2023 Local Government Climate Change Action Survey

An investigation into barriers and enablers

August 2024

NSW GOVERNMENT

LOCAL GOVERNMENT NSW

Acknowledgement of Country

Department of Climate Change, Energy, the Environment and Water acknowledges the traditional custodians of the land and pays respect to Elders past, present and future.

We recognise Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to place and their rich contribution to society.

Artist and designer Nikita Ridgeway from Aboriginal design agency, Boss Lady Creative Designs, created the People and Community symbol.

2023 Local Government Climate Change Action Survey: an investigation into barriers and enablers

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Executive summary

From coastal communities to regional farmers, city dwellers to native wildlife, everyone in New South Wales (NSW) is feeling the effects of climate change. To understand how councils are experiencing climate change, and how they are responding, the NSW Government and Local Government NSW (LGNSW) have surveyed council representatives every few years since 2008.

This survey has traditionally offered insights into how councils and communities are adapting to climate change. In 2023, for the first time, the survey included questions about efforts to mitigate climate change by reducing greenhouse gas emissions.

In 2023, every council in NSW – 128 in total – was invited to participate. A total of 75 councils responded, representing a 59% response rate.

The survey provides a snapshot of how climate change is understood across local government at a moment in time. Findings will be used to monitor trends in climate change adaptation and mitigation, and to guide the design of NSW Government programs and communications.

Importantly, the survey reveals opportunities for councils to strengthen their climate action, engage with their communities and seize the advantages of the emerging net zero economy.

The survey has evolved, and the insights deepened

For the first time, mitigation questions were included in the 2023 survey. The way data is presented has also changed in 2023. Previous surveys collected multiple responses from individual councils. The 2023 survey invited and accepted just 1 official response per council and encouraged responding staff to complete with input from staff with specialist knowledge. This makes comparisons between 2023 and previous surveys challenging but sets a more reliable and representative baseline for the future.

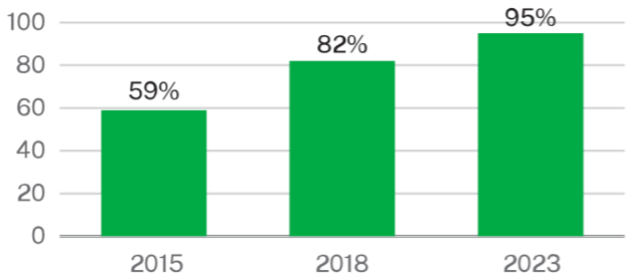
Responses vary by location

Both metropolitan and regional councils are feeling increased impacts of climate change. However, responses were received from a disproportionately higher number of metropolitan councils than their regional counterparts. In 2023, 76% of metropolitan councils responded, compared with 53% of regional councils. Likewise, while all but 1 of the coastal regional councils responded, the majority of inland regional councils did not. We are inferring, from comments by regional councils elsewhere in the survey about lack of capacity and resources, that the low rate of inland regional response is at least partly due to lack of capacity, lack of staff, resources, and other priorities. We are surmising that the data in this report likely represents an under-reporting or understatement of the barriers faced by councils across NSW.

Climate change events are having a greater impact on councils

The survey provides insights into the experiences and perceptions of people working in local governments and on the front line of increasingly extreme weather impacts. Almost all responding councils (71 of 75) said they were currently experiencing impacts from climate change and weather events in their organisations and in their communities – a steady increase over time.

Figure 1 Percentage of responding councils experiencing impacts from climate change

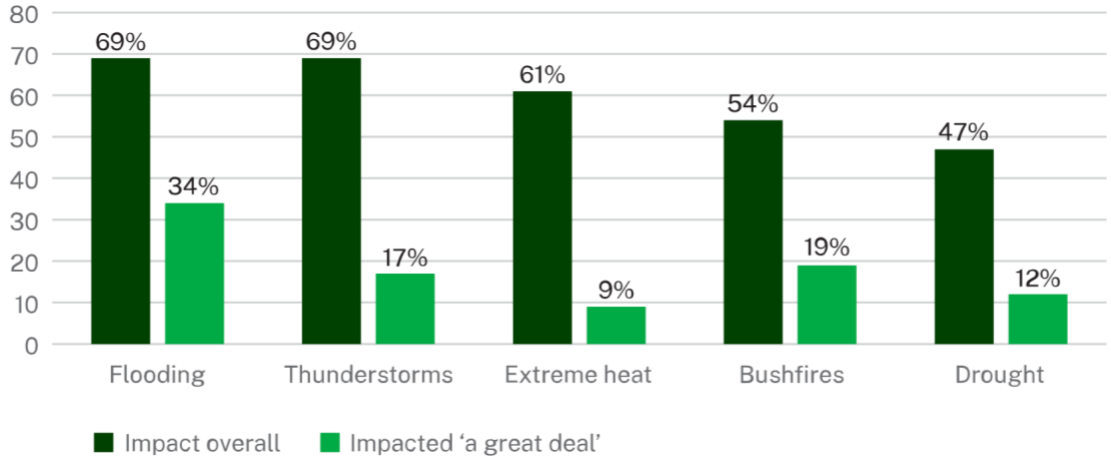


When survey respondents were asked how climate change and extreme weather were impacting council operations and management, 77% (58 out of 75) said their council was experiencing either 'a great deal' or 'a fair amount' of impact. This is a significant increase on the 35% of all respondents in 2018 and 14% in 2015.

Councils have noted an increased severity of extreme weather events

Survey respondents noted the increase in the severity of extreme weather events over the past 3 years. Flooding, thunderstorms and bushfires were the 3 most frequently cited weather events.

Figure 2 Weather events and their impact over the past 3 years



Councils are transitioning, but the full net zero opportunity is ahead with the NSW Government playing a key influencing role

Councils in NSW are not only adapting to the impact of climate change and weather events. They are also adjusting their actions in line with the NSW Government's net zero targets.

Survey respondents in 2023 were asked to reflect on the transition processes that had influenced their council over the last 3 years. This found state and federal government net zero targets were the biggest influencers.

Other drivers of significant influence included: opportunities to participate in the low carbon economy; community and local business support for transition to net zero; and council liability for management of climate change–related risks.

More councils have created targeted action plans and policies

We asked councils about references to climate change in 9 different types of plans and policies. More than half (48 of 75 responding councils) reported having an 'Environmental/Sustainability Action Plan or strategy with climate change targets or actions embedded'. This is a positive sign that councils are planning for the future. Other key highlights were the inclusion of adaptation and mitigation in the following:

Community Strategic Plan

- Adaptation: 83% of councils in 2023; 73% in 2018
- Mitigation: 81% in 2023; 80% in 2018

Delivery Program

- Adaptation: 80% in 2023; 64% in 2018
- Mitigation: 81% in 2023; 73% in 2018

Operational Plan

- Adaptation: 77% in 2023; 67% in 2018
- Mitigation: 81% in 2023; 78% in 2018

Regional Priority Plan

- Adaptation: 41% in 2023; 29% in 2018
- Mitigation: 41% in 2023; 31% in 2018

Three planning instruments were measured for the first time and indicate that there is a significant opportunity for more progress in land use and development plans compared to operational plans:

Local Strategic Planning Statements

- Adaptation: 59 councils
- Mitigation: 55 councils

Local Environment Plan

- Adaptation: 39 councils
- Mitigation: 28 councils

Development Control Plan

- Adaptation: 34 councils
- Mitigation: 31 councils

Councils are prioritising adaptation and mitigation

Almost all councils rated adaptation and mitigation as higher priorities in 2023 than they did in 2018. Almost half of responding councils said they had set operational emissions reduction targets. The most common initial target year reported was 2030. While many metropolitan councils are on track to reach their targets, regional councils are finding this more challenging.

More councils have undertaken climate change risk assessments than in 2018. But adaptation was less likely to have a dedicated budget than mitigation and was more likely to only source funding through grants.

Key barriers remain consistent

Survey participants were asked to consider 11 potential barriers to climate adaptation and mitigation efforts. The 5 most common barriers to adaptation and mitigation were:

1. Lack of funding
2. Lack of sufficient staff
3. Inconsistent approaches at different levels of government
4. Lack of staff capabilities
5. Uncertainty about the role of local government (adaptation); and limitations in legislation and regulation (mitigation).

The combined issue of insufficient funding and staff impacts all councils, with resource-constrained regional councils typically more severely impacted. Further investigation into the potential for councils to prioritise climate change adaptation and mitigation with additional funding may be required. Future programs, resources and initiatives from the NSW Government may need to address these primary barriers directly – by providing funding or focusing on building capacity – or indirectly, with improved program design and implementation that better supports resource-constrained councils.

Attitudes to key enablers have shifted

While the barriers have remained relatively static, the survey tracks a shift in attitudes to enablers since 2018. Allowing for changes to the survey methodology, councils express preference for some enablers over others – and this preference has intensified. The survey showed little correlation between councils being impacted by climate-related events and councils making progress with climate change action. Instead, these top 5 enablers of climate change mitigation and adaptation appear to be more important in driving action:

1. Allocated budget
2. External funding
3. Understanding the costs and benefits
4. Support of a General Manager or senior leadership
5. Involvement of external and partner organisations.

Capacity building – such as access to professional networks, technical advice, professional development and other training – was more likely to be rated as extremely helpful by regional councils (54%) than metropolitan councils (36%). Similarly, regional councils were more likely to favour a consistent, statewide approach to adaptation and mitigation efforts than their metropolitan peers.

Next steps

The findings from this report will be used to guide the design of programs that support councils as they adapt to climate change, reduce their greenhouse gas emissions and continue their journeys to net zero. Results will also serve as an important benchmark for future surveys focused on climate change adaptation and mitigation.

Introduction

The NSW climate is warming faster than the global average. Since records began in 1910, NSW has already warmed by 1.4°C.

Changes in some types of natural hazards have already been observed. For example, there have been increases in the frequency and intensity of heatwaves and heavy rain.

Climate change is already damaging local government assets and infrastructure, causing serious disruptions to the delivery of services, hitting council budgets, and harming the health and wellbeing of communities.

To understand how councils are experiencing climate change, and how they are responding, the NSW Government and LGNSW have surveyed council representatives since 2008.

Since the previous survey was undertaken in 2018, Australians have been buffeted by a series of natural disasters. Two of those have had enormous impacts in NSW and the fallout is still being felt by councils.

The 2019–2020 bushfire season was the worst on record for NSW and would become known as the 'Black Summer'. Months of intense weather conditions sparked uncontrollable bushfires that burnt 6.2% of the state – the largest burnt area recorded in a single fire season in eastern Australia. From 1 July 2019 to 31 March 2020, more than 11,400 bush and grass fires burnt across NSW. Communities, businesses, wildlife and bushland were all impacted, with 26 lives lost, 2,448 homes destroyed and 5.5 million hectares of land ravaged.

Communities in northern NSW, still recovering from the devastating bushfires just 2 years previously, were caught in catastrophic flooding in 2022. From late February to early April 2022, river systems from the Queensland border to the south coast of NSW, as well as in inland areas, were inundated. Flooding in some parts of the state was at a scale never previously witnessed. The Wilsons River at Lismore, for instance, reached a height of 14.4 metres – 2 metres above previous records. Over the course of the flooding events, 13 lives were lost and 4,055 properties deemed uninhabitable.

It is with these natural disasters in mind that many respondents completed the 2023 survey. But other drivers are also influencing the way councils address climate change adaptation and mitigation, and how they manage future risk.

In 2020, the NSW Government published the Net Zero Plan Stage 1: 2020–2030 and has subsequently released updates.

The NSW Climate Change Adaptation Strategy, published in 2022, outlines 4 key priorities for adaptation. The NSW Government has committed to: develop robust metrics to inform strategic adaptation planning and decision making; assess climate risk and opportunity; create whole-of-NSW adaptation action plans; and systematically embed climate change into institutional frameworks and initiatives.

In November 2023, the NSW Government's *Climate Change (Net Zero Future) Act 2023* passed through both Houses of Parliament. The Act commits the NSW government to effective action on climate change to ensure a sustainable and fair future for the people, economy and environment of NSW. It legislates:

- guiding principles for action to address climate change that consider the impacts, opportunities and need for action in NSW
- emissions reduction targets for NSW:
  - 50% reduction on 2005 levels by 2030
  - 70% reduction on 2005 levels by 2035
  - Net zero by 2050
- an objective for NSW to be more resilient to a changing climate

- establishing an independent, expert Net Zero Commission to monitor, review, report on and advise on progress towards these targets.

At the same time, international regulation has increased, investor expectations around transparency and disclosure have intensified, and shareholders are calling for corporations to adopt ambitious climate strategies. Businesses, driven by consumer demand and community engagement, are also under increasing pressure to align their operations with net zero targets.

The 2023 survey provides a snapshot of how climate change is understood across councils at a moment in time. It reveals actions and processes underway to prepare communities for and respond to impacts. Findings will be used to monitor climate change adaptation and mitigation maturity of councils, and to guide the design of NSW Government programs and communications.

Importantly, the survey reveals opportunities for councils to strengthen their climate action, engage with their communities and seize the advantages of the emerging net zero economy.

Approach

In August 2023, the Energy, Climate Change and Sustainability (ECCS) Group and LGNSW developed and delivered the latest NSW Local Government Climate Change Action Survey, building on the previous surveys in 2008, 2010, 2015 and 2018. The objectives of the survey were to:

- assess the extent of climate change adaptation across NSW councils and compare these findings to previous levels
- broaden the survey by including questions to assess the extent of climate change mitigation
- identify the barriers and enablers for climate change adaptation and mitigation and any changes over time
- evaluate the levels of awareness, use and appropriateness of ECCS/LGNSW information, resources and support programs.

The overarching aim is to use this research to inform future program development and support services delivered by ECCS and LGNSW to build resilience to climate change across the local government sector.

Method

The online survey questionnaire included 40 questions (many with sub-items) across 8 sections comprising:

- respondent position level and functional areas
- climate change impacts
- governance of adaptation to and mitigation of climate change and its impacts
- risk identification and adaptation action plans and activities
- mitigation action plans and activities
- use of information and resources from NSW Government and other sources
- barriers to and enablers of adaptation and mitigation
- feedback and invitation to be contacted for future case studies.

Individual questionnaire items were selected by balancing the need to ensure comparability with previous surveys and the need to include mitigation insights, and collect useful data for ECCS and LGNSW to inform their future activities with councils. The survey was piloted with staff from ECCS, LGNSW and councils, with feedback incorporated into the final design (see Appendix A: Online survey questionnaire).

Survey administration and sampling approach

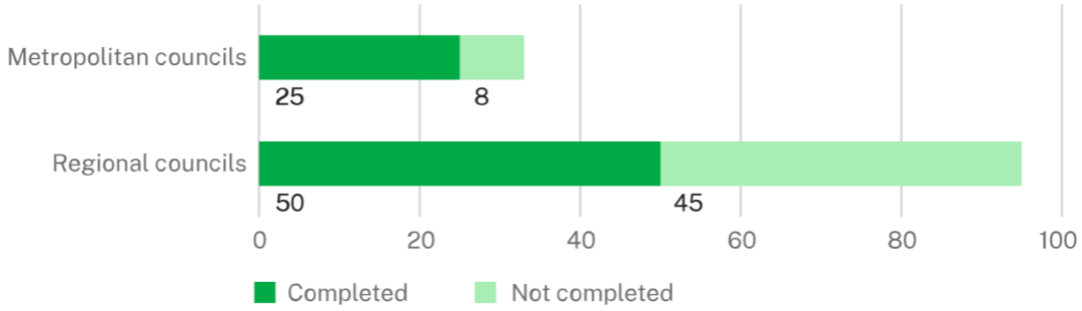
The survey was designed and set up by Taverner Research (using the Forsta survey platform). The chief executive of each council and regional/joint organisation in NSW was invited to nominate a representative to complete the survey with a single consolidated response on behalf of the council, and a unique link to the survey was provided. Multiple follow-ups were made over an 8-week window (14 August to 9 October 2023) to maximise the number of completed surveys received.

The sampling method used in 2023 differed from that used in previous surveys. In the 2015 and 2018 surveys, only 1 response was obtained for some councils, while for other councils, up to 6 questionnaires were completed. This meant that total sample results were more influenced by councils with larger numbers of respondents. This sampling strategy was deliberate, to understand the different views of multiple respondents within a council, and results were reported in terms of percentages of all respondents. For the 2023 survey, however, the intent was to obtain a precise picture of what each council had achieved, and to understand if any emissions and reduction targets were endorsed. Therefore, it was critical that each responding council contributed equally to the results. Accordingly, results have mainly been reported in terms of number of councils.

Respondent profile

All 128 NSW councils were invited to participate in the survey. A total of 75 councils completed the questionnaire, a coverage rate of 59%. This included 25 metropolitan councils (76% of 33 invited) and 50 regional councils (53% of 95 invited) (Figure 3).

Figure 3 Completion rates of local government councils by those invited to participate in the 2023 survey



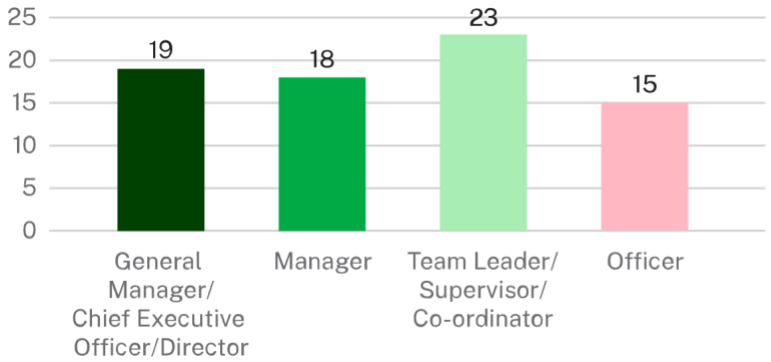
Few regional and joint organisations completed the questionnaire (2 and 1, respectively), so the corresponding data was excluded from this report.

Figure 4 Metropolitan councils completing the 2023 survey

Figure 5 Regional councils completing the 2023 survey

The majority of councils responding to the survey were represented by senior members (19 respondents were General Manager/CEO/Director level, 18 were managers, and 23 were team leader level) (Figure 6). Interestingly, respondents nominated to complete the survey for regional councils were more likely to be senior (18 were General Manager/CEO/Director level compared to only 1 from a metropolitan council). As regional councils are less likely than metropolitan councils to have dedicated environmental and natural resource staff, this could explain the higher rate of senior staff respondents in regional councils.

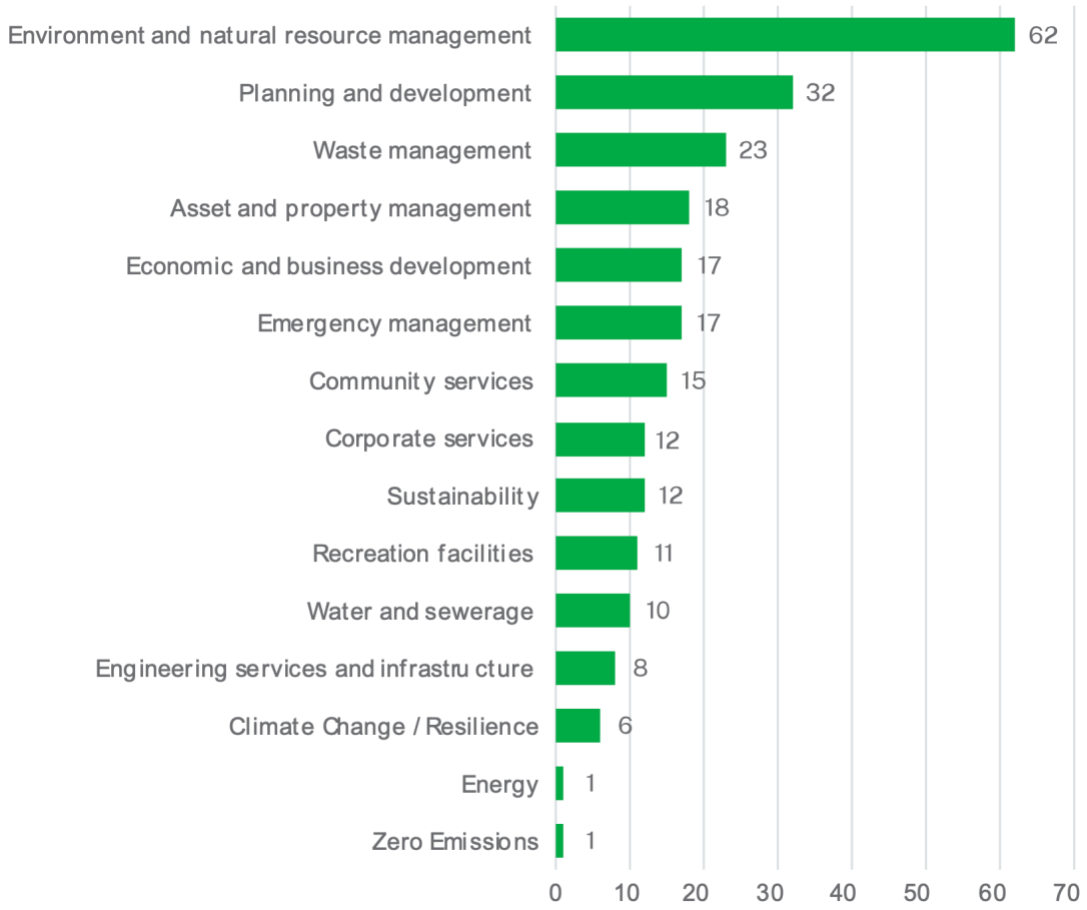
Figure 6 Respondent position level (Q3)



Sample: 75 councils that completed the survey

Respondents nominated to complete the survey were likely selected due to their knowledge about their council's management of climate change issues as the overwhelming majority (62 out of 75) reported 'Environmental and natural resource management' as a main functional area (Figure 7), compared to only 34% of all respondents in 2018. 'Planning and development' was the second most common functional area of respondents (32 out of 75, compared to only 11% of all respondents in 2018). There were also a few 'Other' mentions including 'Risk and insurance', 'Executive management', 'Procurement', 'Regional leadership', 'Advocacy', 'Tourism' and 'City strategy'.

Figure 7 Respondent functional areas (Q4)



Sample: 75 councils that completed the questionnaire

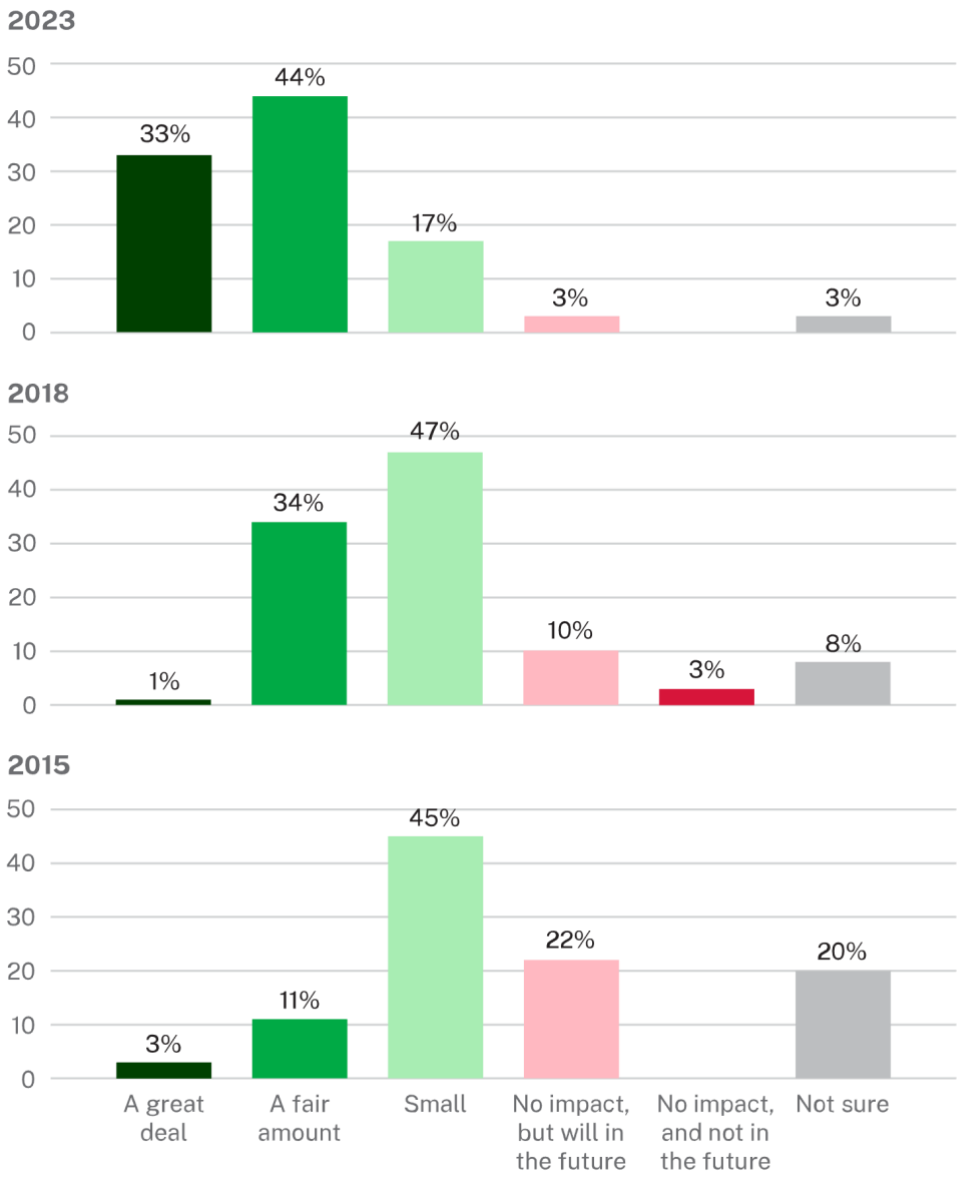
Impact of climate change and weather events

Councils were asked for their 'feedback on climate change and weather event impacts on (their) local government organisation and community'. Specifically, they were asked 'how much impact are events, intensified by climate change (such as storms, bushfires, heatwaves, droughts and floods, etc), currently having on your council's operations and management', and 'on your local government area community'. They were also asked about 8 different types of weather events to explore 'to what extent have these events impacted your organisation's operations, assets, infrastructure and/or services in the past 3 years'.

