EXPLORING WATER INSECURITY IN CANADIAN INDIGENOUS COMMUNITIES

A LITERATURE REVIEW

Ayotunde Omosule

Environmental Policy Institute

Grenfell Campus, Memorial University

December 2017



Literature Review

Exploring Water Insecurity in Canadian Indigenous Communities

Abstract

The state of water insecurity in Indigenous communities across Canada is alarming and this continuing challenge is deep-rooted in the colonial history that has generated a state of disconnectedness of Indigenous people from their water and its governance. Water insecurity in Canadian Indigenous communities is worrisome and necessitates the justification of this review because of the following: (1) water is a universal right, (2) physical, health & mental hazards are associated with water insecurity, (3) Canada is a uniquely rich country with abundance of natural resources including access to vast reserves of water. (4) Indigenous people hold spiritual and cultural connection to water, (5) majority of urban residents in Canada enjoy potable water, (6) many Indigenous communities, especially rural and Northern lack access to safe drinking water. It is against this backdrop that this study aims to present a review of the existing literature on water insecurity in Indigenous communities across Canada with a view to better understanding the situation faced by these communities. The review will focus on the challenges, proposed and implemented/attempted policy responses.

TABLE OF CONTENTS

Abstract1
Table of Contents
1.0. Introduction5
1.1 Colonial Dynamics as Roots of the Indigenous Drinking Water Disconnect6
1.2 Responsibility for Safe Drinking Water in Indigenous Communities7
1.3 Challenges to Water Insecurity in Indigenous Communities
1.4 How does Water Insecurity Impact Indigenous Communities?
2.0 Policy Responses
(a). The First Nation Water Management Strategy (FNWMS)11
(b). First Nations Water and Wastewater Action Plan (FNWWAP)11
(c). National Assessment of First Nations Water and Wastewater Systems12
(d). Safe Drinking Water for First Nations Act
(e). The Trudeau Promise

2.1. Present Situation	14
3.0 Conclusion.	14.

List of Abbreviations

FNWMS - The First Nation Water Management Strategy

FNWWAP - First Nations Water and Wastewater Action Plan

INAC - Indigenous & Northern Affairs Canada

GCDWQ - Guidelines for Canadian Drinking Water Quality

INTRODUCTION

1.0. <u>Introduction</u> ¹

The majority of Canadians have access to piped water (Hanrahan et al., 2017) and 100% of urban residents are classified as having access to improved drinking water and sanitation (Boyd, 2011). Yet, Indigenous communities continue to remain marginalized. "Indigenous people are ninety times more likely than other Canadians to lack piped water" (Hanrahan et al., 2017, pg. 69). These communities are "at ground zero" for many of the water security-related issues in Canada (Norman & Bakker, 2010, pg.1) and the level of water insecurity in many of Canada's Indigenous communities has been described to be on an "extreme scale" (Hanrahan et al, 2014, pg.1).

As far back as 1995, about 25% of water systems in First Nations on-reserves were classified as posing safety risks (Auditor General, 2005)², a subsequent follow up assessment in 2001 revealed a more precarious situation that about three quarters of drinking water systems on First Nation reserves posed significant risks. Furthermore, water systems of 97 First Nation communities were classified as high risk during a progress report by the Department of Indian Affairs and Northern Development in March 2007.³

This is a worrisome situation and Patrick has rightly noted that "the contamination of a public water supply in a developed country such as Canada is unexpected" (Patrick, 2011, pg.1). This

¹ It is acknowledged that the first section of this review (section 1) is a revised version and edition of sections 1.0 – 1.03 of my 2017 Master's thesis.

² National Assessment by the Department of Indian Affairs and Northern Development (DIAND) and Health Canada

³ Information on the present situation is provided in the next chapter

presents a paradox because many Indigenous communities lack access to potable drinking water in a country which is observed to be the world's second-largest per capita user of water (Sarkar et al., 2015).

