Costa Rica[102], Colombia[103], India[104], Indonesia[105], Nepal[106] and Pakistan[107]—courts have held that the right to water is an implicit but enforceable constitutional right. These courts based their decisions on the fact that access to safe drinking water is a fundamental prerequisite to the enjoyment of other human rights, including the right to life and the right to live in a healthy environment. For example, in Argentina, based on the constitutional right to a healthy environment, courts have ordered governments to provide communities with potable water, construct drinking water treatment facilities, provide medical treatment for individuals harmed by contaminated drinking water, and carry out environmental remediation of polluted watersheds.[108] An Argentine case involving Chacras de la Merced, a poor community whose drinking water

was being contaminated by inadequate wastewater treatment in an upstream municipality, illustrates the potential for using the right to a healthy environment to advance the right to water.[109] An ENGO brought a lawsuit against the upstream municipality and the province on behalf of local residents asserting a violation of their constitutional right to a healthy environment. The court agreed that there was a violation of the right and ordered the government to upgrade the wastewater treatment plant and, in the interim, provide a supply of clean water to the residents of Chacras de la Merced.[110] The court-ordered infrastructure improvements were completed, and in an interesting development, the municipality passed a law mandating that all future sewage and sanitation tax revenues must be re-invested in upgrading and maintaining the sewage system. As observed in a recent Harvard Law Review article, "Although justiciability alone is not a panacea, it is a step in the direction of ensuring access to sufficient water."[111]

A survey conducted by the Trudeau Foundation in 2010 found that 96 per cent of Canadians agree that the right to water is a human right that should be recognized and protected. However, according to experts, "Canada is internationally viewed as the primary State opposed to the right to water and sanitation."[112] At the UN Commission on Human Rights in 2002 and 2003, Canada was the only country to vote against resolutions recognizing the right to water and sanitation.[113] Canada also played a key role in blocking a motion by Germany and Spain to officially recognize water as a human right at the UN Human Rights Council in March 2008.[114] In 2010, the UN General Assembly passed a resolution recognizing the right to water, with 124 nations voting in favour, none against and 41 abstaining. Canada was among the nations that abstained.[115] Later in 2010, the UN Human Rights Council issued a similar resolution, confirming that "the human right to safe drinking water and sanitation is derived from the right to an adequate standard of living and is inextricably related to the highest attainable standard of physical and mental health, as well as the right to life and human dignity."[116]

Constitutional recognition of the right to a healthy environment could serve as an impetus for Canadian governments to treat the lack of safe drinking water in aboriginal communities as the urgent crisis that it is, requiring an investment in infrastructure, training for system operators, and legal standards that no longer treat aboriginal people as second-class citizens. All Canadians could benefit from the enactment of binding national standards for drinking water quality.

Iv. Climate Change

Greenhouse Gas Emissions

Pursuant to the Kyoto Protocol, Canada pledged to reduce emissions to six per cent below 1990 levels by 2010. Instead, Canadian emissions went up roughly 25 per cent. Prime Minister Harper's government rejected Canada's international obligations under Kyoto and put forward a much less ambitious commitment under the 2009 Copenhagen Accord. Environment Canada's most recent (2013) projection indicates Canada will exceed its Copenhagen commitment by 20 per cent.[117] Canada still provides an estimated $1.4 billion in subsidies to fossil fuel companies, despite their environmental destruction and enormous profits. Canada has resisted recognition of the fact that climate change has implications for the full enjoyment of human rights.[118] An increasing proportion of Canada's oil comes from the tar sands, contaminating air and water, threatening the health of communities downwind and downstream, and producing prodigious volumes of greenhouse gas emissions.

Canada's performance on climate change is widely acknowledged to be among the worst in the industrialized world.[119] Unfortunately, Canadian courts have been reluctant to hold the federal government accountable, in cases involving emissions from the tar sands and failure to comply with the Kyoto Protocol Implementation Act.[120]

The wealthy industrialized nations whose constitutions include environmental rights and responsibilities have a significantly better record in controlling greenhouse gas emissions.[121] Countries that have articulated the goal of eventually becoming zero-carbon and begun moving in that direction (e.g., Norway, Costa Rica, Sweden) all enjoy constitutional environmental provisions. For example, Sweden has reduced GHG emissions to 20 per cent below 1990 levels while experiencing economic growth at a pace comparable to that of Canada since that time.

Efforts to address climate change in Canada would benefit from recognition of the constitutional right to a healthy environment and government's corresponding obligation to respect, protect and fulfill this right. It could tip the balance in myriad legislative, regulatory, administrative, judicial, corporate and individual decisions related to energy production and use, energy efficiency and energy conservation. It could compel industry operating in the tar sands to reduce water use and releases of toxic substances, and it could be used to push for a moratorium on further development until cleaner production processes are available, as suggested by former Alberta Premier Peter Lougheed.

