

Adaptation preparedness: 2020/21 baseline

A summary of reporting organisation responses to the first information request under the Climate Change Response Act 2002



Environment Manatū Mō Te Taiao

New Zealand Government

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This document may be cited as: Ministry for the Environment. 2021. Adaptation preparedness: 2020/21 baseline – A summary of reporting organisation responses from the first information request under the Climate Change Response Act 2002. Wellington: Ministry for the Environment.

Published in August 2021 by the Ministry for the Environment Manatū Mō Te Taiao PO Box 10362, Wellington 6143, New Zealand

ISBN: 978-1-99-003367-4

Publication number: ME 1580

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This document is available on the Ministry for the Environment website: www.environment.govt.nz.

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Introduction

Purpose of the request for information

In 2019 the Government passed the Zero Carbon amendments to the Climate Change Response Act 2002 (the Act). These amendments brought adaptation into the purpose of the Act and set out a framework for climate change adaptation, requiring a National Climate Change Risk Assessment (NCCRA) and National Adaptation Plan (the Plan) to be produced on recurring six-year cycles.

The NCCRA is required to identify the most significant risks to New Zealand from climate change and was first published in August 2020. The National Adaptation Plan is required to set out the actions the Government will take to address the risks identified in the NCCRA. The first National Adaptation Plan is underway and is due to be published in August 2022.

The amendments to the Act also established an independent Climate Change Commission (the Commission) to provide independent, expert advice to the Government and to monitor and review the Government's progress towards its climate goals. The Commission is required to report on the implementation and effectiveness of the NAP every two years following its publication.

In addition, the amendments also allow the Minister of Climate Change and the Commission to request information on how organisations that provide essential services are preparing for the impacts of climate change. This provision allows the Commission to monitor the preparedness of these organisations over time, thereby indicating the effectiveness of actions to support organisations prepare for the impacts of climate change.

There are currently more than 400 organisations in New Zealand that could be asked to respond to requests for information. Section 5ZW of the CCRA lists these organisations (appendix 1). Examples include:

- lifeline utilities, which are public and private-sector entities providing fuel, electricity, water, transport, and telecommunications infrastructure
- local government agencies
- central government, crown entities, and state-owned enterprises
- the Police and New Zealand Defence Force.

In future, some organisations may also be required to provide information under the proposed mandatory climate-related financial disclosures regime. As proposed, publicly listed companies, insurers, banks, and some investors would be required to disclose financially material risks and opportunities from climate change that may have an impact on financial performance in annual or financial reports. The disclosure regime is intended to inform investment and business decision-making. In response to select committee feedback, the information requirements outlined in the Climate Change Response Act were amended to align with the Taskforce on Climate-Related Financial Disclosures (TCFD) recommendations. This alignment allows organisations to repurpose information between regimes and reduce duplication of effort.

What we requested

On 3 September 2020, the Ministry for the Environment requested information from around 400 organisations on how they are preparing for the impacts of climate change. The request was made under delegated authority from the Minister of Climate Change.

Organisations were asked to provide high-level information about how they are preparing for the impacts of climate change. Questions were categorised under the four key themes as outlined in table 1.

Theme	Purpose of questions
Risks and impacts	To test reporting organisations' general awareness and understanding of impacts and risks from climate change.
Risks of most significance	To gather information on the risks from the National Climate Change Risk Assessment that are expected to impact the quality or consistency of services delivered by reporting organisations.
Strategy, governance, and metrics	To gather information about the internal governance and decision- making processes of reporting organisations.
Support and resources	To gather information about the support and resource requirements of reporting organisations.

Table 1: Key themes from the request for information

Response analysis and next steps

This document summarises the information the Ministry for the Environment received from the information request of 3 September 2020.

The responses will help us to understand current levels of climate change preparedness across the organisations that responded. This will establish the baseline from which to measure future change and support monitoring and evaluation efforts. The information will also form part of the evidence for the development of the National Adaptation Plan (the Plan).

We have not received responses from all organisations who were requested to provide information. However, we are confident that response rates are sufficient that the information obtained is representative of all reporting organisations. The use of reporting organisation throughout the report therefore refers to the group as a whole. There will be opportunity to test survey findings with reporting organisations during stakeholder engagement.

What we heard

Who responded to the information request?

We received 220 responses, representing just over half of the total number of organisations who were sent the request. The response rate and proportion of total responses by reporting organisation type are shown in table 2 and figure 1.

Type of reporting organisation		No. of responses	Response rate
Central government		21	64%
Local government		61	78%
Lifeline utilities		50	49%
Council-controlled organisations		29	64%
State services ¹	Crown entities	48	43%
	State-owned enterprises	3	43%
	Public finance companies	7	64%
Total		220	56%

Table 2: Response rate by reporting organisation type

Figure 1: Breakdown of responses by type of reporting organisation



¹ Note: Crown entities, state-owned enterprises and public finance companies have been analysed together as a single state services group throughout this report.

Key findings

Risks and impacts

The majority of respondents consider how climate change impacts their ability to carry out their functions, whether that means developing policy or delivering services:

- ninety-two per cent of respondents consider how climate change will impact their ability to carry out functions and deliver services
- only 15 per cent of respondents currently document these impacts.

