European Environment Agency

EU MISSIONS
ADAPTATION TO CLIMATE CHANGE

Mission Signatory Reporting Assessment

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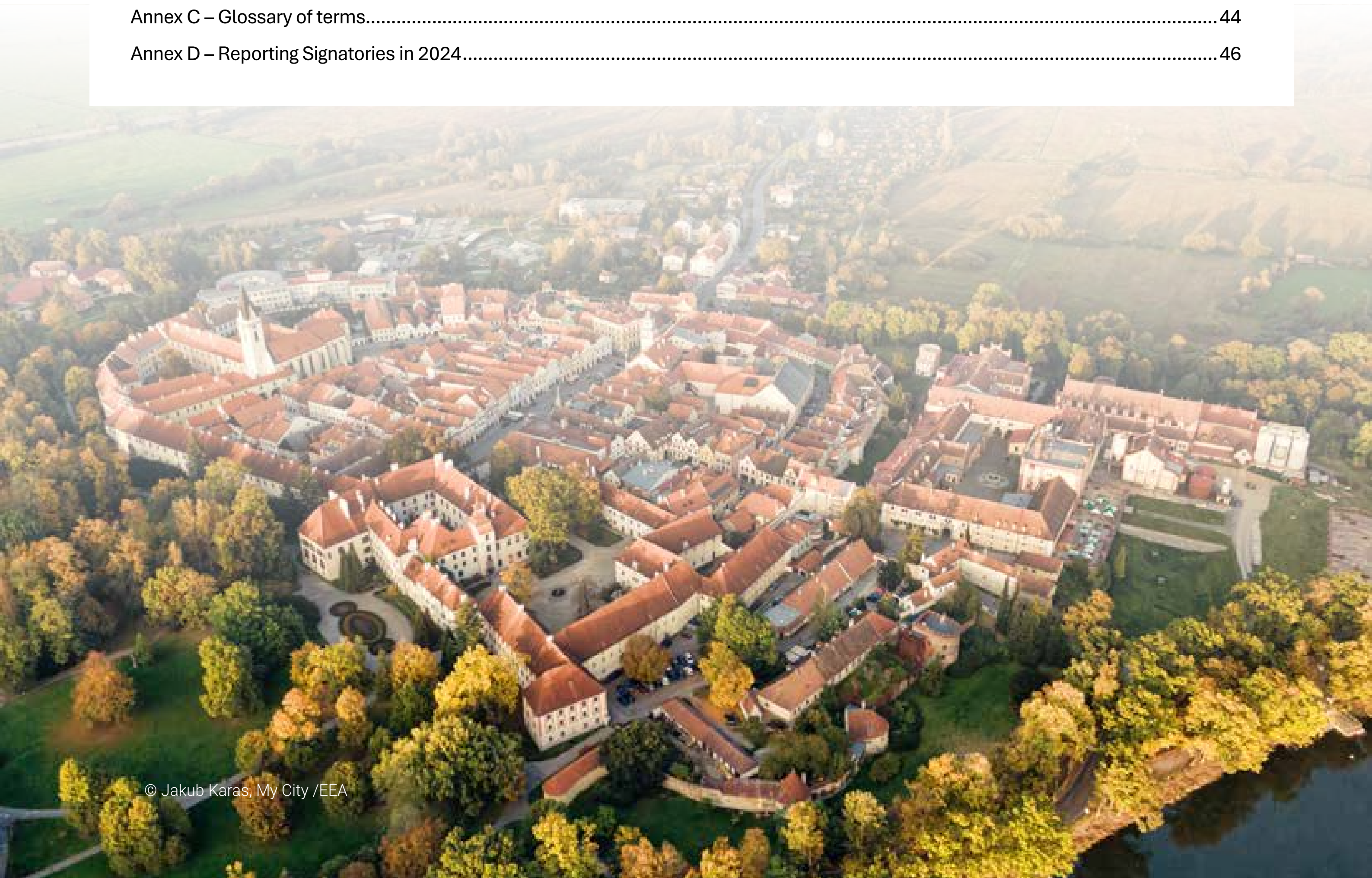

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Key findings

This assessment provides a comprehensive picture of how Mission Signatories are advancing their climate adaptation efforts by examining the complete adaptation cycle, from governance and risk assessment to planning, action and monitoring. The assessment highlights strengths and challenges that shape adaptation action across the 59 local and regional authorities that reported under the EU Mission on Adaptation to Climate Change in 2024.

Most local and regional authorities that reported in 2024 have already put governance structures in place to steer adaptation activities. With 83% of reporting Signatories having adopted climate adaptation policies, either as standalone plans or integrated into broader climate or energy plans, the institutional foundations are mainly in place to enable systematic risk assessments, along with adaptation planning and implementation.

Building on these governance foundations, many authorities have conducted climate risk and vulnerability assessments, with 50 authorities reporting completed assessments in 2024. This reflects stronger institutional capacities and rising awareness of local climate risks.

The climate risk assessments are informing adaptation priorities across the authorities that reported in 2024, as evidenced by the alignment between identified hazards and actions. Extreme heat stands out as the most frequently identified climate hazard, but also as the top priority in adaptation goals. Furthermore, it is the most addressed hazard in reported actions, which indicates that assessment results effectively trickle down to the action phase. Similarly, water-related risks such as urban flooding and heavy precipitation also rank high in terms of identified and addressed hazards, illustrating well-aligned planning and implementation.

In addition to the addressed hazards, the adaptation efforts related to sector-specific climate risks also appear to be informed by a clear understanding of the identified risks. There is a strong correlation between the reported climate hazards and the sectors identified as most at risk, and these are therefore prioritised in adaptation planning. Water management, agriculture and forestry, and health are among the sectors most frequently reported as affected and are also the most addressed in adaptation plans. One area of divergence is the focus on conservation in many actions, whereby, although conservation is not identified as a critically exposed sector, it can support resilience in the sectors most at risk, showing indirect alignment with adaptation needs.

Although many local and regional authorities are beginning to establish monitoring, evaluation and learning (MEL) systems, the extent and quality of these practices is widely unknown. Progress monitoring is increasingly common; however, formal evaluations and the timely updates of plans lag, creating a risk that adaptation efforts may become outdated or misaligned with local needs.

The following thematic focus areas examine the reported information in more detail, following each stage of the adaptation policy cycle, highlighting the varying priorities, progress and gaps identified in the 2024 reporting by Mission Signatories.

Climate adaptation governance within the EU Mission on Adaptation to Climate Change Signatories

- **Eighty-three percent (49 out of 59) of the local and regional authorities** that reported under the EU Mission on Adaptation to Climate Change in 2024 **have already adopted climate adaptation strategies**, either as part of an integrated climate plan or as dedicated standalone documents. Others are in the process of developing such plans, signalling steady progress in embedding adaptation into local and regional governance.

- **Institutional structures to oversee climate adaptation are in place in about two thirds of the Mission Signatories that reported in 2024.** This indicates that a significant number of authorities have laid the groundwork for structured adaptation efforts, while others may benefit from support in establishing similar mechanisms.

Climate risk and vulnerability assessment progress

- **Sixty seven percent of the reported assessments have been completed in the last five years** – this points to a notable increase in the number of climate risk assessments conducted by the Signatories compared to the ones completed before 2019. These assessments reflect growing awareness of climate impacts and increasing uptake of climate-related interventions.

- **Common assessment priorities are emerging**: the protection of vulnerable populations, consideration of natural systems and the prioritisation of hazards based on local contexts.