Offshore Drilling

BP's catastrophic oil spill in the Gulf of Mexico in 2010 shone new light on the controversial practice of deepwater drilling, particularly in marine areas with high ecological values or near terrestrial areas with high ecological values. In Canada, a moratorium on oil and gas exploration on the West Coast is in place, despite earlier pledges by B.C.'s Liberal government that it would be open for drilling by 2010. However, there is a booming oil and gas industry on the East Coast, and ongoing development in the Arctic. In light of the BP disaster, questions have been raised about the length of time it would take to drill a relief well in the case of a blowout in the Beaufort Sea. The chilling answer is that it could take two to three years, because of the short drilling season.[122] Oil would continue to gush for that entire time, mainly into an ocean covered by Arctic ice.

In this light it is interesting to view the contrasting approach to offshore oil and gas exploration in Costa Rica, Brazil and Norway—nations that recognize the constitutional right to a healthy environment. Based on environmental concerns, Costa Rica's Constitutional Court struck down Harken Energy's approvals for offshore oil and gas exploration.[123] Costa Rica subsequently rescinded Harken's contract, prompting Harken to attempt to sue for $57 billion in damages through the World Bank's International Center for the Settlement of Investment Disputes (ICSID).[124] Costa Rica rejected ICSID's jurisdiction and refused to pay compensation, citing Harken's failure to comply with environmental laws as a breach of the contract. The outcome has been described as a "resounding victory" in Costa Rica's efforts to protect the environment, even when threatened with a multi-billion dollar lawsuit by a foreign investor.[125] In Brazil and Norway, offshore oil and gas development is proceeding but under more stringent rules than found in the U.S.[126] A small oil spill off the coast of Brazil in 2011 prompted a multi-million-dollar fine and a multi-billion-dollar lawsuit for environmental damages against Chevron by federal prosecutors.[127]

A constitutional right to a healthy environment could have a beneficial influence on Canadian offshore drilling activities and proposals, through spurring tougher rules and empowering citizens and communities via enhanced access to information, roles in decision-making and, if all else fails, access to the judicial system.

V. Conserving Biodiversity

Canada has a mixed record in terms of conserving biological diversity, as illustrated by a number of examples. According to the Committee on the Status of Endangered Wildlife in Canada, 36 species have already become extinct or been extirpated from Canada, and another 579 have been designated as being at risk of extinction.[128] The list grows longer every year. Canada ranks a disappointing 111th out of 201 countries in terms of the proportion of land area protected, and fares even worse in protecting marine areas.[129] The federal Department of Fisheries and Oceans permits lakes to be used as tailing ponds for mining waste, although this seems to violate the spirit, if not the letter, of the federal Fisheries Act.[130] The recent rejection of the Prosperity gold mine that would have destroyed Fish Lake in B.C. was an encouraging exception to this trend, although a revised version of the mine proposal is going through a new environmental assessment process. Some of Canada's national parks are being overrun by commercial development and industrial activity is still permitted in some provincial parks and protected areas. The federal government has to be sued repeatedly to implement the Species at Risk Act while Alberta and B.C. still lack endangered species legislation. Based on reports from independent observers, Canadian fishermen using long-lines to catch tuna and swordfish in the Western Atlantic caught over 1,000 loggerhead sea turtles, designated as an endangered species under Canada's Species at Risk Act, annually in the years between 1999 and 2007.[131] The long-line fishery also harms large numbers of blue sharks and globally endangered leatherback turtles. According to experts, simple changes in fishing gear and techniques could prevent this unnecessary by-catch and associated deaths.

In Canada, when economic considerations clash with concerns about biodiversity, the former usually emerge victorious. In nations where the constitution includes the right to a healthy environment and the associated responsibility to protect the environment, a better balance may be achieved. Enhanced protection for nature may be achieved through stronger laws or by citizens using the courts to hold governments accountable to their constitutional commitment. Countries from Costa Rica to Spain have passed strong laws to protect endangered ecosystems and species from harmful human activities, with Costa Rica's comprehensive biodiversity law recognizing the inherent value of nature. Panama recently passed a law banning commercial long-lining to limit overfishing and protect sea turtles and sharks.[132] A recent court decision in Ecuador, based on the constitutional rights of nature, ordered the restoration of a river harmed by road-building activities.[133]

Costa Rica's Constitutional Court has made a number of rulings protecting endangered species and their habitat. In 1999, the court ruled that a law permitting hunting of green turtles violated both the constitutional right to a healthy and ecologically balanced environment and international law (the Convention on International Trade in Endangered Species).[134] In 2002, the court struck down government authorization of timber harvesting in habitat for the endangered green macaw.[135] In 2004, the court ruled that the Costa Rican government was violating the right to a healthy and ecologically balanced environment by failing to stop the wasteful practice of shark finning. In 2008, the Constitutional Court nullified a municipal zoning regulation that authorized construction in Las Baulas National Park. The court also ordered the government to expropriate private lands within the national park that were slated for tourist development but provided critical habitat for endangered sea turtles.[136] In 2009, the court agreed that the failure to enact regulations required for the implementation of the Fisheries and Aquaculture Act violated the constitutional right to a healthy and ecologically balanced environment, and gave the government 90 days to enact the regulations.[137]

