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POND INLET, NUNAVUT**



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Results of a community survey on environmental forecasting uses and needs

በኅረ 2023
DECEMBER 2023

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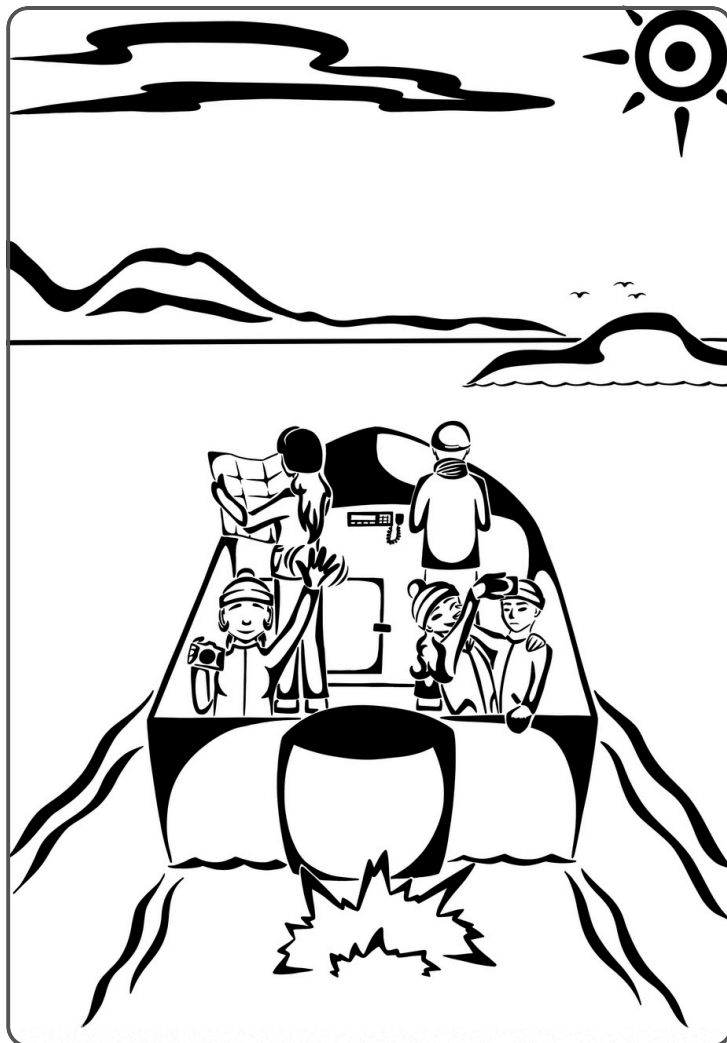


46

Mittimatalingmiut Participated

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Photo: Gita Ljubicic



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Art work by: Jamesie Itulu

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REPORT PREPARED BY:
NATALIE CARTER
CHARLOTTE BUTTLE
REGENA SINCLAIR
EMMELIE PAQUETTE
GITA LJUBICIC



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YOPP
YEAR OF
POLAR
PREDICTION

Environment and
Climate Change Canada

Qujannamiik

Brian Kasarnak
Christopher Mutch
Ivan Koonoo
James Simonee
John Ringrose
Jonathan Pitseolak
Simeonie Aksarjuk
Trevor Arreak
Tyson Angnetsiak

Environment and
Climate Change Canada

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Photo: Andrew Arreak

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ABOUT THIS PROJECT

Our research team includes Inuit, northern, and southern researchers who have worked together for many years in Nunavut communities. Over the years we have heard from Nunavummiut (people of Nunavut) that services providing information on weather, water, and ice conditions are not easy to use, access, or understand. We have also heard that the information is not always accurate for local conditions. This, along with increasingly unpredictable weather, and changing sea ice conditions, has made it harder and riskier for Nunavummiut to hunt and travel safely. We developed this project to learn how Nunavummiut are using environmental information to make decisions about safe travel on the land (including water and ice).

Our goal is to help improve the information that is available, and how it is communicated in northern communities. To accomplish this goal, we created a survey to get feedback from communities across Nunavut. Survey questions were developed together with input from all team members, as well as from environmental service providers, Inuit organizations, and northern governments and research organizations.

We work together according to the [Aajiiqatigiingniq research framework](#), outlined by the Aqqiumavvik Society working with Elders from across Nunavut. This framework guides how we make decisions, and build consensus on our research approach and results. Surveys were facilitated by Local Research Coordinators working in their home communities. We also worked together in two collaborative analysis workshops to interpret survey results and decide on key messages for service providers and for Nunavut communities.

Ultimately, we hope that the results of this project will help service providers and decision-makers make their information more relevant and accurate for Nunavummiut, in support of safe travel.

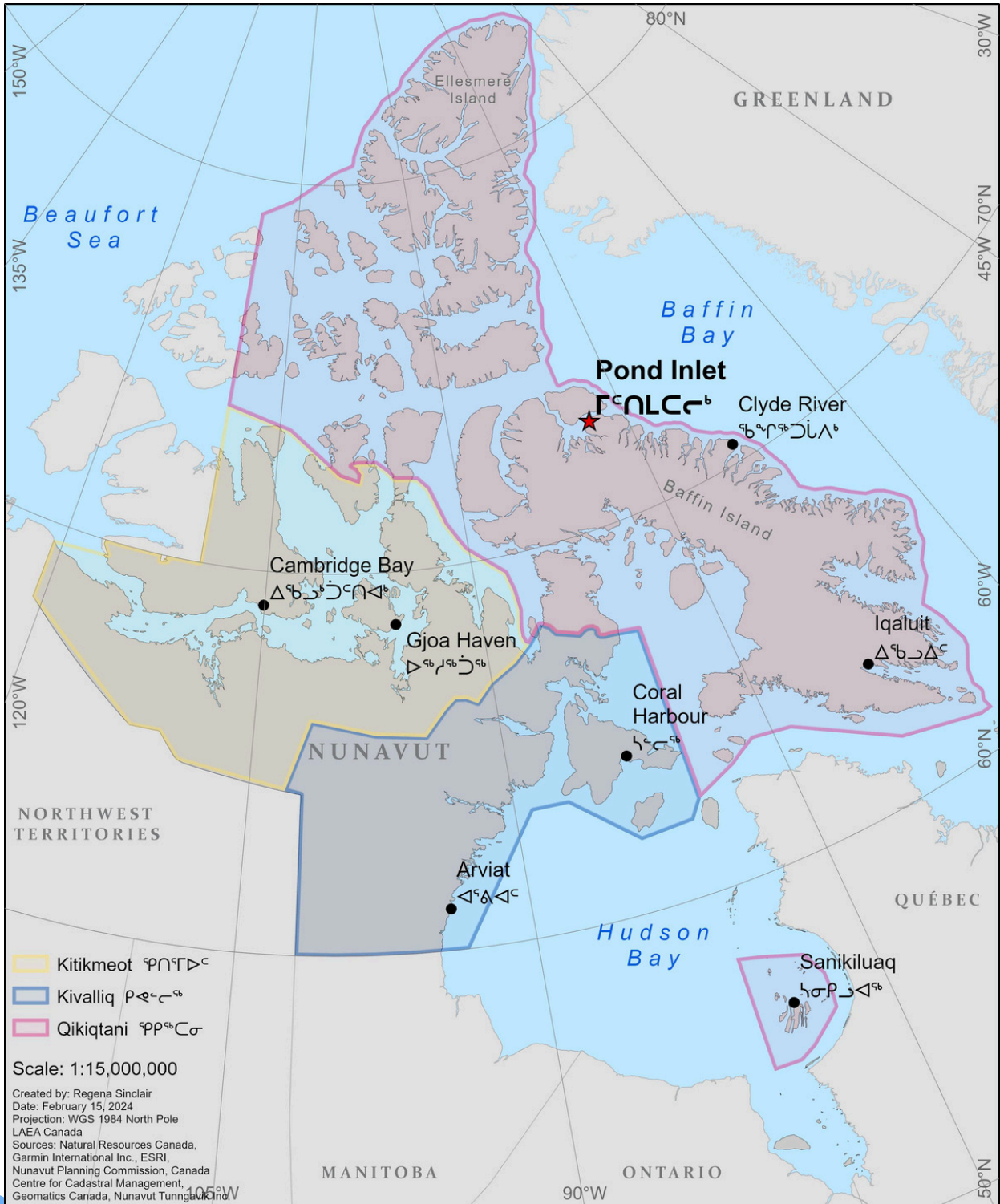


Collaborative analysis workshop in Arviat, Nunavut
(October 2021, photo: Gita Ljubicic)

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PARTNER COMMUNITIES

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Our project involved 8 communities in Nunavut: Arviat, Cambridge Bay, Clyde River, Coral Harbour, Gjoa Haven, Iqaluit, Pond Inlet, and Sanikiluaq.



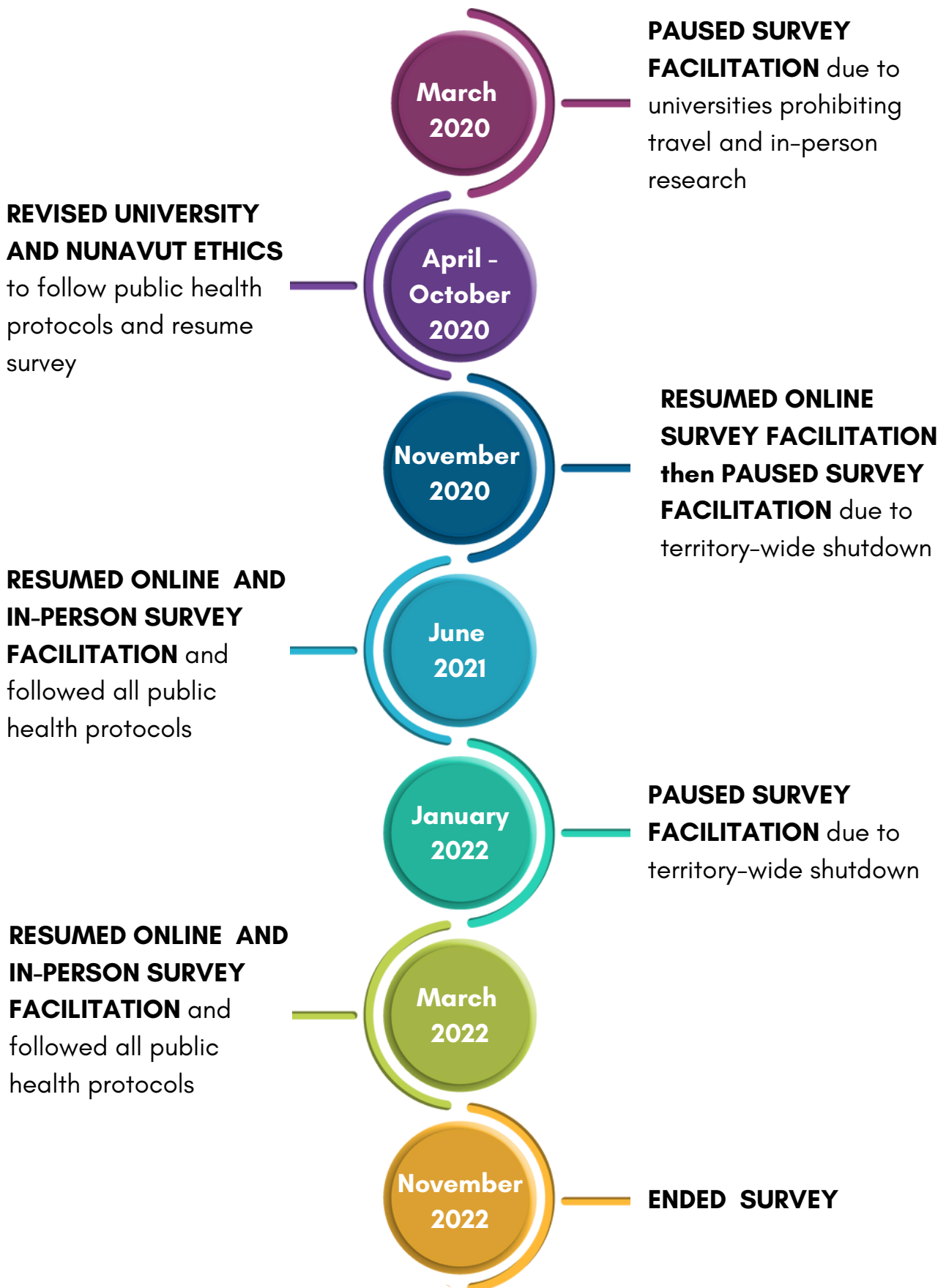
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(2018 - 2022)

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KEY PROJECT ACTIVITIES (2018 – 2022)

Timeline	Activities
December 2018	• collaborative project planning meeting at ArcticNet conference in Ottawa, Ontario
January – November 2019	• collaborative survey development (involving our project proposal team, Local Research Coordinators, and a number of external reviewers) ◦ this led to survey questions, wording, and options that were much more clear, relevant, and accessible for Nunavummiut ◦ it also means results can be more meaningful and impactful to researchers, northerners, and policy-makers
October – November 2019	• training sessions with Local Research Coordinators near Montreal, Quebec and in Iqaluit, Nunavut
December 2019 – March 2020	• Local Research Coordinators facilitated surveys in their home communities
March 2020	• surveys put on hold due to the COVID-19 pandemic (see page 5 for more details) ◦ we started working together on a plan for how to safely continue the project
June 2021	• Local Research Coordinators restarted survey facilitation ◦ this could only happen after public health and research license/ethics restrictions allowed it, and with local community organizations' support ◦ Local Research Coordinators also followed up with some earlier participants to clarify answers
October 2021	• collaborative analysis workshop in Arviat, Nunavut
November 2022	• Local Research Coordinators stopped facilitating surveys in their home communities
December 2022	• collaborative analysis workshop in Paris, Ontario, • presentations of refined results at ArcticNet conference in Toronto, Ontario

SURVEY TIMELINE DURING THE COVID-19 PANDEMIC



<https://straightupnorth.ca/community-wwic-uses-and-needs/>

SURVEY FACILITATION BY LOCAL RESEARCH COORDINATORS

In total, **19 Local Research Coordinators** were involved in the project, and they completed **360 surveys** across **8 communities** in Nunavut.

Local Research Coordinators invited community members to participate based on certain criteria. Specifically, we wanted to learn about uses and needs of weather, water, ice, and climate information and services from community members who were actively travelling on the land (including water and ice) in the last three years (since 2017). This included men and women of all ages and experience levels, and they could be experienced hunters, seasonal travellers, or people who just like to get out on the land.

Local Research Coordinators facilitated the surveys in English or Inuktitut based on participant preference. They used Qualtrics survey software to enter responses on iPads. They facilitated the survey in a community office or in participants' homes, based on individual comfort level. Some participants did the survey on their own using an online survey link, when COVID-19 pandemic public health restrictions prevented in-person surveys. Participants were compensated for their time. We obtained research ethics and license approvals before we started the survey.

For this report, we present the results based on survey answers from a total of 46 Mittimatalingmiut = 100%.



For more information about this report and the larger study please contact:

Shirley Tagalik, Aqqiumavvik Society, 204-218-0866, inukpaujaq@gmail.com

Natalie Carter, McMaster University, carten7@mcmaster.ca

Gita Ljubicic, McMaster University, gita.ljubicic@mcmaster.ca

To access a Nunavut-wide report, and other community reports, please visit:

<https://straightupnorth.ca/community-wwic-uses-and-needs/>

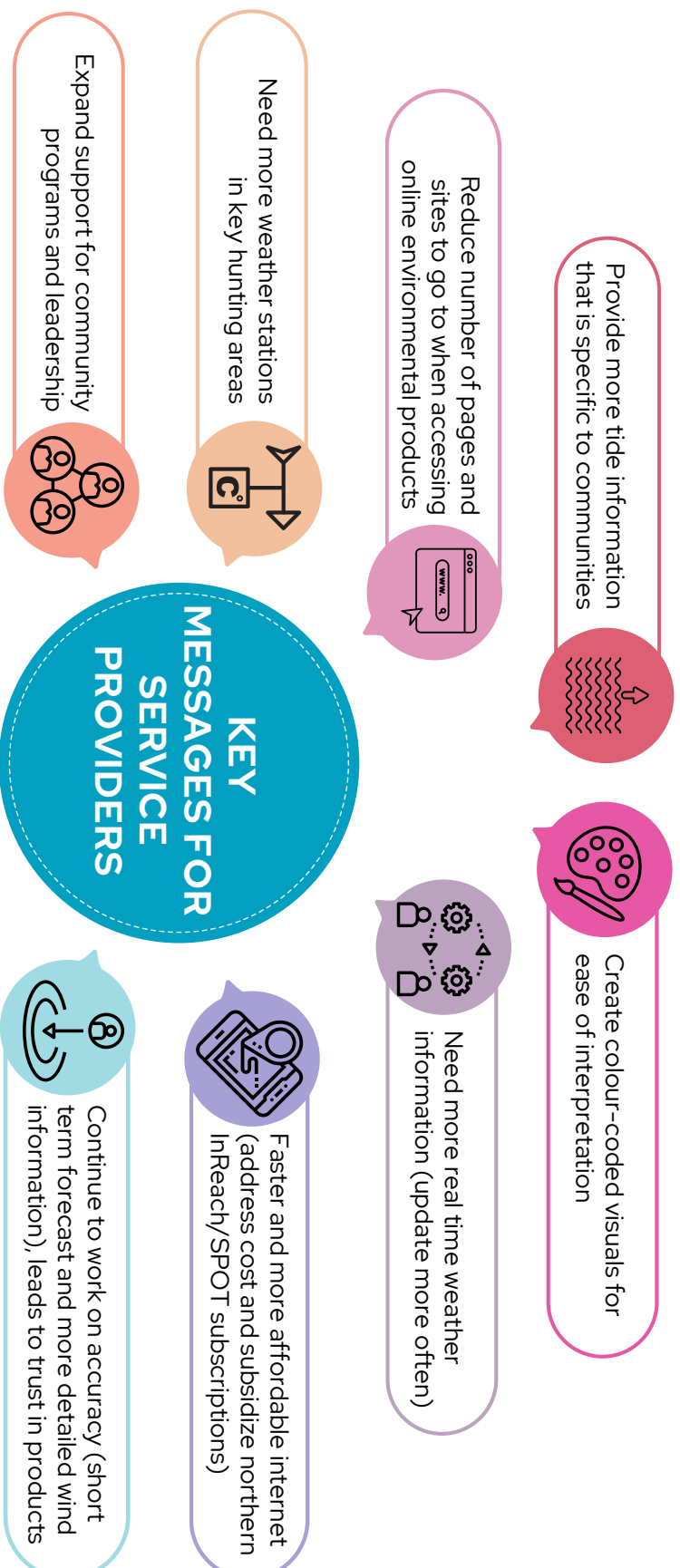
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KEY MESSAGES FOR SERVICE PROVIDERS

At the 2021 and 2022 collaborative analysis workshops, Local Research Coordinators developed twelve key messages for service providers:

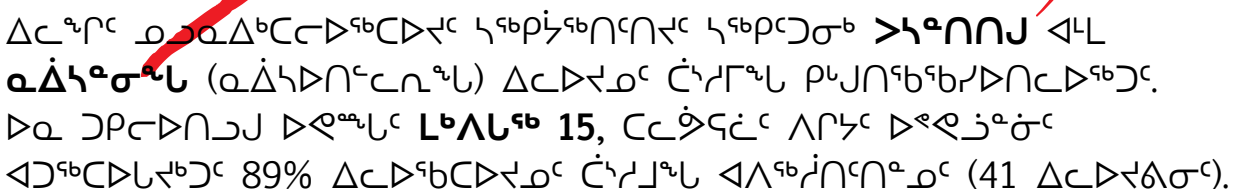




KEY MESSAGES FOR COMMUNITIES

At the 2022 collaborative analysis workshop, Local Research Coordinators developed seven key messages for community organizations:





UNDERSTANDING THE NUMBERS IN THIS REPORT

PERCENT

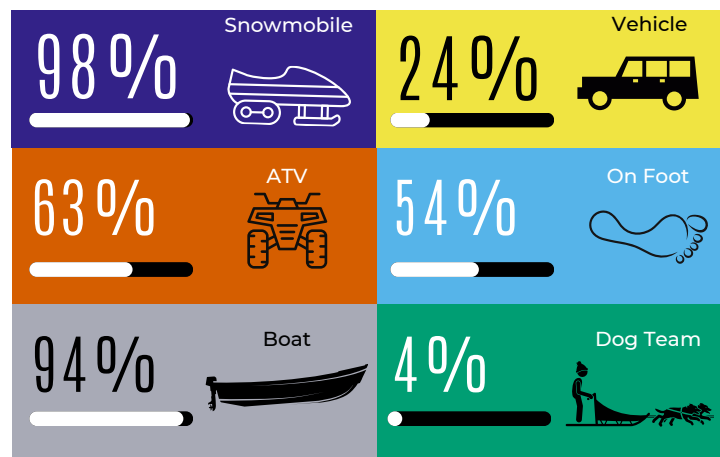
100% = all 46 participants

Most of the survey results in this report are shown as % (percent) where 100% means all 46 participants in Pond Inlet who completed the survey.

Sometimes participants could choose more than one answer, so totals in some figures don't add to 100%.

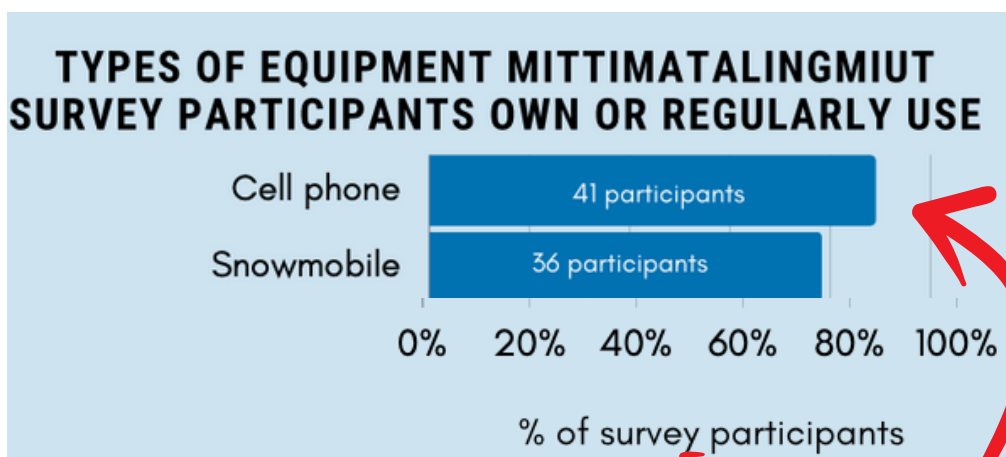
In this example **from p. 16**, participants could choose more than one method of transportation.

METHODS OF TRANSPORTATION SURVEY PARTICIPANTS USE TO TRAVEL ON THE LAND



COUNTS

Count = the number of participants giving that answer



Some of the charts show the results in **percent** and the **count** (actual number) of participants who gave that answer.

In this example **from p. 15** cell phones are owned or regularly used by 89% of participants (41 participants).

UNDERSTANDING THE NUMBERS IN THIS REPORT

(CONTINUED)

PARTICIPANTS

Participants = everyone (all 46 people) who did this survey in Pond Inlet

RESPONDENTS

Respondents = only the participants who answered follow-up questions

There are some questions in the survey that not everyone answered.

Participants who answered "no" to a question would skip to the next section.

But participants who answered "yes" to the same question would be asked some *related follow-up questions*. When we show the results to follow-up questions, we call this group of participants "**respondents**", because they were the ones who answered the question.

CONTACTING OTHERS FOR HELP

In this example from p. 29, 87% of the participants said "yes I can call for help if I get stranded on the land".



If Mittimatalingmiut participants get stranded or have an accident on the land, 87% (out of a total of 46) can call for help.

Of the 40 **respondents** who can call for help, most would call a **family member** (93%), or a **friend** (67%), and some would call **local search and rescue** (33%) for help.

Only the participants who said "Yes, I can call for help", were asked the follow-up question, "Who, can you call for help?" This smaller group of participants who answered the follow-up question are called **respondents**. So the percent shown for respondents are out of the total who answered the question, and not the total of participants.

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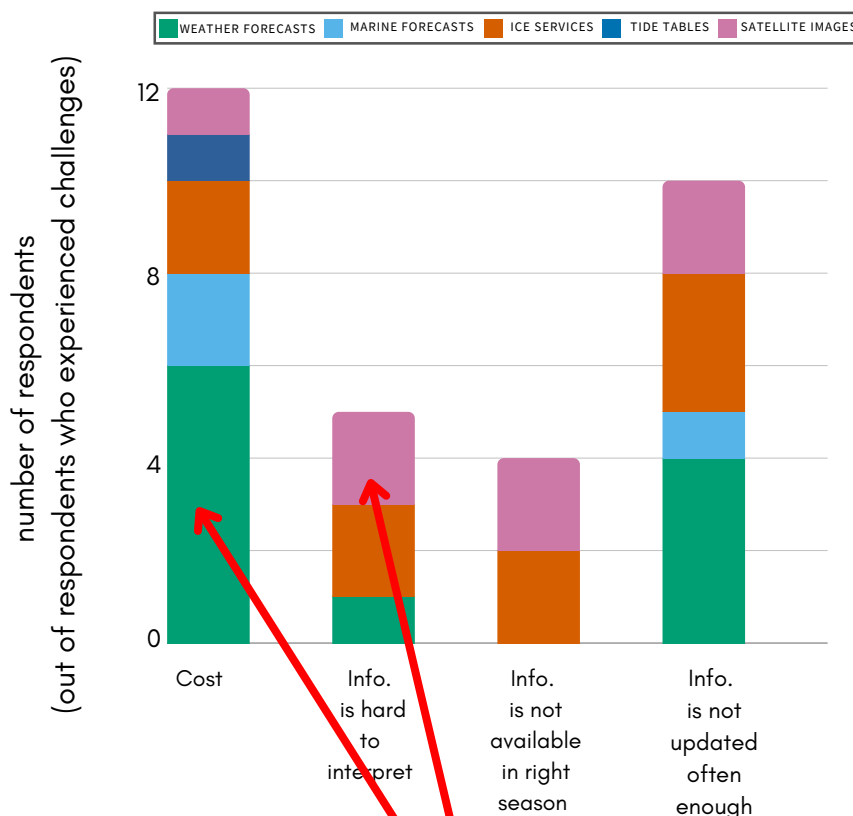
UNDERSTANDING THE NUMBERS IN THIS REPORT

(CONTINUED)

RESPONDENTS

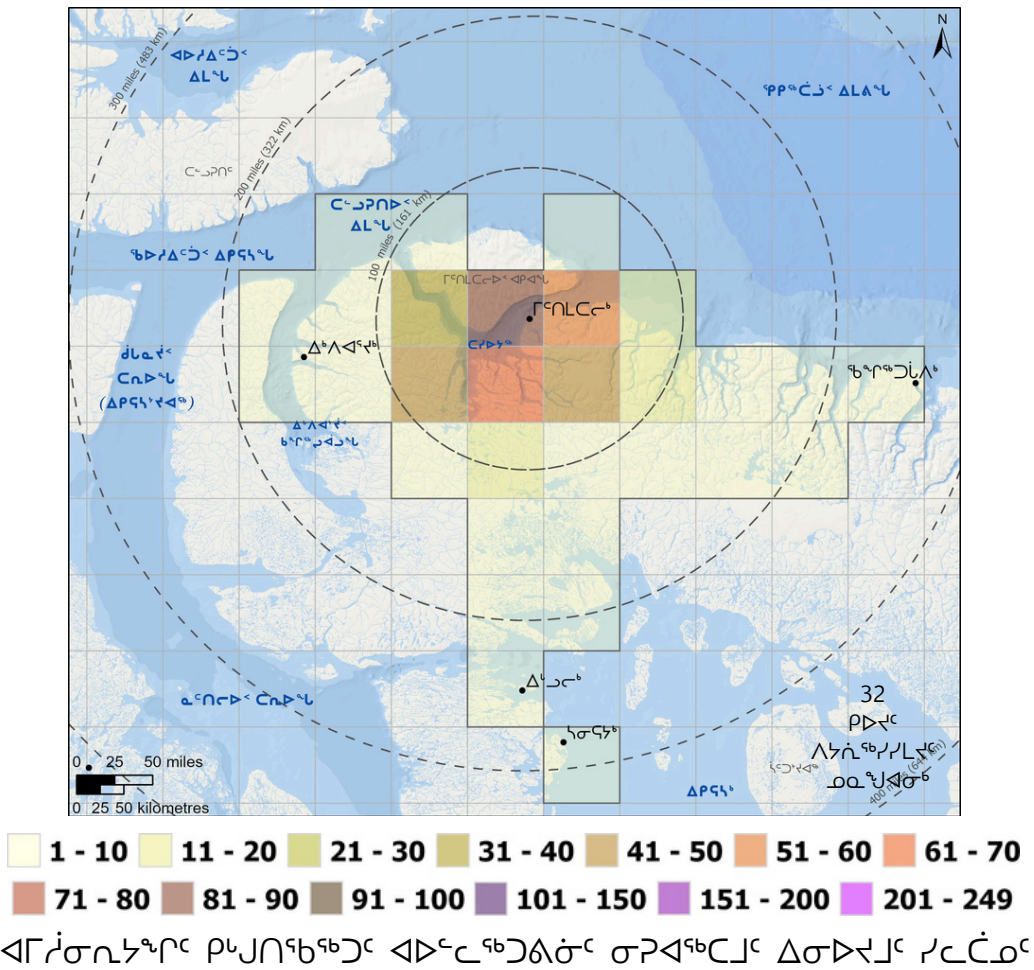
Respondents = only the participants who use forecasting products

REASONS WHY ENVIRONMENTAL FORECASTING INFORMATION IS DIFFICULT FOR MITTIMATALINGMIUT RESPONDENTS TO ACCESS



Some participants did not use every type of environmental forecasting information (i.e. weather forecasts, marine forecasts, ice services, tide tables, satellite images).

