

Access to Drinking Water and Sanitation Infrastructure in Inuit Nunaat

Joint Submission by Inuit Circumpolar Council and Inuit Tapiriit Kanatami to the UN Special Rapporteur on the Human Rights to Safe Drinking Water and Sanitation

August 2021



About Inuit Circumpolar Council

Inuit Circumpolar Council (ICC) is a non-governmental organization that works to advance the shared priorities of Inuit living throughout Inuit Nunaat through research, advocacy, and representation. Inuit Nunaat is the Inuit homeland encompassing Inuit communities located in Chukotka, Alaska, Canada, and Greenland. ICC's mandate is determined by delegates to the organization's quadrennial General Assembly. General Assembly delegates develop the organization's mandate and appoint a Chair that serves a four-year term. To date, the Chairpersonship rotates between Alaska, Canada, and Greenland. Implementation of ICC's mandate is led by the Chair and Executive Council, whose activities are supported by the organization's offices in Anadyr, Anchorage, Ottawa, and Nuuk.

About Inuit Tapiriit Kanatami

Inuit Tapiriit Kanatami (ITK) is the national representative organization for Inuit in Canada, the majority of whom live in Inuit Nunangat, the Inuit homeland encompassing 51 communities across the Inuvialuit Settlement Region (Northwest Territories), Nunavut, Nunavik (Northern Quebec), and Nunatsiavut (Northern Labrador). Inuit Nunangat makes up nearly one-third of Canada's landmass and 50% of its coastline. The voting members of the ITK Board of Directors are democratically elected by the beneficiaries of their respective land claims agreements, and Directors in turn elect the ITK president. ITK therefore represents the rights and interests of Inuit at the national level through a democratic governance structure that represents all Inuit regions. ITK advocates for policies, programs, and services to address the priorities identified by our people.

About Inuit

Inuit are an Indigenous people whose territory, Inuit Nunaat, encompasses Inuit communities located in Chukotka (Russian Far East), Arctic Alaska, Inuit Nunangat (Arctic Canada, including the Inuvialuit Settlement Region, Nunavut, Nunavik, and Nunatsiavut), and Kalaallit Nunaat (Greenland) (see Appendix I: Inuit Nunaat Communities Represented by ICC). Inuit Nunaat predates the Russian Federation, U.S., Canada, and Kingdom of Denmark and is a distinct geographic, cultural, and political region that includes major marine areas, inland waters and Arctic and offshore areas, as well as ice-covered lands and waters. Our language, culture, and way of life are tied to the lands, waters, and ice of Inuit Nunaat and the harvesting activities that sustain our people and communities. Inuit have entered into a variety of governance arrangements with States and sub-national governments throughout Inuit Nunaat that are premised on State recognition of our collective rights, including constitutional recognition, Inuit land claims agreements, self-government arrangements, and Inuit-specific policy initiatives advanced in partnership with States and sub-national governments. Areas of Inuit jurisdiction continue to evolve throughout Inuit Nunaat.

Overview

Inuit communities are located in four countries and access to drinking water and sanitation are influenced by many factors, including local, regional, sub-national and national policies and statutes, geography, climate, and professional capacity for procuring and managing new and existing infrastructure. Water and sanitation infrastructure and services in Inuit communities are influenced by different orders of government, including regional, sub-national, and national governments. National and subnational water quality standards, including systems for surveying drinking water quality, are often monitored and enforced through cooperation between different orders of government. Availability of data and information about the status of drinking water and sanitation infrastructure in Inuit communities as well as the ability of Inuit to exercise our right to water and sanitation therefore vary significantly by jurisdiction.

The availability and quality of data and information about drinking water and sanitation in Inuit communities varies between countries as well as between Inuit regions. The following submission does not include information about the status of drinking water and sanitation in Inuit communities in Chukotka due to the unique challenges of acquiring the relevant information from officials in that jurisdiction.