1.1 Colonial Dynamics as Root of the Indigenous Drinking Water Disconnect.

The disconnectedness of Indigenous people from their water and its governance is deep-rooted in the colonial history between Canada and its Indigenous people (Sarkar et al., 2015; White et al., 2015). The reasons for the continuing inequitable access to safe drinking water in Indigenous communities across Canada can be traced to "entrenched colonial and racist policies, programs and practices", which have continued to persist over time (Castleden et al., 2017, pg.69). For example, LaBoucane noted how the distortion of the sacred relationship of the Cree people in Alberta with their water was facilitated through colonization and its associated policies. . (LaBoucane et al., 2012)

The longstanding colonial power dynamics and struggle between Canada and Indigenous people stems from Indigenous exclusion arising from the opposition by Indigenous people to neoliberalist ideas, which Hanrahan et al. (2017) explain poses a threat to the Canadian identity. As a result, Hanrahan et al. (2017) add that Indigenous worldviews are constantly being challenged and Indigenous people have become marginalized. In many cases, this brought about coerced relocation to sites with fewer water resources, contaminated water and deplorable water conditions (Sarkar, 2015).

The status of Indigenous people as politically autonomous with self-governance systems and controlling access over Indigenous lands became jeopardized with the Indian Act of 1876 which

brought about acts of oppression on Indigenous people (LaBoucane-Benson et al, 2012). Consequently, Indigenous people became divorced from their distinctive cultures, exposed to coerced relocation from their lands, and forced into residential schools, amongst other affects (Hanrahan et al., 2017). The oppressive and discriminatory nature of the Indian Act is well studied (See Lavoie et al., 2010; Verwaayen, 2013; Kirmayer et al., 2003 & Coates, 2008) and this explains the statement by LaBoucane et al (2012) that "the Indian Act was in no way a fair or equitable piece of legislation; rather, it was an Act to institute internal colonization" (Pg.11).

Notwithstanding the colonial past and struggles of Indigenous people, Coombes et al (2012, pg.692) emphasized that researchers are "casting aside their past treatment of Indigenous peoples as victims of neo/colonial relations and are instead detailing small triumphs in Indigenous service provision and in the other activities of Indigenous organizations".

1.2 Responsibility for Safe Drinking Water in Indigenous Communities

In Canada, the provision of drinking water typically lies within the domain of the provincial governments. However, the Canadian government has a fiduciary responsibility to Indigenous people as a result of the Indian Act and the Constitution (section 35). The implication of this is that the management of water in Indigenous communities is a federal responsibility⁴ (White et al., 2015).

This responsibility of the federal government to Indigenous communities is executed through the Indigenous & Northern Affairs Canada and Health Canada (INAC). INAC is saddled with the

-

⁴ The situation in Newfoundland and Labrador, Eastern Canada differs as the lead authority for drinking water management in Indigenous communities is the provincial government. This is because of the exclusion and non-recognition of Aboriginal groups in the 1949 Terms of Union between Canada and Newfoundland and Labrador.

primary responsibility of ensuring the constitutional, political and legal responsibilities of the federal government to First Nations and it does this via the provision of funding and advisory activities. Health Canada is responsible for the monitoring of water quality in First Nations and in accordance to the Guidelines for Canadian Drinking Water Quality (GCDWQ). On the other hand, First Nations themselves are saddled with the responsibility for the daily maintenance of water systems including addition of chlorine.

1.3 Challenges to Water Insecurity in Indigenous Communities

Linked to the above referenced colonial history and present, the water security challenges experienced in Canadian Indigenous communities revolve around water quality and quantity, accessibility, wastewater and sewage management (Hanrahan et al., 2017). Various factors have been offered as the challenges to safe, clean drinking water in Indigenous communities across Canada, including but not limited to: lack of funding, remote location of many Indigenous communities, lack of trained water operators, infrastructural setbacks (e.g. equipment malfunction), jurisdictional overlap between federal/provincial government and Indigenous communities, climate (e.g. summer temperatures, high level of turbidity), lack of implementation of water policies & legislation, gaps in legislation and lack of accountability mechanisms (Auditor General, 2005; Boyd, 2011; Galway, 2016; Hanrahan, 2017; McGregor, 2012; Hanrahan et al., 2014).