Risk to action alignment

- **Extreme heat** is not only the most reported hazard, but it also stands out as the most urgent, given its high likelihood and significant potential impact. Extreme heat remains the top climate hazard addressed by adaptation goals as part of the adaptation planning process and actions.
- **Agriculture, water, and forestry show strong alignment across risk assessments, plans, and actions**, while **conservation dominates adaptation actions** and high-risk sectors like electricity and health are less consistently addressed in actions.
- Climate action is approached holistically. **Forty-five percent of the reported climate plans integrate all three pillars**: mitigation, adaptation and energy.
- **Vertical engagement is uneven:** higher-level authorities are more involved in **assessments and goal-setting** than in planning, and lower levels are largely excluded. In contrast, **horizontal engagement is stronger,** with local governments, citizens, businesses, and academia actively participating in planning.
- **Approximately 75% of adaptation actions** reported by the Signatories are already embedded in formal plans. These actions span a wide range of areas, including **education**, **policy development** and **ecosystem-based approaches**.

Vulnerable populations: vulnerability versus engagement gap

- The assessments evaluate the risk climate threats pose to vulnerable groups. The **elderly** are identified as the most at-risk population group, underscoring the importance of tailored adaptation actions that account for demographic vulnerabilities. Children, low-income groups and outdoor workers are also highlighted as groups with high vulnerability.
- **There is a clear need for more inclusive and participatory approaches to climate planning, as the active involvement of different groups is often limited.** Marginalised groups and vulnerable communities remain underrepresented in planning processes, although they are increasingly recognised as priority groups in climate risk assessments.

Funding and financing

- **Adaptation actions are predominantly funded (85%) through the Signatories' own budgets (often in combination with other funding sources)**, reflecting a local commitment to prioritising climate resilience despite constrained resources. While Signatories are demonstrating a strong commitment to action, the heavy reliance on local resources reveals barriers to accessing external financing, which may limit the scale of adaptation responses.
- A critical funding gap emerges between planning and implementation phases, as 65% of climate plans receive national funding and 56% receive regional funding, but only 31% of the actions receive national support and 29% receive regional. This suggests that **strategy development is supported, but national and regional funds are less available for implementation**.
- EU programmes provide additional support but appear to be supplementary rather than primary sources, with most authorities categorising these sources as 'Other'.
- **Water management** and **nature-based-solution** initiatives are especially prominent among those currently seeking additional financing. This indicates both a recognition of their importance and a clear need for expanded investment in these areas.

1. Introduction

This report presents an assessment of the state of play on climate adaptation among local and regional authorities participating in the EU Mission on Adaptation to Climate Change. By analysing the data reported through the CDP platform in 2024, it provides evidence-based insights into the state of climate adaptation across Signatories, supporting the Mission's objectives. The analysis examines adaptation efforts across the entire adaptation cycle, from governance to monitoring and evaluation.

The EU Mission on Adaptation to Climate Change

The EU Mission on Adaptation to Climate Change focuses on supporting local and regional authorities in their efforts to build resilience to the impacts of climate change. Its objective is to accompany at least 150 European regions and communities on their path towards climate resilience by 2030. To date, 326 regional and local authorities are Signatories of the Mission Charter, thereby committing to strive towards the objectives of the Mission (European Commission, 2025).

As part of this effort, the European Commission has engaged the European Environment Agency (EEA) to support the Mission's work on monitoring of progress towards adaptation goals across Europe. The EEA has conducted an initial assessment of climate adaptation action among local and regional authorities participating in the Mission. Additionally, the EEA has also developed a dedicated Signatory reporting section on the EU Mission on Adaptation to Climate Change Portal, which will provide an annually updated, publicly accessible overview of the latest data reported by the Signatories. The section will feature information directly reported by the Signatories and reflect the evolving landscape of climate risks, responses and capacity needs at the subnational level.

To collect this information, supporting the assessment and the portal development, the EEA is working in partnership with the global non-profit CDP, which provides a structured online platform for local and regional governments to report on climate risks, planning and action. In 2024, 59 (45 local authorities and 14 regional authorities) of the Mission Signatories voluntarily submitted their data through this platform with the intention to capture and analyse adaptation efforts under the Mission. The next reporting round is scheduled for 2025, with the aim of reaching full participation over time. Reporting Signatories are from Portugal (16), Spain (9), France (5), Italy (4), Türkiye (4), Poland (3), Finland (3), Sweden (2), Estonia (2), Denmark (2), Austria (2), Lithuania (2), Netherlands (1), Croatia (1), Cyprus (1), Greece (1), Ireland (1).

Report structure and approach

https://climate-adapt.eea.europa.eu/en/mission/
This assessment offers an initial picture of how Signatories are organising their adaptation efforts, covering governance arrangements, climate risk assessments, planning frameworks, targets, actions and mechanisms for MEL. It also highlights strengths and gaps across these domains, providing a basis for future improvements in reporting, policy development and support.

Importantly, this analysis builds on and complements data from other voluntary reporting initiatives, such as the Covenant of Mayors' MyCovenant platform, the CDP's broader city-level disclosures and a previous survey completed by the Directorate-General for Climate Action (EC, DG CLIMA, 2023). The Covenant of Mayors: 2023 assessment was taken into consideration while preparing the findings, to identify points of convergence. Together, these initiatives enrich our understanding of adaptation progress across Europe. Yet, as noted in recent

EEA assessments (ETC-CA, 2023, 2024), significant gaps remain in the visibility of subnational adaptation efforts, particularly in terms of regional planning and implementation at the local level. Addressing these gaps will require stronger data collection, more systematic information sharing and enhanced support and networking among communities.

Scope and methodology

As mentioned earlier, the report is based on data submitted by Mission Signatories through the CDP platform. While the platform refers to these entities as 'cities', we use the term 'local authorities' to reflect the broader scope of governance levels involved in climate adaptation at the subnational level.

The report focuses on the local and regional authorities that are Signatories of the EU Mission on Adaptation to Climate Change and that submitted responses to CDP in 2024, providing a detailed snapshot of climate adaptation progress among committed subnational authorities. All figures refer to the respondents only, not to the total number of Mission Signatories.

The dataset used for this analysis includes both quantitative and qualitative information reported by Mission Signatories in CDP's 2024 disclosure cycle, via their standardised questionnaire. The analysis examined responses across key adaptation themes: climate risk and vulnerability assessments, adaptation planning and climate action. Responses were reviewed for completeness, clarity and relevance to adaptation efforts. Only questions with a good coverage in responses were retained for analysis. Quantitative responses were aggregated and summarised, while qualitative responses were manually coded based on predefined thematic categories.

The reported data contains ample information on adaptation efforts in Europe, providing valuable insights among Mission Signatories, though a few methodological considerations should be noted. The sample covers the Mission Signatories that provided a response in the 2024 cycle, which signifies a non-representative sample. The geographic distribution of the respondents shows a strong representation of respondents from southern and northern Europe, which indicates an uneven distribution across Europe. With these sample characteristics, the study provides focused insights into current adaptation practices, rather than a complete picture of climate change adaptation in Europe.

For more information on the methodology, please see Annex A.

Regional Adaptation Support Tool

The EU Mission on Adaptation to Climate Change's Regional Adaptation Support Tool (RAST) is a guidance document that was developed to help local and regional authorities design and maintain climate change adaptation plans and strategies. The tool provides step-by-step guidance, structured into six steps. The first step refers to laying the groundwork for adaptation, after which it is recommended that the climate risks and vulnerabilities be assessed. Once a solid base is established and climate risks are identified, authorities can explore different adaptation options and move into a development phase, where adaptation strategies and plans are selected and implemented. The last step involves monitoring the progress, evaluating the outcomes and learning from the experience gained through the entire process. Together, these steps create a structured cycle that helps ensure adaptation actions are effective and sustained over time.

