Evaluating the Bottom-up Approach to Constitutional Change in Canadian Environmental Rights:

Strengths and Weaknesses of Environmental Bylaws and the Role of Municipal Leadership

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Executive Summary

The Canadian Charter of Rights and Freedoms does not recognize the right to a healthy environment. I argue that a bottom-up approach to recognizing the right to environmental health in the Canadian constitution will lead to more successful and meaningful changes than possible outcomes of other approaches, given the difficulties of constitutional change. The long-term goal of David Suzuki Foundation's "Right to a Healthy Environment" 2014 Initiative is to inspire constitutional negotiation for environmental health rights, and in the short term, to generate awareness that Canadians do not have the right to a healthy environment. To reach these goals at the most local level, I have been asked to reviews progressive environmental bylaw's strengths and weaknesses and evaluate the role of municipal leadership; this includes the lessons that can be drawn from them, in terms of how municipal bylaws or declarations can have cascading effects up levels of government and/or influence provincial or federal policy.

Accordingly, I have conducted a literature review and expert interviews, which prove that environmental bylaws or bylaw propositions have both potential strengths (distinctive competencies) and weaknesses. From this foundation I propose, to those involved in bylaw implementation or revision, the following points will increase chances of success. First, create public education campaigns. A number of successful progressive bylaws, including the Toronto Pesticide Act 2009 and Montreal Sustainable Community Planning bylaw 2005, have included an educational phase as a first step. Second, gain support from strong political, social and/or financial institutions such as the Union of British Columbian Municipalities. By doing so, these environmental initiative will have a venue for voicing concerns, increase their abilities to initiate action, and will benefit from the expertise of staff within these organizations. Third, commission for cooperation from stakeholders. Cooperation may occur between various levels of government institutions within Canada, internationally or between non-governmental organizations. Cooperation may facilitate quicker responses, coordination and data availability. In addition, all experts stated cross-functional team cooperation was a key success factor to bylaw implementation. Lastly, to provide suitable resources and expectations; even the most progressive bylaw plan cannot be executed without proper resources and achievable expectations. On the contrary, bylaw weaknesses include systemic weaknesses in power structures (e.g. misaligned goals between municipal, provincial and federal governments and jurisdiction of municipalities): lack in the public's willingness to participate in bylaw regulations; insufficient implementation and enforcement; budget limitations and responsibilities; and case specific obstacles, which should be acknowledged and avoided where possible.

The latter bylaw strengths will increase meaningful change by aiding in the short-term goals of implementing progressive environmental bylaws or revising pre-existing bylaws and benefit the long-term goal of incorporating the right to a healthy environment in the Canadian Constitution.

On the role of municipal leadership, I inquired on: 1) what motivates city and council to take leadership on a given environmental, 2) what they deem to be successful and unsuccessful when developing bylaws and 3) information on their awareness of any bottom-up successes, or in other words, proven cases of where a local authority took leadership on a given issue. Results show that role requirements, mandates and regional plans; community and environmental needs; best practice cases from other municipal bodies; and comprehensive and integrated approaches are factors that serve to motivate city council in local municipalities to take leadership on environmental health issues. In terms of bottom-up successes, most experts stated examples of bylaws, regulations or local initiatives within their municipality that have been given best practice status from other municipalities within British Columbia and other provinces.

This research is intended to inform six Canadian communities with the "Right to a Healthy Environment" community initiative in 2014. Prior to informing these communities I recommend that the David Suzuki Foundation (DSF) conduct an external analysis (e.g. the

political, environmental, social, cultural, and technological context), be weary of public motivational factors (e.g. frame the initiative in a way that is clear for how it stands to benefit the public), and lastly, be open to a variety of solutions (e.g. success may come in the revision of a long-standing bylaw or forms other than new bylaw implementation).

In pursuit of arguing for environmental rights in Canada's constitution, I intend to stimulate further research on the possible resolutions to barriers within the environmental-health-related bylaw creation and implementation process; from identifying environmental needs and political and citizen interest and motivation, to implementation and enforcement at all levels of government.

