MODULE 2

INDIGENOUS LENS ON CLIMATE CHANGE ADAPTATION PLANNING

Project Partners:
This module, *Indigenous Lens on Climate Adaptation Planning*, is one of two modules within *Two Approaches, One Shared Learning Journey to Support Climate-Health Adaptation Planning*. 
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ACKNOWLEDGEMENTS

I would like to acknowledge all of those that I have been privileged to learn from over the years, who have shared their truths with me that have helped me in writing the document.

The project team is grateful for the knowledge and expertise shared by the members of the Knowledge Translation Advisory Committee, listed below, who continue to provide guidance in developing knowledge translation products to communicate the findings of the knowledge synthesis projects.

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- Christina Schwantes, ICLEI Canada
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Aaniin, boozhoo, Kerry-Ann Charles-Norris nindizhinikaaz, Georgina Island nindoonjibaa, Ma’iingan Dodem, Anishnabe Kwe. (Hello, greetings, my name is Kerry-Ann Charles-Norris and I come from Georgina Island First Nation, I am of the Wolf Clan and I am an Indigenous woman).

I do not know much of my language even though my dad was a fluent speaker, as we (my four siblings and I) were never taught due to reasons that I hope the words that follow will help you to understand. I also hope that these words will create even a miniscule understanding of the true story of our shared history here in North America, known to the Indigenous Peoples as (Mishiike Minisi) Turtle Island and will assist you in this collective journey and pursuit of well-being and reconciliation in a time of environmental crisis.

Being a Community member of the Chippewas of Georgina Island First Nation, living within my Community, as well as having the privilege of working in my Community for many years in various aspects, has given me great insight into the issues that have had an effect and continue to have an effect not only on my Community but other Indigenous Communities within Ontario, across Canada and even the world. My experience includes, but is not limited to, working with our youth in various capacities, by-law development and enforcement, serving a term as a Council Member and being the Environment Co-ordinator for almost a decade. Although each of my positions entailed a gamut of responsibilities, the latter is really where I have found my passion. Working in the environment field has allowed me to not only learn about the importance of protecting and preserving Shkaakaamikwe (Mother Earth) but has also allowed me to learn about who I am as an Indigenous person and the importance of that when it comes to protecting and preserving that in which sustains us All so that we can achieve health and well-being or Mino Baamaadzwin (a good life). This has also been where I have come to learn about climate change and have been able to take this seemingly vast and complex issue and use it to start to open up communication, build relationships internally and externally, breakdown barriers and create opportunities to work together for our collective future. This began through the development of climate change adaptation plans in my own Community as well as assisting others in doing so, which utilizes Traditional Ecological Knowledge (TEK) as the foundation. Being able to be directly involved in various aspects of my Community before getting involved in climate change work and then being able to work with other First Nation Communities in undertaking such work, has given me a perspective that I have shared within this document. I hope this perspective will help you as a Public Health professional to ensure that as you embark on developing your Climate Change adaptation plans as they pertain to public health, that you stop to think and actively create opportunities to include the Indigenous voices in a meaningful way; as the benefits will be immense, not only for the Indigenous peoples but all peoples alike.
MODULE 2: EXECUTIVE SUMMARY

Climate change has and will continue to have growing public health implications for the population of Ontario. Public health authorities have a duty to respond and are progressively working to address the health impacts of climate change. Many public health authorities are conducting climate change and health vulnerability and adaptation assessments. Adaptation planning is the next step public health authorities must take to promote and protect health and wellbeing, enhance resilience, and reduce the health risks associated with climate change. In doing so, the realization has been made that Indigenous world views need to be actively sought out and meaningfully incorporated into this work to ensure the most comprehensive plans reflective of the whole Ontario context are being developed moving forward.

Cambium Indigenous Professional Services conducted a knowledge synthesis project that illustrates Indigenous perspectives and the importance of including these perspectives into climate-adaptation and strategies to assist public health authorities in doing so. This project complements the scope of the literature review described in Module One. It identifies reasons why including Indigenous voices in climate-health adaptation has been a gap in public health practice. It introduces critical concepts of Indigenous ways of knowing and doing and introduces some best rules that public health authorities must understand and apply to work with and learn from Indigenous populations concerning climate adaptation.

This knowledge synthesis project is based on the lived experiences of the Author. The information presented can support public health authorities to work with and learn from Indigenous populations in culturally competent ways concerning climate change adaptation as well as to emphasize the importance of meaningful inclusion of Indigenous voices.

Brief History

The True History of Canada, the many unethical events that occurred and the relationship that the government has had with the Indigenous peoples since contact is unknown by most. This history has not been voluntarily disclosed in the past, and even in the present, the discloser is not a priority in our society. These events have had a profound effect on Indigenous people’s health and wellbeing, have left important knowledge and wisdom out of decision-making, and the non-Indigenous peoples of today have gained privilege from them.

Interconnectedness to the Land

Indigenous peoples have an intimate connection to the land and were gifted the knowledge and tools to learn from those who make their home in the natural environment. This gift was given by the Creator so that people understood how to survive and flourish in a sustainable way and maintain balance within the ecosystem, including being able to identify specific species to aid and cure sickness and observing nature to be proactive in preparing for environmental changes.
**Truth and Reconciliation**

In 2007, the National Centre for Truth and Reconciliation was established as part of the Indian Residential Schools Settlement Agreement, the largest class-action settlement in Canadian history. The Truth and Reconciliation Commission was formed. As part of this journey of understanding Indigenous peoples and including them in the discussions and planning about our collective future in preparing for our changing climate, it is essential to understand the need for healing. An understanding and acknowledgement of the effects of Residential Schools are required so that healing can occur and Indigenous peoples can be encouraged and supported in their journey of reconnecting and re-learning their language, culture, and traditions that were not just once forbidden but forcibly taken from both adults and children.

**Including Indigenous Voices**

Although we would like to think that we can speak past tense about events that have led to the inequalities and exclusion of Indigenous peoples today, the reality is that the past actions have seriously affected the present and will continue to do so in the future. We can ensure that from this point forward, we create a better future through the use of the best practices and critical concepts that have been identified that must be taken into consideration when pursuing the inclusion of Indigenous peoples voices and that those voices be meaningfully supported and incorporated.

**Best Practices:**

- **Trust** is the foundation of meaningful engagement with Indigenous peoples.
- **Research** is necessary to have an understanding of the community that public health authorities want to engage.
- **Respect** is vital to ensure that trust will be earned.
- **Remember** colonialism has an impact and that it will take time for those impacts to be rectified.
- **Responsibility** is on the public health professionals to ensure that they are educated so that they can appropriately and adequately provide climate change adaptation health services to the Indigenous peoples.

**Critical Concepts:**

- **Nothing About Us Without Us:** No policy or action should be decided by any representative without the inclusion of the group in which the policy/action is affecting.
- **Ethical Space:** Respecting the views of others and ensuring a cooperative spirit between Indigenous peoples and Western institutions.
- **Two-Eyed Seeing:** Being able to see the importance of Western Science and Indigenous Knowledge and bring the best of both together.
• **Seven Generations**: Considering and ensuring that the decisions made today do not harm those yet to be born.

• **Creators Law**: All Beings have a purpose and must work together in harmony – including human beings.

• **Seven Grandfather Teachings**: Encompass the morals, values, structures, ceremonial practices, and spiritual beliefs of the Aanishnabe people.
1 INTRODUCTION

When changes occur in the weather that a region normally experiences, it is called climate change and can be defined as, “any significant change in long-term weather patterns. It can apply to any major variation in temperature, wind patterns or precipitation that occurs over time.”(1). Climate change impacts are being felt all over the world and are a real and pressing issue for the health of Ontarians and Canadians. It has both direct and indirect impacts on the health of individuals and communities, with the greatest impacts being on vulnerable and marginalized populations. Climate change poses significant risks to communities’ health and well-being, the economy, and the natural environment. The sensitivity of the natural environment to changes in weather and climate affect the ecosystems and socioeconomic aspects of all communities’ but more so the Indigenous Communities because of where they live, and how they continue to rely on the environment for economic and cultural sustenance. There are several areas in which climate change is, and will have, an impact on all aspects of Ontarians’ lives. The main climate-sensitive areas that have been identified to have health impacts in Ontario include extreme temperatures (i.e. more 30+ days during the summer months making it dangerous to work/play outside), vector-borne disease (i.e. vector host survival that carry diseases such as Lyme disease and West Nile Virus), air quality (i.e. increased respiratory illnesses), ultraviolet radiation (i.e. damage to skin and eyes) as well as food and water quality/quantity (i.e. scarcity and contamination).

Climate change adaptation is part of a process whereby stakeholders determine circumstances that are caused or have compounding effects by the changing climate and develop a plan of action to adapt to the changing conditions and to lessen the worst effects. It is about adopting policies and practices which use knowledge of the past and the present to understand the changes and as a guiding principle in order to be prepared to deal with the many possible effects of climate change in the future.