The degree of impact of 'events intensified by climate change' was reported by local government as having a significant impact on council operations and the community they serve. In 2023, 77% of councils (58 out of 75) reported that they were having 'a great deal' or 'a fair amount' of impact, a big jump from 35% of all respondents in 2018 and 14% in 2015 (Figure 8). Very few councils rated such events as having only a 'small impact' in 2023.

The impact of climate change on council operations was greater for regional councils with 42% (21 out of 50) rating these events as having 'a great deal' of impact, compared to only 16% of metropolitan councils (4 out of 25).

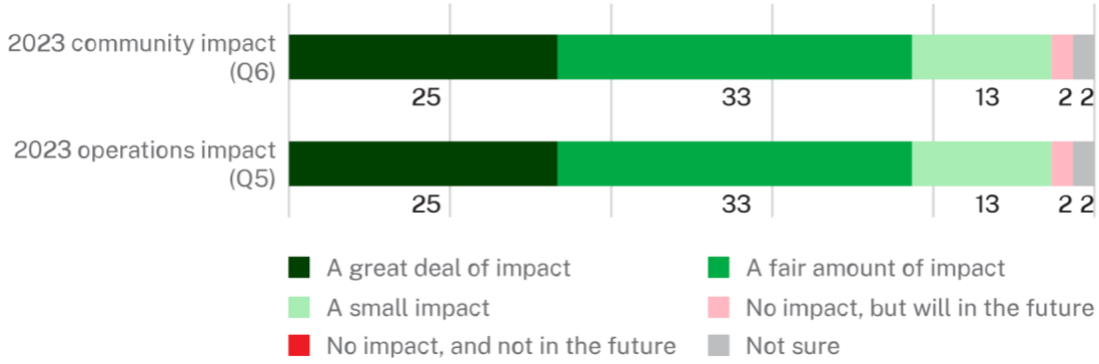
Figure 8 Impact of climate change and weather events on council operations and management (Q5)



For 2015, percentage shown for 'No impact, but will in the future' includes the percentage that replied, 'No impact, and not in the future'. Sample: 2023 75 councils; 2018 144 respondents from 88 council areas; 2015 186 respondents from 112 council areas

The impact of climate change and weather events on the council's local government area community mirrored the impact on council operations and management (Figure 9).

Figure 9 Impact of climate change and weather events on local government area community (Q6)



Sample: 75 councils that completed the 2023 questionnaire

Regional councils were more likely to report 'a great deal of impact' from climate change and weather events on their local government area community than metropolitan councils (42% vs. 16%).

Since the 2018 survey, NSW has had a bushfire and flooding crisis, and this is reflected in the reported impact of different types of weather events on organisational operations, assets, infrastructure and/or services in the past 3 years. In 2023, flooding was seen as having the most impact (ranked second in 2018), followed by thunderstorms (first in 2018), extreme heat (also third in 2018) and bushfires (ranked sixth in 2018).

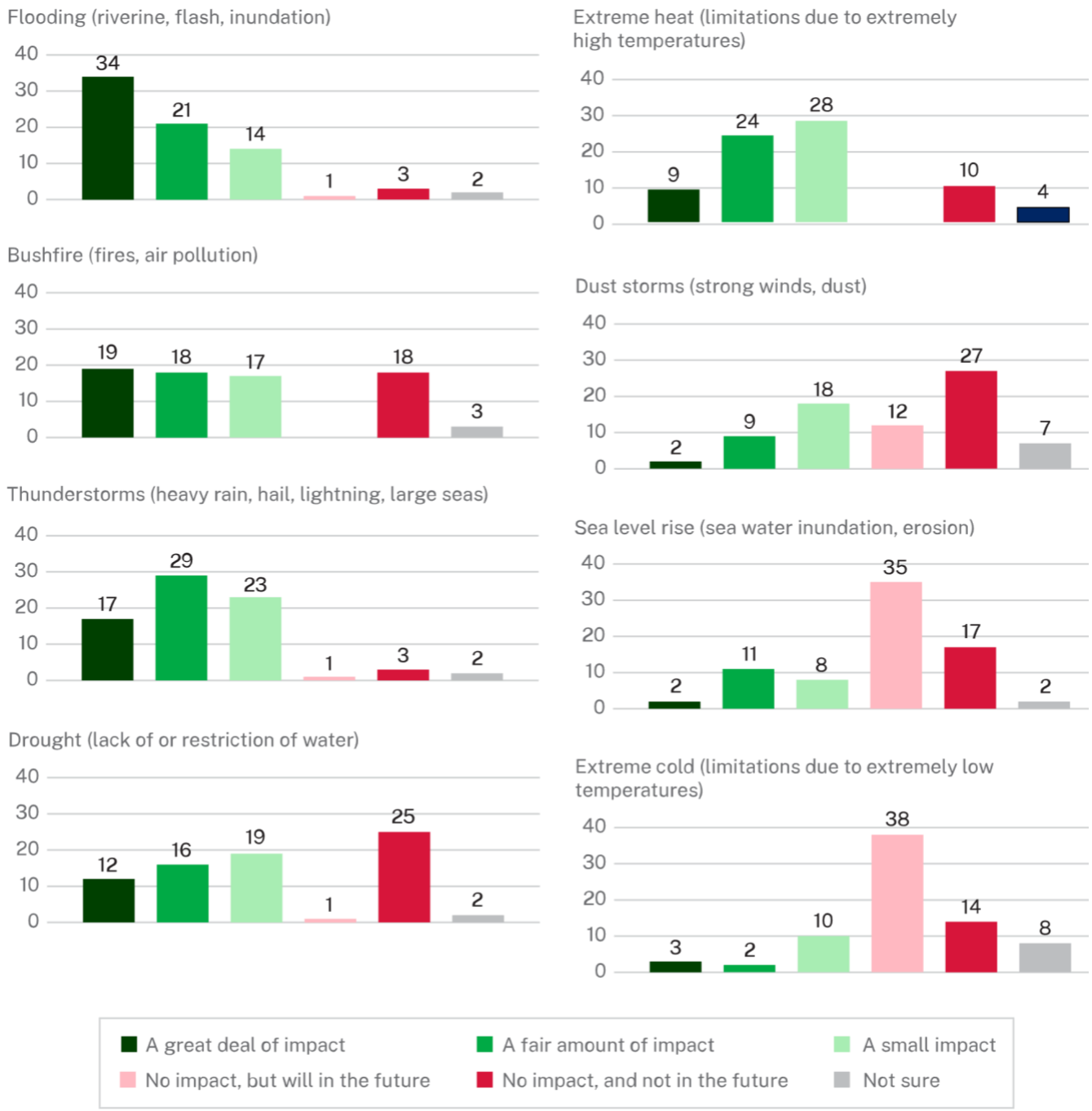
Figure 10 shows weather events that have had the most impact in the past 3 years:

- Flooding (69 councils impacted, 34 impacted 'a great deal')
- Thunderstorms (69 councils impacted, 17 'a great deal')
- Extreme heat (61 councils impacted, 9 'a great deal')
- Bushfires (54 councils impacted, 19 'a great deal')
- Drought (47 councils impacted, 12 'a great deal').

Drought was ranked fifth in 2023 (down from fourth in 2018), possibly due to 3 factors:

- Regional councils were more likely to report 'a great deal of impact' than metropolitan councils from flooding (58% regional vs. 20% metropolitan) and bushfires (32% regional vs. 12% metropolitan).
- Among the councils that completed the survey, western NSW was significantly underrepresented, and this was the region that was more likely to have experienced severe drought between 2018 and 2020.
- At the time of survey, and since the previous drought which ended in early 2020, NSW had just experienced a prolonged wet spell, so water restrictions or drought were less likely to be front of mind for respondents.

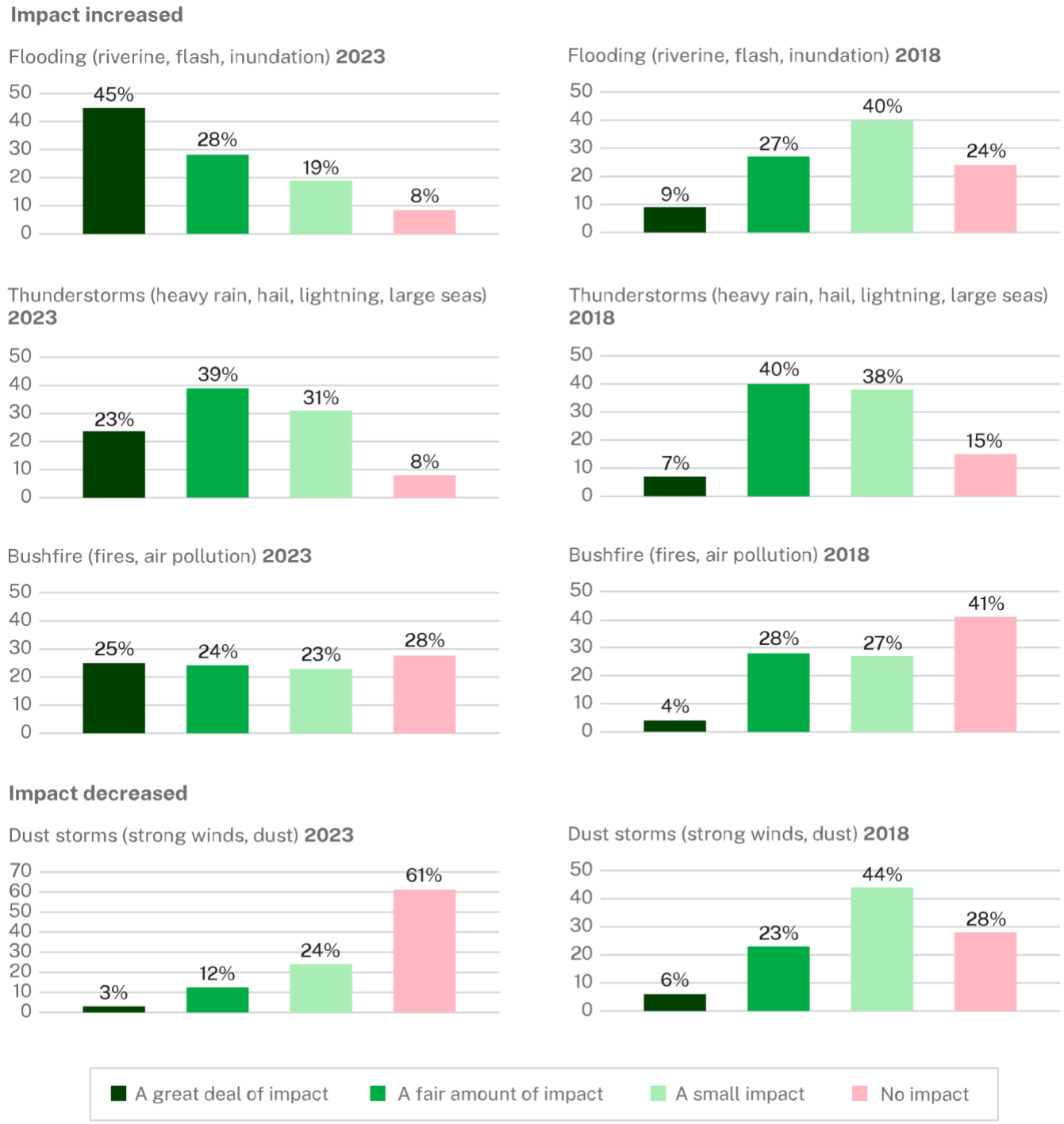
Figure 10 Impact of different weather events on operations, assets, infrastructure and/or services (Q7)



Sample: 75 councils that completed the 2023 questionnaire

A comparison of the 2023 and 2018 results highlights that there was a notable increase in the impact caused by flooding, thunderstorms and bushfires (Figure 11).

Figure 11 Impact of different weather events: 2023 vs. 2018 (Q7)



Sample: 2023: 75 responding councils; 2018: 144 respondents covering about 88 councils (results are based on number of respondents, not councils)

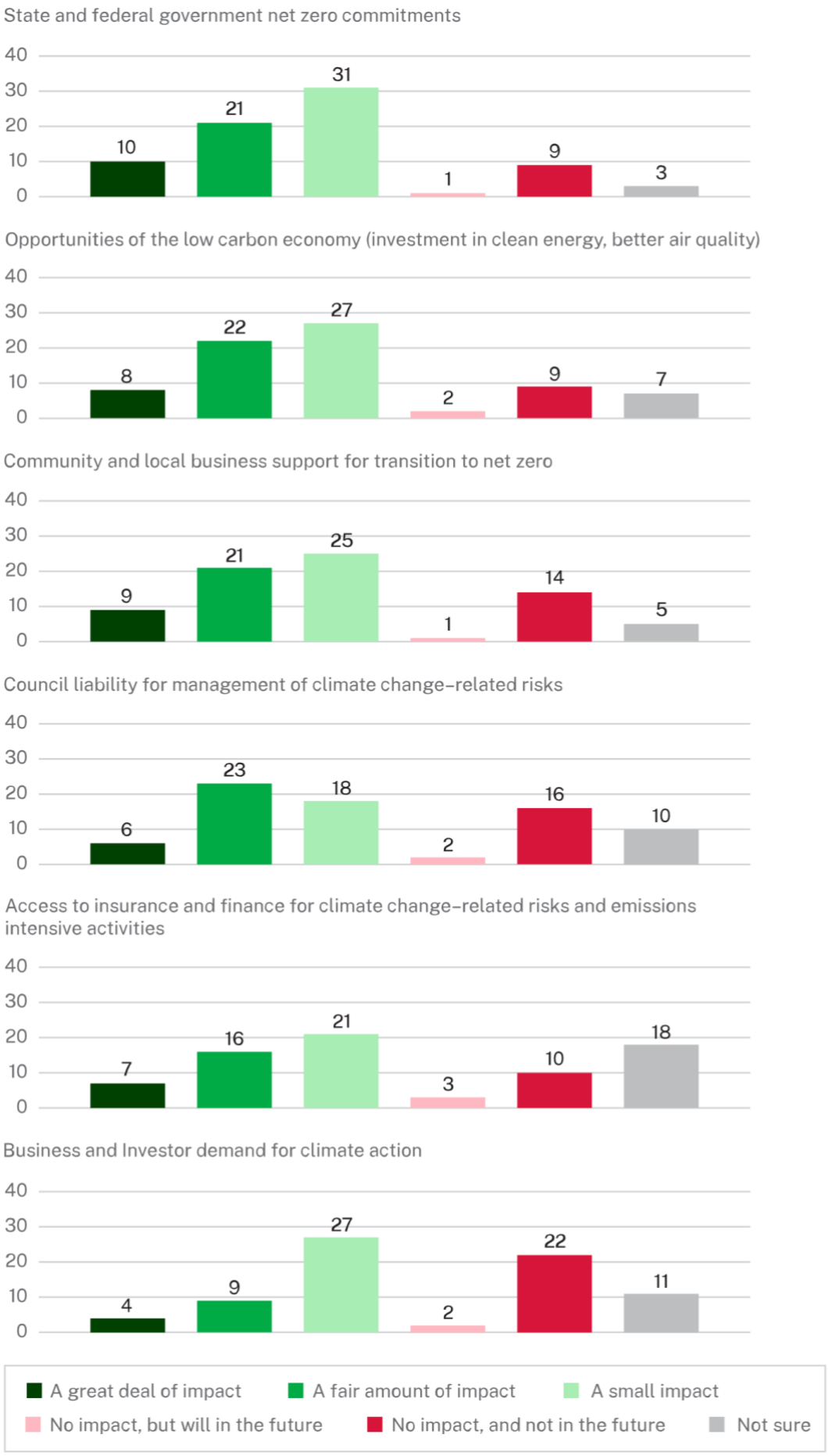
2023: Impact of transition processes over the past 3 years

In 2023, councils were asked to share the extent to which 6 different transition processes had impacted their LGA over the past 3 years.

The transition process with the greatest perceived impact so far was state and federal government net zero commitments (31 councils rated it as having had ‘a great deal’ or a ‘fair amount’ of impact on their LGA in the past 3 years).

The next 3 highest processes rated as having had a ‘great deal’ or ‘fair amount’ of impact on their LGA were: opportunities of the low carbon economy; community and local business support for transition to net zero; and council liability for management of climate change–related risks. These results provide a benchmark against which responses from future surveys can be assessed (Figure 12).

Figure 12 Impact of transition processes (Q8)



Sample: 75 councils that completed the 2023 questionnaire

Responses to climate change

Inclusion of adaptation and mitigation activities in strategic plans

NSW councils are required to develop and regularly update a range of strategic plans. To achieve adaptation to climate change and mitigation of emissions, activities need to be included in at least Community Strategic Plans and the Delivery Programs that set out in detail how the broader strategic plans will be achieved.

The 2023 survey asked councils to report whether 7 different strategic plans included adaptation activities (preparing for the impacts of climate change) and/or mitigation activities (reducing greenhouse gas emissions). 2023 results (Figure 13) show the number of councils that had included these activities. Responses from the 2018 and 2015 surveys are noted where available (percentage of all respondents), although they may look more favourable than reality, given that the past surveys did allow multiple responses from the same council.

The majority of councils have now included both adaptation and mitigation activities in their Community Strategic Plan (56 councils), Delivery Program (52 councils), Operational Plan (52 councils) and Local Strategic Planning Statements (53 councils).

There is a significant opportunity for more councils to include both of these activities in their Regional Priority (JO or RoC) Plans (only 29 councils do so currently), Local Environment Plans and Development Control Plans (only 25 councils do so currently).

Community Strategic Plan

- Adaptation: 62 out of the 75 councils (83%). This represents improvement upon previous surveys (2018: 73% and 2015: 70% of respondents).
- Mitigation: 61 councils (81%). This represents slight improvement (2018: 80% of respondents).

Delivery Program

- Adaptation: 60 councils (80%). This represents improvement (2018: 64% and 2015: 60% of respondents).
- Mitigation: 61 councils (81%). This represents improvement (2018: 73% of respondents).

Operational Plan

- Adaptation: 58 councils (77%). This represents improvement (2018: 67% and 2015: 55% of respondents).
- Mitigation: 61 councils (81%). This represents slight improvement (2018: 78% of respondents).

Regional Priority (JO or RoC) Plan

- Adaptation: 31 councils (41%). This represents an improvement (2018: 29% and 2015: 0% of respondents).
- Mitigation: 31 councils (41%). This represents an improvement (2018: 31% of respondents).

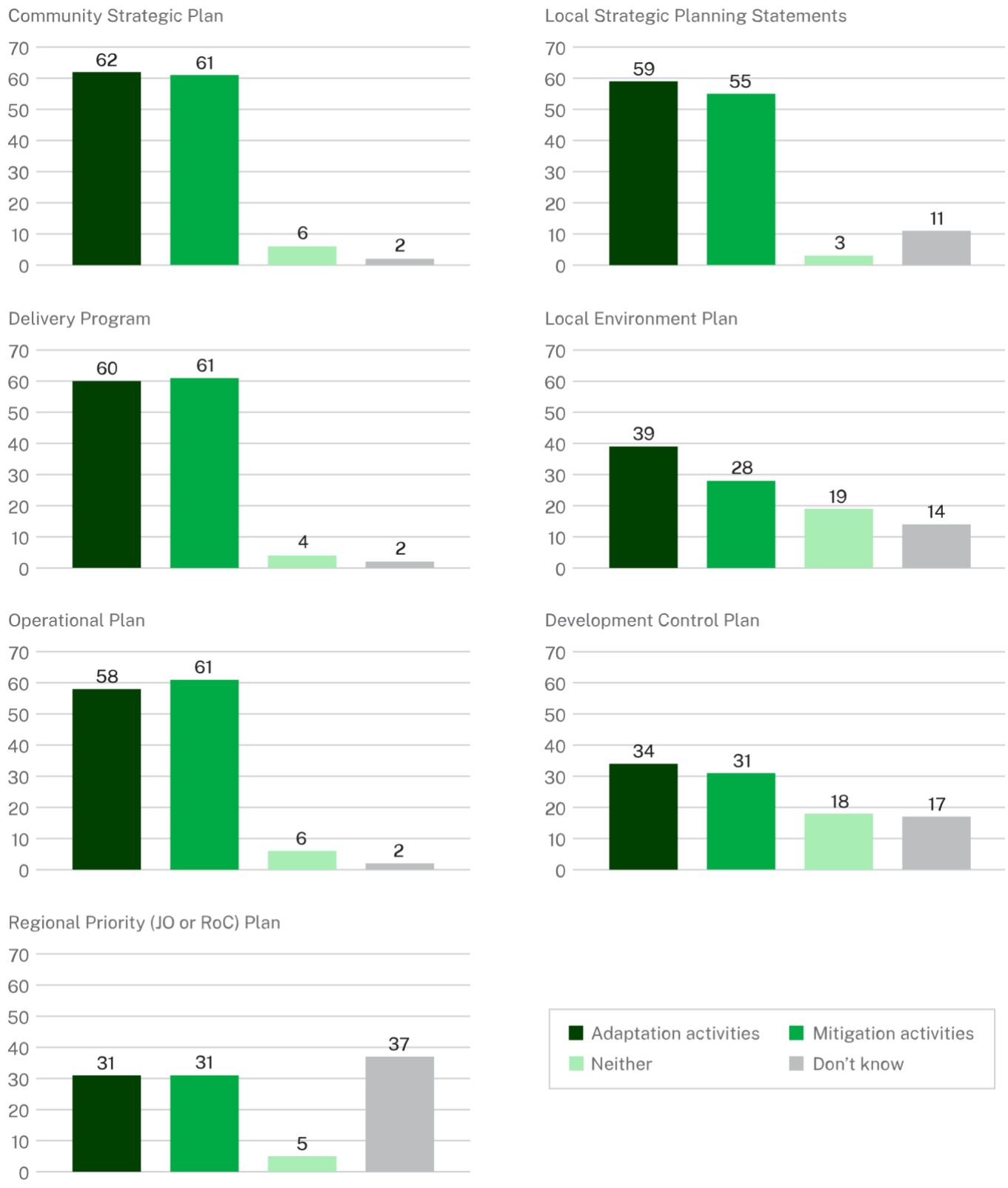
Three plans were measured for the first time:

Local Strategic Planning Statements: Adaptation: 59 councils | Mitigation: 55 councils

Local Environment Plan: Adaptation: 39 councils | Mitigation: 28 councils

Development Control Plan: Adaptation: 34 councils | Mitigation: 31 councils

Figure 13 Inclusion of climate change adaptation and mitigation activities in council plans (Q9)



Sample: 75 councils that completed the 2023 questionnaire

Metropolitan councils were more likely than regional councils to have incorporated adaptation activities into Council Strategic Plans, and to have incorporated mitigation into the following formal council planning documents:

- Operational Plan (96% of metropolitan, 74% of regional councils)
- Delivery Program (100% of metropolitan, 72% of regional councils)
- Local Strategic Planning Statements (96% of metropolitan, 62% of regional councils)
- Development Control Plan (64% of metropolitan, 30% of regional councils).

Why this is the case is not clear, but it may be because metropolitan councils have more resources available to take actions or perhaps because they place higher priority on state government targets for reductions in greenhouse gas emissions.

