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Stakeholder engagement in assessment of recreational fisheries bycatch of marine protected species

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senate **shj**

grounded in
smart thinking

Presentation summary

1. **Project background, objectives and approach**
2. **Research findings**
3. **Engagement framework recommendations**
4. **Pathway to stakeholder engagement**
5. **Recommended tactics and next steps**

Project background, objectives and approach

Background

- Recreational fishing is a popular pastime in New Zealand
- Protected species are under threat including: **Seabirds, mammals, fish, corals, reptiles, and turtles**
- Fisheries bycatch of protected species is one of the greatest threats to marine biodiversity
- Limited research and data available about the effects of recreational fishing pressures on protected marine species compared to commercial fisheries
- DOC's project goal is to reduce recreational bycatch of marine protected species

350,000

recreational
fishers in NZ
each year

7m

finfish caught
recreationally

+

3.9m

other marine
species caught

=

11m

finfish & other
species caught
recreationally
each year

&

High

likelihood
of unintended
bycatch

Primary objectives

The primary objectives of the project are to:

Understand how DOC can effectively engage recreational fishers in future data collection studies, based on results from research which elucidate:

1. The level of knowledge-based stakeholder understanding and agreement of the need for the project, including a willingness to participate, and their motivations for involvement
2. The alignment of stakeholder interests with the proposed strategy
3. An open, inclusive, and transparent process that considers privacy issues
4. Participation in a simple and time appropriate manner.

Supporting objectives

Specific objectives to support the primary objectives:

1. Understand the attitudes of recreational fishers towards bycatch, their role in reducing it and their motivations and barriers for recording
2. Identify the key stakeholders, their networks, and preferred channels and the best approach to establishing a working group
3. Identify what the preferred information gathering tools for bycatch data are including preferences relating to:
 - a) Technology platforms such as DOC website, current fishing apps and the development of new smartphone apps (privacy concerns)
 - b) Using fishing clubs and groups to promote tools

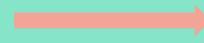
Project approach

Stage one Design & build



- Social engagement planning and lessons learnt from social engagement projects
- Recreational fishing data collection tools
- Motivators and barriers to gaining social license for bycatch measurement
- Motivators and barriers for the use of data collection tools
- Categorisation of protected marine species
- Stakeholder identification and mapping
- Designing the approach to the interview guides
- Identifying and mitigating project risks
- Establishing contacts with key stakeholders

Stage two Consult & engage

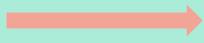


- Build on the knowledge gained in stage one
- Collect direct feedback from stakeholders on the motivations and barriers to engagement and participation.

This will be undertaken by conducting:

- Interviews with a cross-section of six key individuals representing stakeholder interests
- An online survey with recreational marine fishers using a database supplied by MPI

Stage three Analyse & construct



- Establish an evidence-based framework for stakeholder engagement using information collected from stages one and two.
- Present project findings to a DOC Conservation Services Programme (CSP) Technical Working Group (TWG)

Research methodology



To further understand the motivations and barriers to engagement and participation.

To feed into the development of engagement framework.

Customary fishing

- While the information gathered for this project includes responses from Māori recreational fishers, the scope of this report excludes any engagement with customary fishers on cultural perspectives of bycatch. Additionally, this project did not seek to address bycatch arising from customary fishing rights.
- Customary fishing relates to traditional and customary fishing practices including customary non-commercial food gathering. Customary fishing is regulated under specific fisheries regulations.
- Stage one included conversations with Te Ohu Kaimoana, representing the perspective of the Treaty Partner. Te Ohu Kaimoana stated that it has an expectation that DOC will consult with it prior to the development of the project and in the context of a wider discussion about marine protected / taonga species.
- Further engagement with Te Ohu Kaimoana will be necessary as the project progresses

Key research findings

Research approach

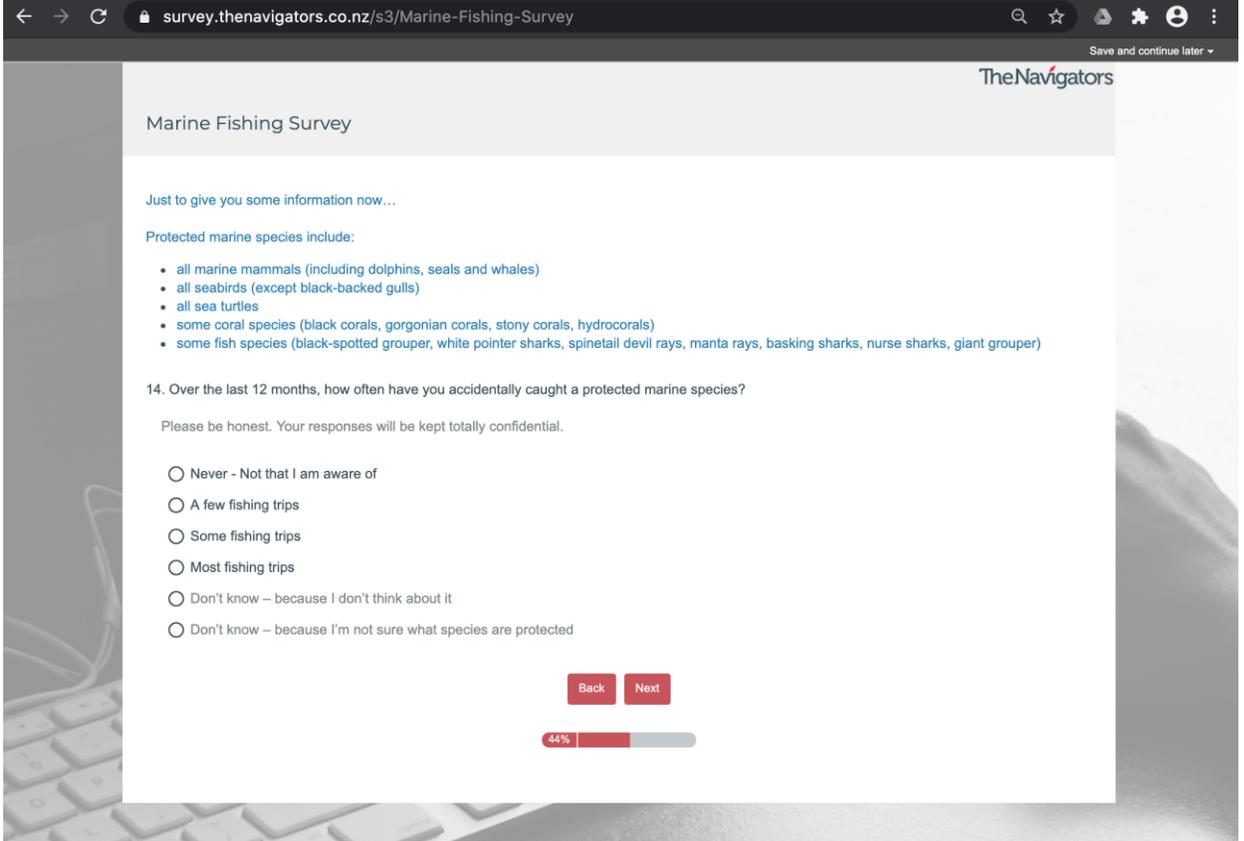
To collect feedback directly from recreational marine fishers, an online survey was conducted by The Navigators.

The survey was open for 17 days between Friday 17 July and Sunday 2 August 2020.

The survey received responses from **n=858** marine fishers.

Marine fishers were defined as people (aged 14+ years) who had undertaken any of the following recreational marine activities in New Zealand in the last 12 months:

- fished from a private boat or kayak (in saltwater)
- fished from a charter boat (in saltwater)
- fished from a saltwater beach/shore/wharf (including surf casting, kontiki, longline, electronic longlines, drop lines, hand lines)
- fished for seafood using set or gill nets
- dived for seafood
- fished for seafood using pots (or similar bottom gear).



The screenshot shows a web browser displaying the 'Marine Fishing Survey' page. The browser address bar shows 'survey.thenavigators.co.nz/s3/Marine-Fishing-Survey'. The page title is 'Marine Fishing Survey' and the logo 'The Navigators' is in the top right. The main content area has a heading 'Just to give you some information now...' followed by a list of 'Protected marine species include:'. The list includes: all marine mammals (including dolphins, seals and whales), all seabirds (except black-backed gulls), all sea turtles, some coral species (black corals, gorgonian corals, stony corals, hydrocorals), and some fish species (black-spotted grouper, white pointer sharks, spinetail devil rays, manta rays, basking sharks, nurse sharks, giant grouper). Below this is question 14: 'Over the last 12 months, how often have you accidentally caught a protected marine species?'. A note says 'Please be honest. Your responses will be kept totally confidential.' The question has six radio button options: 'Never - Not that I am aware of', 'A few fishing trips', 'Some fishing trips', 'Most fishing trips', 'Don't know - because I don't think about it', and 'Don't know - because I'm not sure what species are protected'. At the bottom of the question area are 'Back' and 'Next' buttons and a progress bar showing '44%'.