The data reported by Mission Signatories through the CDP platform is organised into five categories: governance, assessment, planning, targets and action. These categories closely align with the steps of the RAST, allowing this report to analyse how local and regional adaptation processes reflect the guidance provided by the tool. Governance fits with Step 1 of the RAST, assessment with Step 2, planning and targets covers Step 3 and 4, action covers Step 5. In addition, the analysis also considers monitoring, evaluation, and learning (MEL) which is Step 6 of the RAST as well as financial aspects which is to be considered in all steps of the RAST, offering further insight into how different phases of the adaptation cycle are connected and supported.

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2. Governance

This section examines institutional structures, coordination mechanisms and stakeholder engagement in climate adaptation governance at the local and regional levels. This is akin to the focus of Step 1 of the RAST, where authorities assemble and organise the essential components for a well-prepared start to the adaptation planning process such as securing political commitment and establishing a adaptation governance. It also analyses the policy landscape at the subnational level across Europe.

Climate adaptation policies across Mission Signatories

In recent years, the ambition for climate change adaptation has grown significantly across Europe, both at the national and subnational levels (EEA, 2024a). In line with global commitments under the United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement, the EU has introduced several reinforcing policies to enhance adaptation efforts. A key instrument is the European Climate Law, which establishes rules to ensure continuous progress towards the Paris Agreement's global adaptation goals. This law requires Member States to engage in a multilevel climate and energy dialogue, involving local authorities, civil society, businesses, investors and other key stakeholders.[1]

To implement these commitments, the EU strategy on adaptation to climate change provides guidance for developing national adaptation plans and strategies. It also encourages mainstreaming adaptation at the local level, fostering a more systemic and coordinated approach. Moreover, in the 2024–2029 mandate, the European Commission signalled a strong focus on climate adaptation, which is reflected in the European climate adaptation plan that is expected to be published in 2026, but also in other policy documents such as the Vision for Agriculture or in the Competitive Compass (Climate-ADAPT, 2025).

Local and regional authorities play a crucial role in designing and implementing adaptation policies aimed at reducing the exposure and vulnerability of populations, infrastructure and ecosystems to climate-related hazards. An analysis of the adaptation policy landscape in 2024 (ETC-CA, 2024), based on reporting from EEA members and cooperating countries and additional desk research, highlights a strong commitment to tackling climate risks and strengthening resilience. This is also evident in the data reported by Mission Signatories in 2024.

Among the local and regional authorities that reported in the 2024 cycle:

- eighty-three percent of the Signatories reported that they have developed either a standalone adaptation plan or an integrated climate plan addressing mitigation, adaptation and/or energy;
- of the remaining respondents, 10% are either in the process of developing a climate plan or intend to do so within the next two years;
- moreover, 35% have a standalone adaptation plan in place (21 authorities).

1 Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021, p. 1, ELI: http://data.europa.eu/eli/reg/2021/1119/oj)

The different planning approaches suggest that many authorities are going beyond general climate commitments by adopting more targeted and structured adaptation efforts, often using distinct strategies that reflect a focus on evidence-based planning. This embeddedness signals a good foundation for managing climate risks effectively over time.

These findings contrast sharply with the 2023 Joint Research Centre (JRC) analysis of the Covenant of Mayors data, in which 73.7% of action plans focused only on mitigation, while 25.9% addressed both mitigation and adaptation, and less than 0.5% focused solely on adaptation (European Commission, 2024). The difference suggests that Mission Signatories are, on average, further along in embedding adaptation into their planning frameworks. This may reflect both their explicit commitment to the EU Mission on Adaptation to Climate Change and a trajectory that prioritises resilience earlier than many other local and regional authorities across Europe. However, this divergence also underlines that the progress observed among Mission Signatories likely represents a more advanced subset of players and does not necessarily mirror the broader European reality.

Mechanisms like the EU Mission on Adaptation to Climate Change can support such processes. As more authorities commit to dedicated adaptation strategies or plans, there is an opportunity to reinforce this momentum through tailored support, capacity building and knowledge exchange. This will help ensure that plans are effectively implemented and deliver tangible results on the ground.

Adaptation policies across eleven EEA member and cooperating countries require subnational authorities to develop and implement adaptation plans tailored to local and regional needs (ETC-CA, 2024). Among the 59 local and regional authorities reporting under the EU Mission on Adaptation to Climate Change, such requirements are in place in seven countries: Denmark, Ireland, Greece, Croatia, the Netherlands, Portugal and Sweden. Of the 24 local and regional authorities from these countries, 19 have developed a climate action plan with adaptation considerations. This suggests that policy requirements can play a key role in encouraging subnational mainstreaming of adaptation. Similar requirements for mainstreaming adaptation into sectoral policies are in effect in 16 EEA member and cooperating countries, including nine countries represented among reporting Mission Signatories: Denmark, Germany, Ireland, Greece, Spain, France, Croatia, Portugal and Sweden (ETC-CA, 2024).

However, CDP data also shows that many local and regional authorities pursue adaptation planning even in the absence of legal mandates or having such requirements established in other adaptation policy documents, such as National Adaptation Strategies (NASs) and National Adaptation Plans (NAPs). Specifically, 30 out of the 59 Mission Signatories have reported developing either integrated or standalone adaptation policies without being legally required to do so. This points to a growing awareness and commitment to climate resilience at the local level, regardless of national legislative frameworks.

Strengthening vertical coordination

Ensuring effective adaptation requires coordination between different levels of government. A growing trend across Europe is the integration of vertical coordination mechanisms (with national and regional levels) within adaptation policies, in which national adaptation strategies provide overarching frameworks for guiding subnational adaptation planning (ETC-CA, 2024).

Among the local and regional authorities reporting under the Mission, about two thirds are from countries where official mechanisms or arrangements (e.g. policies, coordination bodies or procedures) exist to align national and local adaptation efforts (ETC-CA, 2024). Within this group, nearly all have a climate action plan or strategy in place at the local level, highlighting the importance of national guidance in driving local action.

Info Box 1.
Strengthening multilevel governance

Through Horizon Europe, the Mission will establish national adaptation hubs, which will be dedicated and flexible structures connecting national, regional and local stakeholders. These hubs will aim to align adaptation priorities, share knowledge and support the implementation of strategies across governance levels. The project will foster peer learning and exchanges among regions facing similar climate challenges, strengthening coordination and knowledge transfer.

Engagement and outreach

When it comes to multilevel outreach, about half of the local and regional authorities have established mechanisms that ensure climate-related issues are systematically communicated across different levels of government, supporting consistency in policy implementation.

Local and regional authorities engage a range of stakeholders in the planning, implementation and monitoring of their climate activities, including when developing climate risk assessments and formulating climate action plans or adaptation goals. However, analysing the extent of engagement is not within the scope of the CDP's disclosure cycle in 2024, and therefore it can refer to different engagement levels (e.g. solely consultation vs co-development of a climate plan).