Few respondents document impacts or have action plans in place to address these impacts:

- seventy-six per cent of respondents indicated they have access to relevant climate change data
- thirty-six per cent indicate they use data to develop plans or strategies to manage the impacts.

Risks of most significance

For policy and service delivery organisations, the risks of most concern included:

- B1 risks to buildings due to extreme weather events, drought, increased fire weather and ongoing sea-level rise (72 per cent of respondents)
- N1 risks to coastal ecosystems, including the intertidal zone, estuaries, dunes, coastal lakes and wetlands due to ongoing sea-level rise and extreme weather events (70 per cent of respondents)
- H1 risks to social cohesion and community wellbeing from displacement of individuals, families and communities due to climate change impacts (66 per cent of respondents).

Strategy, governance, and metrics

Policy and service delivery organisations who responded only sometimes consider the impacts of climate change in their investment decisions, with just over half currently reporting these risks to a governance board.

In terms of a strategy for adapting to the impacts of climate change:

- thirty-six per cent of respondents have existing plans or strategies
- thirty-five per cent of respondents indicated they are in the process of developing such strategies.

A small number of policy and service delivery organisations have the ability to assess the effectiveness of their strategies:

- twenty-one per cent of respondents have indicators or measures to monitor and manage the effect of their actions
- another 22 per cent of respondents are in the process of developing these.

Priority actions or resources

Priority actions or resources that could better help policy and service delivery organisations prepare for the impacts of climate change were identified as:

- tools to help quantify impacts from climate change (79 per cent of respondents)
- guidance on how to assess and consider the impacts of climate change on an organisation (75 per cent of respondents).

Actions relating to legislative requirements were the least-selected resources to assist in preparing for climate change impacts (37 per cent of respondents).

Barriers to effective adaptation action were identified as:

- lack of awareness/education of impacts of climate change by decision-makers/the wider community (60 per cent of respondents)
- lack of tools/methods by which to engage decision-makers/the community (49 per cent of respondents).

The information we received

Question 1. Is your organisation aware of the impacts that climate change may have on its ability to carry out functions?

Respondents were invited to pick one of the following responses:

- Climate change impacts are well understood and documented
- Climate change impacts are acknowledged but only partially understood or documented
- Climate change impacts are poorly understood and not documented or considered
- We have not considered climate change impacts to date
- Unsure

Ninety-two per cent of respondents consider how climate change will impact their ability to carry out functions and deliver services. Only 15 per cent of respondents currently document these impacts. Eight per cent of reporting organisations have not considered climate impacts at all. Another eight per cent indicated that climate change impacts are poorly understood.

Responses by type of reporting organisation

Figure 2 demonstrates how awareness of climate change impacts varies by type of reporting organisation.

Understanding of climate change varied the most amongst state services. Although 10 per cent of organisations indicated that climate change impacts are well understood, 31 per cent have either not considered climate change impacts to date or have a poor understanding of these impacts. Two per cent indicated they are unsure how climate change may impact their ability to carry out their functions and services.

Most central government agencies (90 per cent) and council-controlled organisations (73 per cent) acknowledged that the impacts from climate change are likely to affect their ability to provide functions and services. However, none of these agencies indicated that they understand these impacts well. Lifeline utilities have the greatest understanding of how climate change impacts will influence their ability to carry out their functions and services with 32 per cent of organisations indicating that climate change impacts are well understood and documented. This is followed by local government agencies at 13 per cent.



Figure 2: Is your organisation aware of the impacts that climate change may have on its ability to carry out functions?

Question 2. Does your organisation have access to data related to the impacts from climate change?

Respondents were invited to pick one of the following responses:

- Yes at a regional, local and asset level
- Yes at a regional and local level
- Yes at a regional level
- No
- Unsure

There is considerable variation in both the extent and type of climate data organisations have access to. Seventy-six per cent of organisations indicated that they have access to some form of relevant climate change data. Of the 76 per cent that have access to climate data, 30 per cent hold this at a regional, local and asset level, and 37 per cent at a regional and local level. The final 33 per cent hold data at the regional level. Thirty-six per cent indicate they use data to develop plans or strategies to manage the impacts.

Fifteen per cent of organisations indicated that they do not have access to climate-related data and nine per cent are unsure of their access to relevant climate data.

Responses by type of reporting organisation

Figure 3 outlines how access to data related to the impacts from climate change varies by type of reporting organisation.

Access to climate change impact data is greatest amongst local government agencies. Ninety-seven per cent of those who responded have access to some form of climate-related data. This is followed by lifeline utilities (86 per cent) and council-controlled organisations (74 per cent). Central government agencies and state services have poorer access (55 per cent and 54 per cent respectively).

Fifteen per cent of state services and central government agencies were unsure whether their organisations had access to climate-related data. This figure was 13 per cent for council-controlled organisations.



Figure 3: Does your organisation have access to data related to the impacts from climate change?

Question 3. Has your organisation assessed its exposure to climate change impacts, in terms of its ability to continue to carry out functions and deliver services?