Research approach (continued)

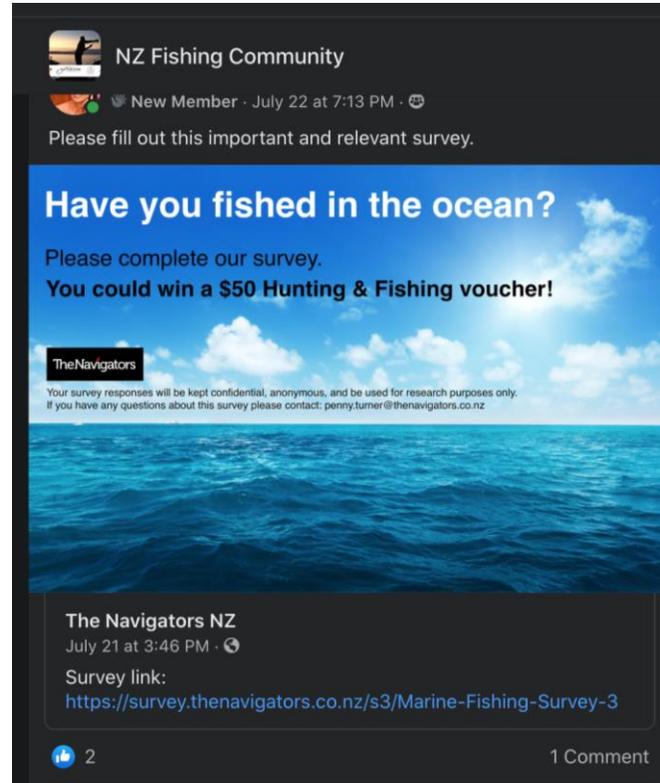
The survey link was shared using two approaches:

1. Via email to a **list of recreational fishers** managed by Fisheries NZ (n=753)
2. The **survey link was shared via Facebook** (n=105)

Sample representativeness

Given the methodology used for data collection:

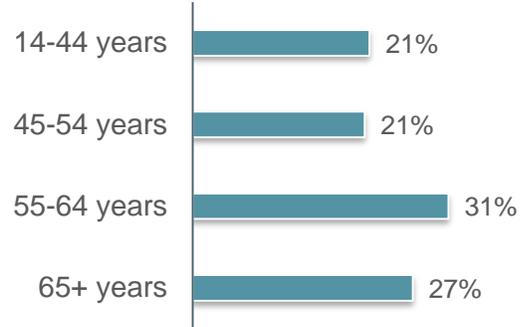
- Response rate unknown
- Sample is unlikely to be a truly representative of recreational marine fishers
- Difficult to confirm where sample skews may exist. But we assume sample skews to:
 - those who are more likely to engage with the fishing community e.g. club/body members,
 - to support government endeavours,
 - NZ Europeans,
 - those who have been fishing for longer.



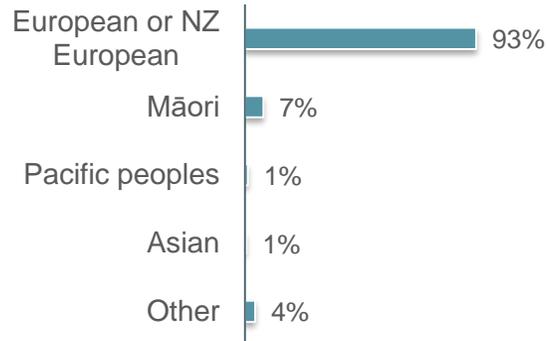
Profile of the sample

Q1: Please tell me which of the following age groups you belong to:, Q2: Are you ..., Q3: Which region of New Zealand do you live in?, Q4. Which ethnic group/s to you belong to?
 Q5: In the past 12 months, have you taken part in any of the following recreational marine activities, in NZ?
 Base: n=858

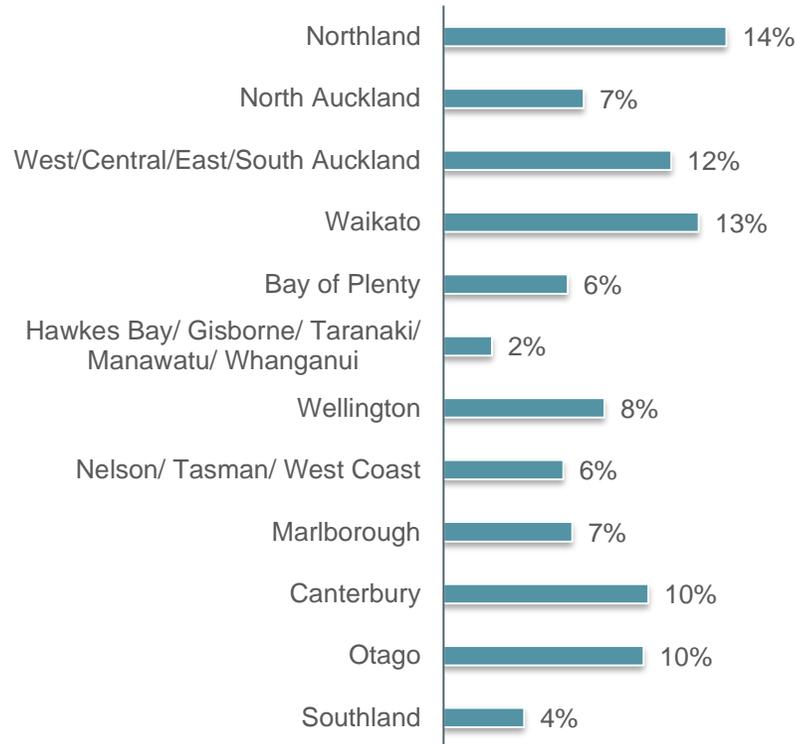
Age



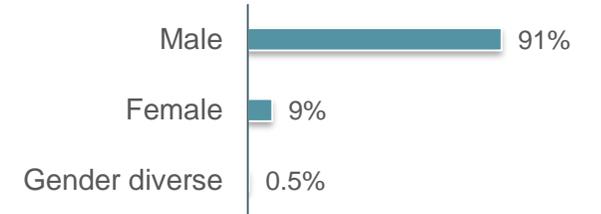
Ethnicity



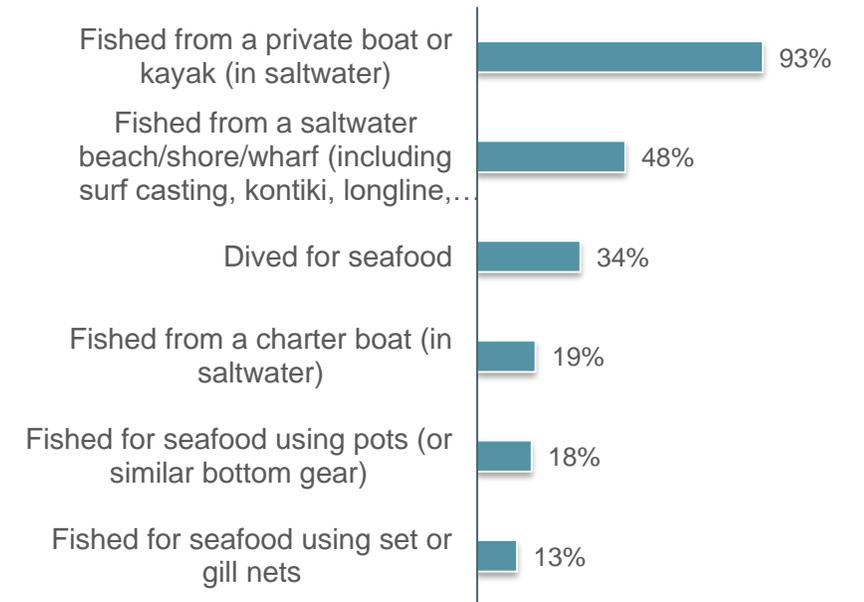
Region



Gender



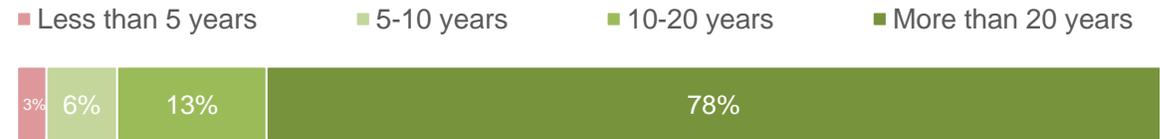
Recreational marine activities



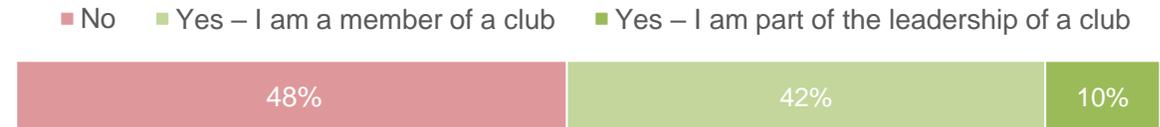
Profile of the sample: Fishing behaviours

Q39: Do you fish near marine reserves?, Q40: Do you fish near coastal seabird colonies?, Q38: Are you part of a fishing club?,
Base: n=858

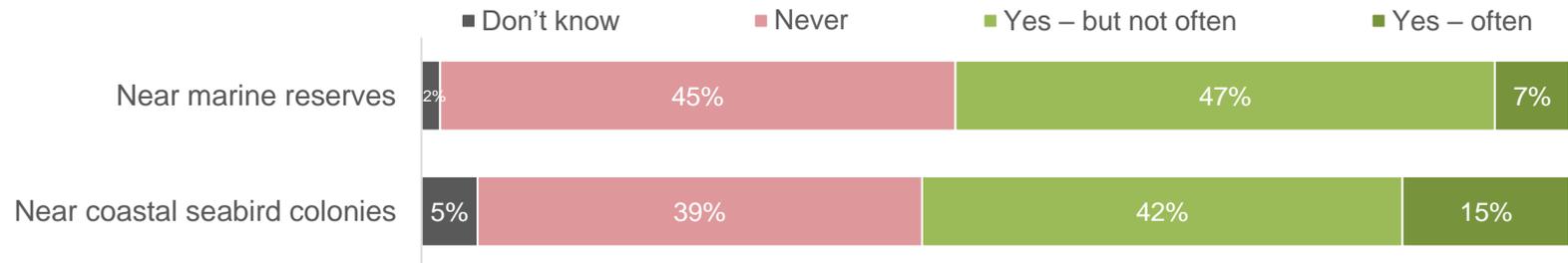
Years fishing



Fishing club



Where fished





Engagement: Social licence for collecting data

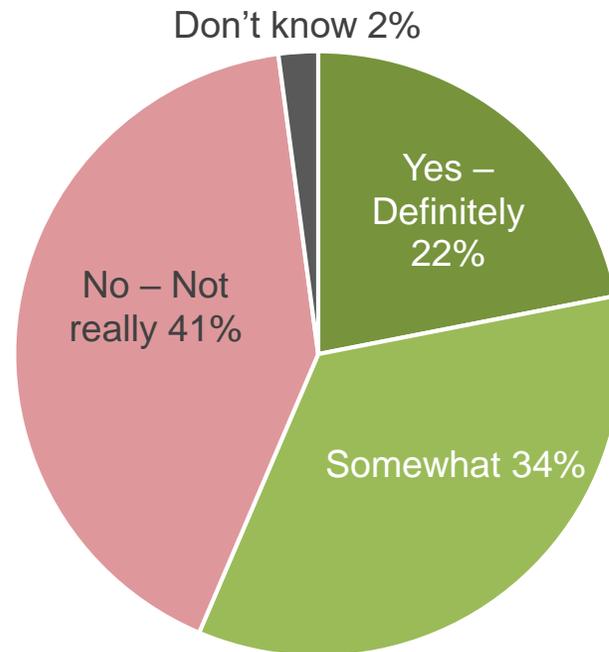
- ◆ Are fishers concerned?
- ◆ Are fishers knowledgeable?
- ◆ Do fishers believe monitoring is important?