In Ontario, the Ministry of Health and Long-Term Care, through the Ontario Public Health Standards, has directed Public Health Authorities to develop climate change vulnerability and adaptation assessments to mitigate health risks leading to healthier, more resilient communities and individuals across Ontario and to engage key stakeholders in future climate change and health adaptation work. The Public Health Agency of Canada (PHAC), Ontario Region, in partnership with Simcoe Muskoka District Health Unit, conducted a literature review to build an evidentiary base on the characteristics of adaptation interventions that address expected health impacts associated with climate-sensitive categories applicable to Ontario. The synthesized knowledge can support local public health agencies conducting adaptation planning. Module one was developed to communicate the findings of the literature review to inform public health practice provincially.
Upon initiating the literature review, it was identified that the Indigenous population had been overlooked in the initial scoping and there is currently not a best practise on including their perspectives or how to respectfully engage to do so, nor has there been a directive for such engagement until recently. With this, it has been recognized that there is a definite need to include the Indigenous peoples in this undertaking as they are key stakeholders representing approximately 2.8% of the Ontario population and are the fastest growing people in Ontario (2). Indigenous peoples are increasingly being recognized for the significant knowledge and wisdom they hold in regards to environmental sustainability and protection but are being disproportionately impacted by climate change. Cambium Indigenous Professional Services (CIPS) is a First Nation owned and fully Indigenous staffed organization that has extensive experience in how climate change can have far reaching impacts for Indigenous Communities and how past events have and continue to compound these impacts. CIPS have and continue to share knowledge they possess as being First Nation individuals as well as the knowledge they have gained from working on multiple projects in Indigenous Communities and with local Public Health Authorities. The CIPS Team also understands themselves and conveys to the non-Indigenous world that although each Community share similar values, each Community is their own unique and distinct peoples and must be treated as such.

2 A BRIEF HISTORY OF INDIGENOUS PEOPLES OF TURTLE ISLAND

Indigenous peoples of Turtle Island (North America) have been here since time immemorial and were a thriving, healthy people who lived off the land and by the Creators Law until contact by the European settlers.

There is much to tell about the True history of Canada and the relationship that the government has had with the Indigenous peoples since contact. The many Treaties in which promises were made and broken, the calculated inflicted suffering that took place such as the Residential Schools, the ghastly legislation that has been enacted, namely the Indian Act and the trauma from these and others that the First People of this country have suffered throughout the past and into the present. Many of these events are unknown by most, but they have had a profound effect on Indigenous people’s health and wellbeing and, conversely, the non-Indigenous peoples of today have gained privilege from them.

This history has not been voluntarily disclosed in the past and, even in the present, the disclosure is not a priority in our society. This leaves the responsibility of learning about this history and about the Indigenous peoples of Turtle Island with the individuals of Canada, especially those working in public health. Knowing and understanding this knowledge is imperative to being able to recognize the health outcomes, inequities faced, and wisdom held by Indigenous peoples and is essential for building relationships and engaging in actions that decolonize public health activities.
With the information that follows, it is hoped that the knowledge of the past and present will aid in understanding the importance of including the voices and perspectives of Indigenous peoples as we embark on the journey of determining climate change vulnerabilities that pose risk to Ontarians and develop adaptation plans that protect our collective future.

Although the Residential School system is the most publicly known practice that the government established to assimilate the Indigenous peoples and integrate them into the Canadian society, there were also other calculated colonization undertakings. As part of what was termed, “get rid of the Indian problem” the government established Indian Hospitals. In the late 1800’s and early 1900’s, Christian missionary efforts were funded by the federal government to provide basic hospital care on some reserves, as many would have to travel far distances from their homes to be treated for diseases introduced by the settlers and that the Traditional Healers did not have medicines or treatments for. During the 1920’s up until the 1960’s the government aggressively expanded this system of Indian Hospitals which now admitted patients based on their Indian status, rather than disease.

Most Indian hospitals were established in either residential schools or facilities owned by the armed forces and were often overcrowded, inappropriate and ill-equipped to stop the spread of life-threatening disease. They were found to operate at almost half the cost of the settler’s facilities and did not provide midwives, Indigenous medicines or holistic concepts of sickness and treatment. In fact, both government and Missionaries tried to suppress the work of Indigenous healers and midwives to further assimilation goals, which forced them to practise in secret. Although many people were made well in these hospitals, patients recall being lonely, vulnerable and fearful. Some suffered abuse, as some medical staff were racist, most if not all did not understand the cultures and languages, which was coupled with being underpaid and overworked, causing frustrations to be taken out on patients.

In 1945, the Indian Health Services became part of the newly created Department of National Health and Welfare. There were hundreds of new hospitals constructed. However, this increased racial inequality as these new hospitals, regarded as white hospitals, created incredible opportunities for nurses and doctors which made it increasingly difficult to find
medical professionals to work at the Indian hospitals. These hospitals were often located side by side.

In the 1950’s the Indian Act was amended to include the Indian Heath Regulation which meant that any Indigenous person who refused treatment or left to return home before being discharged from the hospital could be arrested and jailed or taken back to the hospital. Infants and children who were diagnosed with tuberculosis were taken from their homes. Men and women were forced to leave their Communities which meant at times that families were left without a father to provide food or a mother to give her children the comfort and love needed. Those who died at these hospitals were buried at the nearest cemetery with unmarked graves unless the family paid for the costs to return them home. As many of the Communities were poverty stricken, this was not often an option.

Although these hospitals and legislative approaches were justified as a means to control Tuberculosis (TB), there were many reasons that motivated the aggressive establishment and support of these facilities including the need of the settler society to feel protected and separated from Indian Tuberculosis, to ensure that these establishments could keep as many patients as possible admitted to maintain government funding, as well as to ensure there were a number of patients available for medical experiments.

As these facilities were being established, the Indigenous Communities welcomed the promise of health and hospital care similar to the non-Indigenous communities but, as many before, this promise, too, was broken and conditions were not improved. Many Indigenous people also felt that this was recognition of the Treaty responsibilities, but the government did not share this acknowledgement and instead claimed that it was a moral obligation, specifically to protect the rest of the Canadian population from disease.

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**THE INDIAN ACT**

As far back as the 1920’s Government officials’ requested that there be legal backing for forcible removal of Indigenous peoples from their Communities and an Amendment to the Indian Act was passed in 1927. This Amendment still remains in effect today.

**INDIAN ACT, 1985**

*Regulations*

73 (1) The Governor in Council may make regulations:

(f) to prevent, mitigate and control the spread of diseases on reserves, whether or not the diseases are infectious or communicable;

(g) to provide medical treatment and health services for Indians;

(h) to provide compulsory hospitalization and treatment for infectious diseases among Indians; (3)
Epidemics such as TB and smallpox resulted in high rates of mortality among Indigenous people. These losses included traditional healers (which created a loss of knowledge which remains today) who were also being discredited due to the lack of knowledge about the new illnesses that were brought by the settlers. The loss of life from these epidemics also cleared the way for colonization and the advancement of “Terra Nullius” or settlement of “Empty Land” and the control over Indigenous Communities by government that we see today.

By the 1960’s, the government planned to close the Indian Hospitals and expand the community hospitals. This was met with resistance from some of the Indigenous Communities, mainly because they believed that the funds that were meant for their health care should be used to improve their facilities and not given to settler community hospitals. Moreover, it was a treaty right for Indigenous people to have access to adequate health care like every other Canadian.

In 1979, the government finally recognized its constitutional and treaty responsibilities for health care of the Indigenous peoples (4) and Indian hospitals are now closed with some converted into primary care clinics in Communities.

Directly linked to assimilation and colonization practices and policies, at present, Indigenous peoples and Communities still endure poorer health due to inadequate funding as well as inappropriate and discriminatory treatment. This is coupled with higher rates of unemployment, higher rates of incarceration, lower levels of income, higher suicide rates especially in youth and inadequate funding for education and housing among others. These determinants of health are now being exacerbated by our changing climate. Events such as warming temperatures, lack of precipitation and the increase of extreme weather are creating huge gaps in the connections Indigenous people have to the small pieces of land that they have been forced to settle, creating unsuitable habitat as well as substantial habitat loss for many of these Beings (plants and animals) that are accessed for sustenance, medicinal and traditional practices as well as economic sustainability.

**FIRST-FIRST NATIONS NURSE**

Edith Anderson Monture was the first First Nations woman to become a registered nurse in Canada, but she actually had to leave the country to pursue her dream. Born on April 10, 1890 in Six Nations of the Grand River, Ont., the Mohawk woman struggled to be accepted to a Canadian nursing school. At the time, First Nations faced involuntary enfranchisement (loss of Indian status) for pursuing higher education.

