



Native Women's
Association of Canada

L'Association des
femmes autochtones
du Canada

SURVEY ON IMPACTS OF CHANGES TO FISH & FISH HABITATS

WHAT-WE-HEARD REPORT ON SURVEY FINDINGS & RESULTS

MARCH 28, 2025



Fisheries and Oceans
Canada

Pêches et Océans
Canada

TABLE OF CONTENTS

RESEARCH OBJECTIVE ----- 3

METHODOLOGY ----- 4

RESPONDENT PROFILE ----- 5

SUMMARY / KEY FINDINGS ----- 6

SECTION 1: NOTICEABLE CHANGES TO FISH & FISH HABITATS ----- 9

SECTION 2: IMPORTANCE OF FISH & FISH HABITATS ----- 17

SECTION 3: VULNERABILITY ----- 27

RESEARCH OBJECTIVE

The goal of this survey was to gather the perspectives of Indigenous Women, Girls, Two-Spirit, Transgender and Gender-diverse (WG2SGD+) People on how climate change and human-related activities have impacted access to fish and fish habitats in Canada.

This is part of NWAC's contribution to the Indigenous Habitat Protection Program (IHPP), which seeks to amplify the voices of Indigenous WG2SGD+ individuals in conversations about federal laws and regulations related to fish and fish habitat protection.

Definitions used in the context of this research:

Fish Habitat(s): The Fisheries Act of 2019 defines fish habitat as “water frequented by fish and any other areas on which fish depend directly or indirectly to carry out their life processes, including spawning grounds and nursery, rearing, food supply, and migration areas.”¹

Climate Change: any change in the usual weather conditions (temperature, ice coverage, rainfall, etc.) over a long period of time.

Human-Related Activities: actions like constructing buildings, littering, using trails, fishing, collecting water, etc.

Social Connections: relationships with friends, family, coworkers, community members, and the community itself.

RESEARCH METHODS

This report is based on an online survey completed by 304 Indigenous women, girls, Two-Spirit, transgender and gender-diverse people who have noticed changes to fish and fish habitats in their communities. The survey was in field from January 21st to February 24th, 2025.

The questionnaire was designed by NWAC, with input and advice from Environics Research. Environics programmed the questionnaire on its survey platform, and NWAC distributed an open survey link via social media and email. A gift was offered to all participants to complete the survey with valid responses. Due to the nature of social media and the offer of a cash incentive, several responses were determined to be invalid and removed from the final data set before analysis.

Interpreting the results: The data is unweighted and drawn from a convenience sample, meaning those who participated in the survey were drawn from a conveniently available group of individuals. Because it is not a probability sample (respondents were not randomly selected, nor did all individuals in the desired communities have an equal chance of being selected into the sample), the sample cannot be considered statistically representative of all Indigenous women, girls, Two-Spirit, transgender and gender-diverse people. The results of the survey provide valuable insight into the lived experience of respondents, but the data should be interpreted within the limits of the survey design. Those who participated were able to highlight important observations about changes in fish and fish habitats that can inform future discussions, research, and policy considerations.

About this report: Unless otherwise noted, results for all questions are based on the total sample of 304 participants. Questions only asked of a specific subsample of respondents are indicated with a base size (N) of the subsample. Sometimes results do not add up to 100% due to rounding or multiple responses. Labels for values less than 2% are not shown.

RESPONDENT PROFILE

AGE



REGION



COMMUNITY ROLES



Survey respondents are most likely to identify as First Nations women between the ages 45-59, living in Ontario, on a First Nation Reserve. They are more likely to hold the role of Knowledge Keeper and live near a creek or stream.

GENDER IDENTITY



INDIGENOUS IDENTITY



COMMUNITY TYPE



TYPES OF FISH HABITATS CLOSEST TO COMMUNITY



SUMMARY

KEY FINDINGS

- 1. Noticeable changes to fish & fish habitats in Indigenous communities.** Reduced access to fish and fish habitats would significantly impact Indigenous communities. A majority (70% or more) say not receiving the usual support from fish and fish habitats would affect them. Vulnerability is highest for food support (79%), economic support (76%), and recreational support (73%). Concern over how climate change and human activities could impact treaty rights also exists. Respondents think climate change poses a bigger threat to their treaty rights to traditional fishing practices for food, social and ceremonial purposes, while human activities are seen to pose a bigger threat to the rights to access fishing grounds.
- 2. Fish & fish habitats are extremely important to Indigenous communities.** Nearly all (92%) respondents attribute a high level of importance to fish and fish habitats, nearly half (46%) saying fish are extremely important and another 46% saying they are very important. They provide several benefits, the most cited being social connections (45%) created by the fish activity, economic livelihood (38%), and food (29%). When asked which benefits are most important, the same three benefits were the top answers.
- 3. Fish and fish habitats near Indigenous communities facilitate social connections.** In addition to providing important resources, fish and fish habitats play an important role in social support. Building connections within communities is a key benefit, noted by 75% of those who receive social support from fish and fish habitats. Fish and fish habitats also recognized for promoting health and well-being and family connections.

KEY FINDINGS CONT.

4. **Fish and fish habitats support cultural traditions, help preserve Indigenous heritage, and provide spiritual support.** Fish and fish habitats are embedded in Indigenous cultural practices, supporting intergenerational knowledge sharing (76%), cultural traditions (70%), and ceremonies (64%). Almost 70% of participants say they have connections to the past and helps them connect with nature.
5. **Reduced access to fish and fish habitats would significantly impact Indigenous communities.** A majority (70% or more) say not receiving the usual support from fish and fish habitats would affect them. Vulnerability is highest for food support (79%), economic support (76%), and recreational support (73%). Concern over how climate change and human-activities could impact treaty rights also exists. Respondents think climate change poses a bigger threat to their treaty rights to traditional fishing practices for food, social and ceremonial purposes, while human activities are seen to pose a bigger threat to the rights to access fishing grounds.

SECTION 1

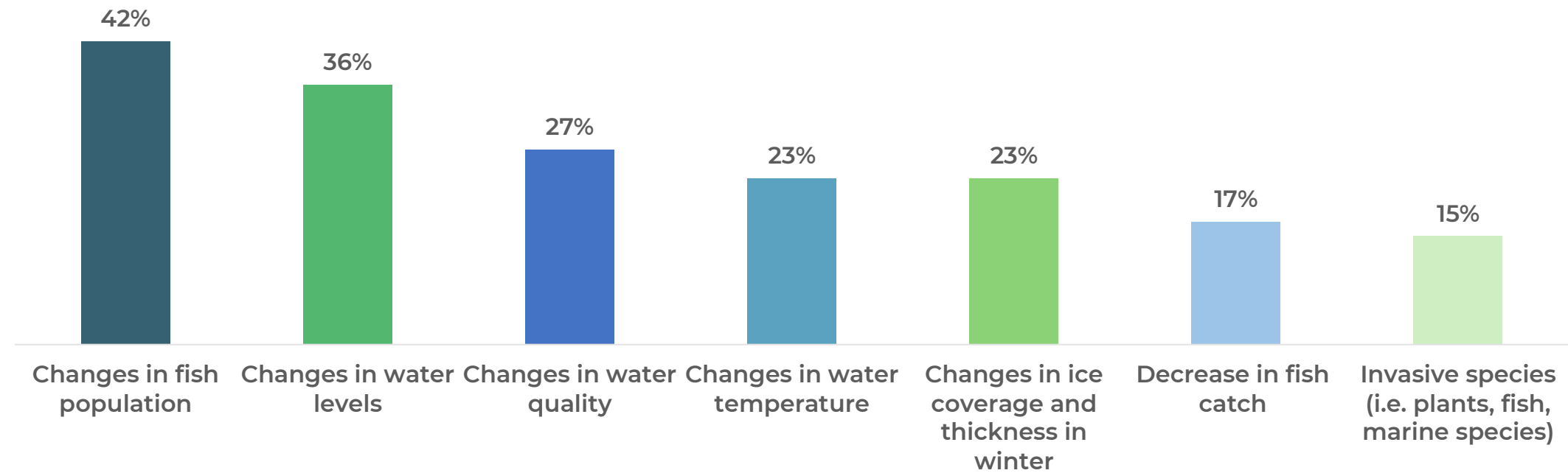
NOTICEABLE CHANGES TO FISH & FISH HABITATS

This section explores Indigenous WG2SGD+ perceptions and experiences of climate and human impacts on fish and fish habitats.