Priority of climate change adaptation and mitigation

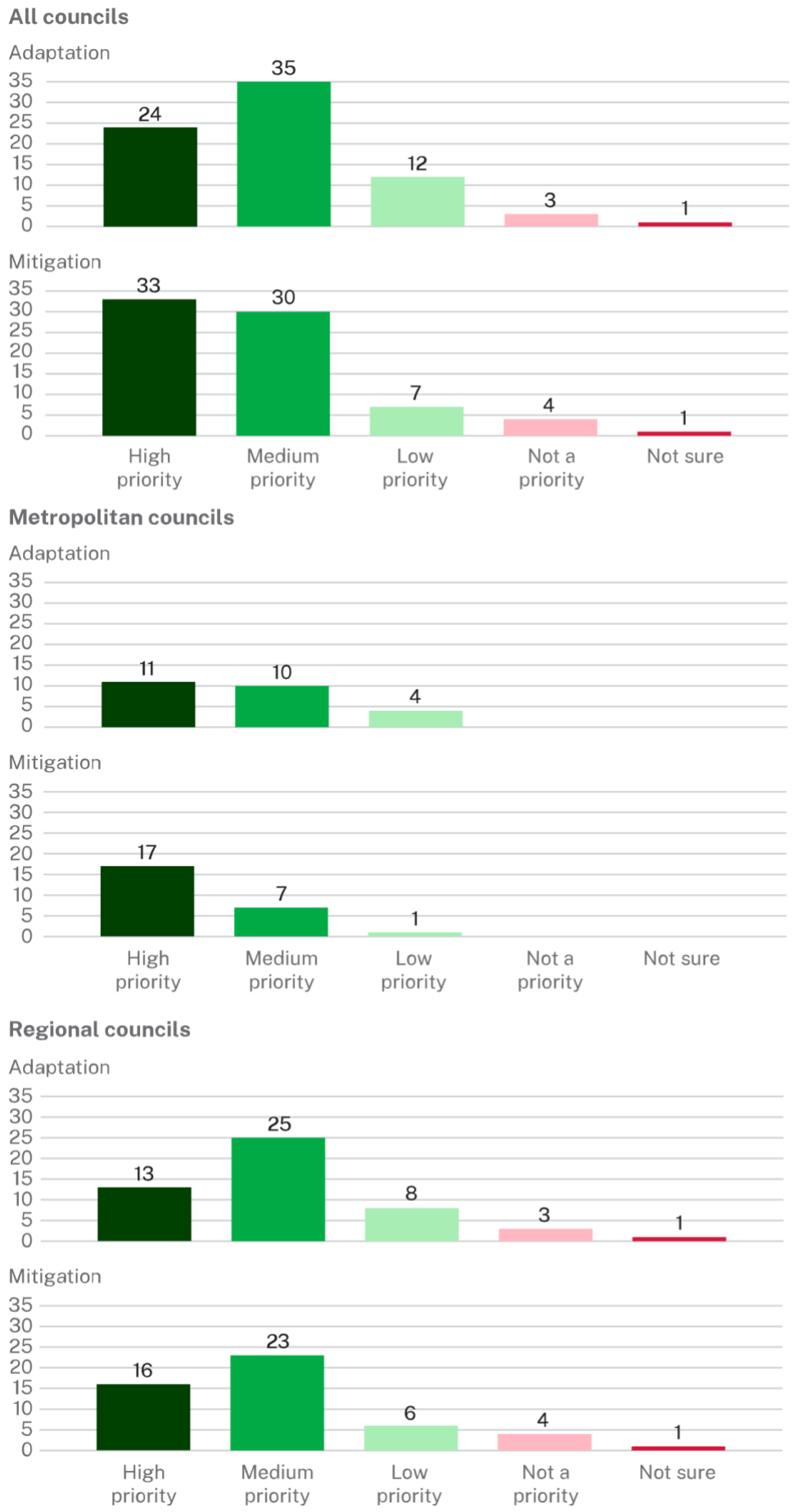
Councils were asked the extent to which adaptation (preparing for the impacts of climate change) and mitigation (reducing greenhouse gas emissions) were a priority for their local government organisation.

The majority of councils considered these issues to be at least 'medium' priorities (Figure 14).

- **Adaptation:** Prioritised by 71 councils (94%), 24 as 'high' priority (32%). This represents significant progress as in 2018, only 54% of councils prioritised adaptation (23% as 'high'). Adaptation was rated as 'high' priority by 11 metropolitan councils (44%) and 13 regional councils (26%).
- **Mitigation:** Prioritised by 70 councils (93%), 33 as 'high' priority (44%). This also represents significant progress as in 2018, only 64% of councils prioritised mitigation (29% as 'high'). Mitigation was rated as 'high' priority by 17 metropolitan councils (68%) and 16 regional councils (32%).
- The majority of councils (47) gave mitigation and adaptation an equal priority rating. Mitigation was rated a higher priority than adaptation by 20 councils. Only 8 councils rated adaptation a higher priority than mitigation.

Councils more impacted by climate change and weather events may be more likely to prioritise adaptation (and possibly mitigation of emissions) and to advance plans and strategic implementation to adapt to these effects and possibly mitigate emissions. However, this relationship was not found to be statistically significant for adaptation or mitigation.

Figure 14 Priority of climate change adaptation and mitigation (Q10, Q11)



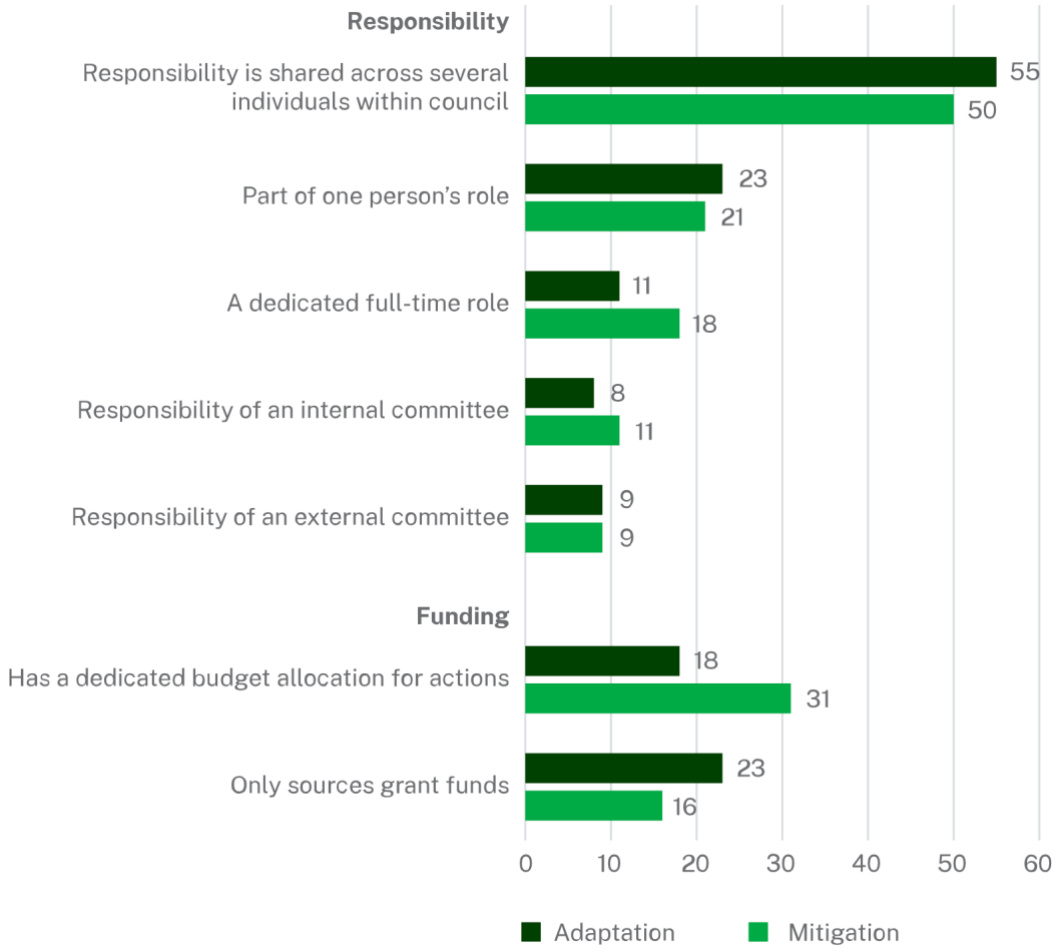
Sample: 75 councils that completed the 2023 questionnaire (25 metropolitan, 50 regional)

Resourcing adaptation and mitigation

In 2023, councils were asked about the resources allocated by their organisation for adaptation and mitigation (Figure 15). **Mitigation was more likely to have a dedicated budget** (31 councils) than adaptation (18 councils) whereas adaptation was more likely to only source funding through grants (23 councils) than mitigation (16 councils).

- **Having a dedicated full-time role was more common for mitigation** (18 councils) than adaptation (11 councils). Only 24% of metropolitan councils and 10% of regional councils reported having a dedicated full-time role for adaptation.
- For most councils, the **responsibility to plan for and respond to climate change was shared** across several individuals (55 councils for adaptation and 50 councils for mitigation).
- Additional analysis showed that around 70% of **councils with dedicated full-time roles for these issues had dedicated budgets**, and that for both adaptation and mitigation, even when there was a dedicated full-time role, there were usually others sharing the responsibility. This is suggestive of councils prioritising and allocating resources against these issues.
- **Metropolitan councils were 4 times more likely than regional councils to have a dedicated budget** for adaptation (48% of metropolitan vs. 12% of regional councils) and almost 3 times more likely to have a dedicated budget for mitigation (72% of metropolitan vs. 26% of regional councils).
- For mitigation specifically, metropolitan councils were also more likely to share responsibility across several individuals (92% of metropolitan vs. 54% of regional councils).
- **Coastal regional councils were more likely than inland regional councils to have a dedicated full-time role** (especially for mitigation) whereas inland regional councils were more likely to share the responsibility across several individuals within council.
- A dedicated budget allocation for actions was also **more common among coastal regional councils than inland regional councils**. Regional inland councils were more likely to answer that they had 'None of these'.

Figure 15 Resources given to climate change adaptation and mitigation (Q12)



Sample: 75 councils that completed the 2023 questionnaire

Climate change action plans and policies

The 2023 survey asked about references to climate change in 9 different types of plans and policies to understand the number of metropolitan and regional councils with these in place (Figure 16).

Six were measured for the first time in 2023 (only 3 of the 9 were measured in 2018, as marked with asterisks).

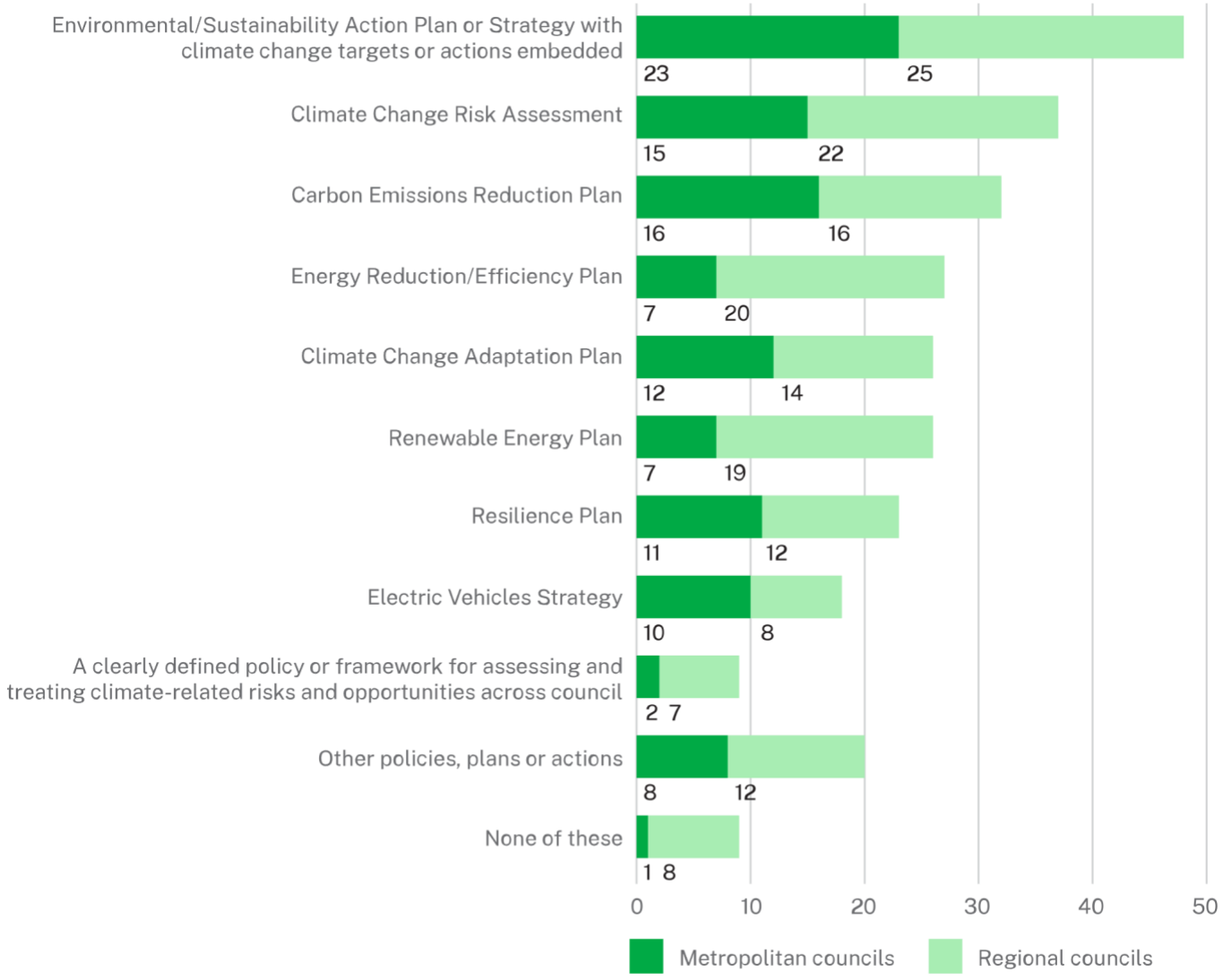
- Environmental/Sustainability Action Plan or Strategy with climate change targets and actions embedded: 48 of the 75 councils
- Climate Change Risk Assessment*: 37 councils, an improvement upon 29 councils in 2018. Interestingly, in the 2015 survey, 92 councils indicated they had a Climate Change Risk Assessment, following a period when there had been Commonwealth funding available (2008–10) and NSW Statewide Mutual delivered a risk assessment program to members between 2009–14.
- Carbon Emissions Reduction Plan: 32 councils
- Energy Reduction/Efficiency Plan: 27 councils

  Note: In the 2018 survey, 34 councils reported having a 'Carbon, Emissions or Energy Reduction Plan'* so the 2023 results represent an improvement as in 2023 there were 44 councils with either a Carbon Emissions Reduction Plan or an Energy Reduction/Efficiency Plan.
- Climate Change Adaptation Plan*: 26 councils, down slightly vs. 28 councils in 2018
- Renewable Energy Plan: 26 councils
- Resilience Plan: 23 councils
- Electric Vehicles Strategy: 18 councils
- A clearly defined policy or framework for assessing and treating climate-related risks and opportunities across council: 9 councils
- There were 20 councils that reported having other policies, plans or actions, and 9 councils (8 of which were regional) that had none of the listed plans currently. In 2018, there were 19 councils with none of the then-measured plans in place.

Metropolitan councils were more likely than regional councils to report a number of action plans and policies:

- Environmental/Sustainability Action Plan or Strategy with climate change targets or actions embedded (92% of metropolitan, 50% of regional councils)
- Carbon Emissions Reduction Plan (64% of metropolitan, 32% of regional councils)
- Electric Vehicles Strategy (40% of metropolitan, 16% of regional councils)
- Climate Change Adaptation Plan (48% of metropolitan 28% of regional councils)
- Resilience Plan (44% of metropolitan, 24% of regional councils).

Figure 16 Climate change action plans and policies (Q13)



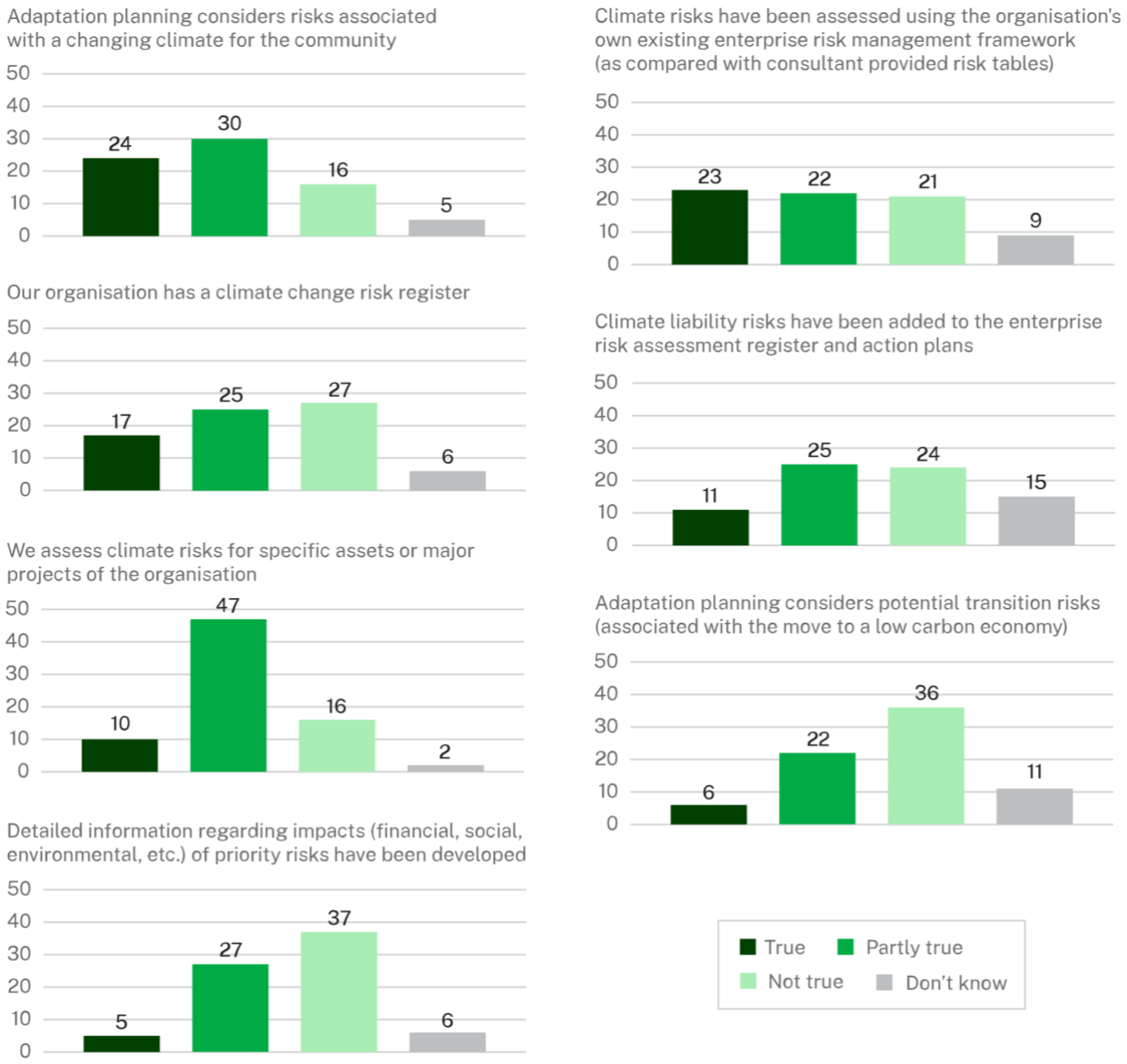
Sample: 75 councils that completed the 2023 questionnaire (25 metropolitan, 50 regional)

Climate change risk management and adaptation actions

The 2023 survey asked councils if they had taken 7 different actions related to climate change risk management and adaptation (Figure 17). These figures can serve as a benchmark for future surveys.

- Less than one-third of councils rated the listed actions as 'true' for their council, and a large proportion of councils said that the item was either 'not true' or that they did not know how to answer.
- There were only 4 items reported by more than half of councils as at least 'partly true' for their council, e.g. 'Adaptation planning considers risks associated with a changing climate for the community' (54 of the 75 councils).

Figure 17 Climate change risk management and adaptation actions (Q14)



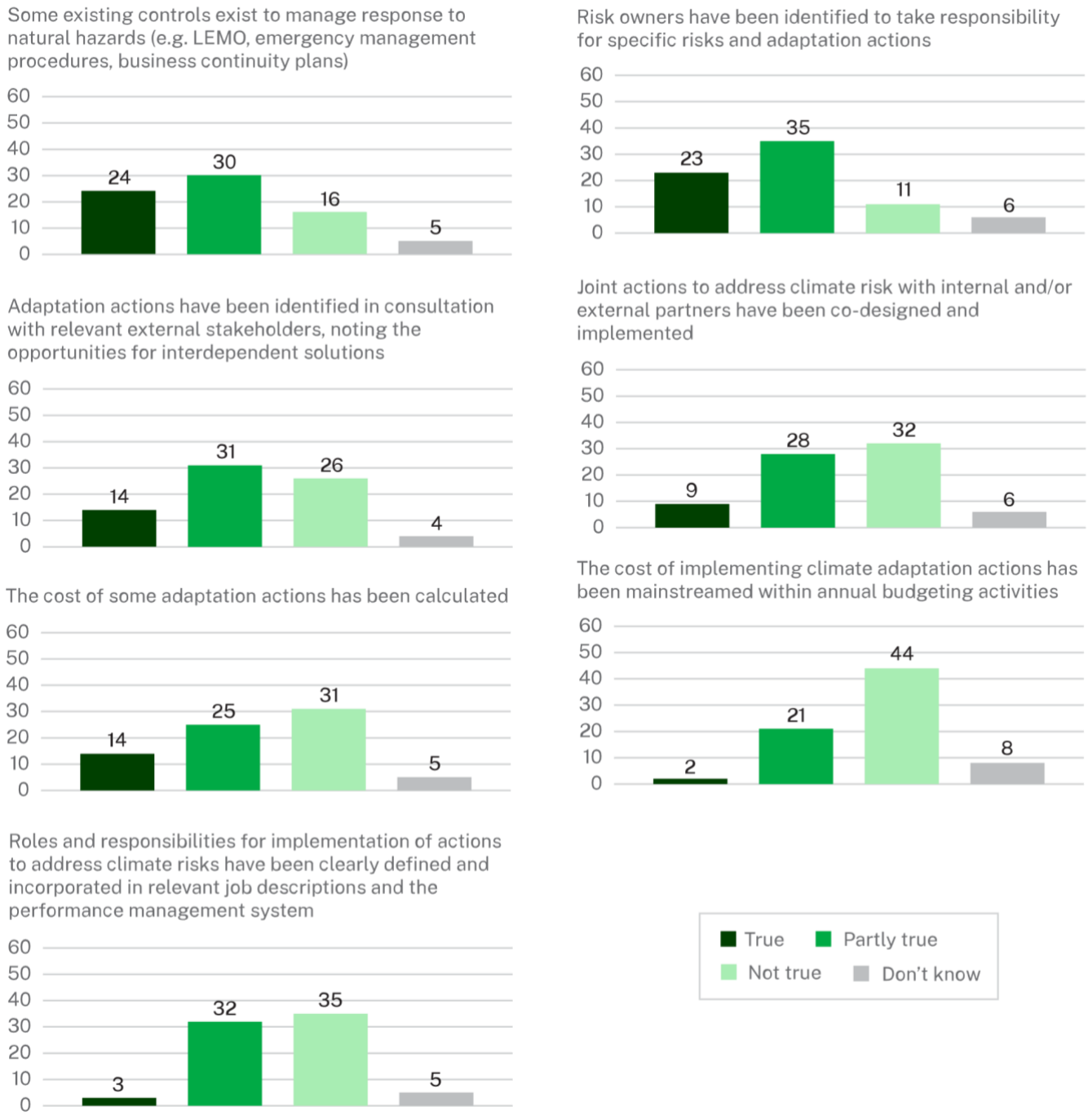
Sample: 75 councils that completed the 2023 questionnaire

Climate change risk responses

The 2023 survey asked councils for the first time if they were responding in 7 different desired ways to treat climate change risks (Figure 18). These figures can serve as a benchmark for future surveys.

- More than half (54 councils) reported it ‘true’ or ‘partly true’ that 'Some existing controls exist to manage response to natural hazards'.
- There were only 4 items reported by more than half of councils as at least ‘partly true’ for their council, e.g. ‘Risk owners have been identified to take responsibility for specific risks and adaptation actions’ (58 councils).
- A large proportion of councils said the majority of listed risk responses were either ‘not true’ or that they did not know how to answer.