In this example from **p. 41**, of the respondents who said "Yes, I experience challenges when accessing weather forecasts", 6 of them experience challenges due to cost. Of the respondents who said "Yes, I experience challenges when accessing satellite images", 2 of them experience challenges because the information is hard to interpret.

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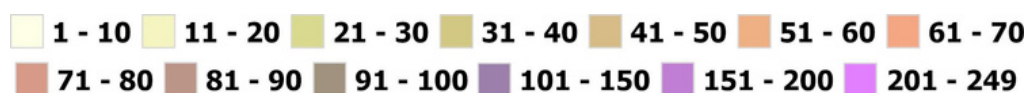
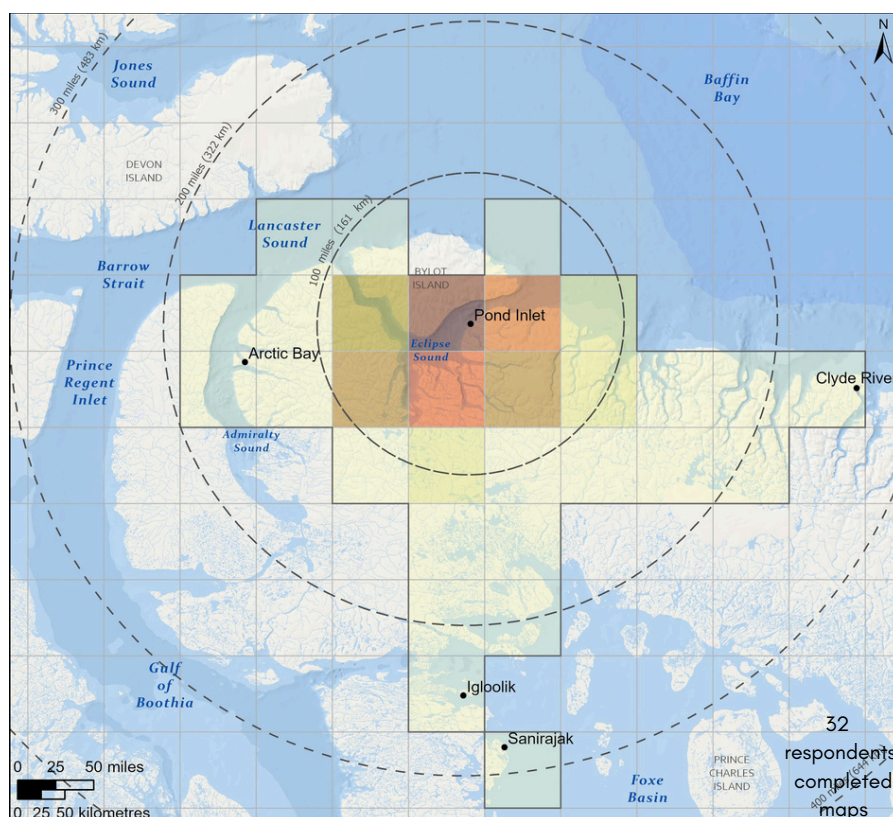
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UNDERSTANDING THE MAPS IN THIS REPORT



Number of respondents who travelled in the selected area

MAP COLOURS AND LEGENDS

Each coloured box on the maps represents a certain number of respondents who travelled to that area, and all of the types of transportation they used to travel there (e.g. if a respondent went to an area by ATV and by snowmobile, it is counted as having travelled to the area twice).

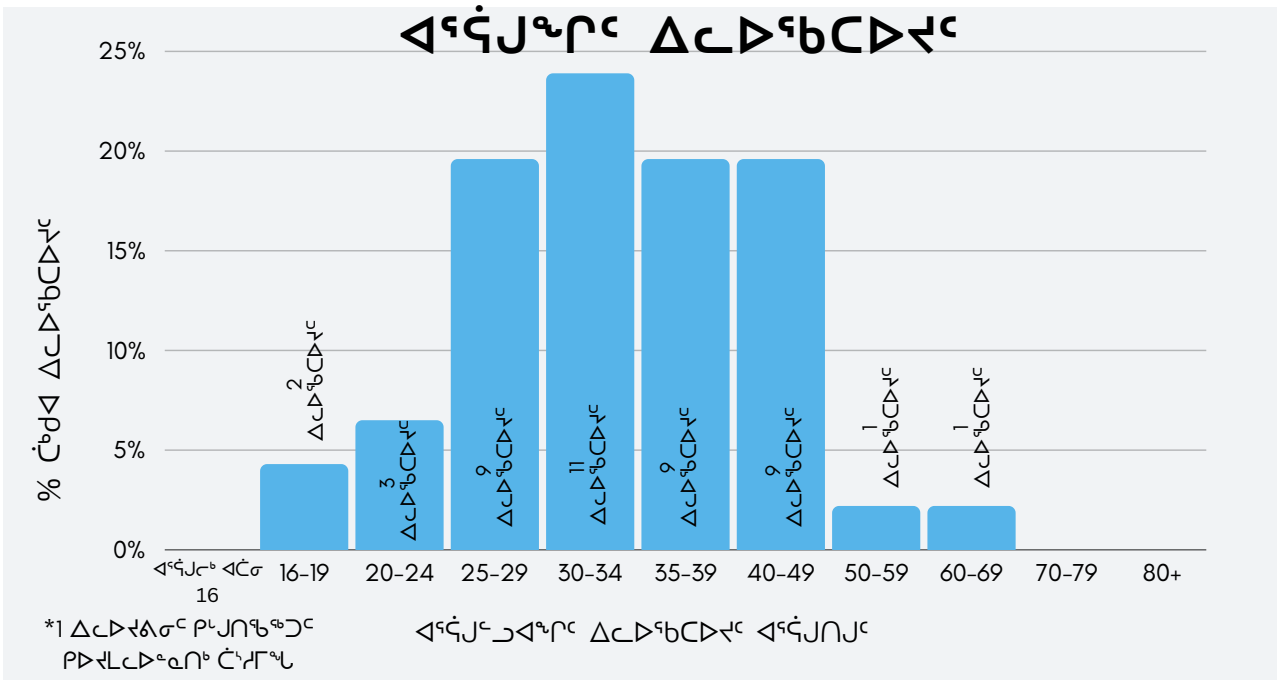
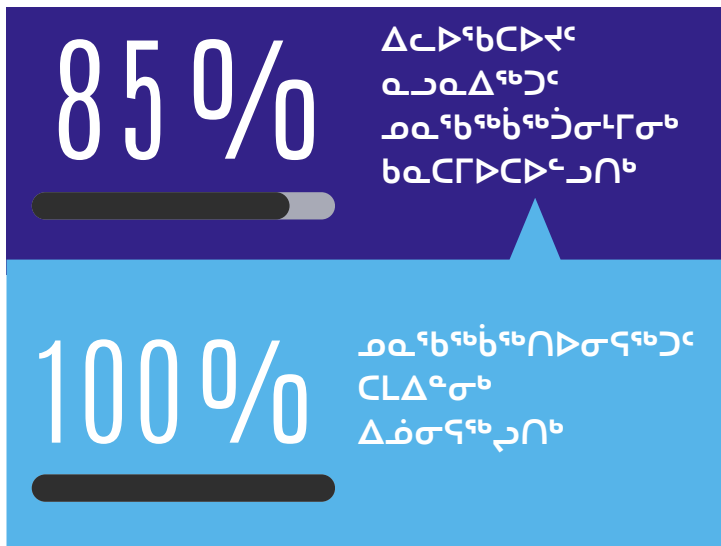
Darker/brighter colours = more respondents went there.

Lighter colours = less respondents went there.

Respondents = only the participants who completed maps

Some participants did not complete travel maps (due to technical issues and other reasons). When we show the maps, we call this group of participants "**respondents**", because they were the ones who completed maps.

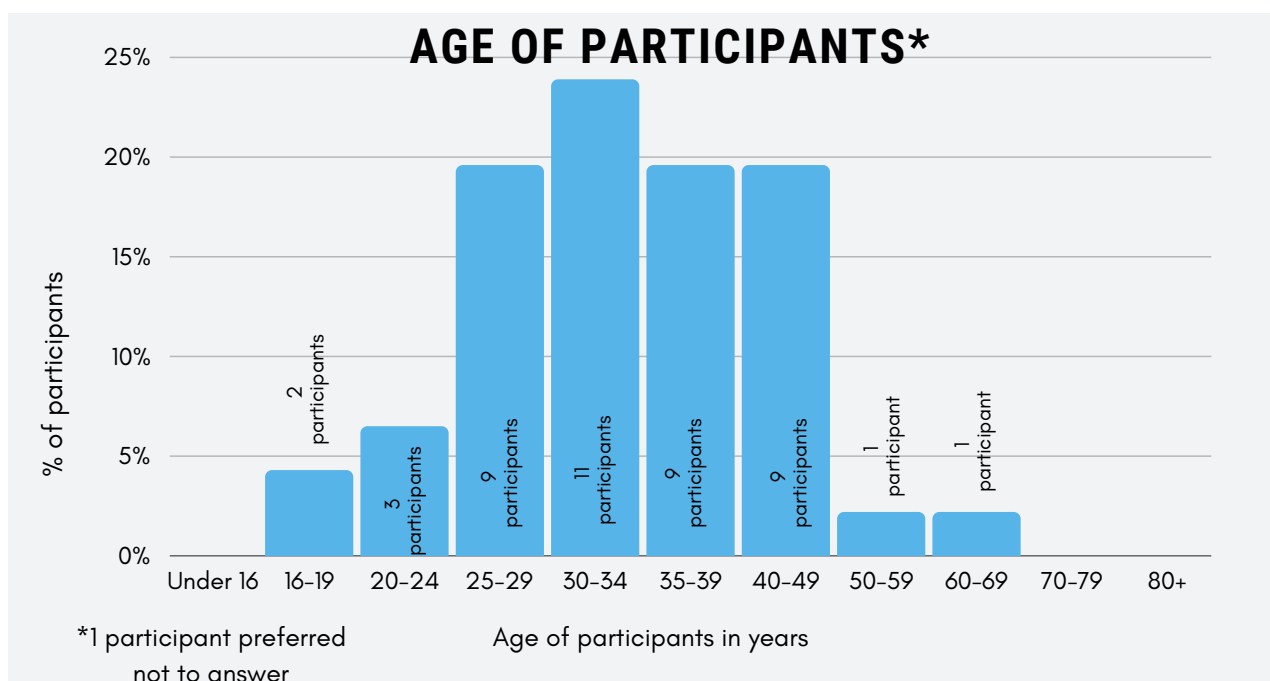
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MITTIMATALINGMIUT SURVEY PARTICIPANT DEMOGRAPHICS



Survey participants ranged in age from 16 to 69 years, with the highest proportion being between 30-34 years old (24%). No one under the age of 16 or 70 years and older, participated in the survey.



80% of participants identify as male

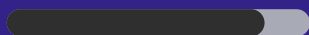


20% of participants identify as female

Most participants identify as male (80%), and 20% identify as female.

85%

of participants identify as an Indigenous person



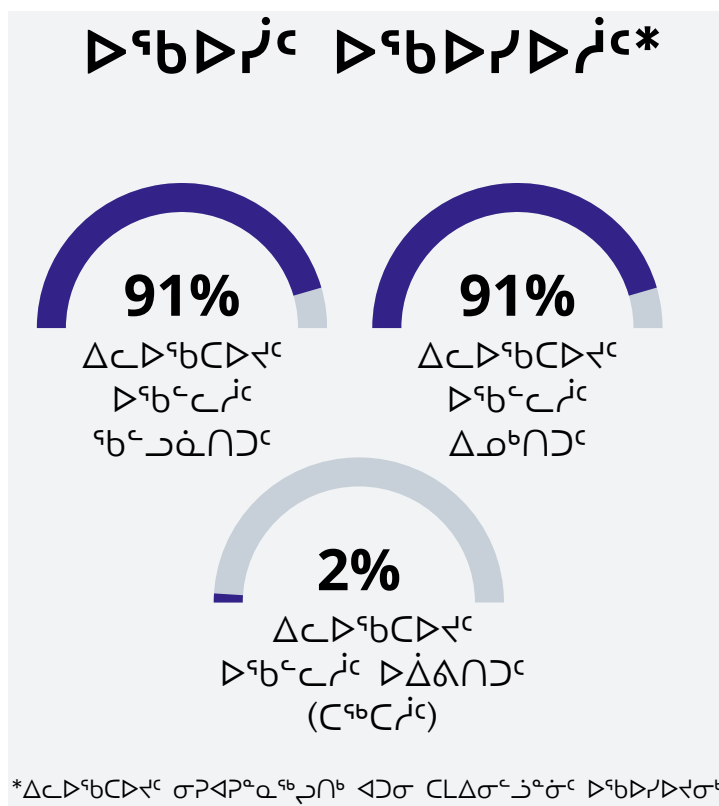
100%

of Indigenous respondents identify as Inuit



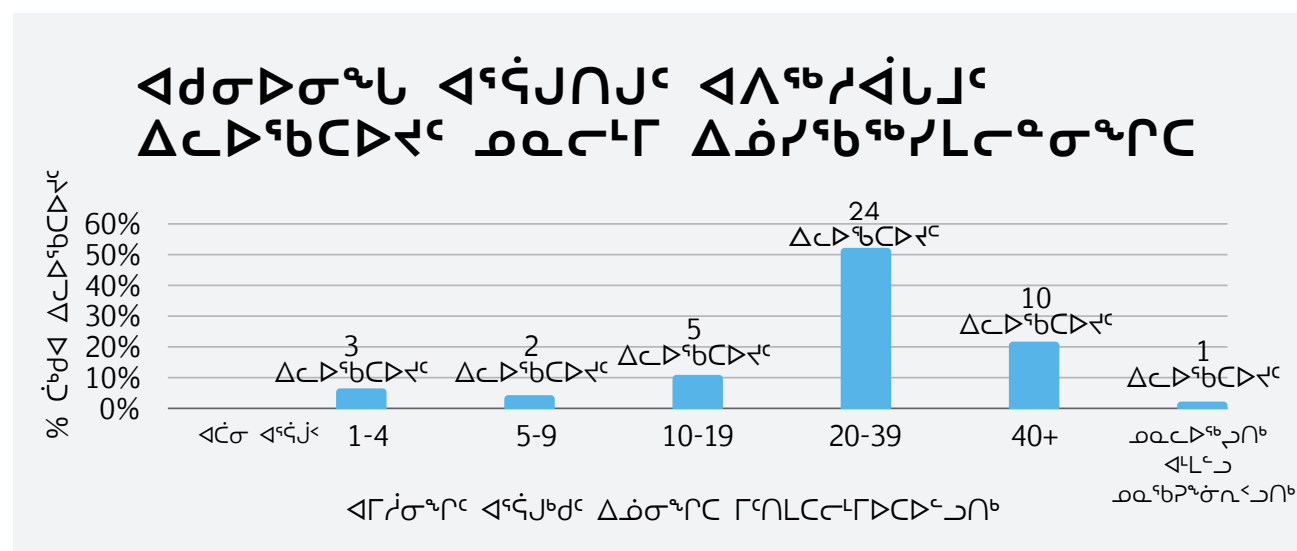
Nearly all participants identify as an Indigenous person (85%), and all Indigenous respondents identified as Inuit.

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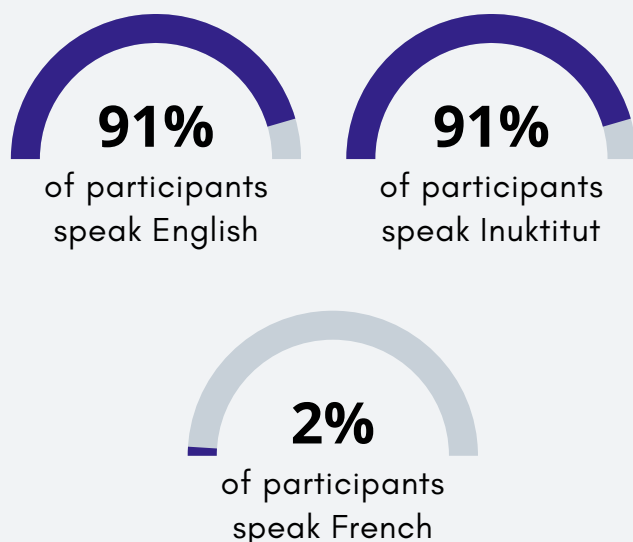
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MITTIMATALINGMIUT PARTICIPANT DEMOGRAPHICS

(CONTINUED)

LANGUAGES SPOKEN*



*Participants could choose multiple languages

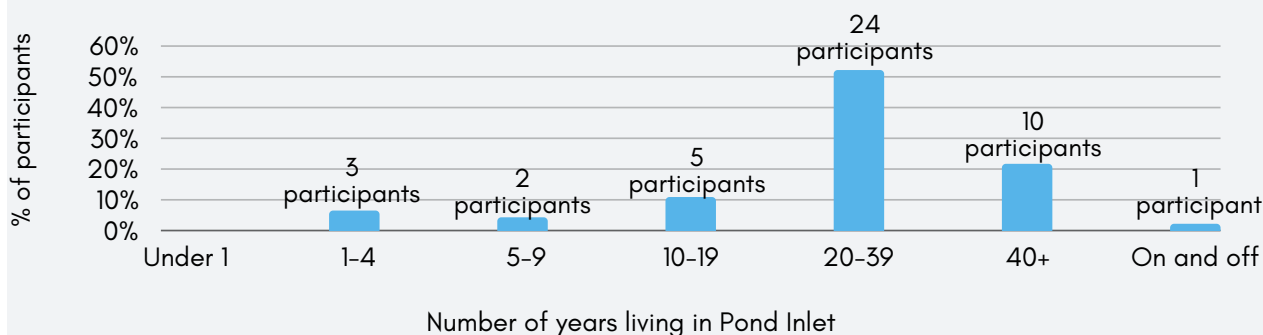
Participants were asked about which languages they speak.

Most participants speak English (91%) and most speak Inuktitut (91%). Very few, speak French (2%).

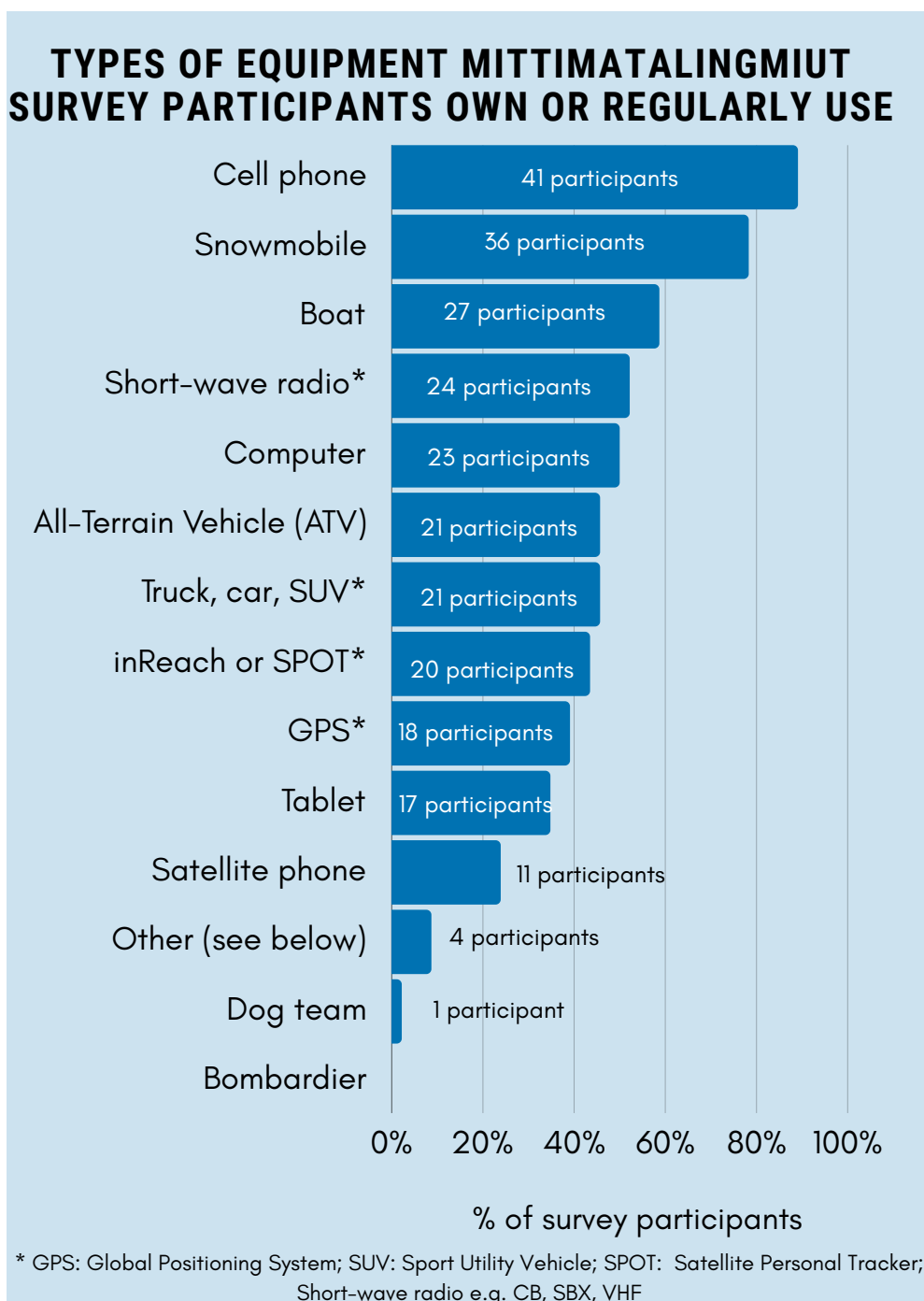
It is important to understand how long participants have lived in Pond Inlet as this relates to (although does not necessarily determine) how much experience they have with travel on the land, water, or ice.

Most participants (74%) have lived in Pond Inlet for 20 or more years.

LENGTH OF TIME SURVEY PARTICIPANTS HAVE LIVED IN THE COMMUNITY



TRAVEL EQUIPMENT



BOAT SIZES
RANGED FROM

17 - 24
FEET

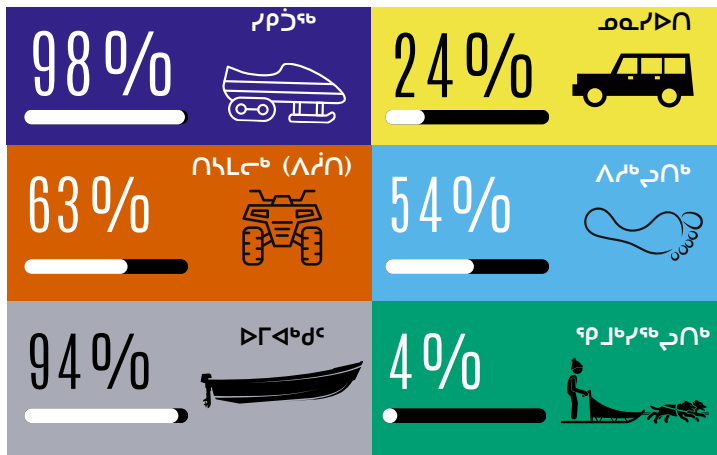
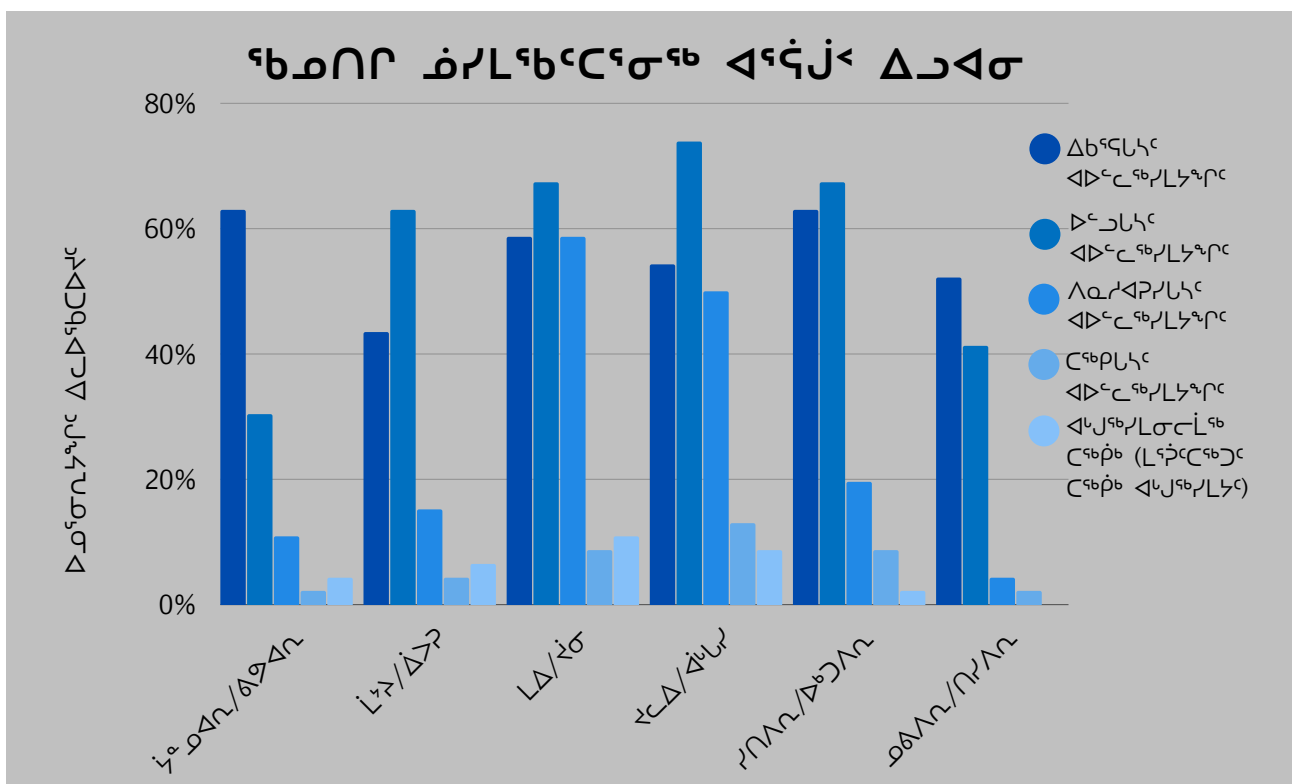
100%
OF PARTICIPANTS
HAVE ACCESS TO THE
INTERNET IN THEIR
HOME

Cell phones and snowmobiles are the types of equipment most often owned or regularly used by participants, followed by boats and short-wave radios. Participants who answered "Other" also use rifles and Zoleo.

All participants have access to the internet in their home. This is important to know because it affects what kinds of information they might be able to access.