Respondents were invited to pick one of the following responses:

- Yes, accurate (quantitative) exposure data is held for all relevant climate change impacts
- Accurate exposure data is held for some climate change impacts
- No accurate exposure data, but climate change impacts relevant to our organisation are documented
- Limited or no understanding and assessment of exposure to relevant climate change impacts
- Unsure

Twenty-eight per cent of organisations who responded to this question indicated that they have carried out an assessment of their exposure to some of the climate impacts relevant to their functions and services. Of these organisations, seven per cent indicated that they hold quantitative data for all relevant climate change impacts. The other 93 per cent hold this data for some climate impacts.

Thirty-four per cent of reporting organisations indicated either limited or no understanding of how they are exposed to the impacts of climate change. The other 31 per cent hold no exposure data but indicated they understand which climate change impacts are relevant to their organisation.

Seven per cent of organisations were unsure if their organisation has assessed its exposure to climate change impacts.

Responses by type of reporting organisation

Figure 4 demonstrates how assessment of exposure to climate change impacts varies by type of reporting organisation.

Assessment of exposure to climate change impacts is more frequent amongst local government agencies and lifeline utilities than other types of reporting organisations. Forty-five per cent of local government agencies hold accurate exposure data for at least some climate impacts; this figure is 36 per cent for lifeline utilities.

Central government agencies have the poorest assessment of exposure; 50 per cent indicated they have limited or no understanding and assessment of exposure to relevant climate change impacts. Accurate exposure data is held by 10 per cent of central government agencies and only for some climate impacts. Twelve per cent of state services hold some form of accurate exposure data; 55 per cent said they have limited or no understanding of their exposure to the impacts of climate change.

Twenty-seven per cent of council-controlled organisations hold accurate exposure data for at least some climate impacts. Thirty-three per cent do not hold accurate exposure data but document impacts relevant to their organisation. Another 33 per cent indicated they have limited or no understanding of their exposure to the impacts of climate change.



Figure 4: Has your organisation assessed its exposure to climate change impacts, in terms of its ability to continue to carry out functions and deliver services?

Question 4. Specifically, has your organisation assessed its vulnerability to climate change impacts, in terms of its ability to continue to carry out functions and deliver services?

Respondents were invited to pick one of the following responses:

- Yes, vulnerability to climate change impacts is well understood and integrated into decision-making processes
- Some assessment of vulnerability to climate change impacts has been done, but this is not well embedded in organisational processes
- Limited or no assessment or understanding of vulnerability to climate change impacts
- Unsure

Fifty-eight per cent of organisations who responded to this question said they have carried out some form of assessment of their vulnerability to the impacts of climate change. Of these organisations, 14 per cent believe that this vulnerability is well understood and integrated into decision-making processes.

Thirty-seven per cent of organisations said that they have limited or no understanding of how their organisation is vulnerable to climate change impacts. Five per cent of organisations are unsure if their organisation has assessed vulnerability to climate change impacts.

Responses by type of reporting organisation

Figure 5 demonstrates how assessment of vulnerability to climate change impacts varies by type of reporting organisation.

Assessment of vulnerability to the impacts of climate change is more frequent amongst lifeline utilities than other types of reporting organisations. Eighty-two per cent of lifeline utilities have carried out some form of assessment of their vulnerability. This figure is lower for council-controlled organisations, local government agencies and central government agencies at 47 per cent, 44 per cent and 38 per cent, respectively.

State services have the lowest assessment of vulnerability. Fifty-nine per cent of state services indicated limited or no assessment or understanding of vulnerability to climate change impacts. Five per cent of these entities indicated they understand this vulnerability well.



Figure 5: Specifically, has your organisation assessed its vulnerability to climate change impacts, in terms of its ability to continue to carry out functions and deliver services?

Question 5. Does your organisation have a plan or strategy to improve its resilience and/or the resilience of the community it serves to climate change impacts?

Respondents were invited to pick one of the following responses:

- Yes, specifically for resilience to climate change impacts
- Yes, but it is not focused exclusively on climate change (eg, risk and resilience strategy)
- A plan is in development
- No
- Unsure

Thirty-six per cent of respondents have existing plans or strategies to improve resilience to the impacts of climate change. Of these organisations, 23 per cent have plans specifically for resilience to climate change impacts. For the other 77 per cent of organisations, resilience considerations are integrated into existing plans and strategies.

Thirty-five per cent of reporting organisations indicated they are in the process of developing such strategies. Twenty-seven per cent do not have plans or strategies and another two per cent were unsure of their climate change impact plans or strategies.

Responses by type of reporting organisation

Figure 6 indicates how strategies or plans to improve resilience to climate change impacts vary by type of reporting organisation.

Responses to this question varied considerably by type of reporting organisation. Although only two per cent of lifeline utilities have plans focused exclusively on climate change, just under half (46 per cent) indicated that they address climate-related risks through other plans and strategies. These figures were similar for central government agencies: five per cent have climate change-specific plans and 35 per cent address climate-related risks through other plans and strategies.

Local government agencies have the highest number of plans focused exclusively on the impacts of climate change (18 per cent). Another 46 per cent indicated that they were in the process of developing plans and strategies.

Twenty-eight per cent of state services address climate-related risks through their plans and strategies (seven per-cent through climate-exclusive plans). Forty-one per cent do not have (and are not currently developing) plans to address climate-related risks.

No council-controlled organisations have plans or strategies focused exclusively on climate change. However, 27 per cent indicated they address climate-related risks through other plans and strategies and another 33 per cent are in the process of developing a plan.