Changes to fish & fish habitats | **Noticeable changes in communities**

The most noticeable impacts reported by respondents were on fish population and water levels.

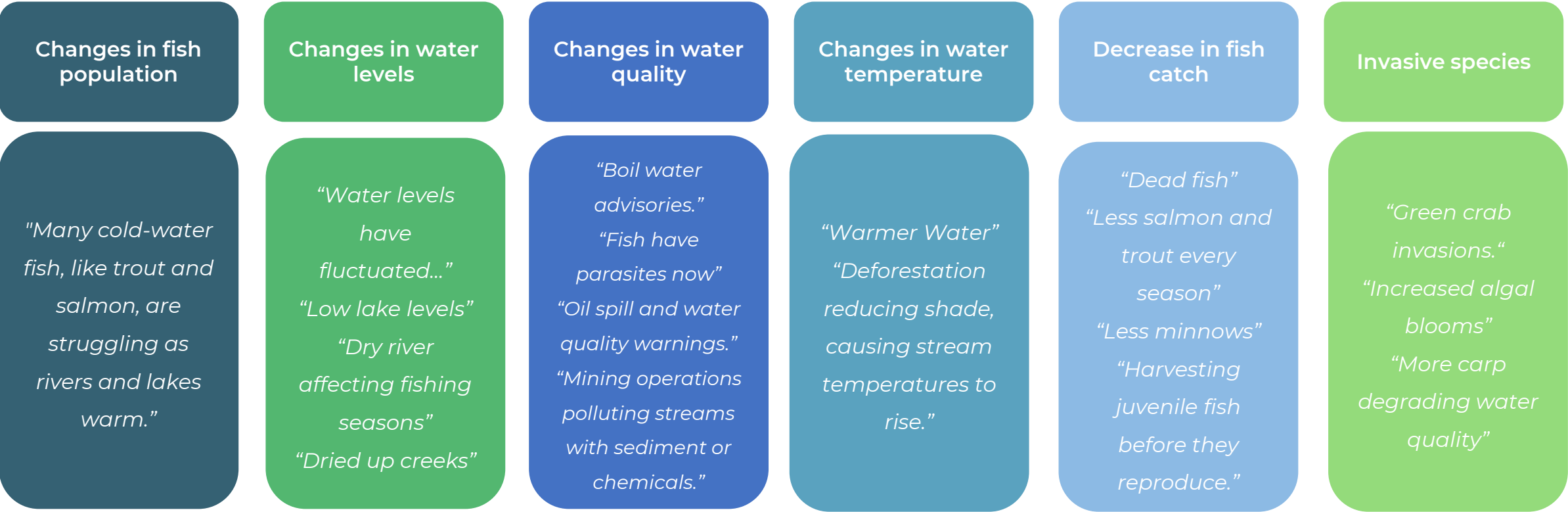
Q. 11 *Have you noticed any of the following changes in your community?*



Changes to fish & fish habitats | Noticeable changes in communities

Respondents were asked to specify the changes to local fish and fish habitats that they've noticed. The quotes below are from survey respondents.

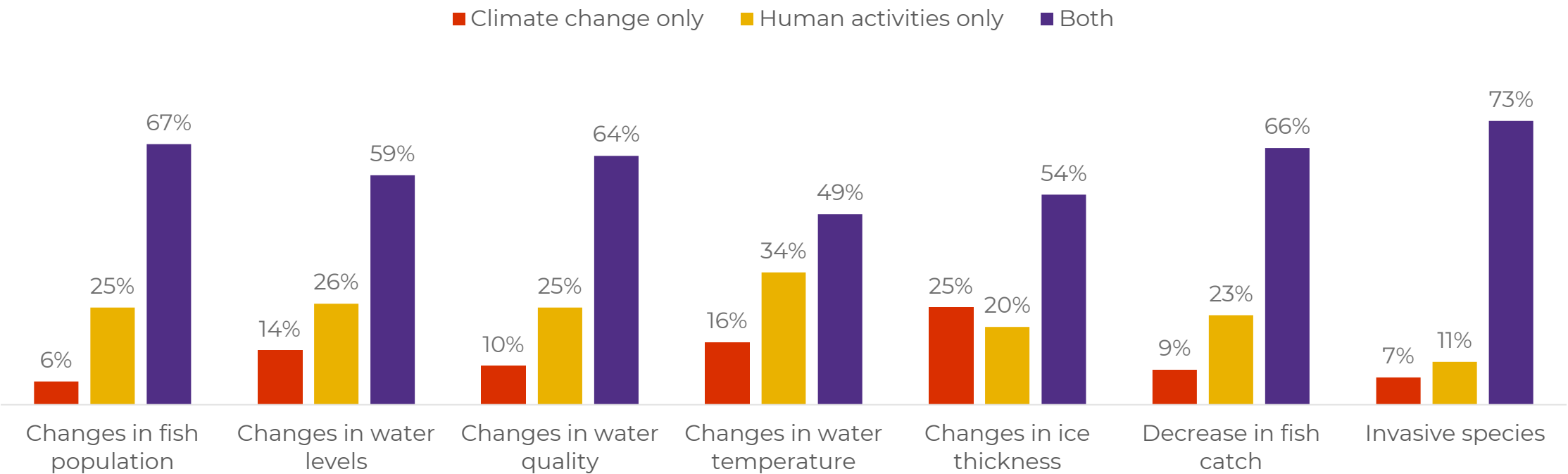
Q. 6 What changes have you noticed?



Changes to fish & fish habitats | **Perceived cause of changes**

Respondents are most likely to attribute these shifts to both climate change and human-related activities, indicating a connection between the two topics. They are more likely to blame human-related activities than climate change alone.

Q. 12 And do you think these changes are caused by....

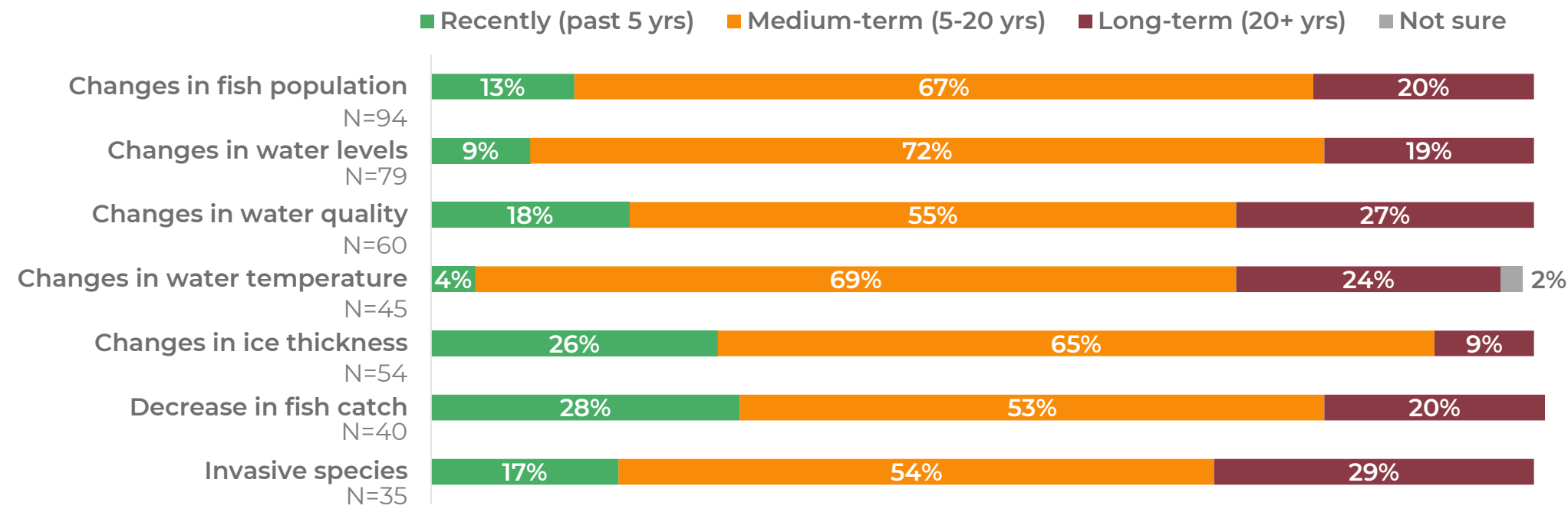


Changes to fish & fish habitats | Perceived duration of changes

Those who believe climate change partially or solely causes changes to fish and fish habitats (N=212) were asked how long they think climate change has been causing the impacts. Considering changes caused by climate impacts, respondents generally believe the changes have been happening for 5-20 years. Invasive species, water quality, and water temperature are more likely to be seen as long-term issues.