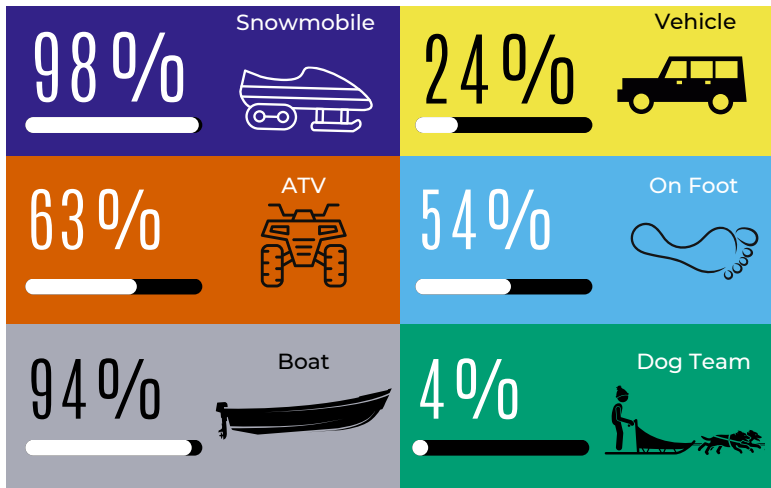
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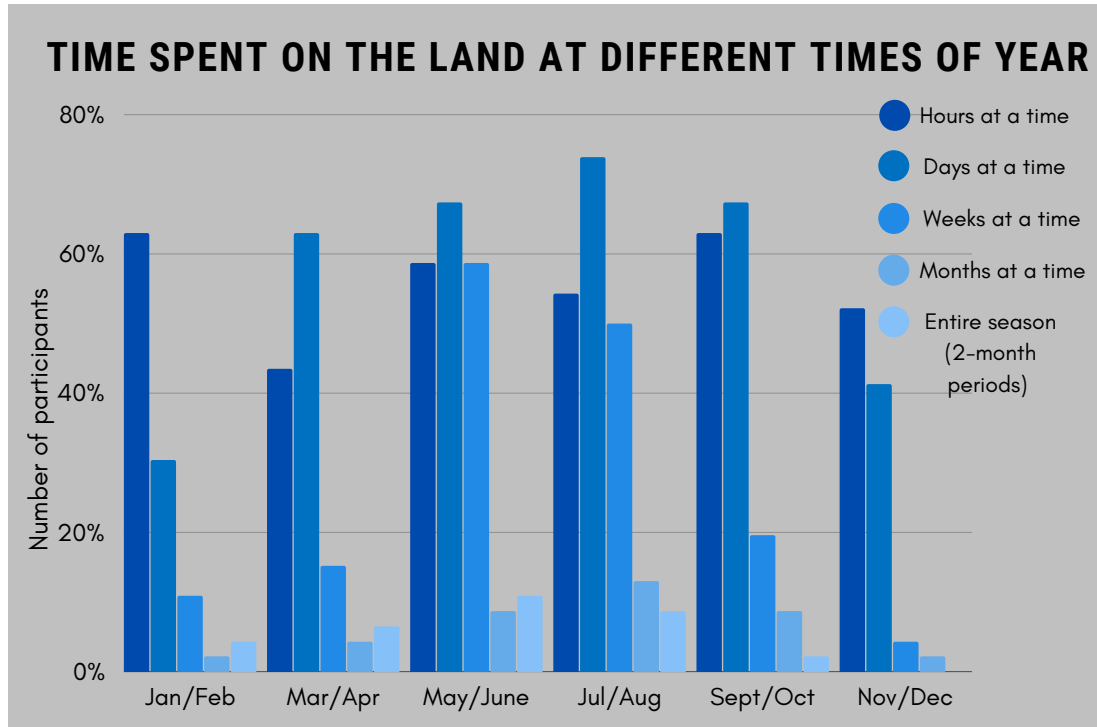
TRAVEL HABITS

METHODS OF TRANSPORTATION SURVEY PARTICIPANTS USE TO TRAVEL ON THE LAND

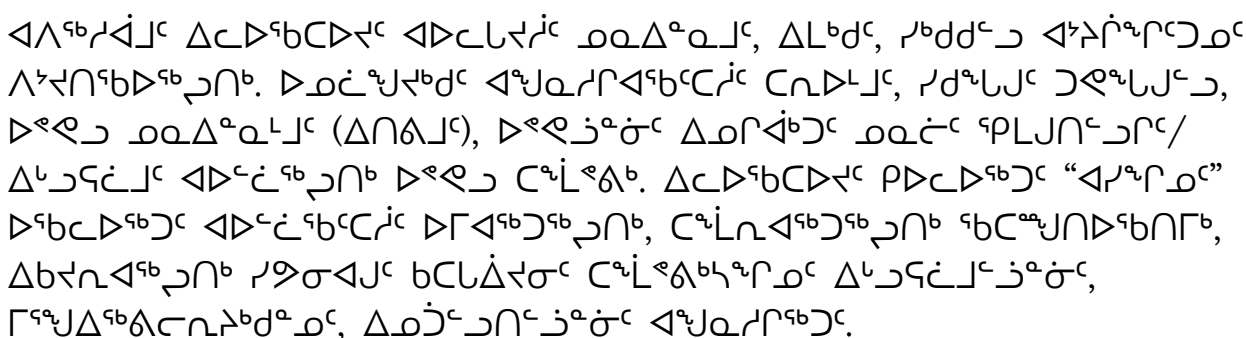


When survey participants travel on the land, snowmobile is the most common method of transportation used. This is followed by boat. Participants also travel by ATV, on foot, vehicle, and by dog team.

Survey participants use different types of transportation at different times of year. All year people travel by ATV, vehicle, and on foot. Snowmobiles are mostly used from November to July, and boats from July to November.

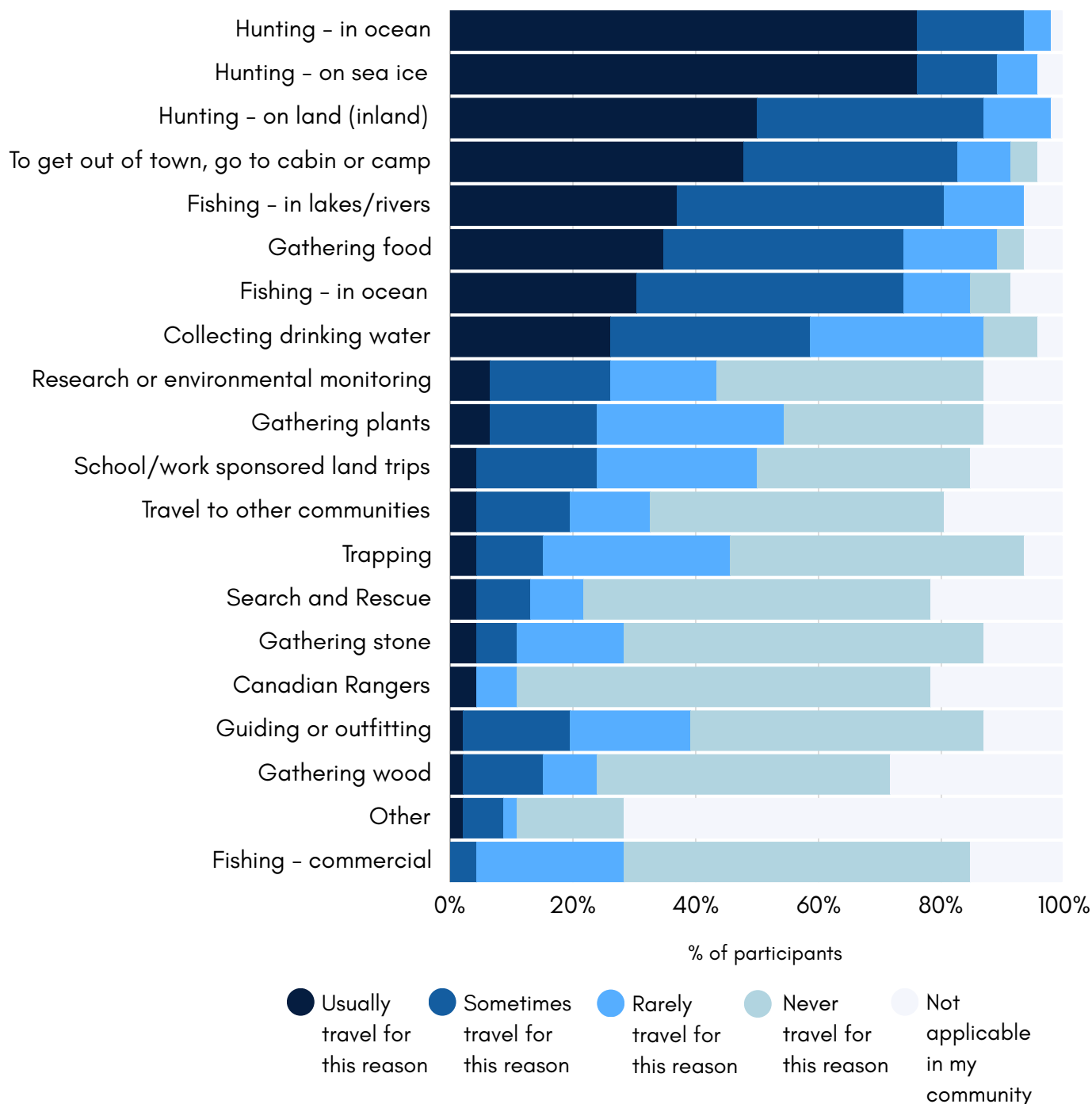


In different times of year, survey participants spend different lengths of time on the land. Most commonly, participants are on the land for hours or days at a time. In May through August the number of participants that are out on the land for weeks at a time, increases. Some travel for longer periods of time.

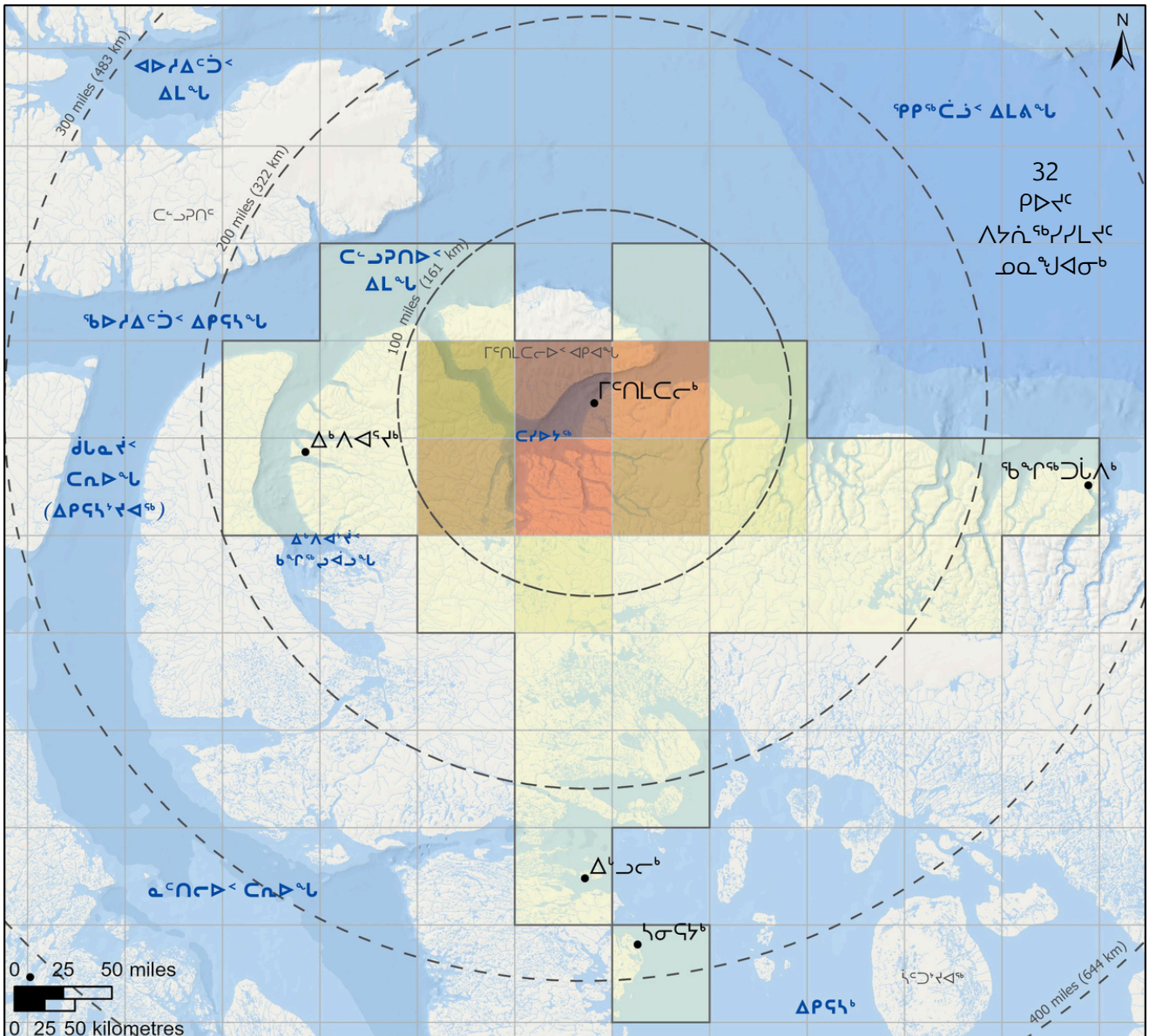
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TRAVEL HABITS

REASONS MITTIMATALINGMIUT USUALLY TRAVEL ON THE LAND



Survey participants travel on the land, water, and ice for many reasons. Most often they travel to hunt in the ocean, on sea ice, or on land (inland), or to get out of town/go to a cabin or camp. Participants who answered "Other" said they travel to go boating, camp with their family, help drop things off at a camp or cabin, Parks Canada, or to go out hunting alone.

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1 - 10 11 - 20 21 - 30 31 - 40 41 - 50 51 - 60 61 - 70
71 - 80 81 - 90 91 - 100 101 - 150 151 - 200 201 - 249

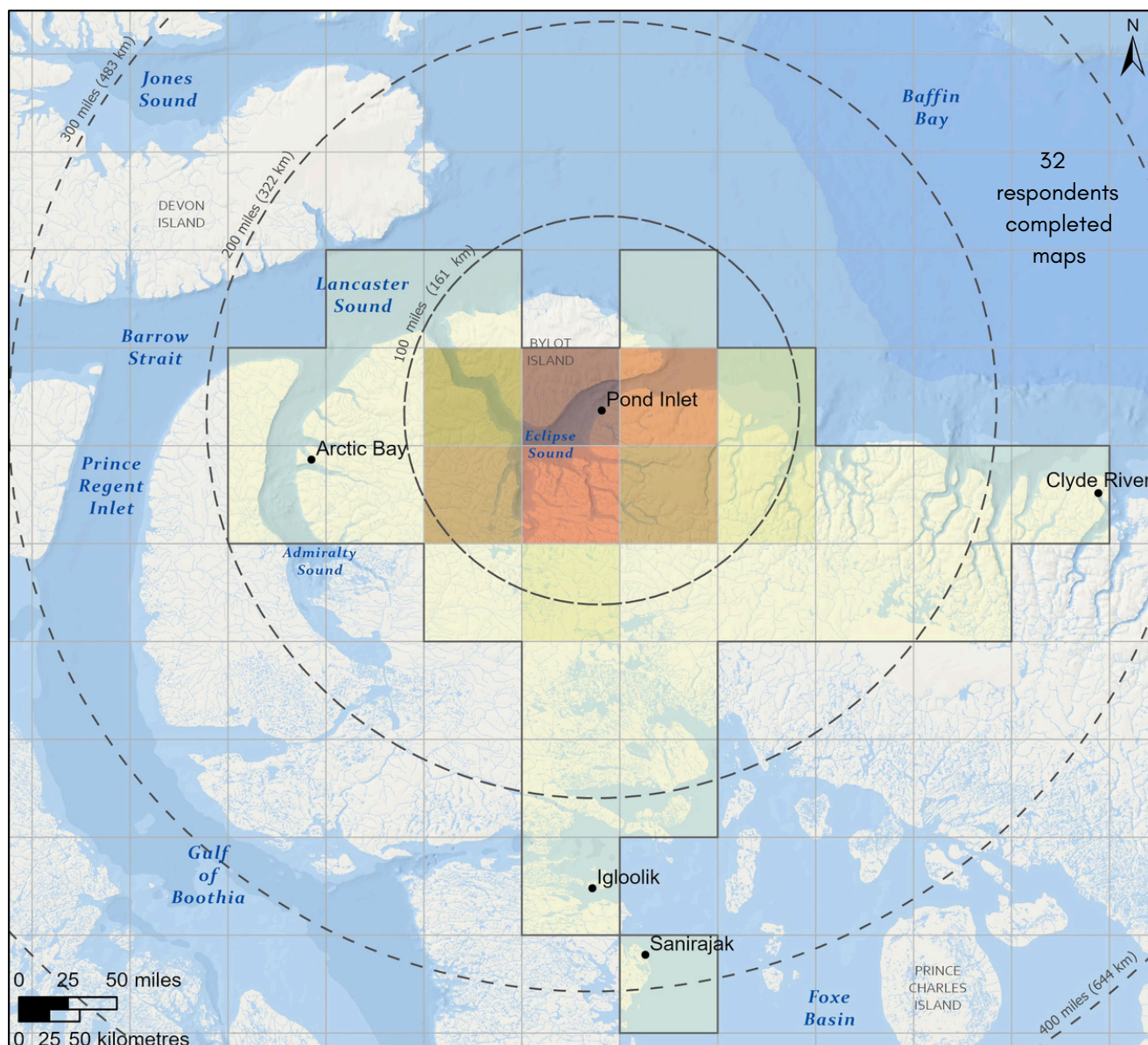
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Δῖς ἑβδόμεναι Διδάσκουσιν καὶ πρὸς διότιμον.

<https://straightupnorth.ca/community-wwic-uses-and-needs/>

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WHERE MITTIMATALINGMIUT RESPONDENTS TRAVEL (TOTAL TRAVEL)



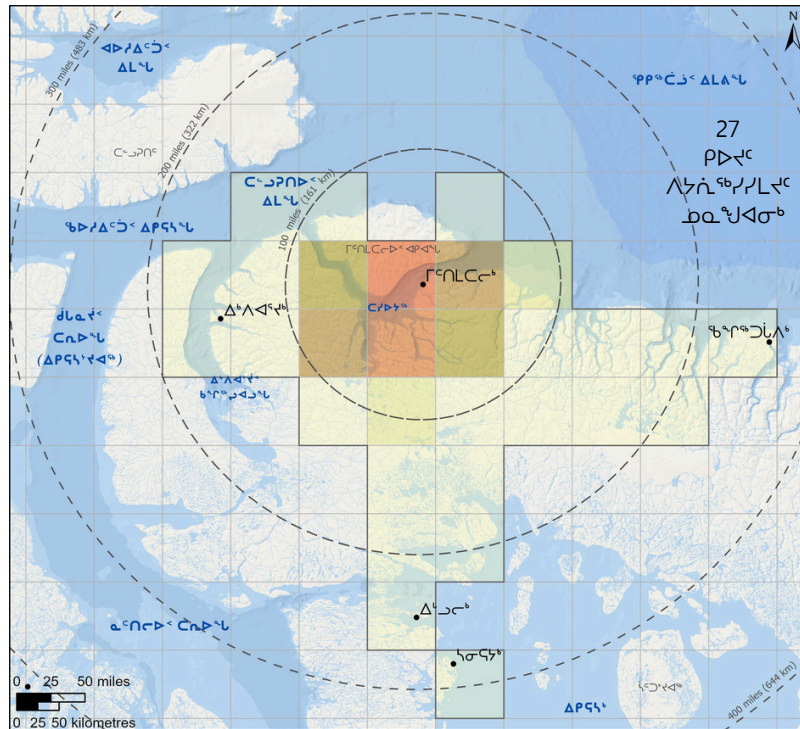
Number of respondents who travelled in the selected area

To access full-page maps visit:

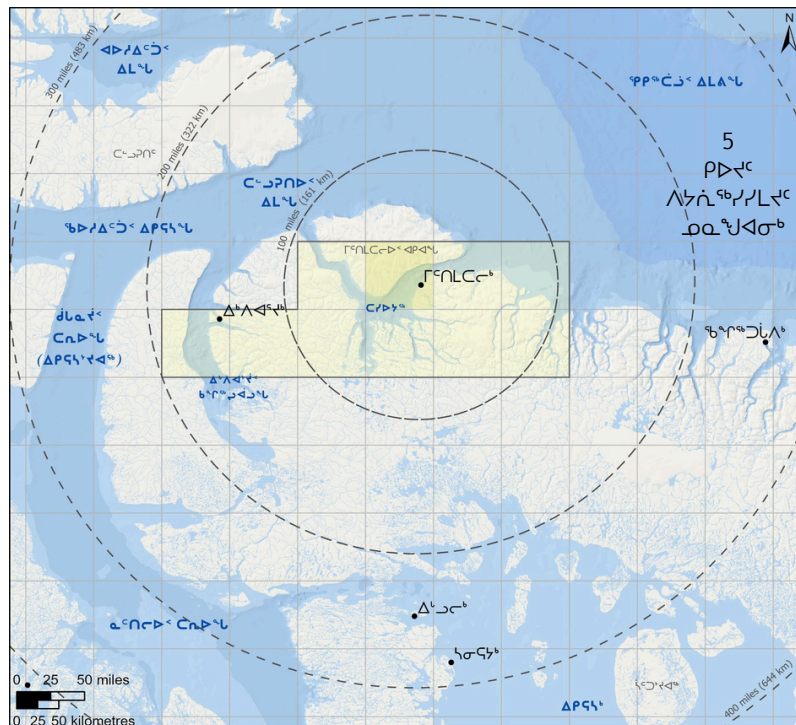
<https://straightupnorth.ca/community-wwic-uses-and-needs/>

ዚህ ፍብርባር የግብርና ልማት ልዩነት የሚያሳይ የግብርና ልማት የሚያሳይ የግብርና ልማት

ዚህ ፍብርባር ልማት



ዚህ ፍብርባር ልማት

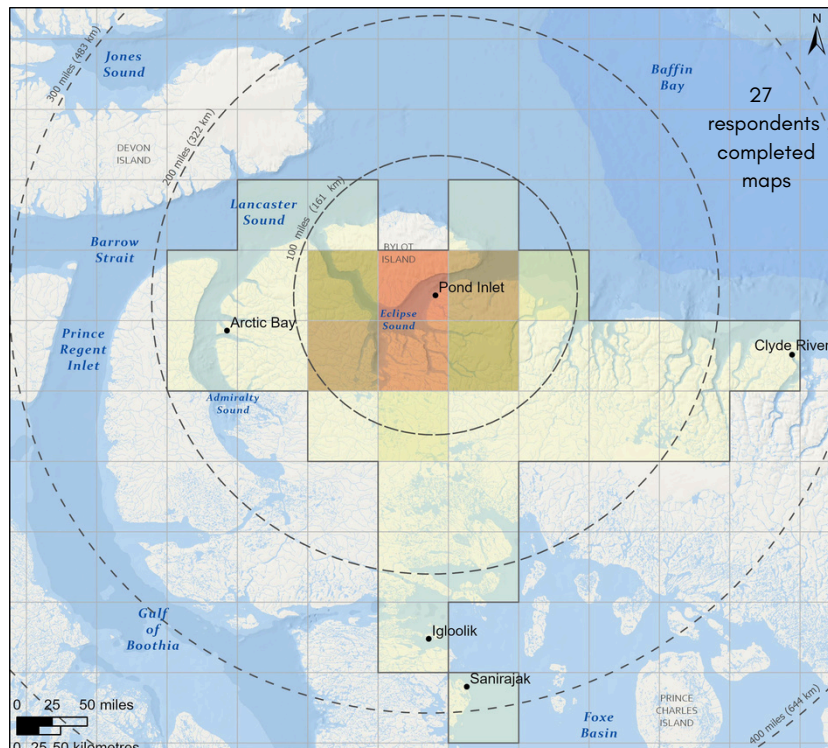


1 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70
71 - 80	81 - 90	91 - 100	101 - 150	151 - 200	201 - 249	

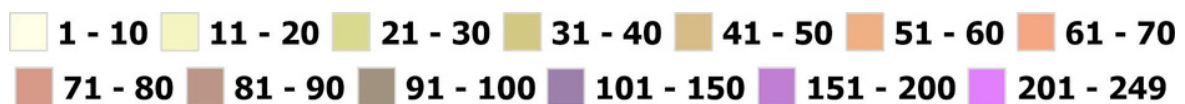
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WHERE MITTIMATALINGMIUT MEN AND WOMEN RESPONDENTS TRAVEL

TRAVEL BY MEN



TRAVEL BY WOMEN

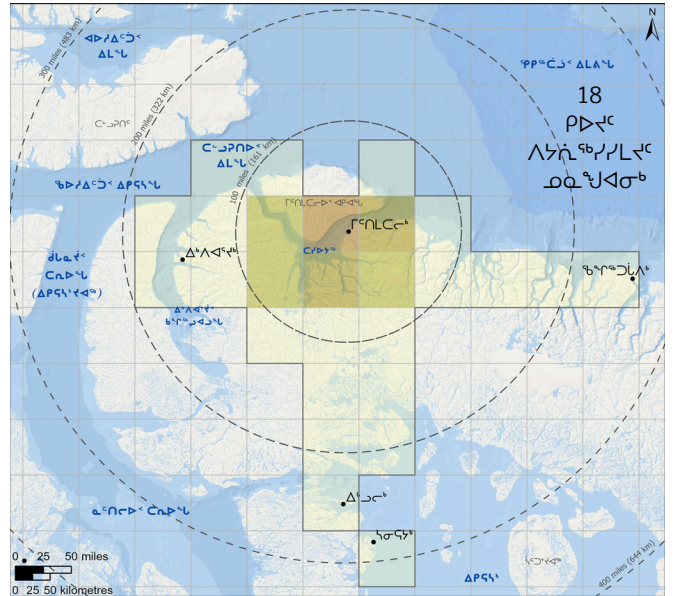
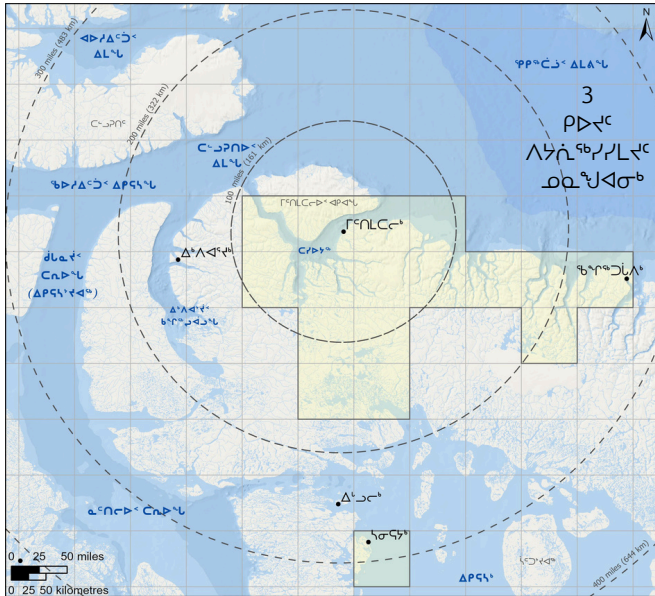


Number of respondents who travelled in the selected area

ዚህ ፍጥነት ለጥንታዊው የግብርና ምርት የሚጠቀሙትን ዓክልበት (የጥንታዊው)

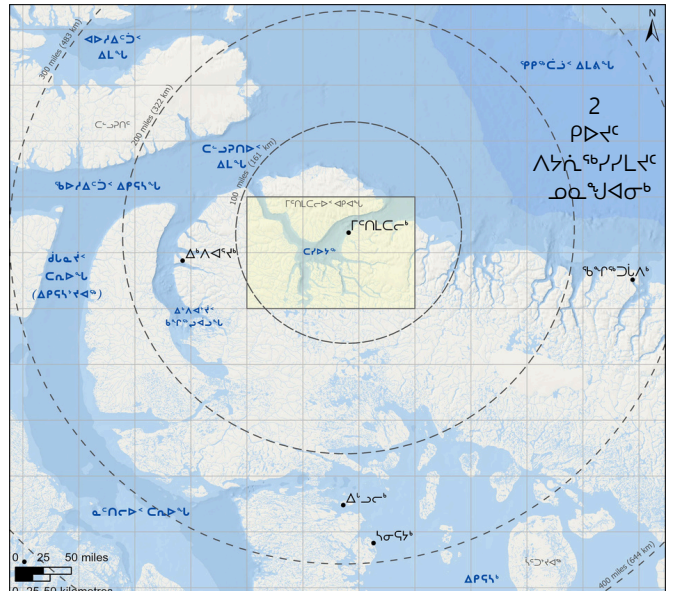
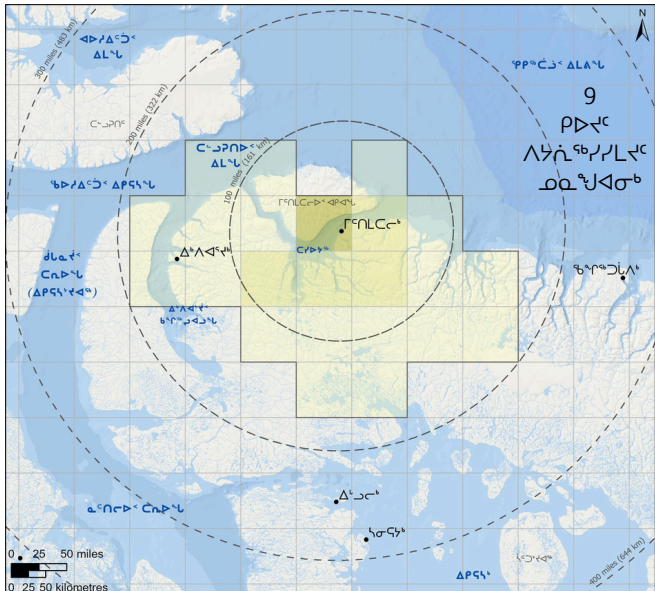
የጥንታዊው 16 ዓክልበት 24 ዓክልበት