Figure 6: Does your organisation have a plan or strategy to improve its resilience and/or the resilience of the community it serves to climate change impacts?

Question 6. Does your organisation have any indicators or measures to help it monitor and manage its risks from climate change impacts?

Respondents were invited to pick one of the following responses:

- Yes
- These are in development
- No
- Unsure

Less than half of the organisations who responded to this question have indicators or measures to monitor and manage risks from climate change impacts. Twenty-one per cent of organisations have indicators or measures to monitor and manage the effect of their actions. Another 22 per cent of organisations are in the process of developing these. Fifty-three per cent of organisations do not have (and are not currently developing) any indicators or measures. The final four per cent were unsure whether these existed for their organisation.

Responses by type of reporting organisation

Figure 7 shows how indicators or measures to monitor and manage risks from climate change impacts vary by type of reporting organisation.

Fifteen per cent of central government agencies have indicators or measures to monitor and manage risks from the impacts of climate change. Seventy-five per cent stated they do not have any indicators or measures (and are not currently developing these). These figures are similar for state services; twelve per cent currently have indicators or measures related to climate impacts. Seventy-four per cent stated they do not have any indicators or measures (and are not currently developing these) are similar for state services; twelve per cent stated they do not have any indicators or measures (and are not currently developing these).

Seven per cent of council-controlled organisations have indicators or measures to monitor and manage risks from the impacts of climate change. However, another 33 per cent indicated they are in the process of developing these.

Lifeline utilities and local government agencies are the most advanced in indicator development. Thirty per cent of lifeline utilities have indicators or measures related to climate impacts and another 28 per cent are in the process of developing these. These figures are 28 per cent and 33 per cent for local government agencies.



Figure 7: Does your organisation have any indicators or measures to help it monitor and manage its risks from climate change impacts?

Question 7. Are risks to your organisation's ability to carry out functions and deliver services from the impacts of climate change reported to your organisation's governance board?

Respondents were invited to pick one of the following responses:

- Yes, more often than annually
- Yes, annually
- Yes, less often than annually
- Not at all
- Unsure

Just over half of reporting organisations who responded to this question report risks to their ability to carry out functions and deliver services to their governance board at some frequency. Of these organisations, 51 per cent report more often than annually. Twenty-six per cent report annually and 23 per cent report less often than annually. Thirty-five per cent of organisations do not report at all and 14 per cent were unsure of their organisation's climate impact reporting practices.

Responses by type of reporting organisation

Figure 8 indicates how the existence of strategies or plans to improve resilience to climate change impacts vary by type of reporting organisation.

Seventy-six per cent of lifeline utilities and 64% of local government agencies indicated that they report climate-related risks to their governance board at some frequency. Forty-seven per cent of council-controlled organisations report climate-related risks to their governance board at some frequency. This figure was much lower for central government agencies (25 per cent) and state services (26 per cent).

Twenty-one per cent of state services were unsure whether risks to their ability to carry out functions and deliver services from the impacts of climate change are reported to their governance board. This figure was also relatively high for local government and council-controlled organisations at 16 per cent and 15 per cent, respectively.



Figure 8: Are risks to your organisation's ability to carry out functions and deliver services from the impacts of climate change reported to your organisation's governance board?

Question 8. Does your organisation require the impacts of climate change and adaptation options to address these impacts to be assessed and considered in decision-making?

Respondents were invited to pick one of the following responses:

- Yes
- For some projects
- Not yet, but this is in development
- No
- Unsure

Forty-nine per cent of reporting organisations that responded to this question said they consider climate impacts and adaptation in their decision-making processes. Of these organisations, 62 per cent only do so for some projects. Twenty-one per cent of organisations are developing processes for considering climate impacts and adaptation in their decision-making processes. Twenty-five per cent of organisations do not do this at all and five per cent said they were unsure.

Responses by type of reporting organisation

Figure 9 demonstrates how climate change considerations in decision-making vary by type of reporting organisation.

Sixty-four per cent of local government agencies consider the impacts of climate change and adaptation options in decision-making processes. Another twenty-six per cent are currently developing processes for considering climate change impacts in decision-making.

Thirty-nine per cent of lifeline utilities currently consider the impacts of climate change and adaptation options in decision-making processes. A further 28 per cent are developing processes for this.

Thirty-five per cent of central government agencies currently consider the impacts of climate change and adaptation options in decision-making processes and a further 15 per cent indicated that this is in development. These figures are similar for state services. Thirty-one per cent have built this into decision-making processes already and 17 per cent stated these processes are in development.

Sixty-seven per cent of council-controlled organisations currently consider the impacts of climate change and adaptation options in decision-making processes. However, the remaining 33 per cent do not (and are not currently developing processes to) consider climate change at all in decision-making.



Figure 9: Does your organisation require the impacts of climate change and adaptation options to address these impacts to be assessed and considered in decision-making?

Question 9. Which actions or resources would help your organisation to better prepare for the impacts of climate change?

