



WORLD RISK POLL

Report 2026

**After the storm:
How disasters reshape
resilience and trust**

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I Foreword

The Lloyd's Register Foundation World Risk Poll provides a crucial platform for people around the world to voice concerns about their safety, gathering data on everyday risks and harms every two years. Through its global coverage and inclusive methodology, the Poll amplifies marginalised voices, offering invaluable insights to guide interventions to protect those most at risk.

Starting in 2019 and now in its fourth edition, the Poll has spanned major periods of global and regional change and provides a unique insight into emerging trends in people's perceptions and experiences of risk in turbulent times. With more than 143,000 interviews conducted across 140 countries and territories in 2025, the latest Poll allows trends first identified in previous years to be tested and refined.

This report asks what a disaster does to the people it reaches, measured after the event rather than in anticipation of it. Because the Poll can identify which part of a country an interviewee lives in, and the same questions return edition after edition, it can do what a damage assessment cannot: follow the places a disaster struck, compare them with the rest of their own country, and watch how the two diverge and, perhaps, reconverge over the years that follow. Seven disasters from between 2021 and 2023 can be followed this closely, and four of them into 2025.

How people judge their government afterwards depends on what it did beforehand. In Türkiye, where years of construction amnesties had left residents in unsafe buildings, confidence in national government fell much further in the regions hit by the 2023 earthquake than elsewhere in the country. In Mozambique, where preparedness and early warnings were credited with keeping the death toll from Cyclone Freddy far below that of Cyclone Idai four years earlier, perceptions of government care improved much more in the provinces the cyclone struck.

The solidarity a disaster produces is real, but it does not necessarily last. In South Africa's KwaZulu-Natal province, the proportion of people saying their neighbours cared about them a lot nearly tripled after the 2022 floods. Yet, when the province flooded again in 2024, it fell back below the rest of the country.

Confidence in government came back more quickly than belief in its preparedness. By 2025, confidence in the affected regions had largely caught up with the rest of their respective countries, but belief that the government is well prepared for the next disaster had not. In Türkiye's earthquake-hit regions, it fell from roughly two in five people to fewer than one in ten. Across all seven case studies, the places a disaster struck ended up slightly less resilient than the rest of their respective countries.

Shaped through dialogue with international bodies, sector experts and frontline organisations, the World Risk Poll has been built collaboratively from the outset and is intended to be used the same way. We want this report, and its companions, to help policymakers, disaster management authorities and civil society plan for the years of recovery after a disaster as carefully as for the immediate response to it.



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Acknowledgements

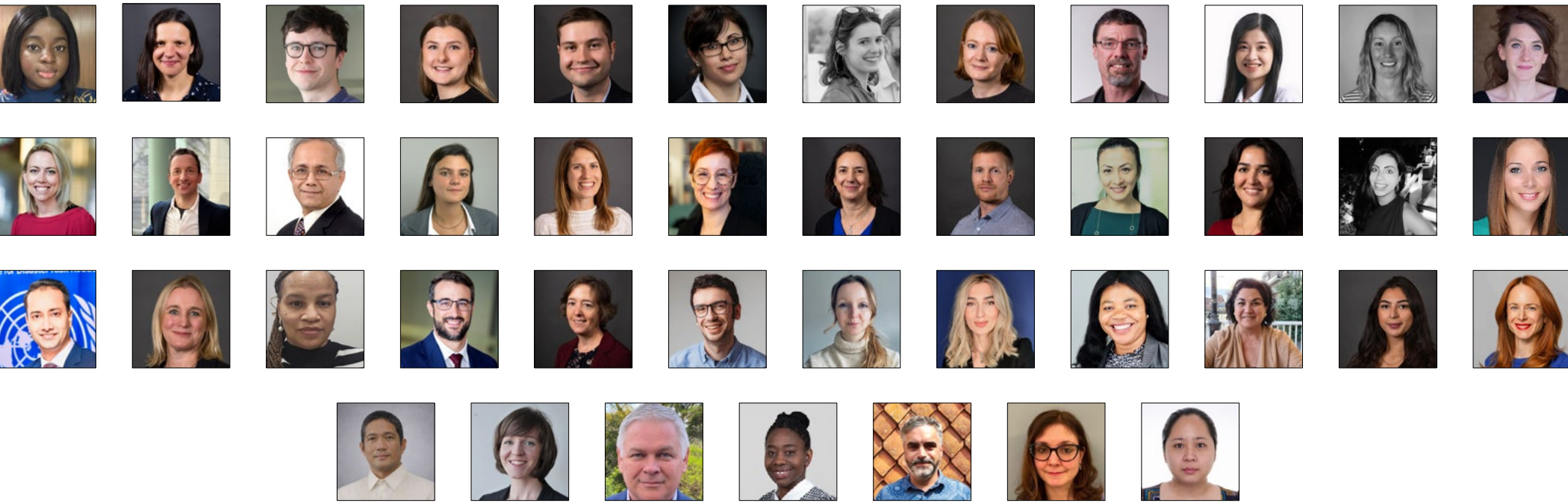
The World Risk Poll is a huge undertaking powered by multidisciplinary teams working across organisations. Lloyd’s Register Foundation is grateful to everyone who has contributed to this, and previous versions of the World Risk Poll, and the collaborative spirit in which they work.

We are continually inspired by the enthusiasm of our strategic impact partners who have invested time in developing the questionnaire and are now embedding the data in their work, inspiring and galvanising people to take action.

The Technical Advisory Group for the World Risk Poll was first convened in early 2019, and we are indebted to the ongoing time and effort voluntarily invested by the members in the analysis, planning and reviewing of all our outputs.

Finally, our thanks are extended to the team at Gallup for their efforts in constructing and testing the Poll, and to the local staff in countries across the globe who undertook the fieldwork, often under difficult circumstances. We are particularly grateful to the World Risk Poll delivery and analytical team at Gallup for their ongoing contributions and support.

You can learn more about the Poll and the change it has supported, through the Poll website at: wrp.lrfoundation.org.uk.



Additional information

About Lloyd’s Register Foundation

Lloyd’s Register Foundation is an independent global safety charity that supports research, innovation, and education to make the world a safer place. Its mission is to use the best evidence and insight, such as the World Risk Poll, to help the global community focus on tackling the world’s most pressing safety and risk challenges.

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About Gallup

Gallup delivers analytics and advice to help leaders and organisations solve their most pressing problems. Combining more than 90 years of experience with its global reach, Gallup knows more about the attitudes and behaviours of employees, customers, students and citizens than any other organisation in the world. The Gallup organization was engaged to conduct the survey and analysis for some of the findings for this research. This report was not authored by Gallup and the responsibility for opinions expressed in this report rests solely with the report authors from Lloyd’s Register Foundation.

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Executive summary

The World Risk Poll is the first and only global, nationally representative study of worry about, and harm from, risks to people’s safety. Conducted by Gallup every two years since 2019, the Poll covers places with little to no official data on various aspects of safety and risk, and its 2025 edition is based on more than 143,000 interviews in 140 countries and territories. This is the fourth edition of a dataset that offers a unique insight into people’s experiences with and perceptions of different risks in their lives, from the everyday risks facing millions around the world, such as risks of harm from food and water or safety on the roads, to the generational and existential risk of climate change.

This report differs from our other core reports in that it does not give a global picture. It starts inside the countries where a hazard has struck, and asks what impact a disaster has on people’s perceptions of safety, trust in government and overall resilience. Seven disasters between the 2021 and 2023 editions of the Poll are followed at the sub-national level: earthquakes in Morocco, Türkiye and Ecuador in 2023, cyclones in Mozambique and New Zealand in 2023, and floods in Pakistan and South Africa in 2022. The regions each struck are compared with the rest of their respective countries on the Resilience Index, its four dimensions and four questions on trust, care and agency. Four continue into the 2025 edition, 25 to 41 months on, where the same measures are taken again. National averages hide these changes. Türkiye’s national Index score was 51 in both 2021 and 2023, while the regions impacted by the 2023 earthquake fell three points and the rest of the country rose one.

These are differential and descriptive changes associated with living in a region a disaster struck, and they are not measured effects of the disaster. A single Poll cannot test whether the two groups, the region and its country, would otherwise have changed alike, and seven disasters are too few to generalise to others around the world.

The 2026 companion reports, *A resilient life: How wellbeing shapes the capacity to cope* and *From alert to agency: What turns warnings into action?*, cover the Poll’s wider resilience and early warning work at the global level, and Poll data from all editions are freely available for use.

Of the seven disasters, confidence in national government fell furthest in Türkiye’s earthquake regions, while perceived government care rose most in Mozambique’s cyclone-hit provinces

- In Türkiye, where a review by Rice University’s Baker Institute records more than 10 construction amnesties since 2001 that forgave building code violations, confidence in national government fell 24 percentage points further in the earthquake regions than in the rest of Türkiye. In New Zealand’s Northland and Auckland, struck by floods in January 2023 and then Cyclone Gabrielle in February 2023, it fell 13 percentage points further than in the rest of New Zealand.
- In Mozambique, where the United Nations credited preparedness and early warning with keeping the loss of life far below that caused by Cyclone Idai in 2019, the share who felt the government cared about them ‘a lot’ rose 20 percentage points further in the cyclone-hit provinces than in the rest of Mozambique. Confidence in national government showed no change beyond the margin of error.

Perceived neighbourly care rose most in the South African province of KwaZulu-Natal, then fell back after a second flood

- Across the seven disasters, the share saying their neighbours cared about them ‘a lot’ rose seven percentage points more in the affected regions than in the rest of their respective countries. Half of that rise comes from KwaZulu-Natal alone, where the share nearly tripled.
- However, when KwaZulu-Natal was flooded again in 2024, perceived neighbourly care fell 30 percentage points relative to the rest of South Africa by 2025, from 22 percentage points above the rest of the country to below it.

By 2025, confidence in national government had recovered in Türkiye's earthquake regions, while belief that the government is well prepared for a disaster kept falling

- In Türkiye's earthquake regions, confidence in national government was 20 percentage points below the rest of the country in 2023 and four points below it in 2025. That narrowing of 16 percentage points leaves it no longer distinguishable from where it was before the earthquake. In New Zealand, the difference between Northland and Auckland and the rest of the country narrowed eight percentage points, within the margin of error. No other measure recovered as far.
- The share saying the national government is well prepared fell from 38% to 8% in Türkiye's earthquake regions between 2021 and 2025, compared with 32% to 18% in the rest of Türkiye. Across the three countries that asked the question, belief that their government is well prepared fell 10 percentage points further in the disaster-struck regions than in the rest of the country, a fall larger than the margin of error.

Resilience in the disaster-struck regions fell about two points compared with the rest of their respective countries

- Pooled across the seven disasters, the Resilience Index fell about two points more in the affected regions than in the rest of their respective countries, and it fell that way in six of the seven.
- The community dimension fell about three points more in the affected regions, while the other three dimensions and the belief that one could protect one's family in a future disaster show no change beyond the margin of error. Single countries differ much more widely, from a societal dimension fall of 15 points further in Türkiye's earthquake regions to a rise of 11 points further in Mozambique's cyclone-hit provinces.

Policy implications

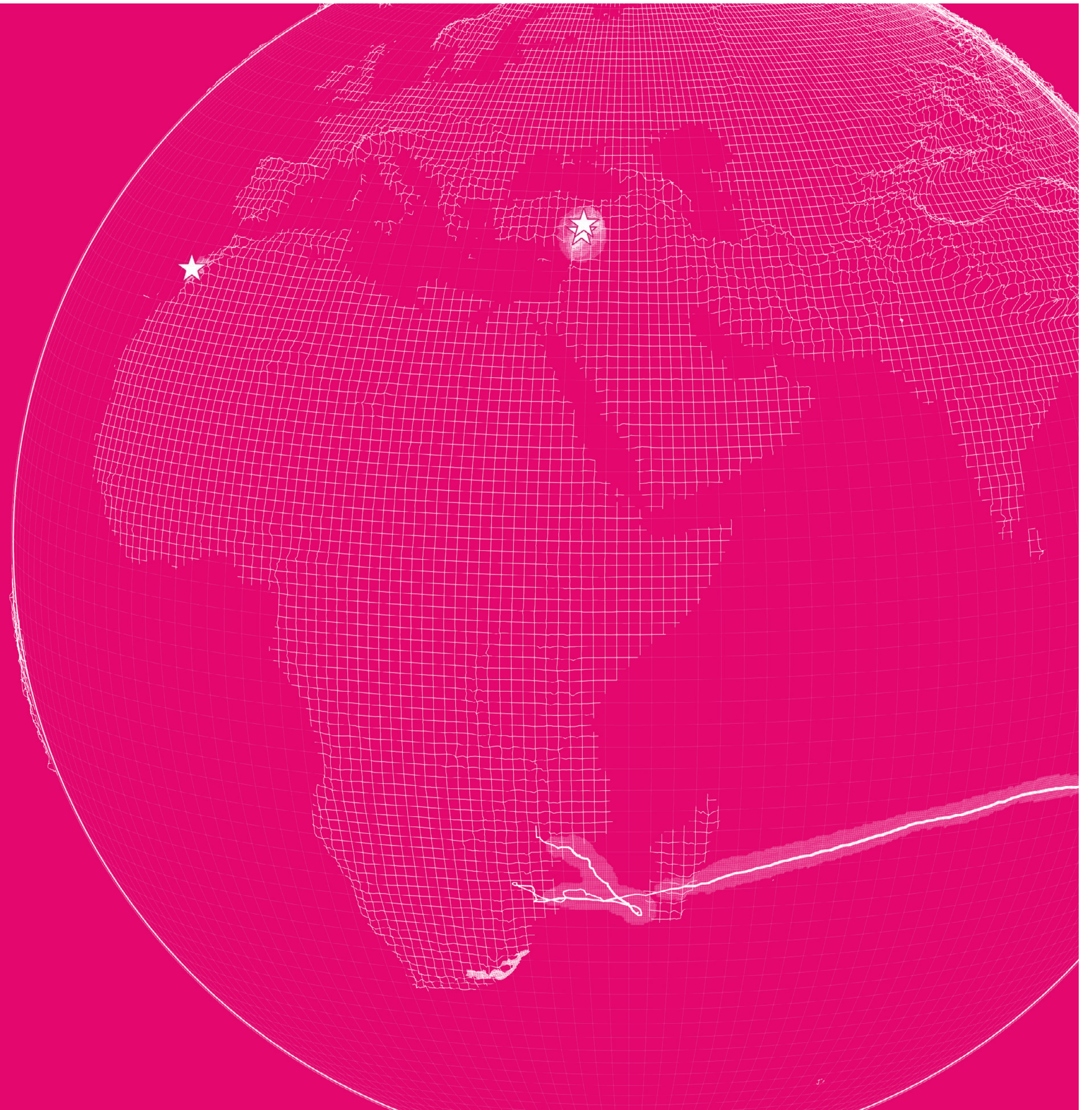
- ***Judge public confidence after a disaster by the national government's record before it, as well as by the relief effort.*** Confidence in national government fell 24 percentage points further in Türkiye's earthquake-hit regions compared with the rest of the country. The share who felt the government cared about them 'a lot' rose 20 percentage points further in Mozambique's cyclone-hit provinces compared with the rest of the country.
- ***Do not count on increases in perceived neighbourly care lasting through multiple disasters.*** Perceived neighbourly care rose seven percentage points further in the affected regions by 2023, most clearly in KwaZulu-Natal 22 months after its April 2022 floods, and there it fell back to below the rest of South Africa after the province flooded again in 2024.
- ***Track confidence in national government separately from belief that it is well prepared for a disaster.*** Confidence in the national government in Türkiye's earthquake-hit regions recovered 16 percentage points relative to the rest of the country between 2023 and 2025. Between 2021 and 2025, the share there calling the national government well prepared fell from 38% to 8%, compared with 32% to 18% in the rest of Türkiye.

CHAPTER 1

What does resilience look like before a disaster strikes?

The 2025 World Risk Poll measures the Resilience Index for the third time. In the four years those three measurements span, several of the countries it surveys lived through a disaster between editions. This report is one of three drawing on the 2025 Poll's work on resilience and disasters. *A resilient life: How wellbeing shapes the capacity to cope* sets out how resilience is distributed across the world, what strengthens it and where it is lowest. *From alert to agency: What turns warnings into action?* covers the hours and days before a hazard becomes a disaster, asking who was warned and whether the warning changed what they could do. This report examines what happens once the hazard has struck.

In the places a disaster struck, what happened to people's resilience, to their confidence in the national government and to their sense that their neighbours cared about them – and did any of it recover? A national average cannot answer that, because most of the people inside it were nowhere near the event. However, the Poll's sub-national region codes and its repeated editions allow the affected regions to be followed separately from the rest of their respective countries, before the disaster, soon after it, and two to three years on.



What the Resilience Index measures

The Resilience Index was introduced in the 2021 Poll as a measure of people’s ability to absorb and recover from shocks, built from what respondents report about their own circumstances, their perceptions and the structures around them. Scores run from 0 to 100, with higher values indicating greater resilience, and the overall score is the average of four dimensions: individual, household, community and societal. Each dimension combines answers to several Poll questions asked of the same respondents, and this report examines the four separately throughout. The United States, which ranks second in the world on household resilience and 130th of 139 on societal resilience, shows how far apart the levels can be within one country¹.

Resilience changes over time. Risks change, and the capacity to cope with them changes too^{2,3}, so tracking the Index across editions shows whether people and societies are growing more or less resilient, and what is behind the change⁴. Natural hazards are a growing part of that risk. Human-caused climate change is already affecting weather and climate extremes in every region, and the communities that contribute least to it are affected most⁵.

Table 1.1. The four dimensions of the Resilience Index

DIMENSION	WHAT IT COMBINES
Individual	People’s level of education, and their sense of agency in being able to protect themselves and their family in the event of a disaster
Household	Financial assets and the ability to meet basic needs, the existence of a household plan for a disaster, and access to communications through the internet and mobile phones
Community	Measures of social capital, including perceptions of care from neighbours, feelings of safety and helping strangers, and satisfaction with local infrastructure such as roads, schools and healthcare
Societal	Experiences of discrimination, perceptions of governmental care, and confidence in institutions including the military, the judiciary and the national government

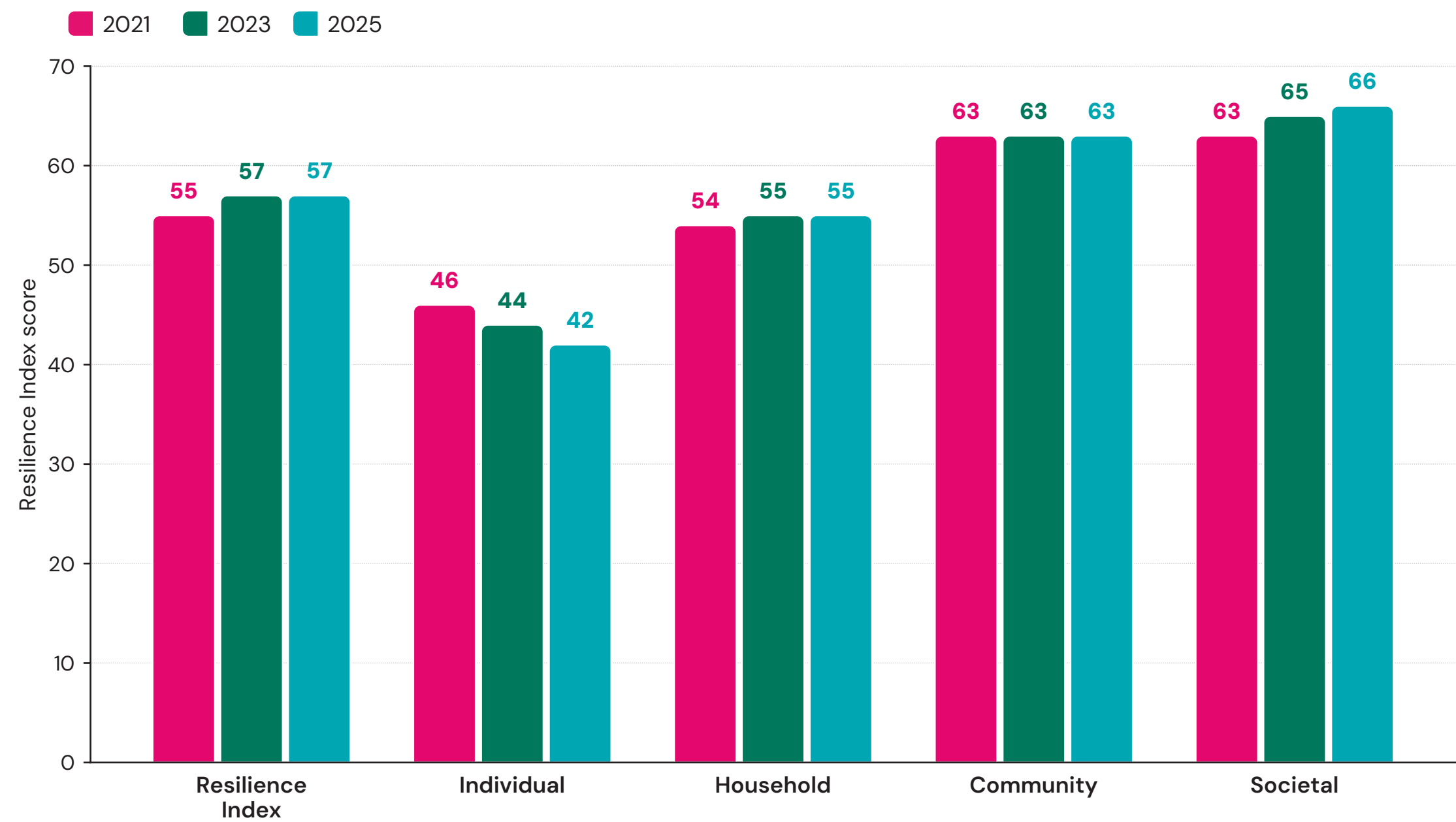
Note: Each dimension is scored from 0 to 100, and the Index is the average of the four.

Three of the questions that Chapters 2 to 4 analyse in isolation are also part of the Index. Whether people feel their neighbours care about them is one input to the community dimension. Confidence in the national government and whether people feel the government cares about them are inputs to the societal dimension. Later chapters examine each single question beside the dimension that contains it, and the two will sometimes differ because the dimension combines several other inputs as well.

The state of global resilience in 2025

Chart 1.1. Changes in Resilience Index and its four dimensions, 2021 to 2025

Individual resilience falls to 42, its lowest yet, as societal resilience rises to 66, its highest, leaving the overall Index at 57, level with 2023 and two points above 2021.



Note: Global average scores across all countries and territories with Index data in each edition. Scores run from 0 to 100.

Chart 1.1 shows the Index and its four dimensions across the three editions. The global Index was 57 in 2025, level with 2023 and two points above 2021. However, that stability conceals two opposing changes. Individual resilience fell for a second consecutive edition, from 46 in 2021 to 44 in 2023 and 42 in 2025, its lowest level since the Index began. Societal resilience rose over the same period, from 63 to 65 to 66, its highest yet. Household resilience was 55 in both 2023 and 2025, one point above 2021, and community resilience has stayed at 63 across all three editions. People are reporting stronger institutions around them and less confidence in their own ability to protect themselves and their families.

The fall in individual resilience is concentrated in a few populous countries, including India, Pakistan and Indonesia, where people’s sense that they could protect their family in a disaster has weakened. *A resilient life* gives the full account, by income group, region and country, together with the relationship between resilience and wellbeing and the deficit of perceived care. The individual resilience dimension of the Index has been falling globally for four years, and any local change after a disaster has to be considered alongside that trend.

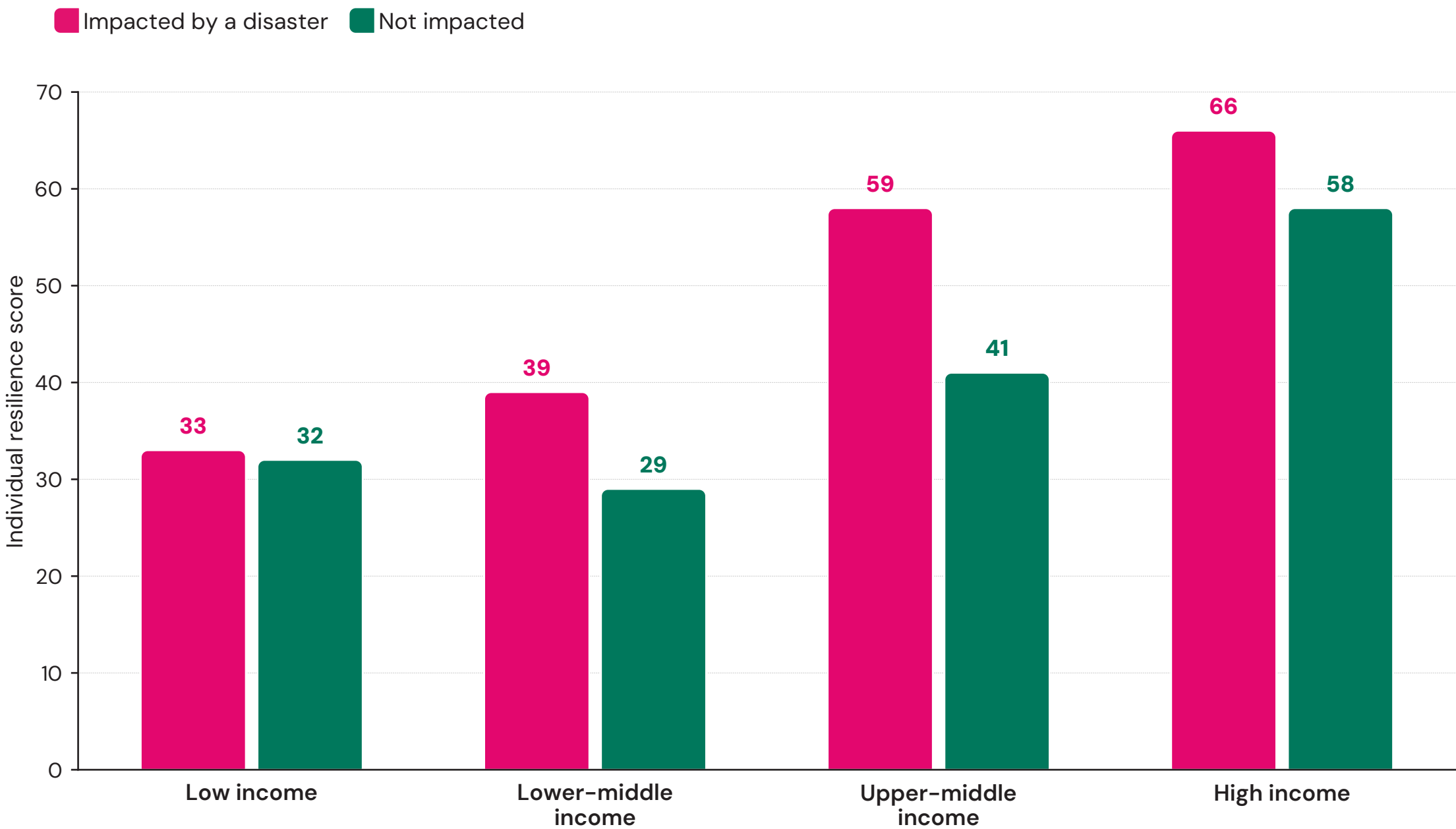
What can a single edition of the Poll tell us?