Figure 18 Climate change risk responses (Q15)



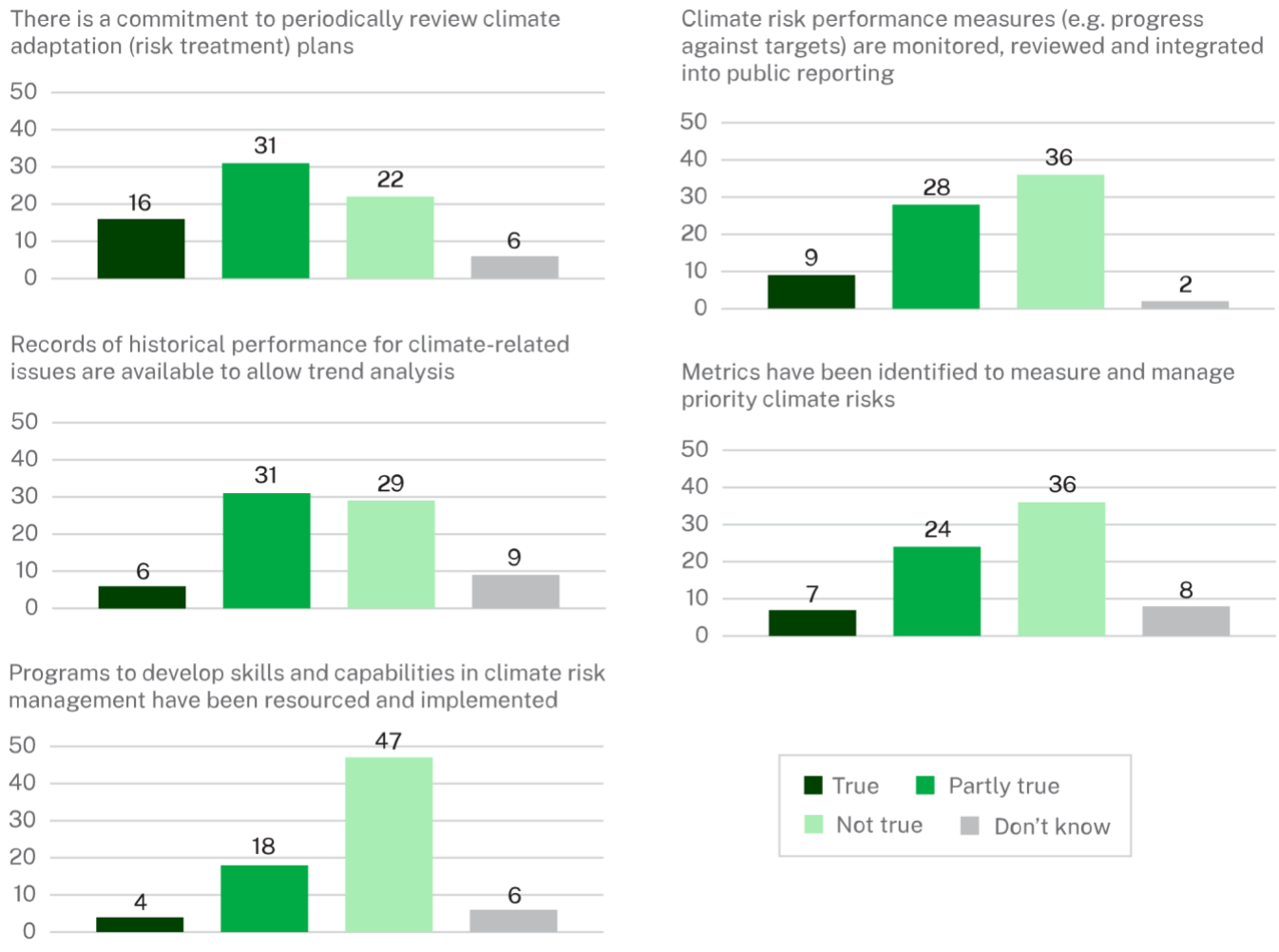
Sample: 75 councils that completed the 2023 questionnaire

Climate change monitoring and reviewing

The 2023 survey asked councils for the first time if they were engaging in 5 specific ways to monitor and review climate change (Figure 19). These figures can serve as a benchmark for future surveys.

- An opportunity exists to build capacity and support local government to monitor and review climate change risks given that very few of the councils reported that the listed actions were 'true' for their council.
- While more than half of councils have a commitment to periodically review climate adaptation plans, less than half the councils indicated that metrics have been identified to measure and manage priority climate risks, and only some councils have records to allow trend analysis. Therefore, both are areas of opportunity to support the development of metrics, capacity building and training, and to reinforce the importance of record keeping to enable trend analysis.

Figure 19 Climate change monitoring and reviewing (Q16)



Sample: 75 councils that completed the 2023 questionnaire

Climate change mitigation and achieving net zero

The 2023 survey featured a series of new questions designed to understand councils' 'net zero journey'.

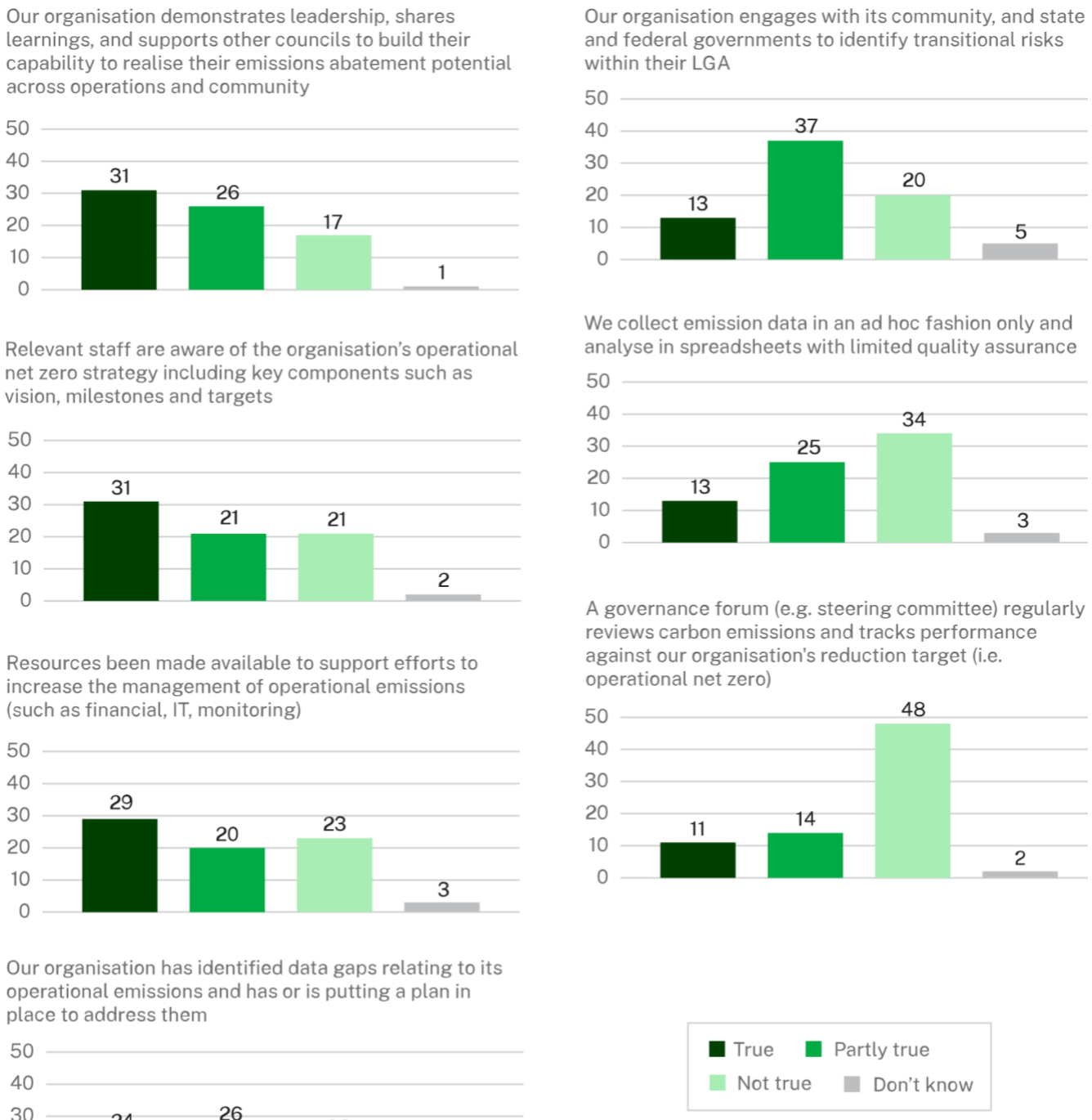
The following introduction was provided to councils:

> **Mitigation and achieving net zero**
>
> The NSW Government has committed to achieving a 70% reduction in emissions compared to 2005 levels by 2035 and reaching net zero by 2050. The Net Zero Plan outlines the action being taken by the NSW Government to reduce greenhouse gas emissions and highlights that NSW councils play a key role in supporting decarbonisation as local leaders and through their connection to local communities. By reducing emissions, local councils can help increase the resilience of their communities and act as a catalyst for NSW to meet its net zero emissions objective.
>
> The following questions are about your organisation's awareness of and commitment to mitigating climate change through influencing and reducing operational and community greenhouse gas (GHG) emissions.

The 2023 survey asked councils if they had taken 7 different actions on their mitigation journey to net zero (Figure 20). These figures can serve as a benchmark for future surveys.

- None of the items were reported by a majority of councils as 'true' for their council, suggesting the journey is still in its nascent stage.
- Several items were reported by more than half of councils as at least 'partly true' for their council, giving promise that there has been early progress on the journey, but more is yet to be done, e.g. 'Our organisation demonstrates leadership, shares learnings and supports other councils to build their capability to realise their emissions abatement potential across operations and community' (57 councils: 23 metropolitan, 24 regional).
- Interestingly, 34 councils (18 metropolitan, 16 regional) reported it 'not true' that they 'collect emissions data in an ad hoc fashion only and analyse in spreadsheets with limited quality assurance'. Follow-up with councils could explore the hypothesis that the behaviour described was perceived as undesirable and that councils reporting it as 'not true' are actually doing more, rather than not collecting or analysing any emissions data. Of the 13 councils reporting this to be 'true', 12 were regional.
- Few councils (7 metropolitan, 4 regional) reported it 'true' that they had 'a governance forum (e.g. steering committee) to regularly review carbon emissions and track performance against reduction targets'.
- Given the low prevalence of most of these actions, the number of councils reporting it 'true' that their organisation 'demonstrates leadership, shares learnings, and supports other councils' (17 metropolitan, 14 regional) may indicate different perceptions of what constitutes climate leadership.

Figure 20 Net zero journey – context and understanding (Q17)



Sample: 75 councils that completed the 2023 questionnaire

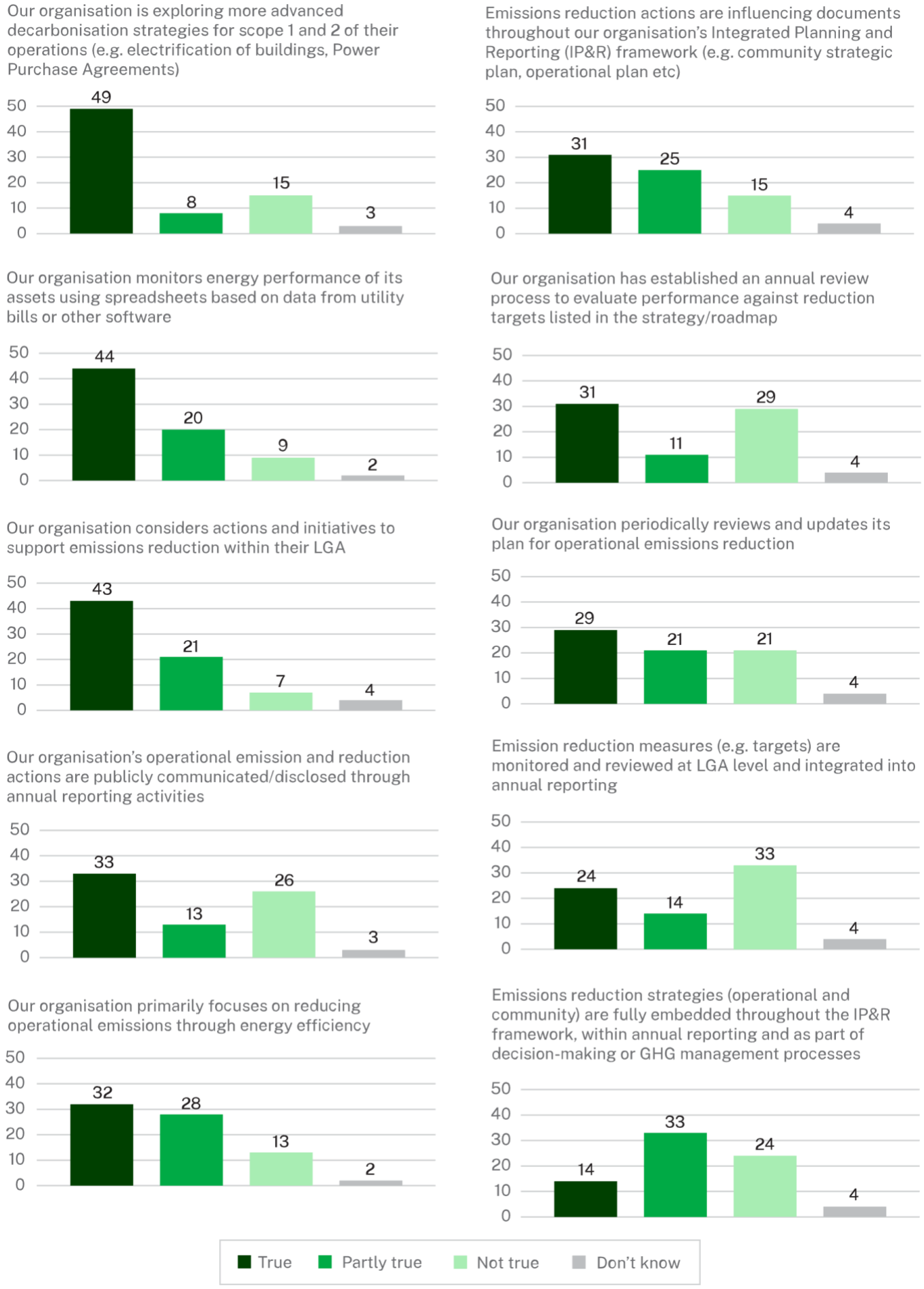
Net zero journey – action and reporting

The 2023 survey asked councils about their mitigation journey to net zero for the first time, and whether they had taken 10 different actions related to reporting (Figure 21). These figures can serve as a benchmark for future surveys.

Metropolitan councils are more likely than regional councils to have taken substantive steps to reduce operational and community emissions; however, once a council has set reduction targets for either, their efforts to achieve the reduction are not influenced by their location.

- There were 49 councils (21 metropolitan, 28 regional) that reported it 'true' that 'Our organisation is exploring more advanced decarbonisation strategies for scope 1 and 2 of their operations (e.g. electrification of buildings, Power Purchase Agreements)'.
- There were 2 other items reported by a relatively larger number of councils as 'true': 'Our organisation monitors energy performance of its assets using spreadsheets based on data from utility bills or other software' (44 councils; 14 metropolitan, 30 regional), and 'Our organisation considers actions and initiatives to support emissions reduction within their LGA' (43 councils; 19 metropolitan, 24 regional).
- Encouragingly, all remaining items were reported by more than half of councils as at least 'partly true' for their council, highlighting the very good progress that has been made on the journey so far.
- With regards to ensuring emissions reduction strategies (operational and community) were 'fully embedded' in the Integrated Planning and Reporting (IP&R) framework, this was 'true' for only 14 councils (8 metropolitan, 6 regional). However, 56 councils reported it was at least 'partly true' that 'emissions reduction actions are influencing documents' in the IP&R framework (23 metropolitan, 33 regional).
- There is an opportunity for councils to be more transparent in their annual reports, as only 33 councils (17 metropolitan, 16 regional) reported it was 'true' that 'operational emission and reduction actions are publicly communicated or disclosed through annual reporting activities'.

Figure 21 Net zero action and reporting (Q18)



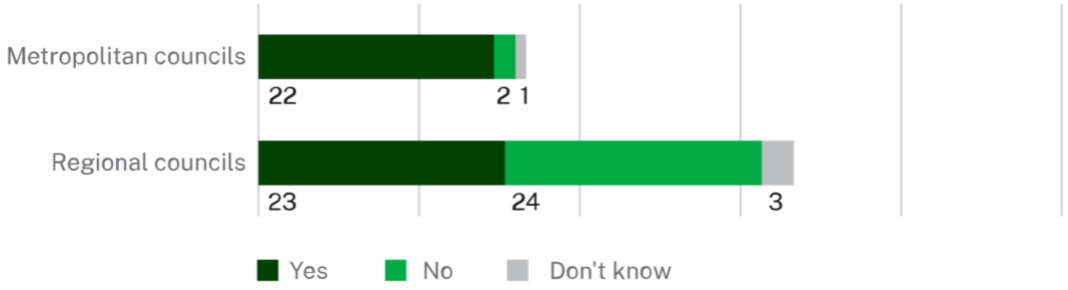
Sample: 75 councils that completed the 2023 questionnaire

Operational emissions measurement

The 2023 survey asked councils about operational emissions measurement and reduction targets for the first time. Measuring operational emissions requires establishing an operational emissions inventory (a list of emissions from council operations). In 2023, over half of responding councils reported to have an operational emissions inventory, and roughly half of responding councils had set targets. This is an improvement compared to 2018. Not many councils are monitoring and reviewing their emissions regularly though, so more regular reviews are an opportunity.

The majority of metropolitan councils have an inventory (22 out of 25), but there is an opportunity for more regional councils to take this step (only 23 out of 50 have an inventory) (Figure 22).

Figure 22 Operational emissions inventory established by metropolitan and regional councils (Q19)



Sample: 75 councils that completed the 2023 questionnaire (25 metropolitan, 50 regional)

The 45 councils with an operational emissions inventory were asked for their baseline year. The baseline year varied widely, from 2005/06 to 2022/23 (Table 1). Of these councils with an operational emissions inventory, 11 reported a baseline year in or before 2015/16, and 10 reported a baseline year of 2019/20 or later.

The 45 councils with an operational emissions inventory were also asked the most recent year in which this was measured, which ranged from 2017/18 to 2022/23. It appears that some councils that have measured operational emissions have stopped doing so or did so only once prior to 2022/23.

Table 1 Operational emissions – baseline and most recent year measured (Q19A, Q19C)

Baseline year (Q19A)	Councils	%	Most recent year (Q19C) by # of councils	Most recent year (Q19C) by % of councils
2005/06	1	nd	nd	nd
2006	1	nd	nd	nd
2008/09	2	nd	nd	nd
2009	1	9% nd	nd	nd
2010	1	nd	nd	nd
2010/11	1	nd	nd	nd
2012/13	1	nd	nd	nd
2015	1	nd	nd	nd
2015/16	2	5% nd	nd	nd
2016/17	9	12%	nd	nd
2017/18	2	3%	3	4%
2018/19	11	15%	1	1%
2019	0	0%	1	1%
2019/20	4	5%	3	4%
2020/21	5	7%	2	3%
2021/22	1	1%	20	27%
2022/23	0	0%	15	20%
Don't know year	2	3%	0	0%
Councils with operational emissions inventory (Q19=Yes)	45	60%	45	60%
Councils without operational emissions inventory (Q19=No/Don't know)	30	40%	30	40%
TOTAL COUNCILS	75	100%	75	

Sample: 75 councils that completed the 2023 questionnaire; nd = no data

The 45 councils with an operational emissions inventory were asked to report their total baseline amount in tCO_2e, and 41 councils provided a figure. These figures were split into 3 ranges with roughly equal numbers of councils in each, and with clear separations between the ranges (Table 2):

- under 15,000 tonnes of CO_2 per year
- 15,000 to under 30,000 tonnes of CO_2 per year
- 30,000 or more tonnes of CO_2 per year.

Three councils reported markedly higher baseline operational emissions of 100,000 tonnes of CO_2 or more.

Table 2 Operational emissions in baseline year (tonnes of CO_2) (Q19B)

Low range (Under 15,000)	Mid range (15,000 to <30,000)	High range (30,000 or more)
3,500	15,369	33,571
5,500	18,869	33,741
5,807	20,179	35,721
6,937	20,745	47,459
7,412	21,389	49,558
7,612	22,000	52,972
8,400	22,058	54,278
10,074	22,589	68,440
11,000	22,731	68,604
11,799	23,095	100,000
12,080	24,584	101,540
12,500	25,511	115,000
13,380	29,800	nd
13,513	nd	nd
13,539	nd	nd
14,571	nd	nd
n=16 (39%)	**n=13 (32%)**	**n=12 (29%)**

nd = no data

As might be expected, councils with more recent baseline years (2018/19 or later) tended to report higher yearly baseline emissions (average 37,277 tonnes of CO_2) than those starting before 2018/19 (average 21,230 tonnes of CO_2) although this difference did not quite reach conventional statistical significance ($F=3.807$, 1 df, $p=0.058$). While the trend might be due to chance, given the small sample sizes (n=20 before 2018/19, and n=21 2018/19 or later), the result is consistent with an underlying trend for emissions to have increased over time.

The most recent operational emissions (tonnes of CO_2e) reported by 41 councils was split into 3 ranges with roughly equal numbers and clear gaps between the successive values (Table 3).

Table 3 Operational emissions in most recent year (tonnes of CO_2) (Q19D)

Low range (Under 10,000)	Mid range (10,000 to <30,000)	High range (30,000 or more)
Zero	10,462	29,786
1,175	11,000	29,800
1,361	11,789	33,571
1,693	12,144	42,751
2,620	13,539	47,757
3,511	14,028	49,558
3,937	14,190	50,822
4,699	14,571	88,263
4,756	15,369	100,000
6,033	15,800	109,731
6,700	18,886	128,000
6,882	19,238	nd
8,000	22,058	nd
8,932	22,731	nd
nd	24,390	nd
nd	24,584	nd
n=14 (34%)	**n=16 (39%)**	**n=11 (27%)**

nd = no data

Of the 45 councils, 35 councils reported either 2021/22 or 2022/23 as the most recent year measured, and the remaining 10 councils reported a year no further back than 2017/18.

Of the 39 councils that reported both baseline and most recent operational emissions, 22 showed a reduction (1 reported a reduction to zero), 11 showed no change (4 of these due to the baseline and recent years being the same), and 6 showed an increase.

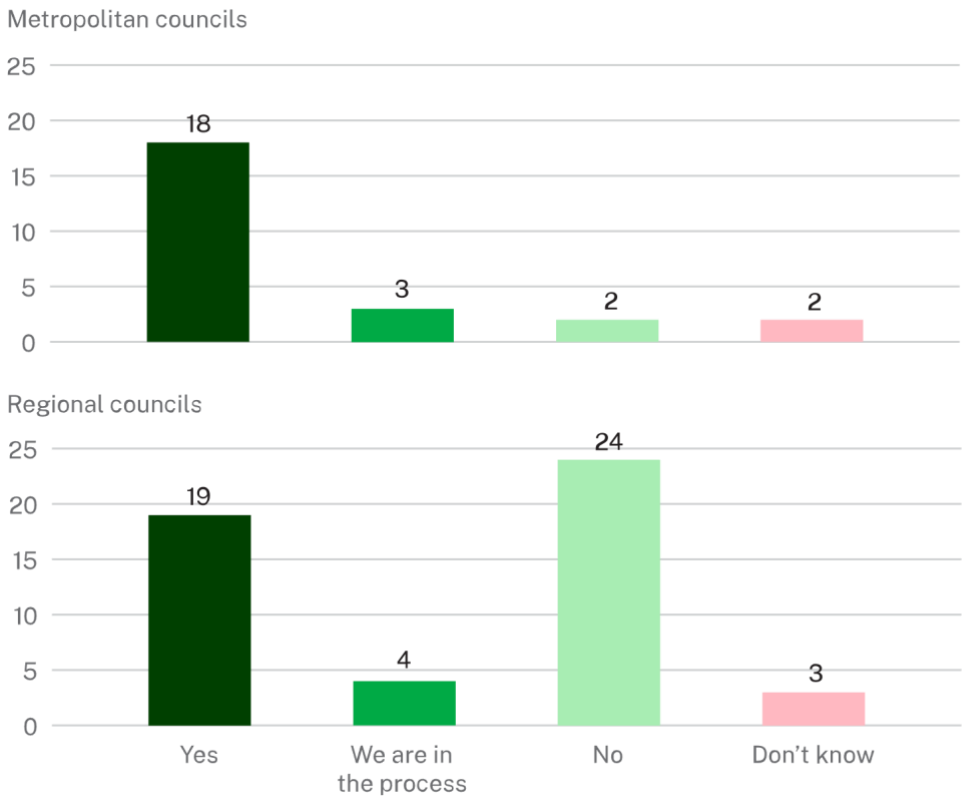
Further correlation analysis found that councils that were high (or low) emitters at the baseline measure were similarly high (or low) emitters in the most recent year measured (r=0.948), and that those that have been measuring emissions over a longer period tend to report greater reductions in operational emissions.

For the 35 councils that reported both baseline and most recent emissions for different years, there was a statistically significant fall of 15% in the average operational emissions, from 30,248 tonnes of CO_2 per year to 25,577, a fall of 4,671 tonnes per year (t-test for correlated means = 2.64, 34 df, p=0.013).