Respondents were invited to pick as many of the following responses as applied:

- More information about how climate change is projected to impact a region or a district
- Guidance on how to assess and consider the impacts of climate change on your organisation
- Tools to help quantify impacts from climate change on your organisation
- Methodology for assessing and quantifying climate change risks
- Legislative requirements to consider/plan for the effects of climate change
- Legislative requirements to publicly report on your organisation's climate risks and adaptation plans
- Opportunities to engage and learn from others
- Training to develop skills/capabilities
- Improved and centralised data repository
- Good practice guides, benchmarking and assessment tools
- Funding to implement a strategy and deliver on-the-ground adaptation actions

Figure 10 indicates that *tools to help quantify impacts from climate change on your organisation* was the most sought-after resource to assist reporting organisations to better prepare for the impacts of climate change (74 per cent of organisations selected this resource in their survey responses). The next most frequently selected barriers were *methodology for assessing and quantifying climate change risks and guidance on how to assess and consider the impacts of climate change on your organisation* (both resources were selected by 69 per cent of organisations in their survey responses). The least selected resources to assist reporting organisations to better prepare for the impacts of climate change were those related to legislative requirements. Thirty-seven per cent of reporting organisations selected legislative requirements to publicly report on your organisation's climate risks and adaptation plans and 46 per cent selected *legislative requirements to consider/plan for the effects of climate change*.

Figure 10: Which actions or resources would help your organisation to better prepare for the impacts of climate change?



Responses by type of reporting organisation

Consistent with the general results, all reporting organisations (except for council-controlled organisations) identified *tools to help quantify impacts from climate change on your organisation* as a key resource to assist in preparing for the impacts of climate change. Resources related to legislation were the least selected resources. Legislative requirements to publicly report on an organisation's climate risks and plan for climate change were the least selected resources by all reporting organisations. Out of all reporting organisations, lifeline utilities and council-controlled organisations expressed the least need for resources or actions to assist in preparing for the impacts of climate change. Central government indicated the greatest need for actions and resources. Twenty-four per cent of organisations selected all eleven resources in their response to this question.

Table 3 shows how priority resources to help organisations prepare for the impacts of climate change vary by type of reporting organisation.

Ranking	Central government	Local government	Lifeline utilities	State services	Council-controlled organisations
#1	Tools to help quantify impacts from climate change on your organisation. (81% of central government agencies selected these resources in their response to this question.)	Funding to implement a strategy and deliver on-the- ground adaptation actions. (95% of local government agencies selected this resource in their response to this question.)	More information about how climate change is projected to impact a region or a district. (82% of lifeline utilities selected this resource in their response to this question.)	Guidance on how to assess and consider the impacts of climate change on your organisation. (84% of state services selected this resource in their response to this question.)	Methodology for assessing and quantifying climate change risks. (38% of council- controlled organisations selected this resource in their response to this question.)
#2	Guidance on how to assess and consider the impacts of climate change on your organisation. (81% of central government agencies selected this resource in their response to this question).	Tools to help quantify impacts from climate change on your organisation. (92% of local government agencies selected this resource in their response to this question.)	Opportunities to engage and learn from others. (74% of lifeline utilities selected this resource in their response to this question.)	Good practice guides, benchmarking, and assessment tools. (78% of state services selected this resource in their response to this question.)	Good practice guides, benchmarking, and assessment tools. (38% of council- controlled organisations selected this resource in their response to this question.)
#3	Training to develop skills/capabilities. (76% of central government agencies selected this resource in their response to this question.)	Methodology for assessing and quantifying climate change risks. (85% of local government agencies selected this resource in their response to this question.)	Tools to help quantify impacts from climate change on your organisation. (72% of lifeline utilities selected this resource in their response to this question.)	Tools to help quantify impacts from climate change on your organisation. (76% of state services selected this resource in their response to this question.)	Funding to implement a strategy and deliver on-the- ground adaptation actions. (38% of council- controlled organisations selected this resource in their response to this question.)

Table 3: Priority actions and resources by type of reporting organisation

Question 10. What are the barriers to an effective adaptation response that are faced by your organisation?

Respondents were invited to pick as many of the following responses as applied:

- Lack of awareness/education regarding the impacts of climate change by decisionmakers/the wider community
- Lack of political will or desire from the community for change
- Lack of tools/methods by which to engage decision-makers/the community
- Inflexibility of current legislation

Figure 11 indicates that *lack of awareness/education regarding the impacts of climate change by decision-makers/the wider community* was the most selected barrier to an effective adaptation response. Sixty per cent of organisations selected this barrier in their responses to this question. The least selected barrier was *inflexibility of current legislation* (selected by 25 per cent of reporting organisations). This is consistent with the responses to question nine. Seven per cent of organisations selected all barriers in their response to this question.

Figure 11: What are the barriers to an effective adaptation response that are faced by your organisation?



Responses by type of reporting organisation

Table 4 demonstrates how barriers to effective climate change adaptation vary by type of reporting organisation.

Lack of awareness/education regarding the impacts of climate change by decision-makers/the wider community was the most selected barrier for all types of reporting organisations except

lifeline utilities. For lifeline utilities, the most commonly selected barrier to an effective adaptation response was *lack of tools/methods by which to engage decision-makers/the community*. However, this was closely followed by *lack of awareness/education regarding the impacts of climate change by decision-makers/the wider community* with 40 per cent of lifeline utilities selecting this resource in response to this question.