Are fishers concerned?

– Many fishers feel they don't contribute to the problem

Question: I believe recreational fishers have an impact on the amount of protected marine species that are caught (i.e. it's not just commercial fishing)

Base: n= 858



More likely to:

- Be part of a fishing club 48%
- Also be a hunter 47%
- Be 55-64 years 47%
- Be male 43%
- Be European or NZ European 43%
- Have been fishing for more than 20 years 44%
- Never fish near a marine reserve 45%

More likely to:

- Be female 40%
- Be from Wellington 34%
- Be Māori 34%
- Not be part of a fishing club 27%
- Have fished in the Hauraki Gulf 26% (vs 22%*)

*Reduced base: n=448 Total Auckland, Northland, Waikato and Bay of Plenty

More likely to:

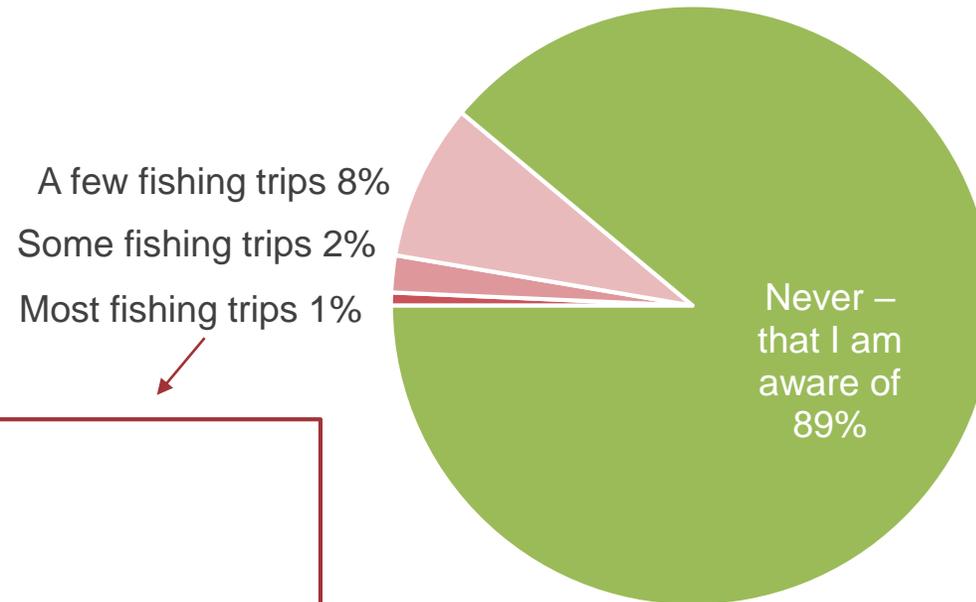
- Be 65+ years 41%
- Have been fishing for 20 years or less 41%

Are fishers concerned?

– Many fishers believe they don't contribute to the problem

Question: Over the last 12 months, how often have you accidentally caught a protected marine species? Please be honest.

Base: n= 858



Why 'most' of the time? (Q15, n=6)

- 2 mentioned burley
- 2 mentioned non-targeted bycatch
- 2 no comment

“Seabirds (shearwaters and red billed gulls) that fly into the line whilst straylining in a burley trail. This is becoming more of an issue as the birds seem to be getting hungrier all the time. Note none of the birds are harmed, they are all released uninjured.”

Related finding...

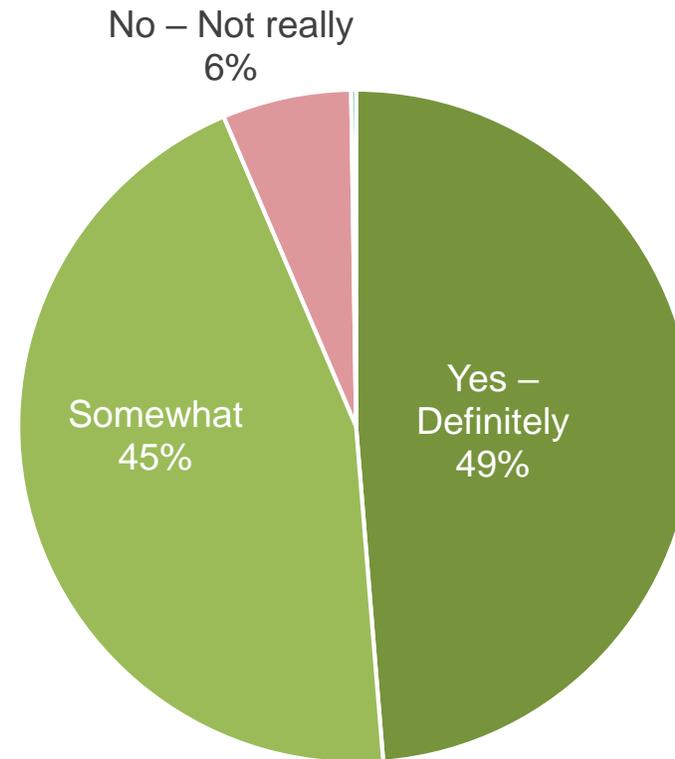
One third of fishers (35%) have changed their fishing behaviour to avoid bycatch.

Are fishers knowledgeable?

– Their knowledge is variable

Question: Do you have a good understanding of the marine species that are protected in New Zealand?

Base: n= 858

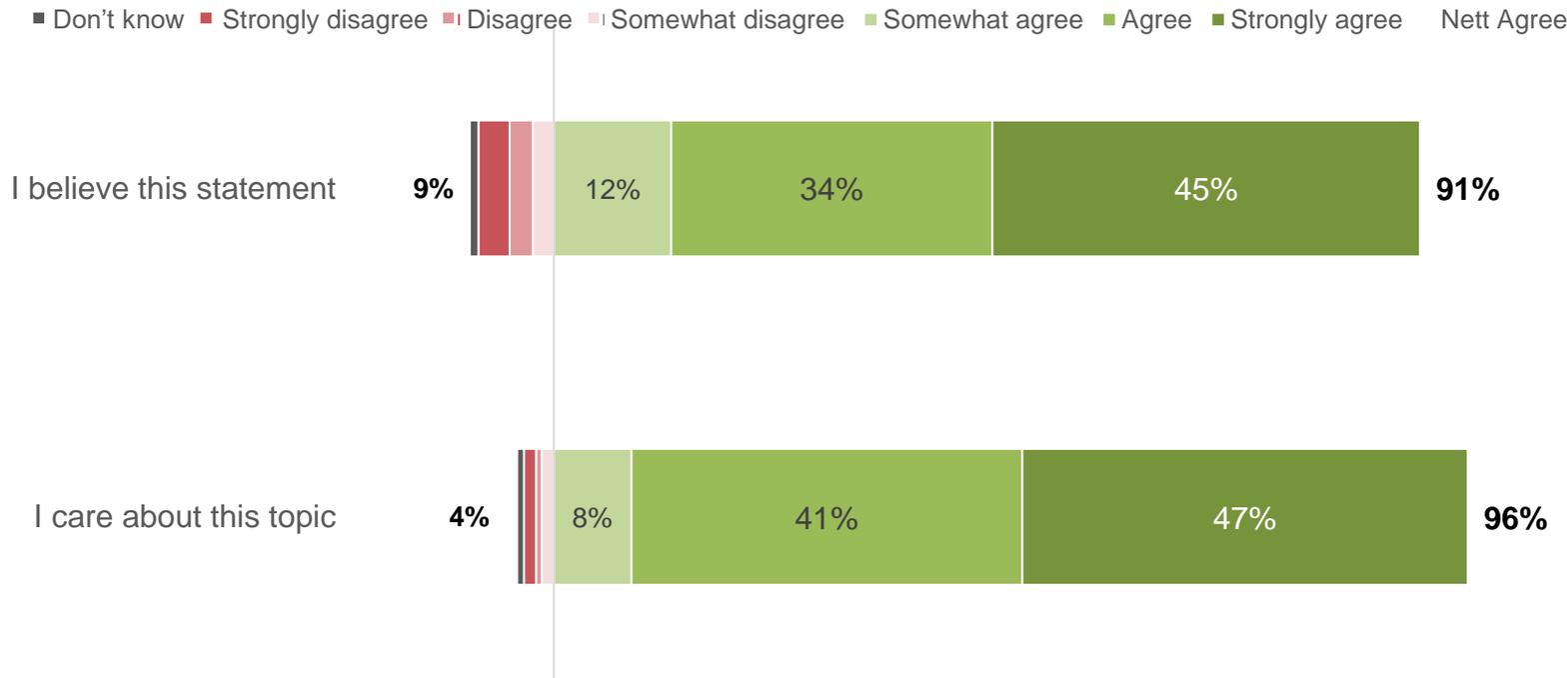


Are fishers concerned?