Q. 13 For those changes you attribute to climate change, for how long do you think climate change has been causing these changes/impacts?
BASE: Those who think climate change is either solely or partially the cause of changes to fish/fish habitats at Q12 N=212

Changes caused by climate impacts

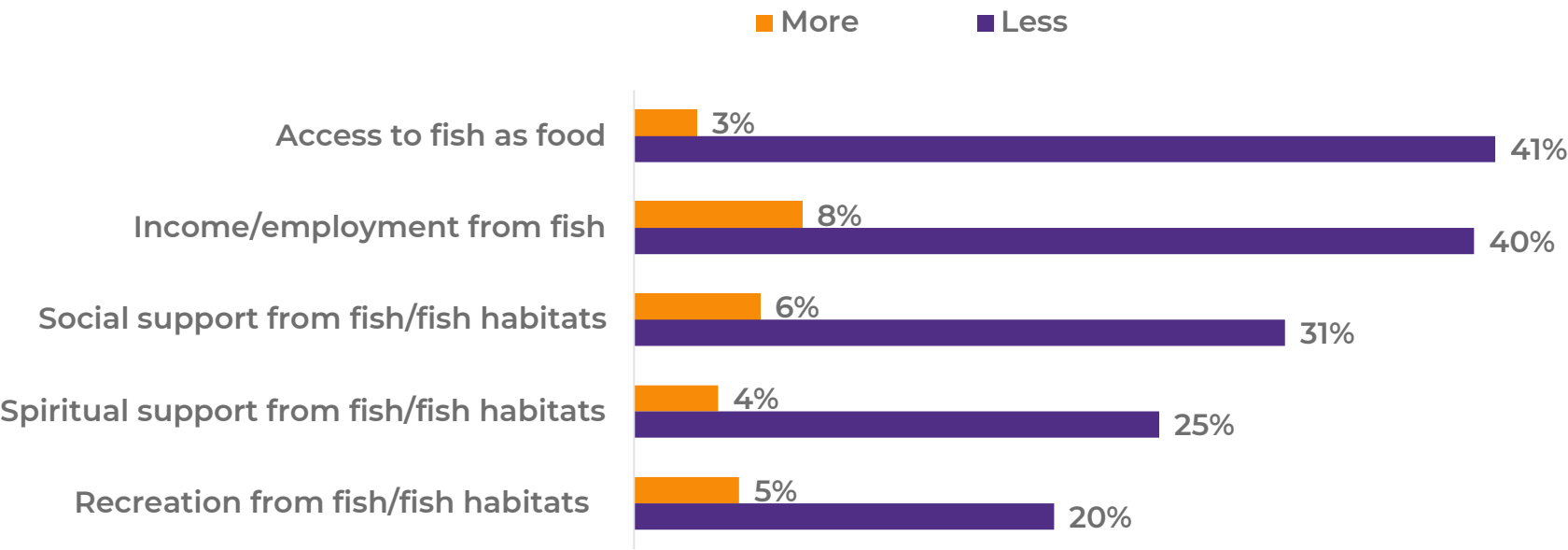


Changes to fish & fish habitats | **Perceived community impacts**

Those who think climate change is at least somewhat responsible for changes to fish/fish habitats were asked about the type of impacts they've experienced (N=212). They are more likely to experience negative impacts from changes associated with climate change, with much higher proportions experiencing less food, income, social, spiritual, and recreational support from fish/fish habitats.

Q. 14 Have the impacts from climate change affected you/your community in any of the following ways?
BASE: Those who think climate change is either solely or partially the cause of changes to fish/fish habitats at Q12 N=212

Community impacts from climate change

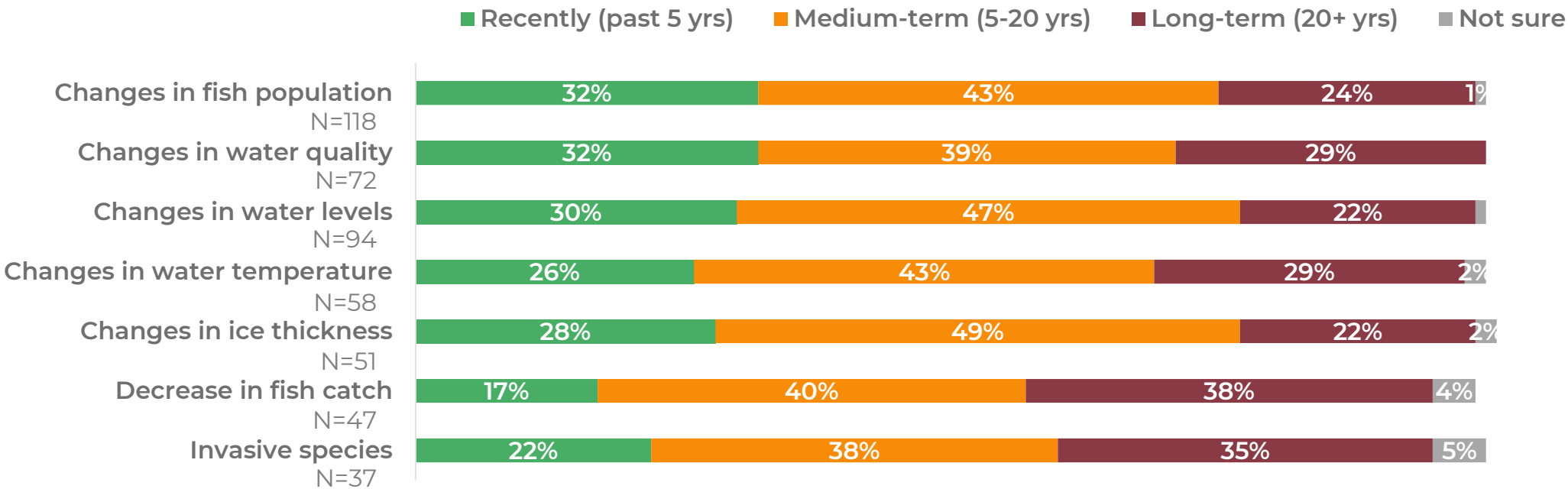


Changes to fish & fish habitats | Perceived duration of changes

Those who believe human-related activities either partially or solely causes changes to fish and fish habitats (N=283) were asked how long they think human activities have been causing the impacts. The perceived duration of changes is more mixed with fairly equal-sized portions saying the changes are recent, medium-term, and long-term indicating they may not know.