Operational emissions reduction targets

A total of 37 councils had set operational emissions reduction targets, and an additional 7 councils were 'in the process'. This is an improvement compared to 2018 when only 29 councils surveyed had set a target. The majority of metropolitan councils now have targets (18 out of 25), but there is an opportunity for more regional councils to establish targets (only 19 out of 50 have targets so far) (Figure 23).

Figure 23 Operational emissions reduction target by metropolitan and regional councils (Q20)



Sample: 75 councils that completed the 2023 questionnaire (25 metropolitan, 50 regional)

Table 4 shows the reduction targets reported and the target years.

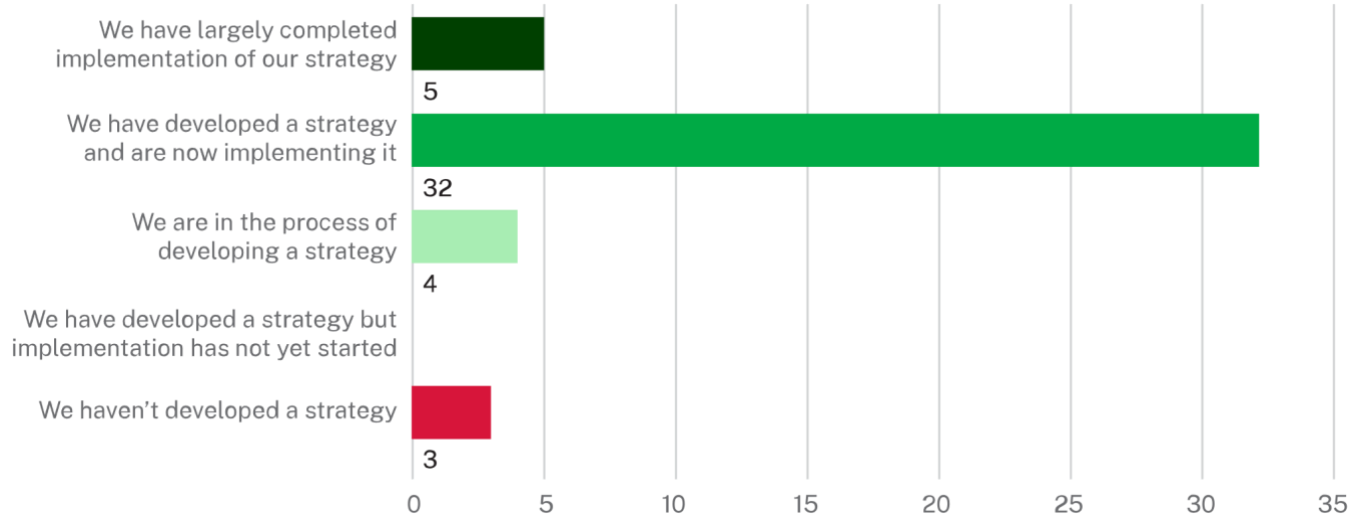
Of the 37 councils that shared their operational emissions percentage reduction targets, 20 councils were focused on '100% reduction' (11–12 councils), 'net zero' (6 councils), or 'carbon neutral' (2 councils). Other targets ranged from 30% up to 80%.

Table 4 Operational emissions reduction targets and target year (Q20A, Q20B)

Reduction target	Target year	Councils
3% per annum	Not stated	1
30%	2024/25	1
32%	2024/25	1
40%	2029/30	1
	2030	2
45%	2030	1
50%	2024/25	1
	2028	1
	2030	1
60%	2034/35	1
	2040	1
61%	2035/36	1
75%	2038	1
80%	2024/25	1
	2030	1
	2036	1
100% (12 councils)	2024/25	1
	2025/26	1
Net zero (6 councils)	2030	10
	2031	1
Carbon neutral (2 councils)	2034/35	1
	2035	1
	2035/36	1
	2040	2
	2050	2

The 44 councils that had set (37) or were in the process of setting (7) an operational emissions reduction target were asked if they had developed a strategy or action plan to achieve it. Most councils (32) reported they had developed a strategy and were 'now implementing it', and 5 councils reported they had 'largely completed implementation' (Figure 24).

Figure 24 Progress towards having an operational emissions reduction target or strategy (Q21)

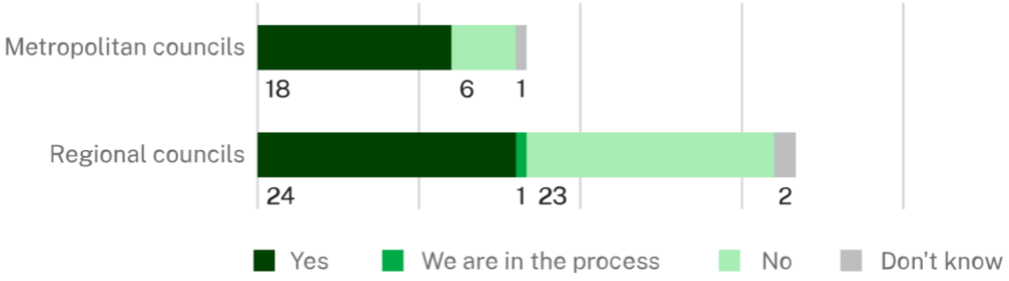


Sample: Asked to 44 councils that had set, or were in the process of setting an operational emissions reduction target

Renewable energy targets

A total of 42 councils had developed a target for the percentage of renewable energy used in council operations. The majority of metropolitan councils now have targets (18 out of 25), but there is an opportunity for more regional councils to establish targets (only 24 out of 50 have targets so far, with 1 'in the process' of developing) (Figure 25).

Figure 25 Renewable energy target setting by metropolitan and regional councils (Q22)



Sample: 75 councils that completed the 2023 questionnaire (25 metropolitan, 50 regional)

All but 1 of the 42 councils with set targets specified the target percentage, and 38 reported the target year. The replies are summarised in Table 5. Of the 42 councils that reported their renewable target, 76% (32 councils: 17 metropolitan and 15 regional) have a 100% renewable energy target, and of these councils, almost all has set a target year of 2030 or earlier.

Table 5 Renewable energy targets and target years (Q22A and Q22B)

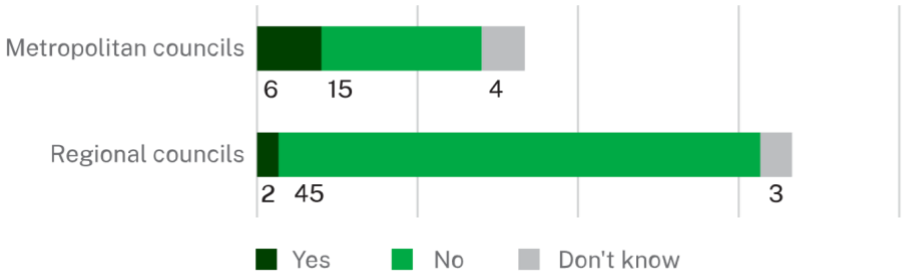
Renewable energy target	Target year	Councils	Percentage
10%	2023/24	1	2%
	2030	1	2%
	Sub total	**2**	**5%**
25%	2024/25	1	2%
50%	2024/25	1	2%
	2025	2	5%
	2029/30	1	2%
	2030	2	5%
	Sub total	**6**	**14%**
100%	Not set	3	7%
	2020	2	5%
	2021/22	1	2%
	2022	1	2%
	2022/23	2	5%
	2023	1	2%
	2023/24	1	2%
	2024/25	1	2%
	2025	4	10%
	2025/26	2	5%
	2026/27	2	5%
	2027	1	2%
	2028	1	2%
	2029/30	1	2%
	2030	8	19%
	2040	1	2%
	Sub total	**32**	**76%**
Don't know	Don't know	1	2%
TOTAL		**42**	**100%**

Carbon offsets purchased

Only a few councils are purchasing carbon offsets, and most have begun to do so quite recently. Only 8 councils (6 metropolitan, 2 regional) reported that their organisation had purchased any carbon offsets. There were 7 councils that did not know whether carbon offsets had been purchased (Figure 26). The tonnage of CO_2 offsets purchased ranged from 323 tonnes per year to 86,544 tonnes (based on responses of 7 councils who answered Q23A). The average tonnage of offsets purchased was 21,500, despite only 2 councils reporting having purchased more than 12,500 tonnes.

The 8 councils that had purchased offsets started in 2018/19 (1 council), 2019 (1 council), 2020/21 (2 councils), 2022 (1 council) and 2022/23 (2 councils).

Figure 26 Carbon offsets purchased (Q23)



Sample: 75 councils that completed the 2023 questionnaire (25 metropolitan, 50 regional)

Community emissions

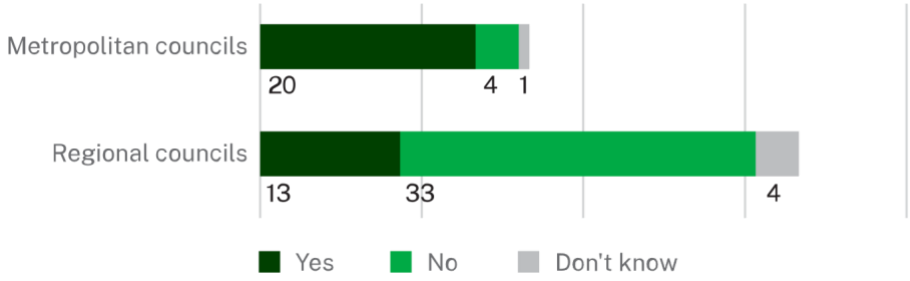
To meet state government targets, it is essential that each council is actively involved in monitoring and acting to reduce emissions from the whole community it serves. Thus, the 2023 survey asked councils about their measurement of and steps to reduce emissions by their local community.

Measuring community emissions

Almost half of responding councils reported that they had a community emissions inventory, and slightly less had set targets. Metropolitan councils were roughly twice as likely to have either an inventory or to have set targets, which suggests that support is needed here for regional councils.

Metropolitan councils were far more likely to report that their organisation had a community emissions inventory (80% or 20 out of 25 responding councils) than regional councils (26% or 13 out of 50 responding councils). There were 5 councils that did not know whether a community emissions inventory had been completed (Figure 27).

Figure 27 Community emissions inventory (Q24)



Sample: 75 councils that completed the 2023 questionnaire (25 metropolitan, 50 regional)

The 33 councils that said they had measured community emissions had been doing so for a highly variable period (Table 6).

Table 6 Year measurement of community emissions commenced (Q24, Q24A)

Measurement commenced	Number	Percent of measured	Percent of Total Sample
Before 2005	1	3%	1%
2005/06	1		
2006	1		
2007/08	1	15%	7%
2008	1		
2008/09	1		
2013	1		
2013/14	2		
2016/17	8	36%	16%
2017	1		
2018/2019	8	24%	11%
2019/2020	2		
2020/21	2	15%	7%
2021/22	1		
2022/23	0	0%	0%
Don't know	2	6%	3%
TOTAL MEASURING COMMUNITY EMISSIONS	33	100%	44%
NOT MEASURING	42	NA	56%
TOTAL SAMPLE	75	NA	100%

NA = not applicable
Note: figures may not add up accurately due to rounding

In total, 33 councils said they had a community emissions inventory:

- 29 reported both the baseline year and baseline year emissions value
- 2 gave a baseline year but no baseline year emissions value
- 1 gave a baseline year emissions value but not the baseline year
- 1 gave neither the baseline year nor the baseline year emissions value

Community emissions – baseline

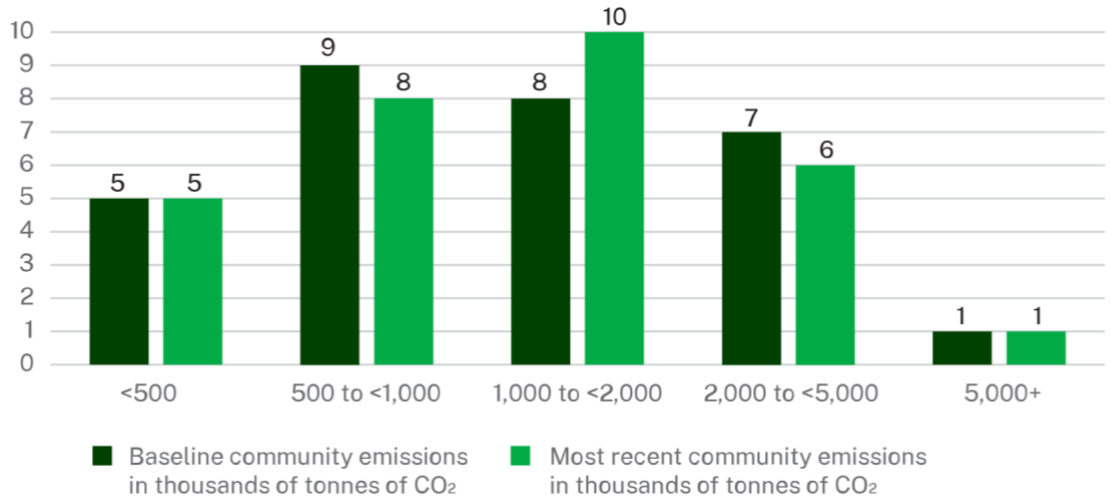
Community emissions baseline values were provided by 30 of the 33 councils that reported they had measured community emissions.

As would be expected, the measures varied very widely, from a low of 147,285 tonnes per year to a high of 5.8 million tonnes. The average (just over 1.67 million tonnes) was much higher than the median, with half the councils (15 of 30) reporting a baseline measure of 1 million tonnes or less, and half (15 of 30) reporting a value above 1 million tonnes.

Community emissions – most recently measured

Thirty councils reported 'most recently measured' emissions. Some had started so recently that there had only been time to obtain 1 measurement. The measures reported ranged from 114,164 tonnes to 8.67 million tonnes and averaged 1.7 million tonnes. Fourteen of the councils reported most recent community emissions of 1.0 million or less.

Figure 28 Baseline community emissions and recent emissions in thousands of tonnes of CO_2 (Q24B & Q24D)



Samples: 30 councils reporting baseline community emissions and 30 councils reporting most recent community emissions

Community emissions – changes since baseline year

Twenty one councils reported both baseline and most recently measured community emissions values. (This n=21 excludes n=7 councils that reported emissions for only 1 year, and n=1 council that reported emissions "excluding Industrial Processing and Product Use" from its baseline emissions but not from its most recently measured emissions.)

Comparing recently measured emissions with the baseline values, it was found that reported emissions were more likely to fall than to rise. Of the 21 councils:

- 13 decreased emissions by an average of 275,599 tonnes
- 8 increased emissions on average by 241,992 tonnes
- Overall the 21 councils had an average reduction of 78,421 tonnes

The councils were segmented into 2 groups: those that had been measuring community emissions for a relatively longer period (8 years or more), and those that had been measuring for a shorter period (1-6 years).

Of the n=9 measuring for 8 years or more:

- 6 decreased emissions by an average of 475,417 tonnes
- 3 increased emissions by an average of 177,618 tonnes
- Overall, the n=9 councils that had been measuring emissions for 8 years or more reported an average reduction of 257,738 tonnes

Of the n=12 measuring for 1–6 years:

- 7 decreased emissions by an average of 104,326 tonnes
- 5 increased emissions by an average of 280,616 tonnes
- Overall, the n=12 councils that had been measuring emissions for 1–6 years reported an average increase of 56,066 tonnes

While the overall trend for all the n=21 councils was down, councils that had been measuring community emissions for 8 years or more were less likely to report increased emissions, reported greater average reductions, and reported smaller average increases.

It appears that working to reduce community emissions over a longer period is more likely to be successful and to achieve larger reductions or at least to report smaller increases in community emissions.

Community emissions targets

Less than half the councils (30 out of 75) reported having developed a target for the percentage reduction in community emissions and 4 said they were in the process of doing so. Just over half (39 councils) replied that the council had no target, and 2 respondents did not know if there was a target (Figure 29).

Figure 29 Whether council has target for percent reduction in community emissions (Q25)

Sample: 75 councils that completed the 2023 questionnaire

The targets varied from '3% per capita per annum', and a low of 15% to 100% or net zero. Table 7 shows the highest stated target.

Table 7 Targets for reduction in community emissions (Q25, Q25A)

Maximum target	Number
3% per capita per annum	1
15%	1
35%	1
50%	5
65%	1
75%	1
80%	1
100%	10
Net zero	9
TOTAL	30

Sample: 30 councils that have a community emissions reduction target

The target years ranged from the 2023/24 financial year to 2050, with the 2030 calendar year the most popular target year (6 councils). Four councils gave financial years as the target year and all others gave calendar years. Eleven councils gave 2030 or before as the target year for their highest target. Eleven councils gave a year between 2035 and 2040 (including 1 specifying the 2040/41 financial year). Five councils gave 2050 as their target year and 1 council gave 2049/50.

Community emissions reduction strategy

Of the 34 councils with targets for community emissions reductions or in the process of setting such targets, 21 reported they had developed a strategy (1 of which had largely completed implementation). Only 5 councils had not developed a strategy despite having set a target (Figure 30).

Figure 30 Stage reached in developing a community reduction strategy (Q26)

Sample: 75 councils that completed the 2023 questionnaire

Information sources

In the 2023 survey, an extensive set of different resources were listed over 3 questions (focused on NSW Government, local government, and national and international resources). Councils were asked to report if they had heard of each resource, and the extent to which they had accessed it.

Metropolitan councils are more likely than regional councils to be aware of and to have accessed multiple sources of relevant information and to be using the information in work to reduce operational and community emissions. The differences might also be due, at least in part, to metropolitan councils having more specialist staff resources and more budget available to devote to adaptation and mitigation.

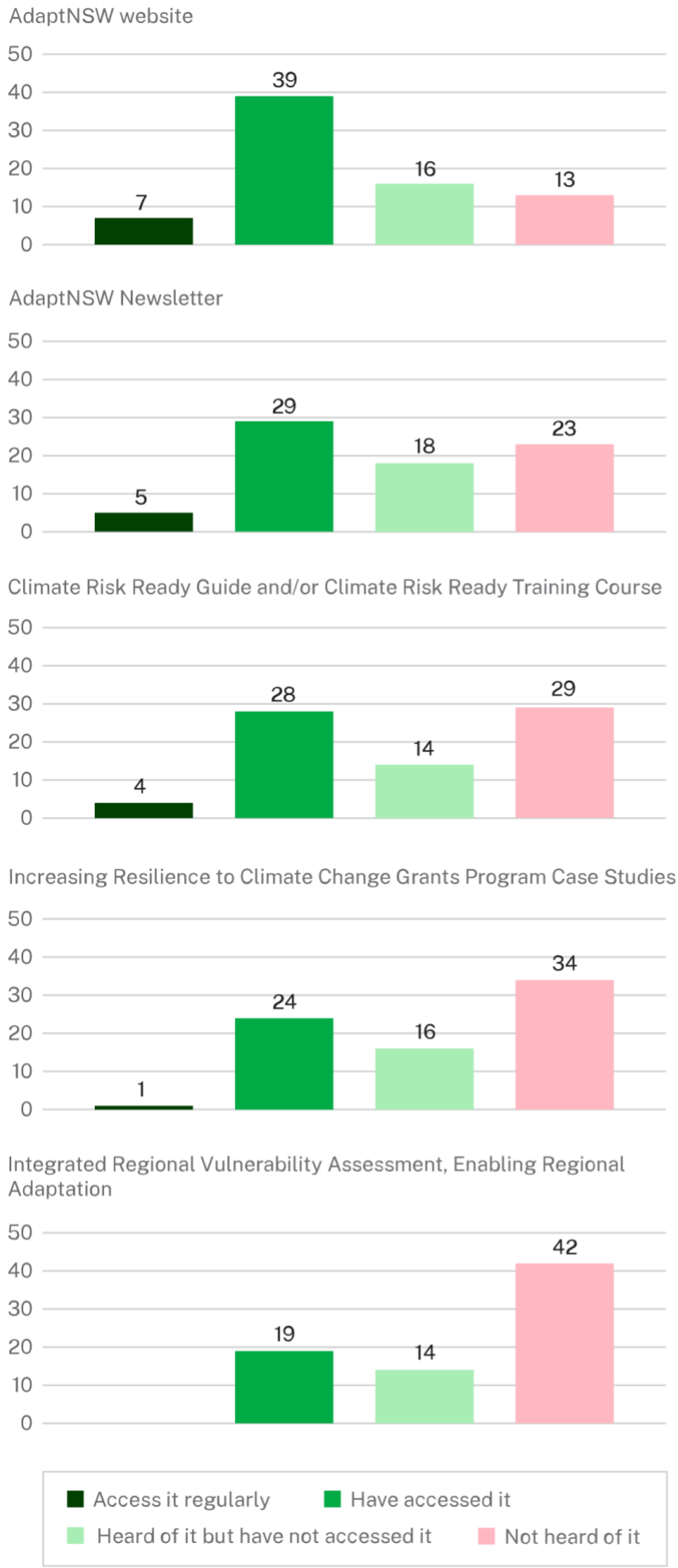
Overall, there is an opportunity to promote the various types of information sources to all councils, to increase awareness and encourage more regular access (e.g. promote in newsletters and webinars, ensure they are updated with current information, etc).

Of the 5 listed information sources provided by the NSW Government in the 2023 survey, more than half of the councils were aware of 4 of these, but very few accessed them regularly (Figure 31). The 'AdaptNSW website' had been accessed by 46 councils (17 metropolitan, 29 regional) whereas the 'AdaptNSW newsletter' had been accessed by 34 councils (10 metropolitan, 24 regional).

'Integrated Regional Vulnerability Assessment, Enabling Regional Adaptation' was the only source that less than half respondent councils were aware of (10 metropolitan, 23 regional).

The 2023 results are not strictly comparable with 2018 survey results (due to changes in question structure, items included and response scale employed). However, in 2018, at least occasional use was reported for 'State government resources e.g. AdaptNSW (by 72% of all respondents) and for 'International resources e.g. IPCC' (by 54% of all respondents).