– Fishers do agree that bycatch could contribute to the extinction of species

Question: “Bycatch of protected marine species is an issue because it could contribute to the extinction of some species.” After reading this statement, to what extent do you agree or disagree...

Base: n= 858



Why don't believe? (n=47) Primarily due to perceptions of the very low incidence of protected species bycatch i.e. the incidence is too small to have an impact.

“Because as a recreational fisher, I don't catch any protected species, it's more of a commercial problem.”

Why don't care? (n=14) Again reinforcement that recreational fishers are not causing the issue.

“Because I don't believe recreational fishers are causing the trouble with protected marine species bycatch. it is commercial fishers using nets that are doing it.”

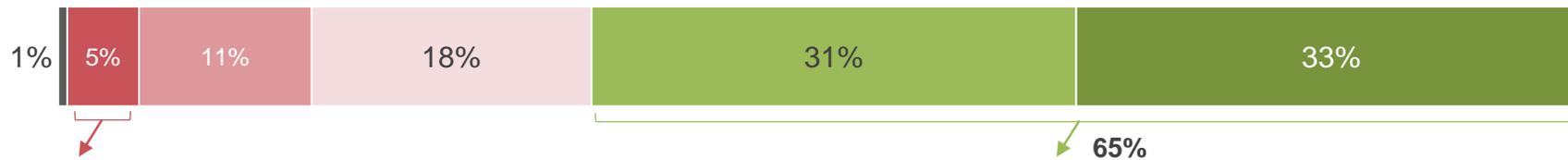
Do fishers believe monitoring is important?

– Some do, some don't

Question: To what extent do you think it is important to monitor the number of protected marine species caught from recreational fishing?

Base: n= 858

■ No opinion – don't know much ■ Not at all important ■ Slightly important ■ Moderately important ■ Very important ■ Extremely important



'Extremely important' more likely to:

- Be female 52%
- Be Māori 45%
- Be from West/Central/East/South Auckland 42% (and indicatively Bay of Plenty 43%)
- Not be part of a fishing club 39%

Why is it NOT important?

Q17. Why do you think it is not important to monitor the number of protected species caught from recreational fishing?

Base: n= 29

Reasons:

- they catch very few protected species
- commercial fishers a greater concern
- most protected species caught are seabirds - mostly released unharmed

"So few/rare. I fish A LOT and the only instances of protected species encounter are where the odd seabird snaffles a surface bait from an inexperienced angler. We carry a towel and not once have we been unable to release the bird that flies off unharmed."

Why is it important?

Q18. Why do you think it is important to monitor the number of protected species caught from recreational fishing?

Base: n= 328

Most common reasons:

- To protect endangered species
- To gather information allowing greater understanding of the issue
- To learn how bycatch can be avoided (e.g. by modifying fishing methods)
- To preserve biodiversity/a balanced ecosystem

"To allow effective protection/conservation of these species."

"Because there needs to be an overall understanding of the extent of the problem beyond commercial fishers."

"It's very important to collate data to provide solid evidence and facts, thereby launching a platform whereby methods, rules and regulations could be put in place to mitigate this and possibly deterrents and penalties applied if breached."

"To ensure the ecosystem remains healthy."



Participation: Reporting bycatch data

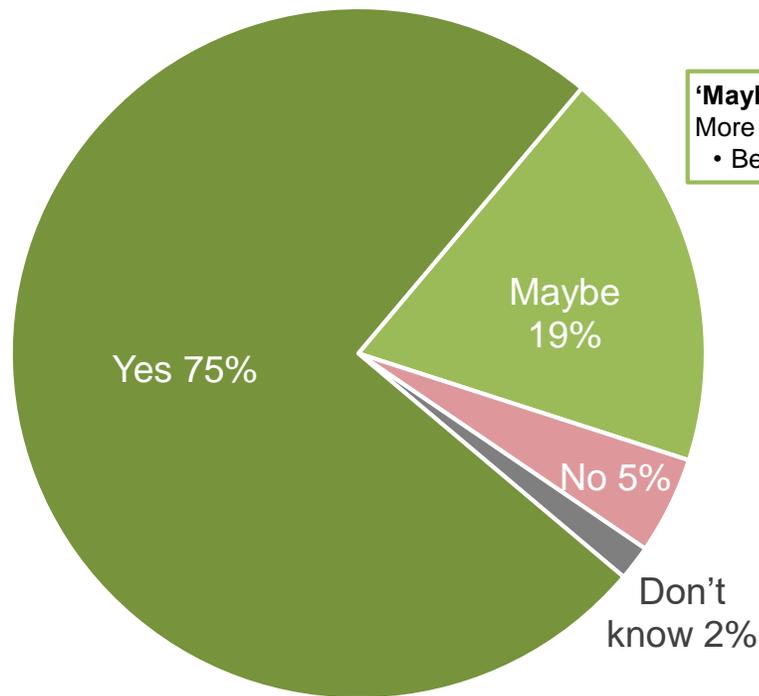
- ▣ Are fishers open to reporting bycatch?
- ▣ Does DOC's involvement increase reporting likelihood?
- ▣ Would fishers report unharmed bycatch?
- ▣ How would fishers prefer to provide bycatch information?

Are fishers open to reporting bycatch?

- Many are open to reporting, but less likely if frequent bycatch or club leaders

Question: If you did accidentally catch a protected marine species, would you be open to reporting the information confidentially e.g. via a phone app, website or 0800 number?

Base: n= 858



'Maybe'
More likely to:
• Be a leader of a fishing club 27%

'No'
More likely to:
• **Catch protected marine species on most of their fishing trips 50%** – although this is based on a very small sample of n=6 (3 said they would not report and 3 said they would).
• Be a leader of a fishing club 9%
• State that any further information would not make them more likely to report bycatch

Related findings...
Fishers are open to reporting to do the right thing, be responsible, contribute to scientific learning, and to look after marine biodiversity and species.

But they are concerned about:

- fines/prosecution
- confidentiality, embarrassment, shaming
- restrictions
- whether the information will be used or used appropriately

And/or don't see the point:

- They rarely catch protected marine species
- Commercial fishing is the issue
- Any recreational bycatch is mostly released unharmed

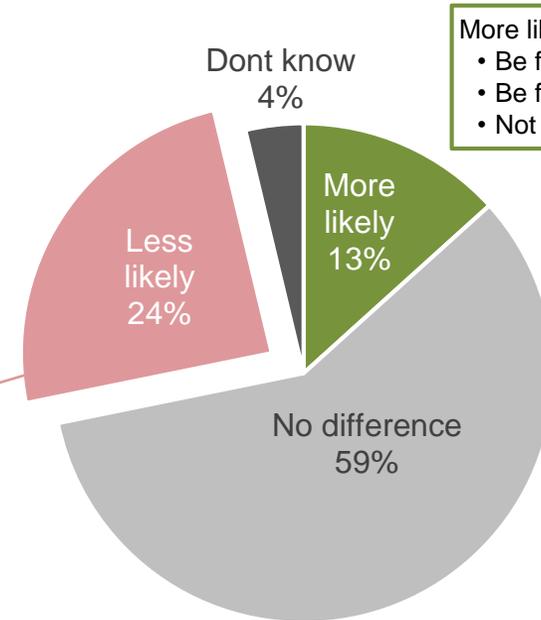
Are fishers open to reporting bycatch?

- Some (31%) are less likely if DOC is leading project

Question: If you caught a protected marine species, would you be more or less likely to provide information, if DOC (the Department of Conservation) was leading the project?

Base: n= 858

- More likely to:
- Be from Southland 43%
 - Be a hunter 36%
 - 'Maybe' report information 31%
 - Have been fishing for more than 20 years 27%
 - Be part of a fishing club 28%
 - Fish near coastal seabird colonies 28%



- More likely to:
- Be from West/Central/East/South Auckland 24%
 - Be from Wellington 24%
 - Not be a hunter 17%

- More likely to:
- Often fish near marine reserves 71%
 - Not be a hunter 62%

Why would you be less likely to provide information if DOC was leading the project?

Base: n= 146

Lack of trust: don't trust the right decisions will be made with the information and believe DOC has 'an agenda'.

"I don't trust DOC to do the right thing e.g. last lot of dolphin closures will achieve nothing."

"DOC have their own agenda and don't exactly tell the truth."