She moved to the United States to attend the New Rochelle nursing school in New York state, and completed her degree in 1914 (5).
With climate change now being another determinant of health and layer of distress that is being felt and which poses significant risks to Indigenous Communities’ health and well-being, economy, and the natural environment, it is also creating challenges for Indigenous peoples that most other Ontarians would not understand. There is an inherent and intimate connection that exists between Mother Earth and Indigenous peoples which is the core of Indigenous peoples’ being. All teachings, traditions, culture and even language stems from the earth as a guide to achieving and sustaining well-being. These cultural and traditional practices, formerly illegal, disrupting the intergenerational transfer of knowledge, are now being passed down without the necessary changes being made that reflect our changing climate. As access to traditional medicinal plants and other things that are used for holistic health, well-being and sustenance is sought, the effects of our changing climate pose real risks, threats and challenges to many as the context in which they are being relayed may not reflect our rapidly changing landscape.

Despite this and other events, Indigenous peoples have remained resilient and continue their journey to pick up the pieces of their shattered ways of being left by colonization, using their inherent knowledge of and connection to the natural environment to adapt to change. As their language, culture, stories and traditions, once lost, resurface, are practiced and adjusted to reflect the changes that have occurred, this resilience will continue.

The events of the past have systemically had effects on the present and although disappointing, it is not surprising that the Indigenous perspectives and voices were not the top of mind as this work in public health and climate change adaptation began. Many public health authorities have struggled with building relationships with local Indigenous Communities and people due to the deep distrust and fear among Indigenous people resulting from the history as outlined here.

There is also fear inside those within the public health field of saying or doing something wrong and contributing or trigging trauma and as knowledge is increased about the true history of
Canada and the relationship with the Indigenous peoples, so is the fear. This is then confounded by the barriers of provincial/territorial and federal legislative mandates. It is hoped, as we move forward down this path together we ensure that the Indigenous peoples are not only included but included in an equal and meaningful way.
3 INTERCONNECTEDNESS TO THE LAND

In order to ensure that the Indigenous voices are being sought out and meaningfully incorporated into all aspects of climate change planning there must first be an understanding of the intimate, interconnectedness that Indigenous peoples have with Mother Earth.

In the Anishnabe worldview, *Creators Law* is the governing belief that all of creation is in a circular relationship where all *Beings*, human and other, are created equal, care about, respect and thrive to be kind and in harmony with one another. Indigenous peoples followed this *Law* for millennia and the outcomes and effects were abundant thriving biological diversity that sustained *All*.

It is believed that Indigenous peoples were gifted the knowledge and tools to learn from other *Beings* who make their home in the natural surroundings. This gift was given by the *Creator* so that people understood how to survive and flourish in a sustainable way and maintain balance within the ecosystem (*Never take the first, never take the last and always only take what is needed.*) This includes being able to identify specific species to use to aid and cure sickness and observing nature to be proactive in preparing for environmental changes. Along with this gift the Indigenous peoples were also given the responsibility to teach and ensure other humans understood and adopted this concept.

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**CONNECTION STORY**

The “Clan System” in which First Nation governance structures along with many other denotations are grounded and although the type of animal and/or representation for the Clans may vary from Community to Community the concept remains the same in that each of the animals represents specific characteristics which not only describe and connects with people as Individuals but everything and everyone as a whole. Each animal representing teachings, life lessons, knowledge and so much meaning. Due to the effects of our changing climate, Indigenous peoples are witnessing habitat that is so important for animals such as these rapidly decreasing, pushing them out of territory and out of reach. This is also occurring with many other species that Indigenous people have become to understand, have become connected with and in which sustains them not only physically but mentally, emotionally and spiritually. This has and will continue to have a huge impact on the Indigenous peoples’ wholistic well-being. Although Indigenous peoples have been changing and adapting with their surroundings for time immemorial, a change this rapid has not been witnessed. As these changes continue to occur, not only do the species become displaced and the health and well being of the people who are dependant on them for their existence start to deplete, but valuable teachers and students are separated and the knowledge that was once used to survive is no longer valid leaving others disconnected and vulnerable.
This inherent gift and responsibility, has been hindered by attempts of assimilation, colonization and cultural genocide and is now being exacerbated by the effects of a changing climate. The devastating destruction of our natural environment to meet the ever growing economic greed are now compounded by the alterations that are occurring to the environment due to climate change. These changes are having and will continue to have devastating affects on the health and well-being of Ontario’s population but evenmore so the Indigenous peoples because of this interconnectedness.

Indigenous peoples have a holistic perspective on health and wellbeing that considers mental, emotional, physical and spiritual aspects of an individual. Western knowledge tends to focus on and/or segregate these aspects. An integral part of this holistic approach and at the very core of Indigenous peoples’ well-being is the state of their natural environment because of the intimate interconnectedness that they have with Mother Earth. Access to healthy diverse landscapes to harvest traditional foods and medicines, practice culture and spiritual beliefs, uphold the responsibility that was given by the Creator to protect and preserve our natural environment as well as the ability to observe the connections and behaviours of the non-human Beings that prompt us to act accordingly to change, is essential to Indigenous peoples well-being and the survival of Indigenous culture, language and traditions which nourish spirituality and is the primary element of Indigenous peoples’ existence.
The more frequent severe weather, including intense storms, winds, droughts and precipitation in the form of rain during the winter months, the extreme temperatures which affect air and water quantity/quality and the shifting of seasons that are effecting the health, abundance and survival of traditional foods (both plant and animal) are just some of the effects that are being observed and felt by Indigenous peoples and Communities within Ontario. These changes are also creating ideal conditions for new vector-borne diseases to not only survive, but also thrive, in areas that they would not have in the past. Lakes, wetlands, streams, rivers and other bodies of water are not freezing and/or drying up, taking with them the vital, sacred medicinal plants that heal a wide variety of ailments, are used for ceremony and other spiritual uses and carry significant traditional teachings that are being lost as they disappear.
The effects of climate change are being felt more in northern Communities where traditional practices are becoming conflicting. Elders are becoming increasingly wary of passing Traditional Ecological Knowledge (TEK) to the next generation. This is because traditional harvesting areas and routes used for generations are no longer safe to travel due to quickly changing conditions, such as melting ice and permafrost, causing potential for injury and death. There is also fear about negative health implications of consuming traditional foods and medicines that were once healthy. As the climate warms the vital Beings needed for our survival are increasingly becoming contaminated with new disease (ie. Chronic Wasting Disease and Brain Worm in animals such as Moose and Deer) making the meat inedible or causing food-borne illness. Timing of harvests are also changing. The shorter shoulder seasons and unpredictable shifts in weather are having severe effects on seasonal growing and animal migration patterns as well as creating unsuitable conditions for harvesting. Examples of this include frosts that are occurring late in the spring damaging and destroying crucial berry patches and/or the unseasonably warm temperatures that are occurring more frequently in late fall when hunting is to take place causing meat to get infested with bugs or rot in the warm temperatures.
The use of TEK can assist to adapt to these situations as has been done for millenia. Supporting Indigenous peoples to be able to re-connect to the land and observe and protect it as instructed by the Creator will allow us to understand and take cues as to how to prepare ourselves for the changes that are ahead and even lessen changes that may have an adverse effect on our health and well-being. As governments, non-Indigenous organizations and many non-Indigenous peoples become aware of the wisdom and knowledge that Indigenous peoples hold through TEK, many funding agencies are starting to “decolonize the processes” in which Indigenous Communities apply and receive funding to implement projects within their Communities. Funding agencies such as Health Canada, Crown Indigenous Relations and Northern Affairs Canada (CIRNAC) and Natural Resources Canada (NRCan) are encouraging community members to put forward project ideas that ensure the transfer of knowledge from Elders to youth and that collect information through traditional ways such as sharing of stories, legends and teachings amongst each other about their families, territories and experiences. They are giving the Communities the opportunity to identify priority projects and act accordingly.

**CASE STORY**

The Chippewas of Georgina Island (GIFN), is a First Nation located off the shores of Sutton West Ontario in Lake Simcoe, just an hour north of Toronto. Over the past decade through observations made by community members and the implementation of a climate change adaptation project founded on the collection of Traditional Ecological Knowledge (TEK) a number of health issues and concerns related to the changing climate have been identified.

The warming planet has challenged the community and forced them to adapt to and cope with numerous climate related risks including those that are and will have a devastating impact on their health and well-being. One of those impacts includes the identification of black legged ticks, which carry the vector borne disease Lyme disease. Tests have been undertaken on tick specimens collected in the community that have been positive indicating that this disease is now indeed very much prevalent within the community. Stories from the Elders describe that in the past the winter weather was cold enough and lasted long enough to ensure that if there were ticks and/or other vector carriers that they were unable to survive and were therefore not a threat. This new threat to the community may not only be detrimental to an individual’s physical health but can also have an effect on one’s mental, emotional and spiritual health as the harvesting of traditional foods and medicines now pose a health risk as does other outdoors activities.