In Europe, courts have played a substantial role in using the right to a healthy environment to protect

biodiversity; for example, protecting lakes from development and striking down efforts to privatize forests.[138] Courts have relied on the right to a healthy environment in the Dutch Constitution to protecting the habitat of an endangered species of salamander, and to place greater weight on environmental considerations than economic concerns.[139] Belgian jurisprudence also has interpreted the right to a healthy environment broadly, not as limited to protecting humans from pollution but also protecting nature and biodiversity.[140] In Portugal, successful cases based on the constitutional right to a healthy environment have been brought to protect different species of birds and their habitat.[141]

In Finland, plans to build a hydroelectric dam and reservoir in the headwaters of the Kemijoki River first emerged in the 1950s but were rejected repeatedly because of the high natural values of the area, internationally renowned as important habitat for migratory birds.[142] In 1992, a company reapplied for permission to construct the dam and create a reservoir flooding 240 square kilometres. The application was approved in 2000, triggering a legal challenge by opponents of the plan. Based in part on the constitutional right to a healthy environment, the legal challenge was successful. The Vaasa Administrative Court quashed the permit in 2001. In 2002, the Supreme Administrative Court rejected the company's appeal.[143] The court asserted that the Water Act "must be interpreted in light of Article 20 of the Constitution, which guarantees the right to a decent environment."[144] The court noted that the constitutional provision was both a prescription to legislators and a principle for interpreting and applying the law. This case illustrates the important influence that constitutional environmental rights can have on the interpretation of other laws and policies.

In Greece, the Council of State (the highest administrative court) has repeatedly cancelled permits for a major water-diversion project that would have dammed and rerouted the Acheloos River into a different watershed, causing extensive environmental damage.[145] The first decision, in 1994, was based on inadequacies in the environmental assessment. (The project was divided into pieces without assessment of the cumulative impacts.)[146] Later decisions (in 2000 and 2005) were based on adverse effects on cultural and environmental heritage that violated the constitution.[147] Greek courts have also protected the habitat of endangered sea turtles.

Based on the experiences of other nations, it seems likely that recognition of the constitutional right to a healthy environment in Canada would improve the odds for the survival and recovery of many endangered species, from sea turtles to woodland caribou.

Conclusion

The constitutional right to a healthy environment is not a silver bullet that will automatically address all of Canada's environmental challenges. However, the examples in this paper, drawing on the experiences of other countries, demonstrate that it is a powerful tool that could be harnessed to close the gap between the actions and rhetoric of Canadians. These examples suggest that the cumulative effects of constitutionalizing the right to a healthy environment would include an overall strengthening of Canada's environmental performance, leading to healthier Canadians and healthier ecosystems.

Endnotes

1 Boyd, D.R. 2006. "Petition Regarding the Right of Canadians to Clean Air, Clean Water, and a Healthy Environment." Petition No. 163. January 17. Office of the Auditor General of Canada. http://www.oag-bvg.gc.ca/internet/English/pet_163A_e_28897.html#wp1008755

2 Boyd, D.R. 2011. The Environmental Rights Revolution: Constitutions, Human Rights, and the Environment. Vancouver: UBC Press.

3 Marrani, D. 2009. "Human Rights and Environmental Protection: The Pressure of the Charter for the Environment on French Administrative Courts." Sustainable Development Law and Policy 10, 1: 52-57.

4 Organization for Economic Cooperation and Development. 2004. Environmental Performance Review: Spain. Paris: OECD. See p. 122. Organization for Economic Cooperation and Development. 2004. Environmental Performance Review: Portugal. Paris: OECD. Pp. 41-42.

5 Canada. 2009. Budget Implementation Act. S.C. 2009, c. 2; Lake Ontario Waterkeeper. 2009. "Navigable Waters Protection Act Amendments: Comparison Document." Prepared by Lake Ontario Waterkeeper. 11 February. http://www.waterkeeper.ca/documents/2009-02-11.NWPASummary.pdf.

6 Canada. 1985. Navigable Waters Protection Act. R.S.C. c. N-22, s. 13.

7 Senate Committee on Energy, the Environment, and Natural Resources. 2009. Report Addressing Bill C-10 Navigable Waters Protection Act. June 2009. Ninth Report of the Standing Senate Committee on Energy, the Environment, and Natural Resources, p. 13.

8 Senate Committee on Energy, the Environment, and Natural Resources. 2009. "Report Addressing Bill C-10, Navigable Waters Protection Act." Ninth Report of the Standing Senate Committee on Energy, the Environment, and Natural Resources. P. 18.

9 Canada. 2010. Jobs and Economic Growth Act, S.C. c. 12, s. 2153, s. 2155; Canada. 1992. Canadian Environmental Assessment Act, S.C. c. 37, ss. 7(2), 15.1.

10 D. Saxe. 2010. "Federal Environmental Assessment Shrinks." Environmental Law and Litigation blog, 5 April. http://envirolaw.com/

11 Flaherty, J.M. (Minister of Finance). 2012. Jobs, Growth, and Long-term Prosperity: Economic Action Plan 2012. Ottawa: Public Works and Government Services.