የጥንታዊው 24 ዓክልበት 34 ዓክልበት



የጥንታዊው 35 ዓክልበት 49 ዓክልበት

የጥንታዊው 50 ዓክልበት 69 ዓክልበት



1 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70
71 - 80	81 - 90	91 - 100	101 - 150	151 - 200	201 - 249	

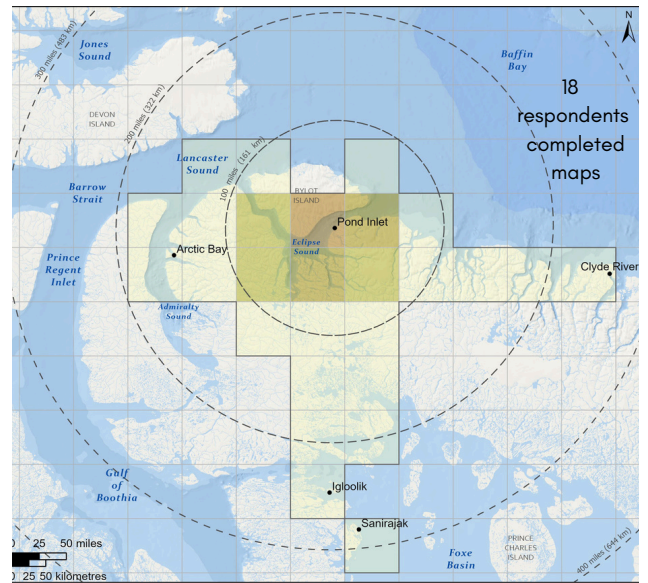
የጥንታዊው የግብርና ምርት የሚጠቀሙትን ዓክልበት ለመወሰን ያገለግላል

WHERE MITTIMATALINGMIUT RESPONDENTS TRAVEL (BY AGE)

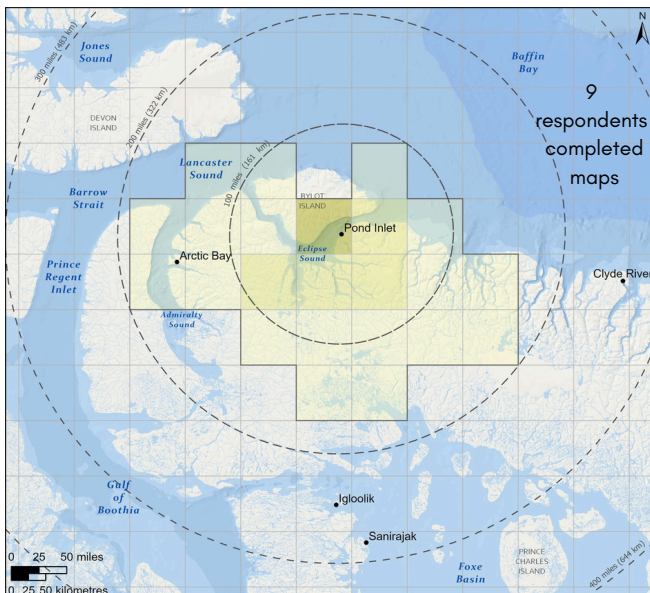
AGES 16 TO 24 TRAVEL



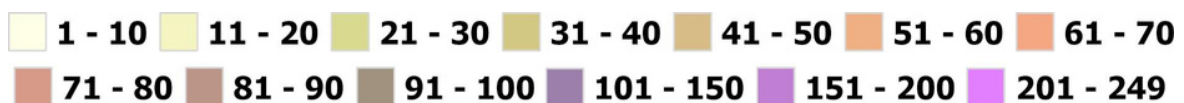
AGES 25 TO 34 TRAVEL



AGES 35 TO 49 TRAVEL



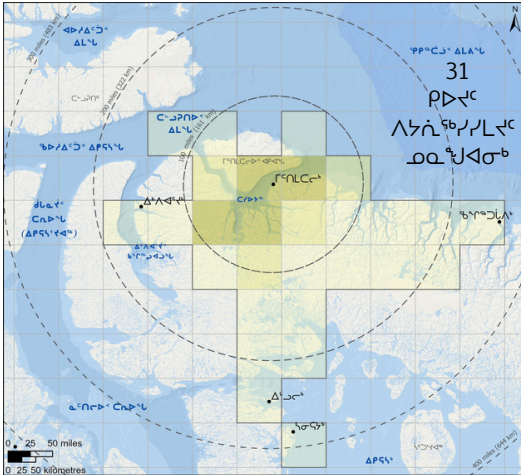
AGES 50 TO 69 TRAVEL



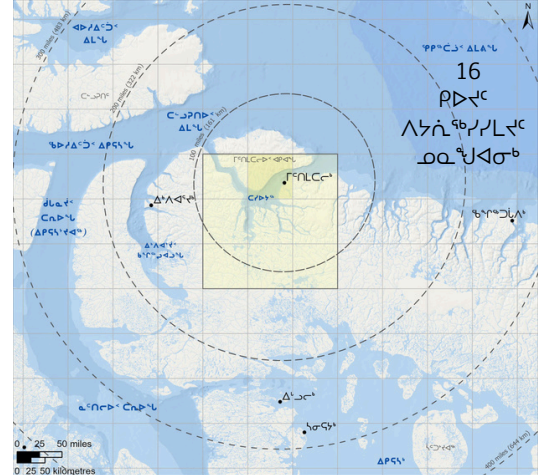
Number of respondents who travelled in the selected area

ዚህ ፖለቲካ-ጥንቃቄዊ ሥራ ለጥቅም አይሆንም (ለጥቅም አይሆንም)

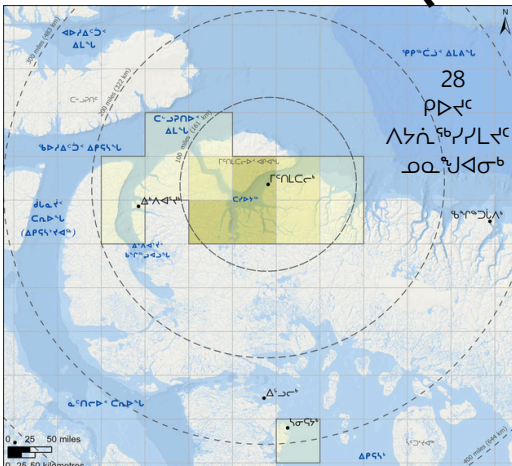
የጥንቃቄው ልዩነት



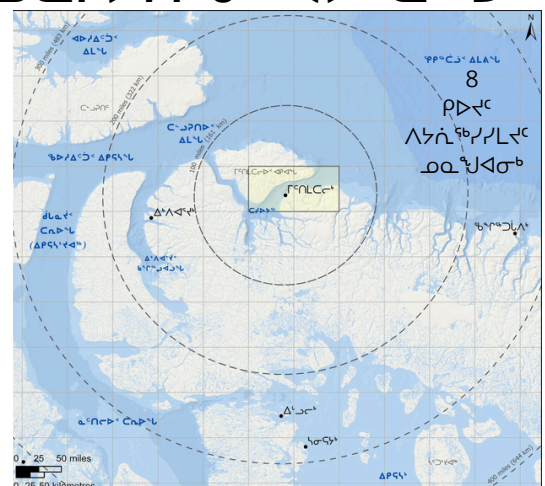
ወደፊት የሚጠበቅ ልዩነት (ለጥንቃቄው) ልዩነት



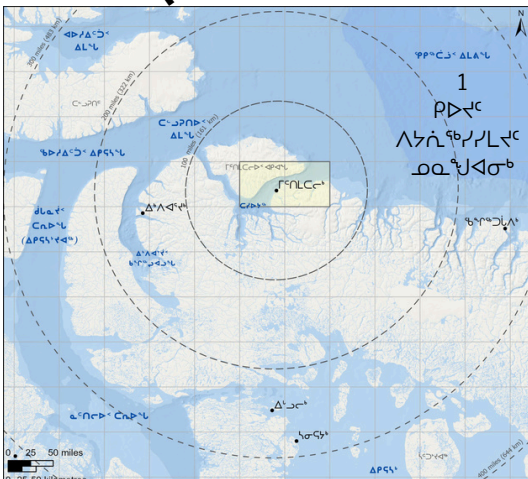
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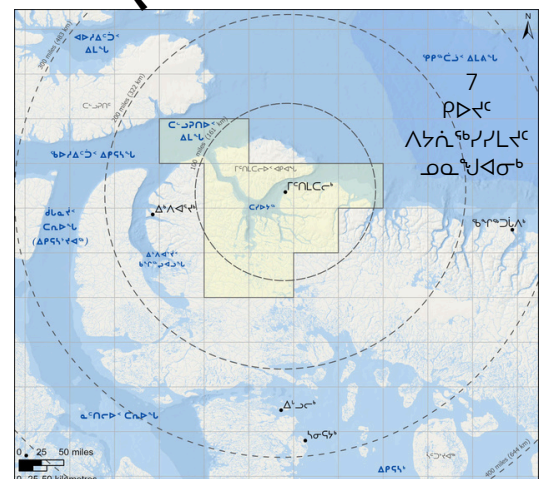
ወደፊት የሚጠበቅ ልዩነት



የጥንቃቄው ልዩነት



ለጥንቃቄው ልዩነት

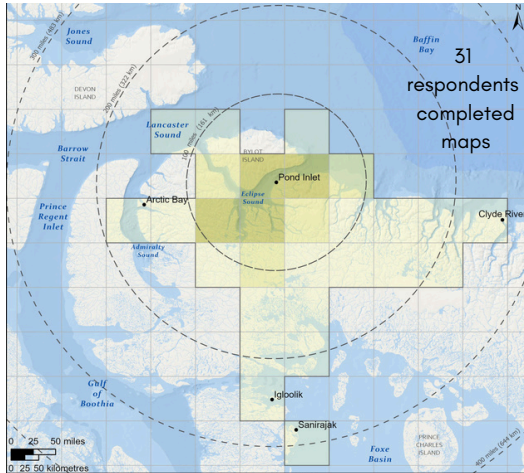


1 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70
71 - 80	81 - 90	91 - 100	101 - 150	151 - 200	201 - 249	

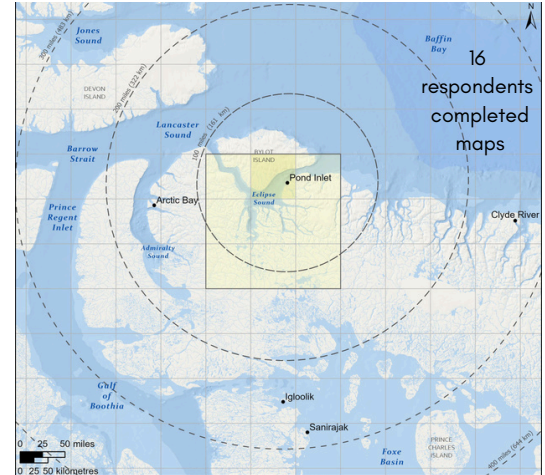
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WHERE MITTIMATALINGMIUT RESPONDENTS TRAVEL (BY MODE OF TRAVEL)

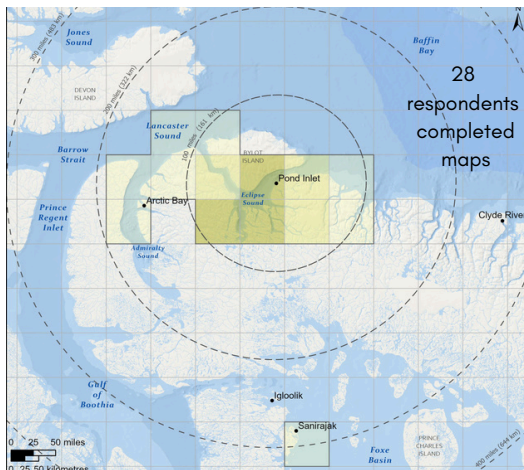
SNOWMOBILE TRAVEL



ATV TRAVEL



BOAT TRAVEL



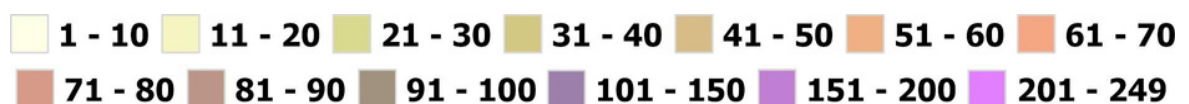
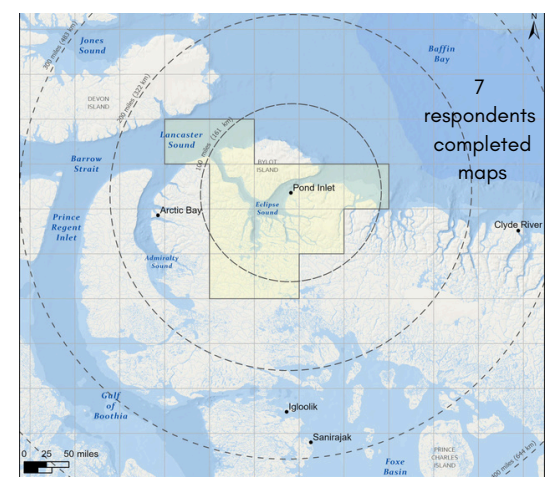
VEHICLE TRAVEL



DOG TEAM TRAVEL

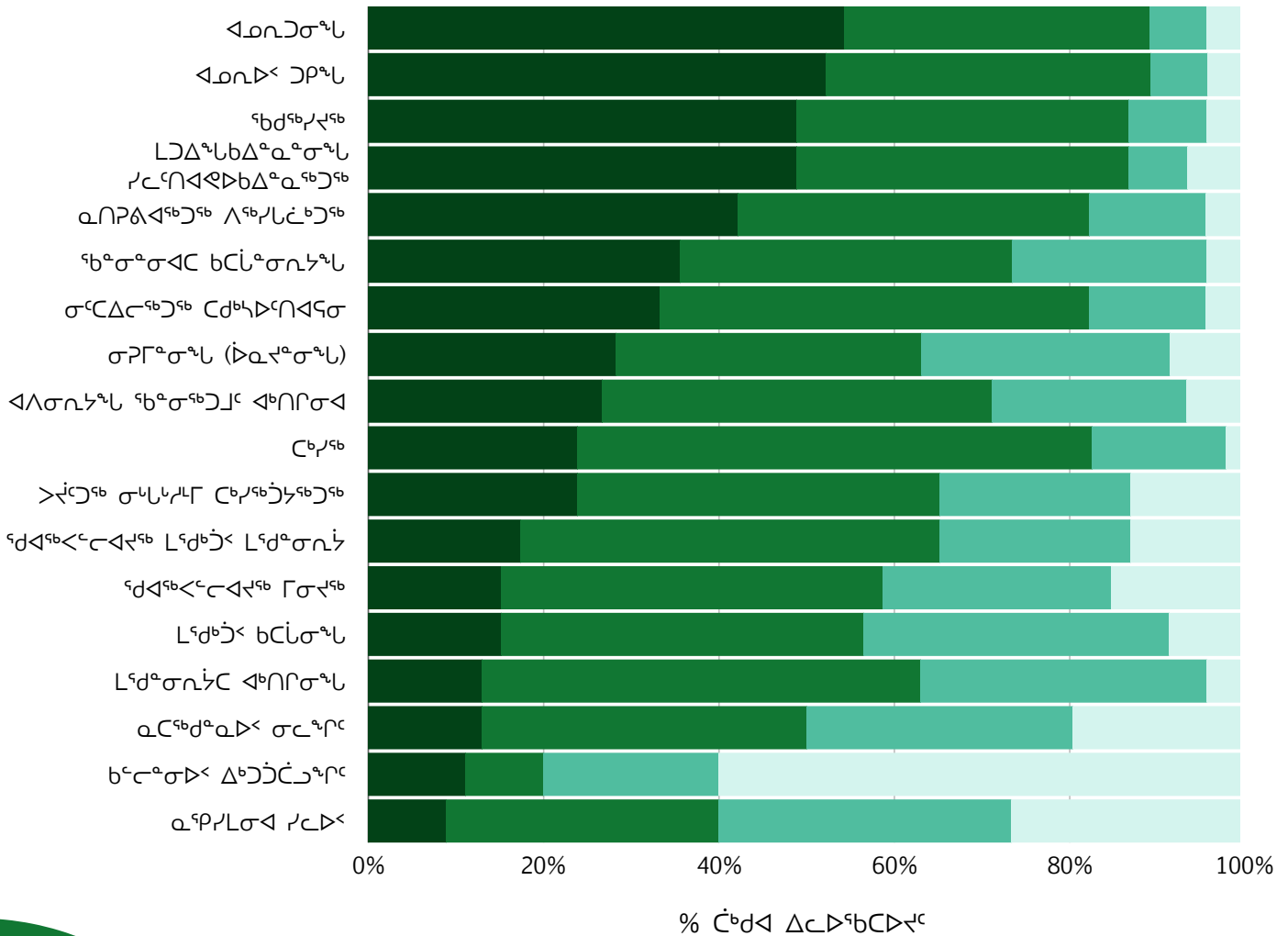


ON FOOT TRAVEL



Number of respondents who travelled in the selected area

ሥራ ልማት ለማድረግ
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 ሥራ ልማት ለማድረግ ሥራ ልማት

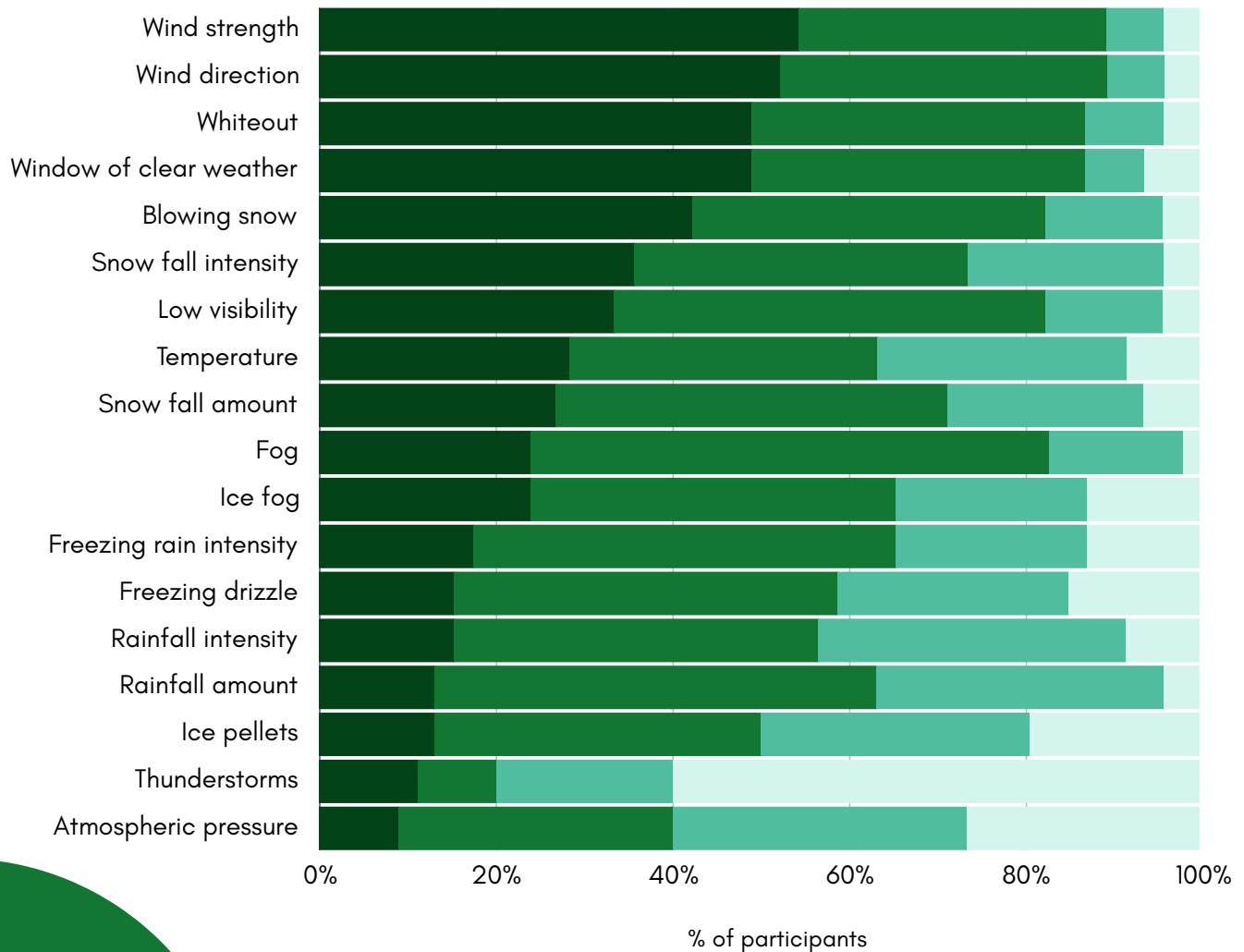
[illegible][illegible]

● **ልደብኢክፍር፡**
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 ልደብኢክፍር
 ልደብኢክፍር
 ልደብኢክፍር
 ልደብኢክፍር

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 420654756
 2075 206756756

[illegible]

WEATHER CONDITIONS MITTIMATALINGMIUT PARTICIPANTS CHECK BEFORE THEY TRAVEL



- **Necessary:**
I would not travel without knowing about this condition
- **Good to know:**
It is helpful to know about this condition, it informs travel decisions
- **Don't consider:**
I don't consider this condition to make travel decisions
- **Not applicable:**
This condition is not applicable in my community

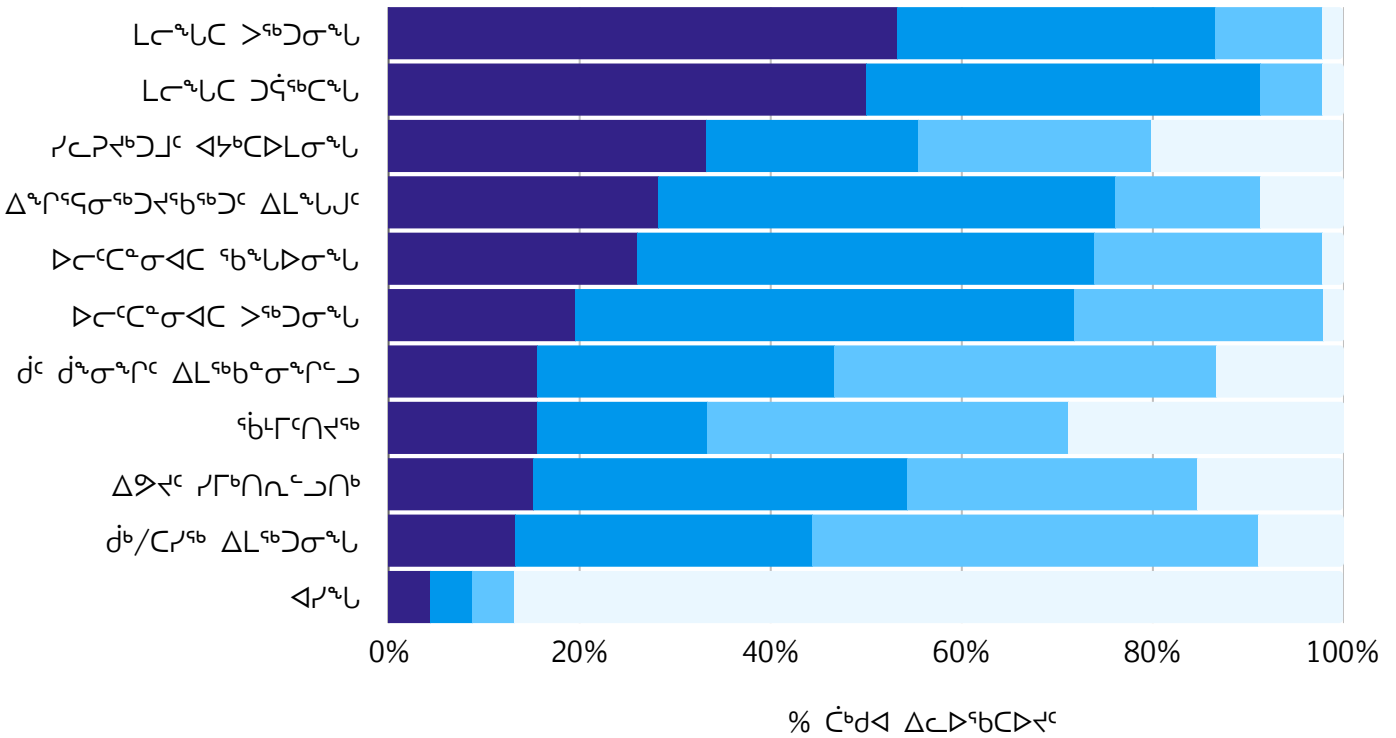
Mittimatalingmiut participants check many types of weather conditions before they travel on the land, water, sea ice and snow. Wind direction and strength as well as whiteout and window of clear weather are the weather conditions most commonly considered necessary to check before travelling.