In order to address this issue the Community has turned to their Elders and have learned that some of their Traditional Medicines act as natural deterrents for vectors such as ticks. With this knowledge, the Community is presently undertaking research and implementing this knowledge with support from the Climate Change Health Adaptation Program funding 2019-2020.
based on their unique needs, beliefs and situations, unlike the past and very present for some, where use of funding is dictated based on formulas or non-Indigenous community needs.

Public health authorities play a huge role in ensuring that the wisdom and knowledge of the Indigenous peoples are actively supported and meaningfully implemented as the sharing of this knowledge will be profound when developing plans to adapt and mitigate the health effects that are predicted to affect not just the Indigenous peoples but all Ontarians alike.

In all sectors of government as well as non-governmental organizations, people are starting to understand and believe in the benefits of Indigenous knowledge, which Indigenous peoples have tried to share since contact. An understanding of the importance of learning and sharing knowledge with each other, and the importance of adhering to the Creators Law, as well as respecting the very intimate connection and responsibility that All Beings have to one another, is crucial as we find ourselves amidst a social as well as an environmental crisis.

All programs and policies, including those developed and implemented by the public health authorities need to be designed to ensure opportunities are being created for the reassertion of Indigenous rights and responsibilities to take care of Mother Earth in culturally appropriate and Community driven ways. This needs to be done through allowing Indigenous Communities to take control of their own research agendas, the creation of opportunities to re-learn traditions, teachings, cultures and languages as well as allowing for time needed to do so. This re-connection and an understanding of Turtle Island is essential knowledge that cannot have stringent timelines and needs to be understood so that it can be shared with others and once again All Beings can live equally, respectfully and in kindness and harmony with one another.

The Climate Change Health Adaptation Program (CCHAP) is a great example of this new approach in working with Indigenous Communities. CCHAP has funded ninety-four (94) Communities across Canada since 2017 to 2021 with a total of twenty (20) being from Ontario. Types of projects that have been funded, include food security, health vulnerability assessments, adaptation planning, vector-borne disease and water quantity/quality.

CASE STORY

I am a trapper and have been out on the land all of my life and in the fall of 2008, I was out on the land and came across a Beaver dam being built that was 3 feet high and couldn’t understand why the Beavers were doing this and that spring a big flood occurred. At that time, I didn’t think anything of it. A few years later in 2010, again in the fall, I was back out on the land and came across another Beaver dam being built that was 3 feet high and again sure enough that spring there was another big flood. After the second flood, I began to understand why the Beaver was building such a big dam in the fall. He was preparing for the floods that were coming. ~ Climate Change Health Adaptation Program, Review Committee Member
Attached in Appendix A is a brief description of the projects in Ontario that are currently being funded.

4 TRUTH AND RECONCILIATION

As part of this journey of understanding Indigenous people and including them in the discussions and planning about our collective future, it is important to understand the need for healing. Many Indigenous peoples of Canada who live in Community and in urban centers, are fragmented from the events of the past, without realizing or understanding what those events were. They get stuck in a perpetual cycle that is not of their making. Past generations were forced to become someone whom they were not; forced physically, mentally and emotionally as both adults and children to live by someone else’s guidelines, culture and spiritual beliefs, even forced to speak another language as they witnessed their own disappear, along with a little piece of themselves. There is not much of a difference in today’s generations as they too are being systematically forced to do the same. This is just a glimpse into the trauma that has been suffered by Indigenous people and a huge reason that many are so disconnected and unbalanced today. Things such as high unemployment rates, high rates of incarceration, low graduation rates, low levels of income and high suicide rates (especially in youth) as well as poor health do not just stem from inadequate funding but are very real impacts from past events like Indian Hospitals and Residential Schools which have caused Intergenerational Trauma\(^1\), a

\(^1\) “Intergenerational trauma is usually seen within one family in which the parents or grandparents were traumatized, and each generation of that family continues to experience trauma in some form...Direct survivors of these experiences often transmit the trauma to later generations when they don’t recognize or have the opportunity to address their issues. Over the course of time, these behaviours often destructive, become normalized within the family and their community, leading to the next generation suffering the same problems.” (11)
very real thing. An understanding and acknowledgement of this must take place by all Canadians, be it that they are Indigenous or not, so that healing can occur and Indigenous people can be encouraged and supported in their journey of reconnecting and re-learning their language, culture and traditions that were not just once forbidden but forcibly taken from both adults and children. Without this understanding, acknowledgement and healing, the journey ahead to adapt to our changing climate will be a difficult one, as this will make it difficult for Indigenous peoples to pick up their “Bundles” (the teachings, traditions, practices and gifts that the Creator has given in understanding Mother Earth and her needs) and even more difficult for the sharing of the wisdom within those “Bundles” with others that will support the planning needed to prepare for and adapt to the changing climate.
As part of this healing journey, in 2007 the National Centre for Truth and Reconciliation was established, as part of the Indian Residential Schools Settlement Agreement, which was the largest class action settlement in Canadian history, and the Truth and Reconciliation Commission was formed (12). With a six (6) year mandate to listen to and record the stories of Indian Residential School survivors, over 6,740 statements were heard and almost 100 Honorary Witnesses were inducted to work on Reconciliation. As a framework for this task the Commission used the United Nations Declaration on the Rights of Indigenous Peoples and developed ten guiding principles in which reconciliation is to be based on and in 2015 the Truth and Reconciliation Calls to Action were released.
Included in the calls to action are a number of calls for those in the health sector (Appendix B). It is the responsibility of the public health representatives to review and understand these calls along with the United Nations Declaration so that those representatives can assist and actively take part in reconciliation, while also ensuring that they are acting in the best interest of the peoples they serve. Without taking the steps to learn about the history of the Indigenous peoples as well as accepting the responsibility to do so, public health representatives are doing an injustice to the Indigenous peoples of this land, the non-Indigenous peoples as well as the land itself. There is much to learn as we begin down the path of reconciliation but this step will also lead us down the path of reconciliation with the land, a key component when planning for the future health and the effects of our changing climate.

In today’s world, many have not been educated or informed of much or any of this information and in a time of “Reconciliation” and a “Changing Climate” you cannot prepare for a changing climate without reconciling with the First Peoples of this land and the land itself. Organizations and Individuals alike must be informed about the past in order to be able to understand our present and make real attainable strategies for our collective future which ensures health and well-being of All Beings. As Canadians become more and more educated about Canada’s True history, and as Reconciliation takes place through the opening of the minds, hearts and spirits, the building of trust, relationships and the sharing of knowledge will no longer be a barrier to success in adapting to our changing climate and we will start to see the beginning of a New history.
5 Including the Indigenous Voice

Organizations, including public health authorities, are undertaking self-reflection activities to better understand the past and current relationships with the Indigenous Communities and urban populations. Many are starting to embark on this journey as the Truth about Canada’s history surfaces and people become more and more aware of the atrocious events of colonialism which have occurred and on which Canada has been founded. People are starting to understand that the conditions and the many visible needs that Indigenous peoples face in both community and urban settings, in all areas of living, are indeed not of their own doing but rather stem from colonialism and actions that have taken place in the past and continue to contribute to the present. Individuals as well as organizations such as the PHAC are realizing that there needs to be a drastic shift in the way that Indigenous peoples are perceived and communicated with, but more importantly, how services that are being developed and delivered need to be done in partnership to ensure that they are not only appropriate and are meeting the “First Peoples” of “Turtle Islands” needs, but so that the rest of society can benefit from the knowledge they possess.

Although we would like to think that we can speak past tense about events that have lead to the inequalities for Indigenous peoples today, the reality is that the actions of the past have seriously affected the present and will continue to do so into the future, particularly if we do not start including Indigenous voices in the conversations that are occurring around improving these conditions. The effects of the inequities, misrepresentation and imperticular the exclusion of Indigenous knowledge, opinions and voices that have occurred and in many cases continue to occur, are being felt around the globe as Climate Change increasingly poses threats to our collective health and well-being.

Just as the Indigenous voices have been deliberately disregarded, discredited and at times condemned, so has the notion of Climate Change by some. It is vitally important in the face of our changing climate to not only listen to the wisdom of the Indigenous people but to ensure that

EXAMPLES OF ORGANIZATION ACTIONS

Ministry of Health and Long-Term Care
Relationship with Indigenous Communities Guideline, 2018

Ontario Professional Planners Institute
Indigenous Planning Perspectives Task Force Report

Natural Resources Canada recently released the Natural Resource Canada’s Initiative for Knowledge Co-creation in Collaboration with Indigenous Communities 2019
what is being said by them is incorporated into the actions that are developed and implemented in a meaningful way. The wisdom held and the inherent connection to Mother Earth that is ingrained within Indigenous knowledge will be integral to adapting to the changes ahead.