Individual resilience combines people’s level of education with their sense of agency in being able to protect themselves and their family in a disaster.

In 2025, the Poll asked whether people had personally been impacted by a disaster in the past five years, and one adult in five (20%) said ‘yes’. Setting their individual resilience beside that of everyone else produces the comparison in Chart 1.2. In lower-middle-income countries, adults who report being impacted score 39, compared with 29 among those who do not. In upper-middle-income countries, the scores are 59 and 41, and in high-income countries, 66 and 58. Low-income countries are the exception, with the two groups level at 33 and 32, and the same is true in every household income quintile within those countries.

Chart 1.2. Individual resilience among those impacted and not impacted by a disaster, by income group

Adults impacted by a disaster score higher on individual resilience in every income group except the lowest, where the two are level at 33 and 32.



Question text: Were you, personally, impacted by a disaster, such as [local examples] in [country] in the past 5 years? Please do not think of coronavirus for this question.

Note: 2025 edition. Individual resilience scores run from 0 to 100. Country income groups follow the World Bank classification.

Taken on its own, living through a disaster is associated with a stronger sense of agency everywhere except the low-income countries, where the two groups are level. *From alert to agency* suggests the policy implications from this finding, alongside its account of which hazards impact people most and how impact varies with income and geography. This report does not repeat that account.

However, this comparison is an average taken across whole populations at one moment, and the two groups it compares differ in more than their exposure, so it cannot support a stronger conclusion. The Poll codes every respondent to a sub-national region. Those codes can be matched, and mapped, across 2021, 2023 and 2025, so a region struck by a disaster between two editions can be compared with the rest of its country both before and after the event. The Poll also asks about the two relationships this report follows, with neighbours and with the national government, in the same wording in each edition in most countries. Studies of recovery after disasters identify social capital, alongside economic resources, information and community competence, as the capacities that allow a community to adapt⁶.

Chapter 2 follows seven disasters that occurred between the 2021 and 2023 editions: earthquakes in Morocco, Türkiye and Ecuador in 2023, cyclones in Mozambique and New Zealand in 2023, and floods in Pakistan and South Africa in 2022. It compares the affected regions with the rest of their respective countries on the Index, case by case and then across the seven countries combined. Chapter 3 examines the same case studies metric by metric: this includes the four dimensions, the three trust and care questions above, as well as whether people believe they can protect themselves and their family. Chapter 4 follows four of the seven into the 2025 edition, between 25 and 41 months after the event, to ask whether the 2023 findings had lasted to 2025.



CHAPTER 2

What happens to resilience where a disaster strikes?

In Türkiye, the national Resilience Index score was 51 in both the 2021 and 2023 editions, while the regions impacted by the 2023 earthquake fell three points and the rest of the country rose one.

Between the 2021 and 2023 editions the global average on the Resilience Index rose from 55 to 57, while the Index fell in 75 of the 120 countries measured in both editions and rose in 43. The individual dimension, which combines a person's sense that they could protect their family in a disaster with their level of education,⁷ fell in 87 of them.

But what happened within the countries affected by a major disaster between the two editions? A national average treats a person in a flooded district and a person on dry ground equally, and their circumstances are not interchangeable. Seven disasters can be followed at the sub-national level, each on its own and then across all seven combined. The data, the weighting and the limits of the comparison are set out in the appendix at the back of this report.



How the comparison works

Within each country, respondents are split into two groups using the Poll’s own sub-national region variables: the regions officially affected by the disaster, and the rest of the country. Where the footprint covers more than one region, those regions are treated as one group, weighted by the number of respondents in each, so a region with more respondents counts for more. Two thirds of Türkiye’s affected respondents are in its Mediterranean region, and nine in ten of New Zealand’s are in Auckland. A map for each case study shades every region on its own, so a reader can see what the pooled statistic comprises.

Everyone surveyed in an affected region counts, whether or not they reported a disaster themselves, because the comparison is between places rather than between people. Regions and provinces are large units, so it shows how each affected region changed as a whole, and not how experiences differed between municipalities, settlements or social groups inside it. Both groups are followed from 2021 to 2023, and the change in the rest of the country is subtracted from the change in the affected regions. What is left is specific to those regions rather than national in origin. That difference-in-differences is understood throughout as change associated with living in an affected region rather than as an effect of the disaster.

How should these comparisons be understood?

Seven disasters across two editions, and four across three, are a small sample, and the comparison built from them is descriptive. The chapters examine each case study on its own and then all of them together. Every statistic in these chapters is considered alongside the political and economic context of its country before it is attributed to the hazard. Confidence in a government can change a great deal in two years for reasons unrelated to any disaster. Where the Poll could not survey the places a hazard struck, the chapters report the direction of a change rather than its size, and say why. Every difference is also compared with the margin of error on this survey. A change larger than the margin of error can be taken as a real difference, and one within it is too small to be sure of. The appendix gives the calculation.

Far more disasters struck between 2021 and 2023 than appear here. Table 2.1 sets out the seven this report follows, and the appendix sets out the checks each case study was put through.

Table 2.1. The seven case studies

COUNTRY	DISASTER	AFFECTED REGIONS	RESPONDENTS 2021 / 2023	MONTHS TO FIELDWORK	EXPOSURE CHECK (PP, 95% CI)
Morocco	Earthquake, 8 September 2023	Marrakech–Safi	137 / 132	1	+11 (–2 to 25)
Mozambique	Cyclone Freddy, February and March 2023	Zambezia, Sofala, Manica	360 / 360	6	+9 (–2 to 21)
New Zealand	Auckland floods, January 2023, and Cyclone Gabrielle, February 2023	Northland, Auckland	365 / 418	7	+35 (25 to 45)
Türkiye	Earthquakes, 6 February 2023	Mediterranean, Central East Anatolia	174 / 180	10	+39 (27 to 52)
Pakistan	Floods, June to October 2022	Sindh	280 / 230	14	+26 (14 to 37)
South Africa	KwaZulu–Natal floods, April 2022	KwaZulu–Natal	186 / 180	22	+29 (17 to 42)
Ecuador	Earthquake, 18 March 2023	Guayas, El Oro	265 / 270	5	–11 (–22 to 0)

Note: ‘The rest of the country’ in each case study is every other region in the Poll’s sample. All respondents surveyed in an affected region count, regardless of how they answered the disaster question. The last column is how much more the share reporting a disaster in the past five years changed in the affected regions than in the rest of the country, which is the check that the split is picking up a real difference in exposure. The bracketed range is the 95% confidence interval around that difference, not a change from one value to another. Pakistan’s 14 months run from the late-August 2022 peak of the floods; from their onset in June the number is 16. Whole numbers here, one decimal in Tables A.1 and A.2.

Ecuador’s earthquake of 18 March 2023, centred on Balao in Guayas, killed 14 people and left nearly all its damage in Guayas and El Oro^{8,9}. Ecuador’s homicide rate rose steeply over those same two years and feelings of safety collapsed, with Gallup’s reporting placing Guayas among the least safe places it had measured anywhere^{10,11}. In May 2023 President Guillermo Lasso dissolved the National Assembly under a constitutional provision that also triggered early elections¹². Every Ecuadorian statistic below, therefore, includes a sharp deterioration in security concentrated in the same two provinces as the earthquake.

I Where disasters struck, and how the Resilience Index changed

Charts 2.1 to 2.7 pair two maps for each case study. The left-hand map shows where the disaster struck. The right-hand map shades every region by its change in the Resilience Index between 2021 and 2023, with the affected regions outlined in black on both.

Chart 2.1. Morocco: September 2023 earthquake and change in Resilience Index score by region, 2021 to 2023

Marrakech–Safi fell seven points and the rest of Morocco six, a national rather than local decline and a gap within the margin of error.

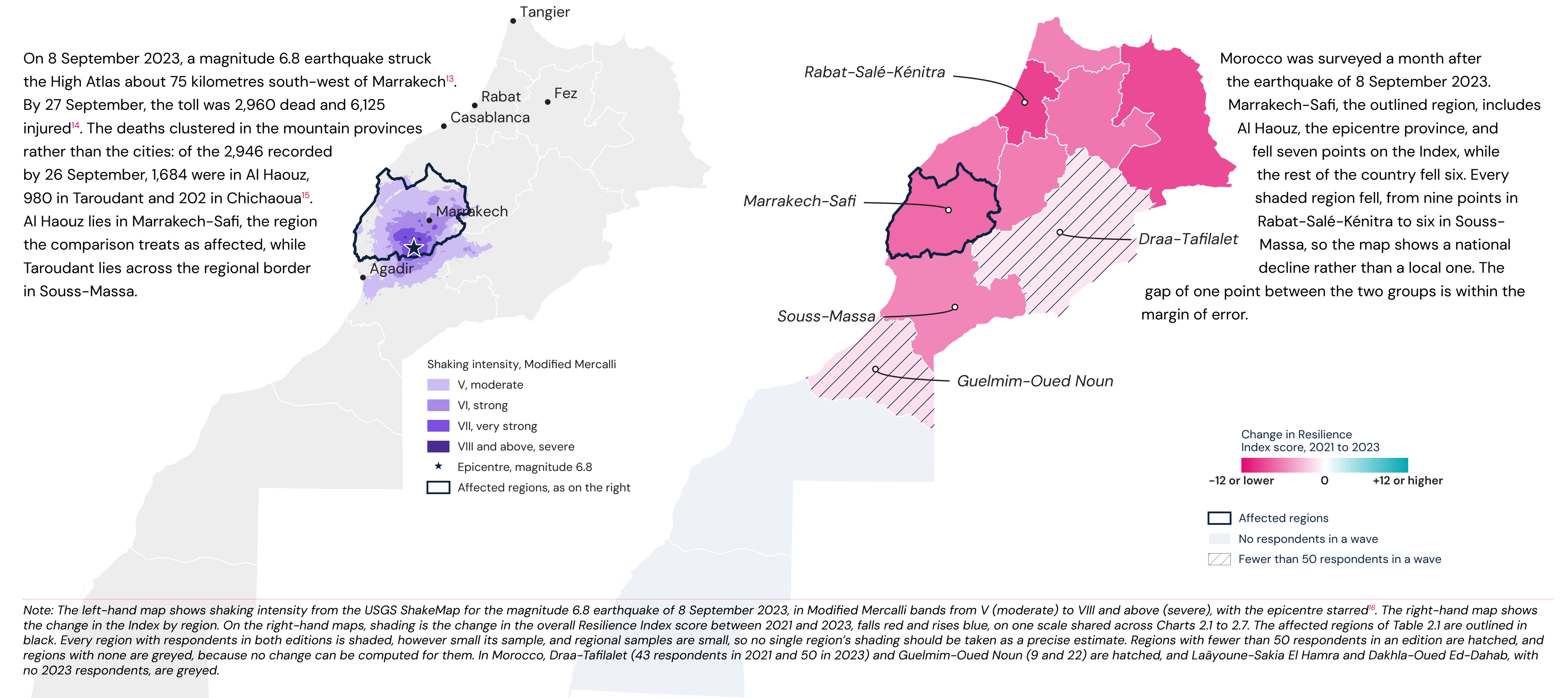
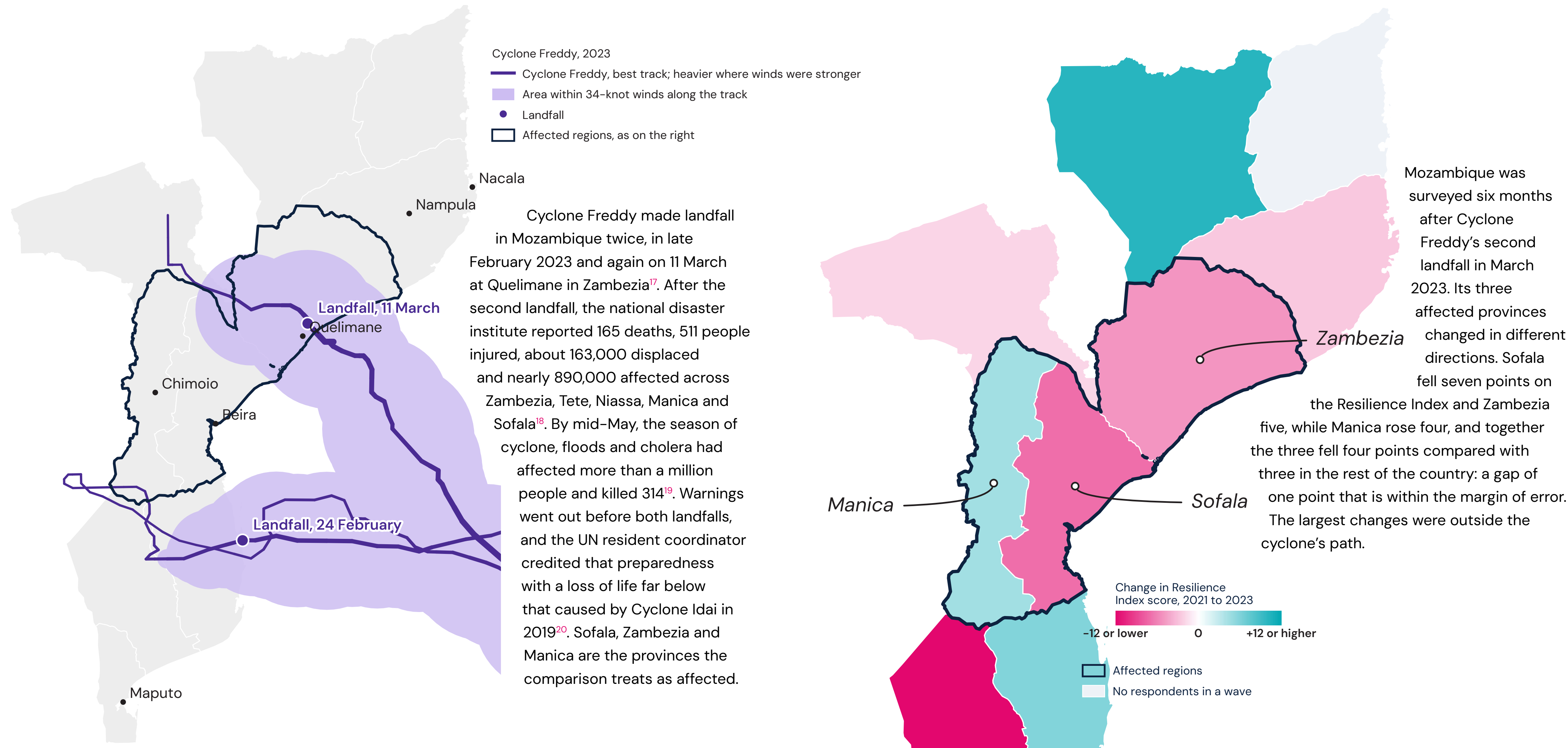


Chart 2.2. Mozambique: Cyclone Freddy and change in Resilience Index score by region, 2021 to 2023

The three provinces the cyclone struck fell four points, compared with three elsewhere, but the largest changes are outside the cyclone’s direct path.

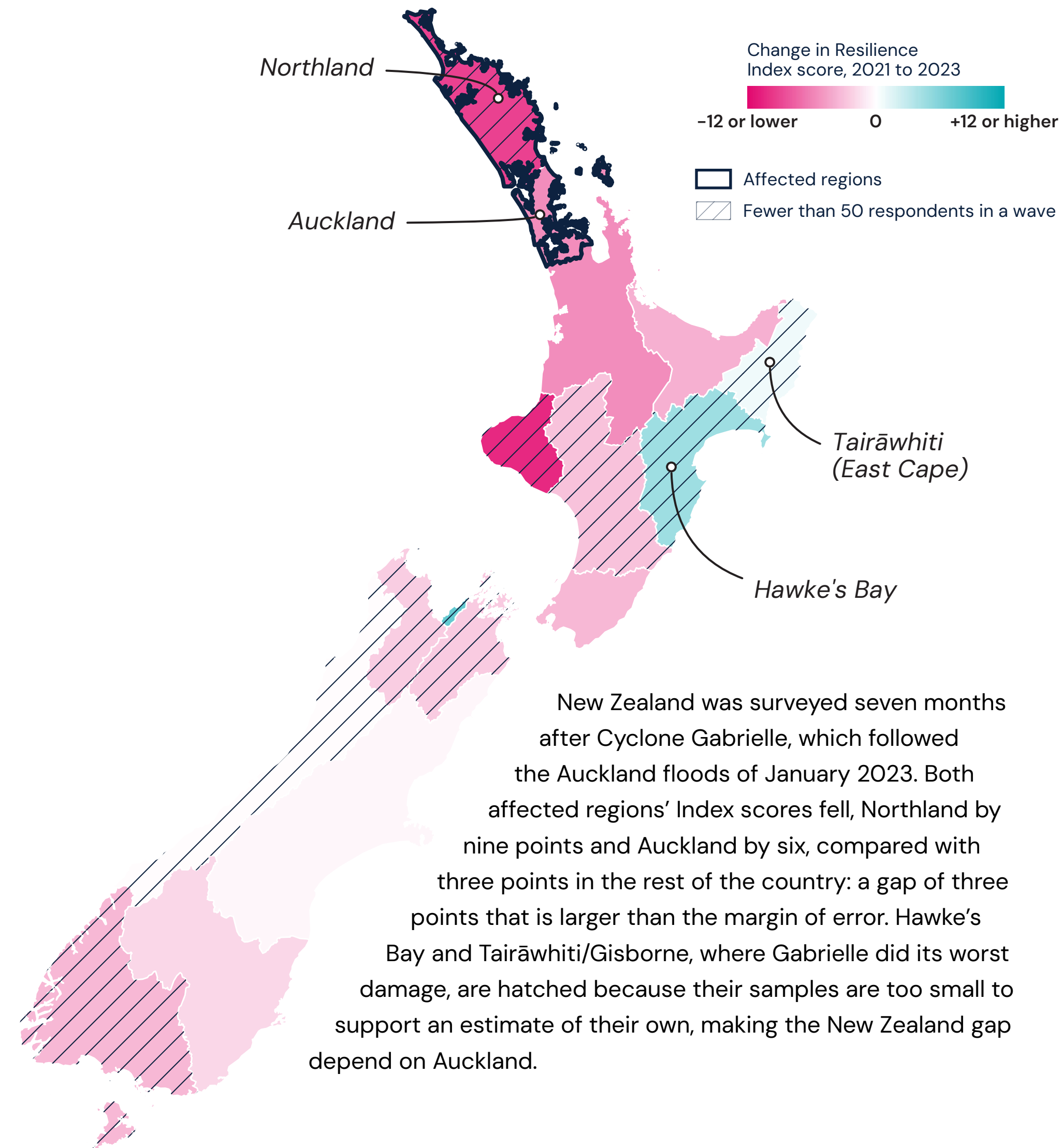
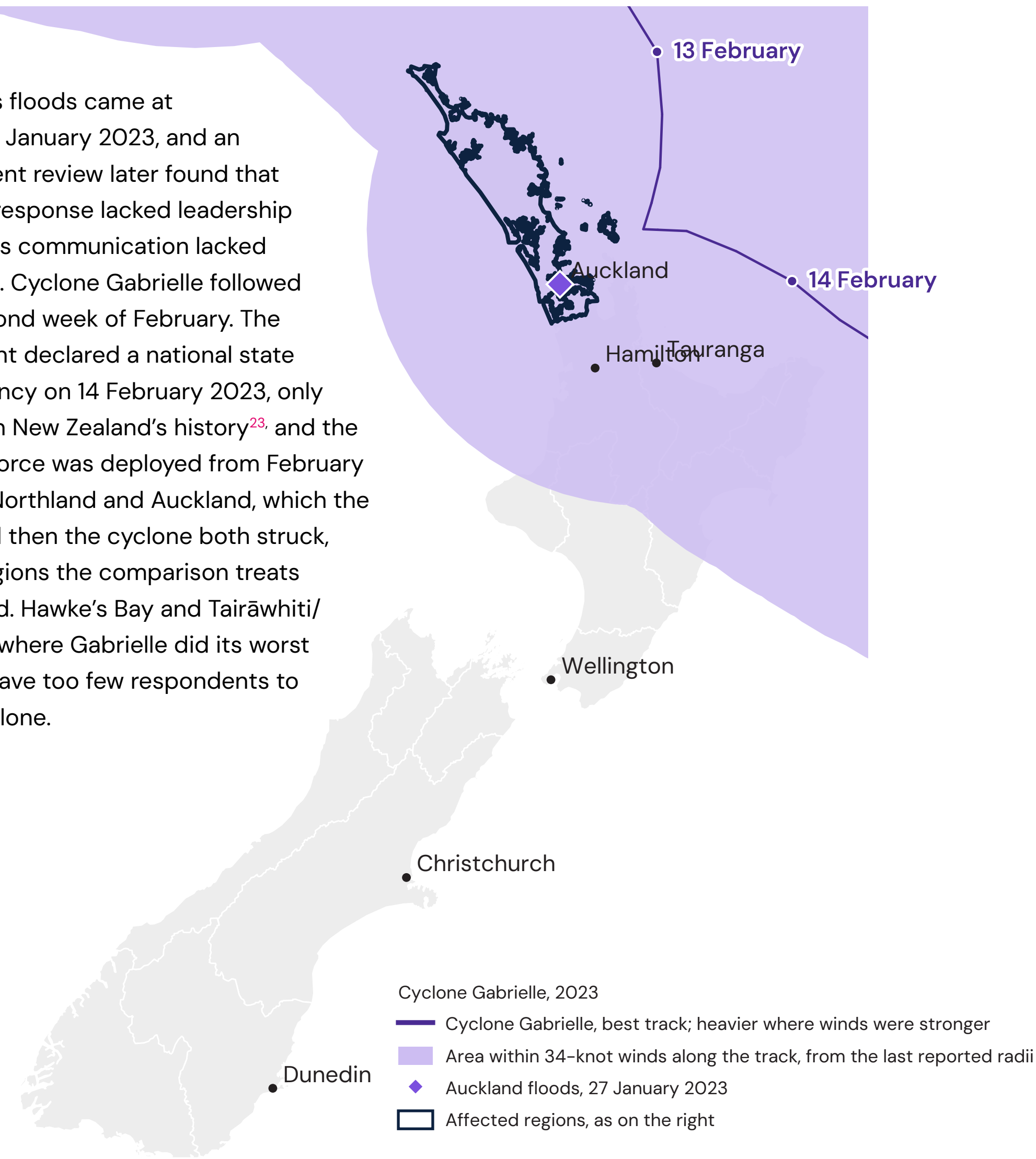


Note: The left-hand map shows Cyclone Freddy's best track from IBTrACS, heavier where winds were stronger, the area within 34-knot winds along it and its two landfalls²¹. The right-hand map shows the change in the Index by region. Conventions as Chart 2.1. Sofala, Zambezia and Manica are the affected provinces. Cabo Delgado is greyed, with no respondents in either edition.

Chart 2.3. New Zealand: Auckland floods, Cyclone Gabrielle and change in Resilience Index score by region, 2021 to 2023

Northland and Auckland fell three points further than the rest of the country, while the regions Gabrielle struck hardest are too thinly sampled to measure alone.

Auckland's floods came at the end of January 2023, and an independent review later found that the city's response lacked leadership and that its communication lacked empathy²². Cyclone Gabrielle followed in the second week of February. The government declared a national state of emergency on 14 February 2023, only the third in New Zealand's history²³, and the Defence Force was deployed from February to May²⁴. Northland and Auckland, which the floods and then the cyclone both struck, are the regions the comparison treats as affected. Hawke's Bay and Tairāwhiti/Gisborne, where Gabrielle did its worst damage, have too few respondents to measure alone.