Jurisdictional overlap in terms of water governance is made complicated by the lack of a unified governance system and the decentralized water structure in Canada which incorporates the

involvement of multiplicity of actors and institutions⁵. The lack of a unified system is encapsulated in the statement of Hanrahan (2017, pg.75) that, "there is no national unified water governance system, no national enforceable drinking water standards and no standardized measures for water governance". While the federal government publishes the unenforceable Guidelines for Canadian Drinking Water Quality (GCDWQ) through Health Canada, the provinces and territories are saddled with the primary responsibility of providing safe, drinking water and which further delegates service delivery to municipal governments (Mercer & Hanrahan, 2017).

This shift from government to governance has the effect of saddling small, rural and Indigenous communities with tasks that are normally within the province's domain (Hanrahan & Dosu Jnr, 2017). The implication of this for small and rural communities is that it often includes off-loading to smaller communities often with limited means. This is true for Indigenous communities as well, which have taken on greater responsibilities for service provision in recent decades (Alcantara & Nelles, 2014; Coombs et al., 2012).

Yet Indigenous communities have employed and are still employing various strategies to cope with and adapt to these water challenges. Some of these strategies are water conservation practices such as water recycling (the use of the same water for more than one purpose), reliance on bottled water or distilled water, infrastructural developments, source water protection, user-pay based water treatment systems etc. (Auditor General, 2005; Sarkar et al., 2015; Hanrahan et al., 2016, Hanrahan & Dosu, 2017).

⁵ The responsibility for provision of drinking water is a shared one between various levels of government: federal, provincial and local governments.

1.4 How does Water Insecurity Impact Indigenous Communities?

Water is life for many Indigenous people (Chief et al, 2016) and the impact of water insecurity can be alarming, if not disastrous. Health related hazards have been associated with water insecurity in Indigenous communities across Canada. These include cases of gastro-intestinal infections, giardia infections, influenza, whooping cough (pertussis), shigellosis, impetigo and aggravated obsessive compulsive orders (Boyd, 2011; Lam et al., 2017; Hanrahan et al., 2014).

Asides health related hazards, water insecurity also impacts the spiritual wellbeing and cultural way of life of Indigenous people (Lam et al., 2017). This stems from the fact that water is considered as life by many Indigenous people and as a result, it is treated as sacred (Assembly of First Nations; McGregor, 2012; Boyd, 2011; Chief et al., 2016). Water is used by Indigenous people for religious and cultural purposes such as purification, prayers and other ceremonies (Chief et al., 2016; McGregor, 2012), which water insecurity therefore adversely impacts.

For instance, the Water Walkers movement in Wikiwemikong Unceded First Nation, Ontario, Canada embarked on a spiritual walk in 2002 around the perimeter of Lake Superior with buckets of water to challenge the desecration of their community lakes and traditional waters as a result of environmental pollution. As explained by one of the leaders of this movement, Josephine Mandamin, "This journey with the pail of water that we carry is our way of Walking the Talk...Our great grandchildren and the next generation will be able to say, yes, our grandmothers and grandfathers kept this water for us!!" (Bedard, 2008, pg. 104, cited by Corntassel, 2012, pg.94).

2.0 Policy Responses

The disparity in the access to clean, safe, drinking water between Indigenous and non-Indigenous communities has brought about different policy initiatives and responses by the federal government. In addition to the national assessments and reports by the Department of Indian Affairs and Northern Development (DIAND) noted in the introductory chapter, the following are other policy responses by the federal government.

(a). The First Nation Water Management Strategy (FNWMS)

The FNWMS commenced in May 2003 as a five-year strategy (2003-2008) and during which the federal government invested approximately \$1.6 billion (Indigenous & Northern Affairs Canada, 2010). It was premised on a seven-part plan which was centered on increasing the capacities of First Nation communities with respect to water, wastewater, maintaining drinking water safety and meeting water quality standards, amongst others (Indigenous & Northern Affairs Canada, 2010; Morrison et al, 2015).

(b). First Nations Water and Wastewater Action Plan (FNWWAP)

The FNWWAP was introduced in 2008 by the federal government.⁶ It was introduced with the core objective of bridging the gap in drinking water quality between First Nation communities on reserve and other Canadian communities of similar size and location (Indigenous & Northern Affairs Canada, 2012).