Q. 15 For those changes you attribute to human-related activities, for how long do you think human-related activities have been causing these changes/impacts? *BASE: Those who think human activities are either solely or partially the cause of changes to fish/fish habitats at Q12 N=283*

Changes caused by human-related activities

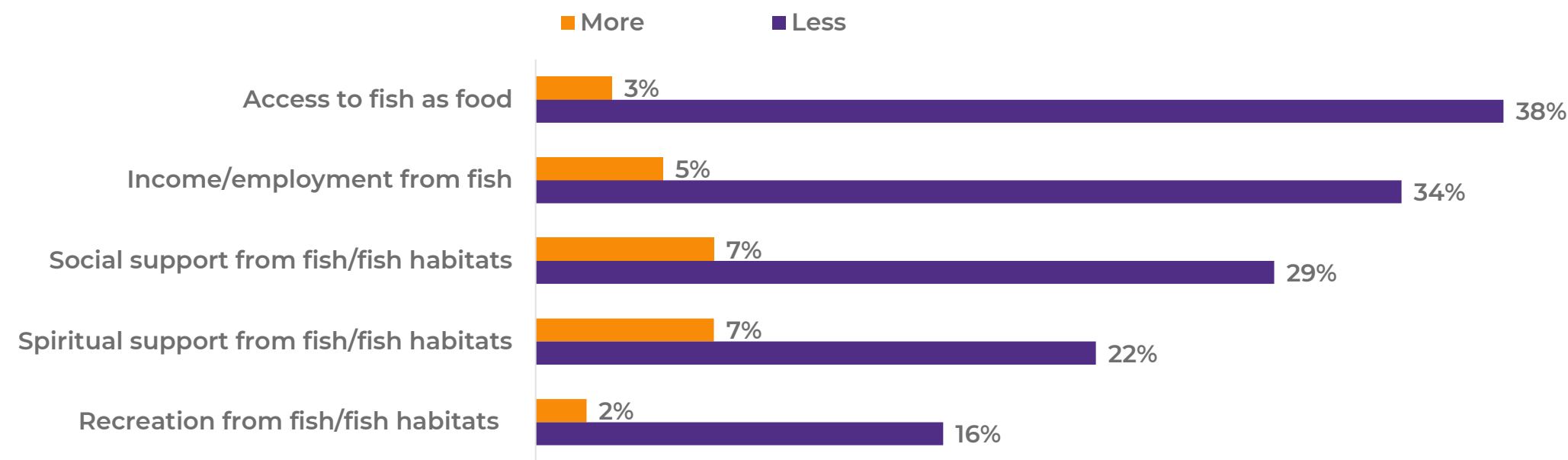


Changes to fish & fish habitats | **Perceived community impacts**

Those who think human-relative activities are at least somewhat responsible for changes to fish/fish habitats were asked about the type of impacts they've experienced (N=283). Similar to impacts associated with climate change, respondents are more likely to experience negative impacts from human-related activities like less food, income, social, spiritual, and recreational support from fish/fish habitats.

Q. 16 Have the impacts from human activities affected you/your community in any of the following ways?
BASE: Those who think human activities are either solely or partially the cause of changes to fish/fish habitats at Q12 N=283

Community impacts from human-related activities



SECTION 2

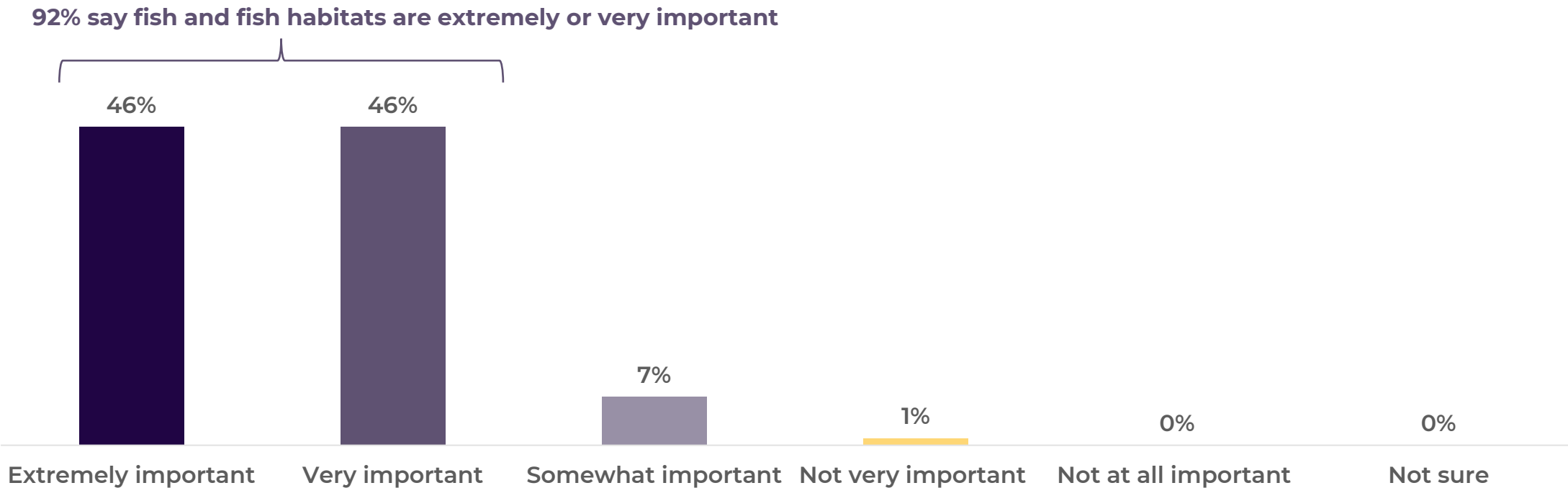
IMPORTANCE OF FISH AND FISH HABITATS

This section explores the benefits and values that fish and fish habitats provide to Indigenous WG2SGD+ people and their households.

Importance | **Level of importance of fish and fish habitats**

Fish and fish habitats are extremely important to Indigenous women, girls, Two-Spirit, transgender and gender-diverse (WG2SGD+) people and their households with nearly all respondents (92%) expressing a strong level of importance. Almost half of respondents (46%) agree that fish and fish habitats are extremely important to their households and the other 46% say they are very important to their household.

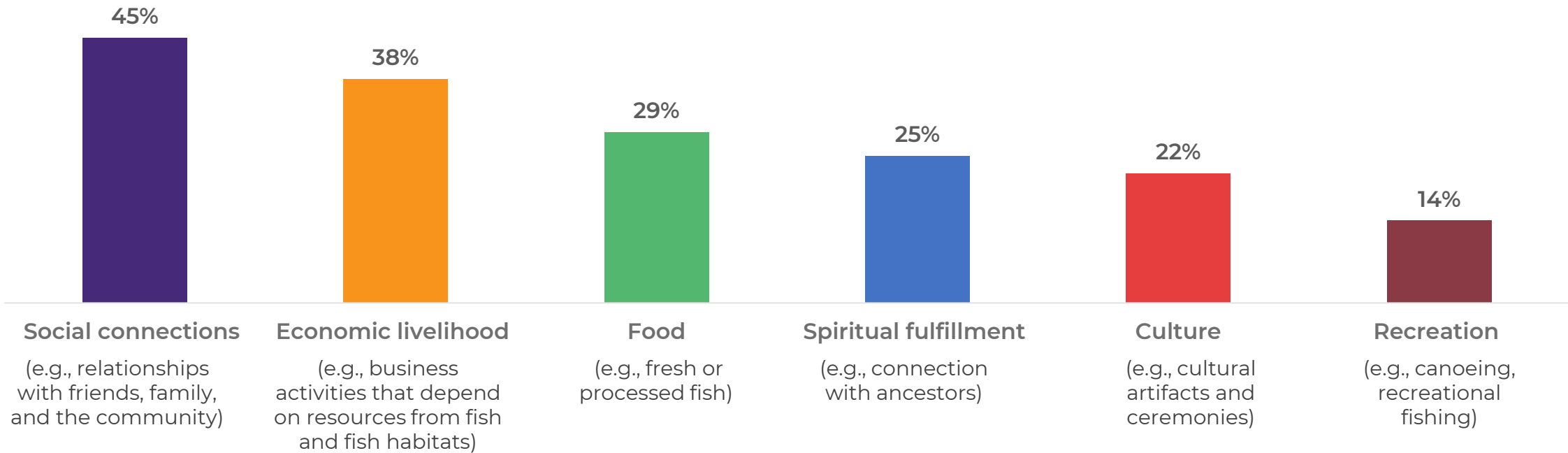
Q. 17 *How important are fish and fish habitats to your household?*



Importance | **Benefits provided by fish and fish habitats**

Social connections, economic livelihood, and food are the top benefits fish and fish habitats provide Indigenous women, girls, Two-Spirit, transgender and gender-diverse (WG2SGD+) people and their households. Between 22% and 25% of respondents concluded spiritual fulfilment and culture is important to their household.