Only two authorities reported not engaging with other levels of government on climate action, indicating that multilevel cooperation is widespread. In climate risk assessments, 89% of local and regional authorities collaborate with higher levels of government and 62% with lower levels. Collaboration is similarly high in the development, implementation, and monitoring of climate action plans, with 90% working with higher levels and 45% with lower levels. For adaptation goals, 92% report cooperation with higher levels, compared with just 36% with lower levels. Overall, these results show strong vertical coordination with national and regional authorities, but weaker engagement with lower levels of government. Strengthening this downward collaboration could improve vertical integration, ensure better alignment of adaptation measures across governance levels, and enhance their responsiveness to local needs.

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Governance and oversight of adaptation efforts

Governance structures for adaptation vary, but all local and regional authorities reporting under the Mission have some form of oversight mechanism in place, which points to an important level of integration of climate responsibilities, particularly within management and local administrative bodies.

- Nearly half (48%) have climate-related responsibilities assigned to a committee or a subcommittee in the government; and
- 44% have climate-related responsibilities assigned to management-level positions in local and regional governments or equivalent bodies overseeing climate-related issues, informed by relevant departments, committees or subcommittees.

Many local and regional authorities also report clearly defined climate responsibilities within both administrative and political leadership structures. In fact, 48% of local authorities indicate that they have established institutional structures, such as relevant departments, committees or subcommittees, to support climate integration in planning and decision-making processes. Moreover, in nearly 70% of cases, climate-related issues are considered in local and regional planning strategies, even where no formal climate-specific roles have been assigned – highlighting a recognition of the importance of climate governance at the local and regional levels.

Example Box 1.
Andalusia

The Andalusian policy framework includes the Andalusian climate action plan, which sets out measures to address climate change and support the transition to a new energy model. The Interdepartmental Commission on Climate Change is a collegiate body of the regional administration that promotes coordination and collaboration among the different ministries in relation to climate change policies and actions. The Andalusian Climate Office is the regional administrative unit responsible for climate matters. The Andalusian Climate Council is the participatory body that, in addition to the regional administration, includes representatives from local authorities, civil society and economic and social stakeholders with interests related to climate. (CDP, 2025a)

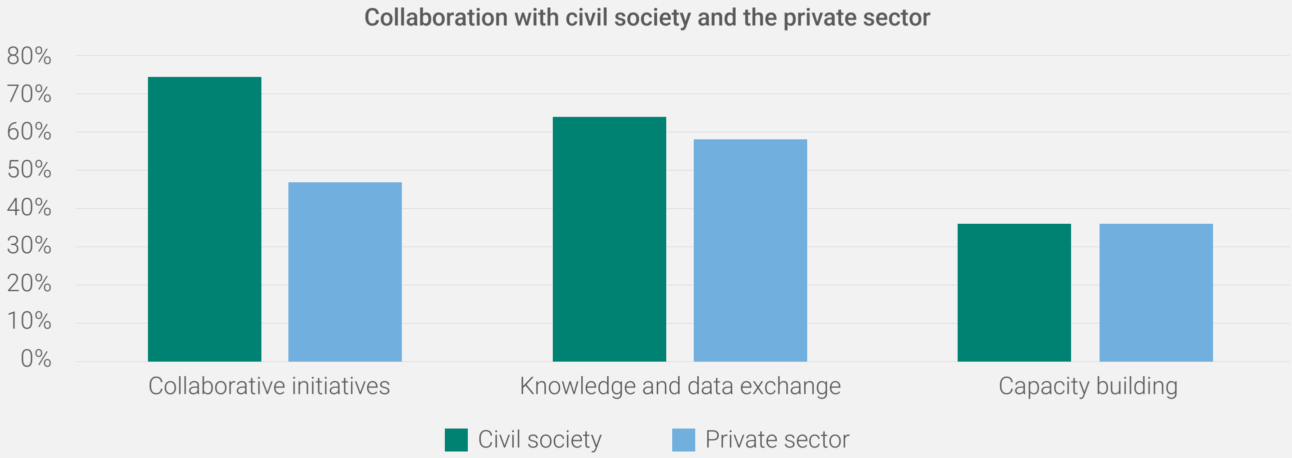
Mainstreaming of adaptation at the local level and coordination with other stakeholders

Adaptation to climate change is embedded in other local governance mechanisms across Mission Signatories. Over two thirds of local and regional authorities report that climate-related issues are integrated into master and development planning processes.

When it comes to coordination with non-governmental stakeholders, local and regional authorities commonly engage with academia, climate networks and initiatives, non-governmental organisations (NGOs), trade and labour unions, and the private sector.

Civil society[2] is primarily engaged through collaborative mechanisms to support the co-development or implementation of initiatives (74%), knowledge and data exchange (64%), and capacity building (36%), as shown in the figure below. By engaging civil society, particularly in co-developing initiatives and sharing data, local and regional authorities help shape inclusive and locally-grounded climate responses. With regard to the areas of collaboration involving civil society, resilience-building efforts are most prominent, with 69% of local and regional authorities reporting active engagement in this domain. Nevertheless, the relatively low direct participation of civil society in adaptation-specific initiatives (5%) highlights an untapped potential for stronger cooperation in this policy area. Note: The low proportion of civil society organisations reported as being involved in adaptation initiatives may be due to a misunderstanding of the survey question, with some respondents potentially assuming that adaptation activities are already included under the broader category of resilience.)

Figure 1 Civil society and private sector engagement in climate initiatives



The private sector is engaged in similar ways, contributing to the co-development of initiatives (47%), knowledge and data exchange (58%) and capacity building (36%). The private sector mirrors civil society in its role, especially in knowledge exchange and capacity building, but its engagement could also be broadened to support more direct implementation and financing of adaptation actions. Resilience-building initiatives are also regarded as highly significant areas of collaboration with the private sector. However, unlike civil society, which places primary emphasis on resilience, the private sector tends to prioritise mitigation initiatives, such as emissions reduction, energy, and transport, with resilience following closely behind. Adaptation, by contrast, is ranked very low (6%) by the private sector, mirroring the low level of prioritisation seen among civil society.

Overall, this points to a culture of shared responsibility and knowledge exchange, which is vital for building robust and context-specific climate resilience.

2 See Glossary in the Appendix for an explanation of the term.

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3. Climate risk and vulnerability assessments

Effective responses to climate change hinge on a thorough understanding of climate impacts and the related risks. Climate risk and vulnerability assessments (CRVAs) are fundamental in evaluating the potential risk of climatic events. They enable communities to identify their specific climate hazards and understand the risks they face. Evidence-based plans, policies and the implementation thereof rely on CRVAs informing the process, making CRVAs core components of the policy cycle (UNEP, 2024).

This section analyses reported data to establish a baseline understanding of current risk assessment practices, creating a foundation for measuring future progress. This aligns with Step 2 of the RAST, where local and regional authorities systematically evaluate the climate risks facing their territories. This step includes defining the assessment process, identifying and analysing key risks and setting adaptation objectives to address those risks.

Often, the adaptation strategies take the outcomes of the CRAs, which are gradually becoming a legal requirement in many European countries (ETC-CA, 2024), as their point of departure. For example, a 2024 ETC-CA report finds that '21 countries have completed structured assessments of climate impacts, vulnerabilities and risks' and that '14 countries have a legal obligation in place to perform climate risk assessments (CRAs) at the national and/or subnational level' (ETC-CA, 2024). The increasing legal mandates for CRAs demonstrate the growing institutional support for this critical step in adaptation. We first examine the prevalence of CRVAs across Mission Signatories, as reported via the CDP platform. As specified in the RAST, after laying the groundwork of the adaptation planning process (building a robust evidence base to inform policymaking and guide adaptation planning, securing political support), CRVAs constitute the next essential step (Mission Portal, 2024).