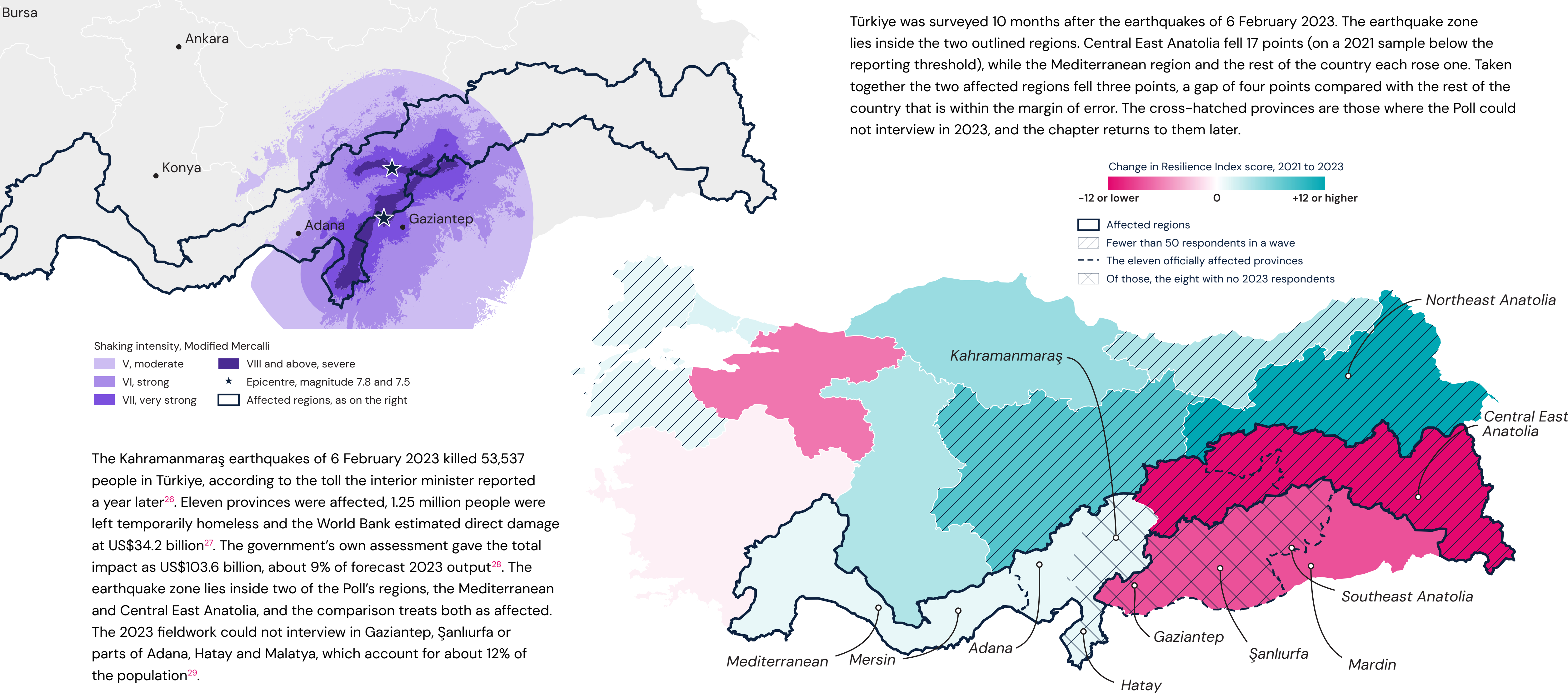


New Zealand was surveyed seven months after Cyclone Gabrielle, which followed the Auckland floods of January 2023. Both affected regions' Index scores fell, Northland by nine points and Auckland by six, compared with three points in the rest of the country: a gap of three points that is larger than the margin of error. Hawke's Bay and Tairāwhiti/Gisborne, where Gabrielle did its worst damage, are hatched because their samples are too small to support an estimate of their own, making the New Zealand gap depend on Auckland.

Note: The left-hand map shows Cyclone Gabrielle's best track from IBTrACS, dated as it passed north-east of the North Island on 13 and 14 February 2023, and marks Auckland, where the floods of 27 January struck²⁵. The area within 34-knot winds is drawn from the radii reported up to 12 February and extended along the rest of the track, because none are reported once the storm was no longer rated. The right-hand map shows the change in the Index by region. Conventions as Chart 2.1. Northland and Auckland are the affected regions. Ten of the 16 regions are hatched, among them Northland, Hawke's Bay and Tairāwhiti/Gisborne, the last two the regions Cyclone Gabrielle devastated most.

Chart 2.4. Türkiye: February 2023 earthquakes and change in Resilience Index score by region, 2021 to 2023

Central East Anatolia fell 17 points, while the Mediterranean region rose one. The eight cross-hatched provinces have no 2023 respondents.



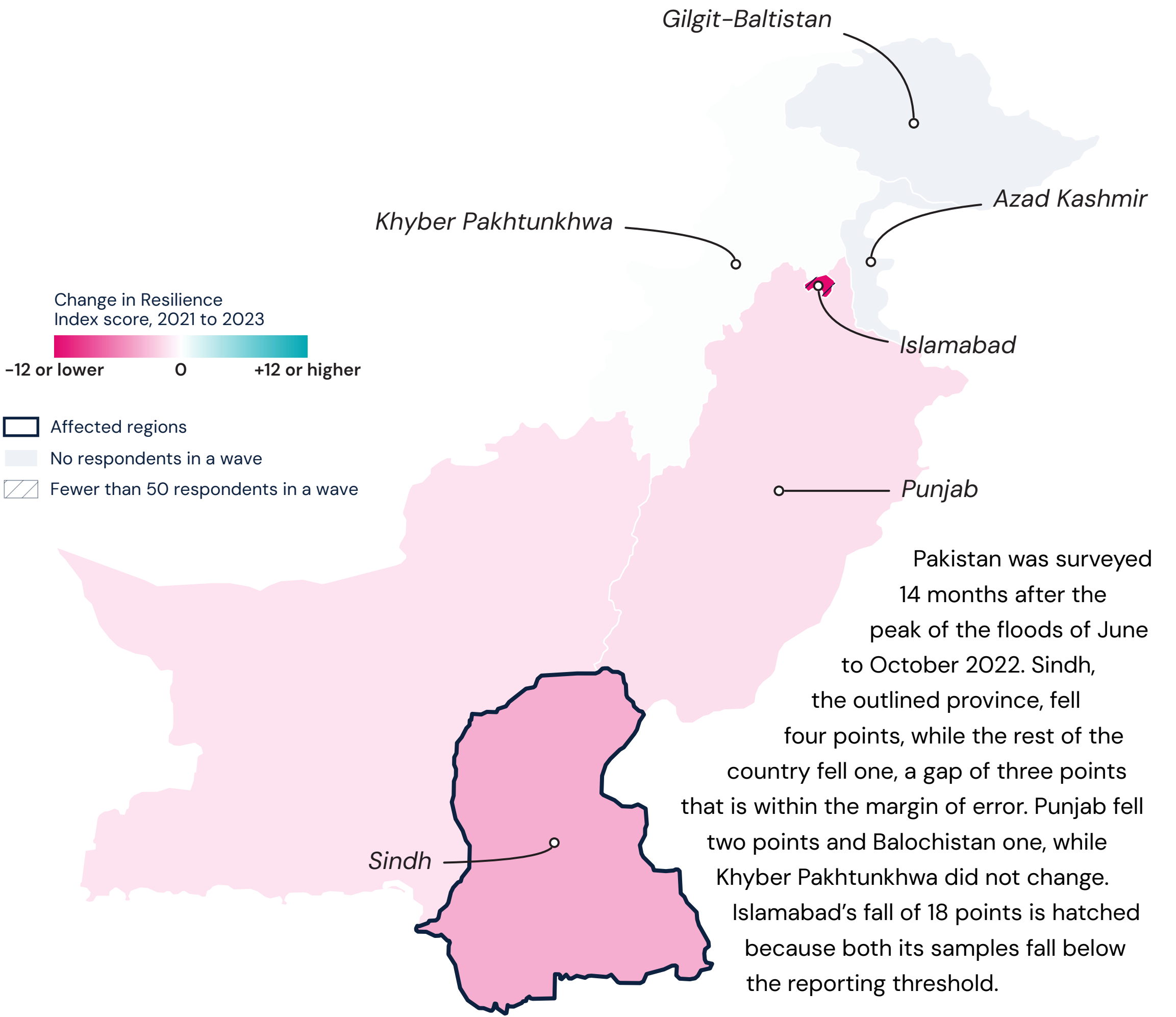
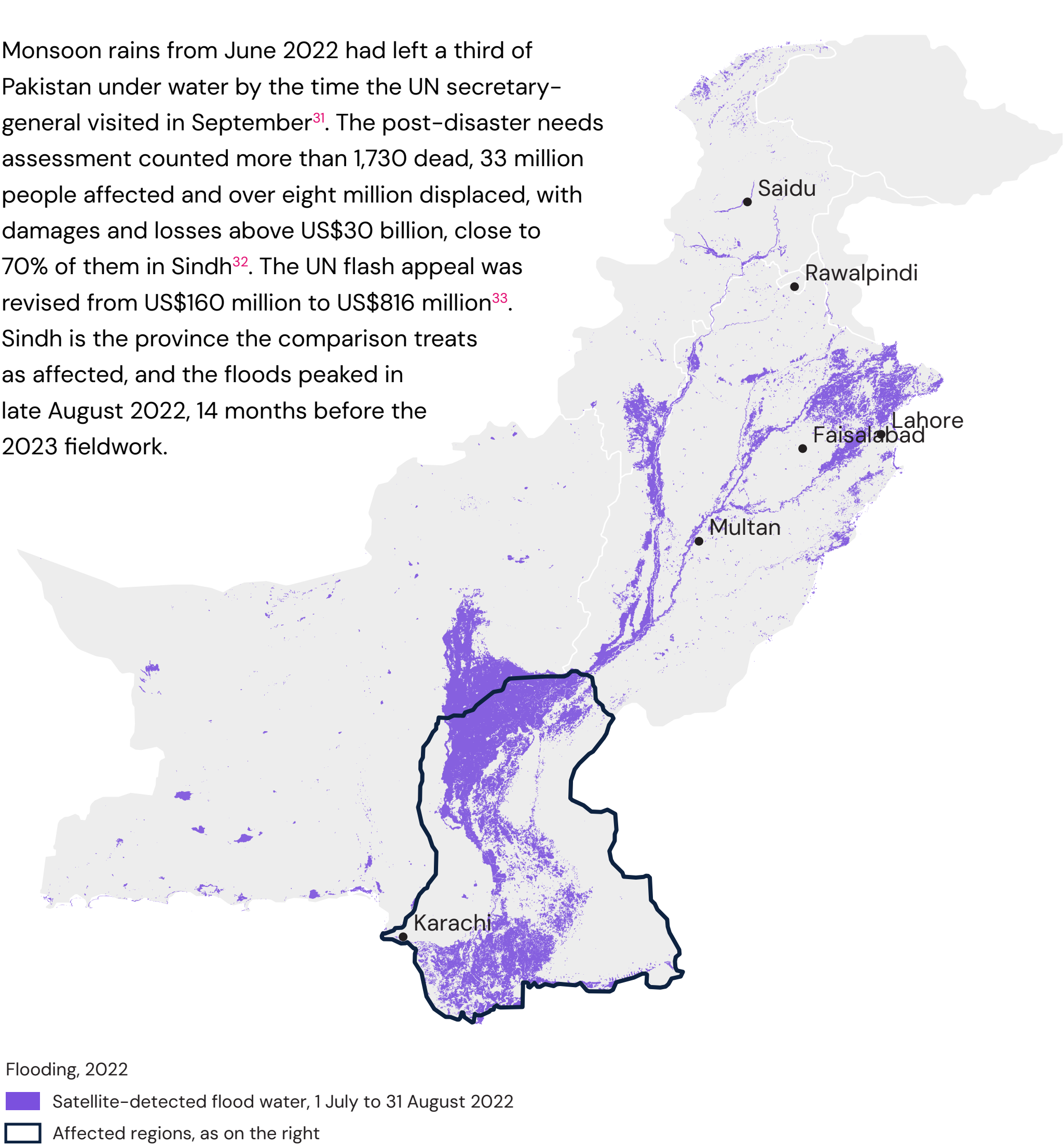
The Kahramanmaraş earthquakes of 6 February 2023 killed 53,537 people in Türkiye, according to the toll the interior minister reported a year later²⁶. Eleven provinces were affected, 1.25 million people were left temporarily homeless and the World Bank estimated direct damage at US\$34.2 billion²⁷. The government's own assessment gave the total impact as US\$103.6 billion, about 9% of forecast 2023 output²⁸. The earthquake zone lies inside two of the Poll's regions, the Mediterranean and Central East Anatolia, and the comparison treats both as affected. The 2023 fieldwork could not interview in Gaziantep, Şanlıurfa or parts of Adana, Hatay and Malatya, which account for about 12% of the population²⁹.

Note: The left-hand map shows shaking intensity from the USGS ShakeMaps for the two shocks of 6 February 2023, magnitude 7.8 and 7.5, in Modified Mercalli bands from V (moderate) to VIII and above (severe), with both epicentres starred³⁰. The right-hand map shows the change in the Index by region. Conventions as Chart 2.1, on the 12 NUTS-1 statistical regions the Poll uses for Türkiye, with the Mediterranean and Central East Anatolia regions outlined. The dashed line marks the 11 officially affected provinces, and the cross-hatching the eight of them with no 2023 respondents. Regional samples run from 10 to 210 respondents, and five regions are hatched, Central East Anatolia and Northeast Anatolia among them.

Chart 2.5. Pakistan: 2022 floods and change in Resilience Index score by region, 2021 to 2023

Sindh fell four points, compared with one point in the rest of Pakistan, a gap within the margin of error.

Monsoon rains from June 2022 had left a third of Pakistan under water by the time the UN secretary-general visited in September³¹. The post-disaster needs assessment counted more than 1,730 dead, 33 million people affected and over eight million displaced, with damages and losses above US\$30 billion, close to 70% of them in Sindh³². The UN flash appeal was revised from US\$160 million to US\$816 million³³. Sindh is the province the comparison treats as affected, and the floods peaked in late August 2022, 14 months before the 2023 fieldwork.



Note: The left-hand map shows satellite-detected flood water between 1 July and 31 August 2022, from UNOSAT's VIIRS-derived extent³⁴. The right-hand map shows the change in the Index by region. Conventions as Chart 2.1. Sindh is the affected province. Azad Kashmir and Gilgit-Baltistan are greyed, with no respondents in either edition, and Islamabad is hatched, below the reporting threshold in both editions.

Chart 2.6. South Africa: KwaZulu–Natal floods and change in Resilience Index score by region, 2021 to 2023

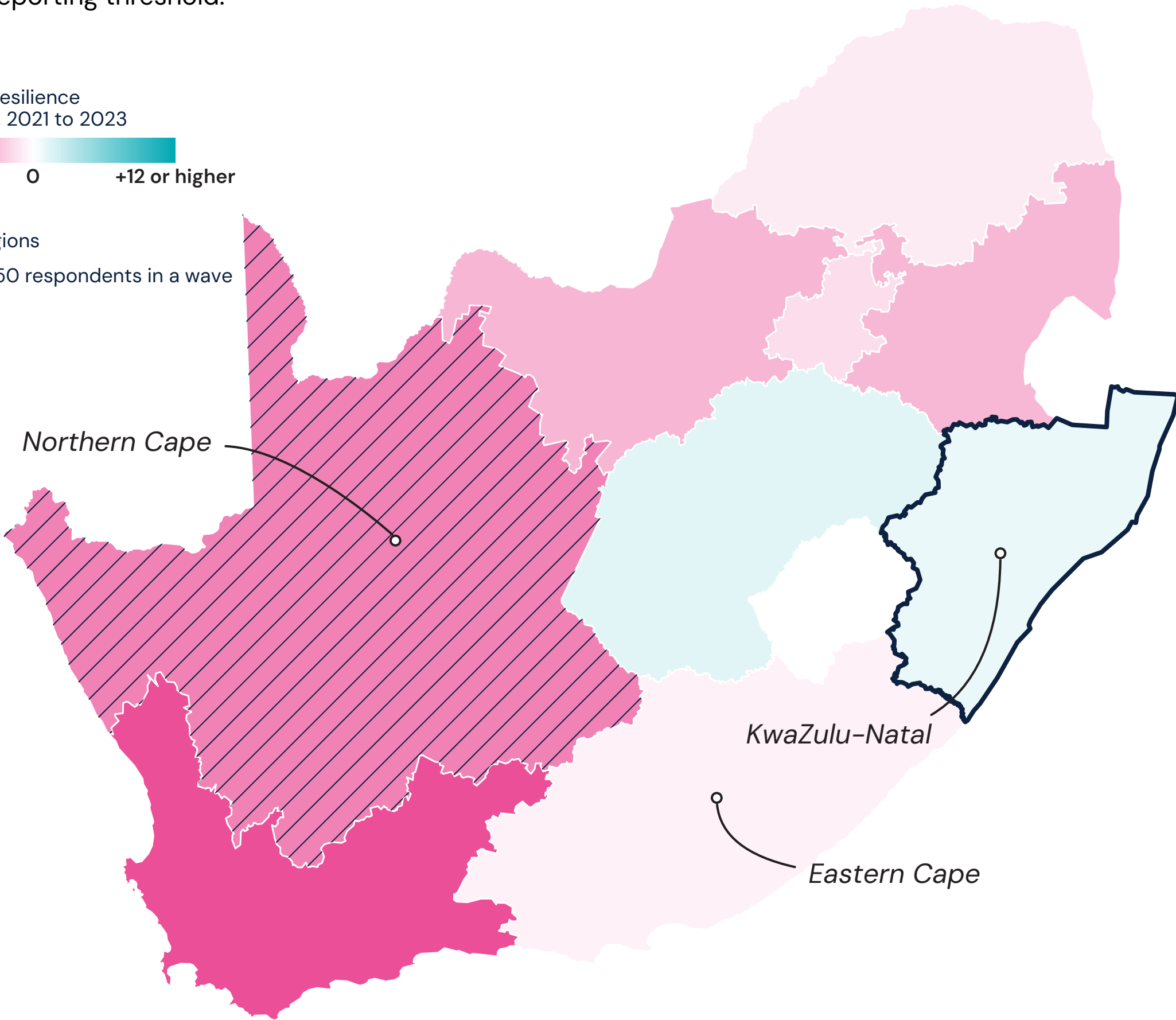
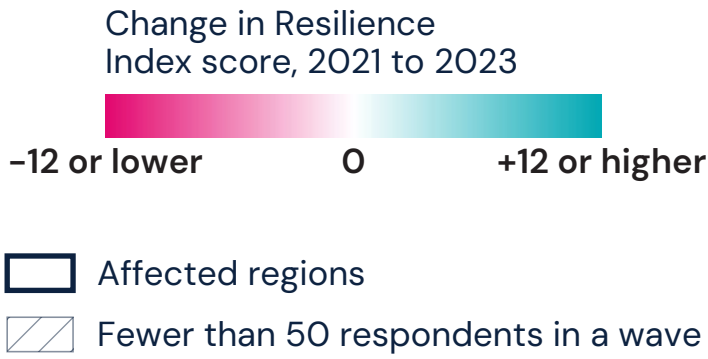
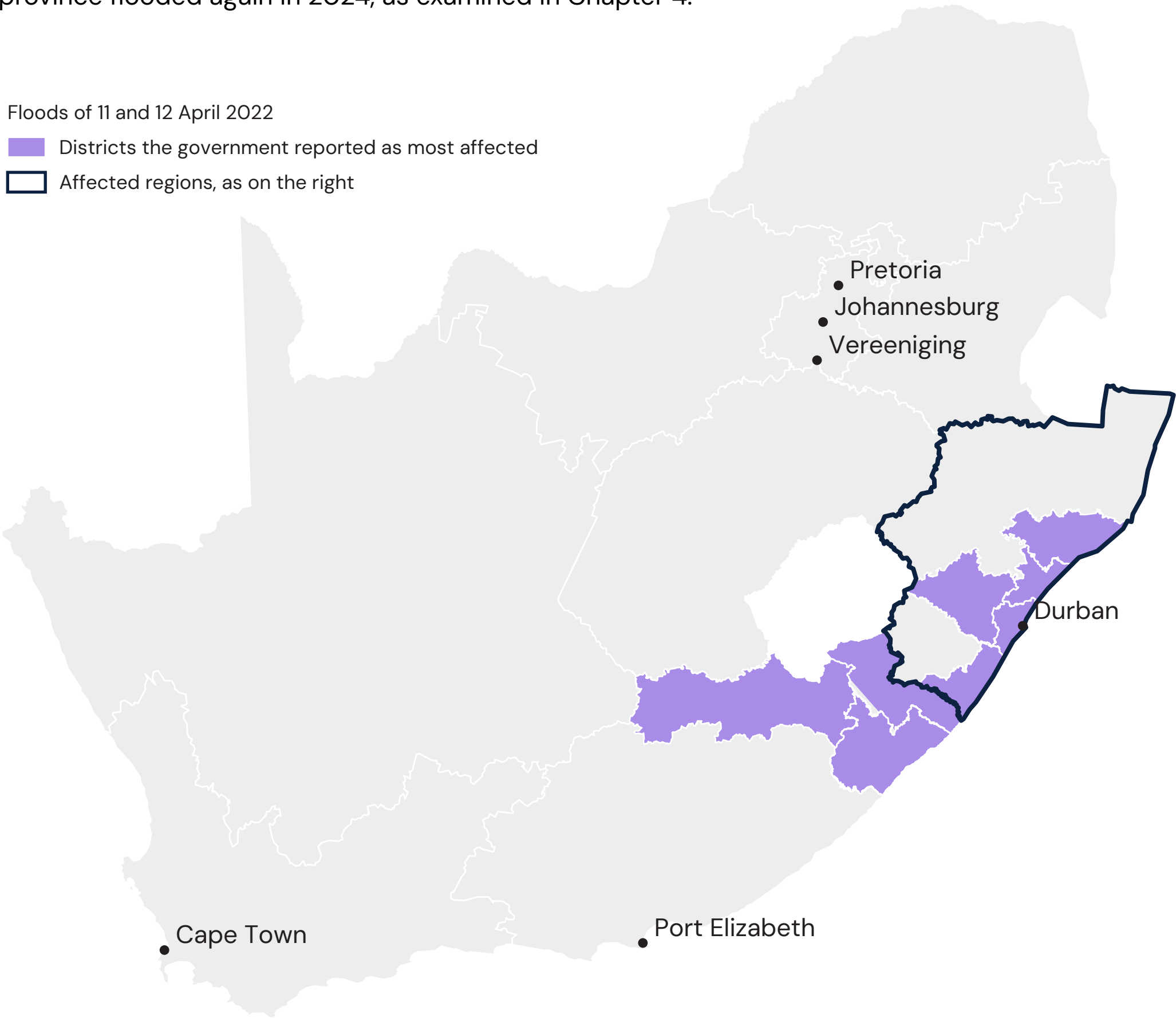
KwaZulu–Natal is the only affected region on the seven maps to rise, by one point, while the rest of South Africa fell three.

Between 11 and 12 April 2022, 200 to 400 millimetres of rain fell on KwaZulu–Natal, and the floods and landslides that followed killed 443 people and displaced more than 40,000. The South African government declared a National State of Disaster on 18 April³⁵. Two years on, more than 300 people displaced by the floods were still in emergency shelters³⁶. KwaZulu–Natal is the province the comparison treats as affected. Its 2023 measurement came 22 months after the floods, and the province flooded again in 2024, as examined in Chapter 4.

South Africa was surveyed 22 months after the KwaZulu–Natal floods of April 2022, the longest interval in the comparison. KwaZulu–Natal, the outlined province, is the only affected region on the seven maps to rise, by one point, while the rest of the country fell three, a gap of four points in the province’s favour that is within the margin of error. The Western Cape fell eight points, the largest change in the country, and the Northern Cape is hatched because both its samples fall below the reporting threshold.

Floods of 11 and 12 April 2022

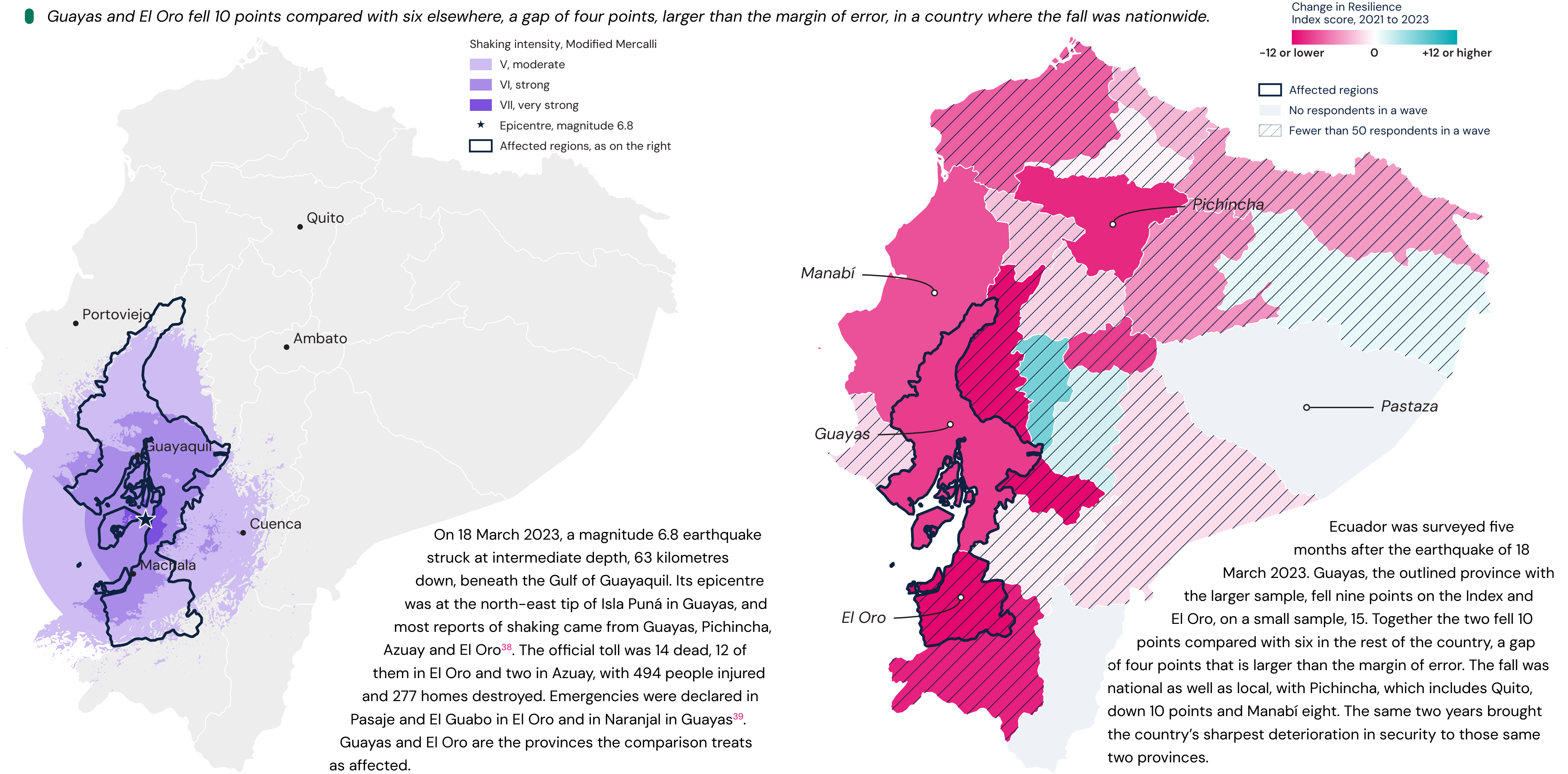
- Districts the government reported as most affected
- Affected regions, as on the right



Note: The left-hand map shades the districts the government reported as most affected by the floods of 11 and 12 April 2022: eThekwin, iLembe, Ugu, King Cetshwayo and uMgungundlovu in KwaZulu–Natal, and Alfred Nzo, Joe Gqabi and O.R. Tambo in the Eastern Cape, which account for a small share of that province’s population, so only KwaZulu–Natal is treated as affected³⁷. This is the declared footprint, not a measured one. The right-hand map shows the change in the Index by region. Conventions as Chart 2.1. KwaZulu–Natal is the affected province. The Northern Cape is hatched, below the reporting threshold in both editions.