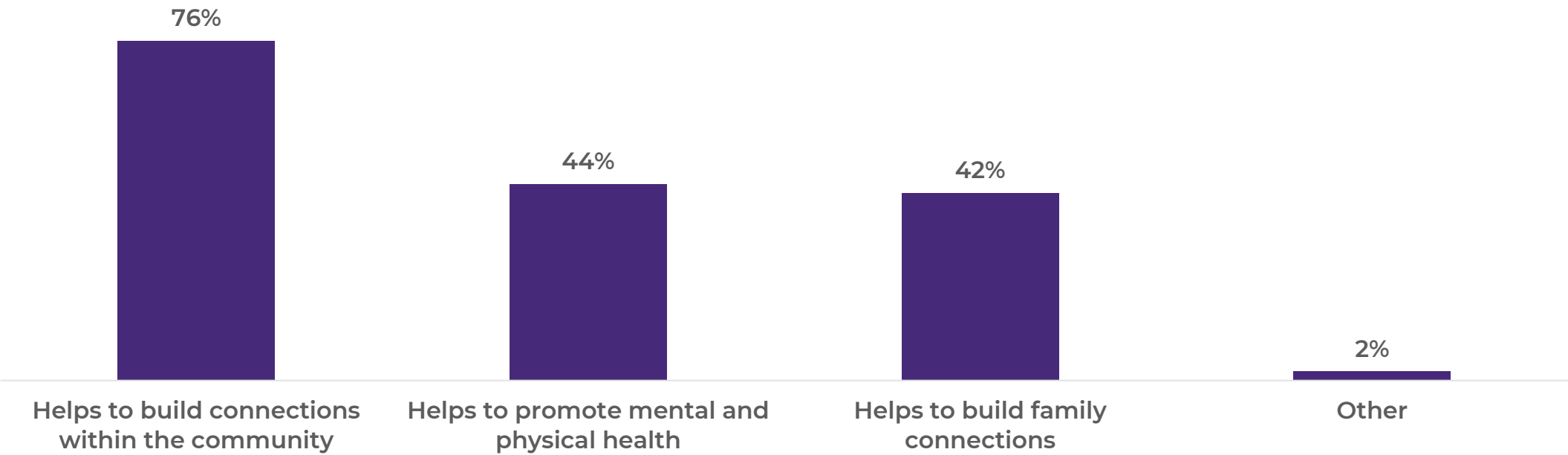
Q. 18 Which of the following benefits do fish and fish habitats provide for your household? Select all that apply



Importance | **Social support provided by fish and fish habitats**

Building community connections was the top type of social support among those who said fish and fish habitats provide them social support (N=225). Promoting health and building family connections were mentioned by roughly four in ten.

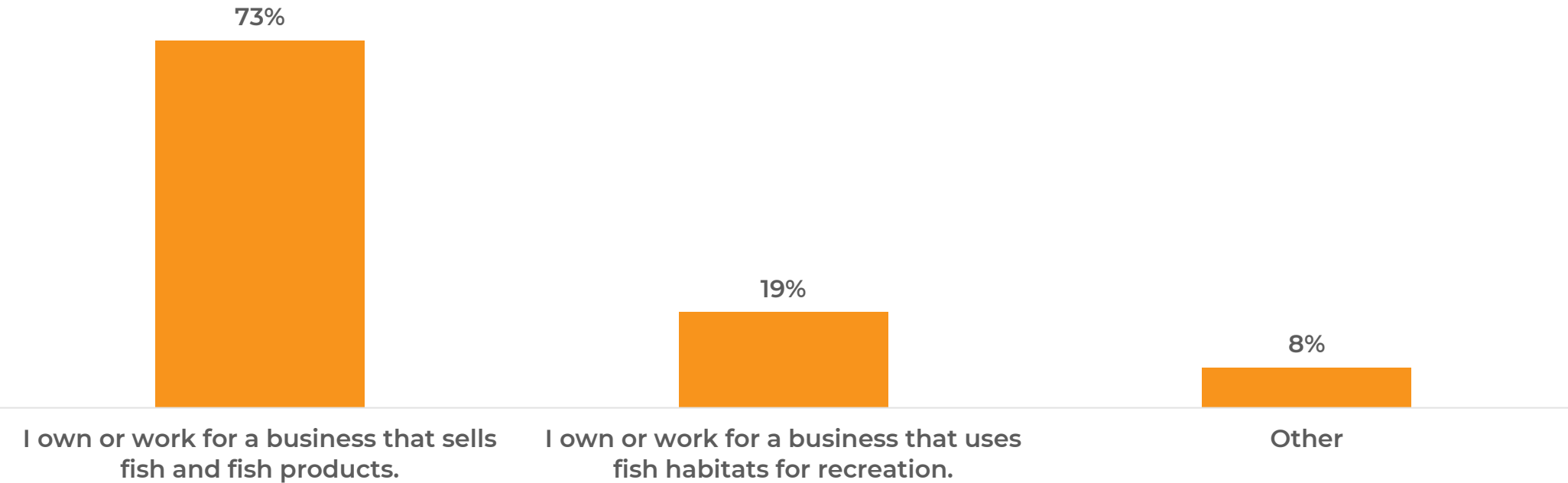
Q. 21 *How do fish and fish habitats provide you with social support?.*
BASE: Those that said fish/fish habitats provide social support at Q18 N=225



Importance | **Economic support provided by fish and fish habitats**

Among those who receive economic or livelihood support from fish and fish habitats (N=115), selling fish products was the top type of economic support mentioned by over seven in ten respondents.

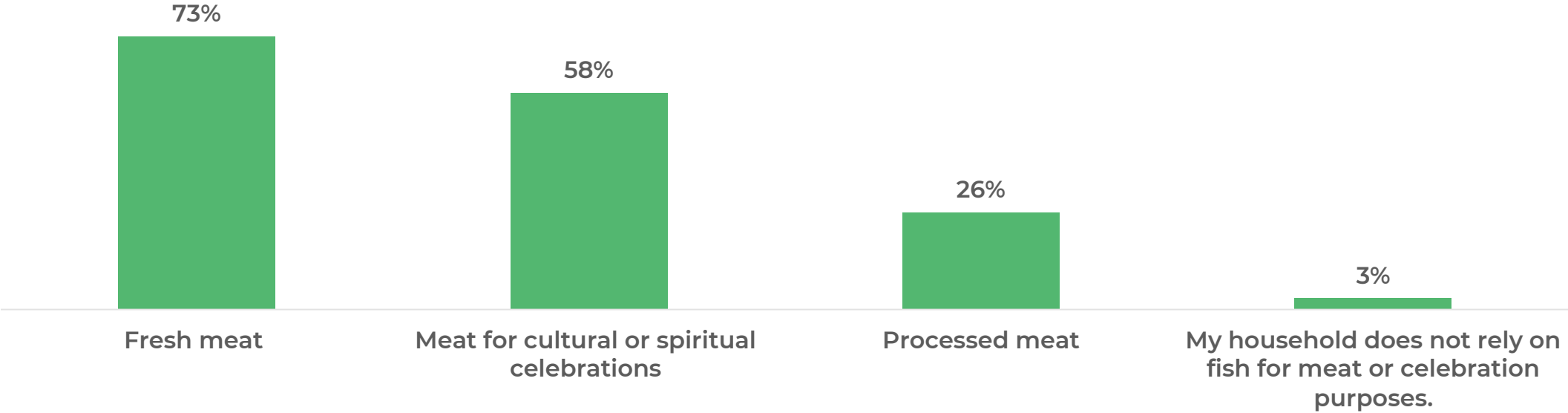
Q. 20 *How do fish and fish habitats provide you with economic/commercial livelihood support?.*
BASE: Those that said fish/fish habitats provide economic/livelihood support at Q18 N=115



Importance | **Food support provided by fish and fish habitats**

Those who said fish/ fish habitats provide food support were asked about the type of food support provided (N=141). Of those, the majority named fresh meat as the top type food support provided by fish and fish habitats.