Key words: Canada, Environment, Municipality, Bylaw, Right, Healthy Environment

The long-term goal of David Suzuki Foundation's "Right to a Healthy Environment" 2014 initiative is to inspire constitutional negotiation for environmental health rights, and in the short term, to generate awareness that Canadians do not have the right to a healthy environment. The tour aims to facilitate conversation between Canadians on progressive environmental and social laws. The foundation is working with David Boyd, author of "Unnatural Law" to expose the discrepancies between our environmental values and what really takes place in Canadian 'wilderness.' Canada is home to 20% of the world's fresh water supply, 20% of the worlds remaining 'wilderness', and one of the last iconic strongholds for endangered animals such as grizzly bears, caribou, and various species of wild salmon, all of which require humans to manage freshwater resources (Boyd, 2012). A benchmark public health and preventative medicine study by Frumkin also makes the important connection between human health and the natural environment (2001), in addition, 82% of Canadians say nature has very important spiritual qualities to them personally (Boyd, 2001).

In the past 30 years, progressive Canadian environmental movements and international agreements have resulted in minor successes in areas of ozone layer depletion, wildlife protected areas, and their biodiversity (Boyd, 2003). However, apart from these successes, weakness still exists in other sectors of water (e.g. fresh water, drinking water, water use and conservation, and water exports), air (e.g. ozone depletion, climate change, and air pollution), land (e.g. pesticide regulation, forest management and environmental assessment) and biodiversity (e.g. parks and

protected areas, endangered species and marine biodiversity) laws and policy. Canada is amongst the worst three countries in the Organization for Economic Cooperation and Development (OECD) on nine environmental indicators (see table below), it has been criticized by the World Economic Forum for ranking last for energy efficiency among 14 high-income countries, and the OECD stated that Canada over-consumes fresh water, exploits non-renewable resources and does not act on environmental concerns (2014 world economic forum 2011, and Boyd and University of Victoria (B.C.) Eco-Research Chair of Environmental Law and Policy 2001).

Canada's environmental ranking, compared to other OECD nations

Environmental Indicator	Per capita	Total
Air pollution: Sulphur oxides (kgs)	27 th out of 28	27 th out of 28
Climate change: Green house gas emissions (tonnes of CO ₂)	27 th out of 29	25 th out of 29
Water: consumption (m ³)	28 th out of 29	26 th out of 29
Energy: consumption (tonnes of oil equivalent)	28 th out of 29	26 th out of 29
Waste: municipal waste (kgs)	18 th out of 29	26 th out of 29
Agriculture: Pesticide use (tonnes of active ingredients)	22 nd out of 28	18 th out of 28
Biodiversity: Fisheries (amount caught, kgs)	20 th out of 29	20 th out of 28
Transportation: Road vehicles (number)	25 th out of 29	22 nd out of 29

Graph adapted from Boyd & University of Victoria (B.C.). Eco-Research Chair of Environmental Law and Policy. (2001).

All policies for these environmental indicators should be inspected including the tracking of environmental crimes from nations where environmental health is legally protected (see Girard, Day and Snider, 2010), however, here analysis is limited to evaluation of strengths and weaknesses and of municipal environmental bylaws, the role of proactive leaders in Canadian

municipalities, and an analysis of three bylaws: the Pesticide Act in Toronto (deemed successful), the banning of shark fin soup in Vancouver (mixed success but resulted in failure) and the banning of plastic bags in Toronto and Vancouver (deemed unsuccessful).

The purpose of this study is to produce evidence-based research to consult the six communities that will be a part of the "Right to a Healthy Environment" community program in 2014. In particular, a case needs to be made for the possibilities of local victories on the environmental front. The community organizing efforts in which the DSF asks residents to volunteer their time and energy towards a local campaign is unlikely to create significant constitutional change in the short-term, but is part of a broader effort that will have a lasting impact on their lives in the long-term.

Methods

Primary data was gathered by interviews conducted with environmental bylaw experts. The five interview candidates are currently staffed by Canadian municipalities or have been active in policy and bylaw creation (i.e. City Task Forces) and have assorted backgrounds, such as environmental planning, environmental engineering, and environmental coordination. The questionnaire shown below is comprised of questions aimed to expose 1) what motivates city and council to take leadership on a given environmental issue, 2) what they deem to be successful and unsuccessful when developing bylaws and 3) information on their awareness of any bottom-up successes, or in other words, proven cases of where a local authority took leadership on a given issue.