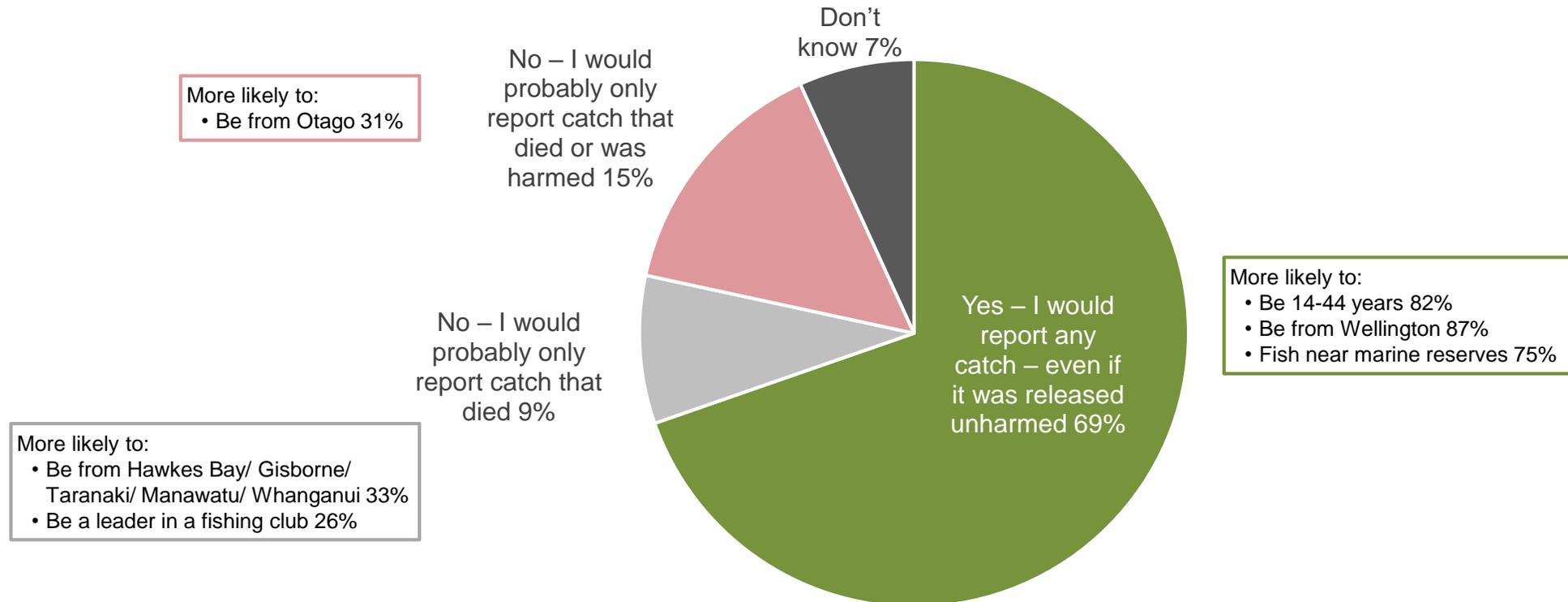
"Because of DOC's past history in resource management. Tahr are a great example and very timely."

Are fishers open to reporting bycatch?

- Some less likely if bycatch is unharmed

Question: DOC would be interested in hearing about any catch of a protected marine species – even if it was released unharmed. Do you think you would report any catch of a protected marine species - even if you released it unharmed?

Base: n= 413

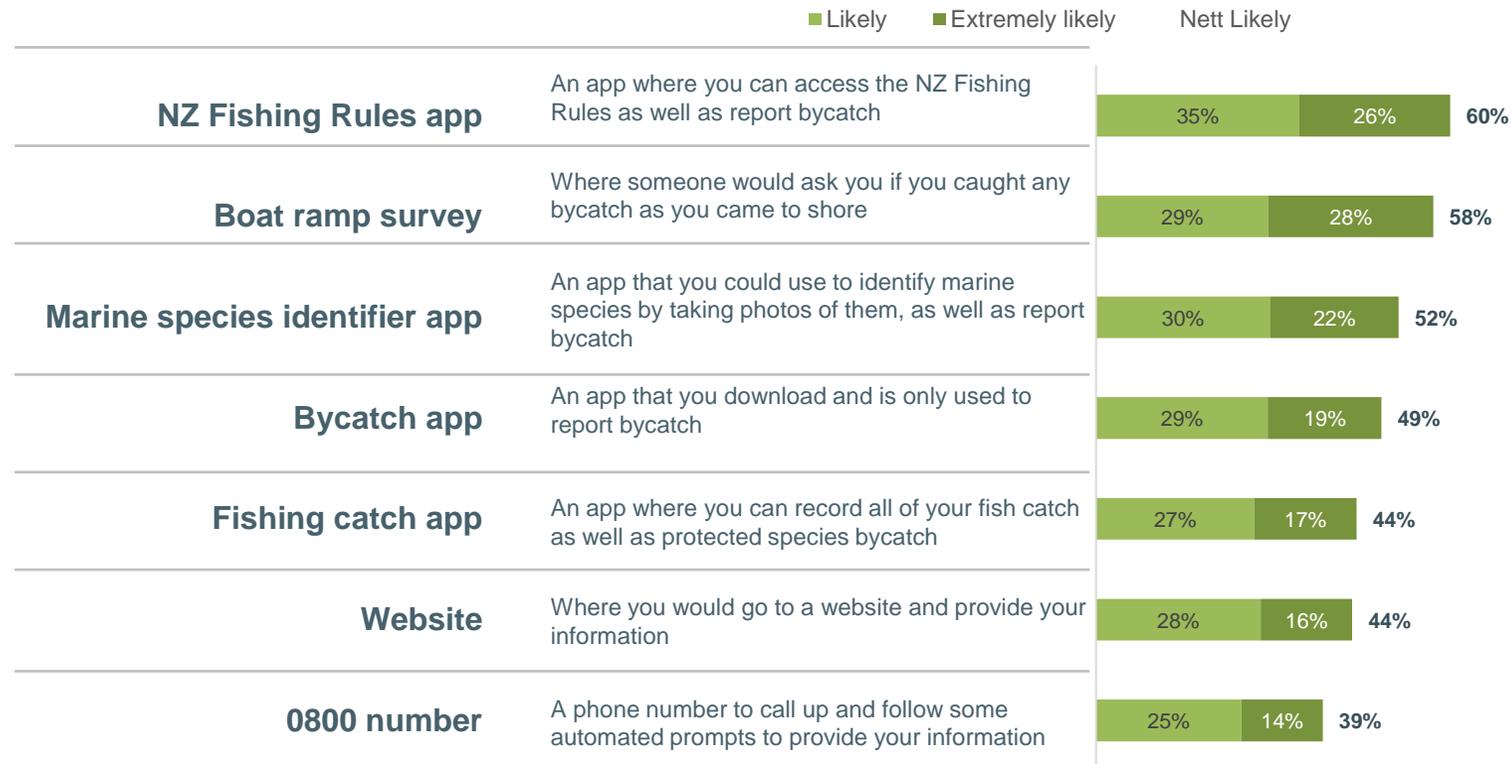


How would fishers prefer to provide bycatch information?

- Findings suggest a range of reporting should be provided

Question: Below are some of the ways that you could provide information if you did accidentally catch a protected marine species. How likely would you be to use/do each one?

Base: n= 819 (those who were not closed to recording bycatch information i.e. who said 'yes', 'maybe' or 'don't know')



Engagement framework recommendations

Our strategic approach builds on extensive prior knowledge

Research findings & insight themes

What respondents value most about fishing

- Provides source of food (36% - indicatively higher for Māori)
- Break from everyday life / routine (15% - esp Aucklanders)
- Fun / excitement

Low proportion of fishers admit to accidentally catching bycatch

- 89% say they never have
- 1% say it happens most fishing trips
- 10% has happened in some/few fishing trips

Recreational fishers don't feel they contribute to bycatch

- 91% agree bycatch of protected marine species is an issue as it could contribute to the extinction of some species
- But only 22% 'definitely' believe recreational fishers have an impact
- Fishers believe most bycatch is released unharmed

Issues for bycatch data reliability

- Those who are more open to reporting are less likely to have caught a protected species in the last 12 months
- One-third would/may not report catch if they released it unharmed
- Only half have a good understanding of protected species
- Club leaders (influencers) are less likely to report

Motivators & barriers

Motivators

- To do the right thing / look after the ocean
- If I knew about species
- If I knew about species being caught in my area
- Belief that 'we're all working together'
- Knowing how information was going to be used
- Knowing how the key learnings would be shared
- Learn how to avoid bycatch
- Current high level of engagement with and by stakeholders

Barriers

- Bycatch problem not being believed
- Problem not being the responsibility of recreational fishers (vs commercial fishers)
- Concerns about information details not being kept confidential. risk of being fined + risk of restrictions on recreational fishing
- Almost half of fishers feel they definitely have a good understanding of the protected species.
- Lack of confidence that information would be used (20% - 36% Māori / 20% - 40% Pacific peoples)
- DOC not trusted to lead project (24%)
- Fishing club leaders not inclined to report
- Stakeholders have to be engaged throughout programme
- Top down communications alone will not drive required behaviours & broader change

We considered two different framework approaches

1. Mass population programme

1. Engaging the 75% of recreational fishers who say they are open to confidentially reporting bycatch information
2. Targeting fishing club leaders to build partnerships, understanding and joint leadership

2. Targeted programme, with different policy settings

1. Focusing on the 1% who say they catch bycatch almost every fishing trip
2. Focusing on the 10% who say they have accidentally caught bycatch on some / few fishing trips
3. The above, plus targeting fishing club leaders to build partnerships, understanding and joint leadership

The two approaches recognise:

- The very high levels of agreement regarding the value of protecting protected marine species
- The disproportionate impact of a small number of recreational fishers saying they have, or regularly have, accidentally caught bycatch
- The disproportionate impact of the 5% who said they would not report bycatch (who were also more likely to have caught protected marine species on most of their fishing trips.
- The finding that fishing club leaders (self reported) were less open to reporting bycatch (they answered maybe or no), and their influence on other fishers.

Recommended approach

The recommended approach is not a case of choosing either a mass population programme or targeted programme, instead we recommend a combination of the two.

- While both approaches are required, this recommendation is subject to undertaking further social research to support the rationale for the targeted programme.
- The further analysis should be focused on confirming and understanding the groups that will have the most impact on the reliability of the bycatch data collection: the 1% of recreation fishers who say they catch bycatch almost every fishing trip, the 10% who say they have accidentally caught bycatch on some / a few fishing trips and the 5% who say they wouldn't report bycatch.
- If this analysis shows behavior change in these groups is not possible, a wider societal approach will need to be taken to ignite long-term co-operation, knowing there will be some problems and that it will take a longer period of time to see real change.