Figure 31 Use of NSW Government information sources (Q27)

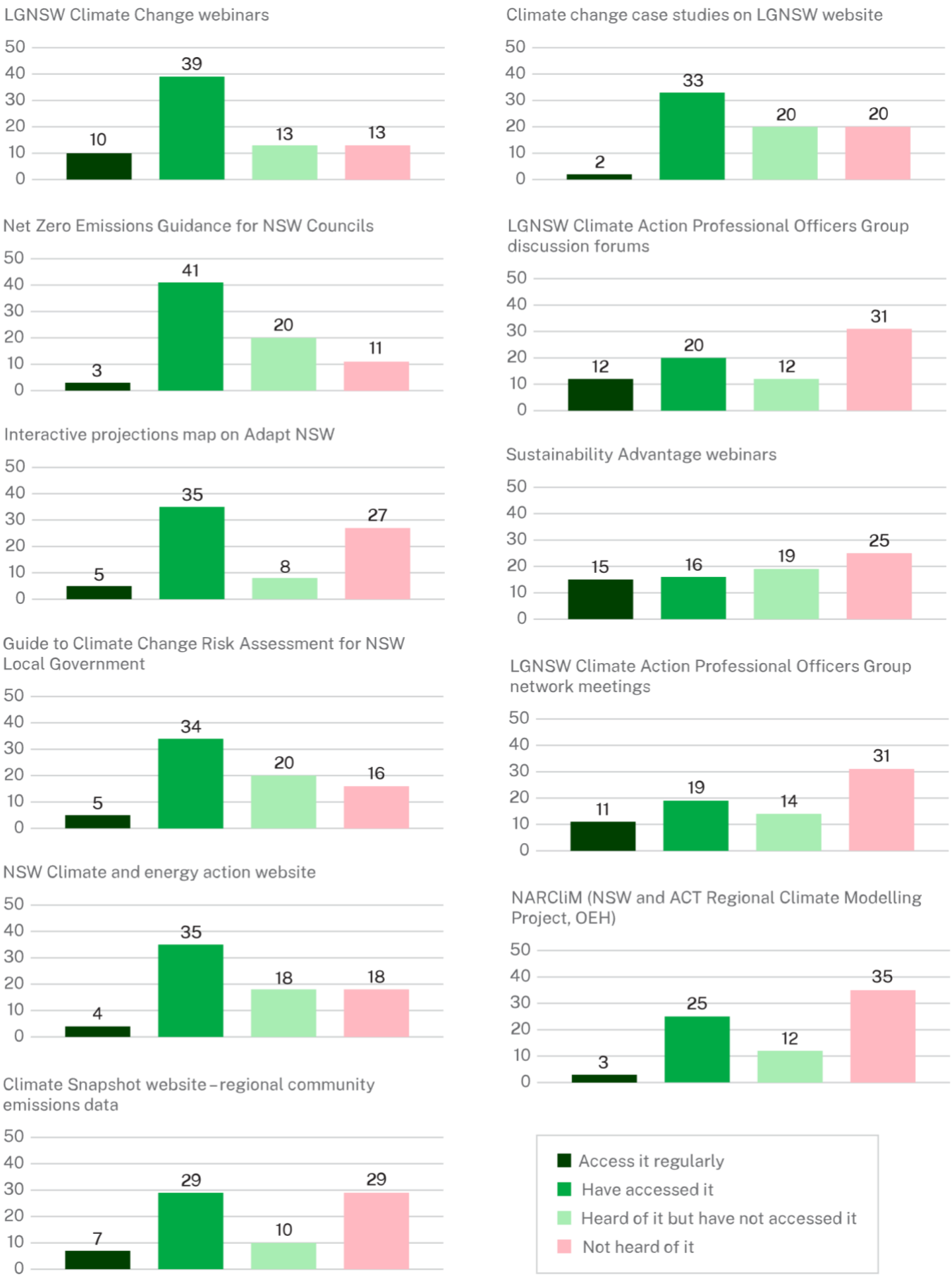


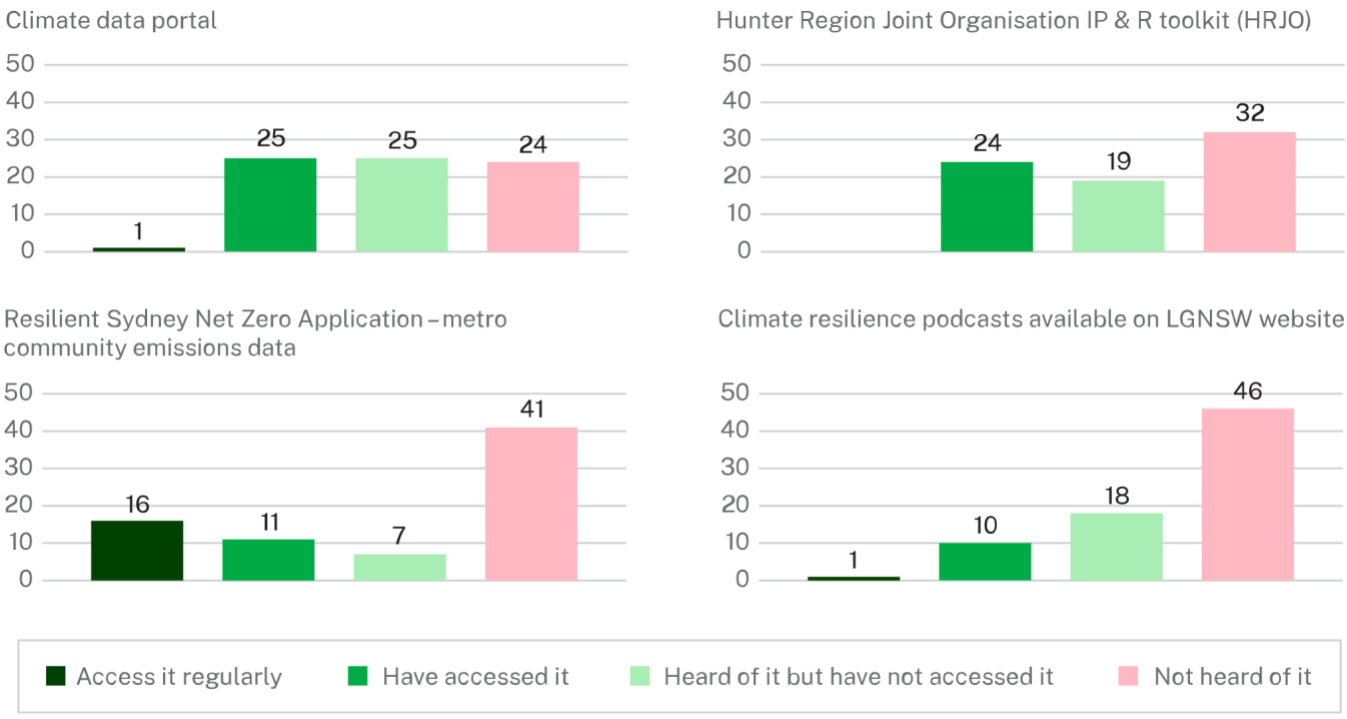
Sample: 75 councils that completed the 2023 questionnaire

There were 15 listed information sources provided by local government in the 2023 survey. More than half of the councils were aware of 13 of the 15 sources, but very few accessed them regularly (Figure 32). Resources that were more likely to have been accessed by metropolitan councils than regional councils included:

- NSW Climate and Energy Action website
- Net Zero Emissions Guidance for NSW Councils
- the Guide to Climate Change Risk Assessment for NSW Local Government
- the LGNSW Climate Action Professional Officers' Group network meetings
- LGNSW climate change webinars.

Figure 32 Use of local government information sources (Q28)





Sample: 75 councils that completed the 2023 questionnaire

There were 11 listed national and international information sources in the 2023 survey. More than half of the councils were aware of 8 of the 11 sources, but relatively few accessed them regularly (Figure 33). The 'Intergovernmental Panel on Climate Change reports (IPCC)' were the best known and most widely accessed resource (51 councils had accessed those). The 'CSIRO Climate Change in Australia website' had been accessed by 47 councils and the 'Cities Power Partnership Council Connect' had been accessed by 45 councils.

The 2023 results are not strictly comparable with 2018 survey results (due to changes in question structure, items included and response scale employed). However, in 2018, at least occasional use was reported for 'Australian Government resources e.g CSIRO/BOM' (88% of all respondents) and 'International resources e.g. IPCC' (54% of all respondents).

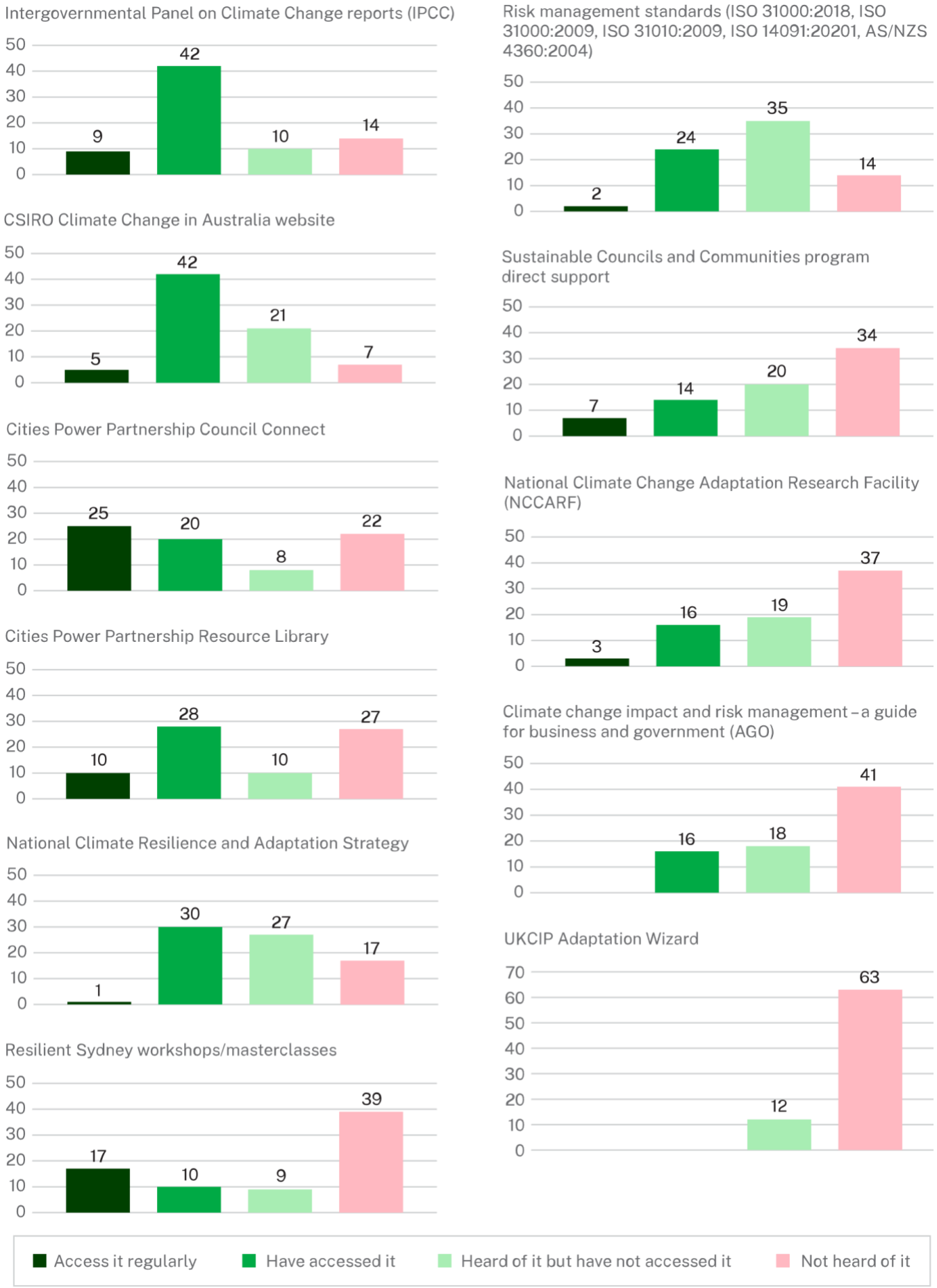
Resources that were more likely to have been accessed by metropolitan councils than regional councils included:

- National Climate Resilience and Adaptation Strategy
- the Resilient Sydney workshops/masterclasses (Note: These are available to only 33 metropolitan councils, and 100% of metropolitan councils were aware)
- Intergovernmental Panel on Climate Change reports (IPCC)
- CSIRO Climate Change in Australia website
- Climate change impact and risk management – a guide for business and government (AGO).

Resources that were more likely to have been accessed by regional councils than metropolitan councils included:

- Sustainable Councils and Communities program direct support.

Figure 33 Use of national and international information sources (Q29)



Sample: 75 councils that completed the 2023 questionnaire

Network membership

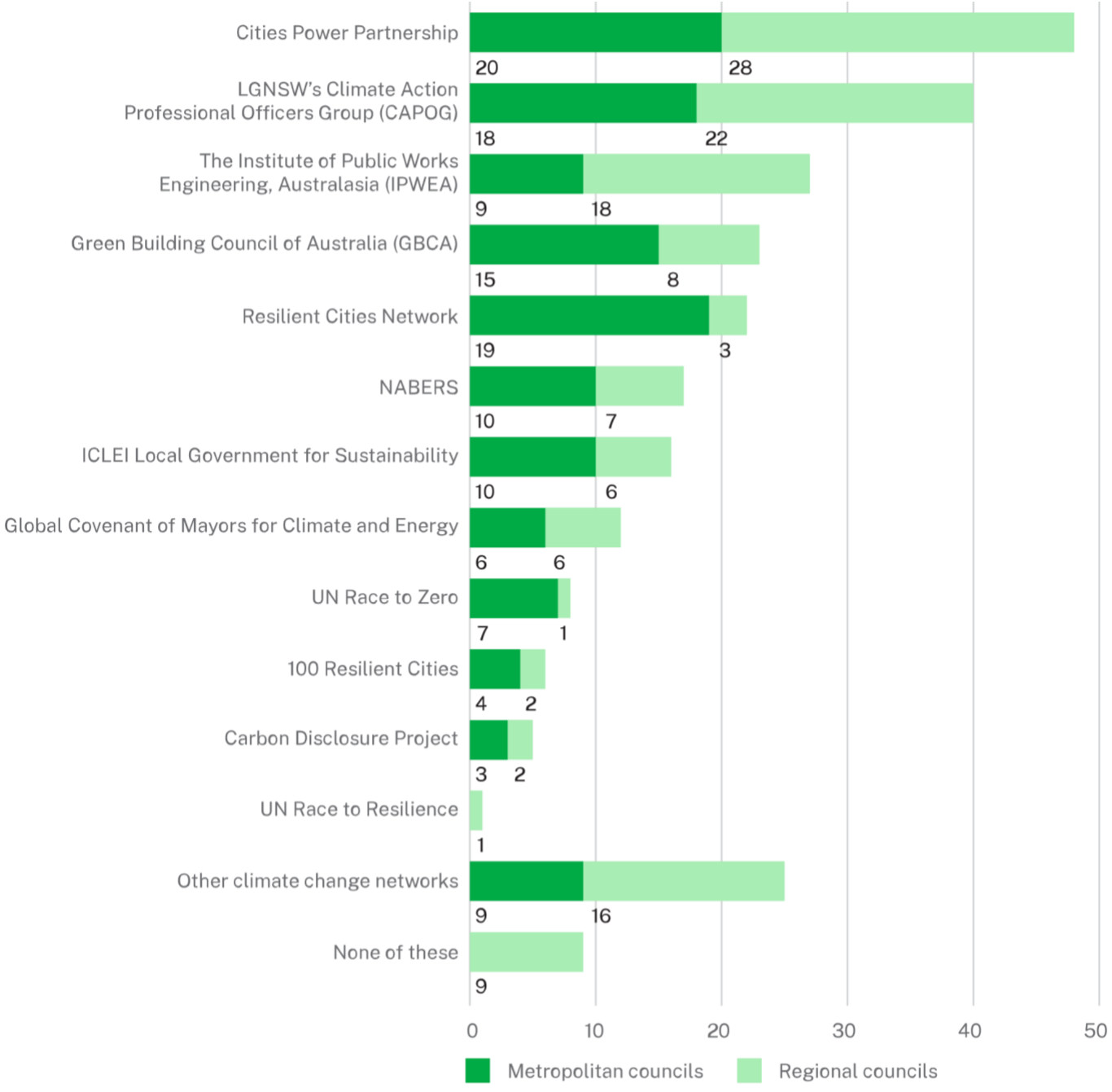
One way of accessing information that is likely to be particularly useful is for an organisation to join relevant regional, statewide, national and international networks with a focus on or interest in adaptation to climate risks and mitigation of emissions. The 2023 survey asked councils to report on networks which their organisations had joined or to which they were linked.

Most of the responding councils were members of such networks (except for 9 regional councils that answered 'none of these'), and most were members of more than 1 network (Figure 34).

Two organisations stood out in terms of the number of councils that had joined: the 'Cities Power Partnership' (with 20 metropolitan and 28 regional councils as members) and 'LGNSW's Climate Action Professional Officers' Group' (with 18 metropolitan and 22 regional councils as members).

There were 25 councils that volunteered the names of other organisations they had joined that they considered relevant, with Joint Organisations or offshoot groups standing out.

Figure 34 Network membership (Q36)



Sample: 75 councils that completed the 2023 questionnaire (25 metropolitan, 50 regional)

How information is used

In the 2023 survey, councils were asked to report the ways in which they use climate change information (13 potential uses were listed; 9 consistent with the 2018 survey and 4 asked for the first time) (Figure 35).

'Assessing climate risks to assets, infrastructure and services' was the most commonly reported use (20 metropolitan and 35 regional councils).

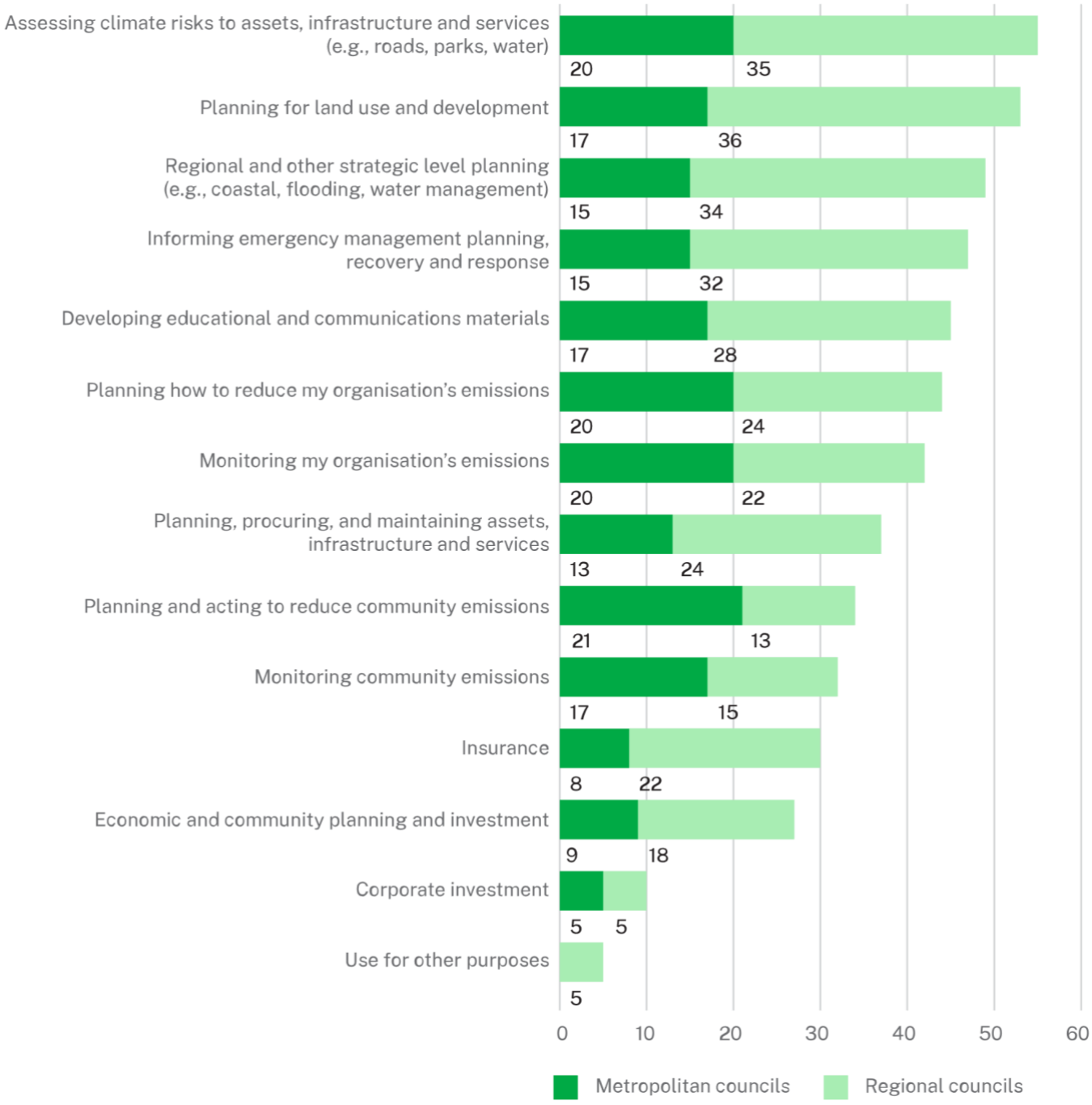
Most of the other uses were not primarily related to climate change adaptation or mitigation, for example 'planning for land use and development', 'regional and other strategic level planning', and 'informing emergency management planning'.

Less than half of the responding councils reported that information was used for 'planning and acting to reduce community emissions' or for 'monitoring community emissions'. As more councils commit to and develop strategies for adaptation and mitigation, we would expect more councils to start using the information to assist with monitoring and mitigation of community emissions.

Metropolitan councils were more likely than regional councils to use climate change information for the following purposes:

- Planning how to reduce their organisation's emissions (80% for metropolitan, 48% for regional councils)
- Monitoring their organisation's emissions (80% for metropolitan, 44% for regional councils)
- Planning and acting to reduce community emissions (84% for metropolitan, 24% for regional councils)
- Monitoring community emissions (68% for metropolitan, 30% for regional councils).

Figure 35 Uses made of climate change information (Q30)



Sample: 75 councils that completed the 2023 questionnaire (25 metropolitan, 50 regional)

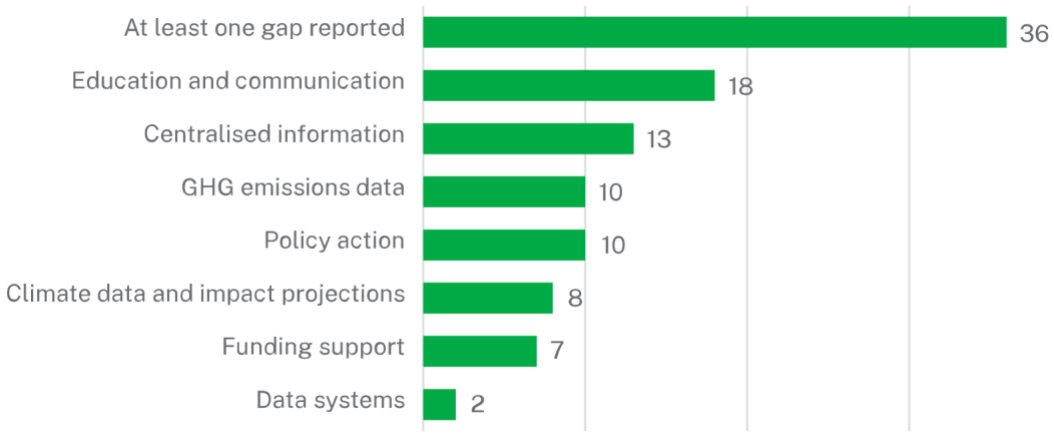
Gaps in climate change information or guidance

When asked to think about any gaps in information, or guidance that councils would like to learn or find out more about, 36 of the 75 councils left a suggestion or comment. Answers were very diverse, often highly specific and quite detailed. These responses have been classified into 7 broad categories (Figure 36).

Most often reported gaps were in 'education and communication' of climate change information such as:

- 'Community climate change toolkit for local government'
- 'Local government adaptation guide could be updated to reflect climate risk ready guide'
- 'Formal training for net zero and sustainability officers for emission calculations and reporting is needed'
- 'Examples and case studies of how to implement cost effective change for mitigation and adaptation, and funding to implement'.

Figure 36 Gaps in climate change information (Q31)



Sample: 75 councils that completed the 2023 questionnaire

'Centralised information' covered replies such as:

- 'Central location for climate related grants'
- 'How to access funds for adaptation (other levels of government or resilience bonds)'.

Greenhouse gas emissions data sought was described as:

- 'Help calculating and addressing Scope 3 emissions'
- 'Community emissions data'.

Policy actions sought included:

- 'Developing successful planning policy'
- 'Physical and transitional risk management guidelines'.

Climate data and impact projections sought included:

- 'LGA level impact projections'
- 'Guidance on which climate models to use (RCP scenarios)'.

The data system requests were:

- 'Data capture and interpretation'
- 'A standardised reporting tool for all councils is required'
- 'Syndicate the Resilient Sydney platform to the 6 Cities and then all NSW councils'.

Barriers and enablers of climate adaptation and mitigation

Key potential barriers and enablers were quantified to understand the extent to which they were impeding or supporting local government. Rather than ask simply about barriers and enablers to 'climate change action', for the first time in 2023 respondents were asked to consider the potential barriers and enablers through the separate lenses of adaptation and mitigation. This has been a valuable distinction, and the approach is likely to be retained in future surveys.

Barriers

In 2023, 11 potential barriers were explored (Figure 37). The type of barriers emerging in 2023 compared to the 2018 remained the same. But comparing the 2018 and 2023 survey responses suggested the barriers had become larger* in recent years.

*As noted previously in the report, the 2018 survey allowed responses from multiple respondents from within the same council, whereas in 2023 each responding council has contributed a single response.

The top 2 barriers (rated as impeding both adaptation and mitigation 'a great deal') were:

1. **Lack of assigned funding** (73% or 55 councils for adaptation; 59% or 44 councils for mitigation – worsened vs. 46% of all respondents in 2018).
2. **Lack of sufficient staff numbers** (65% or 49 councils for adaptation; 48% or 36 councils for mitigation – worsened vs. 35% of all respondents in 2018).