Expert Interview Questions

Geography 419: 'Research in Environmental Geography' Student Term Project

Questions:

- 1. Does your work related to environmental bylaws focus on a specific sector? (e.g. water management, contaminated sites, etc.) If yes, which sector?
- 2. What is/are your primary role(s) with regard to municipal environmental bylaws?
- 3. In your opinion, what is/are the most important factor(s) influencing the adoption of a new environmental bylaw or declaration in your municipality?
- 4. Have you championed the adoption of a new environmental bylaw or declaration? If yes, what factors most strongly influenced and motivated you to do so? Please explain.
- 5. Are you aware of any environmental bylaws or declaration that have led to more substantive changes at the provincial and/or federal government level? If yes, please elaborate.

Expert interview questions

Secondary data was gathered by conducting a multi-discipline literature review on the successes and failures of securing environmental health in Canada with various bylaw case studies, but also to gain evidence for factors that impact leadership on environmental conservation. Here, the narrative in literature of "bottom-up" approaches to resource management and environmental conservation are addressed. Bottom-up approaches are indicative of the implementation of environmental bylaws by local power structures that have limited geographical scope.

Bottom-Up Approaches to Environmental Governance

According to David Boyd, one of Canada's leading experts on environmental rights, recognizing every Canadian's right to a healthy environment in the Charter would do several things to help protect Canadians with jurisdictional limitations and the accountability of governments (2012). First, this right would be upheld in provincial and federal courts by creating and enforcing stronger environmental laws. Second, a right to a healthy environment in the constitution would hold decision-makers accountable at all levels of government for protecting human and environment health; thus, promoting a democratic society by empowering Canadian citizens to participate in decisions that affect common environmental resources. A bottom-up approach to constitutional change in environmental rights is one which begins with decentralized action at the municipal level, where a local authority takes leadership on a given issue, increases awareness, and creates meaningful changes in environmental health, leading to cascading effects up levels of government and/or result in influencing provincial or federal policy.

According to Ostrom's theory of institutional collective action over common pool resources, non-legally enforceable municipal law is bound for failure based on the premise of common pool resources and basic human behavior (1990). The traditional methods of governing natural resources are rooted in the foundations of tragedy of the commons theory, in which the more an individual stands to consume the more they gain, whereas the consequence of consumption are equally borne by all. The arguments are transferable to natural resources such soil, air, and water, where political bodies may be required govern these common resources.

Scholars argue that responsible actions on governing the commons should be incentivized (Ostom 1990 p. 18-21, Hessing, Howlett & Summerville 2005 p. 66, 157, 221, 234). Political economy on environmental enforcement, for example environmentally related taxes, has proven effective in many 'developed' nations (Findlay, Benidickson, Benevides, and Sloan, 2010). However,

governments in Canada, at all scales, have been criticized because they do not utilize economic instruments, such as incentive programs to improve environmental protection.

Bakker and Cook argue that Canadian institutions have been unable to effectively manage these common-pool resources due to decentralized action (e.g. challenges of integration, coordination and data availability); this is quite contrary to the latter argument on constitutional-choice rules as indicators of institutional robustness made by Ostrom (1990). Bakker and Cook critique the decentralized approach to environmental governance in Canada (2011).

Strengths of Progressive Municipal Bylaws I argue the following factors to strengthen the passing of bylaw propositions and keep existing bylaws in place.

- 1. **Public support, education and knowledge** will make it easier to pass progressive municipal bylaws. A study conducted by the David Suzuki Foundation has concluded that 83% of Canadians support the amendment of the Canadian Charter to include the right to live in a healthy environment (2012). Thus, Canada is currently in a situation where environmental ethics do not line up with behaviours and activities (Boyd, 2012). Additionally, results show more interest is gaged around issues directly related to human well being, such as polluted water or food, as opposed to issues that have less effect on direct human health (i.e. deforestation) (Trudeau Foundation and the Université du Québec à Montréal, 2013).
- 2. **Strong political, economic and social institutions:** Canadians have certain liberties, such as the freedom of free speech that can be used to voice environmental health concerns. Agencies, organizations, and special interest groups have the ability to initiate actions on these concerns and provide citizens with an avenue to voice concerns. This strength includes the operating staff within these organizations, and the planners and environmental professionals in charge of the

development, implementation and review of the progressive environmental bylaws.