WEATHER

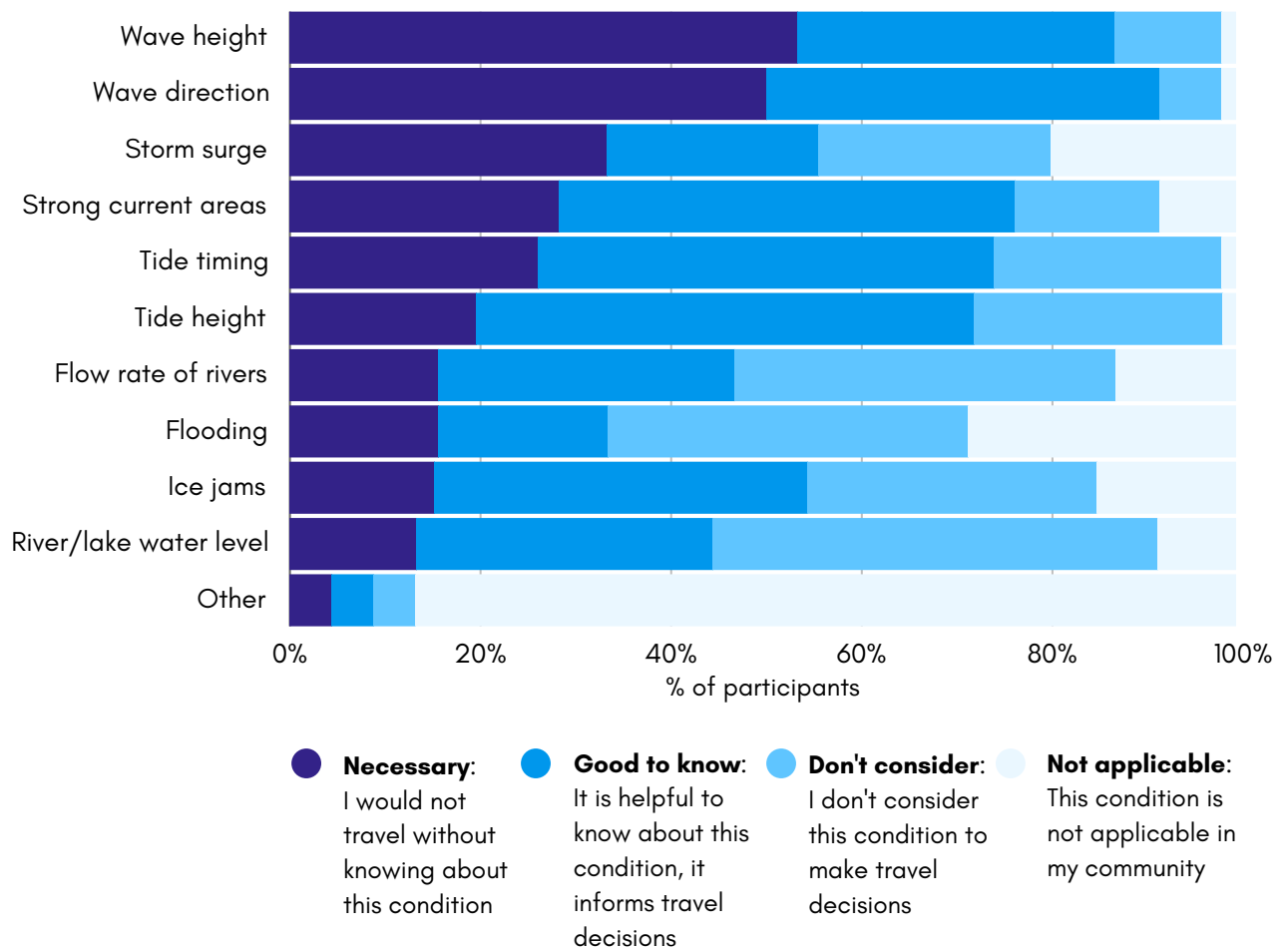
ΔL▷◁ ΔC^{qb}dPnL^qp^c

ፖቢሊክ ምዕራፍ

[illegible][illegible][illegible][illegible][illegible]

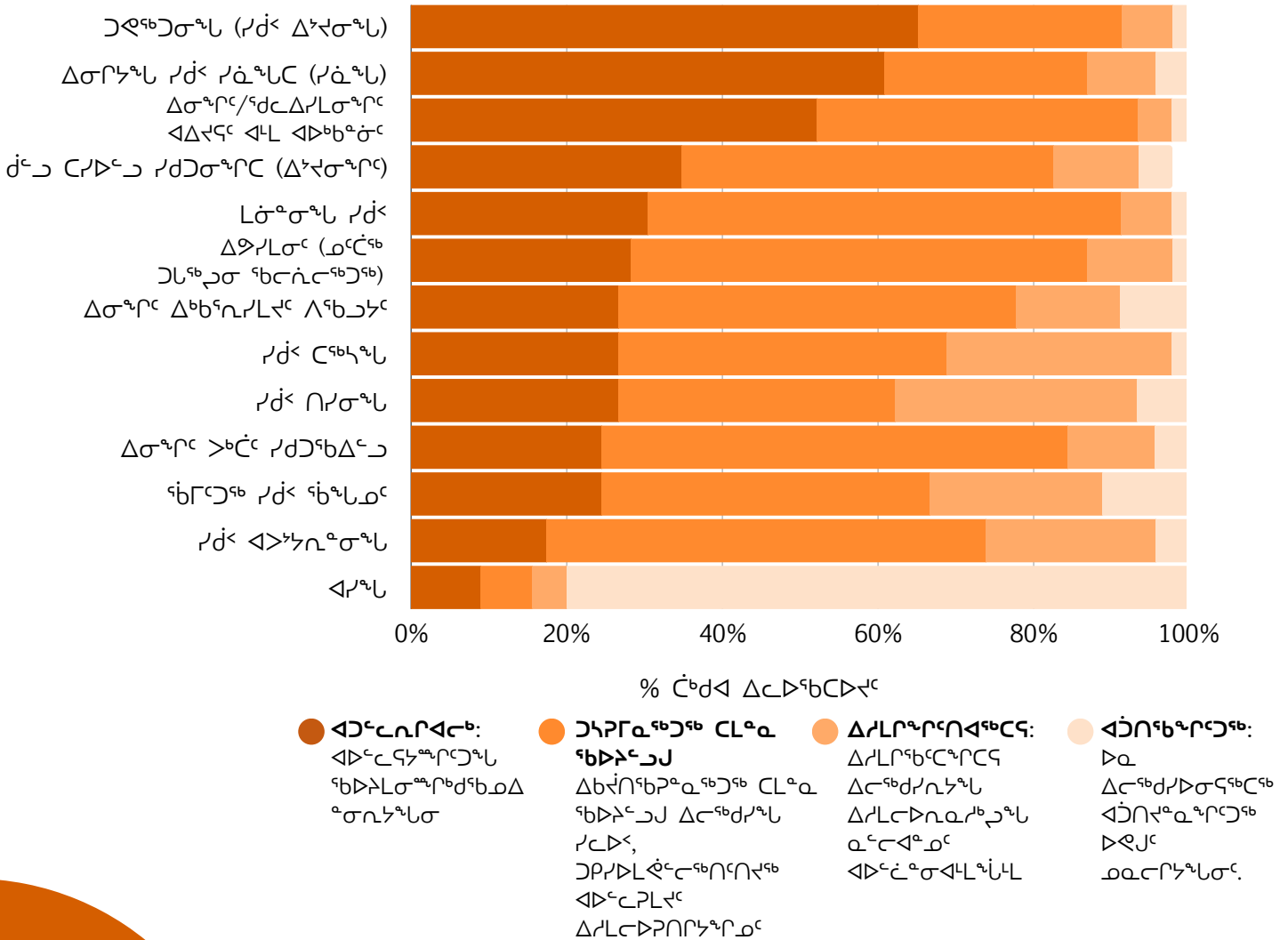
ፖሊሲና ስልጣን ለሕዝብ ጥቅም ለማድረግ ለሚችሉ ሁሉም ጥላቻዎች ማብራሪያ ማድረግና ለሕዝብ ጥቅም ለሚሆኑ ሁሉም ጥላቻዎች ማብራሪያ ማድረግ ይቻላል።

WATER CONDITIONS MITTIMATALINGMIUT PARTICIPANTS CHECK BEFORE THEY TRAVEL

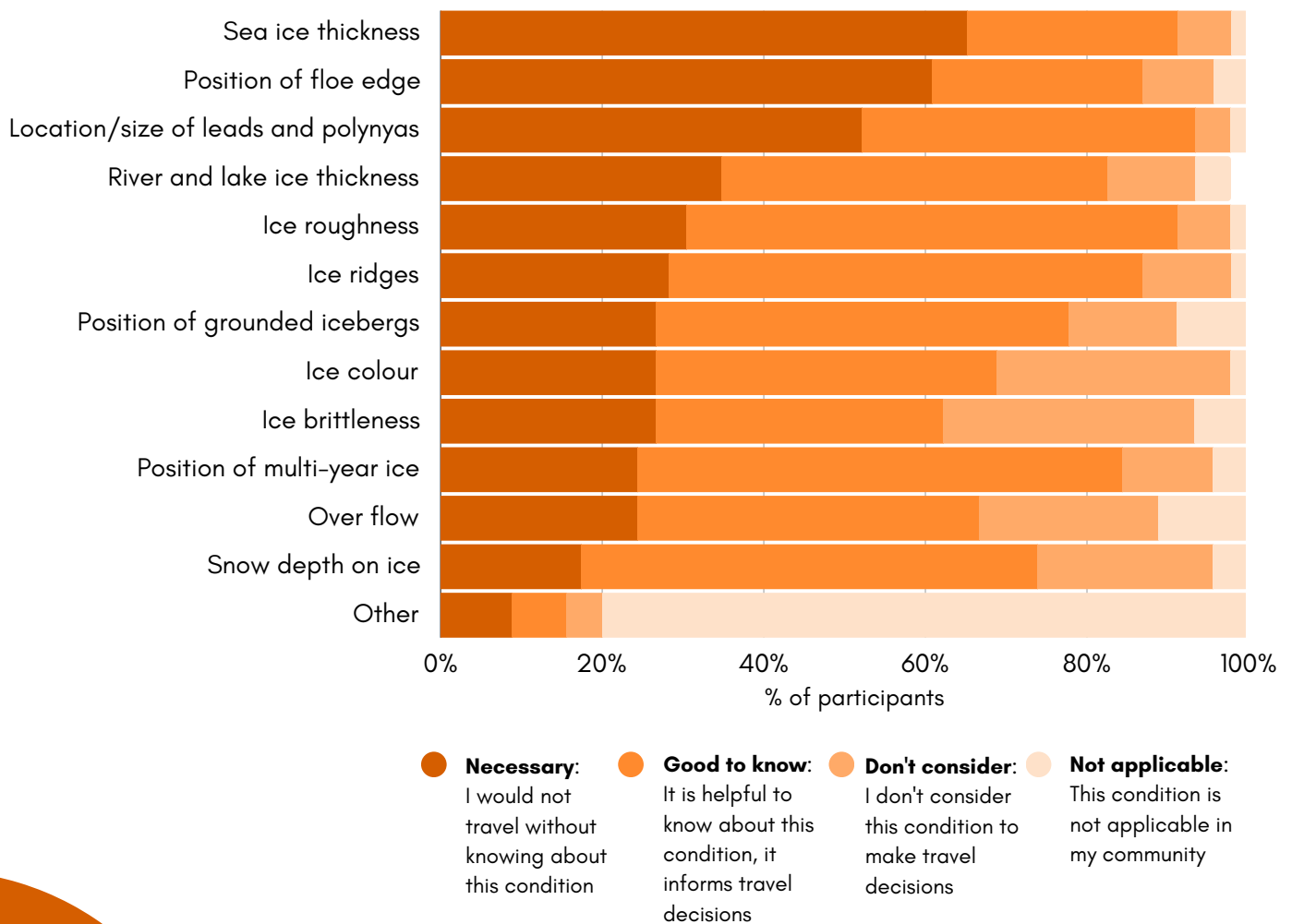


Mittimatalingmiut participants check many types of water conditions before they travel on the water. Wave height, wave direction, storm surge, and strong current areas are the water conditions most commonly considered necessary to check before travelling. Participants who said "Other" also check currents and salinity levels.

WATER

[illegible][illegible]

ICE CONDITIONS MITTIMATALINGMIUT PARTICIPANTS CHECK BEFORE THEY TRAVEL



Mittimatalingmiut check many types of ice conditions before they travel on the land. Sea ice thickness, position of the floe edge, location and size of leads and polynyas are the ice conditions most commonly considered necessary to check before travelling. Those who said "Other" also check the solidity of ice (i.e. slushy, moisture).

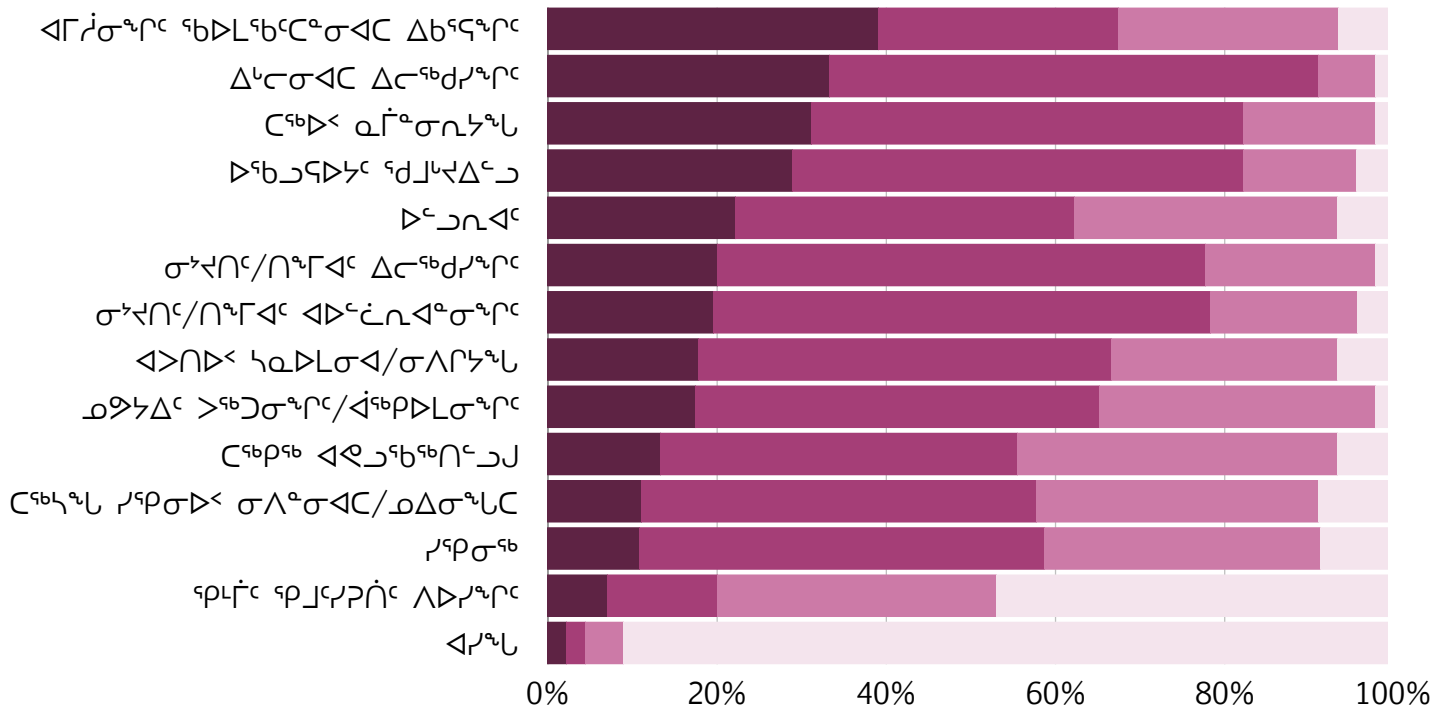


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ΔC^{9b} dP nL^{9c} rC rNL C^{9c} rD^c

ΔΕΛΤΑΪΚΟ ΕΞΕΤΑΓΗΓΕΙΟΝ ΠΡΟΣΤΑ

◀▶^cℓℓℓ◀^oσ^uℓℓ



% $\dot{C}^b_d \triangleleft \Delta_c \triangleright^c b C \triangleright^c$

[illegible]

3. ጋሃጥፈኛጋኛ ርሊዳ
 ኖኔላኛጋጋ:
 ልክቶኖኖጥፈኛጋኛ ርሊ
 ኖኔላኛጋጋ ልክኖኖጥፈኛ
 ሆሮፈ፣
 ጋሃጥፈኛጋኛ ርሊ
 ልክኖኖጥፈኛጋኛ
 ልክኖኖጥፈኛጋኛ

● **ልገረኤቶችን ለማጥፋት፡**
 ለገረኤዎች ምርጫ ማድረግ
 ለገረኤዎች ምርጫ ማድረግ
 ለገረኤዎች ምርጫ ማድረግ
 ለገረኤዎች ምርጫ ማድረግ
 ለገረኤዎች ምርጫ ማድረግ

4. ለጥራት ማረጋገጫ፡
 ልማት
 ለጥራት ማረጋገጫ
 ልማት
 ልማት

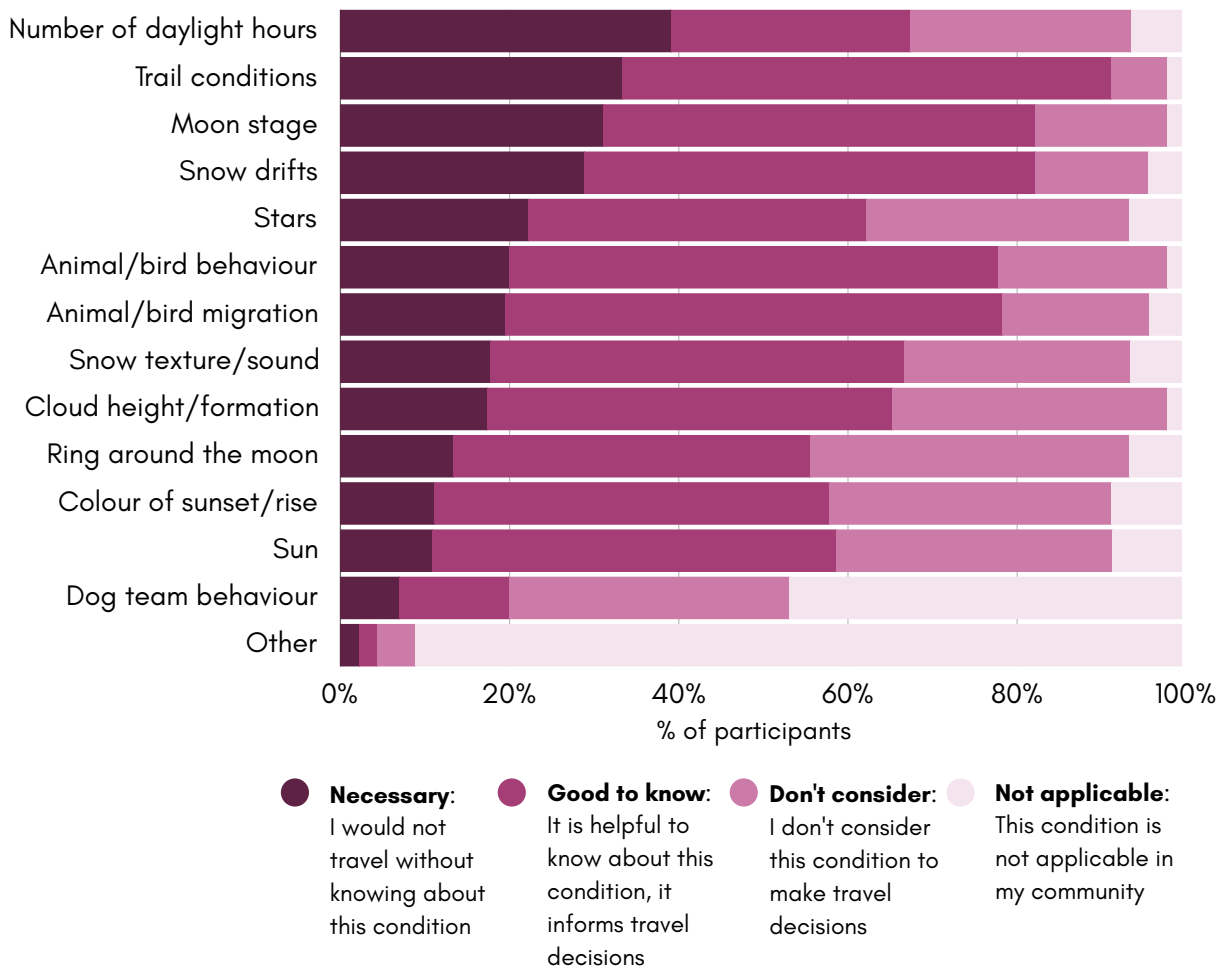
[illegible]
$$\Delta C^{\text{qb}} d\rho^{\text{a}} \rho^{\text{a}} \sigma^{\text{b}} \quad \rho^{\text{b}} \sigma^{\text{a}} \Delta J^{\text{c}} \quad \Delta D^{\text{c}} \dot{C} \rho^{\text{L}} \sigma^{\text{a}} \Delta C \quad D^{\text{c}} \dot{C}^{\text{c}}$$
[illegible][illegible][illegible]

ፍጠራዊ ሥልጣን ለሕዝብ ምክር ቤት ማስተላለፍ ይቻላል።

“ᐊᕐᕐᕐ” ᕐᕐᕐᕐᕐ ᕐᕐᕐᕐᕐ ᕐᕐᕐᕐᕐ ᕐᕐᕐᕐᕐᕐ, ᕐᕐᕐᕐᕐᕐ ᕐᕐᕐᕐᕐᕐ.



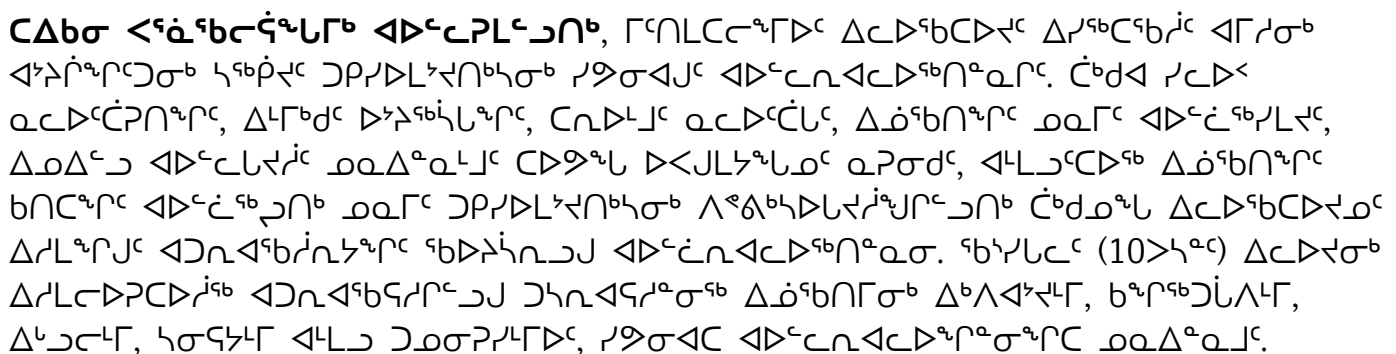
OTHER ENVIRONMENTAL CONDITIONS MITTIMATALINGMIUT PARTICIPANTS CHECK BEFORE THEY TRAVEL



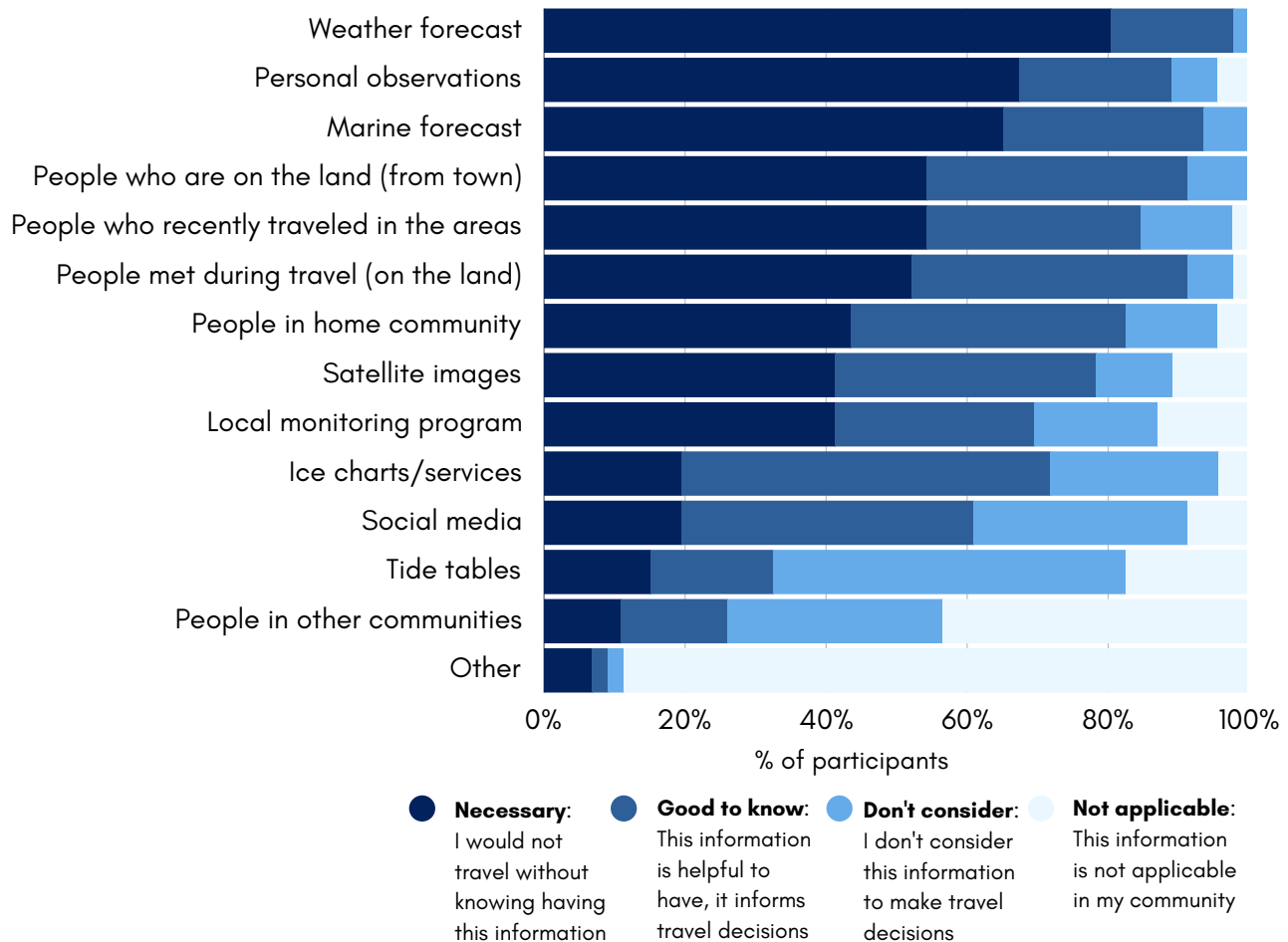
Mittimatalingmiut check many other environmental conditions before they travel on the land. Number of daylight hours, trail conditions, moon stage, and snow drifts are the most important environmental conditions to check before travelling. Those who said "Other" also check the lunar cycle, and earth's axis.

OTHER



[illegible]

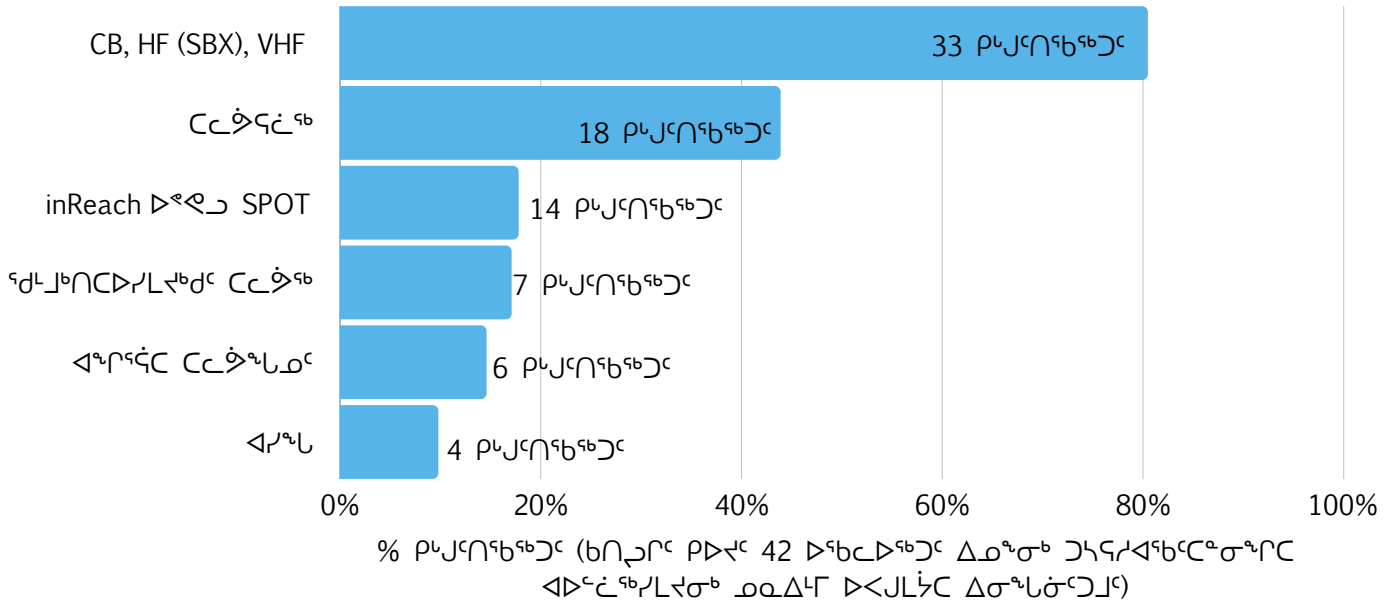
INFORMATION SOURCES MITTIMATALINGMIUT PARTICIPANTS USE WHEN PLANNING A TRIP



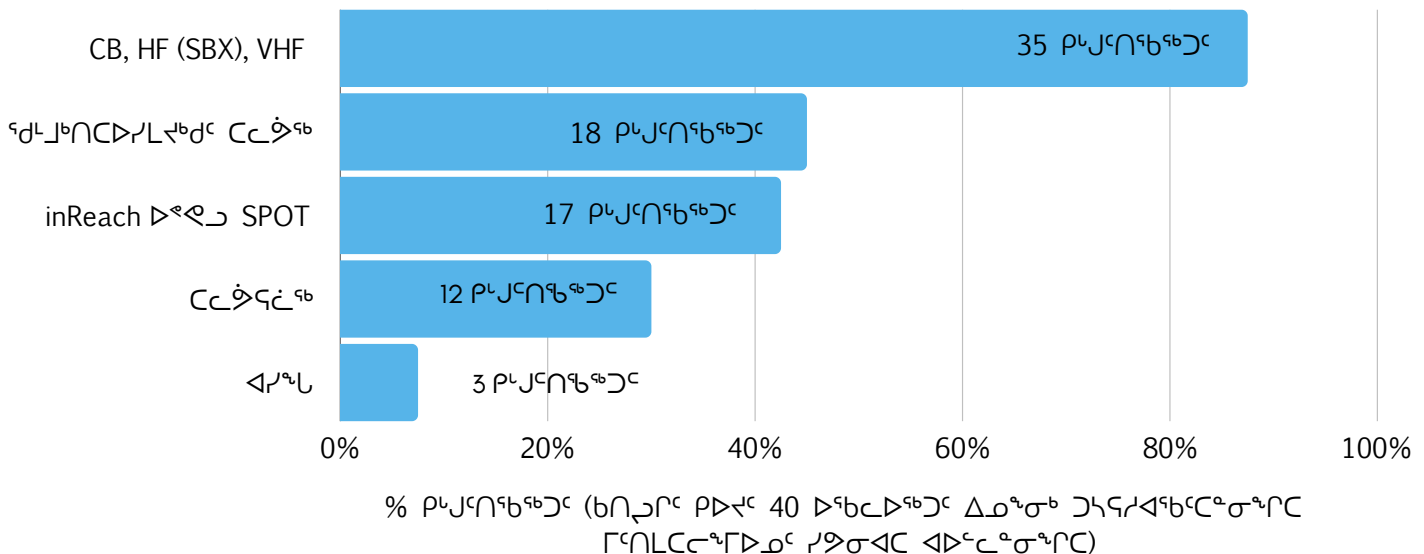
When planning a trip, Mittimatalingmiut participants access many sources of information before they travel on the land. Weather forecast, personal observations, marine forecast, people who are on the land, people who recently travelled in the area, and people met during travel on the land are information sources that participants most often consider necessary to check. A few (10%) of participants consider it necessary to contact people in Arctic Bay, Clyde River, Igloolik, Hall Beach, and Tununirusirmmiut, before they travel.