The reported practices of the Mission Signatories reflect a growing recognition of the importance of a CRVA: a total of 50 local and regional authorities (83% of the 2024 respondents) have completed climate risk and vulnerability assessments, demonstrating their commitment to evidence-based adaptation planning. It is noteworthy that this includes 16 authorities from Portugal and 7 from Spain, a high regional concentration that may create a geographically imbalanced picture. Nine local and regional authorities that have not yet conducted a CRVA have the ambition of completing one within the next one to two years (see more details on geographic distribution and data bias in the methodology section). This momentum at the subnational level is mirrored at the national scale, where more than half of the EEA member and cooperating countries have strengthened anticipatory adaptation planning by completing structured assessments of climate impacts, vulnerabilities and risks that are considered as national climate risk assessments (ETC-CA, 2024). The majority of the reported assessments have been completed in recent years, which points to accelerated activity in risk assessments across the Mission Signatories. Among local authorities, 58% of the assessments were carried out after 2019, while regions show an even higher uptake, with 83% of the assessments having been completed in the same time frame. Overall, 67% of the assessments have been carried out in the last five years, which represents a significant increase in climate risk assessments since 2019 (13 assessments were published or approved by the authorities that reported in 2024).

The prevalence of recent assessments among reporting Signatories points not only to a collective recognition of climate urgency, but it also suggests that local Mission authorities and regions are responding to the rising climate impacts, while acknowledging the importance of risk assessments as a foundation for evidence-based planning. The timing corresponds to key developments at the EU level, including for instance the European Climate Law[3], 'which mandates Member States to adopt, implement and regularly update national adaptation strategies and plans based on robust impact, vulnerability and risk assessments' (ETC-CA, 2024). This may reflect the influence of national adaptation frameworks, which trickle down and establish requirements for the completion of CRVAs at the local level.

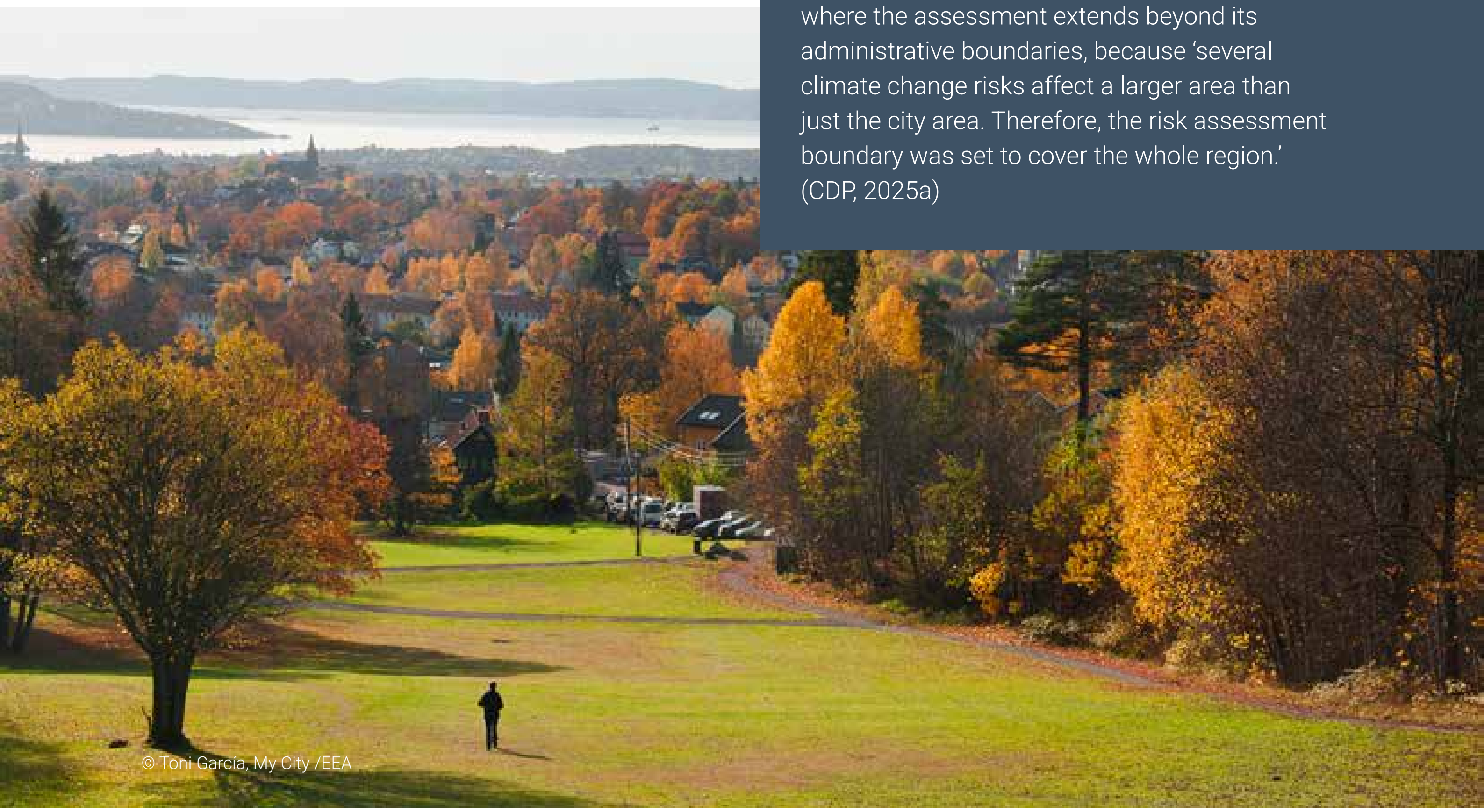
The geographic scope of the assessments shows variations between local and regional approaches. For the local authorities, the vast majority (94%) of the reported assessments overlap precisely with the administrative boundaries of their jurisdiction. This points to a focus on the areas where the administrations have governance authority or implementation capacity.

Info Box 2. **Supporting regional climate risk assessments**

The CLIMAAX handbook offers practical guidance to help regions carry out inclusive and harmonised climate risk assessments. Developed under a Horizon Europe project, it supports the EU Mission on Adaptation to Climate Change by translating its objectives into actionable strategies. The handbook outlines five iterative steps grounded in governance, equity and participation, enabling regions to strengthen resilience through informed and transformative adaptation planning.

Example Box 2. **City of Turku**

The city of Turku is one of the few examples where the assessment extends beyond its administrative boundaries, because 'several climate change risks affect a larger area than just the city area. Therefore, the risk assessment boundary was set to cover the whole region.' (CDP, 2025a)



3 Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021, p. 1, ELI: http://data.europa.eu/eli/reg/2021/1119/oj)

Regional authorities, however, tend to have a different approach, with over half of the regional assessments focusing on areas smaller than the jurisdictional boundary. This reflects a more targeted approach that may focus on specific districts, on areas within the jurisdiction's territory or on densely populated areas. This may be a practical approach that prioritises resources, likely where larger and more diverse territories are being managed. The assessments may prioritise certain areas for feasibility purposes or areas facing higher climatic risks. The remainder of the regional assessments, similar to local authorities, cover exactly the jurisdiction's boundaries. The scope of some regional assessments, however, extends beyond jurisdictional boundaries, indicating a focus on transboundary risks.