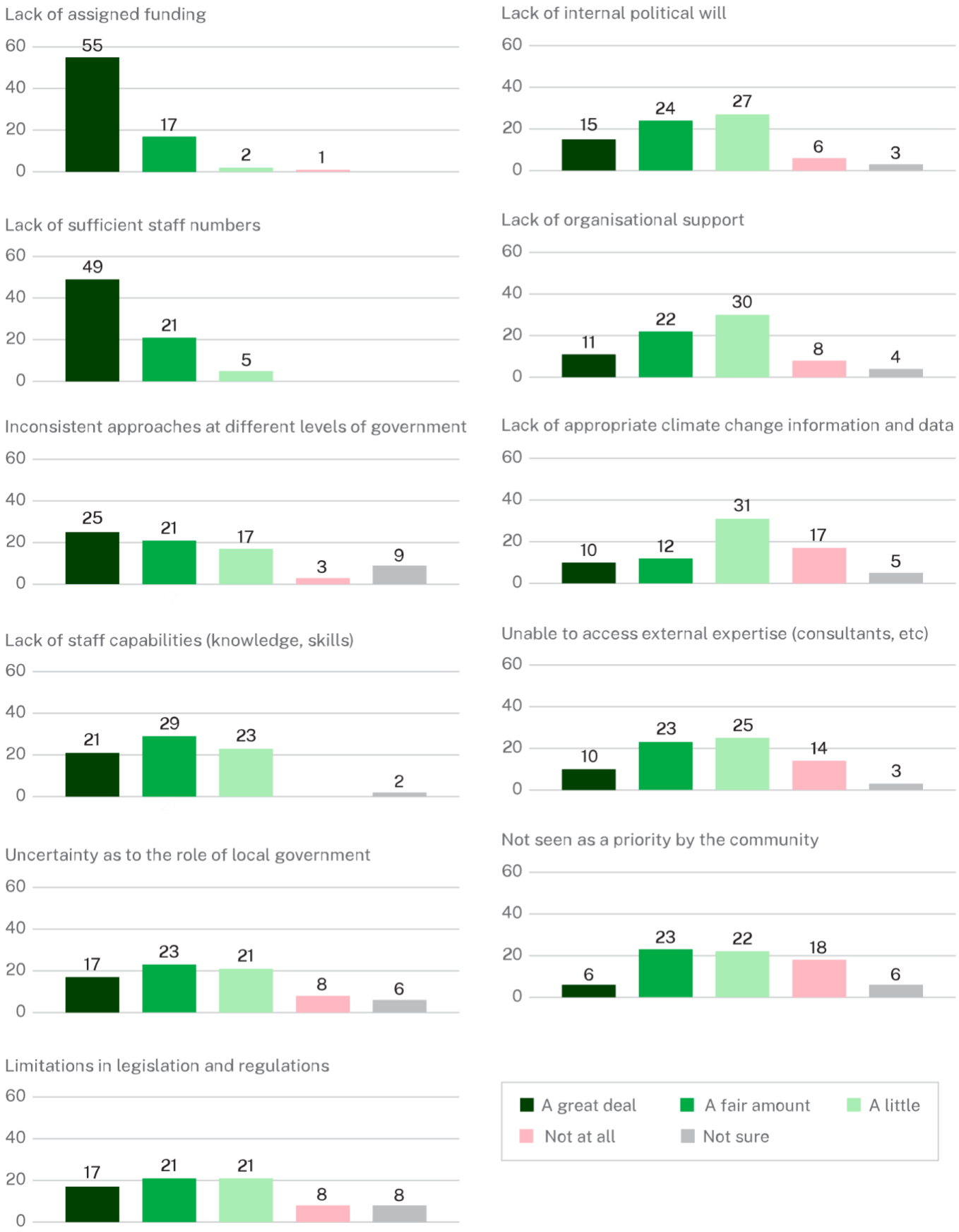
   While the top 2 barriers remain the same, and the overriding theme for councils – especially in the adaptation context – is a lack of resourcing, the 2023 survey revealed higher 'a great deal' ratings than in 2018, underlining the urgent need to alleviate these barriers.

Rounding out the top 6 barriers:

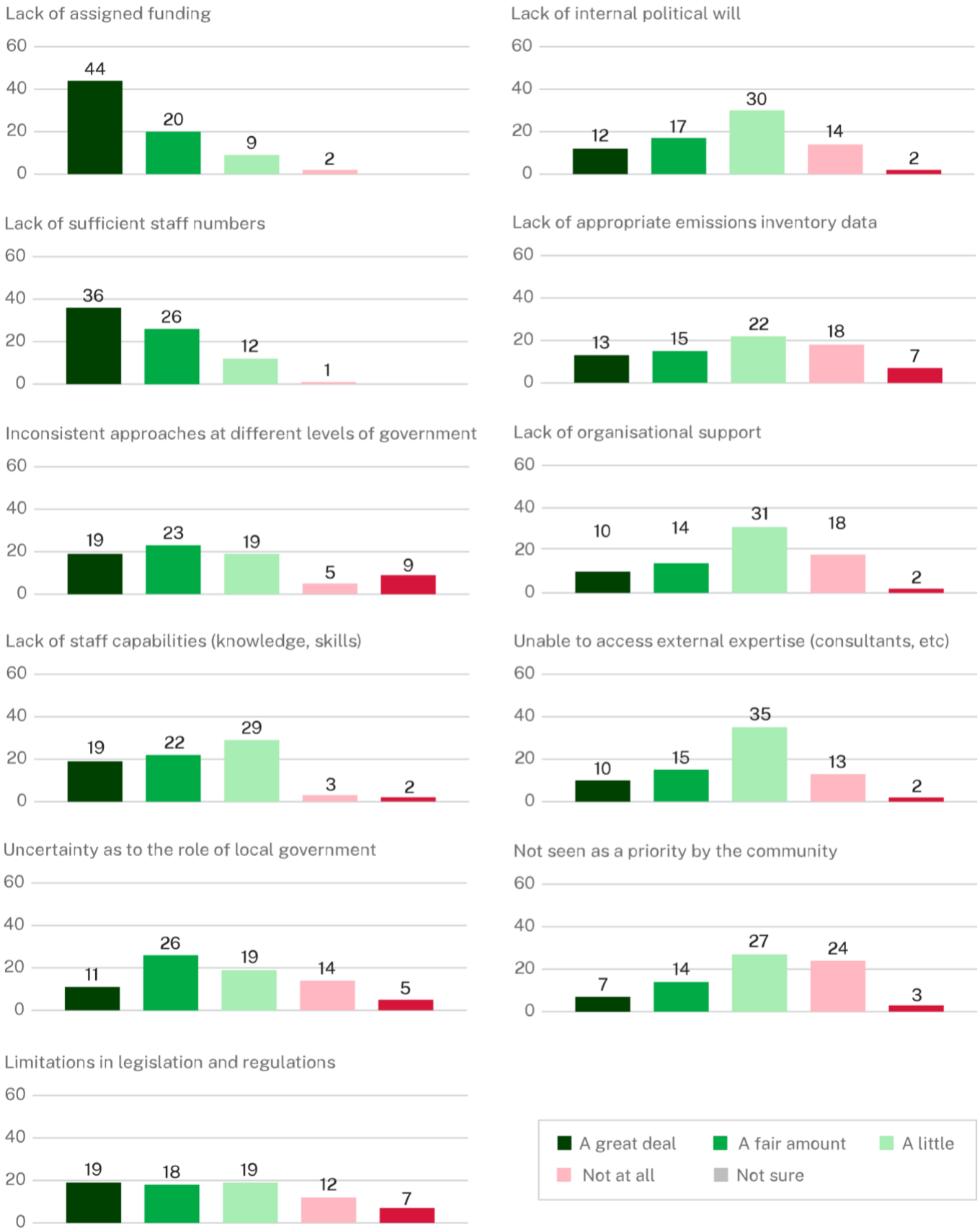
3. **Inconsistent approaches at different levels of government** (33% or 25 councils for adaptation; 25% or 19 councils for mitigation – improved vs. 43% of all respondents in 2018).
4. **Lack of staff capabilities** (knowledge, skills) (28% or 21 councils for adaptation; 25% or 19 councils for mitigation – worsened vs. 18% of all respondents in 2018).
5. **Uncertainty as to the role of local government** (23% or 17 councils for adaptation – worsened vs. 16% of all respondents in 2018).
6. **Limitations in legislation and regulations** (25% or 19 councils for mitigation – worsened vs. 18% of all respondents in 2018).

Figure 37 Barriers to adaptation (Q32) and mitigation (Q33)

Adaptation



Mitigation



Sample: 75 councils that completed the questionnaire

Note: The wording of 4 of the 11 barriers explored was revised slightly in the 2023 survey to improve clarity for respondents. There was 1 unique item for adaptation ('Lack of appropriate climate change information and data'), and 1 for mitigation ('Lack of appropriate emissions inventory data').

Table 8 Changes in the rank order of barriers to implementation

	2015 survey %	2015 survey Rank	2018 survey %	2018 survey Rank	2023 adaptation %	2023 adaptation Rank	2023 mitigation %	2023 mitigation Rank
Lack of organisational support	58%	9	45%	5	44%	8	32%	10
Lack of assigned funding	84%	1	71%	1	96%	1	86%	1
Lack of sufficient staff numbers	81%	2	68%	2	93%	2	83%	2
Limitations in legislation and regulation	64%	7	38%	9	51%	7	49%	6
Lack of climate information/data | Lack of emissions inventory data	53%	10	32%	10	29%	11	37%	8
Lack of (internal) political will	75%	4	60%	4	52%	6	39%	7
Uncertainty of the role of local government	61%	8	40%	7	52%	5	50%	5
Not seen as a priority by the community	65%	6	41%	6	39%	10	28%	11
Lack of staff capability (skills)	68%	5	39%	8	67%	3	54%	4
Inconsistent approaches at different levels (of government)	77%	3	65%	3	61%	4	56%	3
Unable to access external expertise	NA	NA	NA	NA	44%	9	33%	9

NA = not applicable
Sample: 75 councils that completed the questionnaire. Figures shown are the percentage of councils rating the barrier as impeding their organisation 'a great deal' or 'a fair amount'.

Lack of assigned funding was the most prominent barrier to adaptation and mitigation for both regional and metropolitan councils (Adaptation: 92% of metropolitan, 98% of regional councils; Mitigation: 80% of metropolitan, 88% of regional councils). Metropolitan councils may have been more aware of some barriers as they have made further progress to implement adaptation and mitigation actions.

Regional councils were more likely than metropolitan councils to rate the following barriers as impeding adaptation 'a great deal' or 'a fair amount':

- **Lack of sufficient staff numbers** (88% of metropolitan, 96% of regional councils)
- **Unable to access external** expertise (consultants etc) (20% of metropolitan, 56% of regional councils)
- **Not seen as a priority by the community** (32% of metropolitan, 42% of regional councils).

Metropolitan councils were more likely than regional councils to rate the following barriers as impeding adaptation 'a great deal' or 'a fair amount':

- **Inconsistent approaches at different levels of government** (72% of metropolitan, 56% of regional councils)
- **Limitations in legislation and regulations** (56% of metropolitan, 48% of regional councils)
- **Lack of appropriate climate change information and data** (40% of metropolitan, 24% of regional councils).

Regional councils were more likely than metropolitan councils to rate the following barriers as impeding mitigation 'a great deal' or 'a fair amount':

- **Lack of sufficient staff numbers** (68% of metropolitan, 90% of regional councils)
- **Lack of staff capabilities** (knowledge, skills) (44% of metropolitan, 60% of regional councils)
- **Unable to access external expertise** (consultants etc) (16% of metropolitan, 42% of regional councils)
- **Lack of appropriate emissions inventory data** (24% of metropolitan, 44% of regional councils).

Metropolitan councils were more likely than regional councils to rate the following barriers as impeding mitigation 'a great deal' or 'a fair amount':

- **Inconsistent approaches at different levels of government** (72% of metropolitan, 48% of regional councils)
- **Limitations in legislation and regulations** (60% of metropolitan, 44% of regional councils).

Enablers

In 2023, 11 potential enablers were measured through the separate lenses of adaptation and mitigation. Overall, the type of support required by local government has become more strongly evident, contrasting the 2023 survey responses directionally* with the 2018 survey responses from all respondents.

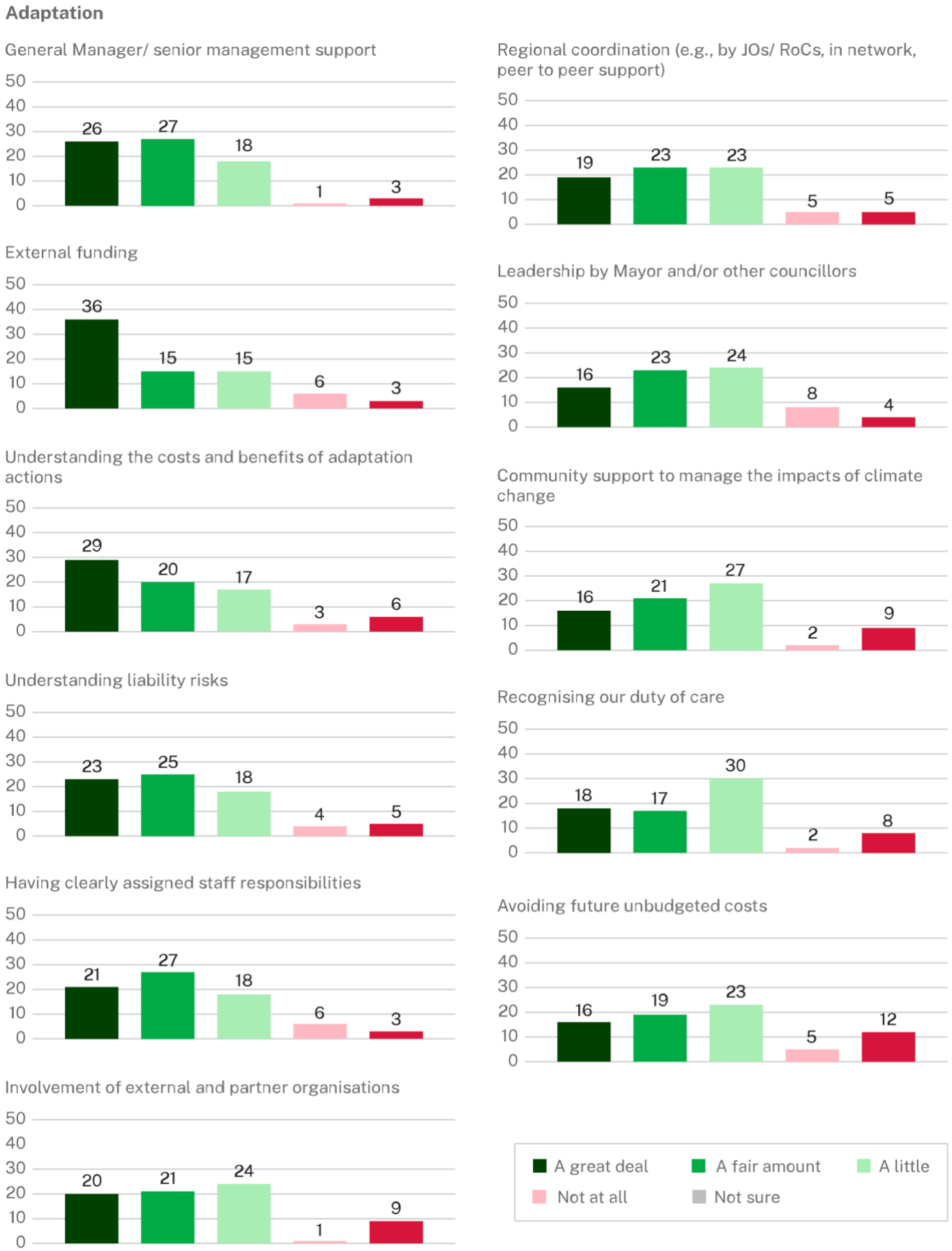
*As noted previously in the report, the 2018 survey allowed responses from multiple respondents from within the same council, whereas in 2023 each responding council has contributed a single response.

The top enablers for both mitigation and adaptation (rated as helping organisations mitigate greenhouse gas emissions 'a great deal') were sufficient budget and funding, understanding the costs and benefits of adaptation/mitigation actions, and having General Manager and senior leadership support.

Top enablers:

1. **Having an allocated budget for projects** (59% or 44 councils for mitigation). This enabler was measured for the first time in 2023, for mitigation only. It may have emerged for adaptation also, had it been included in the list of potential adaptation enablers.
2. **External funding** (48% or 36 councils for adaptation; 45% or 34 councils for mitigation – more acute than 27% of all respondents in 2018).
3. **Understanding the costs and benefits of adaptation/mitigation actions** (39% or 29 councils for adaptation; 49% or 37 councils for mitigation – more acute than 17% of all respondents in 2018).
4. **General Manager or senior management support** (35% or 26 councils for adaptation; 43% or 32 councils for mitigation – up compared to 32% of all respondents in 2018).

Figure 38 Enablers of adaptation (Q34) and mitigation (Q35)



Mitigation

Sample: 75 councils that completed the questionnaire.
Note: The wording of 6 of the 11 enablers explored was revised slightly in the 2023 survey to improve clarity for respondents. There was 1 unique item for adaptation ('Avoiding future unbudgeted costs'), and 1 for mitigation ('Having an allocated budget for projects'). Also 'Understanding liability risks' was asked for adaptation but 'Understanding liability' was asked for mitigation.

The ratings of adaptation and mitigation enablers by metropolitan and regional councils were very similar; however, there is a clear need for the NSW Government to continue partnering with regional councils to take mitigation action.

Regional councils were more likely than metropolitan councils to rate the following enablers as helping 'a great deal':

- Adaptation: **Having clearly assigned staff responsibilities** (20% of metropolitan, 32% of regional councils)
- Mitigation: **Involvement of external and partner organisations** (24% of metropolitan, 40% of regional councils).

Metropolitan councils were more likely than regional councils to rate the following enablers as helping 'a great deal':

- Adaptation: **Regional coordination** (e.g. by JOs/RoCs, in network, peer to peer support) (36% of metropolitan, 20% of regional councils). This is likely because regional councils have very little experience of regional coordination, whereas metropolitan councils have Resilient Sydney.
- Mitigation: **Having an allocated budget for projects** (68% of metropolitan, 54% of regional councils).

Helpfulness of other support resources

In the 2023 survey, a total of 14 other support resources were evaluated on a 6-point scale of perceived helpfulness (Figure 39).

This was an evolution of a similar question in the 2018 survey where 10 of these 14 support resources (7 reworded for clarity in 2023) were ranked from 'most' to 'least' helpful.

All 14 listed resources were perceived by councils as helpful in enabling them to respond effectively to climate change, but the top 4 most helpful actions (rated as 'extremely helpful' or 'very helpful') were also among the top in 2018:

1. **Grant assistance to manage impacts on and lower emissions from local government assets, infrastructure and services** (70 councils; a similarly worded item ranked third in 2018).
2. **Provision of high quality, localised climate change information, on projections impacts, emissions** (52 councils; a similarly worded item ranked second in 2018).
3. **Coordination of regional and statewide effort to mitigate and adapt to climate change** (39 and 35 councils respectively; a similarly worded item ranked first in 2018).
4. **Capacity building (e.g. access to professional networks, technical advice, professional development, and training packages)** (59 councils; a similarly worded item ranked fifth in 2018).

Support resources that were more likely to be rated as 'extremely helpful' by regional councils than metropolitan councils included:

- **Coordination of statewide effort to mitigate and adapt to climate change** (36% of metropolitan; 60% of regional councils).
- **Coordination of regional effort to mitigate and adapt to climate change** (32% of metropolitan; 54% of regional councils). This supports the focus on supporting JOs/ROCs.
- **Capacity building (e.g. access to professional networks, technical advice, professional development, and training packages)** (36% of metropolitan; 54% of regional councils).

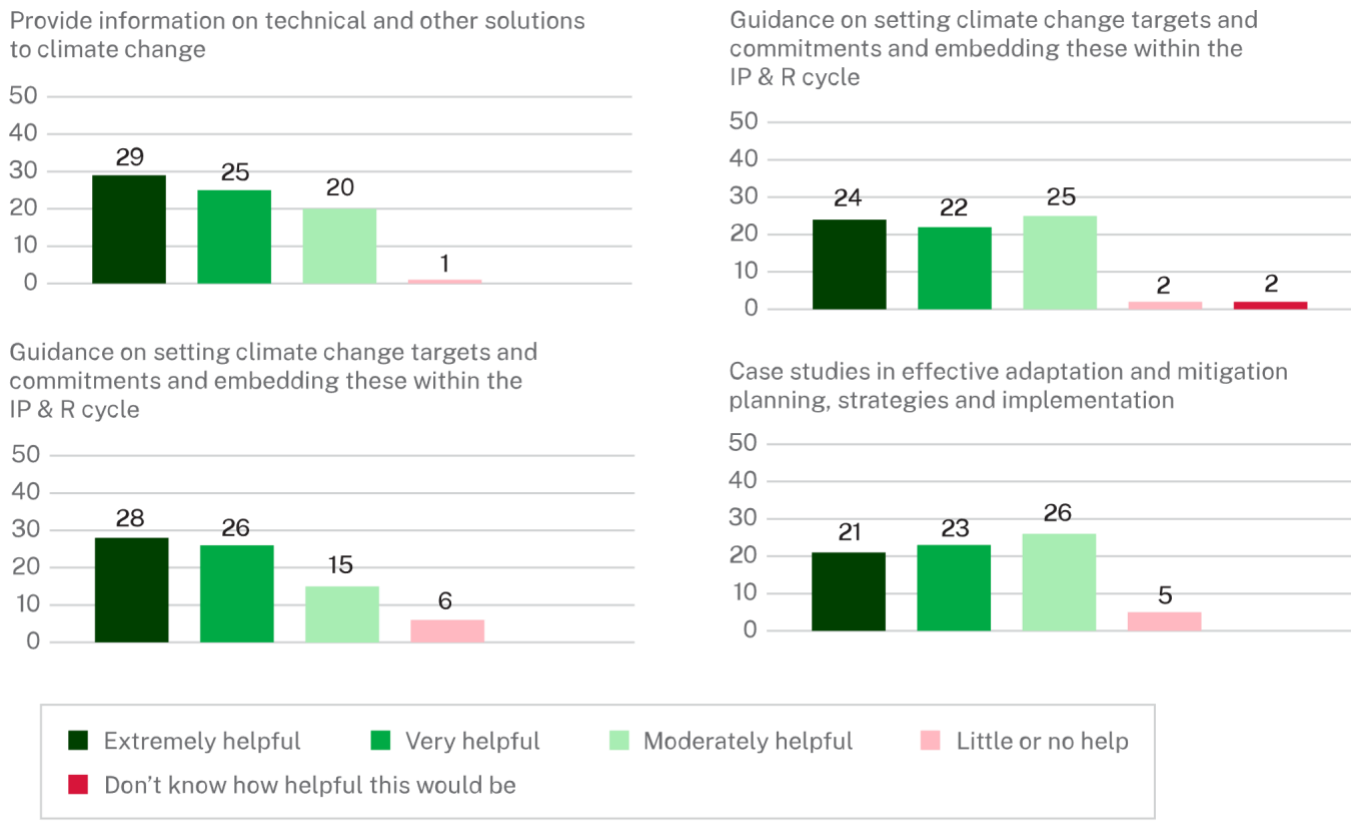
Overcoming barriers and enabling action

In order to overcome barriers to climate change adaptation and mitigation and to encourage further and faster action, it will be critical to provide councils with:

- adequate funding that is specific to adaptation action or mitigation projects (e.g. allocated budgets, external funding and grants)
- sufficient staff resourcing (numbers / capacity)
- capability development opportunities for staff (skills, knowledge)
- senior level support from General Manager and other staff.

Local government is calling for the same types of support resources in 2023 as they were 5 years ago, so it would also be worthwhile to review progress against those initiatives.

Figure 39 Helpfulness of other support resources (Q38)



Sample: 75 councils that completed the questionnaire
Note: 5 point scale used given no council selected 'makes effective action more difficult' as per questionnaire

Conclusions

The findings of the 2023 Climate Change Action Survey are conclusive: councils and the communities they serve are experiencing a greater degree of impact from climate change over time. This impact has accelerated since the last survey was conducted in 2018.

Despite some regional disparities in response rates, the survey found almost all councils were experiencing greater impacts from climate change and weather events in 2023 than they had in 2018. The impact from flooding, storms and bushfires has intensified, according to 2023 respondents. Regional councils had felt the impact more than metropolitan councils.

Action taken by councils – both metropolitan and regional – has accelerated over the last 5 years. Almost all councils rated adaptation and mitigation as higher priorities in 2023 than they did in 2018. More than half said they had developed an environmental or sustainability action plan or strategy that embedded climate change targets or actions. These are positive signs that councils are planning for the future.

When comparing barriers to adaptation and mitigation, few differences between metropolitan and regional councils emerged. Overall, barriers to both adaptation and mitigation are impacting more councils than they were in 2018. The most common barriers to adaptation and mitigation are resourcing – either funding or people. Mitigation is rated as a high priority by more responding councils overall, and therefore has higher levels of resourcing.

The impact of climate events was greater for regional councils than their metropolitan counterparts, but action to adapt to climate change and to mitigate emissions was less advanced. Overall, the survey results underscore the need for state and local governments to collaborate on programs and projects that support all councils to mitigate their climate impact and help their communities adapt. In addition, particular attention should be given to supporting regional councils with climate change action to close what appears to be a widening gap between regional and metropolitan councils in their response to climate change.

Appendix A: Online survey questionnaire

Introduction to the survey

Since 2015, Local Government have been invited to complete the Local Government Climate Change Survey to help understand Local Government's readiness to respond to the impacts of climate change. The survey is delivered by Local Government NSW (LGNSW) in partnership with the NSW Office of Energy and Climate Change (OECC) approximately every 3 years.

This survey builds on previous surveys in 2015 and 2018 and has been updated to capture new objectives such as the *Net Zero Plan Stage 1: 2020–2030.*

Why complete the survey?

Your feedback will be used to inform the design and delivery of climate adaptation and mitigation, resources, strategies, and funding opportunities to support Local Government and their community.

For example, results from the previous Climate Change surveys have underpinned the development of the Increasing Resilience to Climate Change Grant Funding which provided $3.9m in funding to Local Government.