12 Cooper, K. 1999. "An Updated Chronology of Changes in Ontario's Environmental Policy." Intervenor (Canadian Environmental Law Association) 24, 1: 9-16.

13 Canada. 2003. Significant Projects Streamlining Act. S.B.C. 2003, c. 100

14 British Columbia. Wood Burner and Incinerator Regulation, B.C. Reg. 519/95, as amended.

15 Nova Scotia. 2005. Nova Scotia Air Quality Regulations, O.I.C. 2005-87 (February 25, 2005, effective March 1, 2005), N.S. Reg. 28/2005 as amended up to O.I.C. 2010-444 (7 December 2010), N.S. Reg. 187/2010 Schedule C, subsection 3(3).

16 Hungarian Constitutional Court. Decision No. 28 of 1994, V.20 AB, p. 1919.

17 Judgment 48/1997. (X. 6.) AB Decision, cited in Majtenyi, B. 2006. "The Institutional System of Hungarian Environmental Law." Gazzetta Ambiente 5: 149-54.

18 Constitutional Court, n° 135/2006; Constitutional Court, n° 137/2006; Constitutional Court, n° 145/2006. Cited in Lavrysen, L. 2007. "Presentation of Aarhus-Related Cases of the Belgian Constitutional Court." Environmental Law Network International Review 2: 5-8.

19 Jacobs v. Flemish Region. 1999. Council of State no. 80.018, 29 April; See also Venter. 1999. Council of State no. 82.130, 20 August.

20 Prieur, M. 2008. "La Charte de l'environnement: Droit Dur ou Gadget Politique?" Pouvoirs 127, 4: 49-65.

21 Girard, A.L., S. Day, and L. Snider. 2010. "Tracking Environmental Crime through CEPA: Canada's Environment Cops or Industry's Best Friend?" Canadian Journal of Sociology 35, 2: 219-41; Boyd, D.R. 2003. Unnatural Law: Rethinking Canadian Environmental Law and Policy. Vancouver: UBC Press.

22 Girard, A.L., S. Day, and L. Snider. 2010. See p. 219.

23 Personal communication from Lynn Pasternak, Planning Department, Toronto Public Library. February 2011.

24 R. Esworthy. 2013. Federal Pollution Control Laws: How Are They Enforced? Congressional Research Service Report for Congress.

25 US Environmental Protection Agency. 2012. Compliance and Enforcement: Annual Results 2011. See http://www.epa.gov/compliance/resources/reports/endofyear/eoy2011/index.html.

26 Canada. 2009. Environmental Enforcement Act. S.C. c. 14.

27 Ontario. 2000. Toughest Environmental Penalties Act. S.O. c. 22.

28 Muldoon P. and R. Nadarajah. 1999. "A Sober Second Look." In Robert B. Gibson, ed., Voluntary Initiatives: The New Politics of Corporate Greening. Peterborough, ON: Broadview Press. See p. 54

29 Krajnc, A. 2000. "Wither Ontario's Environment? Neo-Conservatism and the Decline of the

Environment Ministry." Canadian Public Policy XXVI, 1: 111-127.

30 Commissioner of the Environment and Sustainable Development. 2011. "Enforcement of the Canadian Environmental Protection Act, 1999." In Report of the Commissioner of Environment and Sustainable Development to the House of Commons, Chapter 3. Ottawa: Auditor General; Ecojustice. 2011. Getting Tough on Environmental Crime? Holding the Federal Government to Account on Environmental Crime. Ottawa: Ecojustice.

31 Sierra Legal Defence Fund. 2002. Polluter's Haven. Toronto: SLDF; Sierra Legal Defence Fund. 2001. Ontario's 2000 Dirty Water Secrets: A Report on Ontario's Wastewater Violations. Toronto: SLDF.

32 Brazil. Constitution of Brazil. See article 225; McAllister (2008).

33 Passos de Freitas, V. 2003. "The Importance of Environmental Judicial Decisions: The Brazilian Experience." In Symposium of Judges and Prosecutors of Latin America: Environmental Compliance and Enforcement, ed. M.E. Di Paola, 59-64. Buenos Aires: Fundacion Ambiente y Recursos Naturales.

34 McAllister, L.K. 2008. Making Law Matter: Environmental Protection and Legal Institutions in Brazil. Stanford, CA: Stanford University Press. See p. 99.

35 Maatta, K. 2006. Environmental Taxes: An Introductory Analysis. Cheltenham: Edward Elgar.

36 Chase, S. 2008. "Tories' 'Recession' Threat Based on Old Numbers." Toronto Globe and Mail, 11 September, A1.

37 Hsu, S.-L., and R. Elliot. 2009. "Regulating Greenhouse Gases in Canada: Constitutional and Policy Dimensions." McGill Law Journal 54, 3: 463-516. See p. 478; Bankes, N.D., and A.R. Lucas. 2004. "Kyoto, Constitutional Law and Alberta's Proposals." Alberta Law Review 42, 2: 355-98; Chalifour, N.J. 2008. "Making Federalism Work for Climate Change: Canada's Division of Powers over Carbon Taxes." National Journal of Constitutional Law 22, 2: 119-214;

Hogg. P.W. 2008. A Question of Parliamentary Power: Criminal Law and the Control of Greenhouse Gas Emissions. Backgrounder No. 114. Toronto: C.D. Howe Institute.

