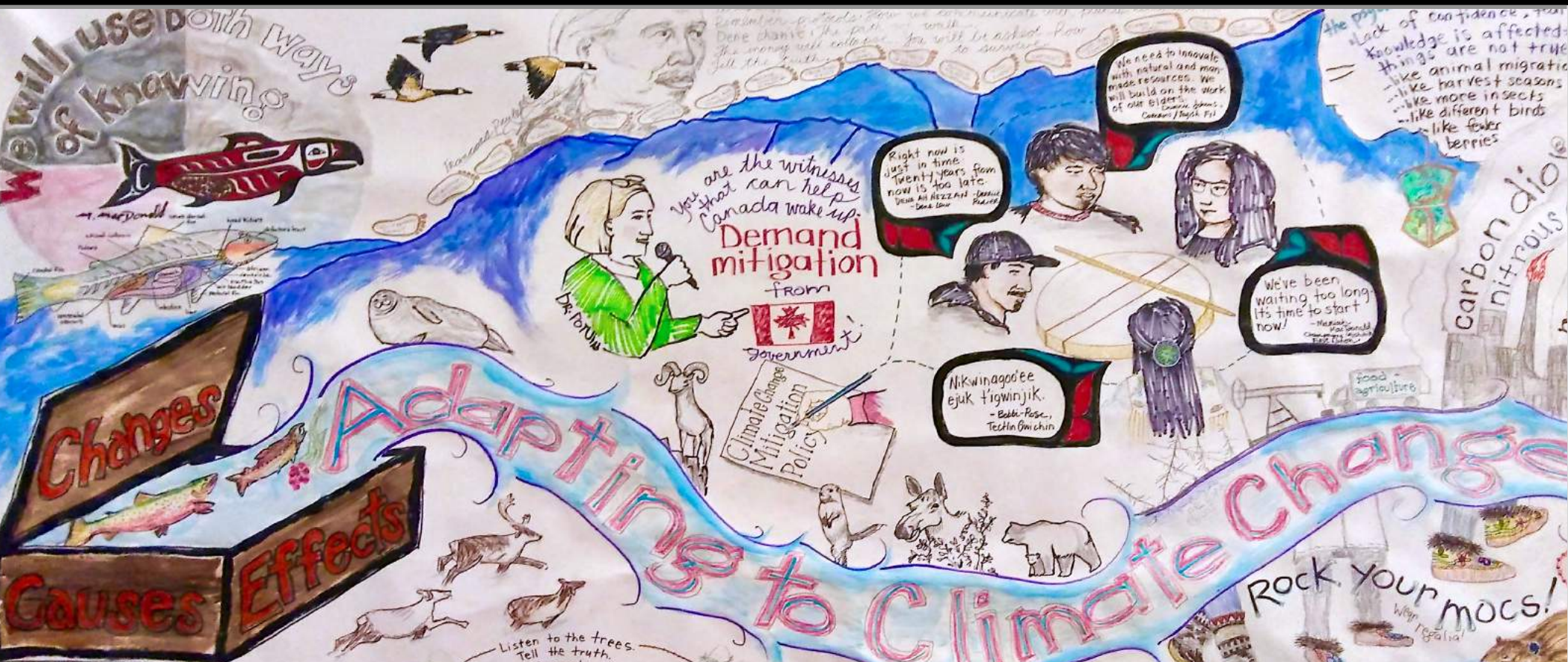




OUR LAND | OUR PEOPLE

Protecting and Preserving Our Land, Language and Culture for Future Generations

ASSESSING CLIMATE CHANGE AND ADAPTATION IN ROSS RIVER, YUKON
MARCH 2019





[Pictured above]: YIC4 youth participants and community-based monitoring representatives with Keynote Speaker and Dene Elder, Francois Paulette at an evening banquet during the YIC4 training, November 29th, 2017.



This community report describes outcomes from the **Yukon Indigenous Community Climate Change Champions (YIC4) Project: Mobilizing Knowledge for Developing Indigenous Community Champions for Climate Change Adaptation in the Yukon (2017-2019)**.

This project was led by the Arctic Institute of Community-Based Research (AICBR). The AICBR works with communities to develop their own solutions to complex problems that are relevant, community-driven and sustainable. Current priorities include: *climate change adaptation, food security and food sovereignty and youth engagement and leadership*. AICBR works in participatory ways to strengthen capacity and takes a 'whole-of-community' approach, built on the principles of respect, relevance, responsibility, and reciprocity.