In knowing and understanding this, anyone wishing to engage with the Indigenous peoples must also know and understand that due to the diversity of the Indigenous populations that have called North America home since time immemorial, it is difficult to articulate and/or formulate specific guidelines to ensure that meaningful partnerships, dialogue and inclusion of the Indigenous people is occurring. In Canada, there are 632 First Nation Communities with Ontario being the home of 133, which is the largest population in Canada (13). Each of these Communities has their own distinct needs, priorities and ways of knowing and doing, with only approximately half living within Community. This means that those who do not reside within community have made their homes within the urban centres and other areas outside reserve lands. Metis and Inuit peoples are also not included in these numbers and also have their own needs, priorities and ways of knowing and doing (14).

Even though there are not specific guidelines to meet this need, there are some best practices and concepts that can be applied to ensure that the Indigenous voices are being sought out, listened to and incorporated meaningfully into actions being pursued.

As climate change adaptation planning as well as other health related activities are undertaken, the following list of best practices should be considered when public health professionals are pursuing the meaningful inclusion of Indigenous peoples voices.

➢ **TRUST** is the foundation of meaningful engagement with Indigenous peoples.
  
  • Trust has to be earned. It will take time, consistency, and transparency.
  • Trust is not readily given due to the history of Indigenous relations in Canada. It is next to impossible to respectfully and effectively engage with Indigenous peoples without knowledge of this history.

➢ **RESEARCH** is necessary to have an understanding of the Community/Organization that public health authorities want to engage.
  
  • Research long before engagement with a community/organization. Do your due diligence.
    
    o Developing a holistic understanding of the community before interaction is critical.
  • Researching the following will be a good starting place
    
    o History of the community/organization
    o Community/organization profiles and statistics
    o Fishing, hunting, and gathering activities
    o Environmental concerns
    o Spiritual practices
Governance - custom, elected, or majority elected leadership
Tribal council affiliations
Decision making structures
Role of hereditary leaders and Elders
Community priorities
Socio-economic context
Previous/present relationships and what they look(ed) like

➢ RESPECT is vital to ensuring that TRUST will be earned
   • Respect the ongoing impacts of colonialism. The Indian Act still very much controls and constrains the lives and opportunities of Indigenous Peoples
   • Respect cultural differences. You are working with another culture and as such, the values of that culture need to be understood and respected.
     o Cultural Awareness or Competency training should be completed
     o Be mindful that each community/organization is unique and have their own ways of knowing and doing.
   • Respect that your timeline is YOURS, not theirs.
     o Do not try to engage when the community may be involved in cultural or traditional activities that may take them onto the land and away from the office.
     o Remember that Communities are very community oriented and certain events such as the passing of a community member may have impacts on scheduling and/or meetings may be cancelled last minute.
   • Respect that what you as a public health representative and your organization value, may not have the same value in the community/organization.
     o While your initiative may bring opportunities, they may not have the same value to a community

➢ RECOGNITION of the Rights of Indigenous peoples is legislated
   • Recognize and respect Indigenous Peoples’ rights as defined in s. 35 of the Constitution Act, 1982
     o Indigenous peoples have had to fight very hard to have their rights recognized in the Constitution and upheld in the courts.
   • Recognize and respect the United Nations Declaration on the Rights of Indigenous Peoples
     o The declaration was adopted by resolution of the United Nations General Assembly on September 13, 2007 but was not indorsed by Canada until November 2010 and not fully supported until May of 2016.

➢ REMEMBER that it has been over many generations that colonialism has had an impact and that it will be over many generations for those impacts to be rectified
• Remember engagement is not one size fits all - each community is unique unto itself as is each organization.
• Remember prior to engaging with the Communities/organizations you cannot predict how the relationship will unfold or how people or initiatives will be viewed.
• Remember relationships and meaningful engagement and inclusion can not be built with a rigid timeline nor can they be fast tracked.
• Remember engagement should not be something done off the corner of the desk. It's a critical component of ensuring the meaningful inclusion of Indigenous voices and should be afforded an appropriate budget.
• Remember to ensure that everyone who will be engaging with Indigenous people should be educated.
  o Develop a training plan for staff.
    • All Staff should be trained in the History of Canada especially those interacting with Indigenous people.
    • The training may be far outside of their normal training activities but should be a necessary component for all Canadians.

➢ RESPONSIBILITY is on the Public Health Professionals to ensure that they are educated so that they can appropriately and adequately provide climate change adaptation health services to the Indigenous peoples, learn from the knowledge that Indigenous peoples possess and meaningfully implement that knowledge for the benefit of All.

There are some concepts that have recently emerged in the Environment field that are gaining traction from Indigenous Communities and may prove to be helpful in ensuring the meaningful inclusion of the Indigenous voices in the development of public health climate change adaptation and mitigation action. These concepts include the terms Nothing About Us Without Us, Ethical Space, Two Eyed Seeing, Seven Grandfather Teachings, Seven Generations Thinking.
5.1 Nothing About us Without Us

Nothing about us without us is a slogan used to communicate the idea that no policy or action should be decided by any representative without the full and direct participation of members of the group(s) affected by that policy. This involves national, ethnic, disability-based or other groups that are often thought to be marginalized from political, social, and economic opportunities (14). This term has been adopted and clearly articulated by the Indigenous leadership and people as a whole especially when it comes to health and climate change.

5.2 Ethical Space

The concept of Ethical Space defined by Elder Willie Ermine (a Cree man and an Assistant Professor with the First Nation’s University of Canada)

“is formed when two societies, with disparate worldviews, are poised to engage each other. It is the thought about diverse societies and the space in between them that contributes to the development of a framework for dialogue between human Communities. The ethical space of engagement proposes a framework as a way of examining the diversity and positioning of Indigenous peoples and Western society in the pursuit of a relevant discussion on Indigenous legal issues and particularly to the fragile intersection of Indigenous law and Canadian legal systems. Ethical standards and the emergence of new rules of engagement through recent Supreme Court rulings call for a new approach to Indigenous-Western dealings. The new partnership model of the ethical space, in a cooperative spirit between Indigenous peoples and Western institutions, will create new currents of thought that flow in different directions of legal discourse and overrun the archaic ways of interaction”(15).
This term is being adopted and modified by many such as the Indigenous Circle of Experts (ICE) who are a team of multidisciplinary Indigenous experts in different fields who have come together to work collectively in protecting the environment and ensuring the inclusion of the Indigenous voice in doing so. Working with various environmental organizations and government, they have collaboratively developed the document, “We rise together - Achieving Pathway to Canada Target 1 through the creation of Indigenous Protected and Conserved Areas in the spirit and practice of reconciliation” (16). This document outlines how Canada can achieve its international commitments to conserve 17% of its freshwater and land through co-ordinated efforts as agreed to under the United Nations Convention on Biological Diversity.

5.3 Two Eyed Seeing

In 2004, Albert Marshall, Moose Clan of the Mi’kmaw Nation, Eskasoni in Unama’ki – Cape Breton, Nova Scotia brought the term “Two-Eyed Seeing” or “Etuaptmumk in the Mi’kmaw language, into the Integrative Science co-learning journey and has defined it as follows: “Two-Eyed-Seeing is learning to see from one eye with the strengths of Indigenous knowledge and ways of knowing, and from the other eye with the strengths of Western (and/or scientific) knowledge and ways of knowing while learning to use both of these eyes together for the benefit of all” (17).

This tool is being embraced by many people as well as organizations and as part of “Reconciliation” and ensuring that we are paving a path forward collectively that will ensure for all our future generations.

There are many positive and encouraging examples of this new path forward that not only creates space for the Indigenous voices and perspectives to be heard, but also understood and meaningfully included in the discussions and decisions that are being made during this time as our climate is rapidly changing. These examples need to be further explored by the public health professionals, embraced, learned from, encouraged and championed.

APPLICATION OF “TWO-EYED-SEEING”

Two-Eyed Seeing in Research and its Absence in Policy: Little Saskatchewan First Nation Elders’ Experiences of the 2011 Flood and Forced Displacement


An Application of Two-Eyed Seeing: Indigenous Research Methods with Participatory Action Research

https://journals.sagepub.com/doi/full/10.1177/1609406918812346

Canadian Journal of Nursing Research Two-eyed seeing: a framework for understanding Indigenous and non-Indigenous approaches to Indigenous health research

To also aide public heath representatives to be inclusive and act in respectful ways the concepts of the “Seven Grandfather Teachings” as well as the “Seven Generations” principle can be looked upon.

5.4 Seven Grandfather Teachings

To also help in this journey another simple yet complex concept that is one of the guiding principles of life for many Indigenous People are what is known as the Seven Grandfather Teachings of, Humility, Courage, Honesty, Wisdom, Truth, Respect and Love. The Seven Grandfather Teachings encompass the morals, values, structures, ceremonial practices and spiritual beliefs of the Aanishnabe people. These teachings ensured the survival of the people and reflects what we all strive for in life which is to live a good life or Mno Bmaadzawin. If you strive to live your life following these seven principles, a good life is obtainable.

5.4.1 Humility, is represented by the wolf. For the wolf, life is lived for his pack and the ultimate shame is to be outcast. Humility is to know that you are a sacred part of creation. Live life selflessly and not selfishly. Respect your place and carry your pride with your people and praise the accomplishments of all. Do not become arrogant and self-important. Find balance in within yourself and all living things.