38 Pavel Ocepek, Breg pri Komendi. 1999. Up-344/96, 04/01/1999.

39 Constitutional Court decisions include Sentencia 195/2003, 27 October 2003; Sentencia 194/2004, 4 November 2004; Sentencia 173/2005, 23 June 2005; Auto 351/2005, 27 September 2005; Sentencia 179/2006, 13 June 2006; and Sentencia 247/2007, 12 December 2007.

40 Boyd, D.R. 2006. The Air We Breathe: An International Comparison of Air Quality Standards and Guidelines. Vancouver: David Suzuki Foundation.

41 Canadian Medical Association. 2008. No Breathing Room: National Illness Costs of Air Pollution. Toronto: CMA.

42 Reeves, F. 2010. "Healthy Hearts Need Clean Air." Docs Talk blog, 2 June. http://www.davidsuzuki.org/blogs/docs-talk/

43 Gunton, T., and K.S. Calbrick. 2010. The Maple Leaf in the OECD: Canada's Environmental Performance. Study prepared for the David Suzuki Foundation. Vancouver: David Suzuki Foundation School of Resource and Environmental Management, Simon Fraser University.

44 Environment Canada. 2010. Air Quality Indicators. Ottawa: Environment Canada.

45 Boyd, D.R. 2011. The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights and the Environment. Vancouver: UBC Press.

46 Ibid.

47 Vieira, S.C. 2008. "Country Report: Brazil." Yearbook of International Environmental Law 2007 18: 395-402.

48 Maia Petrol Pump case (1996).

49 P.J. Veugelers and J.R. Read. 1999. "Health Deficiencies in Cape Breton County, Nova Scotia, Canada, 1950-1995. Epidemiology 10(5): 495. M. Buzzelli, M. Jerrett, R. Burnett, et al. 2003. "Spatiotemporal Perspectives on Air Pollution and Environmental Justice in Hamilton, Canada, 1985-1996," Annals of the Association of American Geographers 93(3): 557–73. M. Jerrett, R. Burnett, P. Kanaroglou, et al. 2001. "A GIS-environmental justice analysis of particulate air pollution in Hamilton, Canada," Environ. and Planning. A 33: 955-973. M.S. Goldberg, R. Dewar, J. Siemiatycki et al. 1999. "Risks of Developing Cancer in Relation to Living Near a Municipal Solid Waste Landfill Site in Montreal, Quebec: Results from a Population-Based Case-control Study," Arch Environ Health 54(4): 291-6.

50 E. MacDonald and S. Rang. 2007. Exposing Canada's Chemical Valley: An Investigation of Cumulative Air Pollution Emissions in the Sarnia, Ontario Area. Toronto: Ecojustice. D.N. Scott. 2008. "Confronting Chronic Pollution: A Socio-Legal Analysis of Risk and Precaution," Osgoode Hall L. J. 46(2): 293.

51 M. Mittelstaedt. 2008 "Oil refineries drastically underestimate release of emissions, study says," Globe and Mail, September 6, 2008. Chambers, A.K., Strosher, M., Wooten, T., Moncrieff, J., McCready, P. 2008. Direct Measurement of Fugitive Emissions of Hydrocarbons from a Refinery. J. Air & Waste Manage. Assoc. 58, 1047-1056.

52 C.A. Mackenzie, A. Lockridge, and M. Keith. 2005. Declining Sex Ratio in a First Nation Community. Environmental Health Perspectives 113: 1295-98.

53 Health Canada. 2000. St. Clair Area of Concern: Health Data and Statistics for Sarnia and Region

(1986-1992). Great Lake Health Effects Program. Ottawa: Health Canada.

54 Health Canada. 2000. St. Clair Area of Concern: Health Data and Statistics for Sarnia and Region (1986-1992). Great Lake Health Effects Program. Ottawa: Health Canada.

55 K. Fung, I. Lunginaah, and K.M. Gorey. 2007. "Impact of Air Pollution on Hospital Admissions in Southwestern Ontario, Canada: Generating hypotheses in sentinel high exposure places," Environmental Health 6:18-34.

56 M. Gilbertson. 2004. "Male cerebral palsy hospitalization as a potential indicator of neurological effects of methylmercury exposure in Great Lakes Communities," Environmental Research 95(3):375-84.

57 E. MacDonald and S. Rang. 2007. Exposing Canada's Chemical Valley: An Investigation of Cumulative Air Pollution Emissions in the Sarnia, Ontario Area. Toronto: Ecojustice. A. Nikiforuk. Tar Sands: Dirty Oil and the Future of a Continent, Vancouver: Douglas and McIntyre.