_

⁶ Aboriginal Affairs and Northern Development Canada and Health Canada were the two lead federal departments involved in the implementation of the FNWWAP

The FNWWAP was meant to ensure the provision of drinking water and wastewater services of comparable standards between First Nation communities and non-First Nation communities (Indigenous & Northern Affairs Canada, 2012; Treasury Board of Canada, 2015).

The FNWWAP focused on the following five key areas: infrastructure investments; operations and maintenance; training; monitoring and awareness; and standards.

(c). National Assessment of First Nations Water and Wastewater Systems

The federal government engaged an independent contractor from September 2009 - November 2010 to conduct a national assessment of water and wastewater systems in 97 % of First Nations across Canada by inspecting 4,000 water and wastewater systems serving 571 First Nation communities (Indigenous & Northern Affairs Canada, 2011). The purpose of the assessment was to help the federal government, through the Department of Aboriginal Affairs and Northern Development Canada to address water and wastewater issues in First Nations. The result of the national assessment was released in July 2011 and the recommendations from it were classified into three main groups as follows: infrastructure, capacity and operations, and standards and regulations.

(d). Safe Drinking Water for First Nations Act

The Safe Drinking Water for First Nations Act was passed in June 2013 and came into force on November 1, 2013 (Government of Canada, 2013). It was introduced with the primary aim of establishing a legally binding safe drinking water standard for First nations. This was consequent on the premise that since there were legally binding safe drinking water standards for provinces

and territories, there was also the need to establish same for First Nations (Indigenous & Northern Affairs Canada, 2017; Government of Canada, 2013).

(e). The Trudeau Promise

During the 2015 electioneering campaign period, the incumbent Prime Minister, Justin Trudeau, (the then contestant on the platform of the Liberal party) made a promise to end all long-term drinking water advisories in First Nations across Canada within five years (CBCnews, 2015). To this end, the Government of Canada dedicated \$1.8billion in the 2016 budget (CBCnews, 2017) and its projection to lift all long-term drinking water advisories in public water systems by 2021 is graphically depicted below.

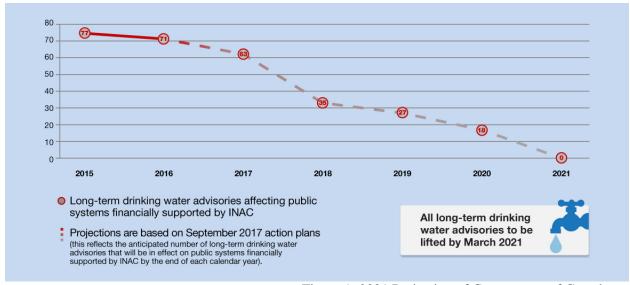


Figure 1: 2021 Projection of Government of Canada

Source: Indigenous & Northern Affairs, 2017

Although this promise signals a ray of hope for Indigenous communities, it also raises the question to be answered: to what extent will this promise be fulfilled? The answer to this question will to a large extent depend on the relationship between the federal and Indigenous

governments. The actions of the Indigenous communities themselves will also play a vital role in determining the extent to which the promise by Trudeau will be fulfilled.

2.1. Present Situation

As noted above, increased concern with the inequitable access to water between non-Indigenous and Indigenous communities in Canada has brought about increased funding, research support, activities and strategies with a bid to mitigating this disparity (Castleden et al., 2017). Nonetheless, the status quo appears to remain unabated as safe drinking water remains elusive for many Indigenous people across the country.

As of 31st October, 2017, the Government of Canada reported a total of 147 drinking water advisories in public water systems in First Nations communities across Canada, which comprised of 100 long-term drinking water advisories and 47 short-term drinking water advisories⁷ (Government of Canada, 2017).