WWW.AICBR.CA | 867-668-3393 | 308 HANSON STREET, WHITEHORSE, YUKON

INTRODUCTION

Between November 2017 to March 2019, three of our youth, Derrick Redies, Robby Dick and Joshua Ladue, took part in the YIC4 training project along with 38 other Indigenous youth (aged 18-30 years) from across the territory and beyond (Northern British Columbia, Northwest Territories and Nunatsiavut).

During Phase 1, youth gathered in Whitehorse at the Yukon Inn for four days of training, which built the foundation of knowledge in the area of climate change from a global to local perspective. **During Phase 2**, Derrick, Robby and Joshua worked with AICBR to complete a community-based assessment of the needs, strengths and opportunities for action related to climate change adaptation in Ross River.

In January 2019, another training session was held for new and returning youth to further their knowledge in the area of climate change action and develop leadership, communication and advocacy skills that they can apply to future climate change work in their communities.

The entire training project was grounded in both **Indigenous and western scientific ways of knowing** and involved trainers and speakers from community, academic and policy levels, including Elders, scientists and other youth leaders.

Our Elders have been telling us about “hard times coming” and that we need to be prepared.

This report shares our community’s story of climate change and what we learned from discussions about what it means to adapt.

We hope this report acts as a foundation of knowledge that may guide us in future community-based work and planning in the area of climate change.



An Excerpt from a letter written by the youth at the YIC4 Training 1, November 27th, 2019:

...We have learned a lot about climate change over the past few days and we are worried about our future. We are strong and educated and we will do whatever it takes to protect our homelands as well as educate and instil our knowledge and traditional values into the next generation.

Canada is a large country with many pristine natural resources. Our lands are who we are. But we are concerned that many who make decisions for and about our lands, walk solely on concrete. Our voices matter and we want to be heard on the issues that directly impact us and our Mother, the Earth. We will no longer be silent because we have a duty as land stewards and the right to call for action on climate change mitigation and adaptation from our leaders. We have our eyes and ears open. We are the witnesses of climate change for the rest of the world because we are at the forefront of the drastic and detrimental impacts that it causes. We expect our leaders and elected representatives to do more...

Our food, biodiversity and very survival are at risk. We need to look after our lands, animals, waters, air, as well as each other in order to protect our food and water security for longterm health and wellbeing. We need to plan together for our collective futures.

Will you join us?

In respect and sincerity,

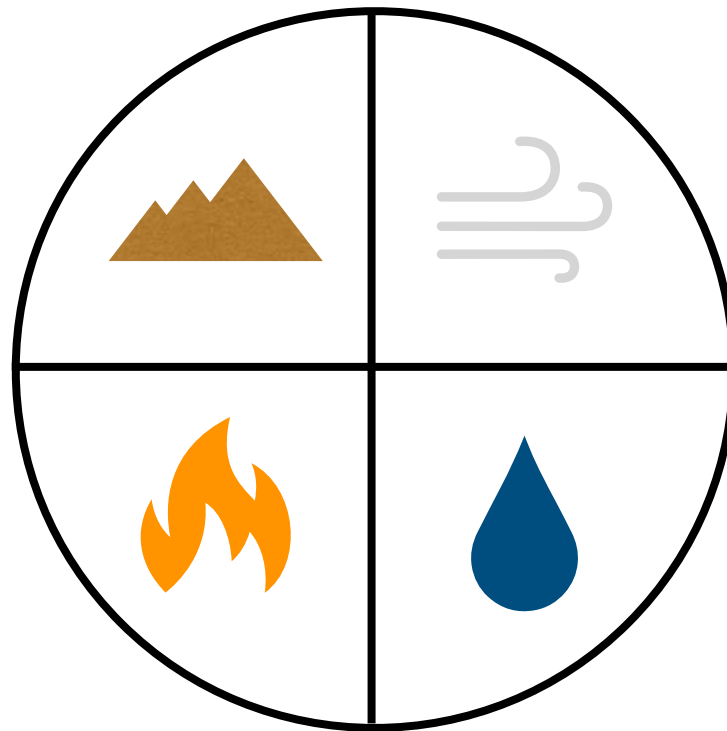
The Youth

Youth are the future caretakers of this land. We must learn how to stand tall in two worlds and make decisions to protect our future. We must do this by remaining grounded in the wisdom of our Elders as well guided by western science.

THE FOUR ELEMENTS of CLIMATE CHANGE

Earth, Air, Fire, and Water

These four elements guided us throughout the YIC4 training in understanding climate change and its impacts within our communities.