58 http://www.accessinitiative.org/blog/2010/01/maptapud-thailand-top-priority-environmental-clean

59 See http://www.allbusiness.com/chemicals/petrochemicals-industry-petrochemicals/13576134-1.html and http://www.hydrocarbonengineering.com/sectors/processing/articles/Thailand's_petrochemical_industry.aspx

60 Hochstetler and Keck (2004); L.K. McAllister (2008).

61 CESD 1999, 3-19, 2001, 278

62 Pollution Watch. 2008. An Examination of Pollution and Poverty in the Great Lakes Basin.

63 Pollution Watch. 2008. An Examination of Pollution and Poverty in the Great Lakes Basin.

64 Canadian Environmental Law Association and Environmental Defence. 2010. Partners in Pollution 2: An Update on the Continuing Canadian and United States Contributions to Great Lakes- St. Lawrence River Ecosystem Pollution

65 Office of the Auditor General of Canada. 2008 Report of the Commissioner of Environment and Sustainable Development to the House of Commons – Chapter 7 Ecosystems – Areas of Concern in the Great Lakes. March 2008. See: www.oag-bvg.gc.ca/internet/docs/aud_ch_cesd_200803_07_e.pdf

66 Office of the Auditor General of Canada. 2008 Report of the Commissioner of Environment and Sustainable Development to the House of Commons – Chapter 7 Ecosystems – Areas of Concern in the Great Lakes. March 2008. See: www.oag-bvg.gc.ca/internet/docs/aud_ch_cesd_200803_07_e.pdf

67 Dept of Finance. 2010. Budget 2010 Leading the Way on Jobs and Economic Growth.

68 Canadian Centre for Policy Alternatives (2011, 117).

69 Office of the Auditor General of Canada. 2008 Report of the Commissioner of Environment and Sustainable Development to the House of Commons – Chapter 7 Ecosystems – Areas of Concern in the Great Lakes. March 2008. See: www.oag-bvg.gc.ca/internet/docs/aud_ch_cesd_200803_07_e.pdf

70 Beatriz Silvia Mendoza and others v. National Government and Others in regards to damages suffered from contamination of the Matanza-Riachuelo River (2008).

71 Beatriz Silvia Mendoza and others v. National Government and Others (2006).

72 Dug and Faggi (2003).

73 Carballo (2009, 285).

74 World Bank (2009).

75 Yang and Percival (2009).

76 Matanza-Riachuelo Watershed Authority (2011).

77 Staveland-Saeter (2011, 48).

78 World Bank (2009, 15).

79 Concerned Residents of Manila Bay et al v. Metropolitan Manila Development Authority, Department of Environment and Natural Resources and others (2008).

80 The Court cited M.C. Mehta v. Union of India, 4 SC 463 (1987).

81 Concerned Residents of Manila Bay et al v. Metropolitan Manila Development Authority, Department of Environment and Natural Resources and others (2008).

82 Velasco, Jr. (2009).

83 P.H. Gleick. 1996. "Basic Water Requirements for Human Activities: Meeting Basic Needs", Water International 21: 83. G. Howard and J. Bartram. 2003. Domestic Water Quantity, Service, Level and Health. Geneva: World Health Organization. WHO and UNICEF. 2000. Global Water Supply and Sanitation Assessment 2000 Report. Geneva/New York: WHO/UNICEF. United Nations High Commissioner for Human Rights. 2007. Report of the United Nations High Commissioner for Human Rights on the scope and content of the relevant human rights obligations related to equitable access to safe drinking water and sanitation under international human rights instruments. Annual report of the United Nations High Commissioner for Human Rights. UN Doc. A/HRC/6/3.

84 H. Peterson and M. Torchia. 2008. Safe Drinking Water for Rural Canadians Canadian Medical Association Journal 179(1).

85 S.E. Hrudey. 2008. Safe Water? Depends on where you live! Canadian Medical Association Journal 178(8). D.R. Boyd. 2006/7? The Water We Drink

86 D.R. Boyd. 2011. No Taps, No Toilets:

87 Indian and Northern Affairs Canada. 2010. First Nations Water and Wastewater Action Plan, Progress Report April 2009-March 2010. As of February 28,2011, there were 116 First Nations with ongoing boil water advisories. Health Canada. 2010. First Nations, Inuit, and Aboriginal Health: Drinking Water and Wastewater. http://www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/water-eau-eng.php

88 Polaris Institute with the Assembly of First Nations and the Canadian Labour Congress. 2008. Boiling Point: Six Community Profiles of the Water Crisis Facing First Nations Within Canada.

89 Government of Canada. 2004. Implementation of the International Covenant on Economic, Social, and Cultural Rights: 4th Periodic report to the UN under articles 16 and 17 of the Covenant, E/C.12/4/Add.15, p. 84.

90 UN Department of Economic and Social Affairs, Secretariat of the Permanent Forum on Indigenous Issues. 2009. The State of the World's Indigenous Peoples. New York: United Nations, p. 25.

91 H. Fallding. 2010. "No Running Water," Winnipeg Free Press, October 30, 2010, p. A1. http://www.winnipegfreepress.com/no-running-water/

92 Government of Canada. 2004. Implementation of the International Covenant on Economic, Social, and Cultural Rights: 4th Periodic report to the UN under articles 16 and 17 of the Covenant, E/C.12/4/Add.15, p. 84.