While on the land and when deciding to return home personal observations, people who are on the land, people who recently travelled in the area, people met during travel on the land, people in Pond Inlet and weather forecast are the information sources that are used most by Mittimatalingmiut participants.

ጋኒሲፋል፣ ወደረገ
ጋዞጋሊ፣ፋሎ፣ ለፋሎጋሊ፣ፋሎ፣

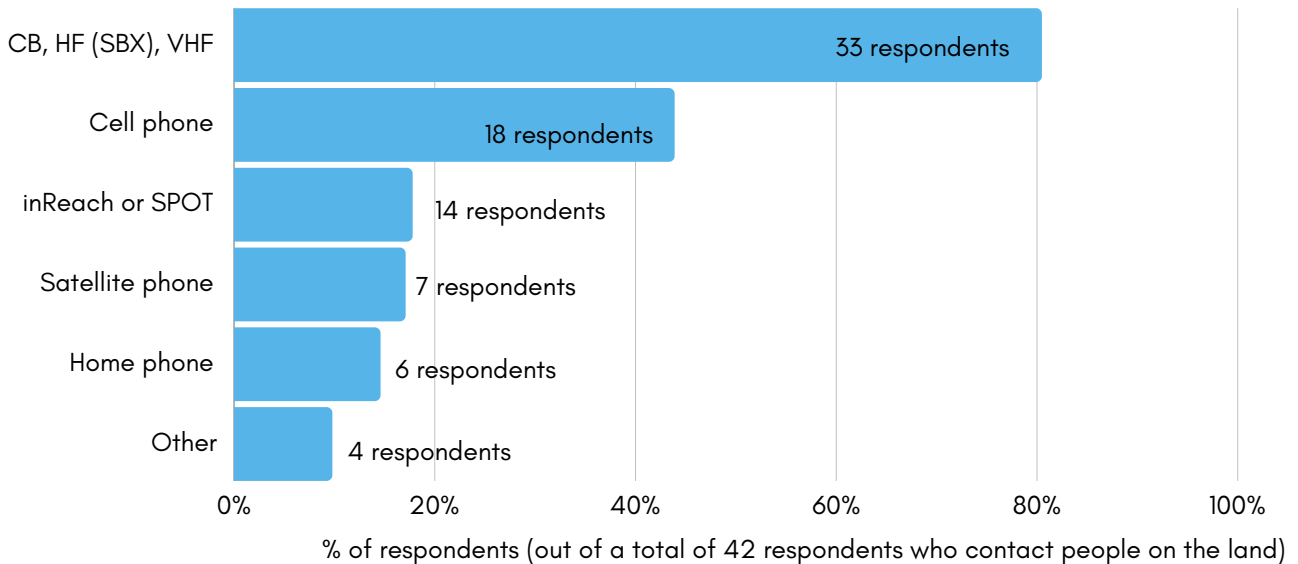
[illegible][illegible]

ጋኒኪፋኔጋ፣ ወደረዢ ገብርኤል፣ጋወ፣ ልዩሮ

[illegible]

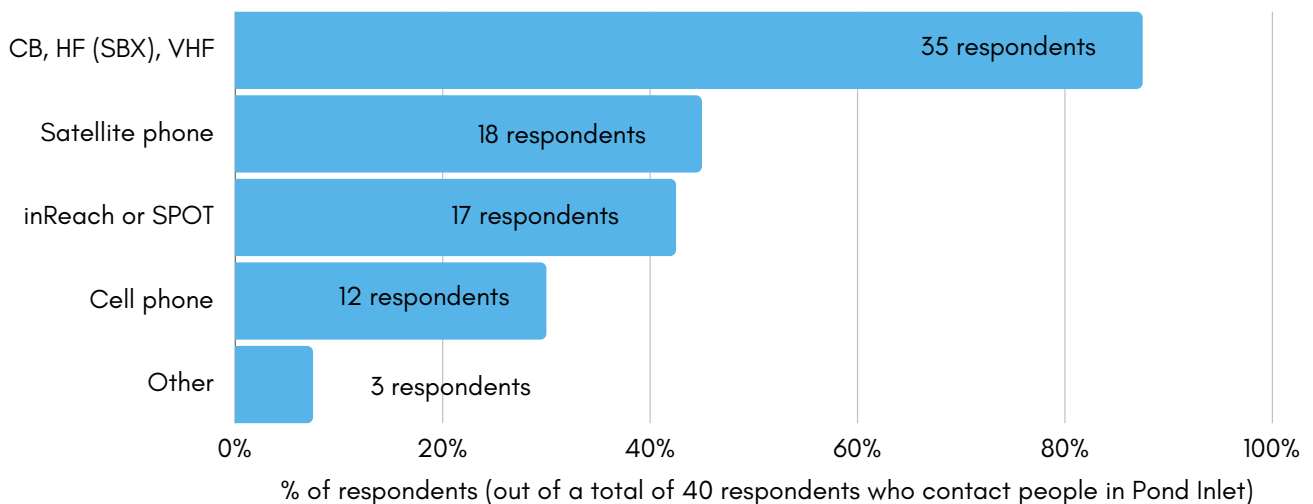
CONTACTING COMMUNITY INFORMATION SOURCES

Contacting people on the land while in Pond Inlet



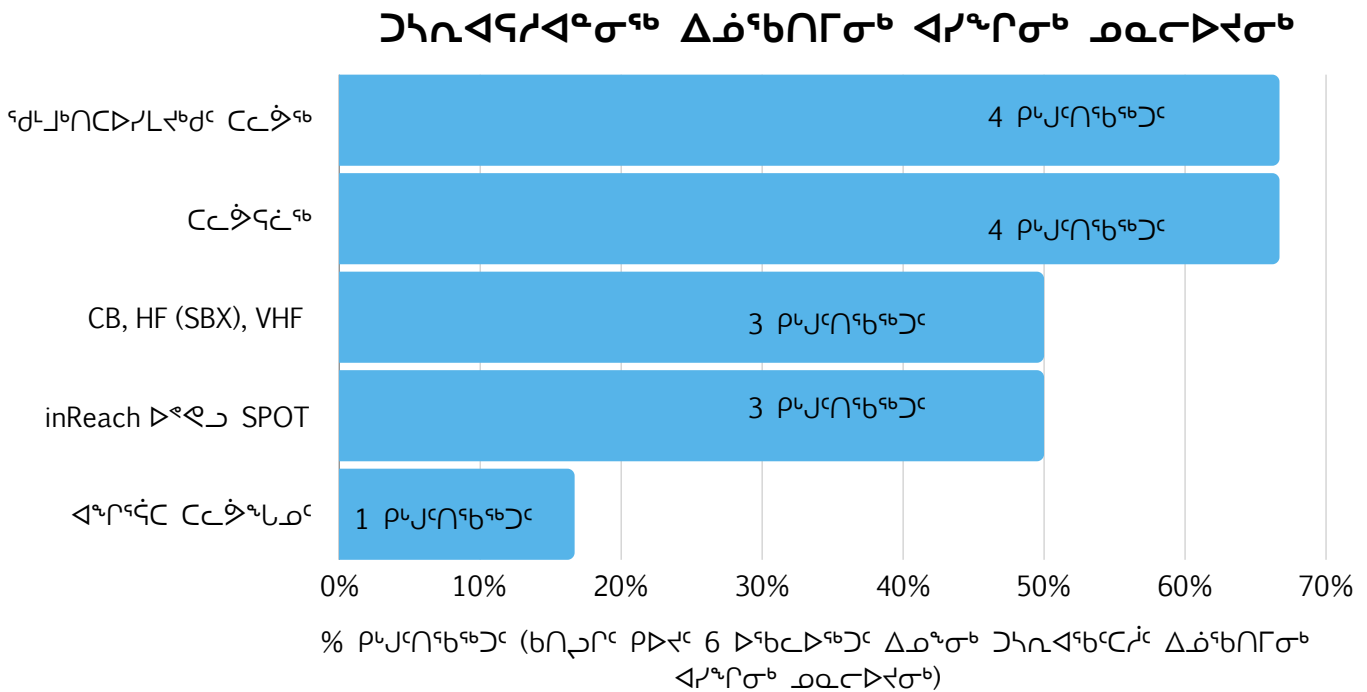
Respondents who contact people on the land to ask about environmental conditions while they themselves are in Pond Inlet mostly use short-wave radios (CB, HF(SBX), VHF), and cell phones. Those who answered "Other", also use Zoleo, Facebook, and talk face-to-face.

Contacting people in Pond Inlet while on the land



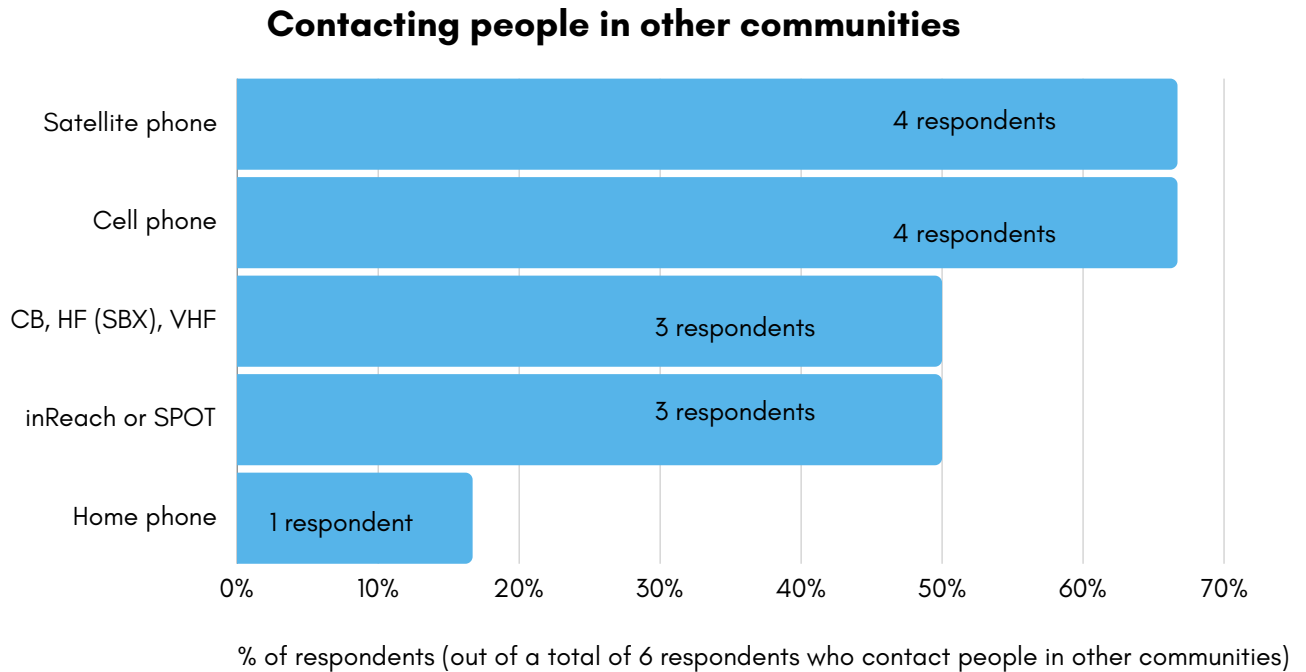
Respondents who contact people in Pond Inlet to ask about environmental conditions while they themselves are on the land mostly use short-wave radios (CB, HF(SBX), VHF). Those how answered "Other" also use Zoleo and social media.

2ካሊፋፖሎስፍ ሙራፒ
 2ዋጋፒላፕላፖስፍ ራፖላፓ
 2ካሊፋፖሎስፍ ራፖላፓ
 (ፖላፖላፖስፍ)

[illegible][illegible]

ᐱᐱᓴᐅᓴᓂᓐ ᐅᓴᓴ: ᐅᑕ ᐱᐃᓴᓂᓐ
Art work by: Rhoda Higinig

CONTACTING COMMUNITY INFORMATION SOURCES (CONTINUED)



Respondents who contact people in other communities to ask about environmental conditions mostly use cell phones and satellite phones to contact them.

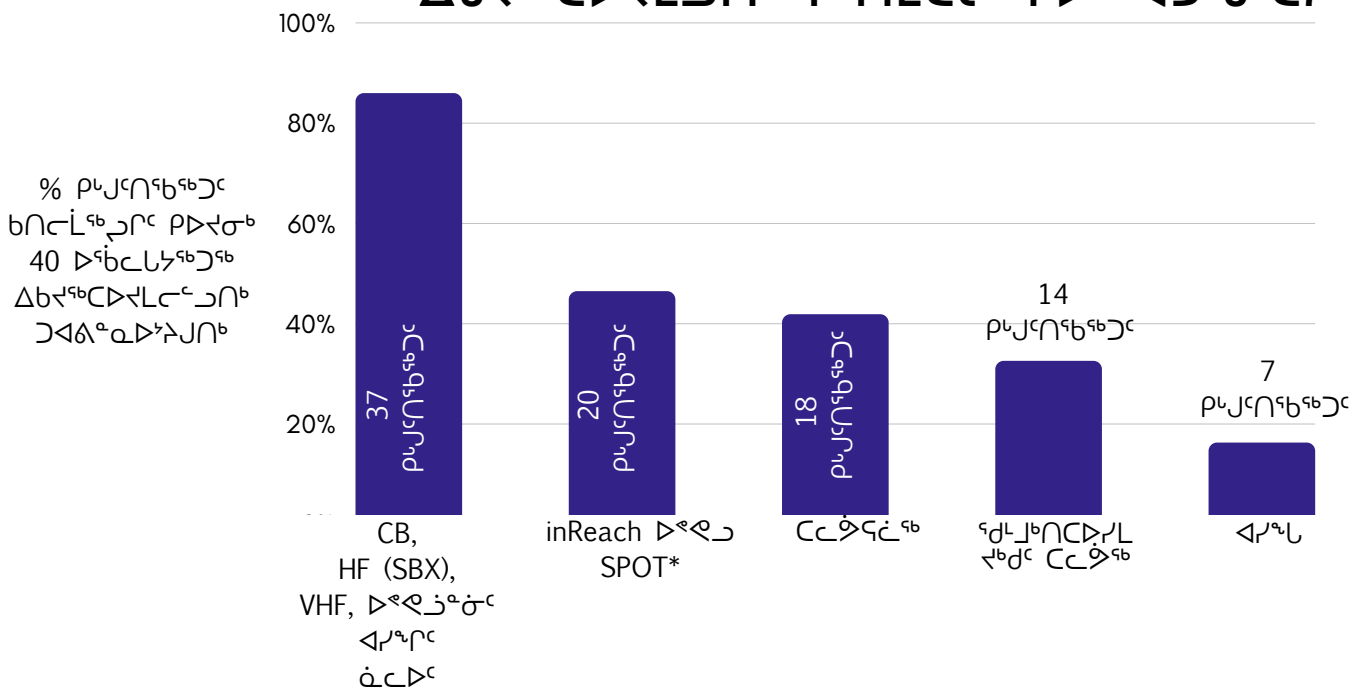
The other communities most commonly contacted are: Arctic Bay, Clyde River, Hall Beach, Igloolik, and Tununirusirmmiut.



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Art work by: Jamesie Itulu

[illegible][illegible][illegible][illegible][illegible]

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CONTACTING OTHERS FOR HELP



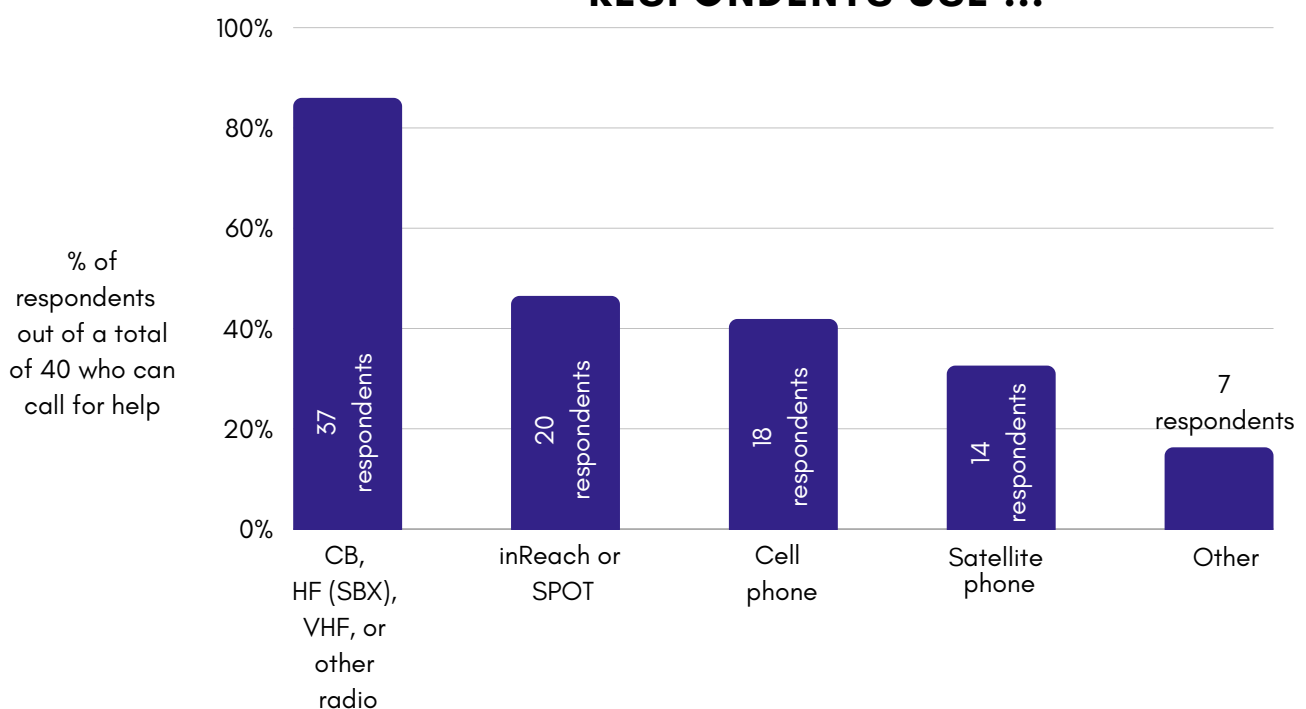
If Mittimatalingmiut participants get stranded or have an accident on the land, 87% (out of a total of 46) can call for help.

Of the 40 respondents who can call for help, most would call a **family member** (93%), or a **friend** (67%), and some would call **local search and rescue** (33%) for help.

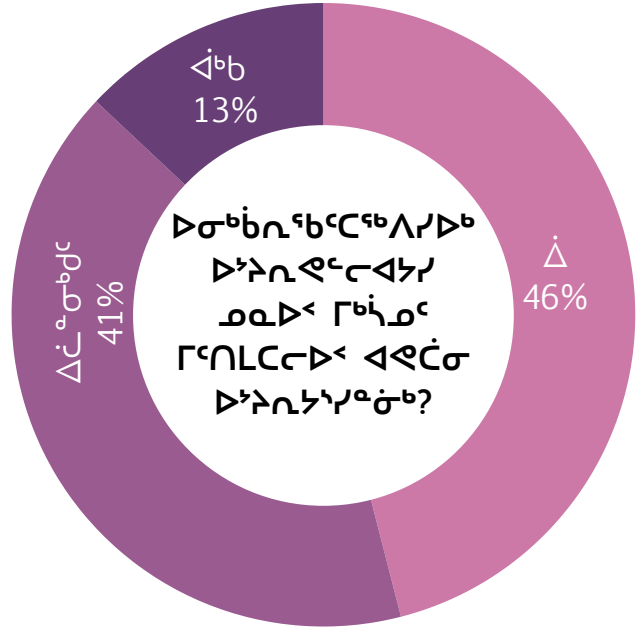
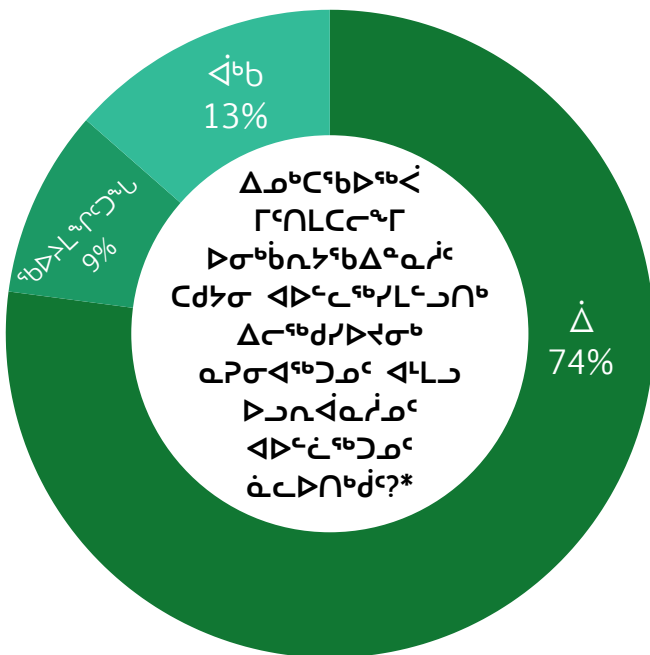
Respondents would also call the **Hunters and Trappers Association** (2%) and **Nunavut Emergency Management** (2%).

Of the respondents who can call for help, most use short-wave radios (86%). They also use inReach or SPOT, cell phones, or satellite phones. Those who answered "Other" also use Zoleo.

TO CALL FOR HELP MITTIMATALINGMIUT RESPONDENTS USE ...



ጋፅፍካልኑ ጋጎሲኑ ሥራጪ፣
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 ለጋጎሲ ሥራጪ ሥራጪ፣
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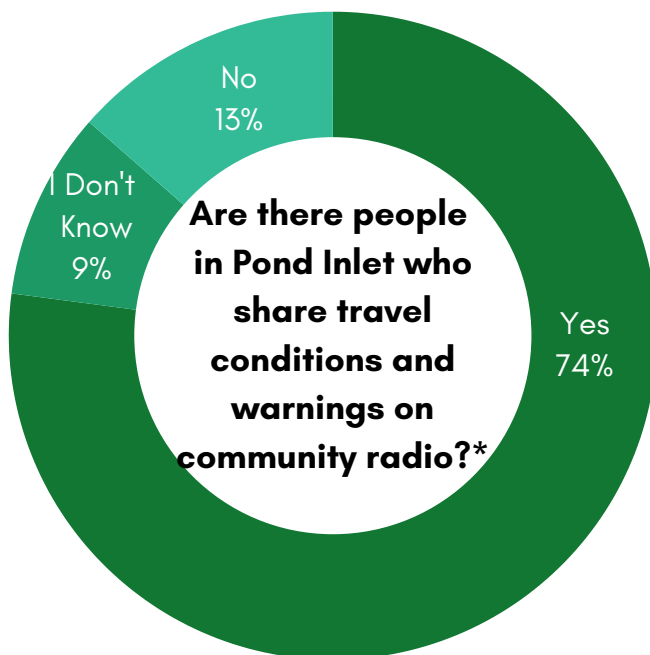
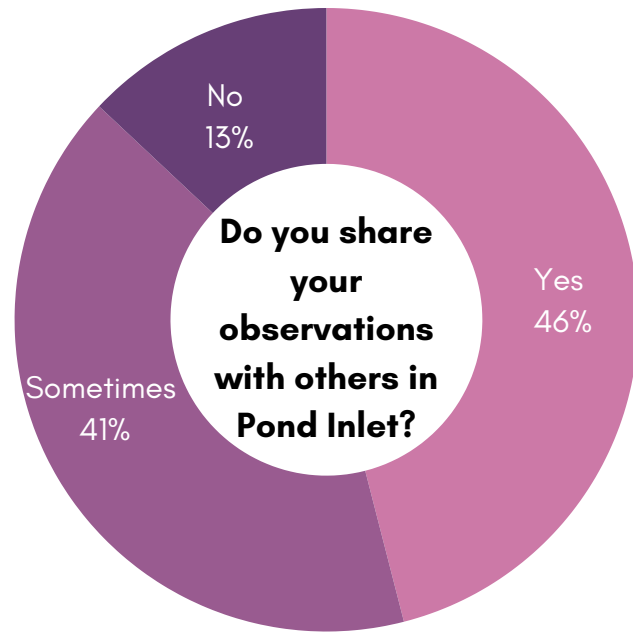
[illegible][illegible]

*4% ԲԱՅՈՒՄՆԵՐ
ԲԱՎԼԱԾԱԶՈՆ ԸՆԴԴԱՆ.

[illegible]

SHARING OBSERVATIONS OF WEATHER, WATER, ICE, OR SNOW CONDITIONS WITH OTHERS IN POND INLET

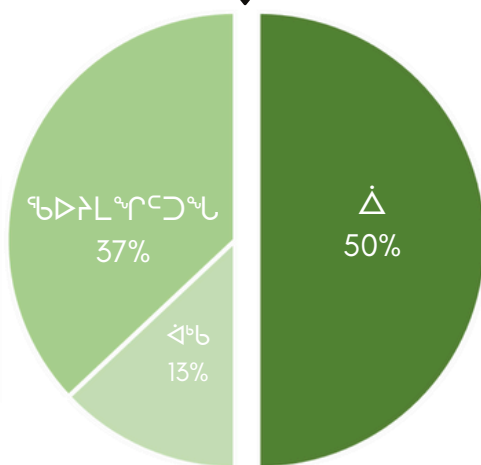
The majority (87%) of the participants share their observations of weather, water, ice, or snow conditions with others in Pond Inlet.



*4% prefer not to answer

Most (74%) participants said there are people regularly going on community radio in Pond Inlet, or CB/HF(SBX)/VHF radio, to share warnings or provide advice about weather, water, or ice conditions.

A few participants (9%) did not know if people regularly go on community radio in Pond Inlet, or CB/HF(SBX)/VHF radio, to share warnings or provide advice about weather, water, or ice conditions.



74%

83%

ᐅᓂᑲᑦᐳᑦ ᐅᓂᑲᑦᐳᑦ
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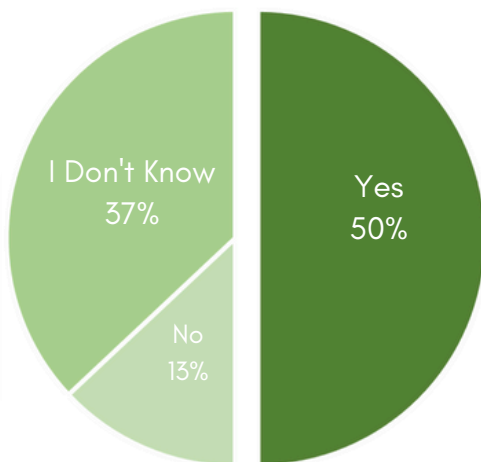
[illegible][illegible]

- $\alpha\Gamma\Delta^a\alpha^b \Delta\sigma\Delta^c$ $b\geq\delta\Gamma^b\delta^a\sigma^b$
- $\Delta^b\gamma\zeta\sigma^c$
- $\gamma\sigma\sigma^b$ $\gamma\sigma\sigma^b$ $d\leq\sigma$ $\sigma\sigma\sigma^b\gamma\delta^a\sigma$
- $b\wedge\gamma\delta^c \Delta\sigma^b\sigma^c$
- $\wedge^a\gamma\delta^a\sigma^b$
- $H\delta^b\sigma^b\sigma^b\sigma^b \cap\cap\sigma^b\sigma^b\sigma$
- $\delta^b\sigma^b\sigma^b\sigma^b\sigma^b \cap\cap\sigma^b\sigma^b\sigma$
- $\sigma\sigma\sigma^c \sigma^b\sigma^c\sigma^b\sigma$

- [illegible]

GATHERING TO TALK ABOUT TRAVEL CONDITIONS WITH OTHERS IN POND INLET

Are there places in Pond Inlet where people tend to meet and talk about recent travel conditions?



Of the 23 participants who answered "yes there are places"

74%

go to these places to listen or ask for advice

83%

go to share observations or advice

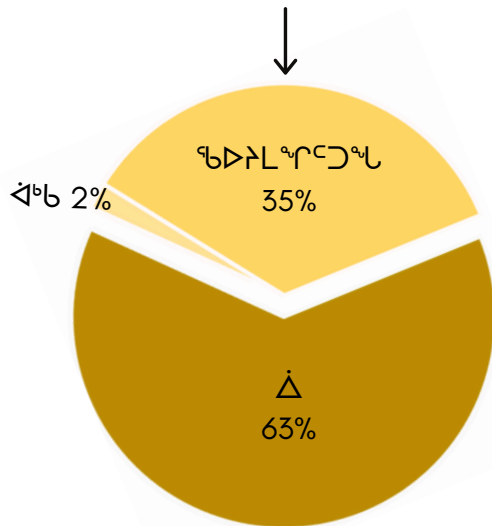
Half of the 46 participants said there are places in Pond Inlet where people tend to meet and talk about recent travel conditions, or weather, water, ice and other environmental conditions. Of the 50% of participants who said there are places where people meet, most go to those places to listen or ask for advice (74%), and most go to those places to share observations or advice (83%).