What is a Community Assessment?

A community assessment is a process used to identify strengths, needs and challenges of a specified community.

What sorts of changes have we seen with respect to climate change?

What are we doing now to adapt to these challenges?

What more could we do to adapt to and counteract these changes?



[Pictured above]: Norma Kassi, Community-Based Researcher and Director of Indigenous Collaboration at AICBR works with our youth to conduct an interview as part of the Ross River community assessment.

A **YOUTH TOOLKIT** was developed from ideas and research questions youth came up with during Training 1; this toolkit guided us in planning *HOW* to assess our communities, *WHO* to talk to, *WHEN* it is best to complete the work, and *WHAT* questions to ask.

The toolkit is also meant to help other communities lead an assessment.

**DOWNLOAD THE TOOLKIT
HERE:**

www.aicbr.ca/yic4

These are some of the questions we asked during our community assessment

More questions can be found in the toolkit.

During the Ross River assessment, we talked with **eight people**, including our Chief, some knowledgeable Elders, and youth.

How do you think climate change is affecting our people's health?

What's your message for our young people on how they must survive in the long-term future?

How are the moose and caribou populations doing? Have their numbers and behaviours changed? If so, what do you think is happening to them?

What is the main energy source for our community? Are there any green energy solutions that our community is exploring/ implementing?

What kinds of community plans do we have related to our land and climate? How can we build our houses/ buildings to be more climate resistant?



Are we prepared for natural disasters (i.e. fires, floods, etc.)? Do we have emergency plans in place? What happens if the highway gets cut off and there is no food coming in? How can we protect ourselves? How can we use our traditional knowledge to guide the process?

How is climate change affecting the land, the animals and the waterways? Which habitat areas are most vulnerable? How can we protect our drinking water?

What is the history behind our community?

What kind of relationship do we have with mining companies who operate on our lands?

Where do most people get their food? Do you think there are enough moose, fish and caribou (or other traditional food species) around here to sustain our people and if so, for how long?



[Pictured above]: YIC4 youth conduct an interview.

CHANGES

The following section tells of some of the changes we have witnessed to our lands, waters, plants, animals, and community over the years. These changes are rapid and dramatic. They are not unique to our community either; communities around the world are being impacted. It is sad to the devastation that is brought on by climate change.

Our Elders have warned about 'hard times coming' for many years. They tell us to be prepared. When you open your eyes and look around, you start to see the changes everywhere. Our land, waters and weather are now unpredictable. This is affecting our lifestyle and wellbeing.

But we can change and adapt. We have done so for millennia. Bit by bit we can make changes every year in a positive direction. We have not lost hope. We need to teach our truth for all to learn from so that we can build a more hopeful future for the next generation.

Over history, we have not had it easy. With colonial pressures from the government and mining companies, the harm done through the Residential School System, our forced removal from our traditional communities and lands, along with many other influences that exist in our lives today, we have an uphill battle.

But our Elders fought and died for our land and we have a duty to continue to protect it. There is strength and resilience in our people and in our community when we come together. We have the wisdom. We are the original land stewards.



EARTH

*“It was a simple life. A good life.
We followed the seasons, good water,
good food.”*

We lived off the land:

- * **Everything we need, we can get from the land.** This is what our Elders teach us. In the past, it was a simple life, a good life. There was no plastic or packaging; 100% of our food came from the land.

Moving our community:

- * **In the Old Village,** we lived next door to each other, sharing everything, looking after one another. This is what makes a community. Then we were moved to the new site without our consent. This has done harm to our community in multiple ways. For many, it still feels like something was stolen from us because that was our home.

Melting permafrost:

- * **Permafrost is melting rapidly.** This is a big concern for any new construction because the ground is not stable/strong enough to build on. A recent example of this was the melting permafrost under the school, which meant it had to be shut down and moved because it became unsafe for the kids.

Our land is rich:

- * **Our land is rich with minerals, rich with animals** but we need to keep it that way. Our Elders told us never to settle. We need to protect this land.
- * **There is a long history with mining in our territory.** Our Elders fought hard to protect what we have today and we need to keep that fight going. A lot of what happened with the mining here is problematic. A lot of mess and contamination was left behind.

What is Permafrost?

Permafrost is ground that remains at or below freezing (0°C) for two or more years in a row.



EARTH

We are connected to everything:

- * **We followed our traditional knowledge and protocols.** Some our Elders used to tell stories about being able to speak to the animals and the weather. Our people used to live in harmony with our environment and were connected to everything.