Ranking	Central government	Local government	Lifeline utilities	State-services	Council-controlled organisations
#1	Lack of awareness/ education regarding the impacts of climate change by decision- makers/the wider community (76% of central government agencies selected this resource in their response to this question.)	Lack of awareness/ education regarding the impacts of climate change by decision- makers/the wider community (75% of local government agencies selected this resource in their response to this question.)	Lack of tools/ methods by which to engage decision- makers/the community (48% of lifeline utilities selected this resource in their response to this question.)	Lack of awareness/ education regarding the impacts of climate change by decision-makers/the wider community (67% of state services selected this resource in their response to this question.)	Lack of awareness/ education regarding the impacts of climate change by decision-makers/the wider community (38% of council- controlled organisations selected this resource in their response to this question.)

Table 4: Most frequently selected barriers by type of reporting organisation

Appendices

Appendix 1: Climate Change Response (Zero Carbon) Amendment Act 2019, sections 5ZW and 5ZX

Power to request provision of information

5ZW Minister or Commission may request certain organisations to provide information on climate change adaptation

- (1) The Minister or the Commission may, in writing, request that a reporting organisation provide all or any of the following information:
 - (a) a description of the organisation's governance in relation to the risks of, and opportunities arising from, climate change:
 - (b) a description of the actual and potential effects of the risks and opportunities on the organisation's business, strategy, and financial planning:
 - (c) a description of the processes that the organisation uses to identify, assess, and manage the risks:
 - (ca) a description of the metrics and targets used to assess and manage the risks and opportunities, including, if relevant, time frames and progress:
 - (d) any matters specified in regulations.
- (2) The reporting organisation must comply with a request made under subsection (1).
- (3) The Minister must, as soon as practicable, provide the Commission with a copy of any information received in response to a request made by the Minister.
- (3A) The Commission must, as soon as practicable, provide the Minister with a copy of any information received in response to a request made by the Commission.
- (3B) The Minister and the Commission must not publicly disclose any information received in response to a request, unless disclosure of the information is necessary to enable the Minister or the Commission to perform a function or duty imposed by this Part.
- (3C) Subsection (3B) does not apply in respect of information that is already in the public domain.
- (3D) Before publicly disclosing any information received in response to a request, the Minister or Commission must consult with the person to whom the information relates.
- (4) For the purposes of this section and section 5ZW, the following are reporting organisations:
 - (a) the Public Service, as defined in section 27 of the State Sector Act 1988:
 - (b) local government agencies, as defined in section 5(1) of the Local Government Act 2002:
 - (c) council-controlled organisations, as defined in section 6(1) of the Local Government Act 2002:

- (d) Crown entities, as defined in section 7(1) of the Crown Entities Act 2004, but excluding school boards of trustees:
- (e) companies listed in Schedule 4A of the Public Finance Act 1989:
- (f) organisations listed in Schedule 1 of the State-Owned Enterprises Act 1986:
- (g) lifeline utilities listed in Schedule 1 of the Civil Defence Emergency Management Act 2002:
- (h) the New Zealand Police:
- (i) the New Zealand Defence Force.

5ZX Regulations relating to requiring provision of information

- (1) The Governor-General may, by Order in Council made on the recommendation of the Minister, make regulations specifying all or any of the following:
 - (a) requirements that relate to information that is provided in response to a request under section 5ZV(1), including different requirements for different sectors, classes of activity, or geographical areas:
 - (b) a date by which or time within which requested information must be provided to the Minister:
 - (c) ongoing or recurring reporting requirements (for example, requiring the provision of further information at regular intervals following a request):
 - (d) any administrative matters relating to responses to requests.
- (2) In preparing the regulations, the Minister must consider—
 - (a) the ability to tailor a request to reflect the size and capability of the reporting organisation; and
 - (b) the potential extent and significance of climate change effects on the functions of the reporting organisation; and
 - (c) the avoidance of unnecessary duplication of information provided within existing reporting frameworks.
- (3) Before recommending the making of the regulations, the Minister must consult the Commission and the reporting organisations that the Minister considers may be affected by the proposed regulations.

Appendix 2: Copy of climate change adaptation reporting information request

Following the release of the first National Climate Change Risk Assessment, we are requesting information on behalf of the Minister of Climate Change from reporting organisations under section 5ZW of the Climate Change Response Act 2002.

We are asking you to provide high-level information about how your organisation is preparing for the impacts of climate change. The purpose of this request is to inform the development of the National Adaptation Plan, which will respond to the most significant risks identified in the National Climate Change Risk Assessment.

We will use the information to provide a snapshot of how prepared reporting organisations are for climate change. We will also use it to decide whether we will send a second, more targeted request to your organisation.

What will happen to the information provided in this survey?

The Minister of Climate Change is required to share the information received in response to this request with the Climate Change Commission.

We do not intend to publicly disclose the information gathered through this survey. Neither the Minister of Climate Change nor the Climate Change Commission can publicly disclose any information received in response to this request unless its disclosure is necessary to perform a function or duty imposed by Part 1C of the Climate Change Response Act 2002.

Information gathered through this survey may be subject to requests under the Official Information Act 1982. Note there is provision for the protection of commercial or trade sensitive information in Section 9 of the Act.