Drinking water and sanitation infrastructure as well as water and sanitation services in Inuit communities tend to be of substandard quality compared to service levels available to most U.S., Canadian, and Danish citizens. Inuit are citizens of affluent countries yet the quality of water and sanitation infrastructure and services found in our communities can mirror those found in developing nations. There are a total of at least 117 Inuit communities in Alaska, Canada, and Greenland that do not have access to piped drinking water and sewer systems. The substandard quality of water and sanitation infrastructure are linked to elevated rates of disease and illness among Inuit who live in communities whose households are not connected to piped water and sewer systems. Those households being most vulnerable must haul their own water and dispose of their own sewage. Inuit in many Inuit communities are consequently unable to fully enjoy our human right to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses.¹

Limited access to drinking water and/or rudimentary sanitation systems contribute to Inuit experiencing a higher prevalence of infectious diseases and illness, including respiratory tract, skin, and gastrointestinal tract infections.² Inuit communities account for most of the communities in Alaska that continue to lack running water, and these communities have significantly higher infant hospitalization rates for pneumonia, higher rates of skin infection and respiratory illness, as well as high rates of disease such as pneumococcal disease than communities where most households are connected to piped water systems.³ Households without access to piped water systems must haul their own water or rely on water being delivered to

¹ Inuit Tapiriit Kanatami. (November 2020). *Access to Drinking Water in Inuit Nunangat*. ITK Quarterly Research Briefing. Autumn 2020. Accessed July 29, 2021, https://www.itk.ca/wp-content/uploads/2020/12/ITK_Water_English_07.pdf.

² Hennessy, T.W., Ritter, T., Homan, R.C., Bruden, D.L., Yorita, K., Bulkow, L., ... Smith, J. (2008). The Relationship Between In-Home Water Service and the Risk of Respiratory Tract, Skin, and Gastrointestinal Tract Infections Among Rural Alaska Natives. *American Journal of Public Health*, 98(11), 2072-2078.

³ Thomas, T.K., Hickel, K., and M. Heavener. (July 2016). Extreme water conservation in Alaska: limitations in access to water and consequences to health. *Public Health*, 137, 59-71.

household water tanks. These households are more likely to ration water in order to conserve limited water supply, and rationing can contribute to increased risk for experiencing a host of negative health outcomes caused by poor hygiene and sanitation practices. Conversely, Indigenous communities in Alaska that have succeeded in installing piped water systems have observed reductions in respiratory, skin and gastrointestinal infection clinic visits compared to rates of illness and disease prior to the installation of such infrastructure.⁴

Significant gaps in data and information as well as the quality of data that exist make it difficult to fully account for the status of water and sewer infrastructure in Inuit communities and its impacts on Inuit health and wellness. Furthermore, governments exercise different approaches for monitoring, tracking and sharing information about drinking water quality as well as boil water advisories and other indicators with the public, making it difficult to identify the scope of the challenges that exist and to identify specific solutions.

The type and quality of water and sanitation infrastructure throughout Inuit Nunaat is also impacted by geography and climate. Infrastructure type is often determined by community geography. Piped water systems must be installed above ground in communities built atop permafrost, for example, and in those communities without piped water systems and without roads, it is not possible for water and sanitation services to be delivered by large water and sewer trucks. Water and sanitation infrastructure can also be compromised by melting permafrost, flooding and coastal erosion. Climate change is jeopardizing the viability of drinking water sources in some communities as temperatures rise, causing infrastructure failure, decreased precipitation and fresh water to evaporate more quickly. The costs associated with identifying an alternative source of drinking water are significant.

The limited availability of data and information can make it difficult to identify and effectively advocate for solutions to the unique challenges facing Inuit communities. For example, it was not possible to obtain data and information about access to drinking water and sanitation for the six Inuit communities in Chukotka. Moreover, the data that are available for Inuit communities in Alaska, Canada and Greenland are gathered and tracked in different ways by governments using different approaches, metrics and methods, making it difficult to compare or effectively monitor challenges in relation to access to drinking water and sanitation.

⁴ Thomas TK, Ritter T, Bruden D, Bruce M, Byrd K, Goldberger R, et al. Impact of providing in-home water service on the rates of infectious diseases: results from four communities in Western Alaska. *J Water Health* 2016 Feb;14(1):132e41.