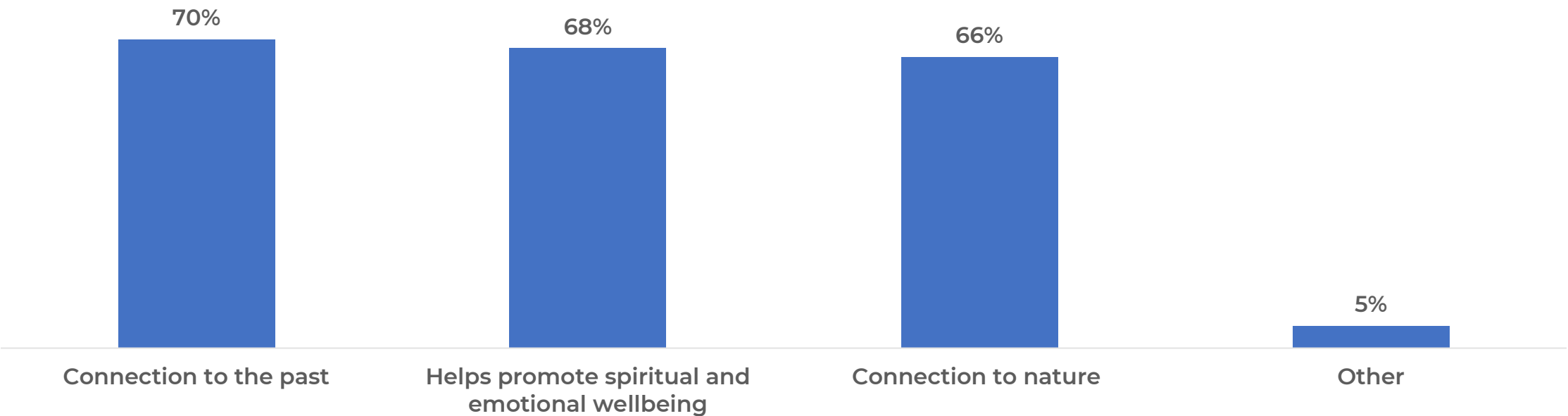
Q. 19 Which of the following food support does fish and fish habitats provide you?
BASE: Those that said fish/fish habitats provide food support at Q18 N=141



Importance | **Spiritual support provided by fish and fish habitats**

Among those receiving spiritual support from fish/fish habitats (N=159), similar sized proportions say fish and fish habitats support their connection to the past, promote their well-being, and help them connect to nature.

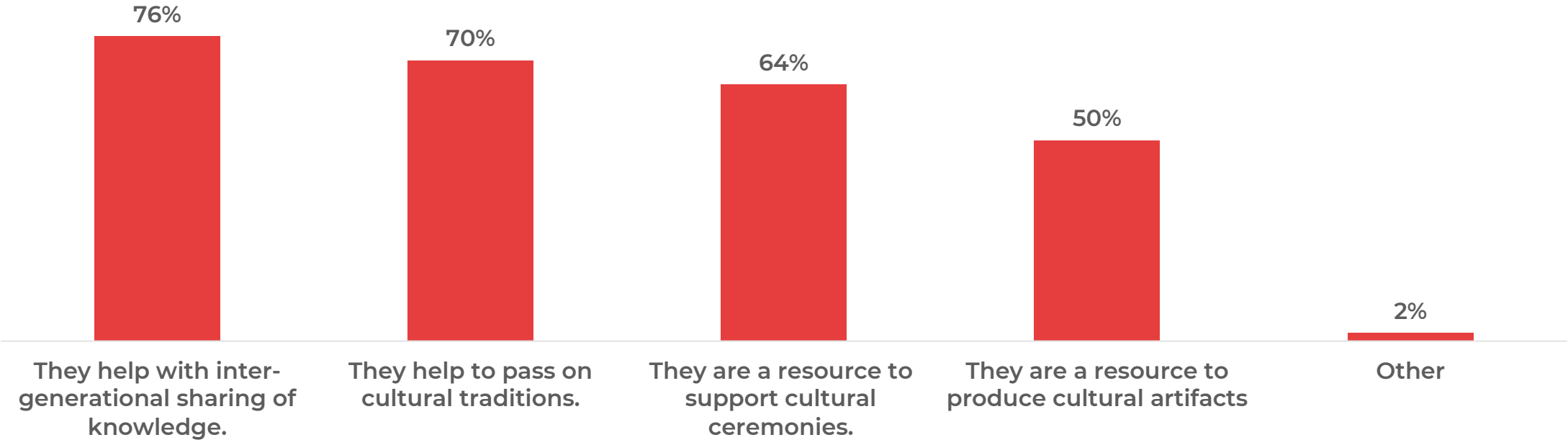
Q. 22 *How do fish and fish habitats provide you with spiritual support?.*
BASE: Those that said fish/fish habitats provide spiritual support at Q18 N=159



Importance | **Cultural support provided by fish and fish habitats**

Among those who receive cultural support from fish and fish habitats (N=172), intergenerational knowledge sharing is the most common form of support, followed by help passing on cultural traditions, and use in cultural ceremonies.

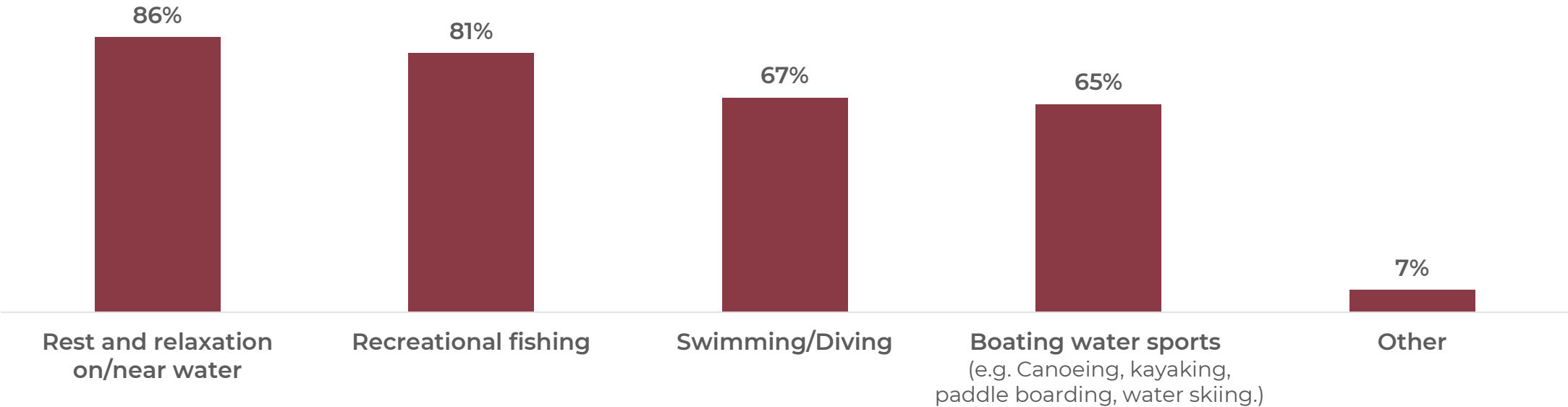
Q. 23 *How do fish and fish habitats provide you with cultural support?.*
BASE: Those that said fish/fish habitats provide cultural support at Q18 N=172



Importance | **Recreational support provided by fish and fish habitats**

Rest/relaxation and fishing are the most common types of recreational support provided by fish and fish habitats. Swimming and water sports are other common supports for over two-thirds of those who receive recreational support (N=132).