Personal information

Any personal information you supply will only be used by the Ministry in relation to information requests under the Adaptation Reporting Power. You have the right to request access to or to correct any personal information you supply to the Ministry.

If you would like to access or correct any personal information you have supplied, please email info@mfe.govt.nz. Providing personal information is not mandatory.

Survey questions

- 1. What is your name?
- 2. What organisation do you work for?
- 3. What is your role?
- 4. Please provide contact email.
- 5. Please indicate if you are happy for the Ministry for the Environment to use the contact details provided above for broader climate change-related communications. Yes/No

Risks and impacts

These questions are intended to test general awareness and understanding of impacts and risks from climate change.

- 6. Is your organisation aware of the impacts that climate change may have on its ability to carry out functions and deliver services? For example, impacts from increased flooding, sea-level rise, more heat waves, more intense storms, more droughts and wildfires.
 - a) Climate change impacts are well understood and documented
 - b) Climate change impacts are acknowledged but only partially understood or documented
 - c) Climate change impacts are poorly understood and not documented or considered
 - d) We have not considered climate change impacts to date
 - e) Unsure.
- 7. Please provide further details on why you selected the option you did. For example, links to reports.
- 8. Does your organisation have access to data related to the impacts from climate change?
 - a) Yes at a regional, local and asset level
 - b) Yes at a regional and local level
 - c) Yes at a regional level
 - d) No
 - e) Unsure.
- 9. Please provide details on any data gaps you are aware of for specific climate change impacts.
- 10. Specifically, has your organisation assessed its exposure to climate change impacts, in terms of its ability to continue to carry out functions and deliver services? Note: this includes the exposure of the communities to which these services are provided.
 - a) Yes, accurate (quantitative) exposure data is held for all relevant climate change impacts
 - b) Accurate exposure data is held for some climate change impacts
 - c) No accurate exposure data, but climate change impacts relevant to our organisation are documented
 - d) Limited or no understanding and assessment of exposure to relevant climate change impacts
 - e) Unsure.
- 11. Please provide further details on why you selected the option you did. For example, links to reports.
- 12. Specifically, has your organisation assessed its vulnerability to climate change impacts, in terms of its ability to continue to carry out functions and deliver services? Note: this includes the vulnerability of the communities to which these services are provided.
 - a) Yes, vulnerability to climate change impacts is well understood and integrated into decision-making processes

- b) Some assessment of vulnerability to climate change impacts has been done, but this is not well embedded in organisational processes
- c) Limited or no assessment or understanding of vulnerability to climate change impacts
- d) Unsure.
- 13. Please provide further details on why you selected the option you did? For example, links to reports.

National Climate Change Risk Assessment

The recently published National Climate Change Risk Assessment identified the 10 most significant risks that New Zealand faces from climate change. The risks are grouped according to five value domains: natural environment domain, human domain, economy domain, built environment domain and governance domain.

For each of the risks listed below, indicate to what extent they are expected to impact the quality or consistency of services delivered by your organisation, or impact infrastructure or capital investments owned or used by your organisation. Note: this question also refers to risks affecting the communities to which these services are provided.

- 14. Risks to coastal ecosystems, including the intertidal zone, estuaries, dunes, coastal lakes and wetlands, due to ongoing sea-level rise and extreme weather events.
 - a) Potential for significant impacts
 - b) Potential for minor to moderate impacts
 - c) Unlikely to impact my organisation or the services it delivers
 - d) Unsure.
- 15. Please provide further details on why you selected the option you did.
- 16. Risks to indigenous ecosystems and species from the enhanced spread, survival and establishment of invasive species due to climate change.
 - a) Potential for significant impacts
 - b) Potential for minor to moderate impacts
 - c) Unlikely to impact my organisation or the services it delivers
 - d) Unsure.
- 17. Please provide further details on why you selected the option you did.
- 18. Risks to social cohesion and community wellbeing from displacement of individuals, families and communities due to climate change impacts.
 - a) Potential for significant impacts
 - b) Potential for minor to moderate impacts
 - c) Unlikely to impact my organisation or the services it delivers
 - d) Unsure.
- 19. Please provide further details on why you selected the option you did.

- 20. Risks of exacerbating existing inequities and creating new and additional inequities due to differential distribution of climate change impacts.
 - a) Potential for significant impacts
 - b) Potential for minor to moderate impacts
 - c) Unlikely to impact my organisation or the services it delivers
 - d) Unsure.
- 21. Please provide further details on why you selected the option you did.
- 22. Risks to governments from economic costs associated with lost productivity, disaster relief expenditure and unfunded contingent liabilities due to extreme events and ongoing, gradual changes.
 - a) Potential for significant impacts
 - b) Potential for minor to moderate impacts
 - c) Unlikely to impact my organisation or the services it delivers
 - d) Unsure.
- 23. Please provide further details on why you selected the option you did.
- 24. Risks to the financial system from instability due to extreme weather events and ongoing, gradual changes.
 - a) Potential for significant impacts
 - b) Potential for minor to moderate impacts
 - c) Unlikely to impact my organisation or the services it delivers
 - d) Unsure.
- 25. Please provide further details on why you selected the option you did.
- 26. Risk to potable water supplies (availability and quality) due to changes in rainfall, temperature, drought, extreme weather events and ongoing sea-level rise.
 - a) Potential for significant impacts
 - b) Potential for minor to moderate impacts
 - c) Unlikely to impact my organisation or the services it delivers
 - d) Unsure.
- 27. Please provide further details on why you selected the option you did.
- 28. Risks to buildings due to extreme weather events, drought, increased fire weather and ongoing sea-level rise.
 - a) Potential for significant impacts
 - b) Potential for minor to moderate impacts
 - c) Unlikely to impact my organisation or the services it delivers
 - d) Unsure.