3.0 Conclusion

Despite substantial efforts by the federal government to provide Indigenous communities with safe, clean drinking water, the situation unfortunately remains unchanged. Drinking water problems continues to challenge Indigenous than non-Indigenous communities across Canada, with many Indigenous communities facing "deplorable water sources and standards" (Castleden et al., 2017, pg. 72). This indicates a serious problem which poses an existential threat to Indigenous communities. The continuing water security challenges permeating Indigenous

-

⁷ By long-term drinking advisories, it is meant that the advisory has been in place for more than a year while short-term advisories means a temporary water quality issue on a specific water system (Health Canada, 2017)

communities across Canada despite governmental efforts calls for the examination of other avenues and indicates that further research is needed on how to change the status quo. It is however anticipated that the Trudeau promise referenced above will help put an end to all long-term drinking water advisories by 2021 or will at least, go a long way in reducing the number of long-term water advisories in effect by 2021.

References

Alcantara, C., & Nelles, J. (2014). Indigenous peoples and the state in settler societies: toward a more robust definition of multilevel governance. *Publius: The Journal of Federalism*, 44(1), 183-204.

Auditor General, 2005, Report of the Commissioner of the Environment and Sustainable Development, retrieved from www.oag-bvg.gc.ca/internet/docs/c20050905ce.pdf, accessed 25th August, 2017

Bakker, K. (2007). Commons or Commodity? The Debate over Private Sector Involvement in Water Supply. In K. Baker (Ed.) Eau Canada: The Future of Canada's Water. Vancouver: UBC Press.

Boyd, D. (2011). No Taps, No Toilets: First Nations and the Constitutional Right to Water in Canada, McGill Law Journal, Vol.57 (1), 81-134

Branco, M., & Henriques, P.D. (2010). The political economy of the human right to water. *Review of Radical Political Economics*, 42(2) 142-155.

Castleden, H., Hart, C., Cunsolo, A., Harper, S., & Martin, D. (2017). Reconciliation and relationality in water research and management in Canada: Implementing indigenous ontologies, epistemologies, and methodologies. In *Water Policy and Governance in Canada* (pp. 69-95). Springer International Publishing.

CBCnews, (2017), retrieved from http://www.cbc.ca/news/politics/boil-water-suzuki-report-1.3973229, accessed 23rd May, 2017.

CBCnews, (2015), retrieved from http://www.cbc.ca/news/politics/canada-election-2015-justin-trudeau-first-nations-boil-water-advisories-1.3258058, accessed 23rd May, 2017.

Chief, K., Meadow, A., & Whyte, K. (2016). Engaging Southwestern Tribes in Sustainable Water Resources Topics and Management. Water, Vol. 8(8), 1-21

Coates, K. (2008). The Indian Act and the future of Aboriginal governance in Canada. National Centre for First Nations Governance, retrieved from fngovernance.org/ncfng_research/coates.pdf, accessed 20th August, 2017

Coombes, B., Johnson, J. T., & Howitt, R. (2012). Indigenous geographies II: The aspirational spaces in postcolonial politics–reconciliation, belonging and social provision. *Progress in Human Geography*, Vol. *37*(5), 691-700.

Galway, L. (2016). Boiling over: A Descriptive Analysis of Drinking Water Advisories in First Nations Communities in Ontario, Canada. *International journal of environmental research and public health*, Vol. 13 (5), 505.

Government of Canada, 2017, Drinking Water Advisories: First Nations south of 60, retrieved from www.aadnc-aandc.gc.ca/eng/1506514143353/1506514230742, accessed 3rd December, 2017

Government of Canada, 2013, Safe Drinking for First Nations Act 2013, retrieved from http://laws-lois.justice.gc.ca/eng/acts/S-1.04/page-1.html, accessed 25th August, 2017.

Hanrahan, M. (2017). Water (in) security in Canada: national identity and the exclusion of Indigenous peoples. *British Journal of Canadian Studies*, Vol. 30 (1), 69-89.

Hanrahan, M., & Jnr, B. D. (2017). The Rocky Path to Source Water Protection: A Cross-Case Analysis of Drinking Water Crises in Small Communities in Canada. *Water*, *9*(6), 1-14

Hanrahan, M., Sarkar, A., & Hudson, A. (2014). Water insecurity in Indigenous Canada: a case study of illness, neglect, and urgency. In *St. John's, Newfoundland and Labrador, Canada: International Conference on Marine and Freshwater Environments*, Vol. 1, 1-9, retrieved from http://nlwater.ruralresilience.ca/wp-content/uploads/2014/09/iMFE-Paper-Submission-Revised-August-2014.pdf, accessed 10th May, 2017.