“We heard of our Elders being able to speak to the animals and things like that. I’ve seen it in my time. Even the weather — my grandmother would, like, if there was a cloud coming and it was going to rain, she would do some sort of gestures with her hands and the clouds would move way. That’s how connected we were with everything. You’d ask some sort of hawk, “Where is the moose?” and he would move its head around and direct the hunters to where the moose was.”

Shifting animal behaviour and species decline:

- * **The animals are confused and are getting harder to predict their migratory patterns.** Sometimes moose are coming early, sometimes they come late. Geese are also coming early now.
- * **Moose and caribou populations are declining.** We have very few species left to rely on. It used to be that the caribou would roam through our community and it looked like the whole ground was moving. Now, if you’re traveling out on the land for a week you’d be lucky to see even a few caribou. It’s the same with moose; moose seem to be dispersing farther and farther away.
- * **Overhunting is also a problem in our territory.** Not only is climate change affecting our moose, but so too are humans. There are a lot of big outfitters who can fly in and out of our territory and bring back a ‘trophy’ moose. Our people do not have the same privileged access. The cost of flying to where the moose are now is expensive. It is hard to see this happening when our people can’t afford to practice their traditional pursuits and also struggle to feed their families.



AIR

Shifting seasons and weather patterns:

- * **Fall has started coming earlier and we're getting more rain in the summer.** The weather is not consistent like it used to be.
- * **Throughout winter, it warms and then melts, freezes and thaws, multiple times.** This unpredictable weather makes it hard for trappers to make a living, because the warm weather impacts the furs and also people's ability to travel the land safely. In the past, it used to get to -50 or -60°C and stay that cold for weeks. We could expect that and plan for it.

New winds:

- * **We're starting to see more frequent, stronger west winds,** which is unusual.

*"You can't change it because it's coming.
Elders say got to be prepared."*





FIRE

Health and healing:

- * **Our health is being affected by all the changes to our climate.** There is more chronic disease in our communities - diabetes and cancer, in particular. In the past, we were healthy because our Mother Earth looked after us. No one complained about an upset or hurting stomach. We don't know if this trend is caused by the shift we are seeing in our diets to more processed foods, or if something is happening with our water; regardless, we're seeing more people dying at a younger age. Everything is connected - the health of our people and the health of our environment, it all ties together.
- * **Dealing with these changes is hard on our people.** Many are hurting. But the land is our healer. If we can get people out on the land, reconnected with our Mother Earth, that is the first step to healing.

We are concerned about forest fires:

- * **There was a big fire that threatened Faro many years back.** It decimated the upper bench. We need to have fire smarting around our community to protect ourselves from something similar happening to Ross River.

Stories of the big volcano:

- * **When the volcano erupted in Alaska,** the smoke covered up the sun and it got down to -80°C. People were so cold, they couldn't do anything. Animals took off because they could hear you coming in the snow from miles away. The cold air seems to amplify sound. We can learn from these ancient stories. We have to listen to our Elders and be prepared.





WATER

“I think for me, for Ross River — I think one of the most important things is our water — quality of water in our community. There are mines that are going to be coming up - I think we should be very concerned because the watershed flows in our direction and we rely on our water. We take it [water] for granted sometimes.”

Importance of water:

- * **We used to be able to drink water from the creeks.** It was clean and safe. Now, we see that it is contaminated. There is mercury in lakes across the North. We see fewer people drinking from their taps as well. They have to treat their water with chlorine.
- * **Water is the most important thing.** We can not take it for granted.
- * **The old dump was put in upstream from the community.** This meant that all the major contaminants like battery acid and old vehicle waste flowed downstream, right into our community.
- * **We worry about how all these changes will affect the fish.**

Water is changing:

- * **The river is shallower and there are more sandbars cropping up.** This impacts our ability to travel along the river and means we have to pack our gear much farther into shore.
- * **Some lakes are rising.** Lakes are overflowing, cutting off roads which makes them hard to cross in order to access traditional fishing spots.
- * **Around the world, the sea level is rising and oceans are being used as garbage dumps.** Indigenous communities are the ones most affected by these changes.

WATER

Melting snowpack:

- * **Caribou rely on the snowpack** in the mountains for safe travel and to guard them against the mosquitoes. The snow is melting faster and faster. The caribou rely on the snow. We rely on the caribou.

Inconsistent freeze-up:

- * **In the past, lakes and rivers used to freeze-up consistently over the course of the winter.** We could rely on them for travel, hunting and fishing. Now, some lakes and rivers are not freezing completely and thus not as safe to travel on.