PLACES MITTIMATALINGMIUT GATHER TO TALK ABOUT TRAVEL CONDITIONS

- Anywhere people meet
- Cabins
- Tununiq Sauniq Co-op restaurant
- Coffee shops
- Community hall
- Hamlet office
- Hunters and Trappers Organization
- Local radio station
- On route to a destination
- On the ice, or beach
- On the land, hunting or camping
- Schools
- Stores (inside and outside)
- Visiting family and friends
- Wildlife Office
- Workplace

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ለሥራ ልማት ማረጋገጥ ለሥራ ልማት ማረጋገጥ
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 ለሥራ ልማት ማረጋገጥ ለሥራ ልማት ማረጋገጥ



ርዕሰ 29 ለሥራ ልማት ማረጋገጥ
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ርዕሰ 29 ለሥራ ልማት ማረጋገጥ
 ለሥራ ልማት ማረጋገጥ ለሥራ ልማት ማረጋገጥ

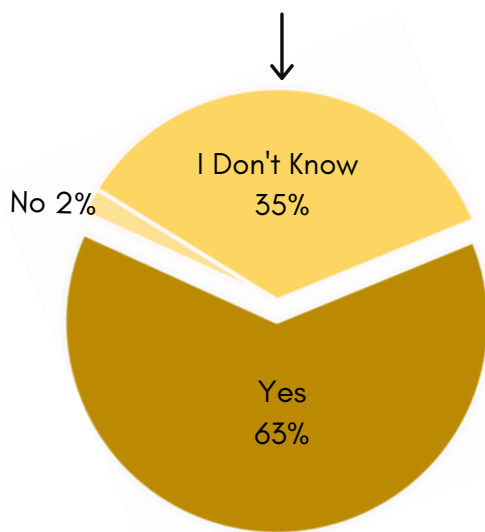
25 (86%)

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SOCIAL MEDIA MITTIMATALINGMIUT USE TO SHARE TRAVEL CONDITIONS

**Do Mittimatalingmiut
use social media to talk about
travel conditions?**



There were 29 Mittimatalingmiut participants who identified being aware of social media pages or groups where people share observations or advice about weather, water, and ice conditions.

Of the 29 respondents
who said "yes"

25 (86%)

use the information
shared over social
media

It is important to note that some respondents have their own knowledge of the weather, water, ice, and snow conditions so do not check social media for this information.

Δ[∘]⊂Π[∘] Π[∘]⊂Γ[∘]⊂Δ[∘]
 Δ[∘]⊂Γ[∘]⊂Π[∘] Γ[∘]⊂Δ[∘]
 Δ[∘]⊂Γ[∘]⊂Π[∘] Π[∘]⊂Γ[∘]⊂Δ[∘]
 Δ[∘]⊂Γ[∘]⊂Π[∘] Δ[∘]⊂Γ[∘]⊂Π[∘] (b[∘]⊂Γ[∘]⊂Δ[∘])

የኮሚሽኑ ስራ
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በጥንቃቄ ይከተላል

ፍጥረትና ሕይወት

◁Δ⁴>ᵇ

- [illegible]

၂၀ ဇူလိုင် ၁၉၇၁

ፋይል ማግኘት (SmartICE)



Δ₁ L C Δ P N^c
Δ C^c b C Δ^c b C^c

- [illegible]

SOCIAL MEDIA MITTIMATALINGMIUT USE TO SHARE TRAVEL CONDITIONS (CONTINUED)

Commonly used social media

Email

Facebook

- Nunavut hunting stories of the day
- Pond Inlet Hunters information page
- Inuit hunting stories of the day
- Mittimatalik hunting information page
- News
- Pond Inlet News

SIKU app

SmartICE

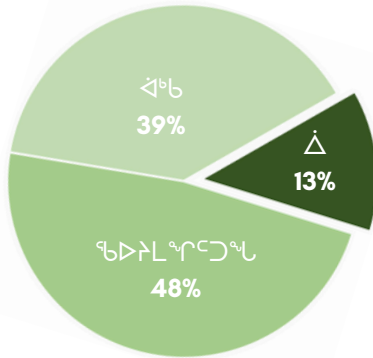


Topics, descriptions, and photos include

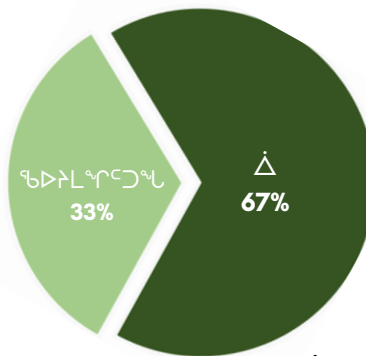
- Animal locations
- Snow, wet slushy areas, safe travel routes
- Dangerous areas/hazards to avoid
- Floe edge conditions and closures
- Food sharing
- Good and poor hunting spots
- Land and sea conditions
- Hunting information
- Trails, pictures, catches
- Ice observations, conditions, thickness
- Looking for vehicle parts
- Lost and found
- New form ice
- Existing conditions observed
- Photos, real-time satellite images
- Predictions of conditions in the surrounding area
- Safe places to travel to
- Service products
- Successes, animals caught, where, when
- Thin ice, new ice leads, wet ice
- Trails, better routes
- Travel conditions
- Updates on good equipment
- Weather conditions (ice, water, wind direction, moon phases)

ወደብን ማግኘት ማለት ማለታችንን
ለማሳወቅ ነው።

ፖሊሲና ስራዎችን
የሚመለከቱ ጥያቄዎችን
የሚያስተላልፉ ስራዎችን
የሚያስፈልጉ ስራዎችን?

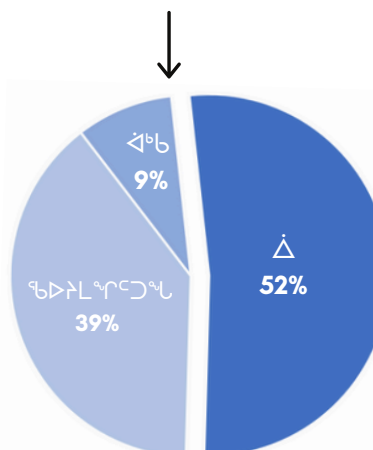


መርህ ፖሊሲና ልማት
ኢኮኖሚክስና ልማት
ለሥራ ልማትና ሥራ ልማት

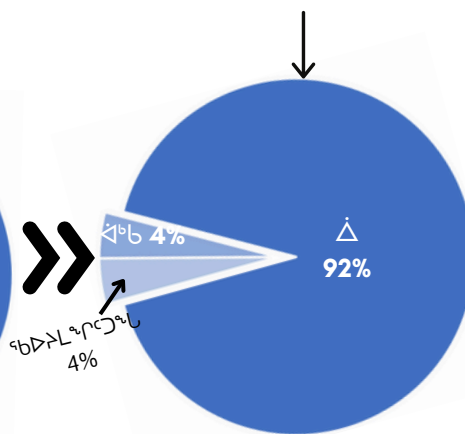
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 ጋደር ለፍትሕ ልማት ስራ
 ልማት ልማት ልማት”

3 (75%)

[illegible][illegible][illegible]

ርዕሴ ልረጋጅ/ሀረጋጅ ስለሆነ ለሌሎች
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 ስለሆነ ለሌሎች



ᐃᓕᓴᓂᐅᑦ ᑖᓐᓇ
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ᐅᓶᓶᓐᓴᐃᓶᑦᓴᓯᓯᑦ
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[illegible]

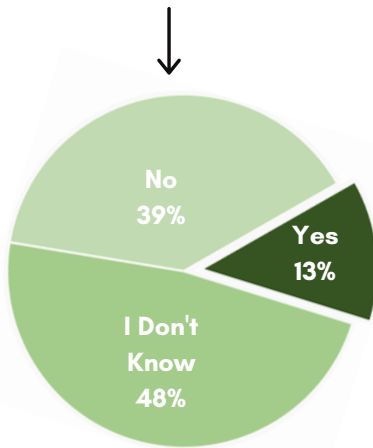
19 (86%)

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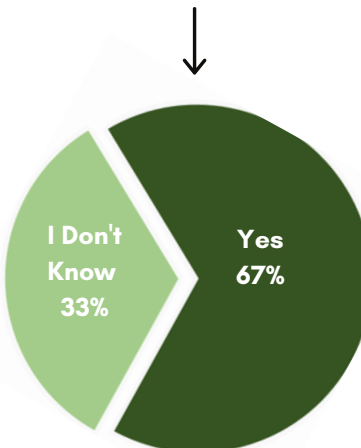
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COMMUNITY MONITORING PROGRAMS

Are there local weather stations in Pond Inlet?



Is the local weather station information available to the community?



Do you use the local weather station information?

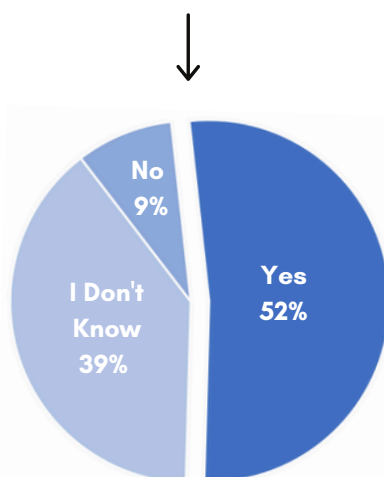
Of 4 respondents who answered "yes the info. is available to the community"

3 (75%)

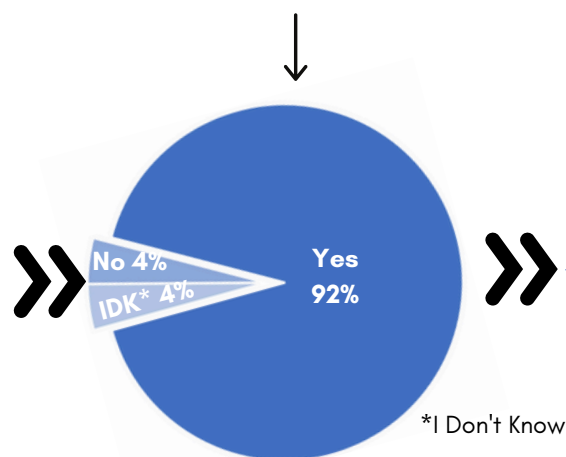
use the local weather station information

When asked about local weather stations it is notable that 22 participants said that they do not know if there are local weather stations and 24 said that local weather stations do or do not exist. Of the 6 participants who said there are local weather stations, 4 said the information is available in Pond Inlet, and 3 said they use the information.

Are there local water/ice monitoring programs in Pond Inlet?



Is the water/ice monitoring information available to the community?



Do you use the local water/ice information?

Of 22 respondents who answered "yes the info. is available to the community"

19 (86%)

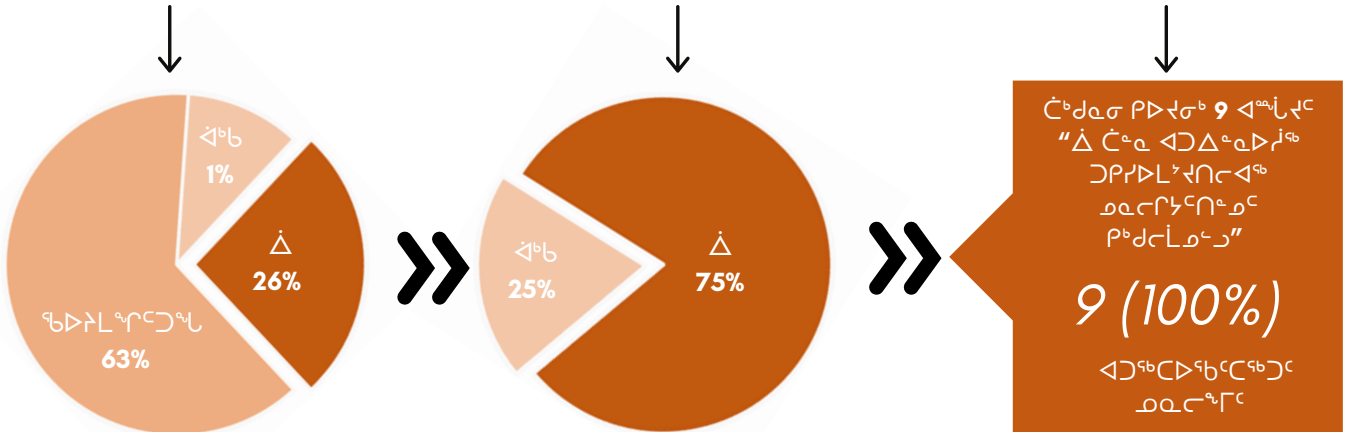
use the local water/ice information

When asked about local water and ice monitoring programs it is notable that 24 participants said that local programs exist, and 22 participants did not know. Of the 24 participants who said there are local water/ice monitoring programs, 22 said the information is available in Pond Inlet, and 19 said they use the information.

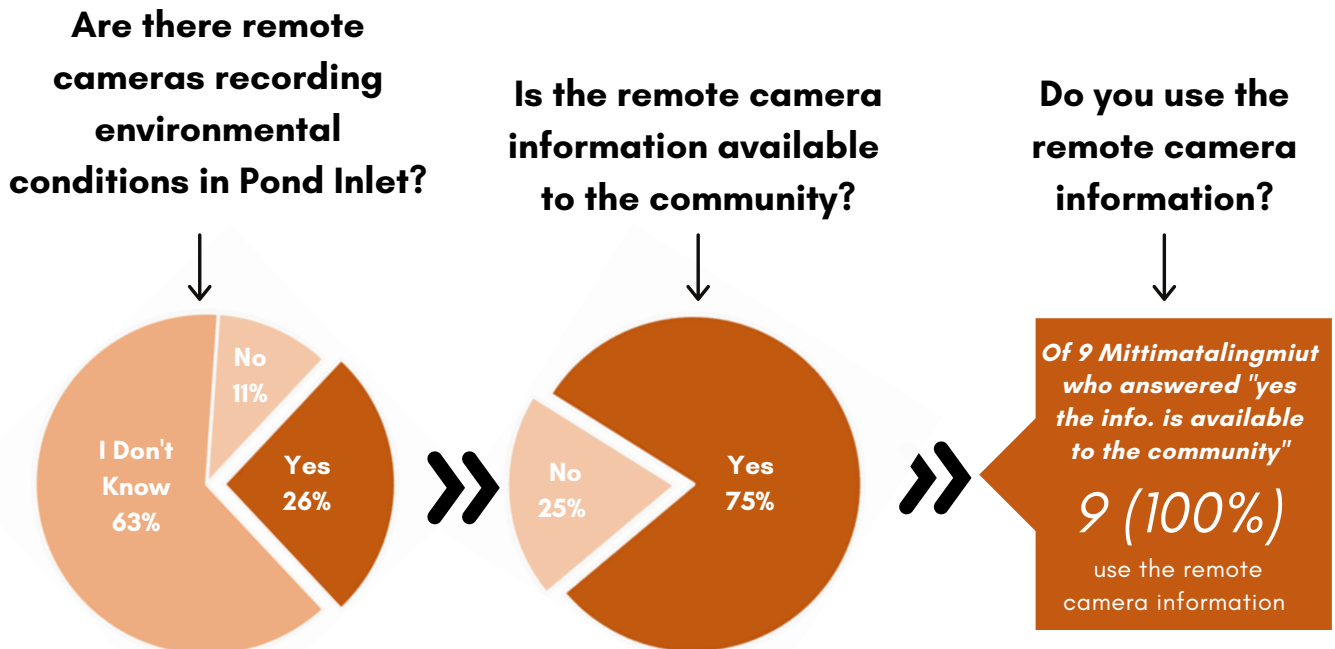
ወደብና ሳይገባ ማረፊያ ለጉዳዮችና ለጉዳዮች
ርዕዝነት
(ጉዳዮች)

ለርፍፍረ ልዩነት
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 ልዩነት ለሰጠው ልዩነት
 ልዩነት ለሰጠው ልዩነት?

ርዕዱ ለሆኖቹ ልዩነቶች
ለጋራው ጥራት ምን ዓይነት
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ጋራው ጥራት ምን ዓይነት
ልዩነቶች ሊኖሩት ይችላሉ?

[illegible][illegible][illegible][illegible]

COMMUNITY MONITORING PROGRAMS (CONTINUED)



Remote cameras are cameras placed in areas where a photographer cannot be at the camera to take photos. Remote cameras often have a self-timer built into the camera so photos can be taken at specific times. An example is a remote camera mounted somewhere near a floe edge. A built-in timer is set to take a photo at noon each day.

When asked about remote cameras, it is notable that 29 participants said that they do not know if there are remote cameras and 17 participants said they do or do not exist. Of the 12 participants who said that there are remote cameras, 9 said the remote camera information is available in Pond Inlet, and all 9 said that they use the remote camera information.

SmartICE is a partner in this project, and through them we know there are local monitoring programs in Pond Inlet, including SIKU and SmartICE. However, survey responses suggest that community members are not widely aware of these programs, or they did not associate them with the way the questions were asked in the survey.

**ወርሃዊ የቴክኖሎጂና ፕሮጀክት
የፋይናንስ ኮሚሽን**

[illegible]

መደጋገሚያ ስርዓት ፍርድ ፍርድ	የሰነድ አገልግሎት የሰነድ አገልግሎት የሰነድ አገልግሎት	የሰነድ አገልግሎት የሰነድ አገልግሎት የሰነድ አገልግሎት
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[illegible]

ዎዴሩ ልዩነት ብንጥብጥ	ርዕዮተምክሮታችን ለልዩነቱ በጥንቃቄ	የሥራ ፍጥነት በጥንቃቄ
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ልዩነት ብንጥብጥ	ፍጥነትን በጥንቃቄ	የሰራተኛውን ልዩነት በጥንቃቄ በጥንቃቄ
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የፍጥነትን ጥንቃቄ (SmartICE)	የፍጥነትን ጥንቃቄ	የሰራተኛውን ልዩነት በጥንቃቄ

COMMUNITY MONITORING PROGRAMS

(CONTINUED)

Mittimatalingmiut participants identified several community-based monitoring programs that are run by a number of organizations. A wide range of conditions are monitored related to weather, water, and ice.

LOCAL WEATHER STATIONS	PROGRAM PROVIDER	WHAT IS MONITORED
Airport	Ivan Koonoo, Andrew Arreak	Wind
Local Co-op Channel	Local Co-op	Temperature, forecast, weather, humidity, wind and wind direction

LOCAL WATER/ICE PROGRAMS	PROGRAM PROVIDER	WHAT IS MONITORED
SmartICE	Andrew Arreak SmartICE, SIKU Non-profit organization - local people run the enterprise Qikiqtani Inuit Association Federal government	Ice conditions around Pond Inlet Ice thickness, age, motion Current Safe/dangerous travel areas Sea ice formation, development Open water (polynya or floe edge) Cracks Water temperature Rough ice areas

LOCAL REMOTE CAMERAS	PROGRAM PROVIDER	WHAT IS MONITORED
Floe edge camera	Hunters and Trappers Organization Oceans North	Ice and water conditions
Remote camera	Unknown	Camera on top of Mount Herodier facing east and west
Remote camera	From Baffinland (to Hunters and Trappers Organization)	Timing of when ice breaks off
SmartICE	Andrew Arreak	Ice conditions, temperature

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- ᐃᓴᓖᒥᐅᓕᓴᓄᐃᑦ ᑲᐱᓕᒥ (www.tides.gc.ca/en/tides-currentsand-water-levels)
- ᐋᓄᓴᓂᓖᓖᓖᑦ (ᓕᓚᓂᓖᓚᓖᑦ ᐋᓴᓴᓂ www.windy.com)

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- ΔL ፍጥሬ ርሽታ ምዕራብ (www.tides.gc.ca/en/tides-currentsand-water-levels)
- JJ^c
- VHF ምዕራብ ምዕራብ
- ርሽታ ምዕራብ በበጥንቃቄ ለመገኘት ለመቻላቸው
- ለመገኘት (www.windy.com)

PRODUCTS AND ACCESSING ENVIRONMENTAL FORECASTS

Along with community sources of information, to decide if it is safe to travel, Mittimatalingmiut respondents use a wide range of weather and marine forecasts, and tide tables available. There may be other information sources available beyond those mentioned by respondents.

WEATHER FORECAST PRODUCTS USED

- CBC Iglaaq
- Environment Canada (<https://weather.gc.ca>)
- Google
- Polar View (<https://polarview.org>)
- PredictWind (app and <https://www.predictwind.com>)
- SIKU app
- SmartICE data
- The weather network and app
- Weather office online
- Windy (app and www.windy.com)

MARINE FORECAST PRODUCTS USED

- Environment Canada (<https://weather.gc.ca/marine>)
- PredictWind (<https://www.predictwind.com>)
- Fisheries and Oceans Canada (www.tides.gc.ca/en/tides-currents-and-water-levels)
- Windy (app and www.windy.com)

TIDE TABLE PRODUCTS USED

- Fisheries and Oceans Canada (www.tides.gc.ca/en/tides-currents-and-water-levels)
- Google
- VHF Radio
- Weather office
- Windy (www.windy.com)

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- ላዊባርሲኦፎር ከዓርፍ (<https://weather.gc.ca>)
- EOSDIS ወደኑሳላር ርዕሪህኒስ (NASA-ድ) (<https://worldview.earthdata.nasa.gov>)
- ወደኑሳላር ላንጉሬይሽን ላንጉግራፊ
- ቶፐኮሎፊካ ለጥበቃና ምርምር - ላንጉግራፊ
- MODIS (NASA-ድ) (<https://modis.gsfc.nasa.gov>)
- ፖላርኤርኤትሪ ርዕሪህኒስ (<https://polarview.org>)
- ኖልታቡርግራፊካ ላንጉግራፊ
- ቶፊ, ቶፊ ርዕሪህኒስ ምርምር
- ቶፊግራፊካ ምርምር (SmartICE)
- ላንጉግራፊ (<https://www.windy.com>)
- ኖኔርብራፊካ ወደኑሳላር (<https://zoom.earth>)

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PRODUCTS AND ACCESSING ENVIRONMENTAL FORECASTS (CONTINUED)

Along with community sources of information, to decide if it is safe to travel, Mittimatalingmiut respondents use a wide range of ice charts/services, and satellite image products from polar service providers.

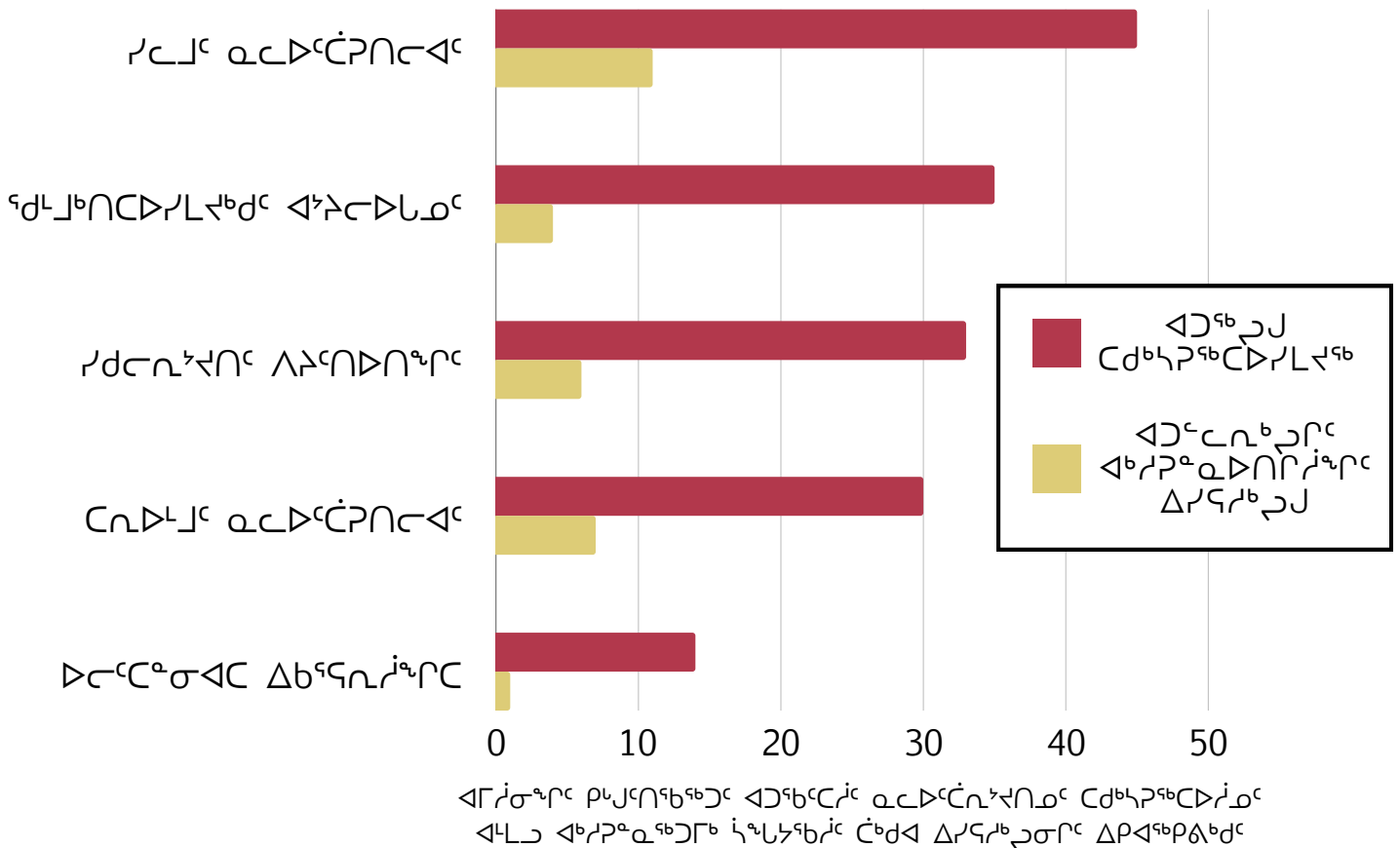
ICE CHARTS/SERVICES USED

- Environment Canada (<https://weather.gc.ca>)
- EOSDIS Worldview (NASA) (<https://worldview.earthdata.nasa.gov>)
- Global image system
- Ice Service – cameras
- MODIS (NASA) (<https://modis.gsfc.nasa.gov>)
- Polar View (<https://polarview.org>)
- Satellite images
- SIKU, SIKU app
- SmartICE
- Windy (<https://www.windy.com>)
- Zoom Earth (<https://zoom.earth>)

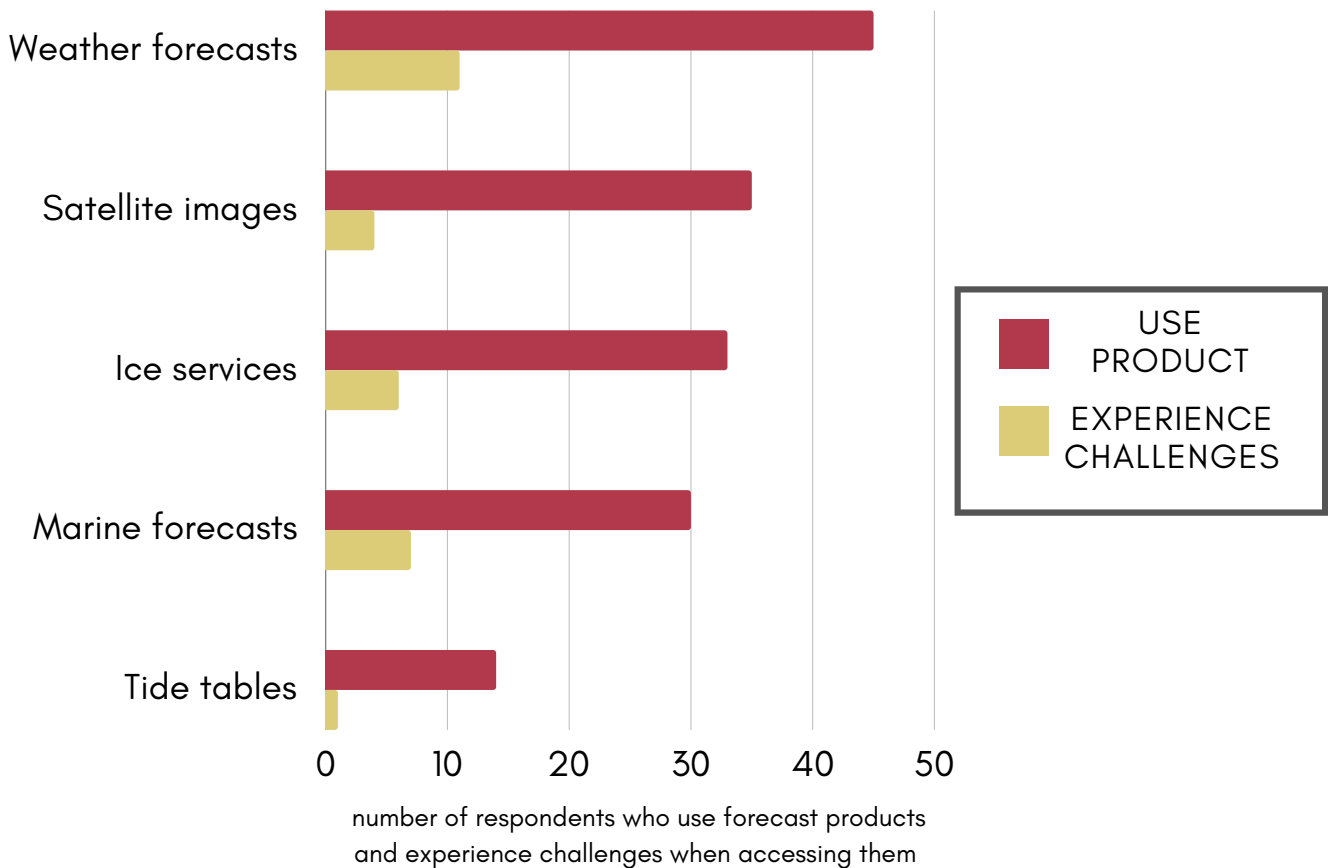
SATELLITE IMAGE PRODUCTS USED

- Environment Canada satellite imagery
- EOSDIS Worldview (NASA) (<https://worldview.earthdata.nasa.gov>)
- Friends who share current satellite photos on Facebook
- Google Image, Google Earth, Google maps
- Modis, sentinel, radarsat
- Polar View (<https://polarview.org>)
- SIKU app (maps), www.SIKU.org
- SmartICE
- Zoom Earth (<https://zoom.earth>)