93 Bolivia (Art. 16(I)) Colombia (Art. 366), the Democratic Republic of Congo (Art. 48), Dominican Republic (Arts 15 and 61), Ecuador (Art. 12), Ethiopia (Art. 90(1)), Gambia (Art. 216(4)), Kenya (Art. 43(1)(d)), the Maldives (Art. 23), Panama (Arts. 110 and 118), South Africa (Art. 27), Swaziland (Art. 215), Switzerland (Art. 76), Uganda (Arts. XIV(b) and XXI), Uruguay (Art. 47), Venezuela (Arts. 127 and 304), and Zambia (Art. 112(d)). See R. Wolfrum and R. Grote, eds. G.H. Flanz, Ed. Emeritus. 2011. Constitutions of the Countries of the World. New York: Oceana Law.

94 Dominican Republic (Arts 15 and 61), Kenya (Art. 43(1)(d)).

95 A. Du Plessis. 2011. "A Government in Deep Water? Some Thoughts on the State's Duties in Relation to Water Arising from South Africa's Bill of Rights," RECIEL 19(3): 316. A. Kok and M. Langford. 2009. "Water," in S. Woolman, T. Roux and M. Bishop, eds. Constitutional Law of South Africa, 2nd ed., Vol. 4. For example, see Water Services Act, Act No. 108 of 1997.

S. 3(1) Everyone has a right of access to basic water supply and basic sanitation.

(2) Every water services institution must take reasonable measures to realise these rights.

(3) Every water services authority must, in its water services development plan, provide for measures to realise these rights...

See also: National Water Act, Act No. 36 of 1998, Preamble, Art 4. Local Government Municipal Structures Act No. 117 of 1998. Local Government Municipal Systems Act, No. 32 of 2000.

96 Promotion of Access to Information Act 2000, and Promotion of Administrative Justice Act 2000.

97 H. Smets. 2006. The Right to Water in National Legislations. Paris: Agence Française de Développement, p. 92.

98 N. Mandela. 2002. "No Water, No Future," Speech at the World Summit on Sustainable Development, Johannesburg, South Africa, 28 August 2002.

99 Courts have ordered governments to provide potable water, construct drinking water treatment facilities, treat individuals harmed by contaminated drinking water, and carry out environmental remediation. See Chacras de la Merced case www.cedha.org.ar Paynemil Mapuche Community case http://www.righttowater.org.uk/code/legal_4.asp

100 Judgment No. 36/98, 1 April 1998, Belgian Court of Arbitration. http://www.arbitrage.be/public/f/1998/1998-036f.pdf

101 Litigation based on the constitutional right to a healthy environment has produced a policy that all Brazilians have the right to a core minimum of environmental services including water and sanitation. See SCJ Appeal No. 575.998 (Minas Gervais). SCJ Appeal No. 70011759842 (Rio Grande do Sul), 1 December 2005. SCJ Appeal No. 70012091278 (Rio Grande do Sul), 25 Jan. 2006.

102 Sala Constitucional Nº 02154 de las 09:49 hrs. del 16 de febrero, 2007. Municipalidad de Aserrí.

103 There were over 9,000 constitutional cases brought in Colombia between 1991 and 2008 related to the provision of potable drinking water and basic sanitation. Defensoria del Pueblo (Ombudsman). 2009. Diagnostic del Cumplimiento del Derecho Humano al Agua en Colombia. For specific examples, see Constitutional Court decisions T-578 (1992), T-140 (1994), T-207 (1995), and T-410 (2003).

104 AP Pollution Control Board v M.V. Nayudu AIR 1999 SC 812, 2001 (2) SCC 62, 2001 (9) SCC 605. See also V. Narain. 2010. "Water as a Fundamental Right: The Perspective from India," 34 Vermont Law Review 917.

105 Judicial Review of the Law No. 7 of 2004 on Water Resources, Constitutional Court of the Republic of Indonesia, Judgment of 13th July 2005, No. 058-059-060-063/PUU-II/2004.

106 N. Belbase and L.B. Thapa. 2007. "Nepal," in P. Moore and F. Pastakia, eds. Environmental Justice and Rural Communities: Studies from India and Nepal. Gland, Switzerland: IUCN, pp. 65-108.

107 The Supreme Court held that "the right to have water free from pollution and contamination is a

right to life itself . . . the right to have unpolluted water is the right of every person wherever he lives." General Secretary West Pakistan Salt Miners Labour Union v. Director Industries and Mineral Development (1994) SCMR 2061 (SC).

108 Chacras de la Merced case www.cedha.org.ar Paynemil Mapuche Community case http://www.righttowater.org.uk/code/legal_4.asp Beatriz Silvia Mendoza and others v. National Government and Others in regards to damages suffered (Damages stemming from contamination of the Matanza-Riachuelo River), 2008, M. 1569, 8 July 2008.