Despite these many changes, we are still here. Our land is who we are as a people. Who better to look after the land than those who have been here since time immemorial? We know what needs to be done.

Our strength is inherent in our culture, our traditions, our language.

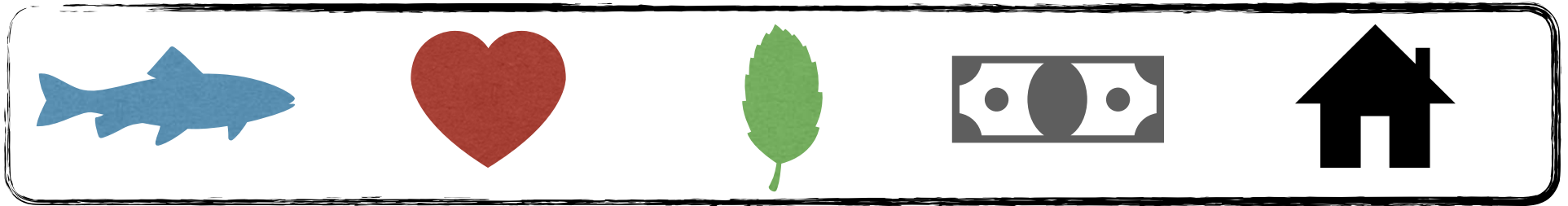
The next section of this report talks about action. It is a reflection on the areas where we are strong in counteracting and adapting to climate change already and it also provides hope and ideas for future work that could be done to preserve our future.

“One really important piece too is our culture and our identity. You know, a lot of these things we’re talking about — game management, harvesting practices, how we manage the land with our neighbours, with our people, with our family — there’s old teachings out there. We used to do it all. We were the land stewards. That’s not a word to be taken lightly, you know. That was a really, really huge responsibility. It was inherited throughout generations.”

Once we started exploring what changes were happening in our communities related to **earth, air, fire,** and **water,** it became clear how interconnected and complex the issues are.

The key areas of our community which are affected most by climate change are also the key areas where efforts can be made to adapt to and counteract further climate change damage.

These five key areas are:



**Food & Water
Security**

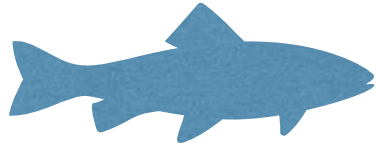
**Health, Social
& Culture**

**Species &
Habitat Areas**

Economy

**Infrastructure &
Transportation**

Assessing what the needs and priorities are in these five areas will help us to define where future opportunities for action are.



FOOD & WATER SECURITY

Need for community-based planning:

- * **Elders have told us to plan and be prepared.** We need to learn from their stories. We have seen what wonderful things are possible when different segments of the community come together to plan collectively. The most effective process is when planning is participatory, there are clear roles and responsibilities, outlined work plans and budget schedules, and we have Elder oversight. When we can define the path forward, we can tackle anything.

We need to protect the water first and foremost:

- * **Our biggest concern when it comes to the environment is keeping our waters clean.** Many are currently worried about the Selwyn Mine at the headwaters of the Pelly River; if something happens upstream, we will all be affected.
- * **We need to research if contamination is leading to disease,** especially cancer and how it all relates with the bacteria H.Pylori, which is affecting many Indigenous people all throughout the territory.

“If you’re smart, you’ll carry on stories”

Community hunts/harvest:

- * **We already gather together as a community on the land in many ways,** hunting, harvesting and teaching. We need to keep these practices going in an organized way so that we are immersed in our culture on a regular basis.
- * **We need to teach our youth to hunt and trap.** If we have hunting programs where youth can go out to learn from Elders about the land, how to hunt, fish, harvest and trap, we will be more prepared for hard times coming. This may also help to keep youth away from using drugs and alcohol.
- * **We are looking into establishing a community freezer.** People who are on social assistance could go fishing and contribute some of their catch to the community freezer, helping to feed single parent families.



HEALTH, SOCIAL & CULTURE

Reconnect to traditions:

- * **Traditional food is medicine.** It is both healing to be out on the land harvesting our traditional foods but these foods, especially moose, are also a nutritious and healthy food source. Nature is our healer.
- * **Learn the language, connect with culture and traditional values.** Listen to Elders. Sit with them and bring them tea. Learn a little bit everyday about Kaska culture, your identity and traditional laws and values. Our laws dictate respect, what is right and wrong and what to eat and avoid. Let these laws guide us into the future.
- * **Reconnect with the land.** There has been a disconnect with Mother Earth. But game management and harvesting is in our blood, it is part of our culture, passed down from generation to generation.