One example of a strong political and social institution in the Union of British Columbian Municipalities (UBCM), a government agency formed "to provide a common voice for local government" (UBCM, 2012). UBCM's role is to provide opportunities for British Columbian municipalities whom share united positions on local affairs and share the need for action. These organizations also provide means for sharing experiences, best practices, and most importantly help guide bottom-up concerns by bringing local issues to the province. One of the UBCM's major environmental achievements is the Premier's directive that crown corporations will respect local zoning and land use bylaws.

- 3. Commission for stakeholder cooperation: Local governments do not feel the same pressure from international environmental agreements, and thus are less likely to act cooperatively (Boyd, 2012), thus allocating efforts to commission for cooperation between stakeholders and levels of governments will yield more success. Supplementary to this, environmental resources such as water or air do not know political, or socioeconomic boundaries, which is why increased cooperation is a necessity. According to Bakker and Cook, a centralized or federal approach may facilitate integration, coordination and data availability (2011); however, current environmental management at the federal level has also been heavily criticized by the Senate of Canada (Bakker and Cook, 2011) and could use improvement. This form of cooperation may exist between various levels of government institutions within a nation, internationally, and between non-governmental organizations.
- 4. **Suitable resources and expectations:** bylaw revisions, implementation, enforcement and monitoring are bound by the realities of available resources (Hunter, M. personal communication, February 20, 2014).

The banning of cosmetic pesticides throughout Canada is a suitable example to

external phenomena, such as political forces, provided an ideal environment for the initial success of this bylaw in Montreal. The precedent for this movement was the Supreme Court of Canada's 2001 decision in 114957 Canada Ltée (Spraytech, Société d'arrosage) v. Town of Hudson.

Hudson, Quebec championed this suit with various tools such as the precautionary principle ('better safe than sorry') and the subsidiary principle; regulation is often best pursued at the local level closest to citizens it affects (Collins 2013, and The Canadian Yearbook of International Law 2013). Strong support from health and environmental agencies, the public, and local businesses was present when the Pesticide Act passed in Toronto (Statistics Canada 2006, City of Toronto and Toronto Public Health 2003, McKeown 2005, Pesticide Free Ontario 2014), therefore, once biological and medical benefits of the ban were established and well understood by the public in once place it became easy for these ideals to take root elsewhere. So long as overarching federal or provincial laws aligned the Ontario provincial courts allowed municipalities to co-regulate this act.

Cole et al. conducted a study on this municipal policy of cosmetic or non-essential pesticide and in Toronto, Ontario prior to, during and after implementation of the policy between the years 2003 – 2008. Among the most impressive results were the decreases in the proportion of households applying pesticides 25% to 11% or hiring lawn care companies for application 15% to 5%; additionally, natural lawn care methods increased among household lawns by homeowners by 21% and companies they contracted at 7% (2011). An article by Rajsic, Ramlel, and Fox states similar findings with pesticide ban bylaws and agriculture, but also strongly enforced farmers' position on agriculture being their source of livelihood (2012).

To conclude, the banning of cosmetic pesticide in Toronto is a unique case, however, a few general forms lead to its success, which may be applied universally. The precedent case in Montreal meant the courts had to support similar cases; the Straytech vs. Husdon precedent case lead to impressive expansion in local and provincial initiatives on cosmetic pesticide use; at the

local level 150 ordinances and bylaws across Canada with 28 in BC as of 2010. Additionally, the public supported and understood the potentially harmful pesticide effects to humans and the environment, further motivating cooperation and bylaw adherence. This being the case, financial resources were set aside to monitor commercial and domestic pesticide use. On matters of suitable expectations, the public was given the alternative to use natural lawn care methods, which meant those who maintained lawns for business or pleasure could remain doing so. Today, pesticides are regulated in Canada through Health Canada's Pest Management Regulatory Agency (PMRA).