5.4.2 Courage, is represented by the bear. The mother bear has the courage and strength to face her fears and challenges while protecting her young. The bear also shows us how to live a balanced life with rest, survival and play. To face life with bravery is to know Courage. Find your inner strength to face the difficulties of life and the courage to be yourself. Defend what you believe in and what is right for your community, family, and self. Make positive choices and have conviction in your decisions. Face your fears to allow yourself to live your life.

5.4.3 Honesty, is represented by the Sasquatch. He understands who he is and how to walk in his life. He reminds us to be ourselves and not someone we are not. An honest person is said to walk tall like the Sasquatch as he accepts himself and knows how to use his gift. He does not seek the power, speed or beauty of others. He uses what he has been given to survive and thrive. To walk through life with integrity is to know honesty. Be honest with yourself. Recognize and accept who you are. Accept and use the gifts you have been given. Do not seek to deceive yourself or others.

5.4.4 Wisdom, is represented by the beaver because he uses his natural gift wisely for his survival. The beaver also alters his environment in an environmentally friendly and sustainable way for the benefit of his family. To cherish knowledge is to know wisdom. Use your inherent gifts wisely and live your life by them. Recognize your differences and those of others in a kind and respectful way. Continuously observe the life of all things around you. Listen with clarity and a sound mind. Respect your own limitations and those of all of your surroundings. Allow yourself to learn and live by your wisdom.
5.4.5 Truth, represented by the Turtle as he was here during the creation of Earth and carries the teachings of life on his back. The turtle lives life in a slow and meticulous manner because he understands the importance of both the journey and the destination. Truth is to know all of these things. Apply faith and trust in your teachings. Show honor and sincerity in all that you say and do. Understand your place in this life and apply that understanding in the way that you walk. Be true to yourself and all other things.

5.4.6 Respect, is represented by the buffalo. The buffalo gives every part of his being to sustain the human way of living, not because he is of less value, but because he respects the balance and needs of others. To honor all creation is to have respect. Live honorably in teachings and in your actions towards all things. Do not waste and be mindful of the balance of all living things. Share and give away what you do not need. Treat others the way you would like to be treated. Do not be hurtful to yourself or others.

5.4.7 Love, is represented by the eagle because he has the strength to carry all the teachings. The eagle has the ability to fly highest and closest to the creator and also has the sight to see all the ways of being from great distances. The Eagle’s teaching of love can be found in the core of all teachings, therefore an eagle feather is considered the highest honor and a sacred gift. To know love is to know peace. View your inner-self from the perspective of all teachings. This is to know love and to love yourself truly. Then you will be at peace with yourself, the balance of life, and all things and also with the creator.

5.5 Seven Generation Thinking

We must also consider our next seven generations in our thinking. This is a concept that most find difficult to do but it is a view which the Indigenous people have and another reason they have been able to thrive and survive for millennia in a rich sustainable environment.

People often ask what does seven generations look like. It is hard for most to think that far into the future and to think in a context that takes others into consideration that far into the future. This concept though, can be easily visualized in a way that connects you to the importance of adopting this philosophy in your everyday decision-making. When you talk seven generations, one can envision that you are referring to the following:
Your Great Grandmother, 
Your Grandmother, 
Your Mother, 
You, 
Your Child, 
Your Grandchild, 
Your Great Grandchild.

6 KEY MESSAGES
Climate change impacts are being felt all over the world and are a real and pressing issue for the health of Ontarians and Canadians, Indigenous or not. It poses significant risks to communities, the economy, and the natural environment. It has already had and will continue to have both direct and indirect impacts on the health of individuals, communities and species, with the greatest impacts being on vulnerable and marginalized populations. It has been identified that the sensitivity of the natural environment to changes in weather and climate affect the ecosystems and socioeconomic aspects of all communities but more so the Indigenous Communities because of where they live, and how they continue to rely on the environment for economic and cultural sustenance. So, when speaking of climate change and health it can no longer be ignored that the inclusion of the Indigenous voices is not only necessary but imperative due to the intimate connection that occurs between the First Peoples and Mother Earth.

Almost every aspect of Indigenous peoples’ traditions, culture, language and practices stem from their natural surroundings. The environment is not only crying out for help right now but is also giving us, the people, instructions on how to respond to the current climate change crisis.

CASE STORY OF POSITIVE CHANGE
The updated Healthy Environments and Climate Change Guideline was released on March 20, 2018, and includes a new requirement for local public health agencies to undertake a climate change and health assessment. To support public health actions based on these health assessments, Simcoe Muskoka district Health Unit (SMDHU) and the Public Health Agency of Canada (PHAC) Ontario Region collaborated to complete a literature review to identify the range and characteristics of public health interventions that support climate change adaptation and address expected health impacts to support public health agencies in climate change and health adaptation strategies and actions.

On May 24th 2019, the project team recognized that there had been no deliberate consideration for the impacts to Indigenous peoples and communities included within the search criteria for the study. As the process was well underway, it was determined that funding would be allocated to this oversight and Cambium Aboriginal Inc. would be contracted to work alongside the PHAC and SMDHU team to develop a document that would be an essential module within the project and bring to light some of the best practises that other health partners could engage in to ensure respectful inclusion of indigenous voices not only in planning and implementing work on climate change adaptation but in engaging and working collaboratively with Indigenous Communities in general.
The Indigenous peoples have been gifted with the knowledge and tools to learn from those who make their home within the natural surroundings. This gift was given by the Creator so that we, the people, understood how to survive and flourish in a sustainable way and maintain balance within the ecosystem (Never take the first, never take the last and always only take what is needed). This includes being able to identify specific species to aid and cure sickness and observing nature to be proactive in preparing for environmental changes. Along with this gift the Indigenous peoples were also given the responsibility to teach and ensure other humans understood and adopted this concept.

Many organizations, including the federal and provincial governments, as well as local public health authorities, have recognized the value of the knowledge that Indigenous peoples hold especially when it comes to climate change adaptation. The importance of not only creating opportunities for their voices to be heard but ensuring their knowledge is being rooted into the conversations that preceed the development of policies and legislation and ensuring the meaningful inclusion of this wisdom is embedded in the plans for the future cannot be stressed enough.

As part of this journey of understanding Indigenous peoples and including them in the discussions and planning about our collective future, it is important to understand the need for healing from events that have taken place in the past such as the “Residential Schools”. In todays world, many have not been educated or informed of much or any of the True history of Canada and in a time of “Reconcilliation” and a “Changing Climate” you cannot prepare for a changing climate with out reconcilling with the First Peoples of this land and the land itself.

Defined by the TRC, “Reconcilliation” means the following:

“Reconciliation is about establishing and maintaining a mutually respectful relationship between Aboriginal and non-Aboriginal peoples in this country. In order for that to happen, there has to be awareness of the past, acknowledgement of the harm that has been inflicted, atonement for the causes, and action to change behaviour.”(18)

You must also know and understand that due to the the diversity of the Indigenous populations that have called North America home since time immemorial, it is difficult to articulate and/or formulate specific guidelines to ensure that meaningful partnerships, dialogue and inclusion of the Indigenous people is occuring and there are some basic principals that can be used for guidance.

➢ TRUST is the foundation of meaningful engagement with Indigenous peoples
➢ RESEARCH is necessary in order to have a better understanding of the Community/Organization that you want to engage
➢ RESPECT is vital to ensuring that TRUST will be earned
➢ RECOGNITION of the Rights of Indigenous peoples is legislated
➢ **REMEMBER** that it has been over many generations that colonialism has had an impact and that it will be over many generations for those impacts to be rectified

➢ **RESPONSIBILITY** is on the public health practitioners to ensure that they are educated so that they can appropriately and adequately provide climate change adaptation health services to the Indigenous peoples, learn from the knowledge that Indigenous peoples possess and meaningfully implement that knowledge

Although there have been many disheartening events in the past that have tarnished the relationship of Indigenous peoples and society, there are many positive initiatives and projects that are taking place. These initiatives are supporting and encouraging the recognition of past events as well as the meaningful inclusion of Indigenous perspectives and voices. This undertaking is one such initiative that will lead to planning measures that will be beneficial to us **All** as we begin to work together in the face of a changing climate.
APPENDICES

Appendix A - Climate Change Health Adaptation Program Ontario Funded Projects

Fort William First Nation (2019-2020)

Year(s) Funded: 2019-2020

Topic Area: Adaptation Planning

Title: Climate Change & Health Adaptation in Fort William First Nation: Planning for the Future, Today

Project Objectives:

- Have a framework for the project based on the medicine wheel.
- Educate and inform community members about climate change in general, the links between climate change and health, and adaptation.
- Share findings with the Thunder Bay District Health Unit to inform their Climate Change and Health Vulnerability and Adaptation Assessment process and outcome.
- Share findings with community members with an easy to understand report.
- Building capacity for climate change and health adaptation in Fort William First Nation (FWFN).
- Foster intergenerational knowledge sharing and relationship building between FWFN Elders and youth.
- Build respectful relationships between Lakehead University climate change scholars, FWFN Members, and Thunder Bay District Health Unit Staff.
- Share knowledge and experiences related to climate change and health adaptation planning with other FN Communities in the Lake Superior watershed.