Come together:

- * **We need to do more things as a community and come together.** Respect comes first. We have a long road ahead of us and many challenges that at times seem overwhelming; but we are in this together. When we are together, we are powerful. We can get there.
- * **We need to educate about the truth** of what happened to our people. This knowledge will help everyone because the truth will promote more respect and understanding for one another.
- * **When youth are involved** in community activities, when they are included at the decision-making table and learning from Elders, it forms a stepping stone to other things, like university. Education is important because we need to utilize Indigenous and western ways of knowing that tell us what is happening with our environment in order to tackle the problems ahead.

“Learn the language. Everything else is secondary.”

“If we don’t have our values, then we’re kind of lost and stuff. Those kind of things I think are really important.”



SPECIES & HABITAT AREAS

We are stewards of the land:

- * **We need to foster our traditional role as land stewards.** We can use this role to better plan and adapt our food systems and protect our environment. This can be a model for others to learn from too. We need to think beyond our bellies, and towards the sustainability of future generations, both within our territories and around the world.
- * **We have to be more involved and talk about climate change preparedness at our meetings.**

Mine reclamation and reclamation of rights:

- * **Mining is in our past as well as in our future,** but this does not mean that we will allow ourselves to be pushed around. When our Elders were young, they spoke strongly, sat down with mining companies and talked about the areas that need to be left alone and how to protect them. They told the mining companies where to set up camp, to transport their ore using tramlines instead of roads.
- * **We are setting up our own regulations for how to interact with resource companies and resource development on our traditional territories.** This will allow us to define the relationship up front.





INFRASTRUCTURE & TRANSPORTATION

Consider permafrost when building:

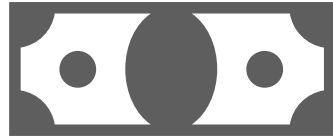
- * **Permafrost is a big issue in our community.** It impacts housing and buildings primarily, causing them to sink into the earth. When we construct new buildings, we need to consider the land they are being built on and which places in the community are most sensitive to permafrost melt.

Learn from traditional building styles:

- * **We can learn from the past and how we did things.** Our log homes were sturdy. Many are still standing today. If they can be built with more energy efficiency in mind and have the capacity to burn wood for heat, this could be an adaptation solution.



“The time to act is now. We have to adapt quickly.”



ECONOMY

Decision-making:

- * **It works well to have strong Elder oversight to guide us through our decision-making,** especially when it comes to resource development. Our people need jobs, but we also need to think further down the road - we have to think of protecting our resources for future generations.
- * **Involving the youth in decision-making is also key.** Youth want to learn about what is going on so that they can advocate for change and also know what to do when it is their time to lead. We need to create more space at the decision-making tables for youth, so they can watch the various negotiations that are going on, which ultimately affect their future.

Pay attention and work together:

- * **Our Elders fought for the protections we have and we can do the same.** If we work with each other more closely and respectfully, even those who may wish to develop our lands, we can have more oversight on what goes on.

Transition to more renewable resources:

- * **We are looking into the capacity of geothermal as an alternative energy to diesel.** If we can make a move into this area, our homes could be heated more efficiently and sustainably.

[Pictured right]: Derrick Redies at the first YIC4 training session (Nov. 2017) addressing youth, territorial ministers and community-based environmental monitors from across the territory; he spoke strongly about the need for urgent action on climate change.