Weaknesses of Progressive Canadian Environmental Bylaws I argue the following factors to be points of weakness that create barriers in the passing of progressive environmental bylaws.

1. **Power structure (e.g. systemic weaknesses):** The municipal, provincial, and federal governments may have misaligned missions and goals and municipal levels of governments are not empowered to use the language of "rights" in their activities. Although courts have previously recognized that local laws may be best for local issues (see The Canadian Yearbook of International Law 2011), Canadian municipalities are still bound by legal limits on their authority based on the *Constitution Act, 1867*. The BC Community Charter challenges this weakness; it is a commitment, which empowers municipalities to address regulatory and corporate issues, such as the rights, obligations, procedures, and structure of municipal activity (Lidstone, 2007). Knowing this, pursuing a similar meaningful charter should be a first step when the "Right to a Healthy Environment" initiative is working with communities outside of BC.

The barrier of power structures and jurisdiction is perfectly exemplified by the 2008 case of Vancouver councilor Tim Stevenson's motion to ban plastic bags from the city. Metro Vancouver did not have any statutory power to regulate plastic bag distribution so the province

vetoed the plan. In Toronto, a similar bylaw was rejected as a result of a variety of legal threats and challenges from the plastics industry.

2. **Public willingness to participate:** When Vancouverites were asked, "What do you feel are the most important local issues facing the city at the present time?" no environmental-health related concerns were listed in the top five issues in either 2013 or 2014 (Ballem, Ed. 2014). Amongst the top two issues were transportation (bike lanes, traffic, parking, road safety), and housing and homelessness in both 2013 and 2014 (Ballem, Ed. 2014).

Although public support has been identified as a strength of environmental bylaws, public willingness to participate is a major barrier. Literature suggest that weaknesses such as lack public participation may be altered based on the relationship between the citizens and root environmental factors; for instance, the Trudeau survey claims people are more likely to support environmental bylaws if they themselves directly benefit (2012). A segmentation survey has identified two participatory challenges that the David Suzuki foundation should consider with "The Right to a Healthy Environment" initiative. Firstly, although Canadians are enthused at the idea of the initiative, their willingness to contribute their own time for meaningful action is low (labeled as "enviro-slacktivists"). Secondly, those against the initiative have a potentially large influence when voicing their opinion. They conclude by stating there should be a segment analysis to consider a target audience, but also to identify and assess skeptics (Angus Reid Public Opinion, 2012). Additionally, Boyd has identified a lack of meaningful opportunities for public participation or enforcement to be a hindrance (see Boyd, 2003).

3. **Insufficient implementation and enforcement**: Middle and upper managers deploy resources, but if management does not believe in the cause they may not be keen to allocate resources appropriately. Additionally, if the policy implementation results in cost savings, the implication is

larger than needed, unjustifiable budget that may result in budget cutbacks. Middle and upper management typically oppose resource or budget cuts, thereby their position for this cause may diminishes (Zelmer, M. personal communication, April 1, 2014). Similar findings between financing and compliance are raised by Heyes (2000) and in some instances this has led to excessive discretion (Boyd, 2003) and bureaucracy, which can deter or delay environmental manager compliance. If taking a bottom-up approach, one should be aware of local bureaucratic structures, where the loyalty lie of those involved and how those involved, especially management, are incentivized.

4. **Budget limitations and responsibilities**: Lack of financial resources is a clear barrier to success; for instance: the environmental sustainability grants and sustainability funds were reduced by \$400,000 and \$500,000 respectively for City of Vancouver in 2014 (refer to table below for budget trends). Another funding issue raised is Canada's excessive reliance on volunteer initiatives (Boyd, 2012), thereby, increasing vulnerability in cases where initiatives are insecure.

BUDGET TREND TABLE

The following table summarizes the year-to-year budget figures from 2010 to 2013 and the 2014 proposed budget. The following paragraphs discuss the year-to-year changes in more detail.