Chart 2.7. Ecuador: March 2023 earthquake and change in Resilience Index score by region, 2021 to 2023

Guayas and El Oro fell 10 points compared with six elsewhere, a gap of four points, larger than the margin of error, in a country where the fall was nationwide.



Note: The left-hand map shows shaking intensity from the USGS ShakeMap for the earthquake of 18 March 2023, in Modified Mercalli bands from V (moderate) upwards, with the epicentre starred⁴⁰. The right-hand map shows the change in the Index by region. Conventions as Chart 2.1. Guayas and El Oro are the affected provinces. Eighteen of the 21 shaded provinces are hatched, El Oro among them; only Guayas, Pichincha and Manabí are above the reporting threshold in both editions. Zamora Chinchipe and Pastaza, with no 2023 respondents, are greyed, and the Galapagos are omitted.

The two largest changes: Türkiye and South Africa

Türkiye's societal dimension fell 15 points further in the earthquake regions than in the rest of the country, the largest dimension change in the comparison. In the affected regions, it fell 11 points, from 61 to 50, while rising four points elsewhere. Confidence in national government fell 30 percentage points there, from 53% to 23%, compared with six percentage points elsewhere, a gap of 24 percentage points. The share who felt the government cared about them 'a lot' fell 19 percentage points further. All three gaps are larger than the margin of error. A review by Rice University's Baker Institute records more than 10 construction amnesties since 2001, under which building code violations were forgiven once construction was complete⁴¹.

Those estimates are based on 174 and 180 respondents, and they are the ones most likely to be understated, because the 2023 wave could not interview in eight of the 11 officially affected provinces, named later in this chapter⁴².

South Africa is the clear exception to the pattern across the seven maps. Its 2021 fieldwork took place in November 2021, before the April 2022 KwaZulu-Natal floods, and its 2023 fieldwork in February 2024, about 22 months afterwards. It is the only case study surveyed nearly two years after its disaster. Chapter 4 examines all four three-wave case studies at 25 to 41 months, and the appendix sets out why seven case studies cannot separate the time elapsed from the place. The share reporting a disaster in the past five years rose 35 percentage points in KwaZulu-Natal, compared with six percentage points in the rest of the country. Yet the share saying their neighbours cared 'a lot' nearly tripled, from 16% to 47%, while falling in the rest of the country. That gap of 38 percentage points is the largest change on any of the nine outcome measures the comparison follows. The household dimension rose eight points relative to the rest of the country and confidence in national government 17 percentage points, both consistent with a province two years into rebuilding. The Index gap of four points in favour of the province is within the margin of error.

Two years into a rebuild, this case study is understood as recovery rather than impact, on a provincial sample of 186 and 180 respondents. Its rises could reflect mutual aid, reconstruction or who was sampled in each edition as much as the flood itself. The rise in confidence in national government came in the same period as allegations, reported in April 2022, of misuse of flood relief funds in the province⁴³. Chapter 4 returns to KwaZulu-Natal after a second flood in 2024 and revises that finding.

The other five case studies

Morocco was surveyed a month after the earthquake of 8 September 2023, and the split between the affected region and the rest of the country is a weak one. Marrakech-Safi includes Al Haouz, the epicentre province, but also Marrakech city and coastal Essaouira, which were far less affected⁴⁴. Reported disaster experience rose 35 percentage points even where the earthquake did not strike. Morocco shows no change beyond the margin of error on the Index or any of its dimensions.

Mozambique, surveyed six months after Cyclone Freddy's second landfall in March 2023, has two estimates larger than the margin of error. Both favour its three affected provinces, the societal dimension by 11 points and the share who felt the government cared about them 'a lot' by 20 percentage points. Pakistan has one, the societal dimension, five points down in Sindh 14 months after the 2022 floods. New Zealand, surveyed seven months after the Auckland floods and Cyclone Gabrielle, has Northland and Auckland three Index points below the rest of the country, larger than the margin of error, and confidence in national government 13 percentage points down.

Ecuador, five months after its March 2023 earthquake, is the hardest to interpret. Its affected provinces are four Index points and eight household-dimension points behind the rest of Ecuador, both gaps larger than the margin of error. Confidence in national government fell by the same amount inside and outside the affected provinces, 23 percentage points compared with 24. Whether the Index gap reflects the earthquake or the deterioration in security concentrated in Guayas cannot be settled from these data.

Tables A.1 and A.2 in the appendix give every estimate and interval for the other five case studies.

The seven case studies taken together

Taken together, the seven case studies show the Resilience Index about two points lower in the affected regions than in the rest of their respective countries between 2021 and 2023, a change that is small and only just clear of sampling error, and six of the seven go that way. Chart 2.8 sets each case study beside that combined estimate for the Index and its four dimensions.

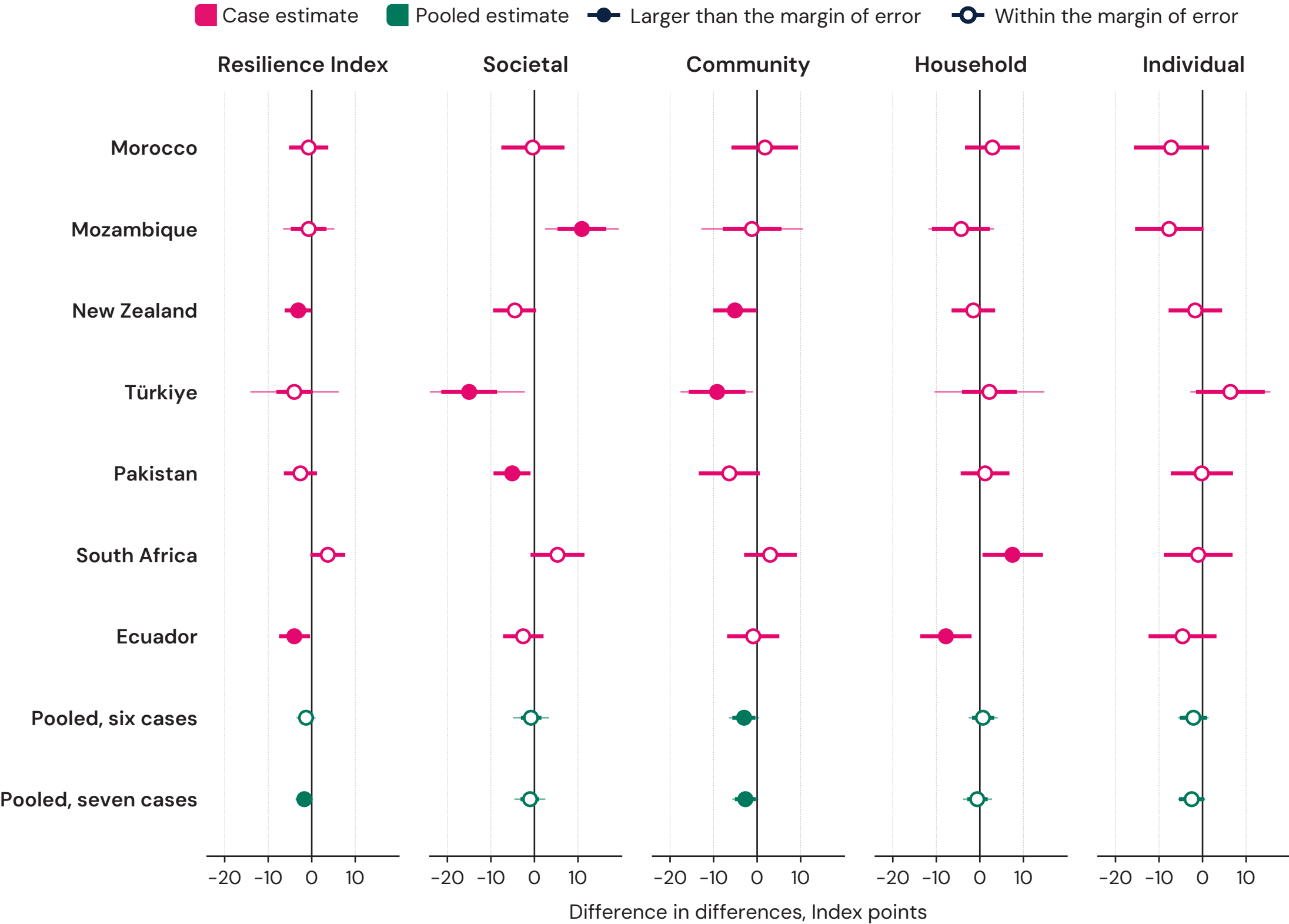
How to understand a difference-in-differences

Part of what both groups did between 2021 and 2023 was national in origin, such as an election or an economic downturn. Subtracting the change in the rest of the country leaves the part specific to the affected regions, together with anything else that happened there and nowhere else.

The subtraction works in both directions. In South Africa, the share saying their neighbours cared ‘a lot’ rose from 16% to 47% in KwaZulu–Natal while falling in the rest of the country, so the change relative to the rest of the country is 38 percentage points, larger than the provincial rise alone. In Morocco, the same share rose 18 percentage points in Marrakech–Safi, the region the September 2023 earthquake struck, and 10 elsewhere, so only eight percentage points of the rise are specific to the earthquake region.

Chart 2.8. Change in Resilience Index and its four dimensions, affected regions and rest of country, 2021 to 2023

Taken together, the seven case studies show the Resilience Index about two points lower in the affected regions than in the rest of their respective countries, an estimate only just clear of sampling error.



Note: Each dot is a difference-in-differences estimate in Index points. A filled dot means the estimate is larger than the margin of error on this survey and can be taken as a real difference; a hollow dot means it is within the margin of error and too small to be sure of. Thick lines are the margin of error, and thin lines a wider margin calculated by region, set out in the appendix. Every country counts equally in the pooled estimate across all seven case studies. The six-case row leaves Ecuador out, one of the sensitivity checks described in the appendix.

Table 2.2. Pooled difference-in-differences estimates, 2021 to 2023

MEASURE	CHANGE IN THE GAP, 2021 TO 2023 (95% CI)
Resilience Index (points)	-2 (-3 to 0)
Societal dimension (points)	-1 (-3 to 1)
Community dimension (points)	-3 (-5 to 0)
Household dimension (points)	-1 (-3 to 2)
Individual dimension (points)	-3 (-5 to 0)
Confidence in national government (percentage points)	-2 (-8 to 3)
Feels the government cares ‘a lot’ (percentage points)	+3 (-1 to 6)
Feels neighbours care ‘a lot’ (percentage points)	+7 (3 to 12)
Could protect their family (percentage points)	-2 (-6 to 3)

Note: Estimates are the affected-region change minus the rest-of-country change, pooled across the seven case studies, with each country weighted equally. Confidence in national government was not asked in Morocco or Pakistan, so that row pools five case studies. Whole numbers are shown here, so a bound printed as zero may be either side of it. The appendix gives the one-decimal bounds for the Index and the community dimension, and the other standard errors.

The community dimension fell about three points more in the affected regions than in the rest of their respective countries, and like the Index, it is only just clear of sampling error. The share who feel their neighbours care about them ‘a lot’ rises seven percentage points further, a rise that halves without KwaZulu-Natal. The other three dimensions, together with confidence in national government, the feeling that the government cares and the belief that one could protect one’s family, show no change beyond the margin of error once the seven case studies are combined. Türkiye’s fall in confidence and Mozambique’s rise in perceived government care are large where they happened and do not recur across the seven case studies combined.

Where the Poll could not reach

In Türkiye and New Zealand, the Poll has few or no respondents in the places the disaster struck hardest, and those gaps limit what the statistics can show.

The Kahramanmaraş earthquakes of 6 February 2023 killed around 53,500 people and directly affected some nine million across 11 south-eastern provinces^{45,46}. In 2023 the Poll had no respondents in eight of those provinces: Hatay, Kahramanmaraş, Osmaniye, Gaziantep, Adıyaman, Kilis, Şanlıurfa and Diyarbakır; these are the eight cross-hatched in Chart 2.4. Between them, they had 118 respondents in 2021 and none in 2023 because interviewing could not be conducted there on grounds of the earthquake and the safety of interviewers⁴⁷. The provinces worst affected by the deadliest disaster in this report therefore have no post-earthquake measurement.

The absence of those eight provinces also explains why the share of Turkish adults reporting a disaster in the past five years did not rise after February 2023, at 25% in 2021 and 22% in 2023, a change too small to be sure of. The earthquake nevertheless registers once the geography is drawn correctly. Reported experience rose 41 percentage points in the Mediterranean region, from 22% to 63%, the largest rise anywhere in the country. At the next level down (NUTS-2), the Adana and Mersin unit, on 48 respondents in 2021 and 60 in 2023, rose from 20% to 98%, while across the nine regions outside the earthquake zone the share fell from 25% to 15%. Regional definition widens the coverage gap. In 2023, the Southeast Anatolia region consists entirely of Mardin-unit respondents, which the earthquake did not strike, whereas in 2021, it was mostly Gaziantep and Şanlıurfa, which it did.

In New Zealand, Cyclone Gabrielle’s worst destruction fell on Hawke’s Bay and Tairāwhiti/Gisborne, which fall below the reporting threshold in both editions. Reported experience in Hawke’s Bay rose from 46% to 98%, so the disaster registers there, but neither region can support a dimension-level estimate, which leaves the New Zealand gap depending on Auckland and smaller as a result. In Morocco, the split is weak for the opposite reason, with reported disaster experience rising 46 percentage points in Marrakech-Safi and 35 in the regions the earthquake did not strike.

Insight to action

- **Judge confidence after a disaster by the national government's record before it.** In Türkiye, where a Baker Institute review records more than 10 construction amnesties that forgave building code violations, the earthquake regions fell 15 points on the societal dimension and 24 percentage points in confidence in national government relative to the rest of the country. In Mozambique, where the United Nations credited preparedness and early warning with keeping the loss of life far below that caused by Cyclone Idai in 2019, the share who felt the government cared about them 'a lot' rose 20 percentage points further in the cyclone-hit provinces than elsewhere.
- **Measure recovery region by region rather than by the national average.** Türkiye's national Index score was 51 in both the 2021 and 2023 editions, while its earthquake regions fell three points and the rest of the country rose one, demonstrating that a national average will not show a government where help is needed.
- **Survey the worst-affected places, where interviewers can work safely.** The Poll has no 2023 respondents in Hatay, Kahramanmaraş, Gaziantep or Şanlıurfa, and too few to measure in Hawke's Bay and Tairāwhiti/Gisborne; these are the places Cyclone Gabrielle damaged most. Adding respondents in the officially affected area would let later editions measure what happened where the damage was greatest.



CHAPTER 3

Which components of resilience change, and which hold firm?

A disaster does not affect all elements of resilience evenly. The Resilience Index averages four dimensions (individual, household, community and societal), each built from questions about the person, their household, their community and their societal institutions. An average can stay level while its component parts change in opposite directions. Chapter 2 found the top-level Index score changing little in the affected regions across the seven case studies. Underneath that headline, does people's confidence in themselves and their households change? Do their neighbours and their government come to look different to them? And does a change seen in one country survive being tested across all seven? Some components of resilience turn out to change significantly and others hardly at all; Chapter 4 follows that difference into the 2025 edition.

Which dimensions of the Resilience Index change

A two-point change in the Index can come from any of the four dimensions. Chart 3.1 sets all four out in one chart of four panels, showing the change in each dimension in the affected regions compared with the rest of the country, case by case, beside the pooled estimate from Table 2.2.

In the regions of Türkiye impacted by the 2023 earthquake, the community dimension fell nine points further than in the rest of the country. The Resilience Index averages four dimensions, and Chapter 2's small change in the affected regions hides larger ones inside it. Within single case studies, the societal dimension and confidence in national government change most, and across the seven case studies, perceived neighbourly care is the one measure that rises, by seven percentage points.

Each dimension is set beside the seven case studies behind it: the KwaZulu-Natal floods in South Africa in April 2022, the Pakistan floods of June to October 2022, the Auckland floods and Cyclone Gabrielle in New Zealand in January and February 2023, the Türkiye earthquake of February 2023, Cyclone Freddy in Mozambique in February and March 2023, and the earthquakes in Ecuador in March 2023 and Morocco in September 2023. Confidence in national government is then set beside the share who feel the government cares about them, perceived neighbourly care beside the community dimension that contains it, and the belief that one could protect one's own family in a future disaster on its own.

Thailand had no single major disaster; the Philippines had too many to isolate one, among them Typhoon Rai in December 2021 and Typhoon Egay in July 2023^{48,49,50}; and Lebanon's catastrophe was a financial collapse that began in 2019. Together, the three show how far these measures can change in two years with no single major disaster behind them.

Societal resilience combines experiences of discrimination, perceptions of governmental care and confidence in institutions including the military, the judiciary and the national government.

Türkiye's societal dimension fell 15 points further in the earthquake regions than in the rest of the country, the largest change on any dimension in the comparison, while Mozambique's rose 11 points further in the cyclone-hit provinces. Pakistan is five points down and Morocco is flat, and, taken together, the seven show the dimension one point lower in the affected regions than in the rest of their respective countries, within the margin of error.

Community resilience combines measures of social capital, including perceptions of care from neighbours, feelings of safety and helping strangers, as well as satisfaction with local infrastructure such as roads, schools and healthcare.

On the community dimension, Türkiye's fall of nine points and New Zealand's of five are larger than the margin of error; Pakistan's six is not, on a smaller sample. The other four case studies are within three points of zero, and none shows a rise beyond the margin of error. Taken together, the seven show the dimension about three points lower in the affected regions than in the rest of their respective countries, and like the Index, it is only just clear of sampling error. The section on neighbours sets out why one question inside this dimension changes the other way.

Household resilience combines people's financial assets and ability to meet basic needs, the existence of household plans for a disaster, and access to communications in the form of the internet and mobile phones.

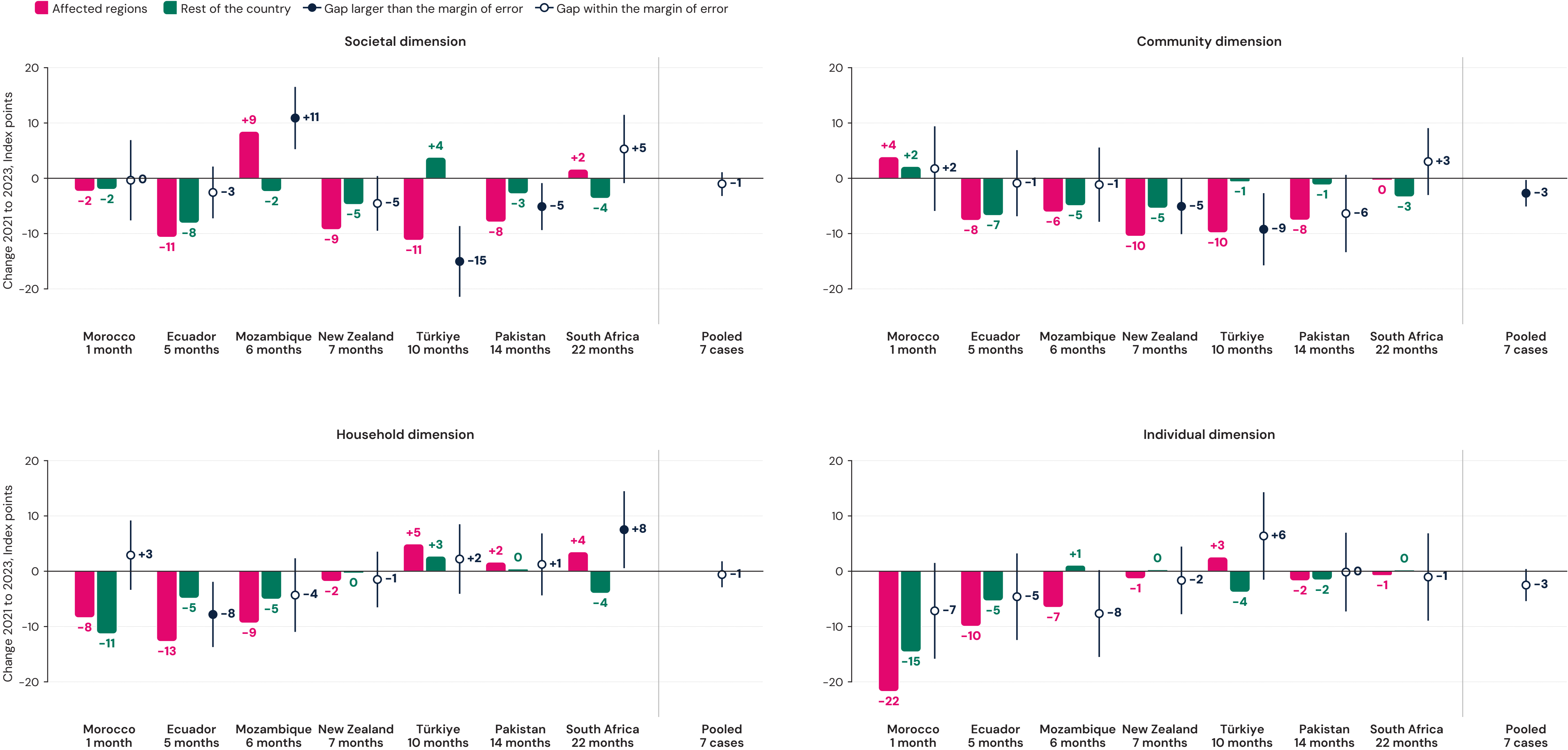
On the household dimension, two case studies are larger than the margin of error, and the two changes go in opposite directions: South Africa's rise of eight points and Ecuador's fall of eight. In Morocco, the household picture deteriorated everywhere, falling eight points in Marrakech-Safi and 11 points elsewhere, so the earthquake region was no worse off than the rest. Taken together, the seven show the dimension one point lower in the affected regions than in the rest of their respective countries, within the margin of error.

Individual resilience combines people's level of education with their sense of agency in being able to protect themselves and their family in a disaster.

Morocco and Mozambique fell seven and eight points on the individual dimension relative to the rest of the country, and Türkiye rose six, none of them larger than the margin of error. Taken together, the seven show the dimension three points lower in the affected regions than in the rest of their respective countries, within the margin of error.

Chart 3.1. Change in Resilience Index dimensions, affected regions and rest of country, 2021 to 2023

Türkiye’s societal dimension fell 15 points further in the earthquake regions and Mozambique’s rose 11 points further, while across the seven case studies combined, only the community dimension changed, falling about three points more in the affected regions than in the rest of their respective countries.



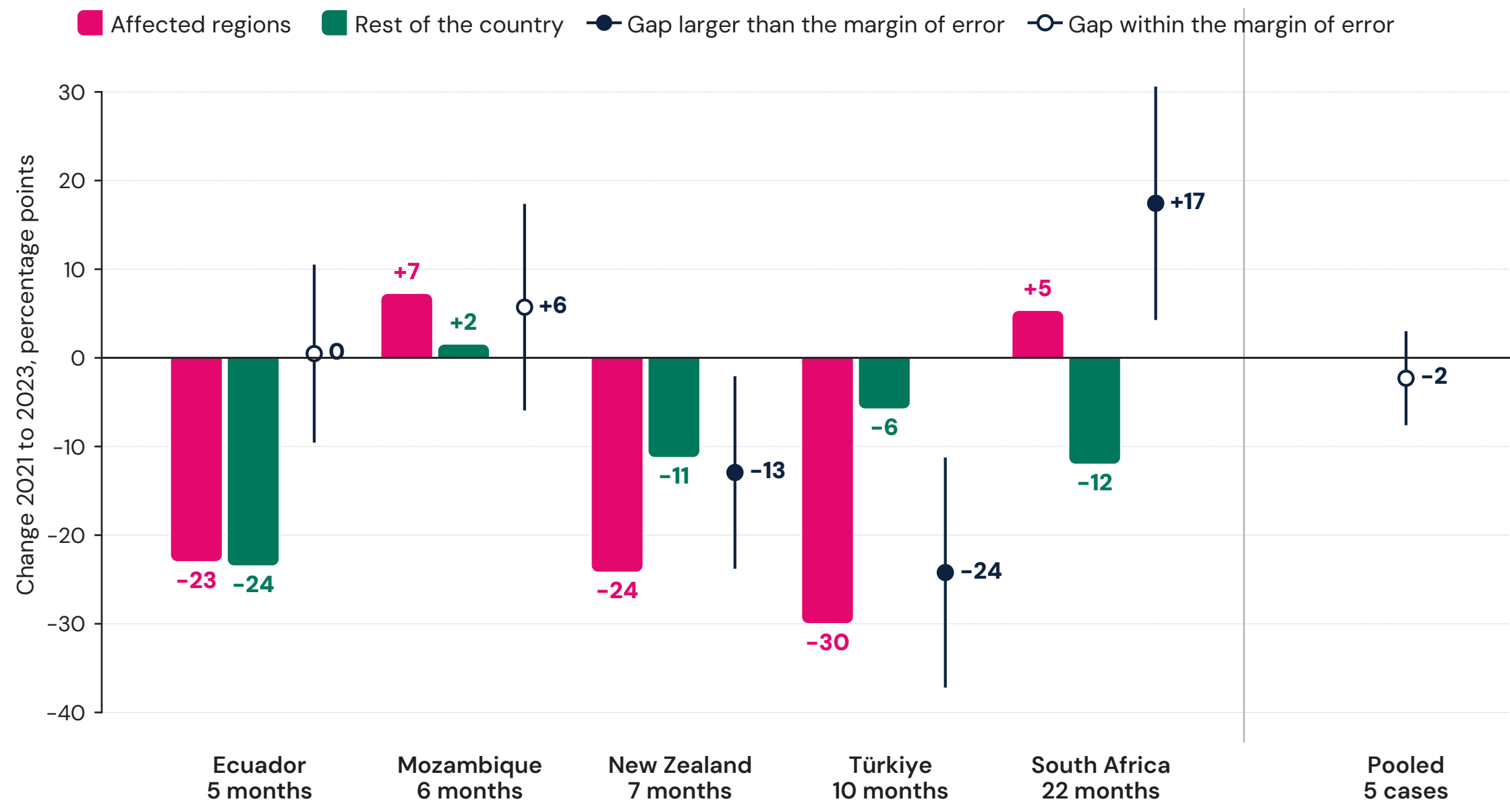
Note: Affected regions as defined in Table 2.1. Within each panel, countries are ordered by months between the disaster and the 2023 fieldwork. The paired bars are the change in the affected regions and the change in the rest of the country. The difference between them is the difference-in-differences described previously, and the pooled estimate from Table 2.2 is shown in the final column of every panel. The gap between the two bars is drawn as a dot on a whisker, filled where the gap is larger than the margin of error on this survey and hollow where it is within the margin of error and too small to be sure of.