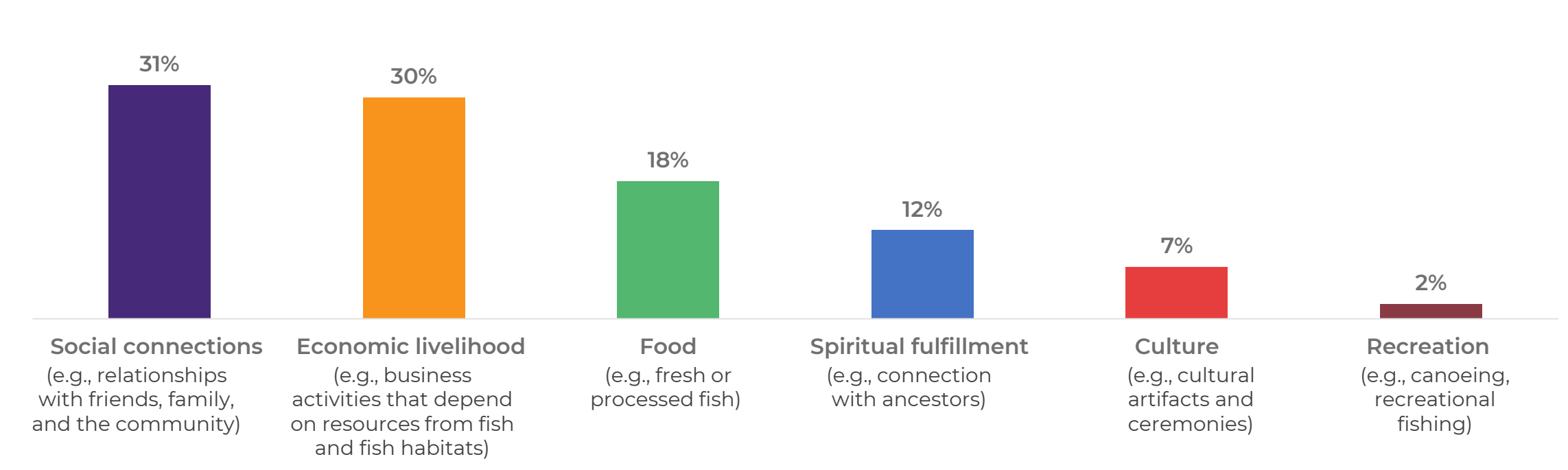
Q. 24 Which of the following recreational activities are most important to you?
BASE: Those that said fish/fish habitats provide recreational support at Q18 N=132



Importance | **Most important support provided by fish and fish habitats**

Fish and fish habitats support Indigenous WG2SGD+ people in different ways. When asked which aspect is most important, social connections and economic support came out on top, followed by food and spiritual fulfillment.

Q. 25 Which of these aspects provided by fish and fish habitats is most important to you?



SECTION 3

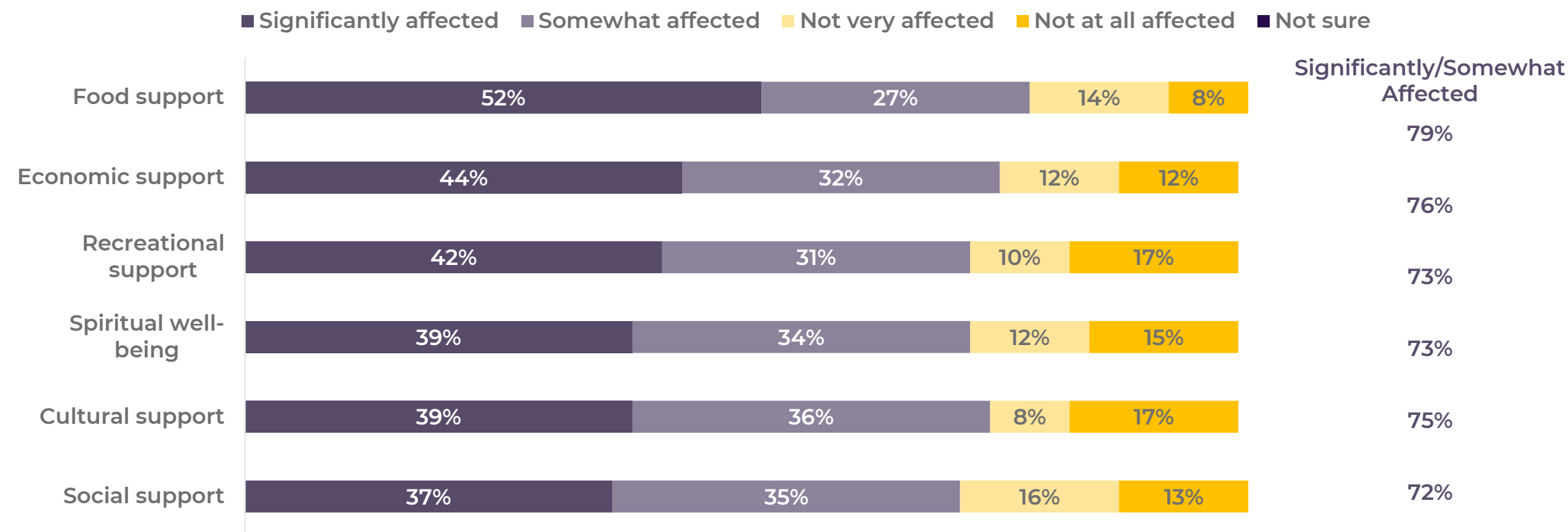
VULNERABILITY

This section explores the extent to which Indigenous WG2SGD+ People might be affected by changes to fish supply and access to fish habitats.

Vulnerability | **Level of impact if support from fish/fish habitats is not received**

Not receiving supports from fish and fish habitats would greatly impact respondents. Vulnerability is highest for food support, economic support, and recreational support with at least four in ten saying they'd be significantly affected.

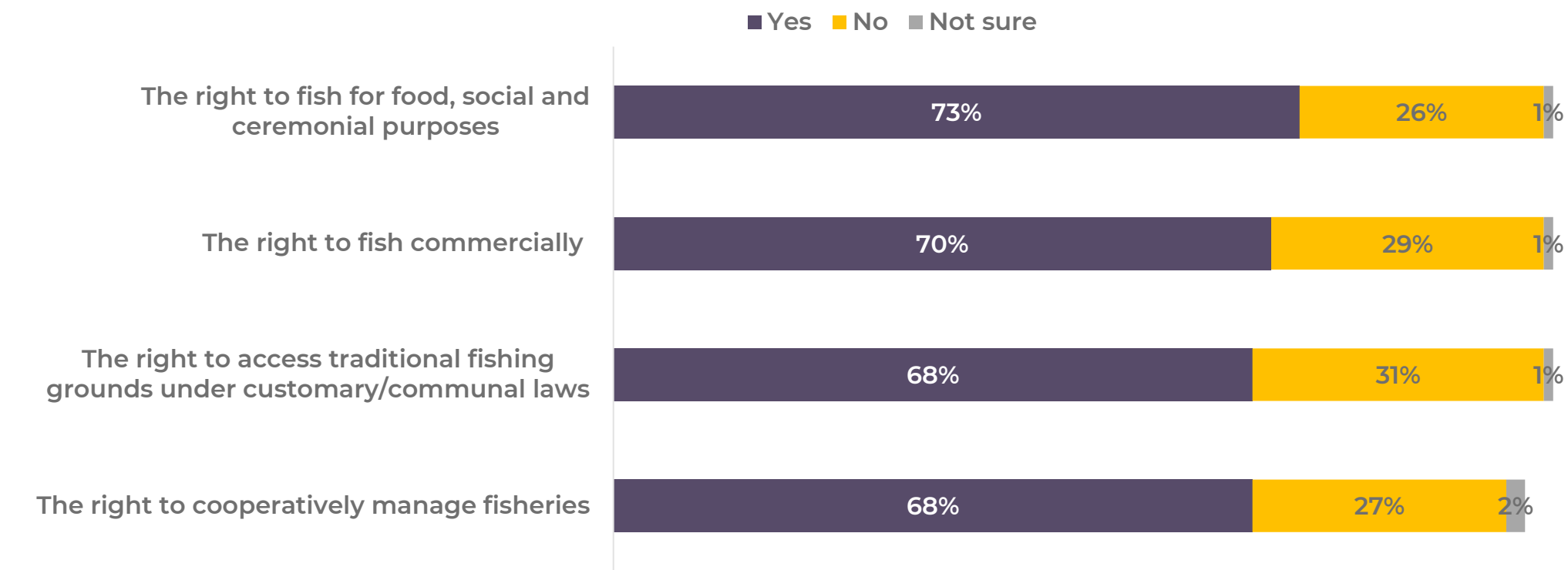
Q. 26 To what extent would you be affected if you didn't receive the following from fish/fish habitats?