The purpose of further analysis will be to use a more representative sample of recreational fishers to:

- Confirm the key percentages that we are basing the framework strategy on. That is, the 1%, the 10% and the 5%.
- Understand whether the people who will have the most impact on the reliability of the self-reported bycatch data are open to reporting their catch of protected species.
- Determine whether there are specific things that could change the willingness of the 1% who get bycatch most fishing trips and the 5% who wouldn't report.
- Determine impact on the reliability of bycatch data using self-reported methods.
- Examine other unrepresented recreational fishing groups (e.g. Māori population, younger fishers).
- Gain detailed data on where those who are more likely to catch bycatch are fishing, are some geographical areas more prone to bycatch issues? What fishing methods are being used? Are certain fishing practices more likely to attract bycatch species? Etc.

Our recommended approach is embedded in behaviour change and social marketing principles

Humans are emotional not rationale, so persistence and consistency is key.

Behaviour change takes time and tapping into what moves and motivates people – and communities - is the key to driving change, and support for change.

Baseline Recreational fishing & protection of NZ's marine environment is a human-centred approach:

- humans are vulnerable, fallible and social - we influence and are influenced by others
- traditional negative / punitive messaging is no longer effective
- we must create a social licence to speak with communities and fishers about the need to measure the impact of recreational fishing on protected marine species(the need to look after protected marine species already exists).

Challenges Moving the majority of recreational fishers and communities from:

- being passive participants to active participants in marine species protection initiatives
- thinking individually to collectively
- being ambivalent ('maybe') to actively engaged ('will')
- being resistant to change to being open to it (regarding reporting).

Targeted approaches We need to target different fisher groups:

- Regional approaches will assist build connections.

It can be applied at an individual, local & national level



Contemplation

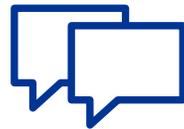
Preparation

Activation

Starting conversations



Growing conversations



Sustaining conversations



We have a problem:

We need to 'nudge' current low levels of understanding of the problem to connect communities with a common cause – as they define it – in relation to the provision of food & potential extinction of species

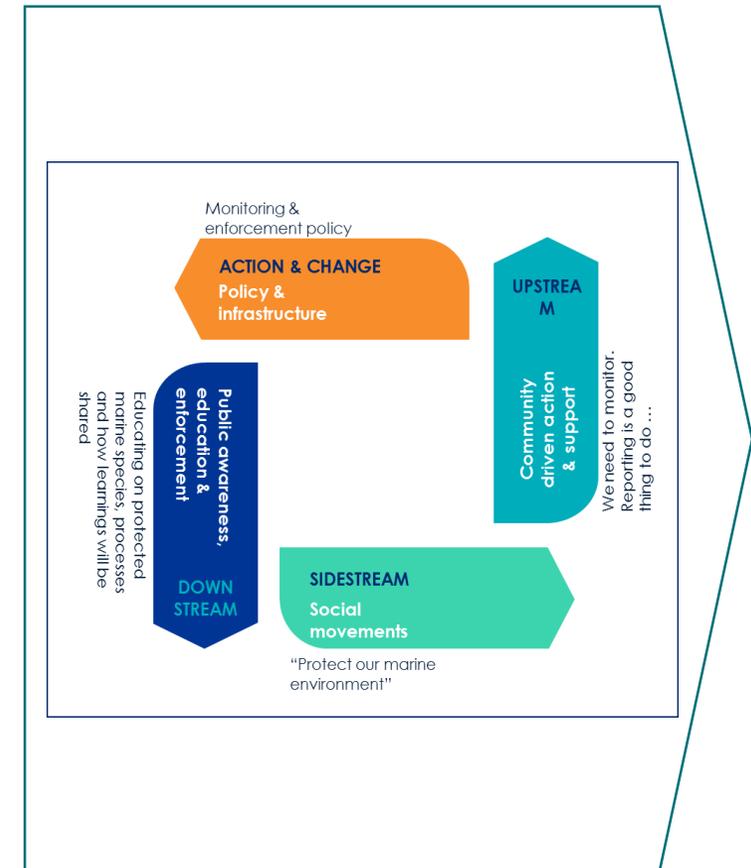
We can – and we must – do something about it:

- We can all make a difference
- Accidental bycatch might happen Everyone makes mistakes; what can we do to stop the mistakes?
- I want to do something to help
- What can I do to help?

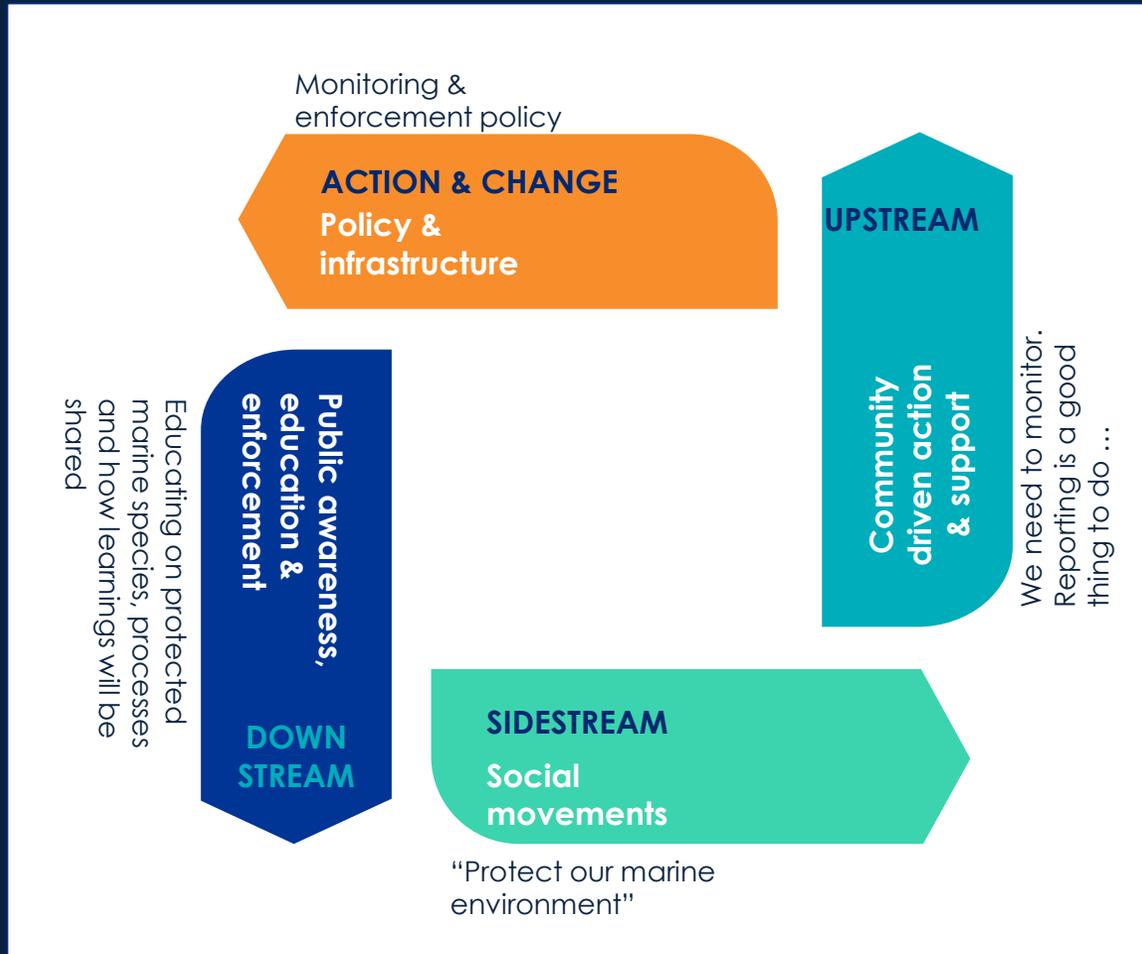
Everyone has a stake in the conversation – and a perspective, and everyone has a story to tell:

- It made a difference when we ...
- If we do it this way ...
- Reporting is helping solve a problem we care about ...
- Seeing the information is helping me understand what I can do ...
- Now I'm going to ...

'SUDA' (Side-stream, Up-stream, Down-stream and Action & Change) behaviour change model