- 29. Please provide further details on why you selected the option you did.
- 30. Risk of maladaptation across all domains due to practices, processes and tools that do not account for uncertainty and change over long timeframes.
 - a) Potential for significant impacts
 - b) Potential for minor to moderate impacts
 - c) Unlikely to impact my organisation or the services it delivers
 - d) Unsure.
- 31. Please provide further details on why you selected the option you did.
- 32. Risk that climate change impacts across all domains will be exacerbated because current institutional arrangements are not fit for adaptation. Institutional arrangements include legislative and decision-making frameworks, coordination within and across levels of government, and funding mechanisms.
 - a) Potential for significant impacts
 - b) Potential for minor to moderate impacts
 - c) Unlikely to impact my organisation or the services it delivers
 - d) Unsure.
- 33. Please provide further details on why you selected the option you did.
- 34. What are the most immediate / urgent climate change risks to be managed from your organisation's perspective?
- 35. Please list any other risks identified in the National Climate Change Risk Assessment that are significant for your organisation.

Strategy, governance and metrics

These questions are designed to gather information about internal governance and decisionmaking processes.

- 36. Does your organisation have a plan or strategy to improve its resilience and/or the resilience of the community it serves to climate change impacts?
 - a) Yes, specifically for resilience to climate change impacts
 - b) Yes, but it is not focused exclusively on climate change (eg, risk and resilience strategy)
 - c) A plan is in development
 - d) No
 - e) Unsure.
- 37. Please provide more information and/or a link to the plan, and comment on its effectiveness.
- 38. What are the barriers to developing a plan?

- 39. Does your organisation have any indicators or measures to help it monitor and manage its risks from climate change impacts? For example, from increased flooding, sea-level rise, more heat waves, more intense storms, more droughts and wildfires. Note: this question includes risks affecting the communities to which these services are provided.
 - a) Yes
 - b) These are in development
 - c) No
 - d) Unsure.
- 40. Please list the indicators or measures.
- 41. Are risks to your organisation's ability to carry out functions and deliver services from the impacts of climate change reported to your organisation's governance board?
 - a) Yes, more often than annually
 - b) Yes, annually
 - c) Yes, less often than annually
 - d) Not at all
 - e) Unsure.
- 42. Any comments?
- 43. In the box below, please briefly describe the role that management plays within your organisation in responding to risks from climate change.
- 44. Does your organisation require the impacts of climate change, and adaptation options to address these impacts, to be assessed and considered in decision-making? For example, will climate change be considered before making a decision to invest in a physical asset. Note: this does not refer to requirements for mitigation/carbon emissions reduction.
 - a) Yes
 - b) For some projects
 - c) Not yet, but this is in development
 - d) No
 - e) Unsure.
- 45. If applicable, please provide details about the requirements and their effectiveness.

Support and resources

- 46. Which actions or resources would help your organisation to better prepare for the impacts of climate change? Tick as many as apply:
 - a) More information about how climate change is projected to impact a region or a district
 - b) Guidance on how to assess and consider the impacts of climate change on your organisation
 - c) Tools to help quantify impacts from climate change on your organisation

- d) Methodology for assessing and quantifying climate change risks
- e) Legislative requirements to consider/plan for the effects of climate change
- f) Legislative requirements to publicly report on your organisation's climate risks and adaptation plans
- g) Opportunities to engage and learn from others
- h) Training to develop skills/capabilities
- i) Improved and centralised data repository eg, flooding
- j) Good practice guides, benchmarking and assessment tools
- k) Funding to implement a strategy and deliver on-the-ground adaptation actions
- 47. Any other actions or resources?
- 48. What are the barriers to an effective adaptation response that are faced by your organisation? Tick as many as apply:
 - a) Lack of awareness/education regarding the impacts of climate change by decisionmakers/the wider community
 - b) Lack of political will or desire from the community for change
 - c) Lack of tools/methods by which to engage decision-makers/the community
 - d) Inflexibility of current legislation
- 49. Any other barriers?
- 50. Is there any further information you would like to provide about your organisation's response to the risks and impacts of climate change? Please let us know in the box below.

References

Cardona OD, van Aalst MK, Birkmann J, Fordham M, McGregor G, Perez R, Pulwarty RS, Schipper ELF, Sinh BT. 2012. Determinants of risk: exposure and vulnerability. In: Field CB, Barros V, Stocker TF, Qin D, Dokken DJ, Ebi KL, Mastrandrea MD, Mach KJ, Plattner GK, Allen SK, Tignor M, Midgley PM (eds) *Managing the risks of extreme events and disasters to advance climate change adaptation. A special report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC)*. Cambridge, UK, and New York, NY, USA: Cambridge University Press. pp. 65–108.