Confidence in national government and perceived care

Confidence in national government fell furthest in Türkiye’s earthquake regions, as Chapter 2 sets out, and rose furthest in KwaZulu-Natal, by 17 percentage points relative to the rest of South Africa. Across the five case studies that asked the question (it was not asked in Morocco or Pakistan), confidence fell two percentage points further in the affected regions than in the rest of their respective countries, within the margin of error. Chart 3.2 sets the change in each group side by side for the five case studies.

Chart 3.2. Change in confidence in national government, affected regions and rest of country, 2021 to 2023

Confidence fell 24 percentage points further in Türkiye’s earthquake regions than in the rest of the country, and in KwaZulu-Natal it rose 17 percentage points relative to the rest of South Africa.



Question text: In this country, do you have confidence in the national government?

Note: Morocco and Pakistan did not ask this question in either wave. Affected regions as defined in Table 2.1. The gap between the two bars is drawn as a dot on a whisker, filled where the gap is larger than the margin of error on this survey and hollow where it is within the margin of error and too small to be sure of. Each bar is labelled with its own rounded value, so the gap can differ by a point from the difference between the two labels.

In New Zealand, confidence also fell further in the affected regions than elsewhere, by a smaller 13 percentage points. A national state of emergency was declared on 14 February 2023, only the third in the country’s history, and the New Zealand Defence Force was deployed in support^{51,52}. An independent review of Auckland’s handling of the January 2023 floods that preceded Cyclone Gabrielle found failures of leadership and communication^{53,54}. The review concerned the city’s response, whereas the Poll question asks about the national government.

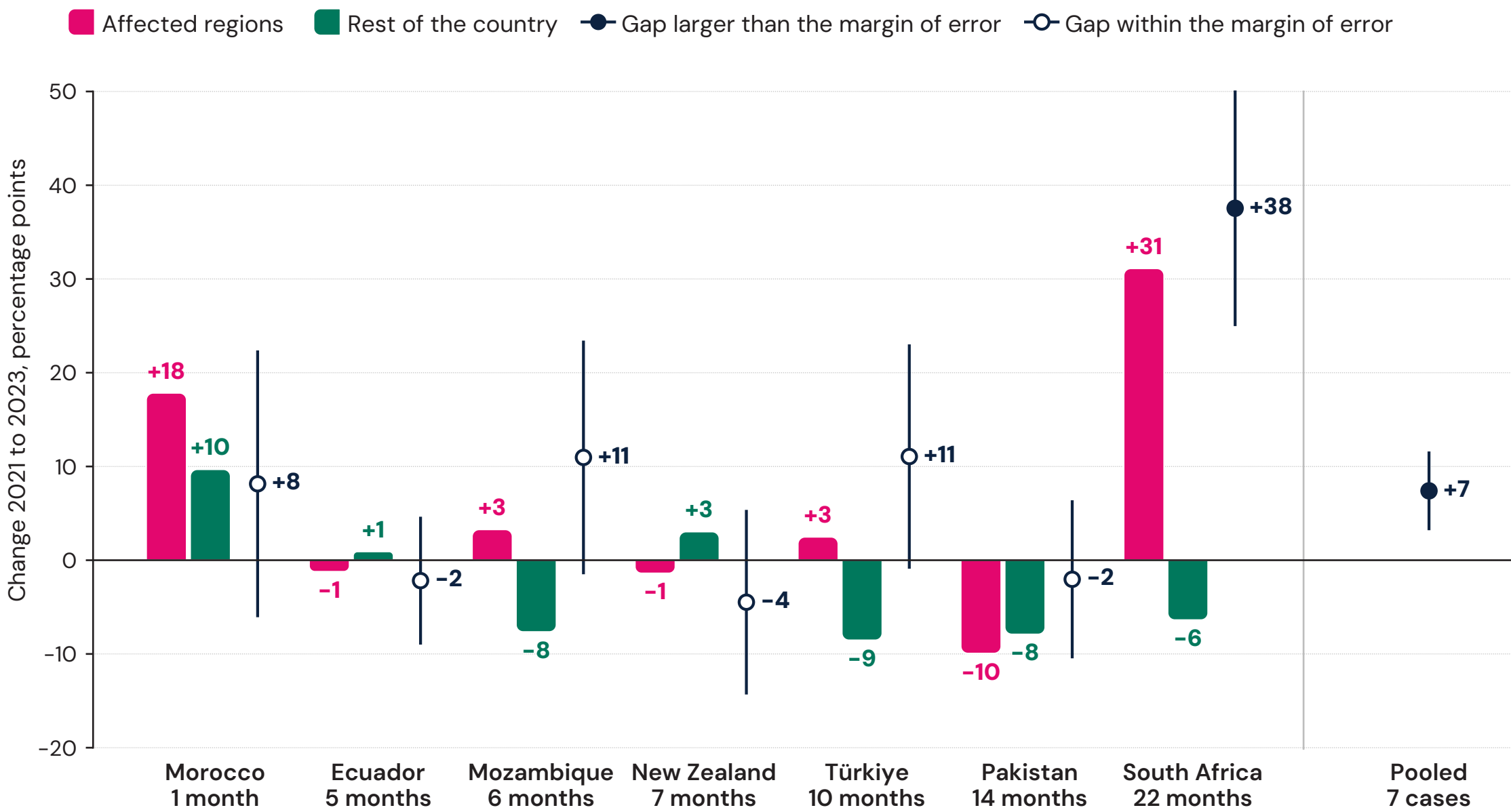
In Mozambique, confidence in national government rose six percentage points further in the cyclone-hit provinces than elsewhere, a rise within the margin of error. The share who felt the government cared about them ‘a lot’ rose 20 percentage points further, clear of the margin of error, while falling nationally, with the national fall concentrated around the capital. The disaster-management agency had issued pre-emptive alerts across the provinces in the cyclone’s path, and the UN resident coordinator credited preparedness with keeping deaths far below those caused by Cyclone Idai in 2019⁵⁵. A cyclone can be forecast days ahead and an earthquake cannot, so the two states were not being judged on the same kind of preparedness. On this evidence, the Poll registers the change in perceived care more clearly than any change in confidence.

Perceived neighbourly care and the community dimension

Social capital, the relationships and trust people can call on when something goes wrong, is identified in research on disaster recovery as a capacity that allows a community to adapt⁵⁶. The Poll measures it with one question, whether people feel their neighbours care about them. The share saying they cared ‘a lot’ rose relative to the rest of the country in four of the seven case studies, by 38 percentage points in KwaZulu–Natal, 11 in Mozambique and in Türkiye, and eight in Morocco. Only KwaZulu–Natal’s rise is larger than the margin of error. New Zealand, Pakistan and Ecuador went the other way by five, two and two percentage points, all within the margin of error. Across all seven the rise is seven percentage points, and without KwaZulu–Natal it halves to four, which is within the margin of error. Chart 3.3 shows the rise in KwaZulu–Natal beside the smaller changes elsewhere.

Chart 3.3. Change in share saying neighbours care ‘a lot’, affected regions and rest of country, 2021 to 2023

Perceived neighbourly care rose seven percentage points further in the affected regions, and 38 percentage points further in KwaZulu–Natal.



Question text: Do you feel that your neighbours care about you and your wellbeing?

Note: Response options were ‘a lot’, ‘somewhat’ and ‘not at all’. Affected regions as defined in Table 2.1. The gap between the two bars is drawn as a dot on a whisker, filled where the gap is larger than the margin of error on this survey and hollow where it is within the margin of error and too small to be sure of. Each bar is labelled with its own rounded value, so the gap can differ by a point from the difference between the two labels.

In Morocco, residents of remote villages dug survivors out by hand in the first days, before official rescue teams reached them⁵⁷. In New Zealand, hapū (Māori tribal groups), marae (communal meeting places) and community members organised evacuations themselves during Cyclone Gabrielle⁵⁸. Those evacuations were at Ōmāhu, in Hawke’s Bay, which this comparison counts in ‘the rest of the country’. In Northland and Auckland, the share saying neighbours cared ‘a lot’ fell five percentage points relative to the rest of the country, within the margin of error.

State and community responses are not alternatives. The Poll asks about the government and about neighbours separately, and the hapū who organised the Ōmāhu evacuations were also the ones asking Civil Defence to plan with them⁵⁹.

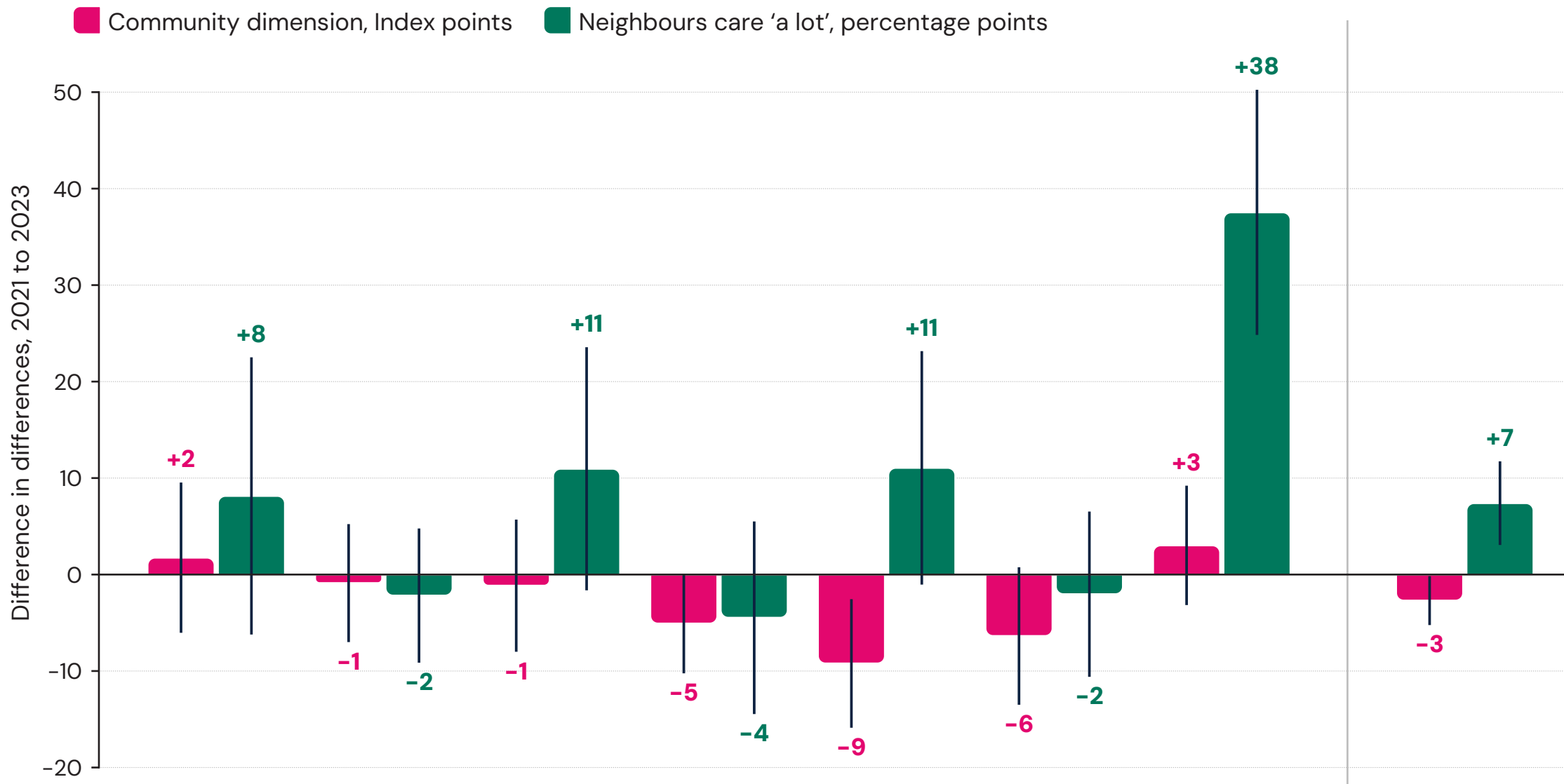
The community dimension of the Index and the neighbours question do not change together. The neighbours question is one of about six inputs to the dimension, and the others include satisfaction with local roads, schools and healthcare and feelings of safety. The exact composition is not published, so the two are set side by side and the dimension is not split. Chart 3.4 sets the two side by side for each case study.

In Türkiye the fall therefore came from the dimension’s other inputs, which include satisfaction with local services and feelings of safety.

In Pakistan, the share saying neighbours cared ‘a lot’ fell in the flooded province and beyond it – from 17% to 7% in Sindh, the province the post-disaster assessment identifies as worst affected, with close to 70% of the damage⁶⁰. In Punjab, which the floods reached far less, it fell from 22% to 12%. The gap between Sindh and the rest of the country changed by two percentage points, within the margin of error.

Chart 3.4. The community dimension and neighbours caring, compared

In Türkiye the community dimension fell nine Index points further, while the share saying neighbours cared ‘a lot’ rose 11 percentage points further, a rise within the margin of error, so the two do not change together.



Note: Both bars are difference-in-differences, the affected-region change minus the rest-of-country change, in Index points for the dimension and percentage points for the question. The two are not on the same scale and should not be added.

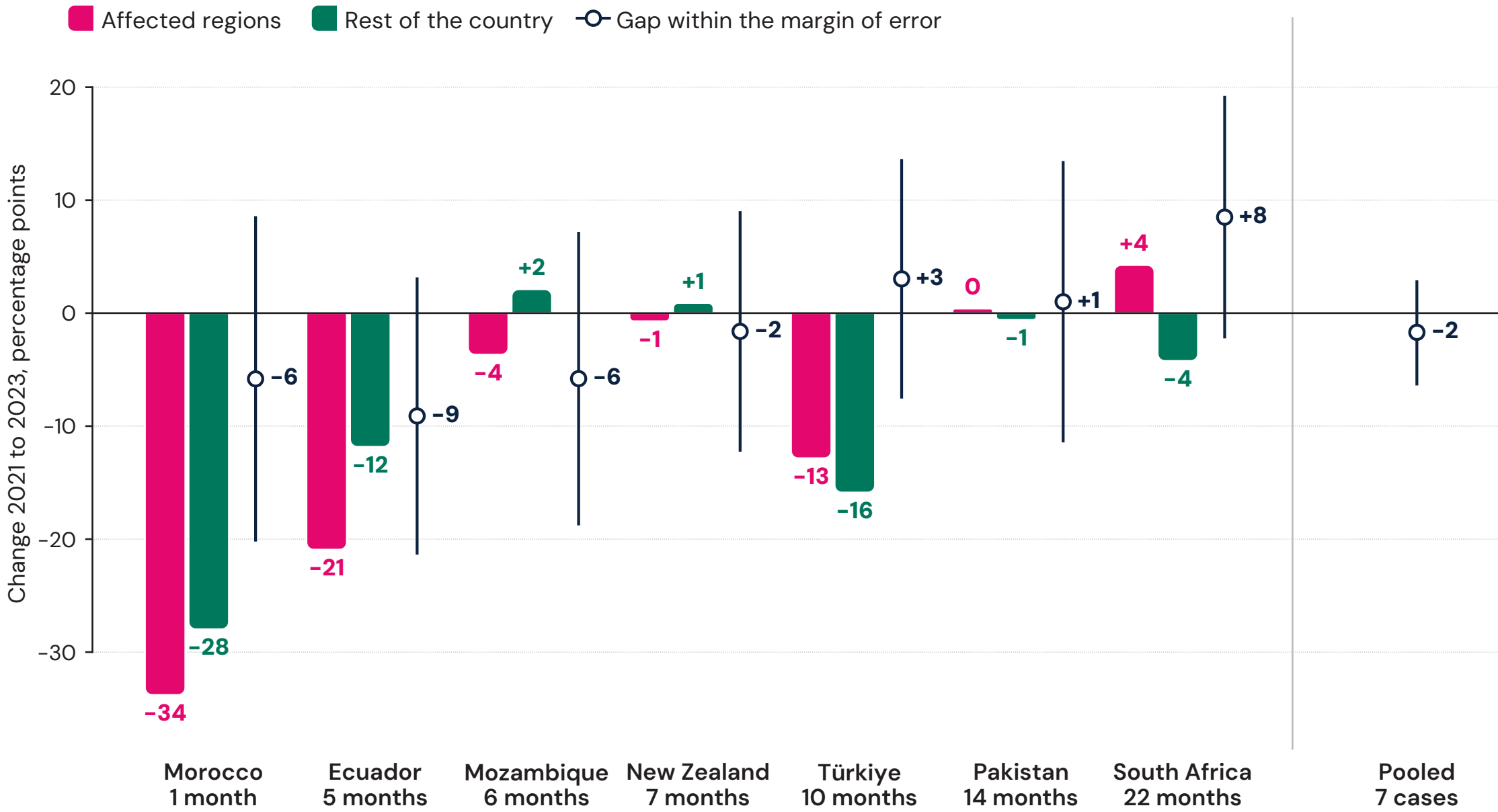
Personal agency

Chapter 1 showed that adults who report being impacted by a disaster score higher on individual resilience than those who do not, in every income group except the lowest. Followed over time in the places the seven disasters struck, neither the individual dimension nor the belief that one could protect one’s family rose relative to the rest of the country. Rather, it fell two percentage points further in the affected regions than elsewhere, within the margin of error. Every gap on Chart 3.5 is within the margin of error. Answers to the question vary widely, and the national changes behind them are large.

In Morocco, the share fell 29 percentage points nationally, from 52% to 23%, and by 34 percentage points in Marrakech–Safi. The fall was almost as steep in the regions the disaster spared, where the share fell 28 percentage points, leaving a gap of six percentage points that is within the margin of error. In Türkiye the share fell less in the earthquake regions (–13 percentage points) than outside them (–16 percentage points), so whatever changed those shares was national. The two largest changes go in opposite directions and both are within the margin of error, South Africa rising eight percentage points relative to the rest of the country 22 months after the floods and Ecuador falling nine.

Chart 3.5. Change in personal agency in affected regions and rest of country, 2021 to 2023

Across the seven case studies, the belief that people could protect their family fell two percentage points further in the affected regions than in the rest of their respective countries, a change within the margin of error.



Question text: If a disaster were to occur in this country, do you think you could protect yourself and your family?

Note: Affected regions as defined in Table 2.1. The gap between the two bars is drawn as a dot on a whisker. Every gap on this chart is within the margin of error and too small to be sure of, so every dot is hollow and the legend gives that one key.

A major disaster is not the only reason for change

Three of the countries first considered for the comparison could not be case studies because none has a single disaster footprint that a Poll region can isolate. They are included here as examples of how far the same measures can change in two years. Thailand had no single major disaster in the window. Its reported disaster exposure was just above the middle of the country ranking, with 28% reporting a disaster in the past five years in 2023. Yet its Index score rose four points, led by the societal and community dimensions. Confidence in national government rose 25 percentage points, from 27% to 52%, alongside the 2023 general election and the formation of a new government that August^{61,62}. Chart 3.6 sets the three national changes beside the seven disaster gaps from Chart 3.2.

In the Philippines, which was struck by Typhoon Rai in December 2021 and Typhoon Egay in July 2023, among too many storms to separate one from the rest, confidence rose 10 percentage points after a new president’s inauguration between the two editions⁶³, while the Index fell one point.

Lebanon had no disaster linked to a natural hazard in the window. Its catastrophe was economic and political: a financial collapse the World Bank ranked among the three most severe worldwide since the mid-1800s, in which the currency had lost more than 85% of its value by mid-2021 and basic public services collapsed^{64,65}. The Index rose there from 41 to 44, on the community, household and individual dimensions, which rose nine, four and four points, while the societal dimension fell three. Confidence in national government dropped from 14% to 8%, and the share saying the government cared about them ‘a lot’ fell from 5% to 1%, so the Index rose as the institutions behind it weakened. The belief that one could protect one’s family stayed low, at 21% in 2021 and 19% in 2023.

Chart 3.6. National changes in confidence in national government with no single major disaster, beside the disaster gaps measured in the comparison

Thailand’s confidence in national government rose 25 percentage points nationally with no single major disaster behind it, a national change as large as the largest gap that opened between affected regions and the rest of their respective countries on the same question.

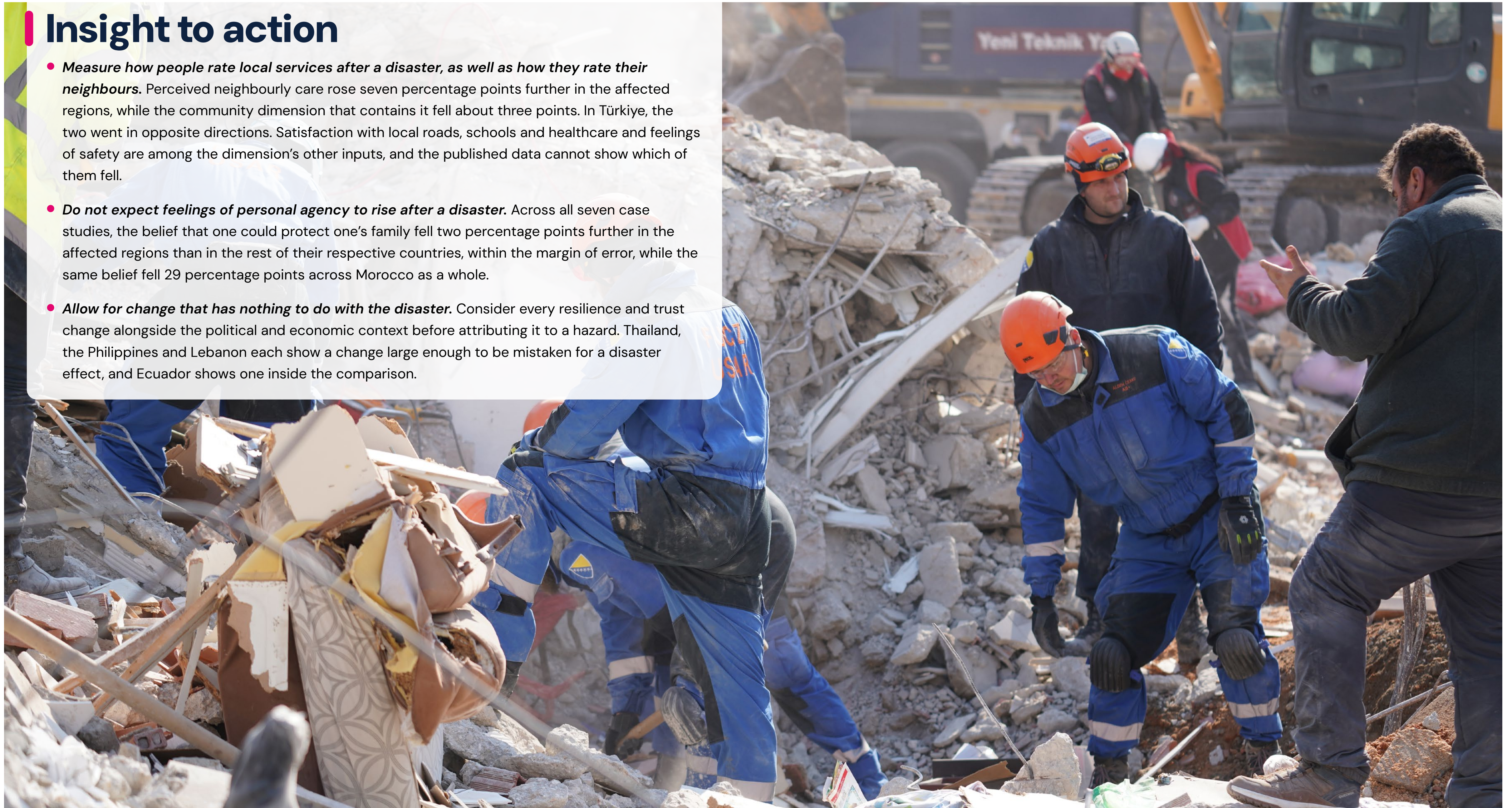


Note: The first three bars, in one colour, are national changes in confidence in national government between 2021 and 2023 for the three countries with no single disaster footprint (Thailand, the Philippines and Lebanon). The remaining bars, in a second colour, are the affected-region-minus-rest-of-country gaps from Chart 3.2. The legend distinguishes the two kinds of bar; they are not the same quantity. Every bar also has a dot on a whisker, filled where the quantity is larger than the margin of error on this survey and hollow where it is within the margin of error and too small to be sure of. All three national changes are larger than the margin of error; among the disaster gaps, Ecuador’s and Mozambique’s are not.

The Poll’s own exposure question does not register Lebanon’s financial collapse. The share of Lebanese adults reporting a disaster in the past five years doubled from 12% in 2021 to 25% in 2023, and 57% of the 2023 respondents named an earthquake, the February 2023 event felt across the region^{66,67}. The August 2020 Beirut port explosion also falls inside the five-year window of every edition used here⁶⁸.