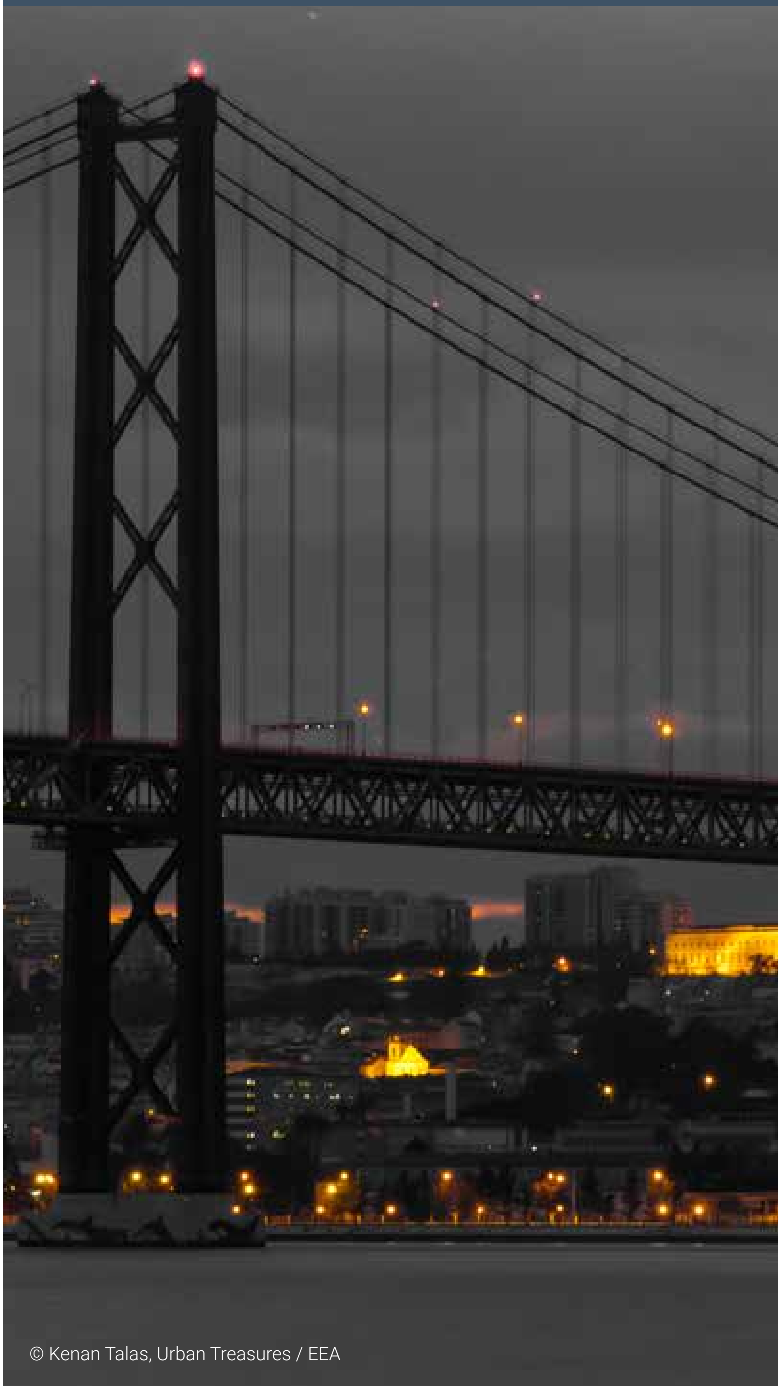
Some insights emerge from the factors most incorporated by the local authorities and regions in their assessments. Factors refer to 'the applicable aspects addressed during the process of carrying out the risk or vulnerability assessment' (CDP, 2025b). The assessments go beyond the climate risk and vulnerability assessments to include other types of documents such as guidelines or tools. The analysis shows that a total of 579 factors were selected across 121 assessments or tools by the 50 authorities that confirmed having completed CRVAs. Among the different types of factors (10 types of factors that Signatories indicated they included in their assessments, excluding 'None' and 'Other'), the most commonly incorporated factors include:

- vulnerable populations, considered in 83 out of 121 of the assessments, reflecting an increasing focus on understanding the uneven impacts experienced by communities with different socioeconomic profiles;
- processes for prioritising identified hazards, which appear in 82 assessments (while this factor represents a methodological approach, as opposed to other factors that are in focus, it indicates that organisations are taking steps to address the most critical hazards, acknowledging the need for systematic approaches to ranking hazards);
- natural systems considerations, present in 73 assessments;
- water security, included in 62 assessments.

However, a few factors are rarely included in the Signatories' assessment practices. Transition risks and methodological factors, such as consultation with partners and processes for updating the assessments, receive notably less attention (30 to 40 inclusions each). This may indicate an oversight of the risks associated with the transition to a low-carbon economy, but on the other hand it highlights opportunities for stakeholder engagement and for ensuring the relevance and timeliness of the CRVAs.

Example Box 3.
Lisbon Metropolitan Area

The Lisbon Metropolitan Area recognises the need for regional collaboration, indicating that the area functions as an association 'with a territorial scope that draws up public investment plans, plans and manages economic, social and environmental development strategies for the region, in conjunction with its 18 municipalities' (CDP, 2025a).

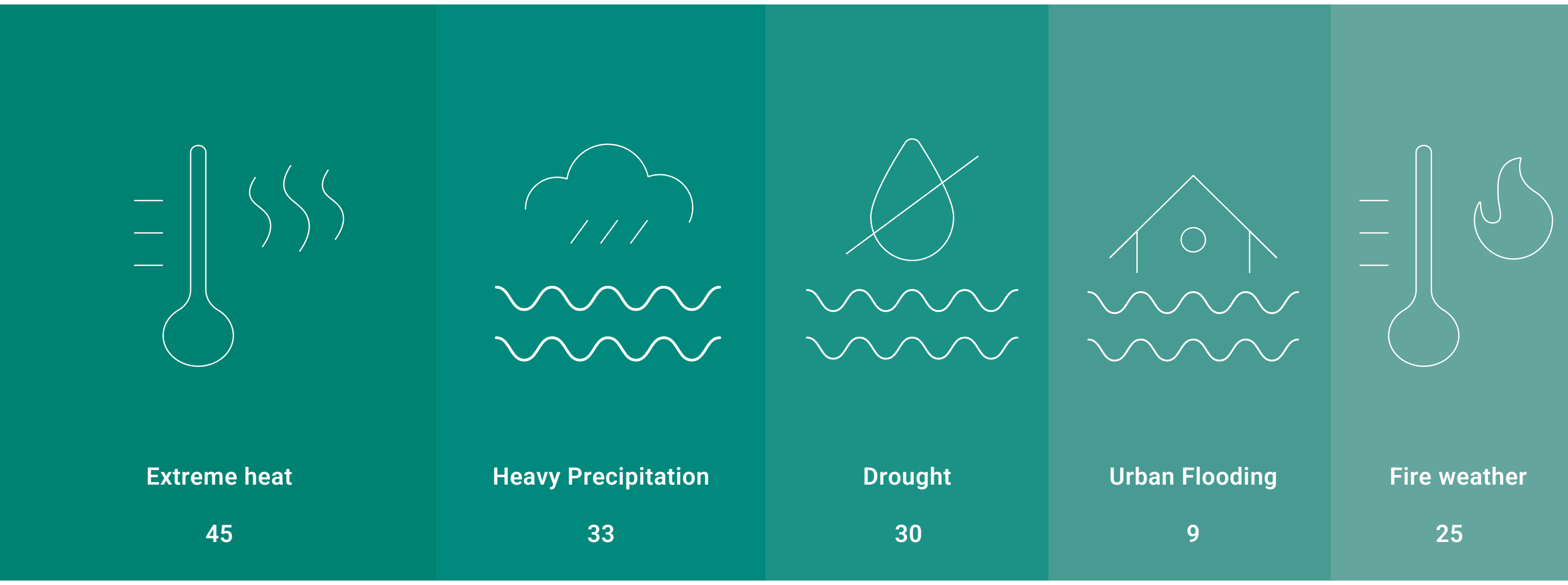


Most significant climate hazards

Five climate threats were reported by the Signatories as the most significant hazards: extreme heat, heavy precipitation, drought, urban flooding and fire weather. While the results point to diverse climatic challenges across Europe, the prevalence of heat- and water-related hazards stands out, which highlights the changing precipitation and temperature patterns. These findings are consistent with the scientific analysis showing that Europe is the fastest warming continent, where extreme heat is becoming increasingly common and precipitation patterns are changing, with downpours and precipitation extremes increasing in severity (EEA, 2024b). The urban adaptation report further confirms these findings, indicating that temperature and precipitation variability are the most frequently identified climate hazards in local climate action plans across Europe (EEA, 2024a).