Vulnerability | **Perceived impact on Indigenous treaty rights – climate change**

Nearly seven in ten think the impacts of climate change would violate their treaty rights to fish and fish habitats. Perceived impact is slightly higher for the rights to fish compared to the rights to access and cooperative management.

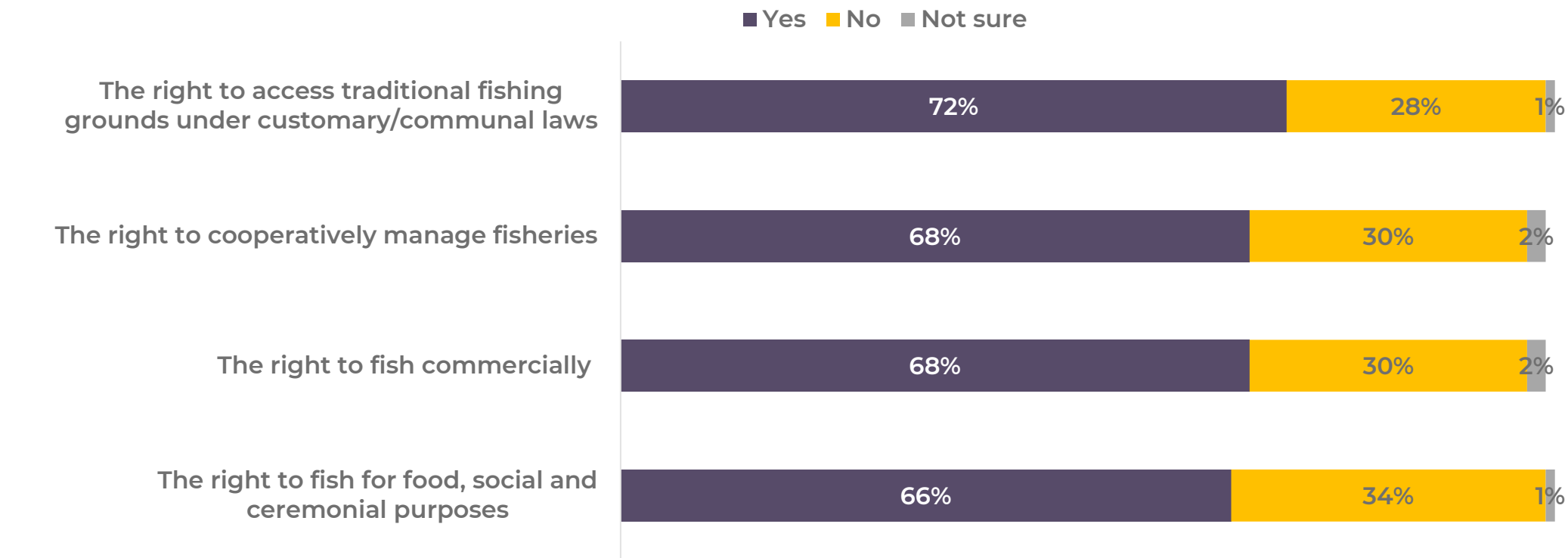
Q. 27 *In Canada, Indigenous Peoples have treaty rights to fish and fish habitats. Which of the following treaty rights do you think would be violated by the impacts of climate change on fish and fish habitats?*



Vulnerability | **Perceived impact on Indigenous treaty rights – human activities**

About seven in ten believe the impacts of human-related activities will violate their treaty rights. Perceived impact of human-related activities is higher for the right to access fishing grounds and the right to cooperative management.

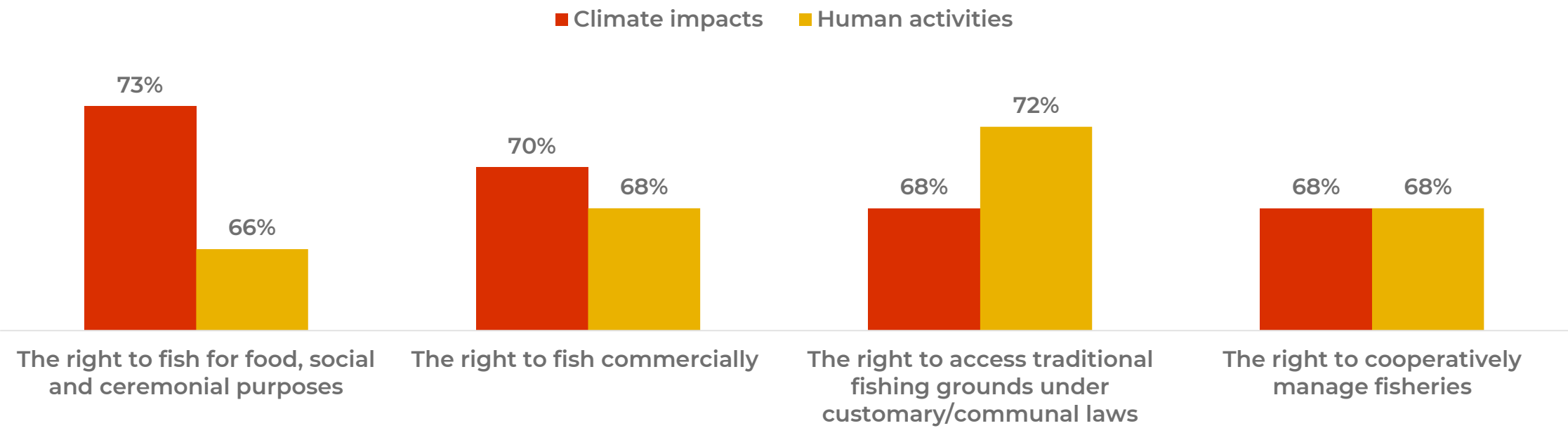
Q. 28 Do you think the same treaty rights would be violated by the impacts of human activities on fish and fish habitats?



Vulnerability | **Perceived impact on Indigenous treaty rights**

Respondents think climate change poses a bigger threat to their rights to fishing for various purposes, while human activities are seen to pose a bigger threat to the rights to access fishing grounds and manage fisheries.

- Q. 27** *In Canada, Indigenous Peoples have treaty rights to fish and fish habitats. Which of the following treaty rights do you think would be violated by the impacts of climate change on fish and fish habitats?*
- Q. 28** *Do you think the same treaty rights would be violated by the impacts of human activities on fish and fish habitats?*



Vulnerability | **Perceived impact on local communities**

When asked to specify the changes they've seen to fish and fish habitats in their areas, many respondents also mentioned some concerns, indicating a level of vulnerability to changes in access to local fish and fish habitats.

Q. 6 *What changes have you noticed?*

Yes, I've observed that local fish populations are suffering. The changes in water quality and habitat destruction are concerning for our community's food security.

Marginalization of Indigenous communities reliant on aquatic ecosystems and migration of people seeking alternate livelihoods.

Water quality is poor, we cannot even drink it without boiling it first and our fish have parasites now. Our water levels are lower, and the water temperatures are warmer. A few years back flooding caused sewer systems to back up into the lake, which contaminated the water.

Shifts in gender roles, with women increasingly burdened by household food scarcity.

Vulnerability

Perceived impact on local communities



We have a nuclear power plant located on our traditional territory. Last Thursday (Feb 13/25) seen a massive loss of fish due to being drawn into the intake; multitudes of eagles are present eating these fish. The lake no longer freezes over due to climate change and the power plant and this is causing havoc with the environment

VERBATIM SOURCE: STUDY PARTICIPANT

Thank you.

ENVIRONICS
RESEARCH