Major Category (\$ million)	2010B	2011B	2012B	2013 Budget*	2014 Proposed Budget
Revenues					
Parking Residential Permit Sales	0.8	0.8	0.8	1.0	1.0
Cost Recoveries, Grants and					
Donations Engineering Services	0.0	0.0	0.0	0.0	0.0
Other					
Transportation	2.2	2.7	4.5	4.5	4.5
Street Use Fees	1.0	1.1	1.1	1.1	1.1
Sustainability Grants	1.2	1.2	3.4	3.4	3.0
Total Revenues	\$ 5.3	\$ 5.8	\$ 9.9	\$ 10.0	\$ 9.6
Expenditures					
Street Maintenance	24.3	23.7	24.1	24.2	24.2
Parking Operations	14.2	15.6	15.7	16.6	17.0
General Public Works	12.1	9.7	15.0	14.5	14.6
Street Cleaning	8.9	9.1	7.4	7.0	7.3
Lighting Maintenance	5.5	5.7	5.0	5.0	5.2
Sustainability	1.6	1.7	4.3	4.2	3.7
Transportation	4.4	4.7	3.5	3.3	3.2
Total Expenditures	\$ 71.0	\$ 70.3	\$ 74.9	\$ 74.8	\$ 75.2
Net Operating Budget	\$ (65.7)	\$ (64.5)	\$ (65.1)	\$ (64.8)	\$ (65.6)
Capital Budget	\$ 81.7	\$ 61.1	\$ 63.5	\$ 85.4	\$ 93.2

Note: Some figures may not add due to rounding

Budget trend table, from Ballem (Ed.) 2014 Capital and Operating Budget (Report no. 1)

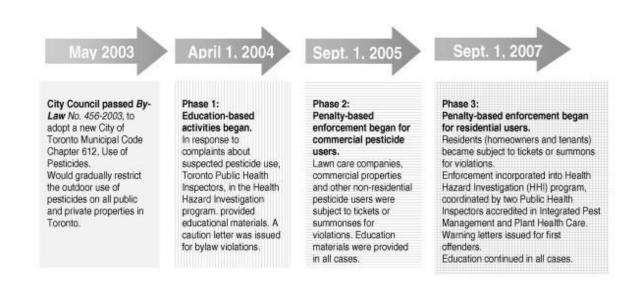
5. Case Specific Obstacles: Obstacles are the context specific barriers that face most environmental bylaws. External analysis of political, environmental, social, cultural, and technological factors need to be considered. The attempt to ban shark fin soup in Toronto and Metro Vancouver demonstrates this. In 2012, Burnaby, Vancouver and Richmond worked together to simultaneously ban shark fin soup. This municipal ban was a good strategy; first, because a simultaneous ban would prevent consumers from purchasing the soup elsewhere in Metro Vancouver, and second, issues of individual animal cruelty are best handled by domestic policy as opposed to nationally (The Canadian Yearbook of International Law, 2011). However, courts struck down the ban in Toronto and lower mainland municipalities have had to put the ban

^{*} The 2013 Operating Budget has been restated for re-organizations between departments to be comparable with 2014.

on hold, as it could not be held up in court. The ban was overturned because bylaw had "no force or effect" in Ontario's supreme court (Curtis and Lipovsek, 2013).

Although the municipal legal environments were no different than that in the case of the cosmetic pesticide ban, the shark fin soup bans failed to consider all external factors including cultural perceptions of the boundaries of acceptable behavior or cultural use, which led to the Chinese communities in these municipalities to protest the ban. Shark fin soup is an important part of the Chinese culture as it is served at weddings and special events.

In conclusion, cases exist such as The Sustainable Community Planning bylaw in Montréal, the Municipal Queen Procurement bylaw in Richmond, the BC Carbon Tax, the climate change policies in Calgary, the Tree Management bylaw in Vancouver, the Idling Control in Toronto, the Sewer Use Bylaw in Toronto, and the Sustainable building design policies, in which implementation of new progressive bylaws can be successful. In addition to these cases, the figure below shows one possible successful bylaw implementation model:



A successful bylaw implementation model (Toronto Pesticide Act) from http://www.toronto.ca/health/hphe/pdf/pesticide law0456.pdf

Expert Answers

The most important factors influencing the adoption of a new environmental bylaw, and what factors most strongly influence leadership on environmental issues, can be grouped into the broader categories of: bottom-up pressure, mandates, support, and education. First is public or bottom-up pressure; this pressure varies on depending on the severity of impact the bylaw or issue has on the citizen's day-to-day life and how knowledgeable the citizen is on the issue (anonymous expert, personal communication, February 24, 2014).