Activities:

- Hire two Indigenous youth (one Lakehead student and one high school student) and train them as part of this project. Project partners will train the youth in qualitative research data collection and climate change impact and adaptation science.
- Conduct three workshops, all workshops will be interactive, conducted in ways that respect traditional knowledge and align with cultural values and practice:
  - The first workshop will provide basic information on climate change and the impacts of climate change on food and water resources, and wildlife in the traditional territory of FWFN.
  - The second workshop will focus on the links between climate change and health specifically.
**Pays Plat First Nation (2019-2020)**

**Year(s) Funded:** 2019-2020

**Topic Area:** Adaptation Planning

**Title:** Pays Plat First Nation – Preparing Today for Our Health Tomorrow

**Project objectives:**

- Continue and complete previous phases of Pays Plat’s Climate Change and Health Adaptation Program (CCHAP).
- Build on achieved successes and allow for forward movement into the next stage by creating and implementing an adaptation plan with focus on both short- and long-term objectives.
- Advocate and raise awareness to the potential threats of climate change for the health and well-being to the community of Pays Plat First Nation (PPFN).

**Activities:**

- Hold workshops with guest speakers. Potential speakers include a climate change specialist, a water scientist, and a specialist in creating adaptation plans.
- Conduct interviews with Elders, Hunters and Medicine Gatherers. The information obtained from Elders, Hunters and Medicine Gatherers will continue to be added to a database.
- Conduct the watershed evaluation. To perform this component of the project, field work investigations consisting of water and sediment will be continued, building upon the data collected from the past phases of the project.
- Information will be gathered will then create an in-depth report on our findings. Climate change and health booklets will be generated for each community member as well as on-going newsletters and pamphlets regarding updates and new findings.
- Create a draft of climate change adaptation plan. Gather an adequate amount of data to be able to accurately assess the potential threats to the health and well-being of the community.

**Fort Albany First Nation (2019-2020)**

**Year(s) Funded:** 2019-2020

**Topic Area:** Food Security

**Title:** Climate Change and Food Security in Subarctic Canada: Adaptation through the Harmonization of Indigenous Harvesting Pursuits and Agroforestry Activities to Form a Sustainable Import-substitution Strategy (Year 2)
**Project objectives:**

- To diversify the traditional harvest to include the harvest of fish, and overabundant geese.
- To increase the number and size of agroforestry plots.
- To further transition from the university-led partnership to a Fort Albany First Nation-led partnership.
- To increase community, regional, and national awareness to the challenges and opportunities associated with climate change and food security.
- To use both Indigenous knowledge and western science constructs to end food insecurity in Fort Albany through the harmonization of traditional harvesting and agroforestry gardening activities, to form a sustainable import-substitution strategy.
- To further refine the Sharing-the-Harvest protocol (i.e., a best practice framework) with respect to climate change adaptation and subarctic food security.

**Activities**

- Harvest overabundant lesser snow geese, giant Canada geese and fish, and share these traditional foods with community.
- Composting: Animal by-products produced during the above described harvesting will be put into an Actium composter with other locally-sourced material (e.g. sawdust, dried grasses and leaves or other high C substrates). Composting animal by-products will be managed following established procedures. Compost will be sieved to remove non-decomposed material; sieved composts will be stored until applied to agroforestry gardens.
- Enhance perennials in agroforestry sites by planting new perennials and evaluating already planted perennials from last year. The agroforestry component will continue to incorporate annual vegetables, and will be enhanced with the use of perennials. A perennial, asparagus (Asparagus officinalis), was planted three years ago in Fort Albany, and since it takes 2-3 years to yield “asparagus”, the team will evaluate the viability of this easy-to-maintain vegetable crop during the tenure of the proposed project. In addition, the team proposes to add more fruits (berries) to the agroforestry community and home gardens.
- Expanding (scaling up) the number and/or size of agroforestry sites to therefore increase produce yield.

**Moose Factory/Mocreebec Eeyoud (2019-2020)**

**Year(s) Funded:** 2019-2020

**Topic Area:** Food Security
Title: The Living, Learning Leading Garden Project

Project Objectives:

- Bolster community confidence.
- To adapt our activities to the first year’s lessons learnt about our climate and health needs.
- To generate a second year of climate data (knowledge).
- To build increased capacity for large-scale and high-quality production under a multi-year plan that is based on adaptation and lessons learnt.
- The four objectives have been set based on the lessons learnt and hard work undertaken in 2018.

Activities:

- Hire and build capacity of two (2) local staff: Agri-Food, Health & Climate Advisors – one (1) full-time for six months (Senior) and one (1) full-time for four months (Assistant).
- Collect a second year of baseline climate data in order to compare and contrast with 2018.
- Complete the building of a second greenhouse structure within the grounds of the Cree Village Ecolodge in order to expand the capacity to grow produce requiring more than 90 days to grow.
- Use existing greenhouse (built in 2018) to get an advance start on specific plants prior to transplanting into regular plots on the grounds of the Cree Village Ecolodge (season expansion).
- Expand on the growing capacity of perennial and traditional plants: i.e. raspberries, strawberries, rhubarb, Haskap berries, Saskatoon berries, blueberries, and sweet grass.
- Implement techniques and use of materials to reduce work load during growing season and to enhance the growing conditions for ground-level gardens, e.g. garden mats.
- Hire two (2) youth summer workers (using Ontario grant funding) with the objective of sowing seeds (knowledge) in climate, health and agri-food related issues among the next generation.
- Work with individuals in the community and continue to support household gardeners through workshops, regular information sessions, and timely advise on how to address challenges.
- Produce sufficient quantities of a select 25 plants (highest health/output value) to make the case for large-scale gardening as an economically sustainable option, despite climate challenges.
• Finish remaining work on the roof of the garden shed, including adding waterproof measures and tiles. The shed will be used to store garden tools and supplies and may be used as workspace during wet forecast.
• Finish building a cold storage room in the basement of the Ecolodge, the room will be an 8’ x 8’ sealed off room for storage.
• Purchase another greenhouse to be assembled next year.
• Pre-order seeds and other supplies for next year’s growing season.
• Advanced purchasing of chest freezers for preservation of produce from gardens.

Red Rock Indian Band

Year(s) Funded: 2019-2020

Topic Area: Food Security

Title: Adapting to Climate Change: The Old Meets the New Ways

Project Objective: The purpose of the project is to conduct community-based research related to food security and health adaptation to Climate Change effects. The Project will integrate local Traditional Knowledge and contemporary knowledge that will allow the community to access healthy foods in times of limited access due to climate change effects.

Activities:
• Collect traditional knowledge from Elders.
• Share information surrounding health effects of our reliance on fast food or grocery stores versus growing their own foods, harvesting animals, and traditional uses of the water.
• Research possible weatherized greenhouses.
• Teach traditional methods of food harvesting, preparation, and storage.

Atikameksheng Anishnawbek First Nation (2019-2020)

Year(s) Funded: 2019-2020

Topic Area: Food Security/Environmental Changes to Moose

Title: A Preliminary Investigation of Moose Populations at Atikameksheng Anishnawbek through the Combination of Traditional Ecological Knowledge and Western Science

Project Objective: The purpose of the project is to gather baseline data on Moose populations (and other large mammal population), to ensure that the community remains vigilant in monitoring potential threats for this, and other iconic species. Conduct tests and compare multiple methods for surveying Moose populations to inform best practices/management strategies to effectively manage natural resources. The project will monitor Moose (and other species indirectly) through a combination of Traditional Ecological Knowledge and Western
Science, which in unison will enhance community understanding of Moose population demographics.

**Activities:**

- Conduct Values Mapping and Oral History Interviews. This activity will help community gain an understanding of large mammal, focusing on Moose, population dynamics over time. A lot of knowledge is passed through stories, thus recording these stories will provide an extensive dataset for population biology.

- Host interactive group mapping sessions with Elders, and interactive group mapping sessions with all community members. By having a map present, the project will be able to actively engage Elders in seeing the landscape. This method will be part of the integration of Indigenous Traditional Knowledge (ITK) in determining Moose population densities along with population dynamics. We respect the privilege to only publish what our Elders feel comfortable sharing.