The results of the survey will be shared later this year and existing and future packages of support available to Local Government will be highlighted.

Completing the Local Government climate change survey

Please note that your survey link has been generated specifically for your council to allow the completing officer to leave and return to the survey as required. The survey will take approximately 45 minutes to complete.

As with previous surveys, collecting information may require input from different parts of your organisation, depending on how 'climate risk' and emissions reduction are managed. If this is the case, you may need a 'champion' to chaperone the survey around.

Themes include: HR, resourcing, corporate reporting and monitoring, net zero targets, operations, and community.

We understand that completing this survey requires time, planning and that more than 1 department or team may be involved. With this in mind, we are asking Councils to complete the survey by Monday 25 September 2023.

Thank you for your time. Your feedback will help to shape and inform future climate change mitigation and adaptation programs in your local government area and across NSW. If you have any questions or concerns about the survey, please contact Melissa Sawatske, Senior Policy Officer – LGNSW (Melissa.Sawatske@lgnsw.org.au), or Ciska White, Project Officer – Climate Adaptation, NSW OECC (Ciska.White@environment.nsw.gov.au)

We look forward to receiving your responses.

Kind regards,
Damian Thomas
Local Government NSW,
Director – Advocacy

Aaron Coutts-Smith
Acting Director, Climate Adaptation,
Land Sector Opportunities

Q1. Organisation type

Do you work for…

1. A Council
2. A Joint Organisation (JO)
3. A Regional Organisation of Councils (RoC)

Q2. Organisation name

Please type the name of the council you are completing this survey for below

Q3. Position level
Which of the following best describes your position with the organisation?

1. Mayor/ Councillor
2. General Manager/Chief Executive Officer/ Director
3. Manager
4. Team Leader/Supervisor/Co-ordinator
5. Officer
6. Other

Q4. Functional area

Which of the functional areas listed below are you mainly involved in? Select all of those you are mainly involved in

1. Asset and property management
2. Recreation facilities
3. Planning and development
4. Environment and natural resource management
5. Community services
6. Waste management
7. Economic and business development
8. Corporate services
9. Water and sewerage
10. Engineering services and infrastructure
11. Emergency management
12. Other

Climate Change Impacts

Q5. Intro

The following questions ask for your feedback on climate change and weather event impacts on your local government organisation and community.

Climate Change Adaptation

Q5. Impact on organisation

How much impact are events intensified by climate change (such as storms, bushfires, heatwaves, droughts and floods, etc) currently having on your council's operations and management?

1. No impact, and not in the future
2. No impact, but will in the future
3. A small impact
4. A fair amount of impact
5. A great deal of impact
6. Not sure

Q6. Impact on community

How much impact are events intensified by climate change (such as storms, bushfires, heatwaves, droughts and floods, etc) currently having on your local government area community?

1. No impact, and not in the future
2. No impact, but will in the future
3. A small impact
4. A fair amount of impact
5. A great deal of impact
6. Not sure

Q7. Event type impacts

To what extent have these events impacted your organisation's operations, assets, infrastructure and/or services in the past 3 years?

1. Drought (lack of or restriction of water)
2. Bushfire (fires, air pollution)
3. Flooding (riverine, flash, inundation)
4. Thunderstorms (heavy rain, hail, lightning, large seas)
5. Dust storms (strong winds, dust)
6. Sea level rise (sea water inundation, erosion)
7. Extreme heat (limitations due to extremely high temperatures)
8. Extreme cold (limitations due to extremely low temperatures)

1. No impact, and not in the future
2. No impact, but will in the future
3. A small impact
4. A fair amount of impact
5. A great deal of impact
6. Not sure

Q8. Impact of transition processes

To what extent have each of the following impacted your Local Government Area or Region over the past 3 years?

1. Business and Investor demand for climate action
2. State and federal government net zero commitments
3. Community and local business support for transition to net zero
4. Opportunities of the low carbon economy (investment in clean energy, better air quality)
5. Access to insurance and finance for climate change-related risks and emissions intensive activities
6. Council liability for management of climate change-related risks

1. No impact, and not in the future
2. No impact, but will in the future
3. A small impact
4. A fair amount of impact
5. A great deal of impact
6. Not sure

Governance

Q9. Plans including climate change activities

For each of your local government plans, please indicate if it includes adaptation activities (preparing for the impacts of climate change) and/or climate change mitigation activities (reducing greenhouse gas emissions)?

1. Community Strategic Plan
2. Delivery Program
3. Operational Plan
4. Local Strategic Planning Statements
5. Local Environment Plan
6. Development Control Plan
7. Regional Priority (JO or RoC) Plan

1. Only adaptation activities
2. Only mitigation activities
3. Both adaptation AND mitigation activities
4. Neither included
5. Don't know

Q10. Priority of climate change adaptation

To what extent is climate change adaptation (preparing for the impacts of climate change) a priority for your local government organisation?

1. High priority
2. Medium priority
3. Low priority
4. Not a priority
5. Not sure

Q11. Priority of climate change mitigation

To what extent is climate change mitigation (reducing greenhouse gas emissions) a priority for your local government organisation?

1. High priority
2. Medium priority
3. Low priority
4. Not a priority
5. Not sure

Q12. Resources allocated

Has your organisation allocated resources to plan for and respond to climate change?
Please select which of the following statements are true for your organisation's involvement (if any) in adaptation, and for its involvement (if any) in mitigation.

1. For adaptation (preparing for the impacts of climate change)
2. For mitigation (reducing greenhouse gas emissions)

1. Part of 1 person's role
2. A dedicated full-time role
3. Responsibility is shared across several individuals within council
4. Has a dedicated budget allocation for actions
5. Only sources grant funds
6. Responsibility of an internal committee
7. Responsibility of an external committee
8. None of these

Q13. Climate change action plans & policies

Does your council have any of the following climate change actions, plans or policies? Please select all that apply

1. Environmental/Sustainability Action Plan or Strategy with climate change targets or actions embedded
2. Energy Reduction/Efficiency Plan
3. Carbon Emissions Reduction Plan
4. Climate Change Risk Assessment
5. Climate Change Adaptation Plan
6. Electric Vehicles Strategy
7. Renewable Energy Plan
8. Resilience Plan
9. A clearly defined policy or framework for assessing and treating climate-related risks and opportunities across council
10. Other policies, plans or actions
11. None of these

Risk and Adaptation

Q14. Identify, analyse and evaluate

Is each of the statements below true, partly true, or not true for your organisation?

1. Our organisation has a climate change risk register
2. We assess climate risks for specific assets or major projects of the organisation
3. Climate risks have been assessed using the organisation's own existing enterprise risk management framework (as compared with consultant provided risk tables)
4. Detailed information regarding impacts (financial, social, environmental, etc.) of priority risks have been developed
5. Adaptation planning considers potential transition risks (associated with the move to a low carbon economy)
6. Adaptation planning considers risks associated with a changing climate for the community
7. Climate liability risks have been added to the enterprise risk assessment register and action plans

1. True
2. Partly true
3. Not true
4. Don’t know

Q15. Treat the risks

Is each of the statements below true, partly true, or not true for your organisation?

1. Some existing controls exist to manage response to natural hazards (e.g. LEMO, emergency management procedures, business continuity plans)
2. Risk owners have been identified to take responsibility for specific risks and adaptation actions
3. Roles and responsibilities for implementation of actions to address climate risks have been clearly defined and incorporated in relevant job descriptions and the performance management system
4. Adaptation actions have been identified in consultation with relevant external stakeholders, noting the opportunities for interdependent solutions
5. The cost of some adaptation actions has been calculated
6. Joint actions to address climate risk with internal and/or external partners have been co-designed and implemented
7. The cost of implementing climate adaptation actions has been mainstreamed within annual budgeting activities

1. True
2. Partly true
3. Not true
4. Don’t know

Q16. Monitor and review

Is each of the statements below true, partly true, or not true for your organisation?

1. Records of historical performance for climate-related issues are available to allow trend analysis
2. There is a commitment to periodically review climate adaptation (risk treatment) plans
3. Metrics have been identified to measure and manage priority climate risks
4. Programs to develop skills and capabilities in climate risk management have been resourced and implemented
5. Climate risk performance measures (e.g. progress against targets) are monitored, reviewed and integrated into public reporting

1. True
2. Partly true
3. Not true
4. Don't know

Mitigation

Q17 intro. Mitigation and achieving net zero

The NSW Government has committed to achieving a 70% reduction in emissions compared to 2005 levels by 2035 and reaching net zero by 2050. The Net Zero Plan outlines the action being taken by the NSW Government to reduce greenhouse gas emissions and highlights that NSW councils play a key role in supporting decarbonisation as local leaders and through their connection to local communities. By reducing emissions, local councils can help increase the resilience of their communities and act as a catalyst for NSW to meet its net zero emissions objective.

The following questions are about your organisation's awareness of and commitment to mitigating climate change through influencing and reducing operational and community Greenhouse Gas (GHG) emissions.

Q17. Net zero journey – context and understanding

Is each of the statements below true, partly true, or not true?

1. We collect emission data in an ad hoc fashion only and analyse in spreadsheets with limited quality assurance
2. Resources been made available to support efforts to increase the management of operational emissions (such as financial, IT, monitoring)
3. Our organisation has identified data gaps relating to its operational emissions and has or is putting a plan in place to address them
4. A governance forum (e.g. steering committee) regularly reviews carbon emissions and tracks performance against our organisation's reduction target (i.e. operational net zero)
5. Relevant staff are aware of the organisation's operational net zero strategy including key components such as vision, milestones and targets
6. Our organisation engages with its community, and state and federal governments to identify transitional risks within their LGA
7. Our organisation demonstrates leadership, shares learnings, and supports other councils to build their capability to realise their emissions abatement potential across operations and community

1. True
2. Partly true
3. Not true
4. Don't know

Q18. Net zero journey action and reporting:

Is each of the statements below true, partly true, or not true for your organisation?

1. Our organisation primarily focuses on reducing operational emissions through energy efficiency
2. Our organisation monitors energy performance of its assets using spreadsheets based on data from utility bills or other software.
3. Our organisation periodically reviews and updates its plan for operational emissions reduction
4. Our organisation is exploring more advanced decarbonisation strategies for scope 1 and 2 of their operations (e.g. electrification of buildings, Power Purchase Agreements)
5. Our organisation has established an annual review process to evaluate performance against reduction targets listed in the strategy/roadmap
6. Emissions reduction actions are influencing documents throughout our organisation's Integrated Planning and Reporting (IP&R) framework (e.g. community strategic plan, operational plan etc)
7. Our organisation considers actions and initiatives to support emissions reduction within their LGA
8. Emission reduction measures (e.g. targets) are monitored and reviewed at LGA level and integrated into annual reporting
9. Our organisation's operational emission and reduction actions are publicly communicated/disclosed through annual reporting activities
10. Emissions reduction strategies (operational and community) are fully embedded throughout the IP&R framework, within annual reporting and as part of decision-making or GHG management processes

1. True
2. Partly true
3. Not true
4. Don't know

Q19. Operational emissions inventory measurement

Does your organisation have an operational emissions inventory (a list of emissions from council operations)?

1. Yes
2. No
3. Don't know

Q19A. Operational emissions – baseline year

What is the baseline year for the operational emissions inventory?

1. Select baseline year
2. Or enter baseline year
3. Don't know

Q19B. Operational emissions – baseline emissions

What is the total operational emissions baseline amount in tCO_2e?

1. Enter amount in tCO_2e
2. Don't know

Q19C. Operational emissions – recent year measured

What is the most recent year measured for the operational emissions?

1. Select most recent year measured
2. Or enter more recent year measured
3. Don't know

Q19D. Operational emissions – recent emissions

What is the most recent total operational emissions amount in tCO_2e?

1. Enter amount in tCO_2e
2. Don't know

Q20. Operational emissions target

Does your organisation have an operational emissions reduction target?

1. Yes
2. We are in the process
3. No
4. Don't know

Q20A. Operational emissions target – % reduction

What is the operational emissions reduction target? (e.g. 70% reduction in emissions by 2035) Please enter percentage reduction or reduction in tonnes of CO_2e.

1. Enter percentage (%) reduction
2. Enter target reduction amount in tonnes CO_2e (e.g. enter '20' if 20 tonnes CO_2e)
3. Don't know

Q20B. Operational emissions target – year

The operational emissions reduction target is to be achieved by…

1. Select target year
2. Or enter target year
3. Target year not set
4. Don't know

Q21. Operational emissions reduction strategy

Has your organisation developed a strategy or action plan to achieve your operational emissions reduction target?

1. We haven't developed a strategy
2. We are in the process of developing a strategy
3. We have developed a strategy but implementation has not yet started
4. We have developed a strategy and are now implementing it
5. We have largely completed implementation of our strategy
6. Don't know of any strategy or action plan to achieve net zero

Q22. Renewable energy target setting

Has your organisation developed a target for the percentage of renewable energy used in council operations?

1. Yes
2. We are in the process
3. No
4. Don't know

Q22A. Renewable energy target – % target

What is the percentage target for renewable energy?

1. Enter target percentage (%)
2. Don't know

Q22b. Renewable energy target – year

The renewable energy percentage target is to be achieved by…

1. Select target year
2. Or enter target year
3. Target year not set
4. Don't know

Q23. Carbon offsets purchased

Has your organisation purchased any carbon offsets?

1. Yes
2. No
3. Don't know

Q23A. Carbon offsets purchased – tonnes of CO_2e

How many tonnes of carbon offsets have been purchased?

1. Enter carbon offsets purchased in tonnes CO_2e (e.g. enter '20' if 20 tonnes CO_2e)
2. Don't know

Q23B. Carbon offsets purchased – since year

In which year did your organisation first purchase carbon offsets?

1. Select year first purchased
2. Or enter year first purchased
3. Don't know

Q24. Community emissions inventory

Does your organisation have a community emissions inventory?

1. Yes
2. No
3. Don't know

Q24A. Community emissions – baseline year

What is the baseline year for the community emissions inventory?

1. Select baseline year
2. Or enter baseline year
3. No
4. Don't know

Q24B. Community emissions – baseline emissions

What was the total community emissions baseline amount, in tonnes of CO_2e?

1. Enter amount in tonnes CO_2e (e.g. enter '20' if 20 tonnes CO_2e)
2. Don't know

Q24C. Community emissions – recent year measured

What is the most recent year measured for the community emissions?

1. Select most recent year measured
2. Or enter most recent year measured
3. Don't know

Q24D. Community emissions – recent emissions

What was the total of community emissions most recently measured in tonnes of CO_2e?

1. Enter amount in tonnes CO_2e (e.g. enter '20' if 20 tonnes CO_2e)
2. Don't know

Q25. Community emissions target setting

Does your organisation have a community emissions reduction target?

1. Yes
2. We are in the process
3. No
4. Don't know

Q25A. Community emissions target – % reduction

What is the community emissions reduction target? (e.g. X% reduction in emissions by 20XX) Please enter percentage reduction or reduction in tonnes of CO_2e?

1. Enter percentage (%) reduction
2. Enter target reduction amount in tonnes CO_2e (e.g. enter '20' if 20 tonnes CO_2e)
3. Don't know

Q25B. Community emissions target – year

The community emissions reduction target is to be achieved by…

1. Select target year
2. Or enter target year
3. Target year not set
4. Don't know

Q26. Community emissions reduction strategy

Has your organisation developed a strategy or action plan to achieve your community emissions reduction target?

1. We haven't developed a strategy
2. We are in the process of developing a strategy
3. We have developed a strategy but implementation has not yet started
4. We have developed a strategy and are now implementing it
5. We have largely completed implementation of our strategy
6. Don't know of any strategy or action plan to achieve net zero

Information

Q27. NSW government sources used

In your current role, to what extent do you use the following NSW government resources as guidance material to assist with climate related risk assessment, management, adaptation or mitigation?

1. AdaptNSW website
2. AdaptNSW Newsletter
3. Climate Risk Ready Guide and/or Climate Risk Ready Training Course
4. Increasing Resilience to Climate Change Grants Program Case Studies
5. Integrated Regional Vulnerability Assessment, Enabling Regional Adaptation

1. Not heard of it
2. Heard of it but have not accessed it
3. Have accessed it
4. Access it regularly

Q28. Local government resources used

In your current role, to what extent do you use the following local government resources as guidance material to assist with climate related risk assessment, management, adaptation or mitigation?

1. Climate change case studies on LGNSW website
2. LGNSW Climate Action Professional Officers Group network meetings
3. LGNSW Climate Action Professional Officers Group discussion forums
4. Climate resilience podcasts available on LGNSW website.
5. LGNSW Climate Change webinars
6. Hunter Region Joint Organisation IP & R toolkit (HRJO)
7. NSW Climate and energy action website
8. Net Zero Emissions Guidance for NSW Councils
9. Climate Snapshot website – regional community emissions data
10. Resilient Sydney Net Zero Application – metropolitan community emissions data
11. Interactive projections map on Adapt NSW
12. Climate data portal
13. Sustainability Advantage webinars
14. NARCLIM (NSW and ACT Regional Climate Modelling Project, OEH)
15. Guide to Climate Change Risk Assessment for NSW Local Government

1. Not heard of it
2. Heard of it but have not accessed it
3. Have accessed it
4. Access it regularly

Q29. National and international sources used

In your current role, to what extent do you use the following national and international resources as guidance material to assist with climate related risk assessment, management, adaptation or mitigation?

1. National Climate Resilience and Adaptation Strategy
2. Sustainable Councils and Communities program direct support
3. Resilient Sydney workshops/masterclasses
4. City Power Partnership Council Connect
5. City Power Partnership Resource Library
6. National Climate Change Adaptation Research Facility (NCCARF)
7. Intergovernmental Panel on Climate Change reports (IPCC)
8. CSIRO Climate Change in Australia website
9. UKCIP Adaptation Wizard
10. Climate change impact and risk management – a guide for business and government (AGO)
11. Risk management standards (ISO 31000:2018, ISO 31000:2009, ISO 31010:2009, ISO 14091:20201, AS/NZS 4360:2004)

1. Not heard of it
2. Heard of it but have not accessed it
3. Have accessed it
4. Access it regularly

Q30. Purposes of climate change information use

For which (if any) of the following purposes do you use climate change information (for example, flood or emissions data, rainfall & temperature statistics, etc)?

1. Information emergency management planning, recovery and response
2. Assessing climate risks to assets, infrastructure and services (e.g. roads, parks, water)
3. Planning, procuring, and maintaining assets, infrastructure and services
4. Planning for land use and development
5. Regional and other strategic level planning (e.g. coastal, flooding, water management)

6. Economic and community planning and investment
7. Corporate investment
8. Insurance
9. Developing educational and communications materials
10. Monitoring my organisation's emissions
11. Planning how to reduce my organisation's emissions
12. Monitoring community emissions
13. Planning and acting to reduce community emissions
14. Use for other purposes

Q31. Gaps

Thinking about the previous 2 questions, what type of information or guidance (if any) is missing or would you like to learn or find out more about? Please use separate boxes to specify each gap.

1. First gap/improvement
2. Second gap/improvement
3. Third gap/improvement
4. Fourth gap/improvement
5. None / Could not suggest any gaps or improvements

Enablers and Barriers

Q32. Barriers to adaptation

Previous surveys of NSW local government organisations identified a key list of barriers influencing their ability to respond to climate change.
To what extent do each of the following currently impede your organisation's adaptation to climate change risks and impacts?

1. Lack of assigned funding
2. Lack of sufficient staff numbers
3. Lack of staff capabilities (knowledge, skills)
4. Unable to access external expertise (consultants etc)
5. Limitations in legislation and regulations
6. Lack of appropriate climate change information and data
7. Lack of internal political will
8. Not seen as a priority by the community
9. Inconsistent approaches at different levels of government
10. Lack of organisational support
11. Uncertainty as to the role of local government

1. Not at all
2. A little
3. A fair amount
4. A great deal
5. Not sure

Q33. Barriers to mitigation

Previous surveys of NSW local government organisations identified a key list of barriers influencing their ability to respond to climate change.
To what extent do each of the following currently impede your organisation working to mitigate green house gas emissions?

1. Lack of assigned funding
2. Lack of sufficient staff numbers
3. Lack of staff capabilities (knowledge, skills)
4. Unable to access external expertise (consultants etc)
5. Limitations in legislation and regulations

6. Lack of appropriate emissions inventory data
7. Lack of internal political will
8. Not seen as a priority by the community
9. Inconsistent approaches at different levels of government
10. Lack of organisational support
11. Uncertainty as to the role of local government

1. Not at all
2. A little
3. A fair amount
4. A great deal
5. Not sure

Q34. Enablers of adaptation

Previous surveys of NSW local government organisations identified a key list of enablers that enhanced their ability to adapt to the risks and impacts of climate change.
to what extent do each of the following currently help your organisation adapt to climate change risks and impacts?

1. Leadership by Mayor and/or other councillors
2. General Manager/ senior management support
3. Understanding the costs and benefits of adaptation actions
4. Understanding liability risks
5. Having clearly assigned staff responsibilities
6. Recognising our duty of care
7. External funding
8. Regional coordination (e.g. by JOs/ RoCs, in network, peer to peer support)
9. Avoiding future unbudgeted costs
10. Involvement of external and partner organisations
11. Community support to manage the impacts of climate change

1. Not at all
2. A little
3. A fair amount
4. A great deal
5. Not sure

Q35. Enablers of mitigation

To what extent do each of the following currently help your organisation mitigate greenhouse gas emissions?

1. Leadership by Mayor and/or other councillors
2. General Manager/ senior management support
3. Understanding the costs and benefits of mitigation actions
4. Understanding liability
5. Having clearly assigned staff responsibilities
6. Recognising our duty of care
7. External funding
8. Regional coordination (e.g. by JOs/RoCs, in network, peer to peer support)
9. Having an allocated budget for projects
10. Involving of external and partner organisations
11. Community support to manage the impacts of climate change

1. Not at all
2. A little
3. A fair amount
4. A great deal
5. Not sure

Q36. Networks joined

Which of the networks listed below has your organisation joined or linked with? Please select all that apply

1. LGNSW's Climate Action Professional Officers Group (CAPOG)
2. Cities Power Partnership
3. NABERS
4. Global Covenant of Mayors for Climate and Energy
5. UN Race to Zero
6. Carbon Disclosure Project
7. UN Race to Resilience
8. Green Building Council of Australia (GBCA)
9. The Institute of Public Works Engineering, Australasia (IPWEA)
10. ICLEI Local Government for Sustainability
11. Resilient Cities Network
12. 100 Resilient Cities
13. Other climate change networks
14. None of these

Q37. Removed

Q38. Prioritising helpful influences

How helpful are each of the following when it comes to helping local government respond effectively to climate change?

1. Grant Assistance to manage impacts on and lower emissions from local government assets, infrastructure and services
2. Capacity building (e.g. access to professional networks, technical advice, professional development, and training packages)
3. Provision of high quality, localised climate change information on projections, impacts and emissions
4. Coordination of statewide effort to mitigate and adapt to climate change
5. Coordination of regional effort to mitigate and adapt to climate change
6. Guidance on risk assessment/emissions reduction pathways
7. Guidance on setting climate change targets and commitments and embedding these within the IP & R cycle
8. Guidance on reducing risk exposure (Adaptation Planning)/ emissions reduction implementation planning
9. Statutory planning support (e.g. guidance on climate change requirement for land use planning)
10. Non-statutory planning support (e.g. programs, guidelines and tools for planning for climate change)
11. Education and engagement tools and support
12. Case studies in effective adaptation and mitigation planning, strategies and implementation
13. Provide information on technical and other solutions to climate change
14. Provide monitoring and evaluation templates, data and support

1. Extremely helpful
2. Very helpful
3. Moderately helpful
4. Little or no help
5. Makes effective action more difficult
6. Don't know how helpful this would be

Q38b. Other helpful influences

Is there anything else not covered in the list above that would help local government respond effectively to climate change? Please use separate boxes to specify each potential type of help.

1. First type of help
2. Second type of help
3. Third type of help
4. Fourth type of help
5. None / Could not think of anything else

Conclusion

Q38c. Optional – any feedback

Finally, if there is any feedback about this survey or important information you feel hasn't been covered in relation to how we can help support local government activities on climate change adaptation and mitigation, please let us know below:

Q39. Case study recruit

Would you be interested in NSW Government contacting you to develop a case study based on your adaptation or mitigation actions?

1. Yes – would like to be contacted
2. Not ready yet, but maybe later
3. Rather not be contacted about a case study

Q40. Survey close

The NSW Government and LGNSW thank you for the time and effort you have put into completing this questionnaire.
In case we need to contact you either about a possible case study from your organisation, or to clarify any of your answers, please supply below:

1. Your name
2. Your email
3. An office phone number
4. A work mobile number
5. Do not wish to be contacted

Q41END. Please click on submit below to submit your replies to this questionnaire.

Thank you very much for your time today. Your feedback will help us to provide local government with better support.

This market research is carried out in compliance with the Privacy Act, and the information you provided will be used only for research purposes.