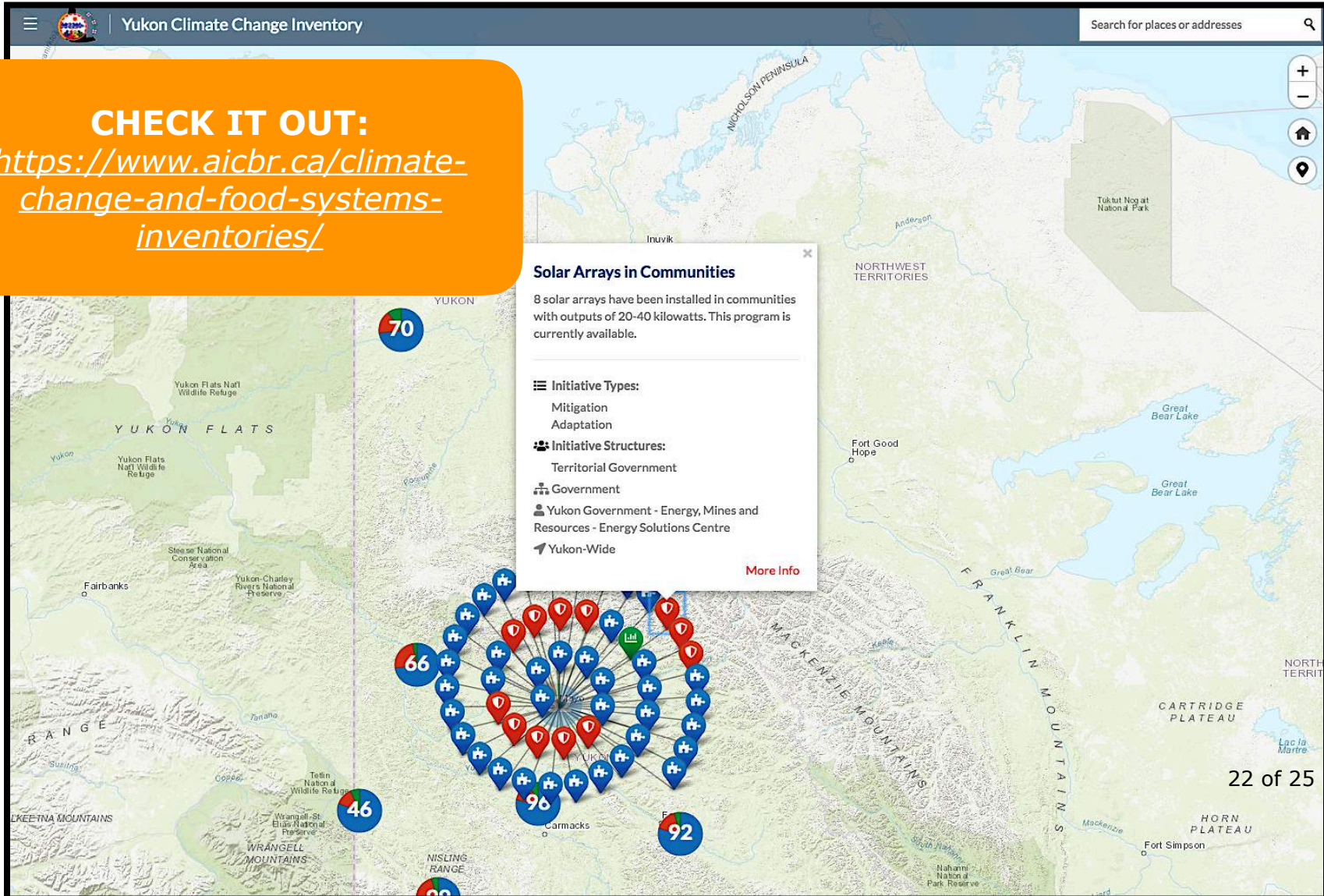


Mapping Climate Change & Food Systems

Also part of the YIC4 project is the development of two mapping tools which show the number of climate change and food systems initiatives across Yukon communities (and beyond). The map contains detailed information about each initiative and allows the user to filter and search by community and project type. These maps help us to get a better picture of our current strengths and allow us to learn from and be inspired by other communities.

CHECK IT OUT:

<https://www.aicbr.ca/climate-change-and-food-systems-inventories/>



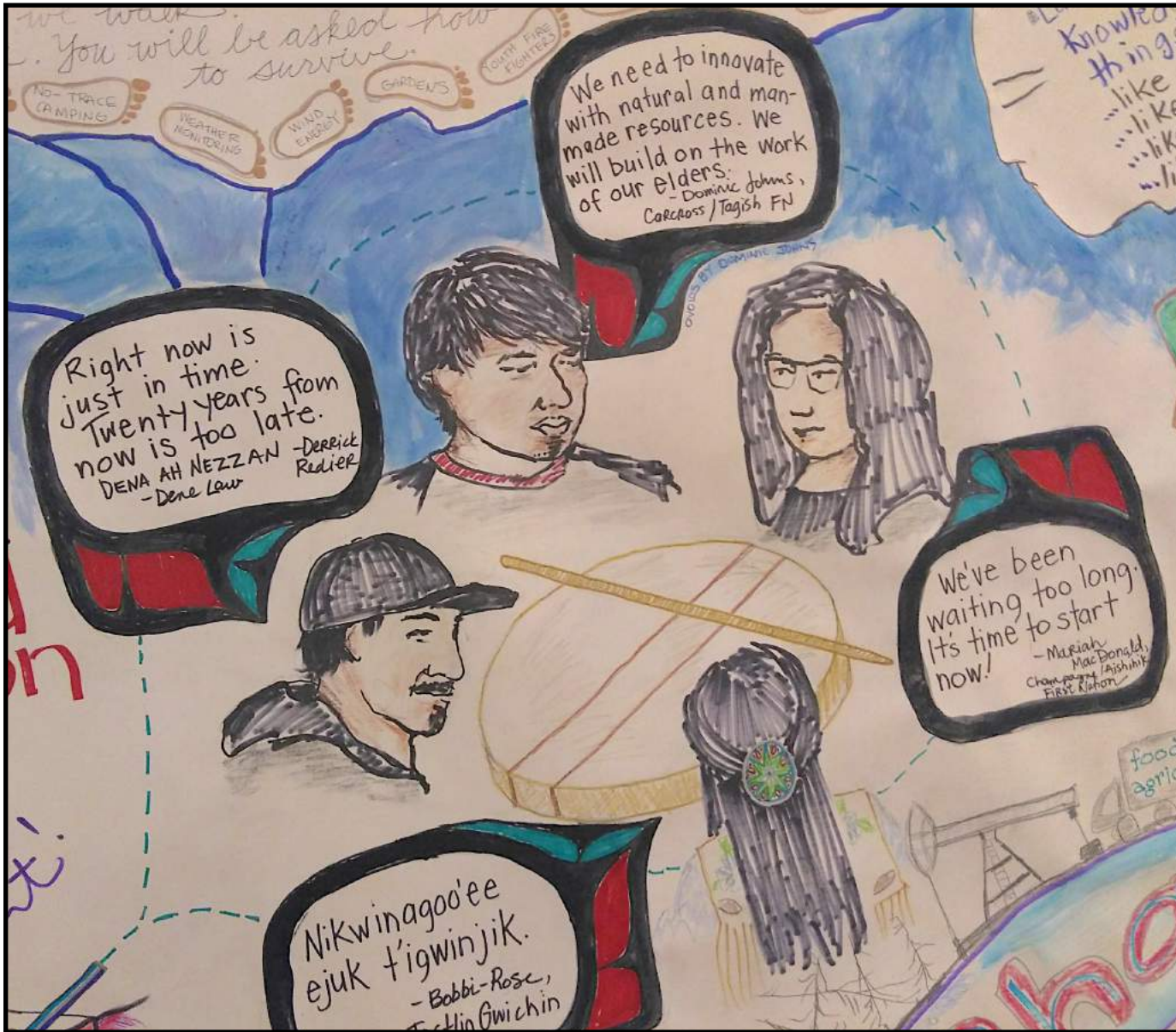
A MESSAGE

FROM THE YOUTH



[Pictured above, left to right]: Joshua, Robby and Derrick drum at the Old Village site during the community assessment.

“Learn your language, listen to stories, hang out with Elders, bring them tea. They appreciate that kind of stuff when you sit down with them. It’s good to hear them speak. Even if you can learn a little bit, it’s good enough. I encourage other people to pick up that torch, to really — the most important thing right now is preserving our culture and our language — who we are. We still got time. We still got time to do that.”



Artist credit: Heidi Marion, with the help of YIC4 youth, Dominic Johns from Carcross Tagish First Nations.

ACKNOWLEDGEMENTS



The Arctic Institute of Community-Based Research would sincerely like to thank the youth, Robby, Josh and Derrick, for their passion, drive and dedication to serving their communities. We hold you up and honour you as champions for change! Thank you to all the members of the Ross River community who contributed their thoughts, knowledge and ideas about climate change adaptation; to Chief Jack Caesar and Council, thank you for welcoming us into your community to work with your youth. We'd also like to acknowledge all members of AICBR's team who contributed to the community assessment phase of this project; particular recognitions go to Norma Kassi, as lead Community-Based Researcher and Trainer, Executive Director, Coral Voss, our Research Assistants, Kelly Pickerill and Julia Veidt, for their work on analyzing the community assessment transcripts, and Molly Pratt for consolidating, designing and writing this report.

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Photo credits: Tookie Mercredi, Molly Pratt and Kelly Pickerill

Cover art: Heidi Marion (with youth contributing artists, Dominic Johns and Mariah MacDonald)

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Crown-Indigenous Relations and Northern Affairs Canada

Relations Couronne-Autochtones et Affaires du Nord Canada



Savoir polaire Canada

Polar Knowledge Canada