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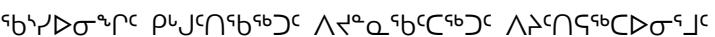
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PRODUCTS AND ACCESSING ENVIRONMENTAL FORECASTS (CONTINUED)

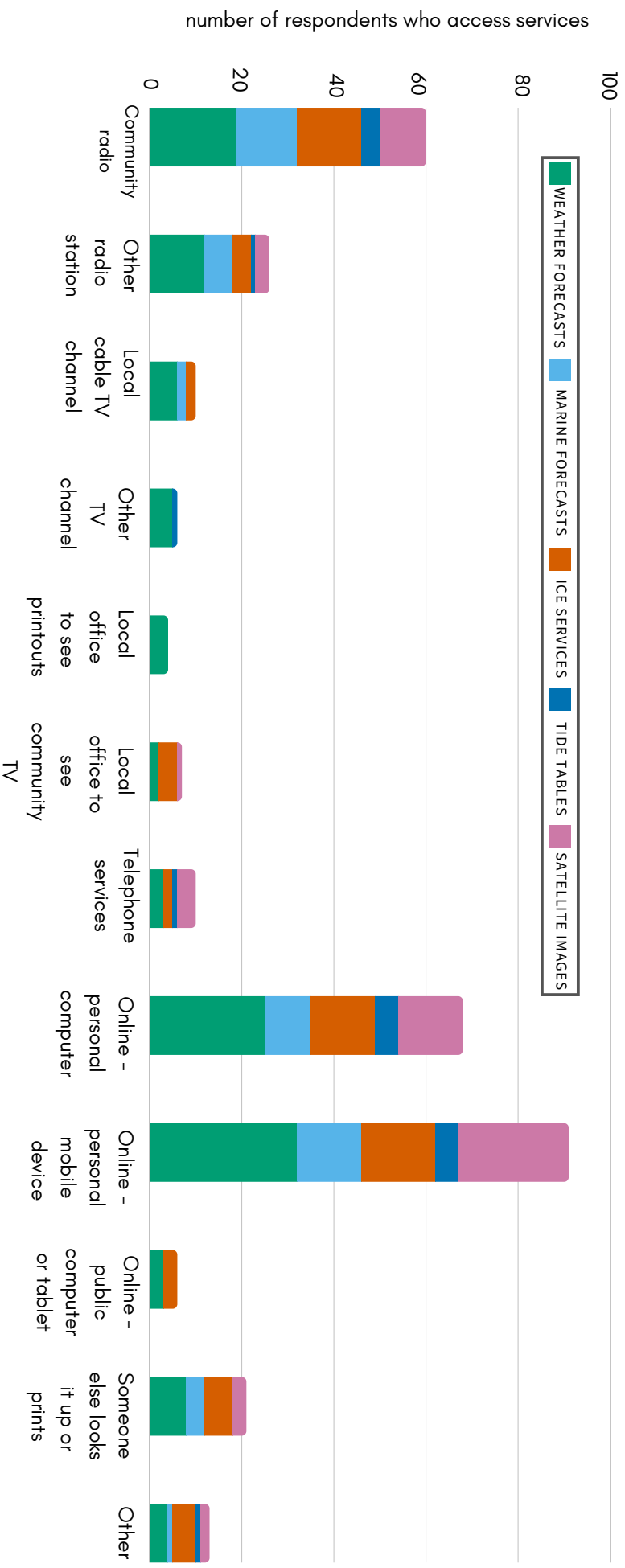


Of the forecasting products used, respondents most often rely on weather forecasts, followed by satellite images, ice services, and marine forecasts, with tide tables used less often.

Of the 98% of participants who use **weather forecasts**, 24% experience challenges when accessing them. **Satellite images** were used by 76% of participants, 11% of whom experience challenges when accessing them. **Ice services** were used by 72% of participants and of these, 18% experience challenges when accessing them. Of the 65% of participants who use **marine forecasts**, 23% experienced challenges when accessing them. **Tide tables** were used by 30% of participants and of these, 7% experienced challenges.

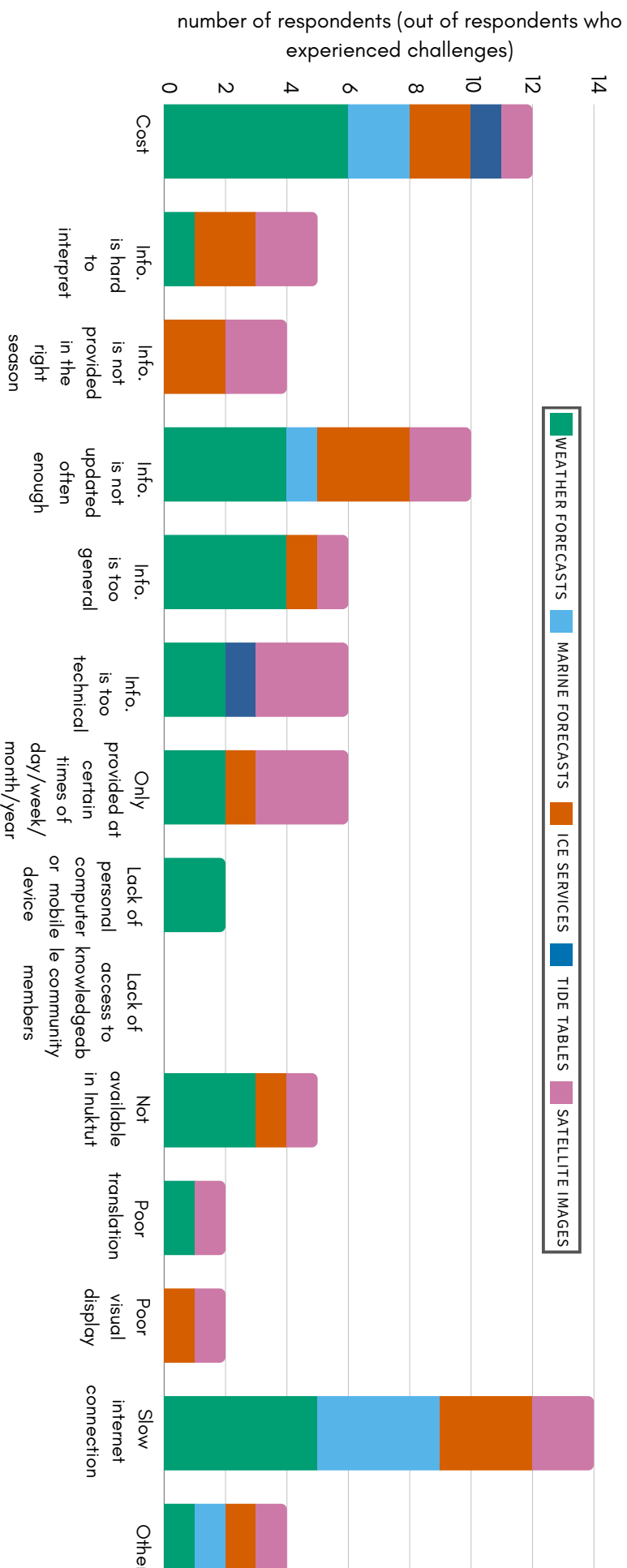
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WAYS THAT MITTIMATALINGMIUT RESPONDENTS ACCESS POLAR SERVICES



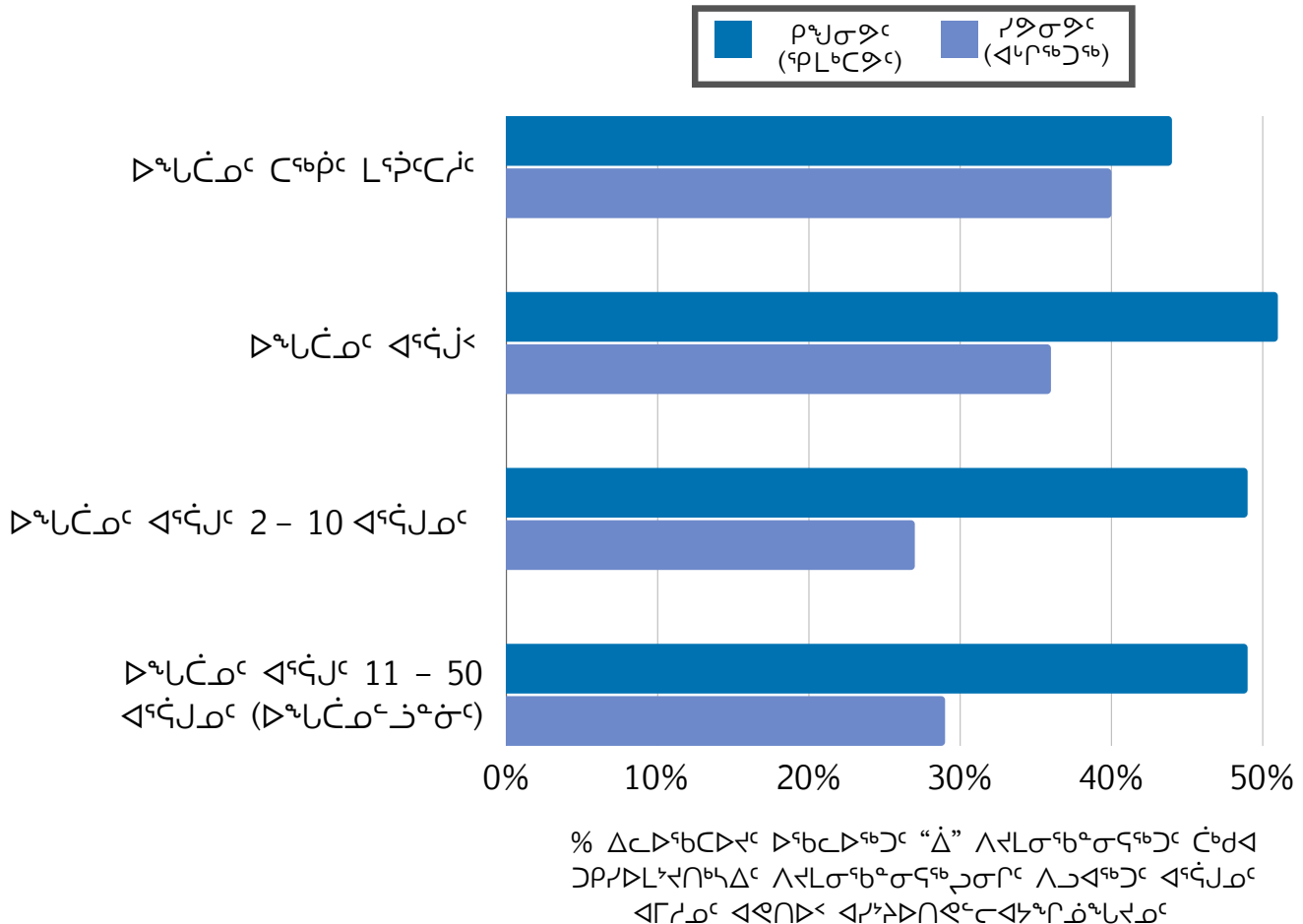
Mittimatalingmiut respondents access environmental forecast products in a range of ways, and mostly by going online using a personal mobile device or personal computer. Respondents who said "Other" noted they access the marine forecast using the Weather Network app, or look it up on a website then take printed information with them, or ask their grandchild to look it up for them. They said they accessing ice services using a Facebook page, or by speaking to other hunters, They access tide tables by looking it up on their phone or laptop and taking printed information with them. They access satellite images using Facebook (other people's posts), or with help from their grandchild.

REASONS WHY ENVIRONMENTAL FORECASTING INFORMATION IS DIFFICULT FOR MITTIMATALINGMIUT RESPONDENTS TO ACCESS

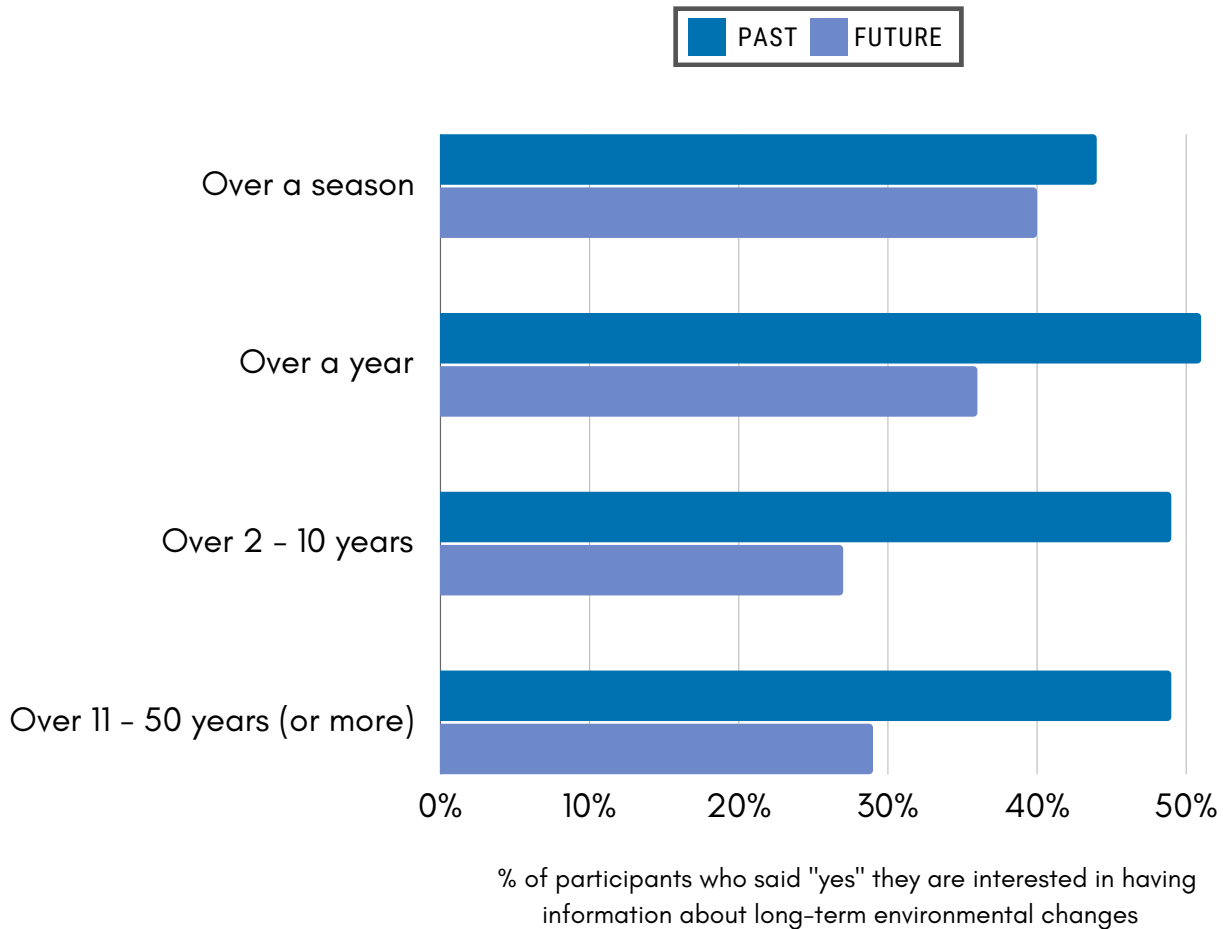


Mittimatalingmiut respondents identified a number of reasons why information is difficult to access. To summarize the main challenges:

- **Slow internet connection** creates a challenge for accessing all online products (except tide tables).
- **Cost** creates a challenge for accessing all online products, in particular weather forecasts.
- **Information that is not updated often enough** creates a challenge for accessing all online products (except tide tables) especially weather forecasts and ice services. Respondents who said "Other" said they do not know how to access weather forecast information, and they need help from young people. Respondents who said "Other" also noted that the lack of internet connection when far from Pond Inlet is a challenge when accessing marine forecasts, ice charts/services, and satellite images. These survey results do not necessarily mean that there are no challenges in other areas.

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INTEREST IN INFORMATION ABOUT PAST AND FUTURE ENVIRONMENTAL CHANGES



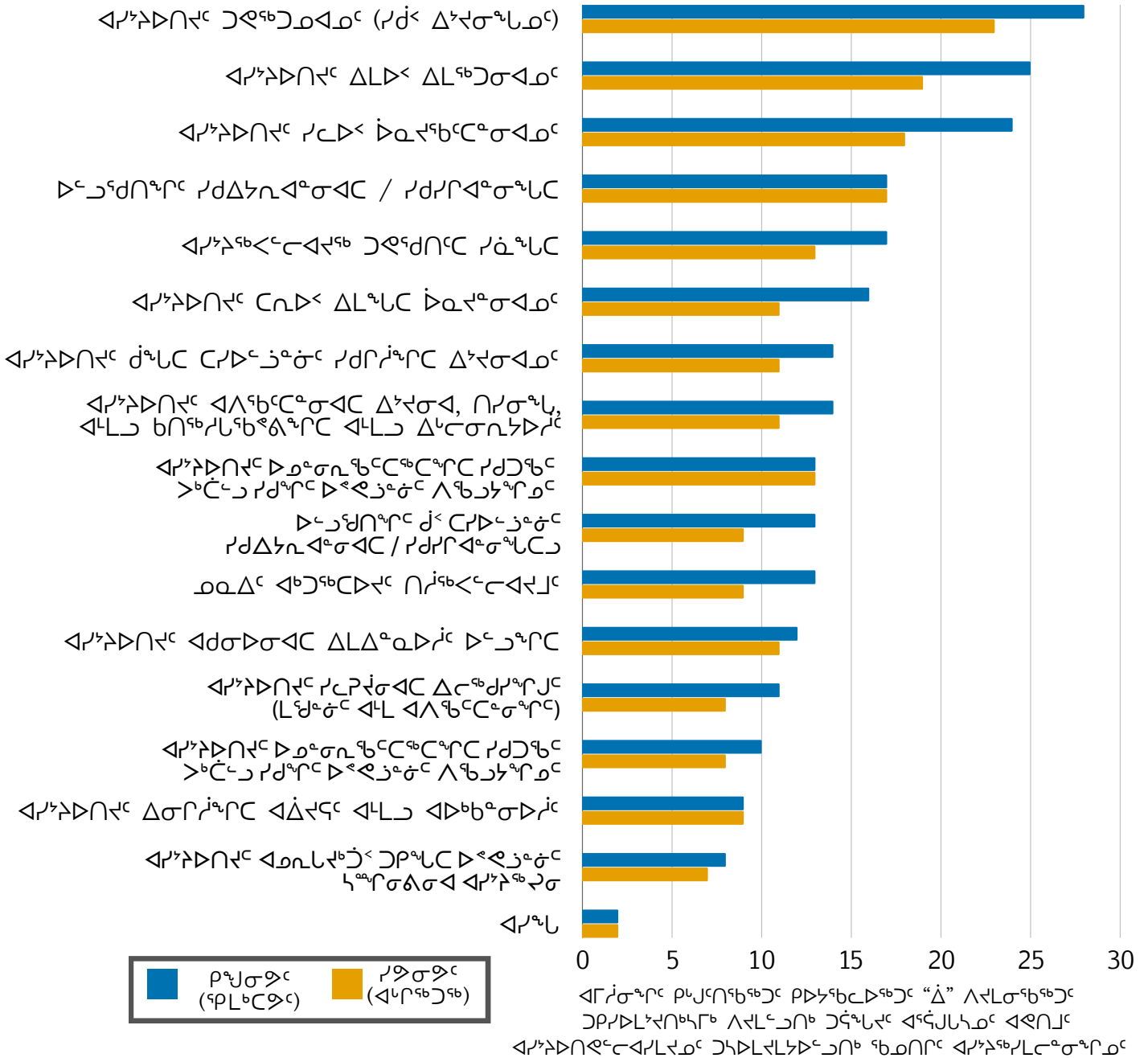
More participants are interested in information about past changes to weather, water or ice conditions (related to climate change) than are interested in forecasting or predictions.

Slightly more participants are interested in information about changes over the past year, 2-10 years, or 11-50 years or more than about the past season.

However, slightly fewer participants are interested in information about the next year, 2-10 years, or 11-50 years or more than about the next season.

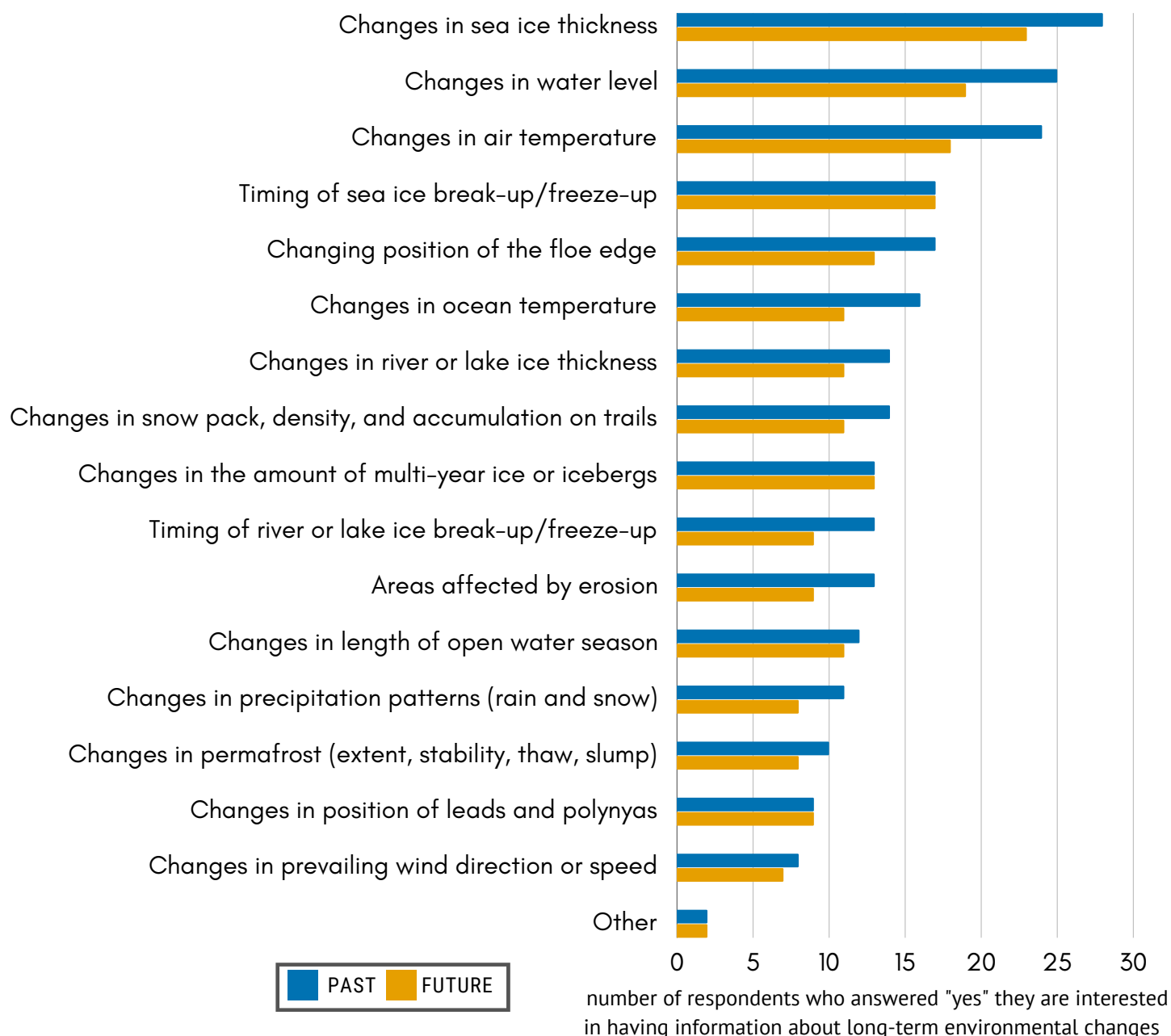
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INTEREST IN LONG-TERM ENVIRONMENTAL CHANGES

INFORMATION ABOUT PAST OR PRESENT CHANGES FOR MAKING DECISIONS



More respondents are interested in having information about past environmental changes than are interested in predictions of change. Common topics of interest include changes in sea ice thickness, air temperature, and floe edge position. Respondents who answered "Other" said past changes in ocean currents, magnetic fields around the North Pole, and changes in the atmosphere and other layers around the earth. They also expressed interest in past and future changes in tide levels.

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TRAINING TRAINING TOPICS MITTIMATALINGMIUT RESPONDENTS ARE INTERESTED IN

Respondents who said they were interested in receiving training on survival skills and navigating the land (24 participants), observing and understanding environmental conditions (26 participants), local environmental monitoring programs (24 participants), and accessing or using social media pages or groups (14 participants), were invited to describe the kinds of training they are interested in. Respondents were also asked to share about who they would like to learn from, and environmental conditions they would like to learn more about. The points below were organized to group them into similar topics.



Improving Navigation Skills

- Navigating using moon and stars, and snow.



Connecting to Local Programs and Services

- Learning from Elders, hunters, guides, or other people with experience on the land



Gaining Familiarity with Technology

- GFA (Graphic Area Forecast time adjusted weather charts)
- GPS
- Ice charts
- inReach device
- Marine forecast
- METAR weather report
- Satellite images
- SIKU app
- SmartICE
- Using personal devices
- Windy



Increasing Knowledge of Environmental Conditions

- Weather observations, patterns, and predictions (e.g. clouds, wind, conditions)
- Elders' knowledge of weather and environmental conditions
- High current locations and the conditions they are prone to
- Ice conditions
- Stars
- Tides

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 Art work by: Rhoda Hiqiniq

TRAINING TRAINING TOPICS MITTIMATALINGMIUT RESPONDENTS ARE INTERESTED IN (CONTINUED)



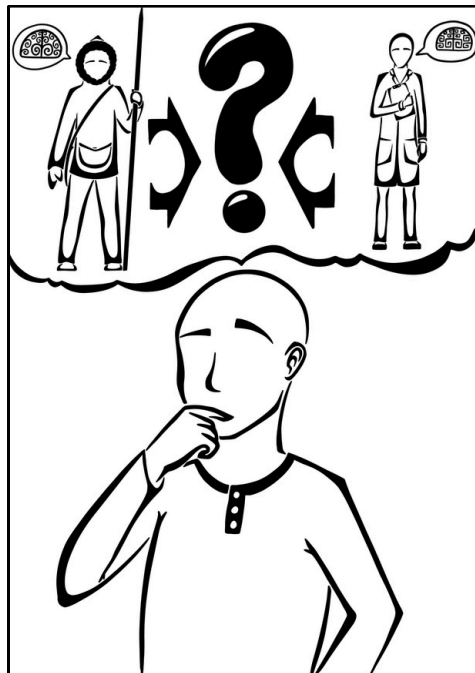
Strengthening Hunting and Inuit Cultural Practices and Skills

- Hunting fish with kakivak
- Traditional first aid and medicine
- Traditional living and skills on the land



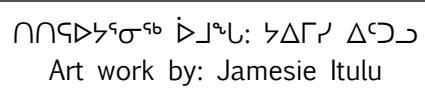
Developing Safety and Survival Skills

- Iglu building, emergency shelter
- Emergency small engine repair
- Search and Rescue
- Survival skills
- (Wilderness) first aid, and what to have in a first aid kit



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Art work by: Jamesie Itulu



Art work by: Jamesie Itulu

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Pond Inlet, Nunavut



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(SmartICE)

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Results of a community survey on environmental
forecasting uses and needs

ᑎᑭᑭᑦ 2023
DECEMBER 2023