SenateSHJ's SUDA model

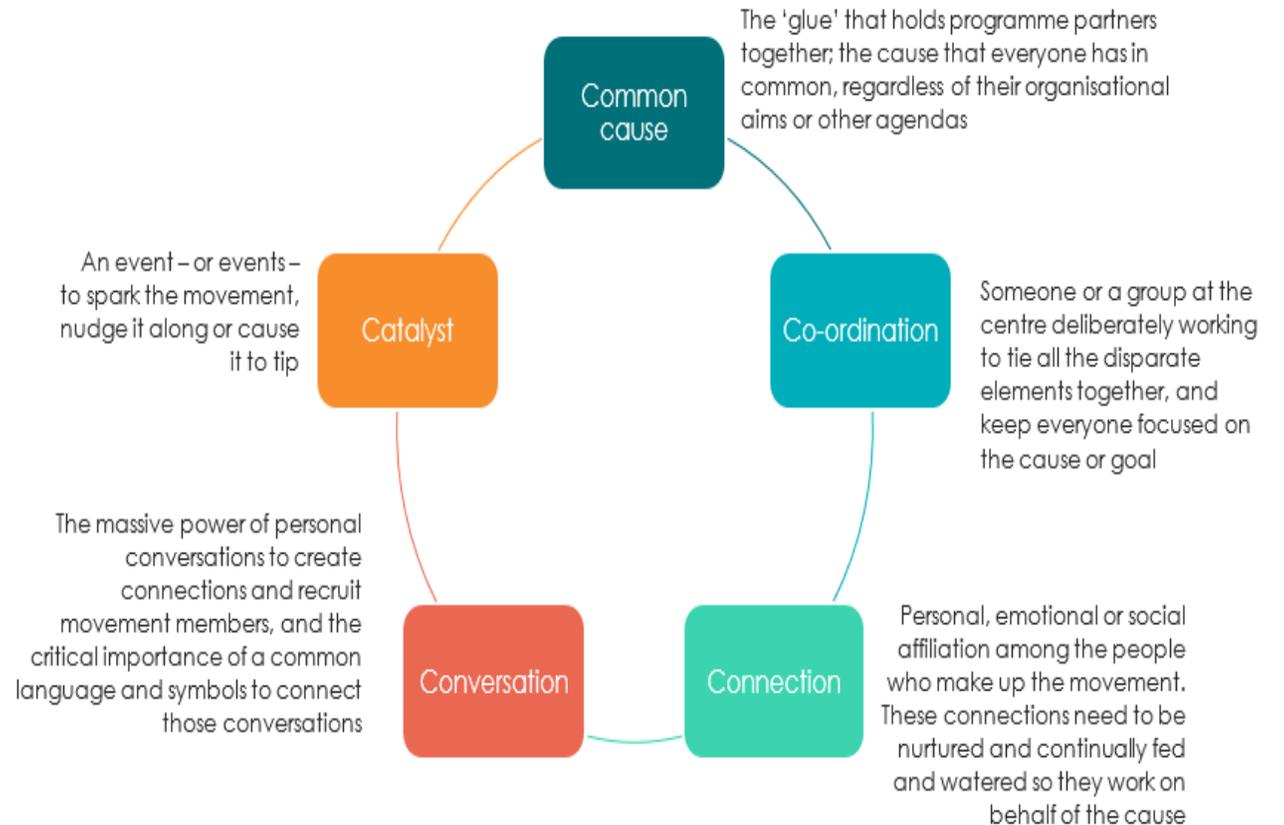


- Our engagement framework was informed by the 'SUDA' (Side-stream, Up-stream, Down-stream and Action & Change) behaviour change model.
- This model recognises that no one approach to communication and behaviour change is enough to create the fundamental shift DOC requires.
- The SUDA model informs the approach in four critical areas that will act as part of a communication eco-system that will need to be delivered if we are to elicit behaviour change:
 1. Policy & infrastructure
 2. Public awareness, education & enforcement
 3. Social movements
 4. Community-driven action and support – that drives change to our Safe System approach.
- Understanding that the communications strategy needs to operate at all 'four levels' is crucial. Vital to creating the social movement we need, will be using the right people and organisations to initiate and then sustain community engagement and care.
- This approach draws on SenateSHJ's social movement model which is based on five key factors:
 1. A Common Cause
 2. A Coordinated Campaign
 3. A Connection
 4. A Conversation
 5. A Catalyst.

Social movement

5 C's model

- A powerful tool that uses conversation (i.e. communication & engagement) to activate care for an issue and to encourage groups and communities to join together in support of a common cause.
- Assists in identifying and tapping into social moods or movements that already exist; and by building key partnerships and collaborations, to allow change to spread more quickly
- Good social engagement involves connecting with communities to share information and ideas, to build understanding and relationships, and to work towards better outcomes.
- Some of the outcomes of good social engagement include:
 - ideas being shared and improved;
 - stakeholders feeling listened to;
 - all key stakeholders contributing to the design process; and
 - successful implementation of developed plans/strategies



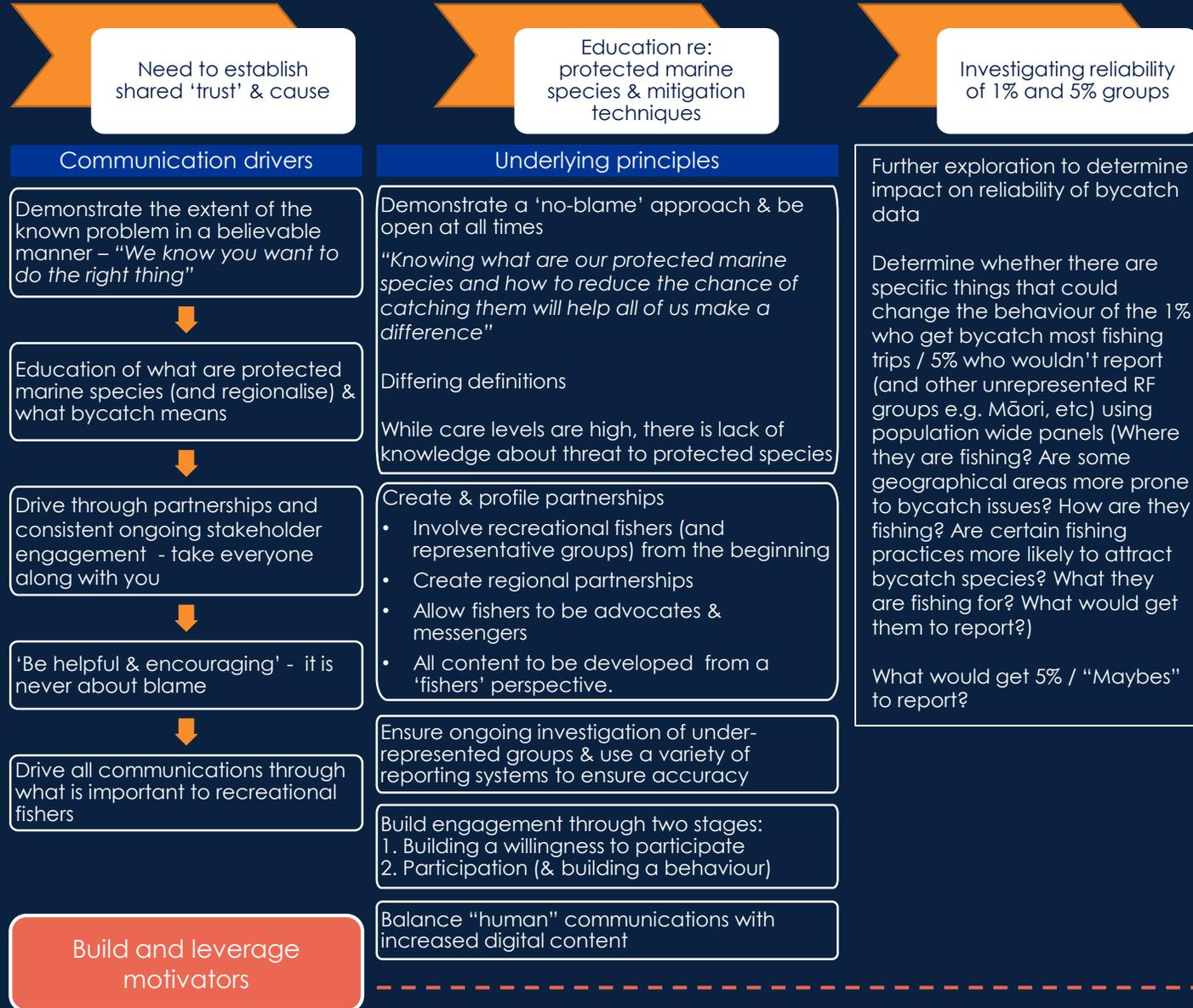
Two stage Engagement Framework

Stages

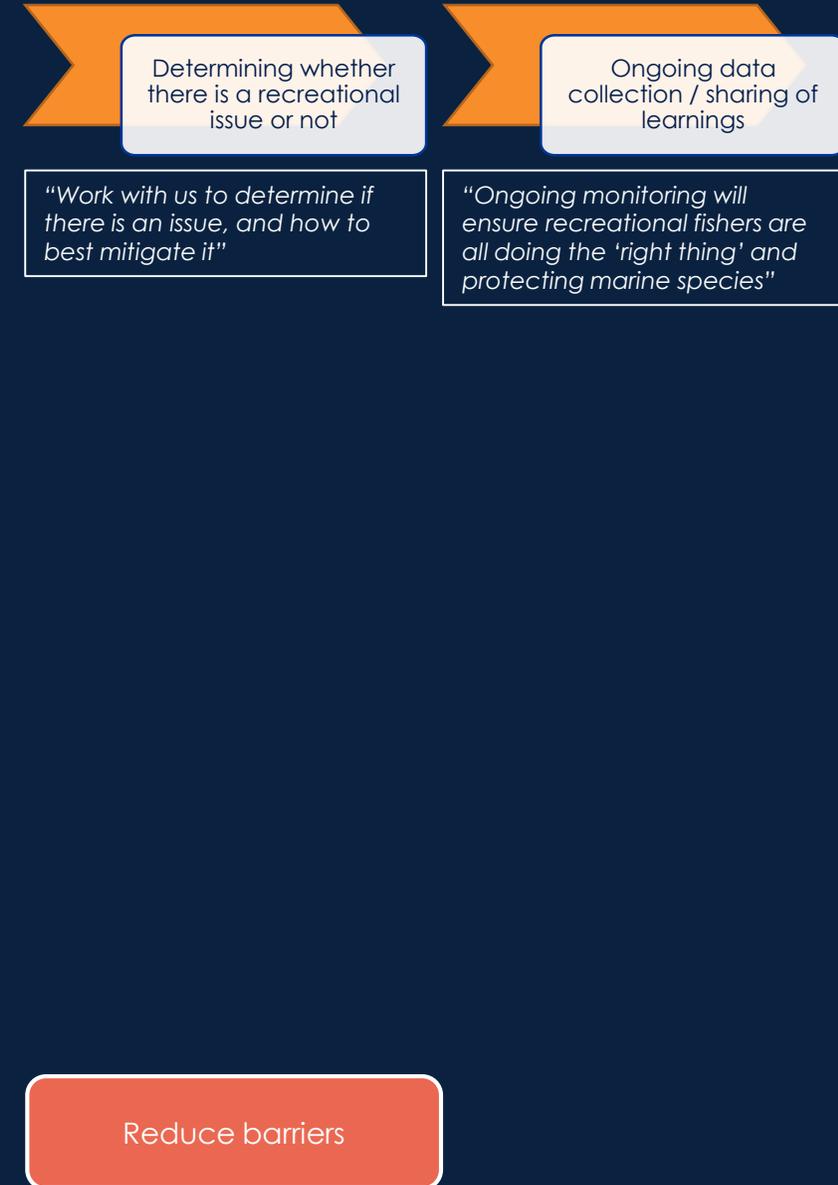
1. Building a willingness to participate