Second are mandates. Bylaw goals should align with official community plans (OCP), senior regulations and broader vision from metro Vancouver regional plans. The key elements of protection, mitigation, enhancement and restoration, and due diligence should exist within those bylaws (Stott, R. personal communication, February 28, 2014). In addition, environmental stewardship for municipalities who lead by example reduces vulnerability to failure (Hunter, M. personal communication, February 20, 2014).

Third is support, which comes in a variety of forms such as internal research, clear direction, support on enforcement (implementation) and resources and affordability. Support for the bylaw itself can be divided into political and managerial. Managerial support mostly effects the implementation of a bylaw. It is crucial to use middle and upper city management who see the value of the bylaw to engage all their staff to believe in the efforts (Zelmer, M. personal communication, April 1, 2014). Political support varies based on which political parties are in power and which bylaw tools they use to leverage campaigns and secure votes. If supporting political parties do not get into power, the opposing parties will commonly eliminate those bylaw or policy initiatives (Zelmer, M. personal communication, April 1, 2014). Fourth, is education, inclusion and collaboration. This involves adaptive management, teamwork and enhanced methods of communication, as well as long-term impact assessment (Frumkin 2001, and Stott, R. personal communication, February 28, 2014).

The experts addressed several examples of municipal leadership from Metro Vancouver.

The most commonly stated was the "Meet or Beat" authority in which the province allows municipalities to choose to meet or beat provincial environmental standards. Most municipal staff interviewed stated they have beaten provincial standards within sectors they excel in, such as rainwater run off management and streamside restoration, site plan review, and greenhouse gas emission bylaws. By beating provincial standards successfully these municipalities are setting the standards for other Canadian municipalities whom seek their bylaw models and policies as best practice examples.

All of these expert answers are conditioned to scale and context specificity (Coulson, K. personal communication, March 4, 2014), as evident by the banning of plastic bags in the tiny community of Leaf Rapids, Manitoba, which was the first community in Canada to ban plastic bags in April 2007; this ban was not championed in large metropolitan regions in Canada such as Toronto and Vancouver.

Recommendations and Implementation Strategies

When the David Suzuki Foundation is mentoring local communities on collective action, it needs to consider first conducting an external analysis, meaning the political, environmental, social, cultural, and technological context of the environmental bylaw. Second, it must consider motivation; frame the initiative in a way that is clear for how it stands to benefit the people involved. In a 2013 segmentation survey, 40% of participants claimed that the environment did not affect their personal health (Trudeau Foundation and the Université du Québec à Montréal, 2013).

Third, they must be open to a variety of solutions; in numerous cases bylaws have been in place for decades with service models already in place. Revising outdated bylaws by improving management technique, service delivery, bylaw designs, and council resolutions may be more effective than implementing new bylaws (Hunter, M. personal communication, February 20,

2014). Compromises in a multi-stakeholder dynamic should also be considered victorious; for instance, the 5 cent plastic bag fee in Toronto was an effective compromise where there existed pressure to ban plastic bags. Fourth, they must use the "others have done it" approach in order for the participants to know meaningful change is possible.

Conclusion

These arguments and findings aim to inform and educate the Canadian public that they currently do not have the right to a healthy environment, unlike 177 other countries whose environmental health is protected in some form nationally:



Map by David Boyd showing which nations recognize the right to a healthy environment (2012)

Future research should be considered on the tracking of environmental crimes from nations where environmental health is legally protected similar to the longitudinal study done by Girard, Day and Snider in 2010 in order to determine best methods of implementation and enforcement. Also, lessons may be learnt from aboriginal communities as they have a unique

governing system as well as differing cultural views with regards to nature and wilderness. For instance, many aboriginal communities relate to the natural environment at a physical but also spiritual level, and this may impact the means by which they govern the health of their environment.

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