Indigenous & Northern Affairs Canada, 2017, Safe Drinking Water for First Nation Communities, retrieved from http://www.aadnc-aandc.gc.ca/eng/1506514143353/1506514230742, accessed 3rd December, 2017.

Indigenous & Northern Affairs Canada, (2017), Safe Drinking Water for First Nations Act, retrieved from https://www.aadnc-aandc.gc.ca/eng/1330528512623/1330528554327, accessed 25th August, 2017.

Indigenous & Northern Affairs Canada, (2012), First Nations Water and Wastewater Action Plan, retrieved from http://www.aadnc-aandc.gc.ca/eng/1313426171775/1313426357946, accessed 25th August, 2017

Indigenous & Northern Affairs Canada, (2011), Fact Sheet - Understanding the Results of the National Assessment, retrieved from https://www.aadnc-aandc.gc.ca/eng/1313683655131/1313684039612, accessed 25th August, 2017

Indigenous & Northern Affairs Canada, (2010), First Nations Water Management Strategy, retrieved from http://www.aadnc-aandc.gc.ca/eng/1100100010369/1100100010370, accessed 25th August, 2017.

Kanaaneh, H., Mckay, F., & Sims, E. (1995). A Human rights approach for access to clean drinking water: a case study. *Health and Human Rights*, Vol.1(2), 190-204.

Kirmayer, L., Simpson, C., & Cargo, M. (2003). Healing traditions: Culture, community and mental health promotion with Canadian Aboriginal peoples. *Australasian Psychiatry*, Vol. *11*(sup1), S15-S23.

LaBoucane-Benson, P., Gibson, G., Benson, A., & Miller, G. (2012). Are we seeking Pimatisiwin or creating Pomewin? Implications for water policy. *International Indigenous Policy Journal*, Vol. 3 (3), 1-22

Lam S., Cunsolo, A., Sawatzky, A., Ford, J., & Harper, S. (2017). How does the media portray drinking water security in Indigenous communities in Canada? An analysis of Canadian newspaper coverage from 2000-2015, BMC Public Health, Vol. 17 (282), 1-14.

Lavoie, J., Forget, E., & Browne, A. (2010). Caught at the crossroad: First Nations, health care, and the legacy of the Indian Act. *Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health*, Vol.8 (1), 83-100.

Mercer, N & Hanrahan, M. (2017). "Straight from the heavens into your bucket": domestic rainwater harvesting as a measure to improve water security in a subarctic indigenous community, *International Journal of Circumpolar Health*, Vol. 76 (1)

McGregor, D. (2012). Traditional Knowledge: Considerations for Protecting Water in Ontario, International Indigenous Policy Journal, Vol.3 (3), 1-21

Morrison, A., Bradford, L., & Bharadwaj, L. (2015). Quantifiable progress of the First Nations Water Management Strategy, 2001–2013: ready for regulation?. *Canadian Water Resources Journal/Revue Canadienne des Ressources Hydriques*, Vol. 40 (4), 352-372.

Norman, E., & Bakker, K. Cook, C., Dunn, G., & Allen, D. (2010). *Water security: a primer*. Program on Water Governance, University of British Columbia.

Salman, S. (2014). The human right to water and sanitation: is the obligation deliverable? *Water International* 39(7), 969-982.

Sarkar, A., Hanrahan, M., & Hudson, A. (2015). Water insecurity in Canadian Indigenous communities: some inconvenient truths. *Rural and remote health*, Vol.15 (3354), 1-14.

Treasury Board of Canada Secretariat, (2015), retrieved from https://www.tbs-sct.gc.ca/hidb-bdih/initiative-eng.aspx?Hi=72, accessed 25th August, 2017

Verwaayen, K. (2013). Losing Ground/Standing Ground as We Speak. Zeitschrift für Kanada-Studien, Vol. 33, 78-97.