Extreme heat stands out as the most frequently identified hazard, selected by 45 local and regional authorities. The remaining top hazards show a more balanced distribution in terms of selection frequency, with heavy precipitation being selected 33 times, drought 30 times, urban flooding 29 times and fire weather 25 times.

Figure 2 Top hazards reported



The assessment of each hazard's impact magnitude and probability (Figures 3 and 4 below) by Signatories is consistent with the ranking of the most significant hazards. Extreme heat appears as the most severe threat, with 12 local and regional authorities rating it high in magnitude and 14 authorities rating it high in probability. The combination of high magnitude and high probability for extreme heat demonstrates the severity of this climate hazard across Signatories. Other hazards also show major concern but have a more varied exposure profile compared to extreme heat. The magnitude of heavy precipitation, for instance, is ranked high and medium-high by a total of 16 authorities but ranks lower than other hazards in terms of magnitude (ranking based on the number of authorities assessing each hazard at different magnitude levels from high to low). Similarly, the other hazards show more variability across the magnitude and probability levels, but there are still a high number of selections in the medium-to-high range, along with others scoring highest among all the other hazards. This may reflect the distinct geographic and contextual conditions of each local and regional authority. Assessments of the current risks lay the groundwork for decision-makers, providing them with the essential information to enable evidence-based and effective adaptation strategies that address the immediate climate threats.

Figure 3 Rating of the top five hazards by magnitude level, showing how many authorities rated from high (red) to low (green)

Magnitude	High	Medium High	Medium	Medium Low	Low
Extreme heat	13	15	8	3	3
Fire weather (risk of wildfires)	9	4	5		4
Drought	7	4	9	2	2
Heavy precipitation	7	8	13	3	1
Urban flooding	6	5	8	5	2

Figure 4 Rating of the top five hazards by probability level, showing how many authorities rated from high (red) to low (green)

Probability	High	Medium High	Medium	Medium Low	Low
Extreme heat	14	8	11	3	2
Heavy precipitation	8	8	9	3	1
Urban flooding	8	3	7	2	4
Drought	7	3	7	2	2
Fire weather (risk of wildfires)	7	4	4	2	4

The future outlook for the most critical impacts portrays a concerning picture, with expected intensification across both intensity and frequency. The analysis shows that the most significant risks local authorities and regions are facing are also the ones expected to intensify and become more frequent. Between 80% and 95% of the Signatories indicated that these hazards are expected to become exacerbated in the future. This outlook for future conditions calls for urgent action and proactive adaptation.

Extreme heat again stands out, as 36 authorities anticipate it to increase in intensity, and 34 expect an increase in frequency in the future. This emphasises that extreme heat is a primary concern across European regional and local authorities. Heavy precipitation follows closely as the second-most concerning, with 24 organisations expecting increased frequency and 25 anticipating greater intensity. Drought, fire weather and urban flooding also show an expected worsening of conditions, though with a somewhat lower number of selections.

The same ranking can be seen in other larger assessments by European authorities, such as the Covenant of Mayors' assessment of climate action (European Commission, 2024). Extreme heat was the most reported hazard, followed by heavy precipitation, drought and flooding. These findings, which are situated at the local level, align closely with the European Climate Risk Assessment (EUCRA). The systemic assessment finds that 'extreme heat, once relatively rare, is becoming more frequent' and that 'downpours and other precipitation extremes are increasing in severity' (11, EEA, 2024b).

Furthermore, EUCRA notes that climate hazards are already reaching critical levels and may reach catastrophic levels by the end of this century if systemic action is lacking. These changes are also noted by the Signatories in their reported data, as the majority of the Signatories expect these changes to occur within a medium-term time frame of 2026–2050, with 67% of authorities selecting this period as the most likely window for significant changes. This time frame calls for long-term planning that also takes into account evolving/changing conditions.

Figure 5 Rating of the top five hazards by future change in frequency, showing how many authorities rated the frequency to be increasing or decreasing

Expected future change in intensity	Increading	Decreasing	None	Do not know
Extreme heat	34	2	1	
Heavy precipitation	24	4		
Drought	21			
Fire weather (risk of wildfires)	18	1		2
Urban flooding	18	2	1	2

Figure 6 Rating of the top five hazards by future change in intensity, showing how many authorities rated the intensity to be increasing or decreasing

Expected future change in intensity	Increading	Decreasing	None	Do not know
Extreme heat	36	1		1
Heavy precipitation	25	3		1
Drought	20			1
Urban flooding	20	2		1
Fire weather (risk of wildfires)	19	1		1

The assessment of population exposure indicates the widespread nature of climate risks across the EU. Predominantly, the reporting local and regional authorities indicate that 91–100% of their population is exposed to the most significant climate hazards being faced. Extreme heat demonstrates the most extensive population exposure: the highest number of reporting authorities (12) report that 91–100% of their population is exposed to this risk (highest number of selections across all exposure ranges). Heavy precipitation follows closely, with eight Signatories reporting that 91–100% of their populations are exposed to this risk. This reinforces the significance of their most critical threats. The consistency between climate impact severity and the largest population shares that may be affected helps decision-makers understand the potential scale of hazard impacts in more granular detail.

It is notable that data gaps persist in terms of authorities' assessment capacity. Despite the critical importance of hazard-related information, authorities indicated 113 times (out of 321 population exposure assessments, across all hazards, by all reporting authorities) that data on population exposure is not available to them – approximately 35% of all responses. Additionally, authorities also report a lack of information on future tendencies in hazard frequency and intensity, though this represents a smaller number of responses. These responses reveal critical knowledge gaps and possibly a lack of technical capacity or resources to allocate to these efforts. These limitations impact the ability to address climate risks appropriately, as the assessments are the foundation for evidence-based climate action. Broader national-level analyses, such as the *Adaptation Gap Report* (UNEP, 2024), reflect the same constraints, highlighting that the absence of information about potential impacts represents a significant gap in the evidence base that affects decision-making and may lead to maladaptation.