Insight to action

- **Measure how people rate local services after a disaster, as well as how they rate their neighbours.** Perceived neighbourly care rose seven percentage points further in the affected regions, while the community dimension that contains it fell about three points. In Türkiye, the two went in opposite directions. Satisfaction with local roads, schools and healthcare and feelings of safety are among the dimension's other inputs, and the published data cannot show which of them fell.
- **Do not expect feelings of personal agency to rise after a disaster.** Across all seven case studies, the belief that one could protect one's family fell two percentage points further in the affected regions than in the rest of their respective countries, within the margin of error, while the same belief fell 29 percentage points across Morocco as a whole.
- **Allow for change that has nothing to do with the disaster.** Consider every resilience and trust change alongside the political and economic context before attributing it to a hazard. Thailand, the Philippines and Lebanon each show a change large enough to be mistaken for a disaster effect, and Ecuador shows one inside the comparison.



CHAPTER 4

Does the gap close?

In the regions of Türkiye impacted by the 2023 earthquake, confidence in national government was 20 percentage points below the rest of the country in 2023 and four below it in 2025. Four of the seven disasters in Chapters 2 and 3 can be followed into the 2025 edition, 25 to 41 months after the event: the KwaZulu–Natal floods in South Africa in April 2022, the Auckland floods and Cyclone Gabrielle in New Zealand in January and February 2023, the Türkiye earthquake of February 2023 and the Morocco earthquake of September 2023. In Morocco, Türkiye and New Zealand, the third edition shows how much the gaps that opened by 2023 had narrowed, and in Northland and Auckland, the Index gap had not changed. KwaZulu–Natal, flooded again in 2024, is treated separately.

Understanding the recovery

Respondents are split into the regions the disaster struck and the rest of the country using the Poll’s own sub-national region variables, exactly as in Chapter 2. The gap between the two groups is computed at each of the three waves. Affected regions were already different from the rest of their respective countries before anything happened, so a full recovery returns the gap to its 2021 level rather than to zero. That baseline gap runs from three points below the rest of the country on the Index in South Africa to two points above in New Zealand. The change from that baseline to the 2023 gap is the quantity Chapter 2 reports.

Every estimate below is a change associated with living in an affected region rather than an effect of the disaster itself.

Recovery is measured relative to the rest of the country

Change from 2023 to 2025: the recovery measure used throughout this chapter. A positive change means the affected regions improved relative to the rest of the country, a negative change that they fell further behind.

Gap in 2025 compared with the baseline: whether the affected regions are back where they started.

KwaZulu-Natal flooded again in 2024^{69,70,71}, so its 2025 measurement follows a second disaster. Cyclone Chido struck Mozambique in December 2024⁷², the 2025 monsoon floods reached Punjab and Khyber Pakhtunkhwa in Pakistan^{73,74} and floods reached Guayas and El Oro in Ecuador in early 2025⁷⁵. Those three countries are therefore not followed into 2025. Morocco, Türkiye and New Zealand, the three recovery case studies, are examined case by case and then together. Region definitions are unchanged from Chapter 2.

Table 4.1. The four three-wave case studies

CASE	POLL REGIONS	AFFECTED- REGION RESPONDENTS 2021 / 2023 / 2025	MONTHS FROM EVENT TO 2025 FIELDWORK	TREATED AS
Morocco	Marrakech-Safi Region	137 / 132 / 132	25	Recovery
Türkiye	Mediterranean Region, Central East Anatolia Region	174 / 180 / 160	31	Recovery, with caveat
New Zealand	Northland, Auckland	365 / 418 / 330	31	Recovery
South Africa	KwaZulu-Natal	186 / 180 / 181	41	Repeat hit

Note: Fieldwork months are from the survey data, October 2025 for Morocco and September 2025 for the other three countries. ‘The rest of the country’ is every other region in that country. The Türkiye caveat is that its region variable does not contain the same provinces in every wave. The appendix sets out the composition.

Does the disaster still show in 2025?

The original events still register in 2025. The 2025 wave asks whether people were impacted by a disaster, where the earlier waves asked whether they had experienced one, so the check is made within 2025. In Marrakech-Safi 26% report being impacted in the past five years compared with 8% in the rest of Morocco, and 93% of the 32 impacted respondents name an earthquake, two years after the event. In KwaZulu-Natal, the shares are 39% compared with 11%, and in Northland and Auckland, 33% compared with 23%. Türkiye’s contrast is weaker, at 20% compared with 15%, for reasons explained below.

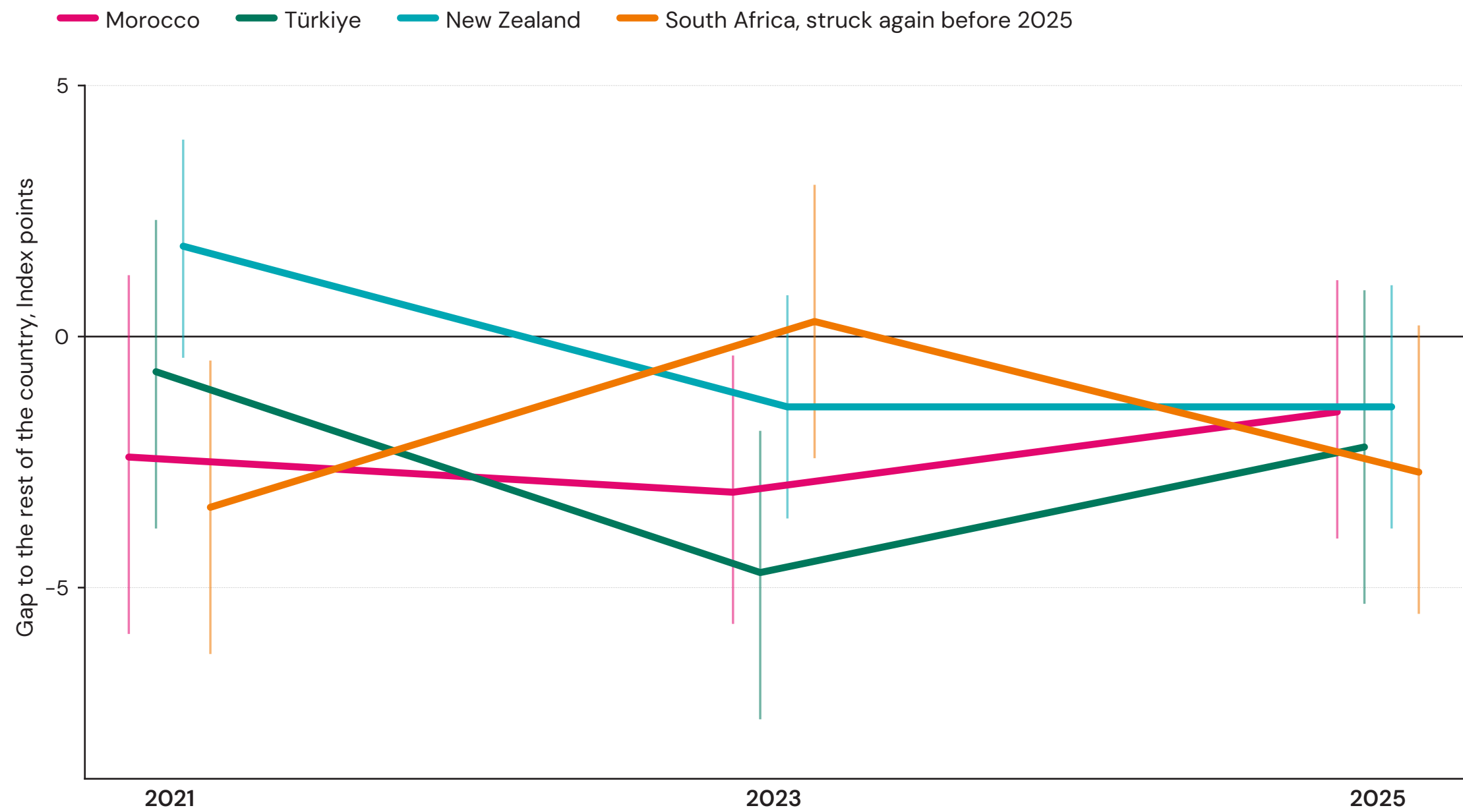
Some of the population the original disaster struck is counted in the rest of the country rather than in the affected regions in two of the three recovery case studies and for different reasons. In Türkiye it is Southeast Anatolia, which is outside the affected regions because the region variable does not contain the same provinces in every wave. There, 57% report being impacted in 2025, and 99% of the 35 impacted respondents name an earthquake (56% of all adults in the region). In New Zealand it is Hawke’s Bay, where 76% report being impacted, and 72% of the 38 impacted respondents name a tropical storm, Cyclone Gabrielle (55% of all adults, from a sample of 49). Tairāwhiti/Gisborne, Waikato and Bay of Plenty are also in the footprint, but their samples are too small to support an estimate.

Which Resilience Index dimensions recover

Chart 4.1 follows the Index gap in each case study across the three editions; a line that returns to its 2021 value means the affected regions are back where they started compared with the rest of their respective countries.

Chart 4.1. Resilience Index gaps between affected regions and rest of country, 2021 to 2025

The Index gap narrows in Türkiye’s earthquake regions and in Marrakech–Safi between 2023 and 2025, by amounts within the margin of error, while in Northland and Auckland it does not change.



Note: Affected regions as defined in Table 4.1. A value of zero means the affected regions are level with the rest of their respective countries. The vertical whisker at each edition is the margin of error on that estimate, about three Index points either way at 132 respondents; the appendix sets out how it is computed. South Africa’s 2023 to 2025 change is a reversal rather than a recovery.

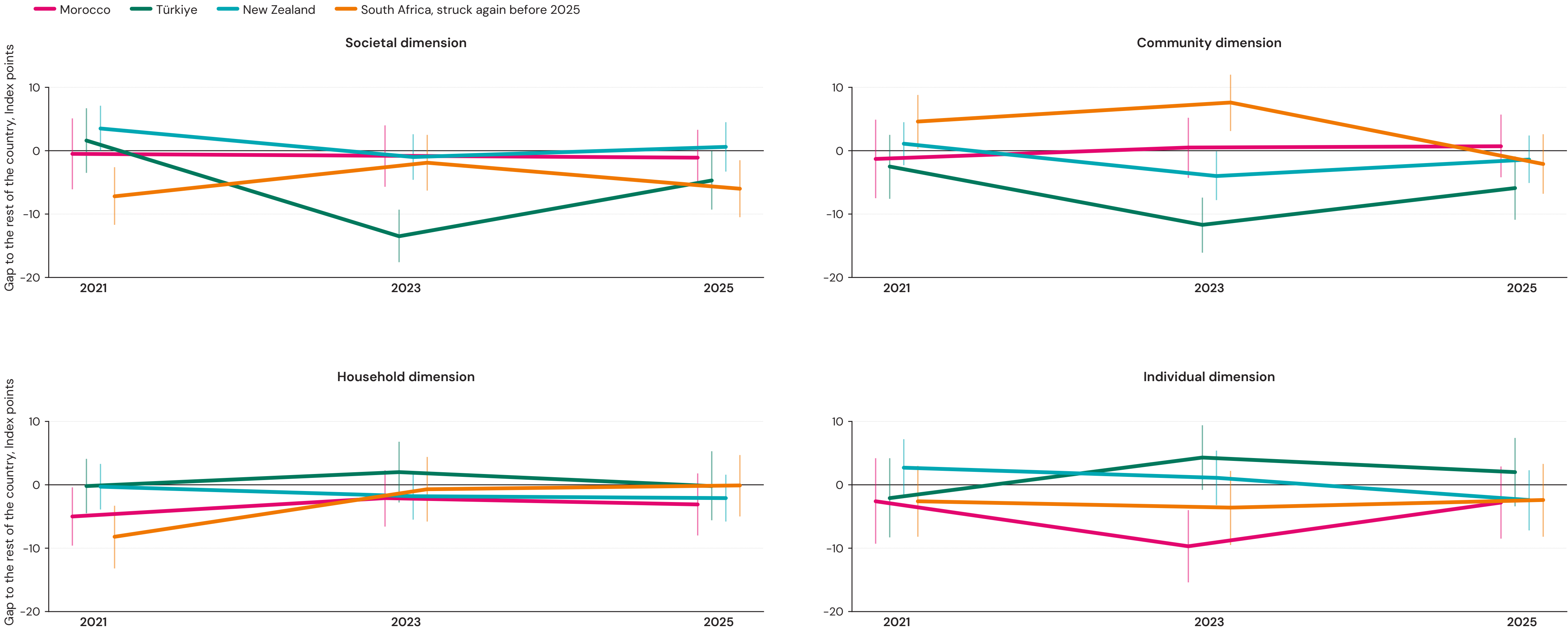
Türkiye’s earthquake regions began one point below the rest of the country, were five points below in 2023 and two points below in 2025. That narrowing is within the margin of error, and the 2025 gap is no longer distinguishable from where it started. In Morocco, Marrakech–Safi follows the same pattern and ends one point above its own baseline.

New Zealand’s Index gap does not change. Northland and Auckland began two points above the rest of the country and were one point below it at both later readings with no change at all on 330 respondents, the largest affected–region sample of the four case studies. The 2025 gap is three points below their 2021 baseline, a shortfall within the margin of error.

Table A.3 in the appendix gives the gap at each edition and the change from 2023 to 2025 for every case study and measure.

Chart 4.2. Dimension gaps between affected regions and rest of country, 2021 to 2025

The societal dimension recovers furthest, with Türkiye's earthquake regions closing nine points of that gap between 2023 and 2025, the largest recovery on any dimension in the three case studies.



Note: Dimension scores run from 0 to 100. Colour identifies the country consistently across the four panels. The appendix gives the margin on a single measurement of a dimension gap.

Chart 4.2 follows each dimension's gap across the three editions. The societal dimension, which includes confidence in national institutions, changes most in both directions and is the one dimension where a single case study's recovery is larger than the margin of error. In Türkiye, the earthquake regions fell 15 points further behind the rest of the country between 2021 and 2023, then recovered nine of those points between 2023 and 2025. That recovery is larger than the margin of error, but the six-point gap that remains compared with 2021 is not.

On the individual dimension, Morocco and New Zealand changed in opposite directions. Marrakech-Safi was 10 points below the rest of Morocco in 2023, the deepest dimension gap in Morocco at any wave, and three points below in 2025, level with its baseline. New Zealand's gap went the other way, from one point above the rest of the country in 2023 to two points below in 2025, five points below its baseline. Neither change is larger than the margin of error.

The household dimension changes least of the four, as it did in the immediate aftermath. Morocco's affected region remains three points below the rest of the country, compared with five points below before the earthquake, and in Türkiye and New Zealand, every estimate is within about two points of zero. In Türkiye, the community dimension was 12 points lower in the earthquake regions in 2023, nine points below its 2021 baseline, which is the change Chapter 3 reports. It has since recovered six points, a change within the margin of error.

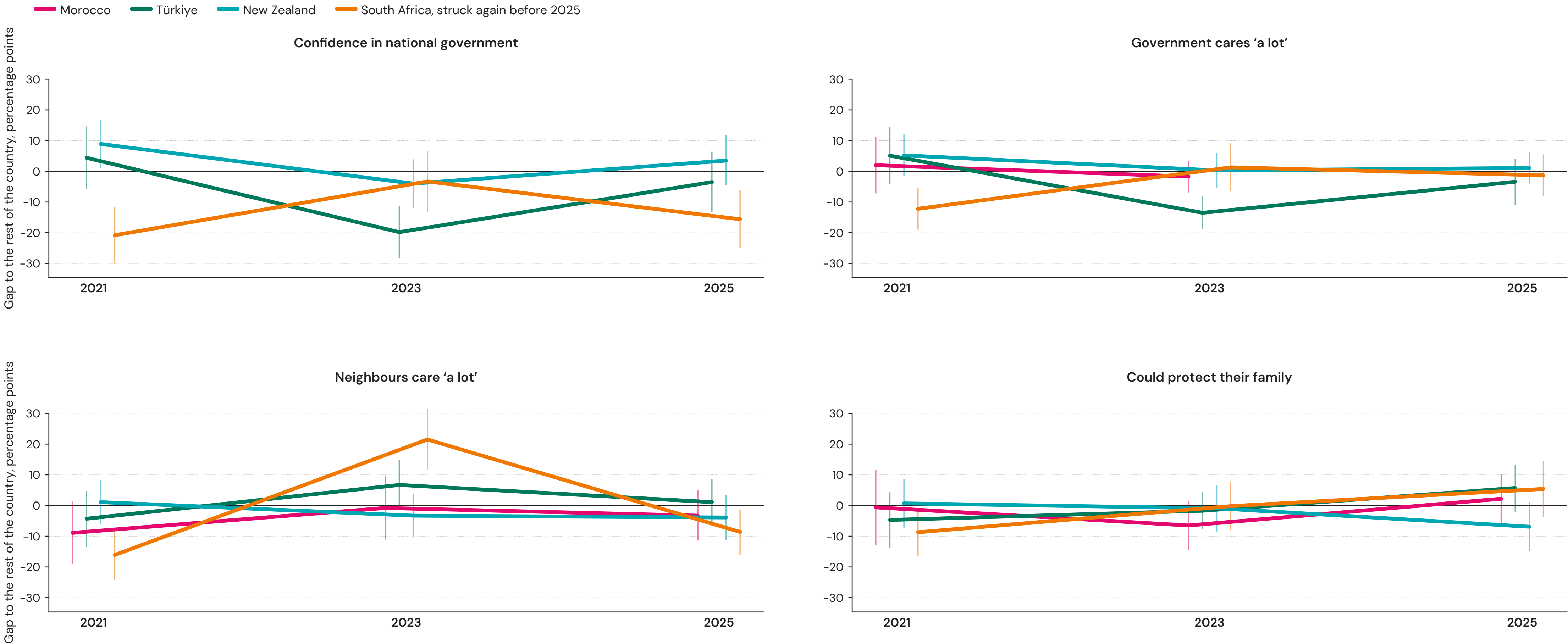


Confidence, care and neighbours across three editions

Chart 4.3 shows the same gaps for the four questions, and the two lines that change most are Türkiye’s confidence and KwaZulu–Natal’s neighbours.

Chart 4.3. Gaps in confidence, care and personal agency between affected regions and rest of country, 2021 to 2025

The confidence gap in Türkiye’s earthquake regions narrows 16 percentage points, while in KwaZulu–Natal perceived neighbourly care falls 30 percentage points relative to the rest of South Africa.



Question text: In this country, do you have confidence in the national government? Do you feel that the government cares about you and your wellbeing? Do you feel that your neighbours care about you and your wellbeing? If a disaster were to occur in this country, do you think you could protect yourself and your family?

Note: Shares saying 'yes' for confidence and protection, and 'a lot' for the two care questions. Confidence in national government was not asked in Morocco in any wave, and whether the government cares was not asked there in 2025, so Morocco appears in that panel for 2021 and 2023 only.

Confidence in national government produces the strongest recovery in the chapter, measured where the Poll could interview. The Poll has no 2023 respondents in eight of the 11 officially affected provinces, and 10 across Hatay, Kahramanmaraş and Osmaniye in 2025, so Türkiye's recovery is calculated based mostly on Antalya, Adana, Mersin, Malatya and Van. In Türkiye's earthquake regions, confidence was four percentage points above the rest of the country in 2021, 20 percentage points below in 2023 and four below in 2025. The narrowing of 16 percentage points is clear of sampling error; the gap of eight percentage points that remains compared with the 2021 baseline is not. New Zealand changes the same way by eight percentage points, within the margin of error. In Türkiye the share who feel the government cares about them 'a lot' changed the same way, narrowing 10 percentage points.

The narrowing in confidence is a convergence between the affected regions and the rest of the same country, not a national rise in confidence. National confidence can change a great deal without a disaster, as Thailand's national rise of 25 percentage points between 2021 and 2023 shows in Chapter 3.

The neighbours question does not follow the institutional ones. In Türkiye, the share saying their neighbours care 'a lot' was seven percentage points above the rest of the country in 2023 and one percentage point above in 2025, a change of minus six percentage points. Morocco and New Zealand are a few percentage points below the rest of their respective countries at both readings. Pooled across the three, the change in the gap is minus three percentage points, within the margin of error. Where perceived neighbourly care had risen in the affected regions by 2023, it had returned towards the rest of the country by 2025. New Zealand's affected regions never showed a rise.

The protect-your-family question shows no consistent change across the three waves. Its 2023 to 2025 change is nine percentage points in Morocco, seven in Türkiye and minus six in New Zealand, and none of the three is larger than the margin of error, by case study or pooled.



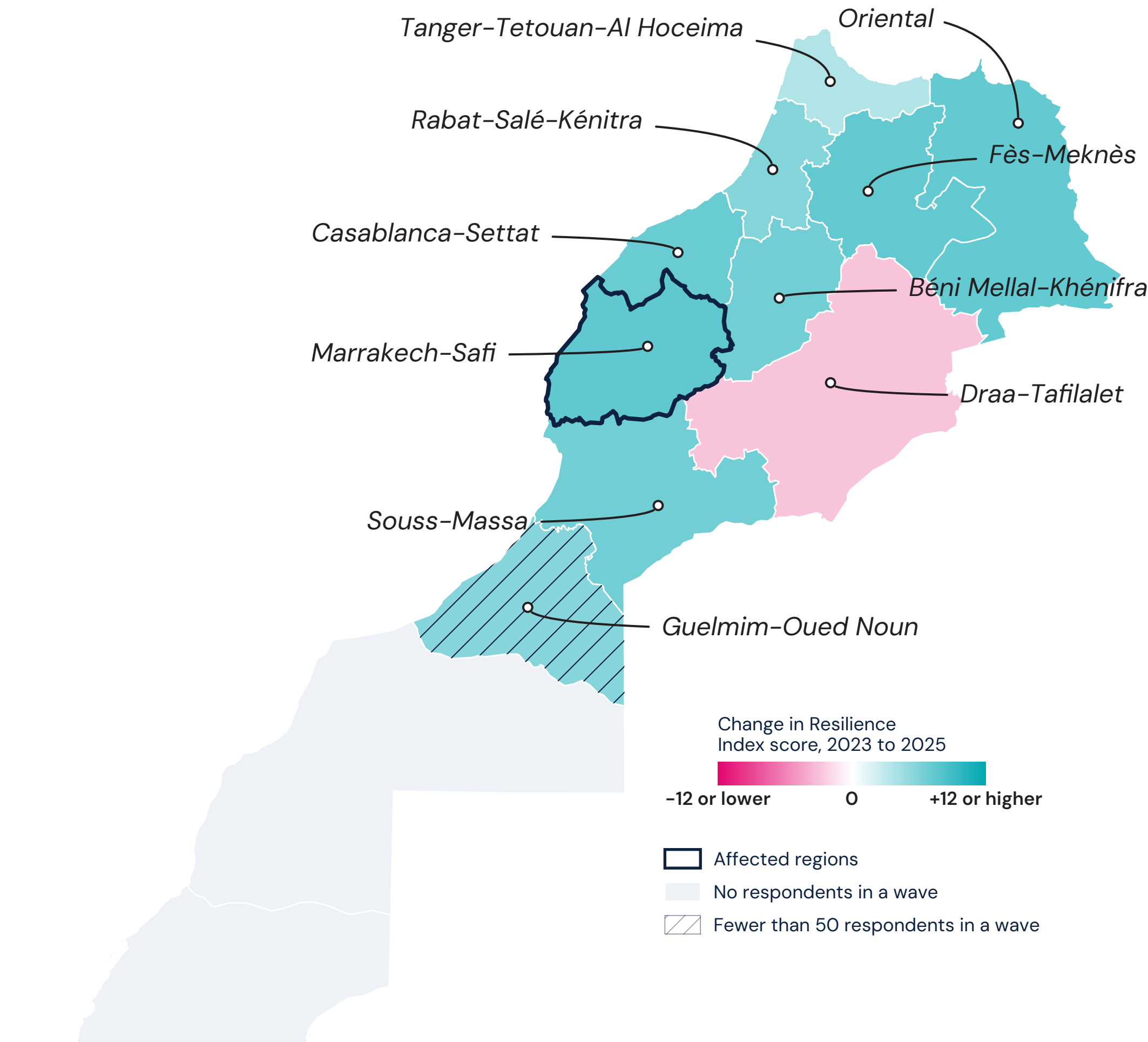
Where the change happened

In Türkiye, only one of the two outlined regions rose between 2023 and 2025; Central East Anatolia gained eight Index points. The Mediterranean region fell three and the west of the country fell further still: the Aegean by nine points and West Anatolia by six. The narrowing of Türkiye’s Index gap therefore came from Central East Anatolia rising and the west of the country falling. Charts 4.4 to 4.7 show the recovery as geography rather than as a line, one map per case study, and their notes name the regions whose shading is based on a few dozen respondents.

Two years on from the earthquake of 8 September 2023, the map of Morocco is almost entirely blue: nearly every region rose. Marrakech–Safi, the outlined region that includes Al Haouz and the epicentre, rose seven points on the Index between the 2023 and 2025 editions. Most of the country rose with it: Fès–Meknès, the Oriental and Casablanca–Settat each rose seven, Souss–Massa and Béni Mellal–Khénifra seven, and Rabat–Salé–Kénitra six. Draa–Tafilalet, across the High Atlas from the epicentre, is the one shaded region to fall, by three points on a sample of about 50. Because the earthquake region rose with the rest of Morocco rather than ahead of it, the map records a national recovery in which the affected region simply kept pace. Marrakech–Safi was three points below the rest of the country in 2023 and within two points of it in 2025, a narrowing within the margin of error. It ends one point above where it was relative to the rest of Morocco before the earthquake. The one dimension that had fallen furthest there, the individual dimension, went from 10 points below the rest of the country in 2023 to three below in 2025, a recovery of seven points that is also within the margin of error. Guelmim–Oued Noun is hatched on about 20 respondents, and the two Saharan regions have no respondents in either edition.