109 R. Picolotti. 2005. "The Right to Safe Drinking Water as a Human Right," Housing and ESC Rights Quarterly 2(1): 1-5.

110 R. Picolotti. 2005. "The Right to Safe Drinking Water as a Human Right," Housing and ESC Rights Quarterly 2(1): 1-5.

111 Harvard Law Review. 2007. "What Price for the Priceless ? Implementing the Justiciability of the Right to Water," 120 Harv. L . Rev. 1067 at 1069. See also D. Marcus. 2006. "The Normative Development of Socioeconomic Rights Through Supranational Adjudication," 42 Stan. J. Int'l L. 53.

112 A. Khalfan and T. Kiefer. 2008. Why Canada must recognise the human right to water and sanitation. Geneva: Centre on Housing Rights and Evictions, p. 3. S. Howatt. 2007. "A national disgrace: Canada's shameful position on the right to water needs to change," Canadian Perspectives. Council of Canadians. Summer: 6-7.

113 M. Blanchfield. 2003. "Our painful vote against clean water," Ottawa Citizen, September 21, 2003.

114 M. De Souza. 2008. "UN meeting rejects recognition of water as basic human right," Ottawa Citizen, March 26, 2008. L. Diebel. 2008. "Canada foils UN water plan," Toronto Star, April 2, 2008.

115 I. Hunter. 2010. Canada's cowardly vote on the right to water," Victoria Times-Colonist, August 1, 2010. http://www.timescolonist.com/health/Canada+cowardly+vote+right+water/3348664/story.html

116 UN Human Rights Council. 2010. Human Rights and Access to Safe Drinking Water and Sanitation. Sept. 24, 2010. A/HRC/15/L.14.

117 K. Harris. 2013. "Canada failing to meet 2020 emissions targets," CBC News, 24 October 2013.

118 M. Limon. 2009. "Human Rights and Climate Change: Constructing a Case for Political Survival," Harvard Environmental Law Review 33(2): 439-76. At 445

119 Canada finishes last on the G8 climate scorecard, last on the German climatewatch ranking

120 S. Hazell. 2010. "Improving the Effectiveness of Environmental Assessment in Addressing Federal Environmental Priorities," Journal of Environmental Law and Practice 20(3) 213. Friends of the Earth v. Minister of Environment et al. (2009) Federal Court of Appeal, leave to appeal to Supreme Court of Canada dismissed.

121 D.R. Boyd. 2011. The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights and the Environment. Vancouver: UBC Press.

122 A. Mayeda. 2010. "Drilling oil-spill relief well off Canada's Arctic coast would take three years: regulators," August 1, 2010. Postmedia News.

123 M.M. Levy y Asociacion Ecologista Limonense v. Ministerio del Ambiente y Energia (2001).

124 Carminati Garbino (2007).

125 Carminati Garbino (2007).

126 For example, Brazil and Norway both require automatic remote shut-off valves for offshore oil rigs. T. Doggett and T. Gardner. 2010. "US mulls requiring remote shutoffs for rigs," Reuters, May 3, 2010.

127 "Chevron Faces $10.6bn Brazil Legal Suit over Oil Spill," BBC News, 14 December 2011.

128 Statistics Canada (2011a).

129 Ibid.

130 Cite reg, A.Gage, JELP Metal Mining Effluent Regulations (2002)

131 J.C. Brazner and J. McMillan. 2008. "Loggerhead turtle (Caretta caretta) bycatch in the Canadian pelagic longline fisheries: Relative importance in the western North Atlantic and opportunities for mitigation," J. Fish Res.

132 Panama's Executive Decree 486 signed by President Ricardo Martinelli on Dec. 28, 2010.

133 R.F. Wheeler and E.G. Huddle v. Attorney General of the State of Loja (2011).

134 Decision 01250-99 Caribbean Conservation Corporation et al. v. Costa Rica (1999). See also Sala Constitucional, resolución número 2002-2486, 8 de marzo del 2002, considerando IV.

135 Expediente 01-011865-0007-CO, Resolución 2002-2486. Sala Constitutional de la Corte Supreme de Justicia.

136 A Cederstav and Others v. National Technical Secretary for the Environment, Municipality of Santa Cruz and Others (2008).

137 Asociación Interamericana para la Defensa del Ambiente (AIDA) y otros Recurso de Amparo (2009).

138 T.V. Zlotnikova, K.E. Lebedeva et. al. v. Russian Federation (1998). Add Eastern Europe lake case

139 Council of State, 31 January 1991, Kort geding (Interim measures) 1991-181. Council of State, 18 July 1991, Administratieve beslissingen (Administrative decisions) 1991-591. Council of State, 22 April 1991, Administratieve beslissingen (Administrative decisions) 1991-592. Council of State, 29 May 1992, Milieu en Recht 1992, page 477. Supreme Court, 14 April 1989, Milieu en Recht 1989, p. 258. Administration of Justice, www.rechtspraak.nl, Council of State, www.raadvanstate.nl

140 Haumont and Bodart (2006).

141 Coruche Stork Nests case (1990). Nisa Swallow Nests case (2000). Both cited in Aragao (2004).

142 Koivurova (2004a).

143 Koivurova (2004b, 482-83).

144 Koivurova (2004a, 57).

145 Karakostas and Vassilopoulos (1999).

146 Council of State 2759/1994, 2760/1994.

147 Council of State 3478/2000.