Five phases of engagement

Sentiment / out-take

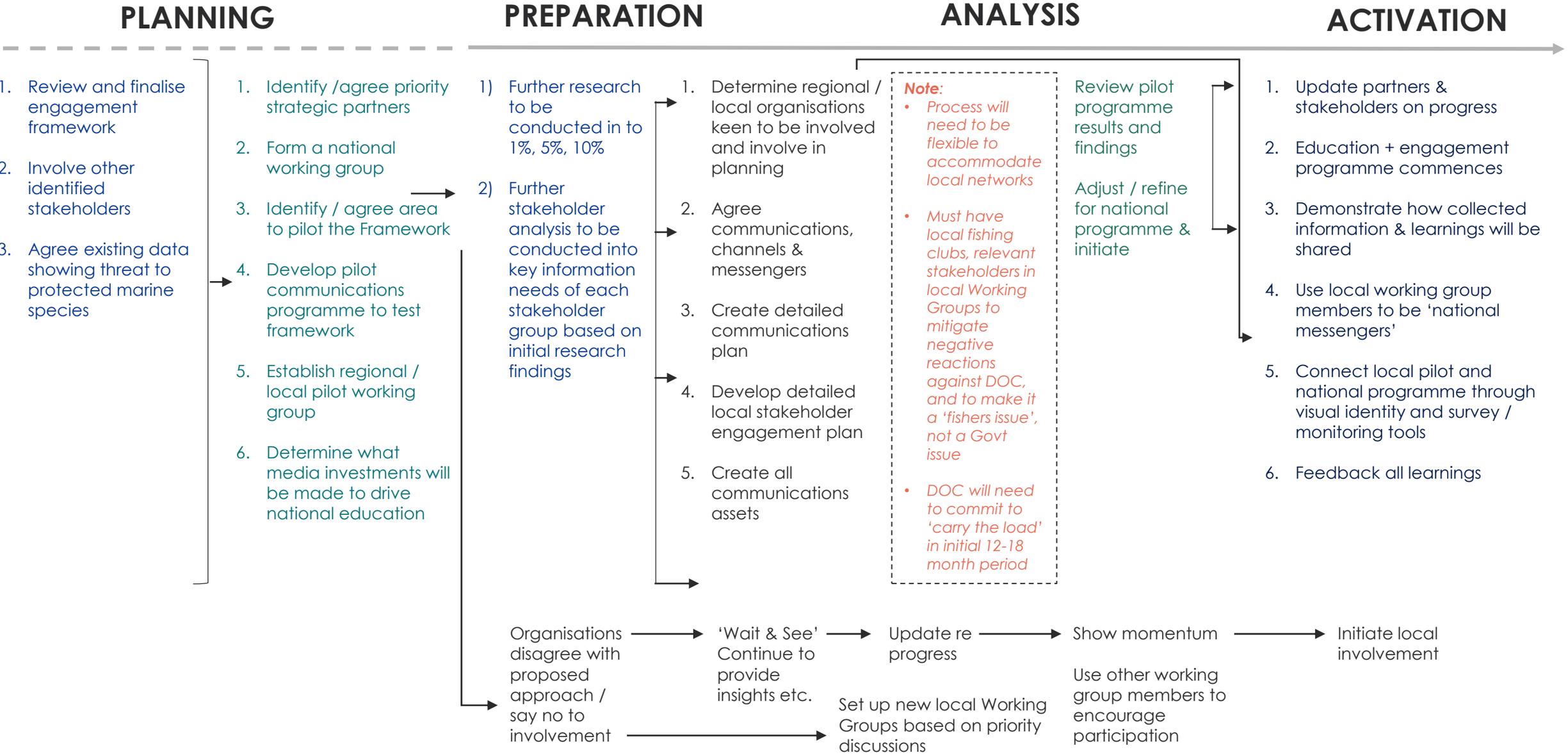


2. Participation (& building a behaviour)



Pathway to stakeholder engagement

Stakeholder engagement pathway



Driving productive conversation...

Productive
conversation

We all need to play a role in monitoring our marine environment & protected species

New Zealanders

Current
conversation

We hardly catch any bycatch, if at all. It's the commercial fisher's fault

Recreational fishers

Rejected
conversation

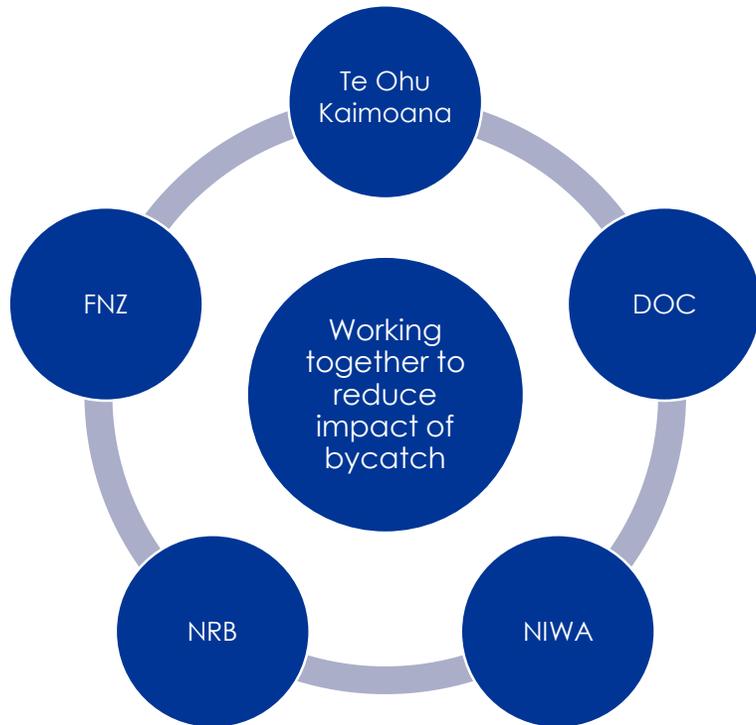
Most are released unharmed. Won't report.

Very active fishers

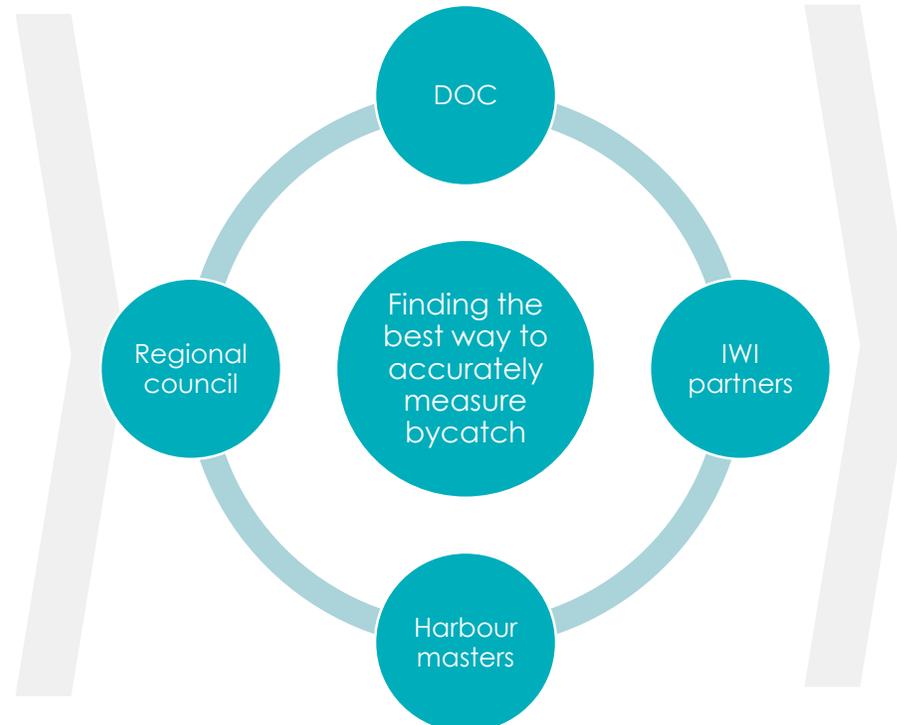
Bycatch

...supported by de-centralised messaging

National working group



Regional/local pilot working groups



Local activation

Delivering good outcomes for all



Recommended tactics / next steps

Recommended tactics / next steps

1. **Form national stakeholder working group** as governing body for project
2. **Form regional stakeholder working group** to run engagement framework trial
3. **Pilot trial in Hauraki Gulf** planning process commenced, run by regional stakeholder group
4. **Further research and analysis** to be conducted into testing the groups that will have the most impact on the reliability of the bycatch data collection:
 - the 1% of fishers who say they catch bycatch almost every fishing trip
 - the 10% who say they have accidentally caught bycatch on some / a few fishing trips and
 - 5% who say they wouldn't report bycatch
 - Groups underrepresented in initial survey i.e. Māori and Asian
5. **Further stakeholder analysis** to be conducted into key information needs of each stakeholder group based on initial research findings

Recommended tactics / next steps

1. **Development of strategic, decentralised messaging** for national, regional and local use
2. **Stakeholder engagement plans** (national, regional & local) developed
3. **Communication plan developed**
 - To include education content on protected marine species, and means of providing to recreation fishers
4. **Design and build of data reporting assets**
 - DOC would ideally provide a range of reporting options to collect bycatch information from fishers, for example utilising:
 - The NZ Fishing Rules app: which already has a good subscription base – and would collect information from a range of fishing types not just using boat ramps
 - Boat ramp surveys: for those that don't have the reporting app and/or don't like using apps
 - 0800 number: for those who don't like using apps and to collect information from a range of fishing types, not just those using boat ramps.

Questions

Thank you

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