Alaska

There are 82 Inuit communities represented by ICC in Alaska located in the following four regions of the state: Arctic Slope, Northwest Arctic, Yukon-Kuskokwim, and Bristol Bay. The availability and type of water and sewer services vary by community and by region. In 2016, between 87% and 100% of Arctic Slope, Northwest Arctic, and Bristol Bay households were served by water and wastewater services. However, in the Norton Sound and Yukon-Kuskokwim regions only 73% to 81% of households were served by water or wastewater services.⁵ The Alaska Native Tribal Health Consortium oversees the construction and administration of water and sewer services in most Inuit communities in Alaska through its tribal compacting arrangement with the U.S. Indian Health Service, the federal agency responsible for delivering health services to federally recognized U.S. tribes.

The number of Inuit communities with access to drinking water and sanitation services in Alaska has increased in the last two decades but 17 of the 32 total communities in Alaska that remain unserved by piped utilities are Inuit communities.⁶ In these 17 communities, 45% or more households are not served by pipes, septic tank and well, or covered haul systems. Households in unserved communities must instead haul their own water from community taps and dispose of their own sewage in either sewage lagoons or in hoppers that are emptied into sewage lagoons. Inuit communities account for 13 of the 17 communities that are considered underserved and whose households use flush tank and haul systems.

Inuit communities in Alaska are also more likely than other communities in Alaska to have to boil our drinking water to protect our health. The number and duration of boil water advisories (BWAs) issued for Inuit communities is indicative of the poor quality of community water infrastructure. Boil water advisories or notices are intended to inform consumers that they need to boil their water in order to protect their health against the potential presence of disease-causing bacteria, viruses or parasites. At the time of writing, 17 Inuit communities in Alaska are under a BWA and account for half of all communities in the state that are currently under a BWA. Nine of those 17 communities are under long-term BWAs (those lasting longer than 12 months).

Inuit Nunangat (Canada)

Inuit Tapiriit Kanatami published a research briefing in 2020 that examines access to drinking water in the 51 Inuit communities that make up Inuit Nunangat, the Inuit homeland in Canada (see *Access to Drinking Water in Inuit Nunangat* attached to this submission). The paper includes analysis of the type and quality of community drinking water infrastructure in place, as well as the prevalence of boil water advisories issued for Inuit communities. ITK determined that although all Inuit communities have access to water services, the effectiveness and quality of those services vary. Forty one of 51 communities are served by trucked water delivery systems. For those communities with piped water systems, the systems tend to be decades old and in frequent states of disrepair. The rudimentary and poor quality of community water

⁵Alaska Native Tribal Health Consortium, *Alaska Native Health Status Report: Second Edition* (August 2017), accessed July 19, 2021, http://anthctoday.org/epicenter/publications/HealthStatusReport/AN_HealthStatusReport_FINAL2017.pdf.

⁶ State of Alaska, "Alaska DEC Drinking Water Boil Water Notices," accessed July 31, 2021, <https://www.arcgis.com/apps/mapviewer/index.html?webmap=d663c04ec7014657ba45e31d180e5902>.

infrastructure, such as water treatment facilities and pump stations, negatively impact access to drinking water as well as water quality, and can negatively impact and even curtail the delivery of other services, such as the delivery of health services.

Inuit households in Canada are more likely to have to boil their water before consuming it than most other households in the country. Between January 2015 and October 1, 2020, the combined total duration of time Inuit communities spent under BWAs was 9,367 days, or 26 years. During this time period, 298 BWAs were issued for 29 communities throughout Inuit Nunangat. Four BWAs were issued that lasted longer than 12 months, and 15 BWAs were issued that lasted longer than three months during this time period.