Chart 4.4. Morocco: change in Resilience Index score by region, 2023 to 2025

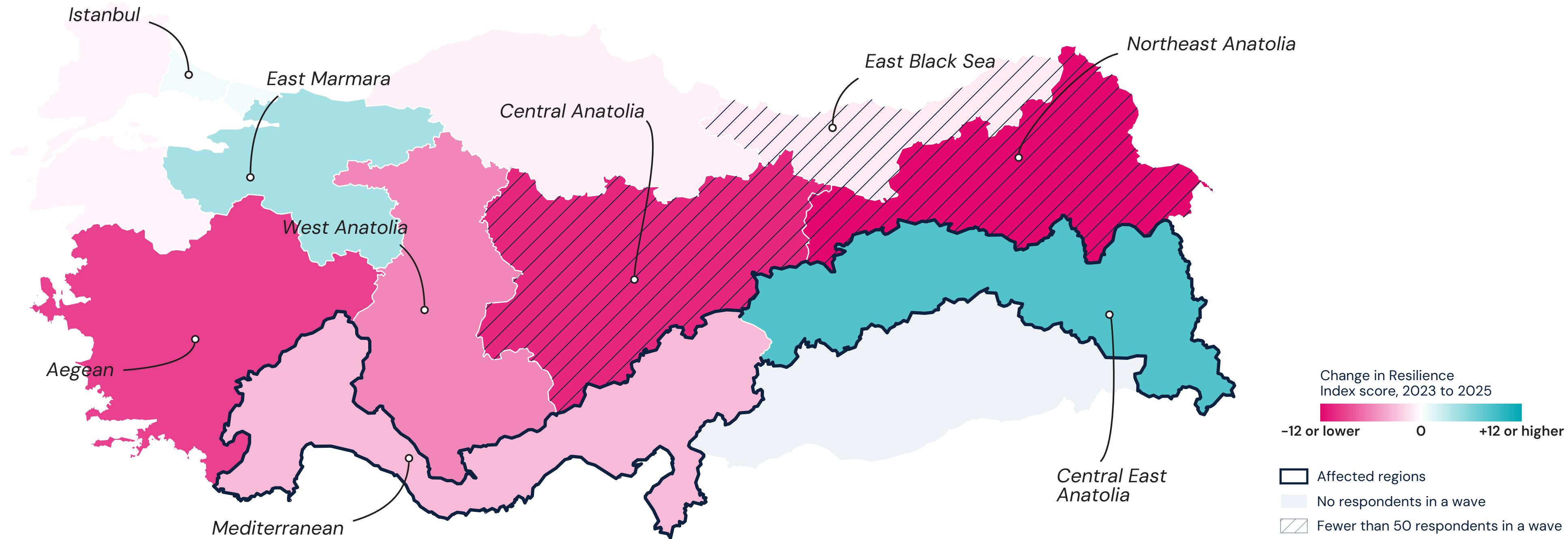
Marrakech–Safi rose seven points and the rest of Morocco rose with it, so a region three points below the rest of the country in 2023 was within two points of it in 2025, a narrowing within the margin of error.



Note: Shading is the change in the overall Resilience Index score between 2023 and 2025, falls red and rises blue, on one scale shared across Charts 4.4 to 4.7, with the affected regions of Table 4.1 outlined. Every region with respondents in both editions is shaded however small its sample, regions with fewer than 50 respondents in an edition are hatched, and regions are greyed where an edition has no respondents or where the two samples are not comparable. Marrakech–Safi contains Al Haouz, the epicentre of the September 2023 earthquake. Guelmim–Oued Noun (22 respondents in 2023 and 20 in 2025) is hatched, Draa–Tafilalet (50 and 52) and Souss–Massa (82 and 81) are shaded on small samples, and Laâyoune–Sakia El Hamra and Dakhla–Oued Ed–Dahab, with no respondents in either edition, are greyed.

Chart 4.5. Türkiye: change in Resilience Index score by region, 2023 to 2025

Central East Anatolia rose eight Index points while the Mediterranean region fell three and the west of the country fell further, so a gap of five points in 2023 was two points in 2025.

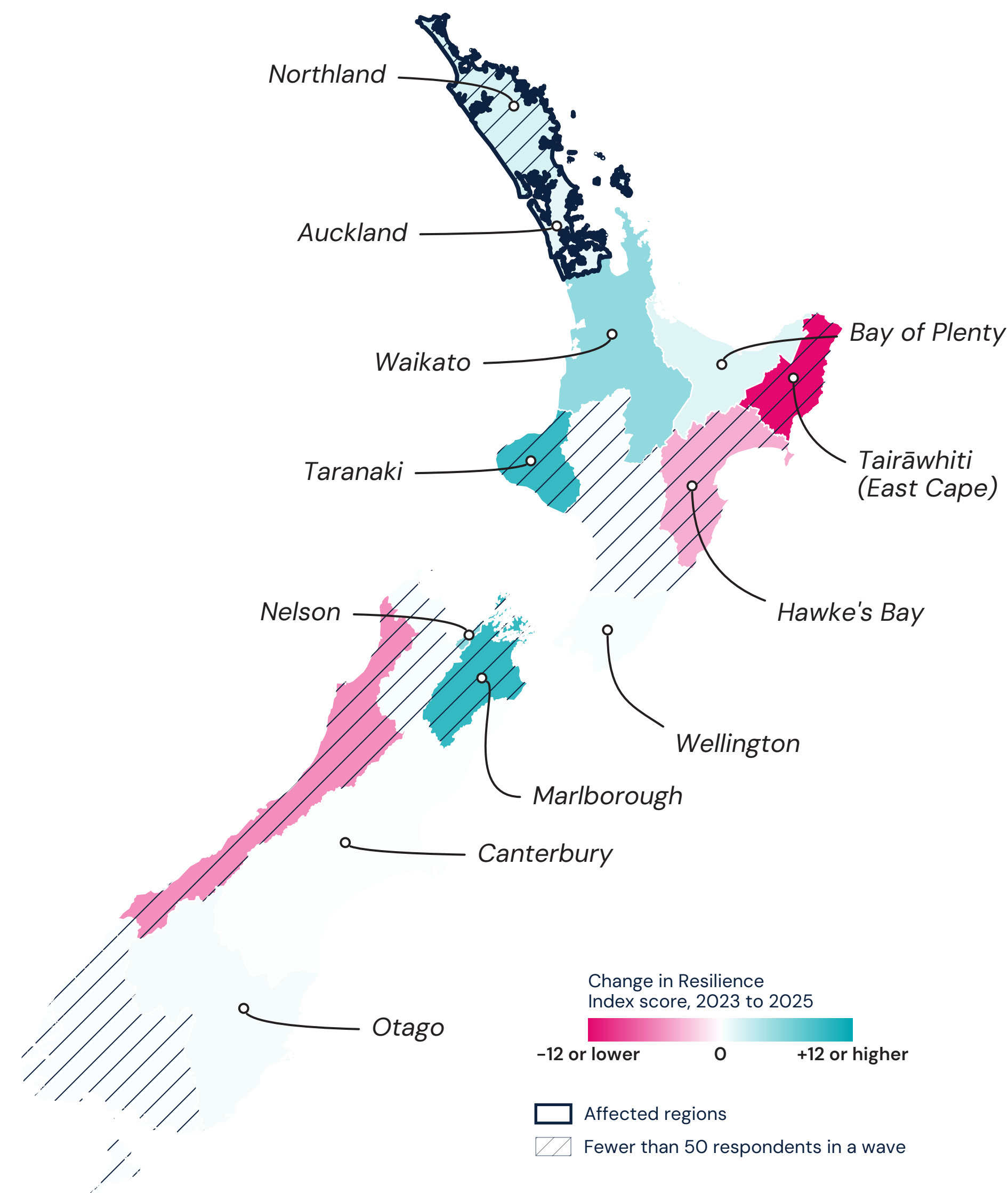


Note: Conventions as Chart 4.4, on the 12 NUTS-1 regions, with the Mediterranean and Central East Anatolia regions outlined. Southeast Anatolia is greyed because its 2023 respondents all come from the Mardin unit (50) while 2025 covers the whole region (70), so a change there would be an artefact of who was sampled. Hatay, Kahramanmaraş and Osmaniye had no respondents in 2023 and 10 in 2025, so the Mediterranean region's shading is based on Antalya, Adana and Mersin. Northeast Anatolia (10 respondents in 2023 and 20 in 2025), Central Anatolia (40 and 50) and East Black Sea (40 and 40) are hatched.

Surveyed 31 months after the earthquakes of 6 February 2023, the two outlined regions changed in opposite directions. Central East Anatolia rose eight points on the Index between 2023 and 2025, the largest rise on the map, while the Mediterranean region, which includes Adana and Mersin and most of the affected respondents, fell three. What narrowed the gap between the earthquake regions and the rest of Türkiye was the west falling further still. The Aegean fell nine points and West Anatolia six, and Central Anatolia and Northeast Anatolia fell 10 and 20 on the small samples the hatching marks. Only East Marmara, up four, and Istanbul, level, did not fall. Taken as a whole, the earthquake regions began one point below the rest of the country in 2021, were five points below in 2023 and two below in 2025. That narrowing is within the margin of error, and it leaves the 2025 gap no longer distinguishable from where it started. The recovery that is larger than the margin of error is in the dimensions rather than the overall Index. The societal dimension, which had fallen 15 points further in the earthquake regions by 2023, recovered nine of them by 2025, and confidence in national government, 20 percentage points below the rest of the country in 2023, was four below in 2025. Southeast Anatolia is greyed because its 2023 respondents all come from the Mardin unit while 2025 covers the whole region, and Hatay, Kahramanmaraş and Osmaniye, the provinces the earthquake struck hardest, had no respondents in 2023 and 10 in 2025.

Chart 4.6. New Zealand: change in Resilience Index score by region, 2023 to 2025

Northland and Auckland rose two points and one, in line with the rest of the country, and the Index gap did not change.

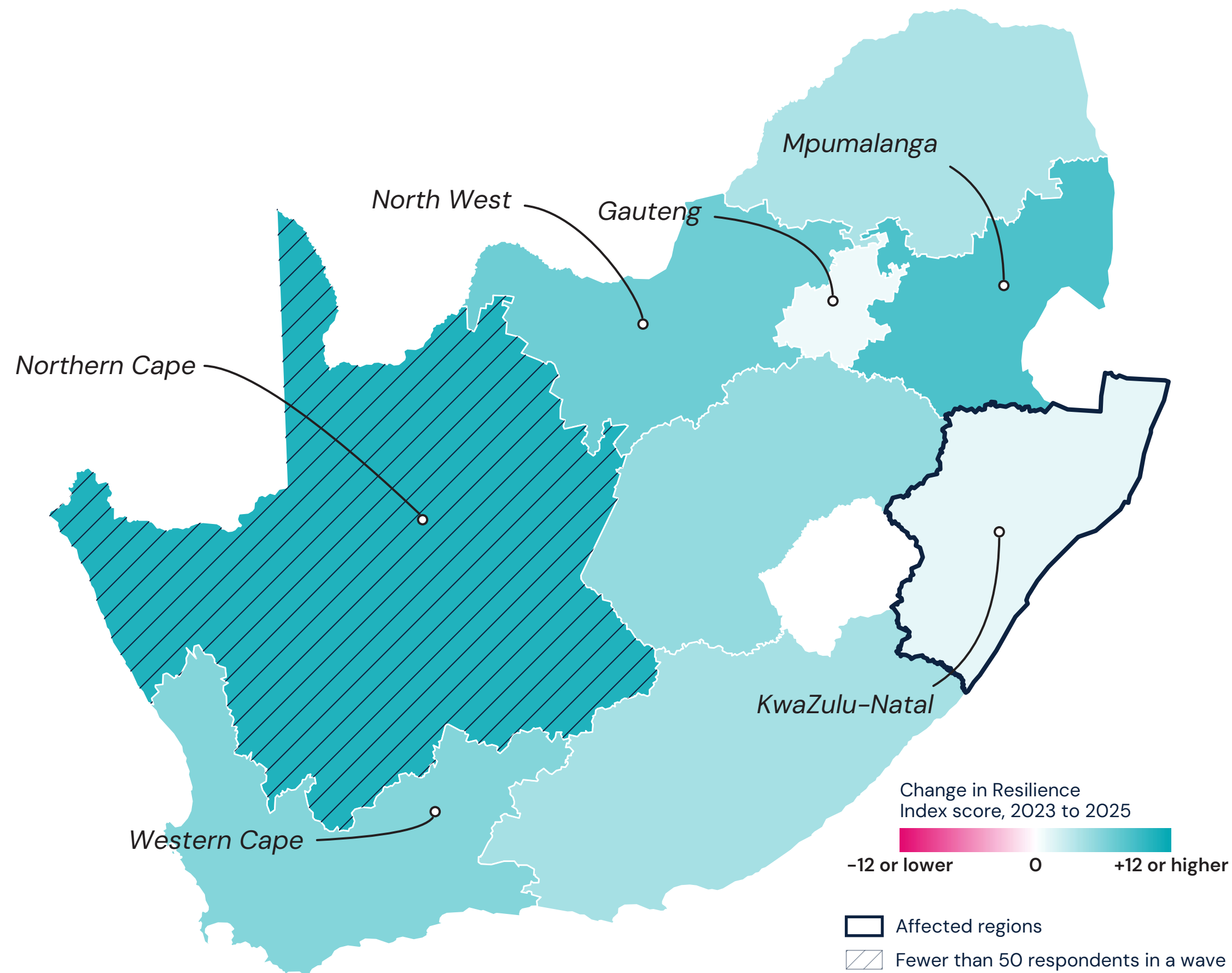


Northland and Auckland, the outlined regions that the floods of 27 January 2023 and then Cyclone Gabrielle in the middle of February struck, are among the palest shapes on the map. Northland rose two points on the Index between 2023 and 2025 and Auckland one, on the largest affected sample of the four case studies. The rest of the country changed much the same way, Waikato up five and Bay of Plenty two, with Wellington, Canterbury and Otago flat, so the gap between the affected regions and the rest of New Zealand did not change at all between the two editions. Northland and Auckland had fallen three points further behind by 2023, and 31 months after the storms it remains three points below where it was in 2021. That shortfall is within the margin of error, but no other case study still shows one in 2025. The regions Cyclone Gabrielle damaged most are counted in the rest of the country, and both fell: Hawke's Bay by four points on samples of 28 and 49, and the East Cape, the Poll's name for Tairāwhiti, by 19 on samples of four and two. Those readings, and the rises in Taranaki, Marlborough and Nelson, are based on so few respondents that the map hatches them. Ten of the 16 regions are hatched, and the Chatham Islands are omitted. Confidence in national government in Northland and Auckland returned towards the rest of the country by eight percentage points, within the margin of error, while the individual dimension fell from one point above the rest of the country in 2023 to two below in 2025.

Note: Conventions as Chart 4.4. Northland and Auckland are the affected regions. Ten of the 16 regions are hatched, among them Northland, Hawke's Bay and Tairāwhiti/Gisborne, shown as East Cape. Hawke's Bay and Tairāwhiti/Gisborne, which Cyclone Gabrielle damaged most, are counted in the rest of the country because their samples cannot support an estimate, and the Chatham Islands are omitted.

Chart 4.7. South Africa: change in Resilience Index score by region, 2023 to 2025

KwaZulu-Natal rose one point while the rest of South Africa rose four; therefore, a province level with the rest of the country in 2023 was three points below it by 2025.



Note: Conventions as Chart 4.4. KwaZulu-Natal is the affected province and is treated as a second disaster rather than a recovery, after the province flooded again in 2024. Northern Cape (40 respondents in 2023 and 39 in 2025) is hatched, and Mpumalanga is shaded on 70 in each edition.

KwaZulu-Natal, flooded a second time

South Africa was the one case study in Chapter 2 that looked like recovery. Surveyed 22 months after the floods of 11 and 12 April 2022, KwaZulu-Natal had risen four points relative to the rest of the country on the Index, from three points below to level with it, a gain within the margin of error. The share saying their neighbours cared ‘a lot’ had risen 38 percentage points relative to the rest of the country, the largest change in the gap on any of the nine measures the comparison follows. The province flooded again in 2024, before the 2025 wave, so its third measurement, taken 41 months after the first floods, follows a second disaster rather than a recovery.

The 2025 exposure question registers the second flood independently of the damage record. KwaZulu-Natal reports 39% impacted by a disaster compared with 11% in the rest of the country, 56% of them naming a flood and a further 24% a tropical storm. Chart 4.7 shows where that happened. Every province rose on the Index between 2023 and 2025, but KwaZulu-Natal, the outlined province, rose least apart from Gauteng, by one point. The Northern Cape rose 10 on a hatched sample of about 40, Mpumalanga eight, North West seven and the Western Cape six. Level with the rest of South Africa in 2023, the province was three points below it again in 2025, a fall within the margin of error that leaves it close to where it was before the first floods.

The rise in perceived neighbourly care has reversed. From 22 percentage points above the rest of the country in 2023, the neighbours question fell to below it in 2025, a change of minus 30 percentage points that is larger than the margin of error and the largest change between 2023 and 2025 in any case study. The community dimension, which includes the neighbours question among about six inputs, fell 10 points over the same period and ends seven points below its 2021 baseline, a deficit larger than the margin of error. Confidence in national government, 17 percentage points closer to the rest of the country in 2023 than in 2021, was 16 percentage points below it in 2025, a fall between 2023 and 2025 that is within the margin of error.

Seven of the nine measures the chapter follows returned towards or past their 2021 position between 2023 and 2025, in a province the survey independently identifies as having been struck again. The two that did not are the household dimension, eight points above its 2021 baseline relative to the rest of the country, and the protect-your-family question, 14 percentage points above baseline, both larger than the margin of error. In the one province struck twice, the gains measured in 2023 had reversed by 2025, and the rise in perceived neighbourly care with them.

The three recovery case studies together

Taken together, Morocco, Türkiye and New Zealand end 2025 with the Index gap one point narrower than in 2023, a narrowing within the margin of error. In Türkiye and New Zealand, the affected regions had fallen 17 percentage points further behind on confidence by 2023 and six by 2025, both compared with the 2021 baseline. That narrowing of 11 percentage points is larger than the margin of error. The societal dimension and perceived government care changed the same way, by amounts within the margin of error.

The household and individual dimensions change by a point or less in either direction. The neighbours question, on which the affected regions rose relative to the rest of the country in Chapter 3, had changed three percentage points in their favour by 2023 and was close to baseline again by 2025, neither change larger than the margin of error.

What people expect next

Chart 4.8. Worry Index, affected regions compared with rest of country, 2025

KwaZulu-Natal, the province struck twice, scores 61 on the Worry Index, compared with 49 for the rest of South Africa, while the regions struck once are no more worried than the rest of their respective countries.



Note: The Worry Index is new in the 2025 edition and has no earlier measurement, so only levels can be compared. Scores run from 0 to 100, and higher means more worried. Affected-region respondents with a Worry Index score are 120 (Morocco), 156 (Türkiye), 319 (New Zealand) and 178 (South Africa), fewer than the 2025 samples in Table 4.1 because not every respondent has a score.

Worry is not elevated in the regions that were struck once. In Morocco and Türkiye people in the affected regions are slightly less worried than the rest of their respective countries, by three points in each, and in New Zealand one point more worried, all three within the margin of error. In South Africa, the gap is 12 points, larger than the margin of error.

Chart 4.9. Is the national government well prepared for a disaster? Gap between affected regions and the rest of the country, 2021 and 2025

The belief that the national government is well prepared fell 10 percentage points further in the affected regions than in the rest of the country between 2021 and 2025, while the gap in confidence in national government narrowed.



Question text: Is the national government well prepared to deal with a disaster? Response options: Yes, well prepared; No, not well prepared.

Note: The question was asked in 2021 and 2025 but not in 2023, so only the two ends can be compared, and it was not asked in Morocco in 2025. The 2021 edition also records an 'it depends' answer that the 2025 edition does not, so the 2021 and 2025 levels are not strictly comparable. The change in the gap between 2021 and 2025 is drawn as a dot on a whisker, filled where the change is larger than the margin of error on this survey and hollow where it is within the margin of error and too small to be sure of.

In Türkiye's earthquake regions, the share saying the national government is well prepared for a disaster fell from 38% in 2021 to 8% in 2025, while in the rest of the country it fell from 32% to 18%. A gap of five percentage points in favour of the affected regions became a deficit of 10 percentage points, a change of minus 15 percentage points. New Zealand shows the same pattern at a higher level, a change of minus 17 percentage points in Northland and Auckland compared with the rest of the country. In South Africa the share rose from 24% to 27% in KwaZulu-Natal and fell from 41% to 40% in the rest of the country, a change in the gap in the province's favour that is within the margin of error. Pooled, the change in the gap between 2021 and 2025 is minus 10 percentage points across the three countries and minus 16 percentage points for Türkiye and New Zealand, both larger than the margin of error.

Ratings of local government show the same gap in 2025. In Türkiye, 8% of people in the affected regions rate their local government as well prepared, compared with 17% elsewhere, and in New Zealand the gap is 10 percentage points the same way; both are larger than the margin of error.

Insight to action

- **Treat recovery gains as reversible where a second disaster is likely.** KwaZulu-Natal, the one province struck twice, was level with or above the rest of South Africa on most measures by 2023, from below it in 2021. After the 2024 flood, it had returned towards or past its 2021 position on seven of the nine measures by 2025, including a fall of 30 percentage points in perceived neighbourly care relative to the rest of the country.
- **Track belief that the national government is well prepared separately from confidence in it.** In Türkiye's earthquake regions, the gap in confidence in national government narrowed 16 percentage points between 2023 and 2025. Between 2021 and 2025 the share there saying the national government is well prepared for a disaster fell 15 percentage points further than in the rest of the country, and in Northland and Auckland, it fell 17 percentage points further.
- **Set recovery support by local evidence rather than by elapsed time.** During the same 31 months, the gap in confidence in national government in Türkiye's earthquake regions had narrowed 16 percentage points, a change larger than the margin of error. The Index gap in Northland and Auckland had not changed since 2023, and their confidence gap had narrowed eight percentage points, which is within it.

Conclusion

In Türkiye, where a review by Rice University’s Baker Institute records more than 10 construction amnesties since 2001 that forgave building code violations, confidence in national government fell 24 percentage points further in the regions impacted by the February 2023 earthquake than elsewhere. In New Zealand’s Northland and Auckland, struck by floods and Cyclone Gabrielle in January and February 2023, it fell 13 percentage points further. In Mozambique, where the United Nations credited preparedness with keeping the loss of life far below that caused by Cyclone Idai in 2019, the share who felt the government cared about them ‘a lot’ rose 20 percentage points further in the provinces Cyclone Freddy struck in February and March 2023 than elsewhere.

Every change of this kind has to be considered alongside what national politics was doing over the same window, because confidence in national government rose 25 percentage points in Thailand between 2021 and 2023 with no single major disaster involved.

Perceived neighbourly care rose relative to the rest of the country in four of the seven case studies and nearly tripled in KwaZulu–Natal after its April 2022 floods. Pooled across the seven, the belief that one could protect one’s own family fell two percentage points further in the affected regions than elsewhere.

The gap in confidence in national government narrowed by 11 percentage points between 2023 and 2025 across Türkiye and New Zealand, the only narrowing that is larger than the margin of error once the recovery case studies are taken together. The share saying the national government is well prepared for a disaster fell 10 percentage points further in the affected regions than elsewhere between 2021 and 2025.

Morocco, Türkiye and New Zealand were surveyed again in 2025, 25 months after Morocco’s September 2023 earthquake and 31 months after the disasters in the other two. Taken together, their Index gap narrowed by one point between 2023 and 2025, within the margin of error, and New Zealand’s did not change. In KwaZulu–Natal, flooded again in 2024, perceived neighbourly care fell 30 percentage points relative to the rest of South Africa.

Türkiye’s national Index score was 51 in both the 2021 and 2023 editions, while its earthquake regions fell, and the societal dimension there fell 15 points further than in the rest of the country, the largest dimension change in the report. Across the seven case studies, resilience in the regions a disaster struck fell about two Index points behind the rest of their respective countries, compared with where each was in 2021. That change goes the same way in six of the seven and is only just clear of sampling error. These are changes associated with living in a region a disaster struck, not measured effects of the disaster.

These findings bear on how recovery is measured and on where investment goes after a disaster:

- **Measure the affected regions on their own, at more than one point in time.** The fall in Türkiye’s earthquake regions is invisible in the national score, and only the third edition showed that most of the confidence gap had closed by 2025.
- **Track belief that the national government is well prepared separately from confidence in it.** The gap in confidence in national government in Türkiye’s earthquake regions narrowed 16 percentage points between 2023 and 2025. Between 2021 and 2025 the share there saying the national government is well prepared fell from 38% to 8%, compared with 32% to 18% in the rest of Türkiye.
- **Do not count on increases in perceived neighbourly care lasting through multiple disasters.** Perceived neighbourly care rose seven percentage points further in the affected regions by 2023, and in KwaZulu–Natal, flooded again in 2024, it fell back below the rest of South Africa by 2025.
- **Survey the worst-affected places, where interviewers can work safely.** The Poll has no 2023 respondents in eight of the 11 Turkish provinces the earthquake affected, so the Türkiye estimates are likely to understate what happened where the damage was greatest.

We hope that by following the places a disaster struck before the event, soon after it and years further on, this dataset can help governments, disaster management agencies and the organisations that support recovery direct their effort to the places and people still living with a disaster’s effects.

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Appendix: Analysis notes

Chapters 2 and 3 compare the 2021 and 2023 editions of the Poll; Chapter 4 adds 2025. The seven disasters are the KwaZulu–Natal floods in South Africa of April 2022, the Pakistan floods of June to October 2022, the Auckland floods of January 2023 and Cyclone Gabrielle of February 2023 in New Zealand, the Türkiye earthquake of 6 February 2023, Cyclone Freddy in Mozambique in February and March 2023, the Ecuador earthquake of 18 March 2023 and the Morocco earthquake of 8 September 2023. The data, the conventions and the models below serve all three, and each heading says where Chapter 4 differs.

Data and weights

All descriptive estimates are weighted by the projection weight. Within a single country, the projection weight and the survey weight give identical results, and the projection weight matters only for cross-country estimates. Both pooled models rescale it within each country and wave so that every country contributes equally.

Percentage base and Index scores

All percentages are computed on a base of every answered response, including ‘don’t know’ and refused, the convention the Poll uses in its published charts. On the protect-your-family question the ‘it depends’ option is also in the base, and it varies from 1% in Thailand to 28% in Lebanon, so cross-country comparisons of that item’s level partly compare willingness to give a definite answer. The difference-in-differences within a country is not affected.