- Western Science studies will be conducted through pellet group counts, a camera trap study, and snow tracking. **Pellet group counts** are a known method for estimating mammal density. Previous researchers have used this method to identify both Moose and White-tailed deer densities. We will use randomized plot designs, as is the norm in the literature, to conduct this study. **Camera trap** will allow us to identify different densities of large mammals observed, and will also aid in determining seasonal and temporal behavioral patterns given each picture will be stamped with the date and time taken. This method will also allow us to see possible hair loss from Winter Tick on Moose. Pictures will be shared with community and showcase the diverse wildlife within community. **Snow tracking** through quadrat surveys in the winter after fresh snowfall will help to better understand movement patterns and presence/absence of large mammals. This method will encourage volunteers to better understand the winter ecology of large mammals.

**Chippewas of Georgina Island First Nation (2019-2020)**

**Year(s) Funded:** 2019-2020

**Topic Area:** Vector Borne Diseases

**Title:** Addressing Health Impacts and Vulnerabilities within Chippewas of Georgina Island First Nation: Vector-borne Diseases in a Warming Climate

**Project Objectives:**

- Assist the Georgina Island First Nation community in enhancing the climate change adaptation work they have already undertaken.

- To retain skilled and trained members of the climate change adaptation team to continue to build capacity on climate change within the community.
• Further develop the community’s understanding of vector borne diseases, their relation
to climate change and the threats posed to community members, while ensuring they
remain informed with current information.
• Continue to identify and raise awareness, re-learn, teach and continue the cultural and
Traditional practices that are held within the community to deter vectors.
• Enable the program to be self-sustaining through economic development initiatives
which would include a business aspect and partnership with elementary students.
• Create methodology and lessons learned document to share information and knowledge
gathered with other Communities and organizations to assist and inform plans for the
benefit of future generations.

Activities:
• Conduct research and gather additional information on Health Vulnerability and
associated impacts. To stay current on recent activity and developments in vector-borne
disease migration by going through internet and literature reviews.
• Hold events and workshops to be pro-active in preventing infection derived from
traditional cultural practices, with environmental and community benefits.
• Continue to collect and review existing TEK in the community will aid in identifying any
gaps that may exist and ensure that rediscovered traditional practices are incorporated
into adaptation planning. Elders will be a focus for gathering new traditional uses,
practices and stories.
• Learning opportunity for members of the project team to work with the students and staff
from Waabgon Gaamig to identify a location for the greenhouse, purchase the
greenhouse and contract out to have the greenhouse constructed.
• Use of Traditional Knowledge collected through the TEK surveys and literature reviews
done to date, seeds of native plant species that have been identified to be natural
repellents will be sourced out and planted in the greenhouse for the students to nurture
and grow.
• Hold planting events of seeds of native plant species will occur in public places such as
our Nanbush Trails and or Community Tree Park. The community will have a minimum
of two planting events in the fall of 2019.
• Hold two events/workshops for the community to raise awareness of the project, health
risks, and adaptation plans/precautions.

A full list of Ontario funded projects and details can be found on the Climate Telling website at
http://www.climatetelling.info/
Appendix B - Truth and Reconciliation Calls to Action and The United Nations Declaration on the Rights of Indigenous Peoples

“The Truth and Reconciliation Commission of Canada believes that in order for Canada to flourish in the twenty-first century, reconciliation between Aboriginal and non-Aboriginal Canada must be based on the following principles.”

The United Nations Declaration on the Rights of Indigenous Peoples is the framework for reconciliation at all levels and across all sectors of Canadian society.

First Nations, Inuit, and Métis peoples, as the original peoples of this country and as self-determining peoples, have Treaty, constitutional, and human rights that must be recognized and respected.

Reconciliation is a process of healing of relationships that requires public truth sharing, apology, and commemoration that acknowledge and redress past harms.

Reconciliation requires constructive action on addressing the ongoing legacies of colonialism that have had destructive impacts on Aboriginal peoples’ education, cultures and languages, health, child welfare, the administration of justice, and economic opportunities and prosperity.

Reconciliation must create a more equitable and inclusive society by closing the gaps in social, health, and economic outcomes that exist between Aboriginal and non-Aboriginal Canadians.

All Canadians, as Treaty peoples, share responsibility for establishing and maintaining mutually respectful relationships.

The perspectives and understandings of Aboriginal Elders and Traditional Knowledge Keepers of the ethics, concepts, and practices of reconciliation are vital to long-term reconciliation.

Supporting Aboriginal peoples’ cultural revitalization and integrating Indigenous knowledge systems, oral histories, laws, protocols, and connections to the land into the reconciliation process are essential.

Reconciliation requires political will, joint leadership, trust building, accountability, and transparency, as well as a substantial investment of resources.

Reconciliation requires sustained public education and dialogue, including youth engagement, about the history and legacy of residential schools, Treaties, and Aboriginal rights, as well as the historical and contemporary contributions of Aboriginal peoples to Canadian society.

Defined by the TRC, “Reconciliation” means the following:

“Reconciliation is about establishing and maintaining a mutually respectful relationship between Aboriginal and non-Aboriginal peoples in this country. In order for that to happen, there has to be
awareness of the past, acknowledgement of the harm that has been inflicted, atonement for the causes, and action to change behaviour.”

“In order to redress the legacy of residential schools and advance the process of Canadian reconciliation, the Truth and Reconciliation Commission makes the following calls to action.”

Health Calls to Action

18. We call upon the federal, provincial, territorial, and Aboriginal governments to acknowledge that the current state of Aboriginal health in Canada is a direct result of previous Canadian government policies, including residential schools, and to recognize and implement the health-care rights of Aboriginal people as identified in international law, constitutional law, and under the Treaties.

19. We call upon the federal government, in consultation with Aboriginal peoples, to establish measurable goals to identify and close the gaps in health outcomes between Aboriginal and non-Aboriginal Communities, and to publish annual progress reports and assess long-term trends. Such efforts would focus on indicators such as: infant mortality, maternal health, suicide, mental health, addictions, life expectancy, birth rates, infant and child health issues, chronic diseases, illness and injury incidence, and the availability of appropriate health services.

20. In order to address the jurisdictional disputes concerning Aboriginal people who do not reside on reserves, we call upon the federal government to recognize, respect, and address the distinct health needs of the Métis, Inuit, and off-reserve Aboriginal peoples.

21. We call upon the federal government to provide sustainable funding for existing and new Aboriginal healing centers to address the physical, mental, emotional, and spiritual harms caused by residential schools, and to ensure that the funding of healing centers in Nunavut and the Northwest Territories is a priority.

22. We call upon those who can effect change within the Canadian health-care system to recognize the value of Aboriginal healing practices and use them in the treatment of Aboriginal patients in collaboration with Aboriginal healers and Elders where requested by Aboriginal patients.

23. We call upon all levels of government to:

   i. Increase the number of Aboriginal professionals working in the health-care field.

   ii. Ensure the retention of Aboriginal health-care providers in Aboriginal Communities.

   iii. Provide cultural competency training for all healthcare professionals.
24. We call upon medical and nursing schools in Canada to require all students to take a course dealing with Aboriginal health issues, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, and Indigenous teachings and practices. This will require skills-based training in intercultural competency, conflict resolution, human rights, and anti-racism.

**Settlement Agreement Parties and the United Nations Declaration on the Rights of Indigenous Peoples**

48. We call upon the church parties to the Settlement Agreement, and all other faith groups and interfaith social justice groups in Canada who have not already done so, to formally adopt and comply with the principles, norms, and standards of the United Nations Declaration on the Rights of Indigenous Peoples as a framework for reconciliation. This would include, but not be limited to, the following commitments:

i. Ensuring that their institutions, policies, programs, and practices comply with the United Nations Declaration on the Rights of Indigenous Peoples.

ii. Respecting Indigenous peoples’ right to self-determination in spiritual matters, including the right to practice, develop, and teach their own spiritual and religious traditions, customs, and ceremonies, consistent with Article 12:1 of the United Nations Declaration on the Rights of Indigenous Peoples.

iii. Engaging in ongoing public dialogue and actions to support the United Nations Declaration on the Rights of Indigenous Peoples.

iv. Issuing a statement no later than March 31, 2016, from all religious denominations and faith groups, as to how they will implement the United Nations Declaration on the Rights of Indigenous Peoples.

49. We call upon all religious denominations and faith groups who have not already done so to repudiate concepts used to justify European sovereignty over Indigenous lands and peoples, such as the Doctrine of Discovery and terra nullius.

**Professional Development and Training for Public Servants**

57. We call upon federal, provincial, territorial, and municipal governments to provide education to public servants on the history of Aboriginal peoples, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, Indigenous law, and Aboriginal–Crown relations. This will require skills-based training in intercultural competency, conflict resolution, human rights, and anti-racism.
REFERENCES


15. ICE Report and Recommendations. We Rise Together-Achieving Pathway to Canada Target 1 through the creation of Indigenous Protected and Conserved Areas in the spirit and practice of reconciliation [Print and Internet]. Online Indigenous Circle of Experts; 2018. Available from https://static1.squarespace.com/static/57e007452e69cf9a7af0a033/t/5ab94aca6d2a7338ecb1d05e/1522092766605/PA234-ICE_Report_2018_Mar_22_web.pdf