The ITK paper makes linkages between access to drinking water and other infrastructure deficits in Inuit communities. Crowding caused by the chronic shortage of housing in the region places stress on drinking water services, particularly in households that rely on the delivery of trucked water. Crowded households are more likely to ration water or run out of water before household tanks can be refilled. In communities that rely on trucked water systems, household sewage is deposited into septic tanks that must be emptied by sewage trucks. Because of the nature of these systems, household drinking water supply shuts off when septic tanks are full, leaving residents without access to drinking water. These challenges can be exacerbated by extreme weather events, such as blizzards, that can prevent water from being delivered and sewage from being emptied, and can cause breakdowns in water and sewer trucks.

Greenland (Denmark)

There are 72 communities in Greenland, a semi-autonomous country within the Kingdom of Denmark whose population is primarily Inuit. Seventeen towns and 50 settlements are supplied with drinking water. The Government of Greenland exercises jurisdiction over all areas except for defense and foreign affairs. Water and sanitation services in most Greenlandic communities are rudimentary and community water and sanitation infrastructure are archaic. Profound gaps exist between the modern services and infrastructure in place in the most populous communities (13 towns with populations greater than 1,000) compared to communities designated as settlements (59 communities). Some households in Greenland's most populous communities continue to lack flush toilets, and those in settlements lack running water or flush toilets. Instead, households in settlements are required to retrieve their own drinking water from centrally-located community tap houses, and to dispose of their own waste collected in garbage bags.

Recommendations

The following actions are needed to help improve access to safe drinking water and sanitation in Inuit communities.

- 1. States must make major new Inuit-specific investments in Inuit community water and sanitation infrastructure and take measures to streamline processes for community procurement of funding:** The U.S., Canada, and Greenland must make major new investments in Inuit water and sanitation infrastructure in order to improve access to water and sanitation as well as the quality of those services. In order to improve the effectiveness and impacts of investments that are intended to address the unique circumstances of Inuit communities, investments must be Inuit-specific and allocated directly to representatives of Inuit. Limited access to funding as well as the challenges associated with procuring funds from numerous and broad pools of funding is the main cause of the substandard quality of water and sewer infrastructure and services experienced by too many Inuit. Furthermore, States must help enable improvements by partnering with representatives of Inuit and streamlining processes for procuring funding for water and sanitation infrastructure projects, including by implementing single-window application processes for allocating program funding.
- 2. The Arctic Council should be leveraged to support solutions for improving access to drinking water and sanitation:** The Arctic Council should serve as a vehicle for prioritizing cooperation and action on improving access to drinking water and sanitation in Inuit communities. The Special Rapporteur should urge the U.S., Canada, and Denmark to partner with ICC and to use the Arctic Council as a platform for developing common approaches and methods for monitoring access to drinking water and sanitation as well as for developing solutions for improving the quality of drinking water and sanitation infrastructure and services.
- 3. The Government of Canada must prioritize improving water and sanitation infrastructure in Inuit Nunangat:** The Government of Canada's current policy of eliminating long-term boil water advisories on First Nations reserves is commendable. However, Inuit face similar challenges associated with drinking water and sanitation in our communities that tend to be overlooked by provincial-territorial governments, and federal leadership is similarly required to ensure that we are able to enjoy our rights to drinking water and sanitation. The Government of Canada must be encouraged to broaden its policy on eliminating long-term boil water advisories for First Nations communities to include Inuit communities, and to make major new investments in water and sanitation infrastructure in Inuit communities.
- 4. States and academic institutions must prioritize investments in Inuit-led research about drinking water and sanitation in Inuit communities:** States must help close data and information gaps that contribute to the limited prioritization of drinking water and sanitation challenges in Inuit communities. Federal research funding agencies must partner with Inuit representative organizations and academic institutions to identify Inuit research priorities in relation to drinking water and sanitation. Recent constructive international research partnerships between governments and Inuit can serve as models for such partnerships, including the United Kingdom-Canada Inuit Nunangat and Arctic Region Research Programme.