The Resilience Index and its dimension variables are stored on a 0 to 1 scale; scores here are the weighted mean times 100, so a point is one hundredth of the full range. Index and dimension differences are reported in points and differences between percentages in percentage points, and the two are never added. In every regression below, Index and dimension scores enter on their 0 to 100 scale and binary items are coded 0 or 100 so that coefficients are expressed in percentage points.

The exact composition of the community dimension is not published, so that dimension and the neighbours question inside it are set side by side and the dimension is not decomposed. One is in Index points and the other in percentage points.

The questions used and changes in phrasing

WP22245 in 2021, WP23344 in 2023 and WP24213 in 2025 for disaster exposure, noting the wording change from experienced to impacted between 2023 and 2025; WP24180 for the hazard named in 2025; WP139 for confidence in national government; WP22231 and WP22232 for whether the government and whether neighbours care about you and your wellbeing; WP22252 for whether people could protect themselves or their family in a future disaster; WP22241 in 2021 and WP24198 in 2025 for whether the national government is well prepared for a disaster, with WP24199 for local government.

Confidence in national government was not asked in Morocco or Pakistan in 2021 or 2023, so its pooled estimate and Chart 3.2 are based on five case studies rather than seven. The other three questions were asked in all seven. In Morocco, the question was not asked in any of the three waves, the question on whether the government cares was asked in 2021 and 2023 but not in 2025, and no preparedness question was asked there in 2025.

How the comparison is built

Within each country, respondents are split using the Poll’s own sub-national region variables into the regions officially affected by the disaster and the rest of the country, every other region in the Poll’s sample. Everyone surveyed in an affected region counts, whether or not they reported a disaster themselves, because the comparison is between places. The change in the rest of the country is subtracted from the change in the affected regions, which is the difference-in-differences Chapters 2 and 3 report and the gap Chapter 4 measures at three waves.

The estimates are differential change associated with living in an affected region, not a causal effect of the disaster. With one pre-disaster edition, the assumption that the affected regions and the rest of the country would otherwise have changed alike cannot be tested, and the country-by-wave effects remove national shocks but not local events that coincided with the disaster.

Tables A.1 and A.2 below give the case-level estimates and intervals behind every statistic and chart in Chapters 2 and 3.

Table A.1. Difference-in-differences by case study, Resilience Index and dimensions, 2021 to 2023 (points, HC1 95% CI)

COUNTRY	INDEX	SOCIETAL	COMMUNITY	HOUSEHOLD	INDIVIDUAL
Morocco	-0.7 (-5.2 to 3.8)	-0.4 (-7.6 to 6.9)	+1.8 (-5.9 to 9.4)	+2.9 (-3.4 to 9.2)	-7.2 (-15.8 to 1.5)
Mozambique	-0.7 (-4.8 to 3.4)	+10.9 (5.3 to 16.5)	-1.2 (-7.9 to 5.6)	-4.3 (-11.0 to 2.3)	-7.7 (-15.5 to 0.2)
New Zealand	-3.1 (-6.2 to -0.1)	-4.5 (-9.5 to 0.4)	-5.1 (-10.1 to -0.1)	-1.5 (-6.5 to 3.5)	-1.7 (-7.8 to 4.5)
Türkiye	-4.0 (-8.1 to 0.2)	-15.0 (-21.4 to -8.6)	-9.2 (-15.7 to -2.7)	+2.2 (-4.1 to 8.5)	+6.4 (-1.5 to 14.3)
Pakistan	-2.6 (-6.4 to 1.2)	-5.1 (-9.4 to -0.9)	-6.4 (-13.4 to 0.6)	+1.2 (-4.4 to 6.8)	-0.2 (-7.3 to 7.0)
South Africa	+3.7 (-0.3 to 7.7)	+5.3 (-0.9 to 11.5)	+3.0 (-3.0 to 9.1)	+7.5 (0.6 to 14.5)	-1.0 (-8.9 to 6.9)
Ecuador	-4.0 (-7.5 to -0.4)	-2.6 (-7.2 to 2.1)	-0.9 (-6.9 to 5.1)	-7.8 (-13.7 to -1.9)	-4.6 (-12.4 to 3.2)

Table A.2. Difference-in-differences by case study, single questions, 2021 to 2023 (percentage points, HC1 95% CI)

COUNTRY	GOVERNMENT CONFIDENCE	GOVERNMENT CARES 'A LOT'	NEIGHBOURS CARE 'A LOT'	PROTECT FAMILY	EXPOSURE CHECK
Morocco	not asked	-3.7 (-14.0 to 6.6)	+8.1 (-6.1 to 22.4)	-5.8 (-20.2 to 8.6)	+11.3 (-2.2 to 24.9)
Mozambique	+5.7 (-5.9 to 17.4)	+20.4 (7.4 to 33.3)	+11.0 (-1.5 to 23.4)	-5.8 (-18.8 to 7.2)	+9.2 (-2.3 to 20.7)
New Zealand	-12.9 (-23.8 to -2.1)	-4.9 (-13.5 to 3.7)	-4.5 (-14.3 to 5.4)	-1.6 (-12.3 to 9.0)	+35.0 (25.1 to 44.9)
Türkiye	-24.2 (-37.2 to -11.2)	-18.7 (-29.0 to -8.3)	+11.1 (-0.9 to 23.0)	+3.0 (-7.6 to 13.6)	+39.0 (26.5 to 51.5)
Pakistan	not asked	+1.2 (-4.2 to 6.5)	-2.0 (-10.5 to 6.4)	+1.0 (-11.4 to 13.5)	+25.8 (14.2 to 37.3)
South Africa	+17.4 (4.3 to 30.6)	+13.6 (3.5 to 23.6)	+37.5 (25.0 to 50.1)	+8.5 (-2.2 to 19.2)	+29.1 (16.7 to 41.6)
Ecuador	+0.5 (-9.6 to 10.5)	+3.4 (-1.0 to 7.7)	-2.2 (-9.0 to 4.6)	-9.1 (-21.4 to 3.2)	-11.1 (-22.2 to 0.1)

Note: Estimates in Tables A.1 and A.2 are shown to one decimal, and the chapters report the same estimates as whole numbers under the rounding rule below. Chapter 3 draws its case-level estimates from these two tables and does not repeat the intervals.

Validity checks

Far more disasters struck between the 2021 and 2023 editions than the seven this report follows. Identifying every qualifying event across 140 countries and territories, and the sub-national footprint each one left, is beyond the scope of this report. The seven are the disasters the Poll can follow at the sub-national level. Each of the seven was put through four checks: (a) the 2021 fieldwork was completed before the event, so the first measurement is genuinely pre-disaster; (b) a region variable isolates the officially affected area and contains the same places in both editions; (c) at least 100 respondents were surveyed in the affected regions in each edition, the same floor the reporting rule below uses; and (d) reported disaster experience rose further in the affected regions than in the rest of the country, which is the check that the split is picking up a real difference in exposure.

Six case studies meet (a) to (c). Türkiye meets (b) only in part, because the composition of its two affected regions changes between editions, so it is analysed with that composition reported and with an adjusted specification that removes from the rest of the country the regions the disaster also reached. The two affected regions include four of the 11 officially affected provinces, and the rest of the country includes Southeast Anatolia, which was itself affected, so both problems bias the Türkiye estimates towards zero. Ecuador is the one case study that fails (d), because reported disaster experience fell 11 percentage points faster inside Guayas and El Oro than outside them, so its estimates come with that caveat rather than depending on the exposure check.

Check (a) rules out one candidate case study, Malaysia, where floods across Selangor and Pahang began on 17 December 2021 and displaced tens of thousands of people^{76,77}. The 2021 fieldwork there was completed in January 2022, so that edition mixes interviews taken before and after the event, and there is no pre-disaster measurement to compare with. Thailand, the Philippines and Lebanon have no single disaster footprint and enter no difference-in-differences. Every statistic quoted for them is a national change between the 2021 and 2023 editions rather than a change in a gap, which is why Chart 3.6 plots the two kinds of quantity in two colours.

For the third edition, a region struck by a second qualifying disaster between the 2023 and 2025 waves is treated as a repeat-hit case rather than as recovery, with its 2023 to 2025 change reported separately. A country where a new qualifying disaster reached the rest of the country in the same window leaves the 2025 comparison, because no part of that country is then free of a new disaster to compare with. The 2025 impacted shares by region are the in-data check on both conditions. Mozambique (Nampula 69% impacted compared with 69% in Zambezia, Sofala and Manica) and Pakistan (Khyber Pakhtunkhwa 25% compared with Sindh’s 19%) leave under the clean-comparison check. South Africa (KwaZulu-Natal 39% compared with 11%), flooded again in 2024, is the repeat-hit case, and Ecuador (Guayas and El Oro 5% compared with 9%) leaves as a repeat-hit candidate.

The pooled model

Chapter 2's pooled estimate is one linear regression on respondent-level data from the seven case studies, with country-by-wave fixed effects, country-by-affected-region fixed effects and an affected-region-by-2023 interaction. Because the country-by-affected-region effects absorb the 2021 difference between the two groups, that interaction is the change in the gap compared with the 2021 baseline and not the level of the gap in 2023. The raw weight and the six case studies other than Ecuador are run as sensitivities. Without Ecuador, the Index estimate falls from about two points to the disadvantage of the affected regions to about one, and is then within the margin of error (HC1 -3 to 0). The community dimension stays at about three points (HC1 -5.7 to -0.4, which excludes zero), the estimate for perceived neighbourly care increases from seven percentage points to nine (4 to 14), and no other measure changes its verdict. Table 2.2 gives the seven-case column only.

The interactions with elapsed time and with the strength of the exposure check are exploratory and are not findings. The slope of the Index change on months from the event to fieldwork is 0.2 points per month (95% CI: 0.0 to 0.5, with the clustered intervals reaching either side of zero), and the slope on the strength of the exposure check is 0.0 points per point (95% CI: -0.1 to 0.1). The exposure check is used in place of the overlap between the survey regions and the official disaster footprint, because no independent overlap index was built for all seven case studies. The report's own overlap measure, the share of each affected region made up of officially affected units, is reported for Türkiye under coverage and known limitations below. Elapsed time and repeat exposure are otherwise treated as case attributes for structuring the comparison rather than as estimated modifiers. The months interaction is based on seven disasters, so Chapter 4 does not use it as evidence.

Chapter 4's pooled model is one regression on respondent-level data from the three-wave case studies at once, with country-by-wave and country-by-affected-region effects and two terms of interest, affected by 2023 and affected by 2025; the difference between the two terms is the narrowing. It is run on the three recovery case studies, on all four three-wave case studies, and on each with the regions the disaster also reached removed from both groups. Full specifications for both models are in the chart data pack.

The seven-case estimates are based on about 14,000 respondents, and the base varies by a few respondents between measures with each item's own non-response. The confidence in national government row is based on about 10,000, the five case studies that asked it.

Standard errors, HC1 primary

Three standard errors are computed for every estimate, and HC1, which treats respondents as independent, is primary and used through the report. The second clusters by region within country, the level at which a disaster is assigned; the third clusters by primary sampling unit using WP12259, with strata in WP12258.

Neither clustered version is a full design-based variance. The 2021 waves in Morocco, Türkiye, New Zealand and Ecuador were telephone surveys in which each respondent is their own primary sampling unit, so PSU clustering there collapses to HC1, and no finite-population correction is applied. Region clustering is not primary because the clusters are few, at 89 across seven countries and between six and 24 per country, and a cluster-robust variance built on so few tends to be too narrow rather than too wide. In 15 per-case estimates in Chapters 2 and 3, the region-clustered interval excludes zero where HC1 does not, which reflects that tendency and is not a firmer result, and no chapter treats those 15 as findings. Throughout the report a change is described as larger than the margin of error only where its HC1 interval excludes zero, and as within the margin of error where the interval includes it.

The pooled seven-case Index estimate of about two points to the disadvantage of the affected regions excludes zero on HC1 and includes it by a fraction on both clustered versions (HC1 -3.2 to -0.3; region-clustered -3.7 to 0.2; PSU-clustered -3.5 to 0.1). The community dimension estimate of about three points does the same (HC1 -5.1 to -0.3; region-clustered -5.7 to 0.3; PSU-clustered -5.9 to 0.5).

The pooled seven-case rise of seven percentage points in perceived neighbourly care excludes zero on HC1 and on the PSU-clustered error and includes it on the region-clustered one (HC1 3.2 to 11.6; PSU-clustered 2.5 to 12.3; region-clustered -0.6 to 15.4). That makes it the only one of the nine pooled measures that is larger than the margin of error on more than one of the three. The disagreement goes the opposite way from the 15 per-case estimates above.

In the pooled three-wave model the widening of the Index gap to 2023 excludes zero on HC1 (-5.0 to -0.6) while the narrowing back between 2023 and 2025 excludes it on none of the three (HC1 -1.0 to 3.3).

On the question of whether people could protect their family, no case-level change between 2023 and 2025 is larger than the margin of error on HC1, while the region-clustered interval alone would make Morocco's and Türkiye's so.

Change-in-gap regression

For each case study and measure, a respondent-level regression on the three waves with an affected-region indicator, wave indicators and their interactions gives the gap at each wave, the change in the gap from 2021 to 2023 (the differential change Chapter 2 reports), the change from 2023 to 2025 and the 2025 gap compared with the 2021 baseline. Each comes with an HC1 95% confidence interval and, in the analysis file, a region-clustered one.

Tables A.3 and A.4 report the 2023 to 2025 change for every measure rather than only for those that fell in 2023, so that apparent recovery cannot arise from selecting on noisy initial changes.

Table A.3. Gap between affected regions and rest of country at each edition, and the change from 2023 to 2025

CASE AND MEASURE	GAP 2021	GAP 2023	GAP 2025	CHANGE 2023 TO 2025 (95% CI)	CHANGE, ADJUSTED (95% CI)
Morocco, Resilience Index	-2.4	-3.1	-1.5	+1.6 (-2.1 to 5.3)	no adjustment
Morocco, Societal dimension	-0.5	-0.8	-1.1	-0.3 (-6.8 to 6.2)	no adjustment
Morocco, Community dimension	-1.3	+0.5	+0.7	+0.3 (-6.5 to 7.1)	no adjustment
Morocco, Household dimension	-5.0	-2.1	-3.1	-1.0 (-7.5 to 5.5)	no adjustment
Morocco, Individual dimension	-2.6	-9.7	-2.8	+6.9 (-1.0 to 14.8)	no adjustment
Morocco, Government cares 'a lot'	+2.0	-1.7	not asked	n/a	n/a
Morocco, Neighbours care 'a lot'	-8.9	-0.8	-3.3	-2.5 (-15.4 to 10.4)	no adjustment
Morocco, Could protect their family	-0.6	-6.5	+2.2	+8.6 (-2.4 to 19.6)	no adjustment
Türkiye, Resilience Index	-0.7	-4.7	-2.2	+2.5 (-1.7 to 6.7)	+2.7 (-1.5 to 6.9)
Türkiye, Societal dimension	+1.6	-13.5	-4.7	+8.8 (2.7 to 14.8)	+9.6 (3.5 to 15.6)
Türkiye, Community dimension	-2.5	-11.7	-5.9	+5.8 (-0.6 to 12.3)	+4.3 (-2.2 to 10.7)
Türkiye, Household dimension	-0.2	+2.0	-0.2	-2.2 (-9.3 to 5.0)	-1.2 (-8.3 to 5.9)
Türkiye, Individual dimension	-2.1	+4.3	+2.0	-2.3 (-9.6 to 5.0)	-1.9 (-9.2 to 5.4)

CASE AND MEASURE	GAP 2021	GAP 2023	GAP 2025	CHANGE 2023 TO 2025 (95% CI)	CHANGE, ADJUSTED (95% CI)
Türkiye, Confidence in national government	+4.4	-19.8	-3.5	+16.3 (3.6 to 29.1)	+16.7 (3.9 to 29.5)
Türkiye, Government cares 'a lot'	+5.1	-13.5	-3.4	+10.1 (1.3 to 19.0)	+8.6 (-0.4 to 17.6)
Türkiye, Neighbours care 'a lot'	-4.3	+6.7	+1.1	-5.6 (-16.5 to 5.2)	-10.6 (-21.4 to 0.2)
Türkiye, Could protect their family	-4.7	-1.7	+5.7	+7.4 (-2.1 to 16.8)	+8.1 (-1.4 to 17.6)
New Zealand, Resilience Index	+1.8	-1.4	-1.4	0.0 (-3.3 to 3.2)	0.0 (-3.5 to 3.6)
New Zealand, Societal dimension	+3.5	-1.0	+0.6	+1.6 (-3.6 to 6.7)	+0.9 (-4.7 to 6.5)
New Zealand, Community dimension	+1.1	-4.0	-1.4	+2.6 (-2.7 to 7.9)	+1.0 (-4.7 to 6.7)
New Zealand, Household dimension	-0.3	-1.8	-2.1	-0.3 (-5.4 to 4.8)	+1.4 (-4.1 to 7.0)
New Zealand, Individual dimension	+2.7	+1.1	-2.4	-3.5 (-9.8 to 2.8)	-2.7 (-9.4 to 4.1)
New Zealand, Confidence in national government	+8.9	-4.0	+3.5	+7.5 (-3.5 to 18.6)	+6.0 (-5.9 to 18.0)
New Zealand, Government cares 'a lot'	+5.2	+0.3	+1.1	+0.9 (-6.5 to 8.3)	+2.1 (-5.8 to 10.1)
New Zealand, Neighbours care 'a lot'	+1.1	-3.3	-3.9	-0.6 (-10.5 to 9.4)	-6.5 (-17.2 to 4.2)
New Zealand, Could protect their family	+0.7	-0.9	-6.9	-6.0 (-16.7 to 4.8)	-5.6 (-17.2 to 6.1)
South Africa, Resilience Index	-3.4	+0.3	-2.7	-3.0 (-6.9 to 0.9)	no adjustment
South Africa, Societal dimension	-7.2	-1.9	-6.0	-4.1 (-10.2 to 2.0)	no adjustment
South Africa, Community dimension	+4.6	+7.6	-2.1	-9.7 (-16.0 to -3.3)	no adjustment
South Africa, Household dimension	-8.2	-0.7	-0.1	+0.6 (-6.3 to 7.5)	no adjustment
South Africa, Individual dimension	-2.6	-3.6	-2.4	+1.2 (-6.8 to 9.2)	no adjustment
South Africa, Confidence in national government	-20.8	-3.3	-15.6	-12.2 (-25.5 to 1.1)	no adjustment
South Africa, Government cares 'a lot'	-12.2	+1.3	-1.3	-2.6 (-12.7 to 7.5)	no adjustment

CASE AND MEASURE	GAP 2021	GAP 2023	GAP 2025	CHANGE 2023 TO 2025 (95% CI)	CHANGE, ADJUSTED (95% CI)
South Africa, Neighbours care ‘a lot’	-16.1	+21.5	-8.6	-30.1 (-42.2 to -18.0)	no adjustment
South Africa, Could protect their family	-8.7	-0.2	+5.4	+5.6 (-6.1 to 17.4)	no adjustment

Note: Estimates are shown to one decimal so they can be reproduced from the survey data. Base: all respondents for the Index and dimensions; all answered responses, including ‘don’t know’ and refused, for the questions. Index and dimension estimates are in points; the rest are percentage points. A negative gap means the affected regions are below the rest of the country; a positive change means they rose relative to it between 2023 and 2025. Intervals are heteroskedasticity-robust (HCl); region-clustered intervals are in the analysis file. Morocco and South Africa have no regions in the rest of the country that the disaster also reached, so no adjustment applies. Confidence in national government was not asked in Morocco in any wave, and the question on whether the government cares was not asked there in 2025. South Africa is the repeat-hit case and its change is a reversal rather than a recovery.

Table A.4. Pooled change in gap from the 2021 baseline: Morocco, Türkiye and New Zealand

MEASURE	CHANGE IN THE GAP, 2021 TO 2023	CHANGE IN THE GAP, 2021 TO 2025	CHANGE 2023 TO 2025 (95% CI)	CHANGE 2023 TO 2025, ADJUSTED (95% CI)
Resilience Index	-3	-2	+1 (-1 to 3)	+1 (-1 to 4)
Societal dimension	-7	-3	+3 (-0.2 to 7)	+3 (-0.2 to 7)
Community dimension	-5	-2	+3 (-1 to 7)	+2 (-2 to 6)
Household dimension	+1	0	-1 (-5 to 3)	0 (-4 to 4)
Individual dimension	-1	-1	-1 (-5 to 4)	0 (-4 to 4)
Confidence in national government	-17	-6	+11 (3 to 19)	+11 (2 to 19)
Government cares ‘a lot’	-9	-5	+4 (-2 to 9)	+4 (-2 to 10)
Neighbours care ‘a lot’	+3	+1	-3 (-9 to 4)	-7 (-13 to -0.1)
Could protect their family	-1	0	+1 (-5 to 8)	+2 (-4 to 9)

Note: Estimates from the pooled three-wave model, projection weights rescaled so that each country counts equally; intervals are heteroskedasticity-robust (HCl). Index and dimension estimates are in points; the rest are percentage points. The first two columns are the model’s affected-by-wave interactions, which are changes in the gap compared with the 2021 baseline rather than levels of the gap, because the country-by-affected-region effects absorb the baseline difference between the two groups. A negative estimate means the affected regions fell further behind compared with their 2021 baseline; a positive change in the last two columns means they improved between 2023 and 2025. Bounds are to one decimal where the whole number would print as zero. The adjusted column removes from both groups the five regions the disaster also reached outside the affected regions. Confidence in national government was not asked in Morocco, and the question on whether the government cares was not asked there in 2025, so those two rows are based on Türkiye and New Zealand.

Running the same model on all four case studies reduces the Index narrowing to zero, because KwaZulu-Natal’s positive 2023 change cancels the other three. It also shows the neighbours question 12 percentage points above the 2021 baseline by 2023 and two points above it by 2025, a fall that is South Africa’s alone and is treated separately in Chapter 4.

Reporting floor, precision and rounding

No comparative estimate is quoted from an affected region below 100 respondents in any wave, and the smallest is Morocco, at 137 respondents in 2021 and 132 in each of 2023 and 2025. Exposure checks that establish whether a disaster registers in a place are quoted below that floor, with the base given in the text, and treated as direction only: the Adana and Mersin unit (48 respondents in 2021 and 60 in 2023) and Hawke’s Bay (35 and 28) for 2021 to 2023, and for 2025 Marrakech–Safi’s earthquake share on 32 impacted respondents, Southeast Anatolia’s on 35 and Hawke’s Bay’s on 38, out of a Hawke’s Bay sample of 49.

Affected-region samples run from 132 to 418 respondents. At 132 respondents, a percentage has a margin of about nine percentage points either way and an Index score about three points; at 418 respondents, the margins are about five percentage points and about two points. A change in the gap between two waves combines four such readings and its interval is correspondingly wider, and the chart notes refer to this paragraph rather than restating it.

KwaZulu–Natal has 181 respondents in 2025, and a single percentage carries a margin of roughly seven percentage points either way, so the smaller changes in that case study are direction rather than magnitude.

Maps and boundaries

Boundaries are geoBoundaries gbOpen ADM1 (CC-BY)⁷⁸. Charts 2.1 to 2.7 are one map per case study on a shared colour scale, and Charts 4.4 to 4.7 are one map per case study for the 2023 to 2025 change. Türkiye’s 12 NUTS–1 regions were built by aggregating the 81 provinces; Pakistan’s former FATA is folded into Khyber Pakhtunkhwa; Mozambique’s Maputo City and Maputo Province are shown as one shape; New Zealand uses the New Zealand Transverse Mercator projection and omits the Chatham Islands, which have no respondents in any wave; and Ecuador’s Galapagos are omitted from the map frame.

Every region with respondents in both waves of a pair is shaded whatever its sample size, so that no part of a country is left blank. The chart notes name the regions whose shading is based on small samples. Regions are greyed where a wave has no respondents at all, or where the 2023 sample is not comparable with the 2025 one, as in Southeast Anatolia. That shading convention differs from the reporting floor the chapters apply to quoted estimates.

Coverage and known limitations

Geocoded respondent locations, which would allow exposure to be measured by distance from the epicentre rather than by administrative region, are not in the public files. The affected regions contain many people the disaster did not affect, and in Türkiye and New Zealand, the rest of the country contains people it did. As a matter of logic, both bias the estimates towards zero, though the exploratory test of that dilution found no relationship between the strength of the exposure check and the size of the gap.

Gallup could not interview in Turkish provinces, or portions of provinces, containing about 12% of the population in the 2023 wave, on grounds of the earthquake itself and the safety of interviewers. The Poll has no 2023 respondents in eight of the 11 officially affected provinces. Every Türkiye estimate in the report, the recovery on confidence in national government included, is based on the part of the affected area the Poll could survey. The affected regions there are only about half composed of officially affected NUTS–2 units, at 51% in 2021, 50% in 2023 and 63% in 2025. Their composition also changes: Hatay, Kahramanmaraş and Osmaniye have 22, 0 and 10 respondents across the three waves, and Southeast Anatolia 109, 50 and 70, of whom all 50 in 2023 are from the Mardin unit.

Türkiye’s Southeast Anatolia and New Zealand’s Hawke’s Bay, Tairāwhiti/Gisborne, Waikato and Bay of Plenty are inside the original disaster footprints but outside the affected regions. These five are the regions the disaster also reached that the adjusted estimates in Tables A.3 and A.4 remove from both groups; Waikato and Bay of Plenty fall inside Cyclone Gabrielle’s footprint but were not among the worst affected. Hawke’s Bay (35 respondents in 2021 and 28 in 2023) and Tairāwhiti/Gisborne (6 and 4) are counted in the rest of the country because they cannot support an estimate of their own, so the New Zealand estimate for 2021 to 2023 is effectively an Auckland one.

Several countries changed from telephone interviewing in 2021 to face-to-face interviewing in 2023 (Morocco, Türkiye, Ecuador, Lebanon, the Philippines and Thailand); the country-by-wave effects absorb a national change of mode but not one that differs by region. Seven disasters are few, and the pooled intervals reflect sampling error within those case studies, not how different another set of disasters would look.