Appendix I: Inuit Nunaat Communities Represented by ICC

Chukotka (Russian Federation) 6	Alaska (United States) 82	Inuit Nunangat (Canada) 51	Kalaallit Nunaat (Greenland) 72
Lorino	Anaktuvuk Pass	Aklavik	Nuuk
Uelen	Atqasuk	Inuvik	Sisimiut
Lavrentiya	Elim	Paulatuk	Ilulissat
Sireniki	Deering	Sachs Harbour	Aasiaat
Chaplino	Shungnak	Tuktoyaktuk	Qaqortoq
Uelkal	Ambler	Ulukhaktok	Maniitsoq
	Diomedede	Arctic Bay	Tasiilaq
	Point Lay	Kinngait	Uummanaq
	Kiana	Clyde River	Narsaq
	Buckland	Grise Fiord	Paamiut
	Wales	Sanirajak	Nanortalik
	Kivalina	Igloodik	Upernavik
	Koyuk	Iqaluit	Qasigiannugit
	Kobuk	Kimmitut	Qeqertarsuaq
	White Mountain	Pangnirtung	Qaanaaq
	Noatak	Pond Inlet	Kangaatsiaq
	Nuiqsut	Qikiqtarjuaq	Kangerlussuaq
	Noorvik	Resolute	Kullorsuaq
	Kaktovik	Sanikiluaq	Ittoqqortoormiit
	Shishmaref	Arviat	Kangaamiut

	Kotzebue	Baker Lake	Tasiusaq
	Shaktoolik	Chesterfield Inlet	Niaqornaarsuk
	Selawik	Coral Harbour	Kuummiit
	Brevig Mission	Naujaat	Kulusuk
	Nome	Rankin Inlet	Ikerasak
	Golovin	Whale Cove	Saattut
	Teller	Cambridge Bay	Sermiligaaq
	Point Hope	Gjoa Haven	Attu
	Wainwright	Kugaaruk	Alluitsup Paa
	Utqiagvik	Kugluktuk	Upernavik Kujalleq
	Unalakleet	Taloyoak	Atammik
	Gambell	Akulivik	Nuussuaq
	Savoonga	Aupaluk	Innaarsuit
	Akiachak	Chisasibi	Qaarsut
	Akiak	Inukjuak	Qeqertarsuatsiaat
	Alakanuk	Ivujivik	Ukkusissat
	Aniak	Kangiqsualujjuaq	Aappilattoq
	Platinum	Kangiqsujuaq	Saqqaq
	Mountain Village	Kangirsuk	Kangersuatsiaq
	Atmautluak	Kuujjuaq	Narsarsuaq
	Sleetmute	Kuujjuarapik	Qeqertaq
	Chevak	Puvirnituaq	Aappilattoq
	Chefornak	Quaqtaq	Sarfannugit

	Chuathbaluk	Salluit	Tiilerilaaq
	Eek	Tasiujaq	Ikerasaarsuk
	Emmonak	Umiujaq	Itilleq
	Russian Mission	Nain	Ikamiut
	Kongiganak	Hopedale	Nuugaatsiaq
	Kasigluk	Makkovik	Napasog
	Oscarville	Postville	Iginniarfik
	Kwethluk	Rigolet	Arsuk
	Kwigillingok		Narsarmijit
	Quinhagak		Akunnaaq
	Goodnews Bay		Isertoq
	Bethel		Savissivik
	Scammon Bay		Ilimanaq
	Marshall		Tasiusaq
	Meloryuk		Kapisillit
	Hooper Bay		Kitsissuarsuit
	Napakiak		Eqalugaarsuit
	Napaskiak		Naajaat
	Pitka's Point		Nutaarmiut
	St. Mary's		Siorapaluk
	Nightmute		Qassiarsuk
	Newtok		Niaqornat
	Tooksook Bay		Ammassivik

	Sheldon Point		Oqaatsut
	Nunapitchuk		Qeqertat
	Upper Kalskag		Saarloq
	Lower Kalskag		Igaliku
	Kotlik		Qassimiut
	Kipnuk		Kangerluk
	St. Michael		
	Stebbins		
	Crooked Creek		
	Tuntutuliak		
	Tununak		
	Tuluksak		
	Pilot Station		
	Lime Village		
	Red Devil		
	Stony River		



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