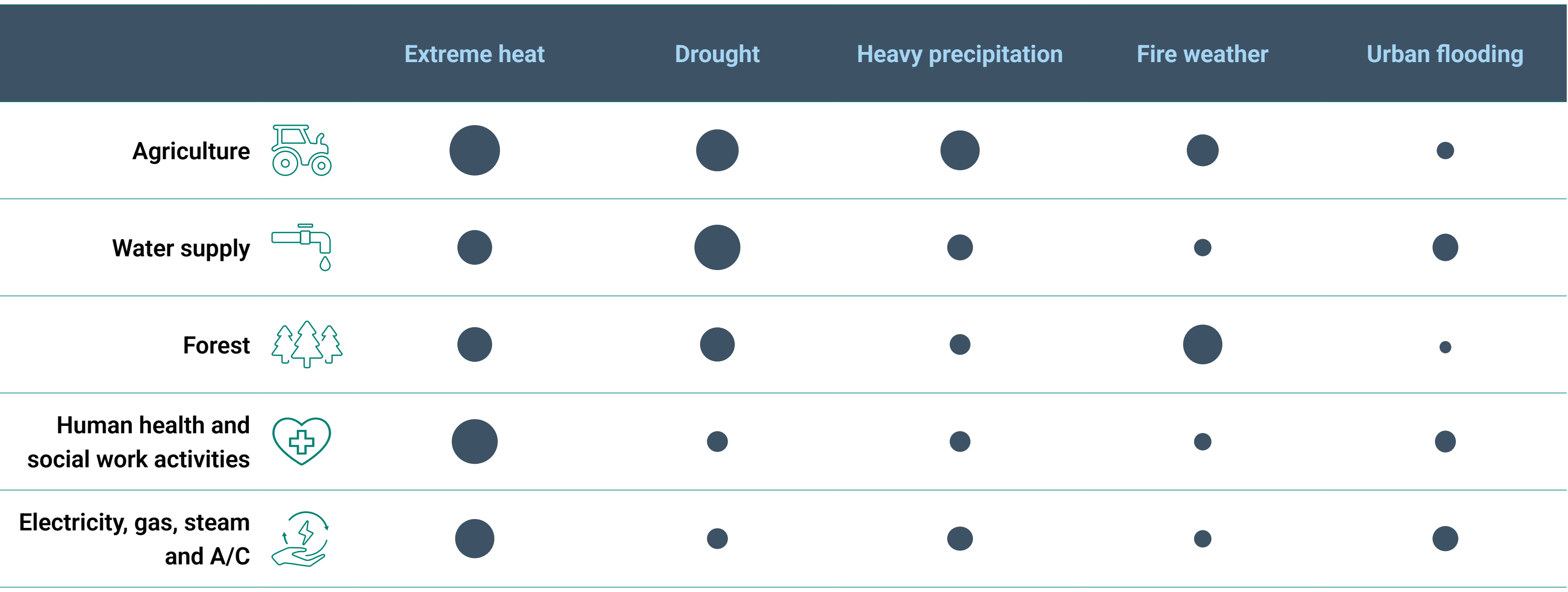
The sectors most exposed to climate hazards

The analysis of the most exposed sectors provides insights across the five primary climate threats faced by the Mission Signatories, showcasing the sectors that authorities view as the most vulnerable. Agriculture stands out as particularly vulnerable. This sector was consistently identified as highly exposed, by the largest number of authorities, to four of the five primary hazards: extreme heat (29 selections), drought (25), heavy precipitation (20) and fire weather (16). The extensive exposure highlights the dependence of this sector on climatic conditions and reflects the critical importance of addressing it to protect food systems. This finding aligns with the analysis of the Covenant of Mayors data (European Commission, 2024), where 'Food & Agriculture' emerges as the most reported sector (14%), followed closely by 'Environment, Biodiversity, Forestry' (12%) (European Commission, 2024).

Water supply systems follow as the sector with the second-most widespread exposure. According to Signatories's assessments, this sector has a particularly high vulnerability to drought (27 selections) and extreme heat (21).Forestry ranks third, being evaluated as predominantly exposed to fire weather, extreme heat and drought, followed closely by heavy precipitation. Authorities' assessments reflect the compound risks for the water supply infrastructure, where adaptation needs to look at water availability and quality.

Authorities identify significant exposure in the human health and electricity and gas sectors as well. While the risks appear to be more evenly distributed across the primary hazards, authorities predominantly selected extreme heat as the most widespread hazard to which human health is exposed. Overall, the analysis indicates impacts on multiple sectors, pointing to the interconnected nature of impacts and how interventions must account for cascading effects rather than addressing specific sectors in isolation. The identified vulnerable sectors are generally reflected in subsequent planning, according to the 2024 data. The sectoral vulnerabilities observed among Signatories reflect the findings from the Covenant of Mayors' data analysis, where sectors such as 'Public Health' (11%), 'Civil protection & Emergency' (11%) and 'Buildings, Commercial, Residential' (10%) are consistently identified among the most vulnerable sectors (European Commission, 2024).

Figure 7 Sectoral exposure to the five most significant climate hazards



The dot size represents the frequency with which authorities identified the respective sector as vulnerable to specific hazards; larger dots indicate a higher number of authorities identifying the sector as exposed.

Vulnerable populations

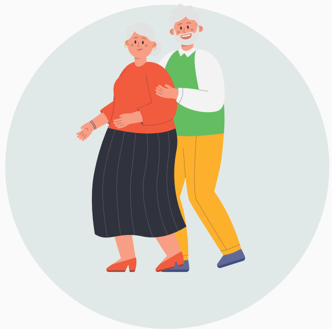
The analysis of the most vulnerable groups ([4]) facing climate hazards reveals a variety of groups that need to be addressed through tailored adaptation approaches to effectively protect them from climate impacts.

- The elderly consistently emerge as the most reported (18% of all responses) vulnerable group across all hazards, demonstrating the need to focus on them as a priority group for adaptation planning among Mission Signatories that have reported in 2024. The finding aligns with the broad European analysis of fairness, showing that older people are recognised in 32% of local adaptation plans as disproportionately impacted by climate change (EEA, 2025). The elderly may be more vulnerable than others due to age-related illnesses and mobility limitations but also because of social isolation and lack of access to up-to-date or timely information.
- Children and youth represent the second-most reported (14%) vulnerable group, facing risks from extreme heat, drought and fire weather events, which is also consistent with the recent social fairness analysis (EEA, 2025). Their vulnerability stems from their developing bodies and dependence on adults' protection. Low-income households (12.5%) demonstrate specific vulnerability to heavy precipitation, drought and urban flooding – often due to their housing location and quality, and limited resources for recovery.
- Those with pre-existing health conditions and outdoor workers also require special consideration, due to their exposure to climatic and meteorological conditions.

This human-centred view of climate vulnerability reminds us that effective adaptation must prioritise protection of these groups through targeted interventions, early warning systems and equitable resource allocation. However, the analysis shows that vulnerable groups are not equally represented in all adaptation phases. The different vulnerabilities also call for planning approaches that consider how multiple vulnerability characteristics may have a compounding effect on adaptive capacity (EEA, 2025).

4 Vulnerable groups: '[this] includes individuals or groups of people who are less able than the general population to anticipate, cope with, resist and recover from the impacts of disasters. Vulnerable populations may be described by race or ethnicity, culture, socioeconomic status, geography, gender, disability, and age, or other characteristic, and may be disproportionally likely to be affected by climate hazards.' (CDP, 2025b)

Figure 8 The five vulnerable groups most frequently identified by authorities.



Eldery

Children and youth

Low-income households

Vulnerable health groups

Outdoor workers

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4. Planning and targets

This section explores how local and regional authorities are progressing in developing adaptation plans, strategies or targets and in integrating adaptation into broader planning processes. This corresponds well with Step 3 and 4 of the RAST, where adaptation options are identified and assessed. It also looks at how adaptation goals are supported by funding, stakeholder engagement and multilevel governance.

As outlined in the governance section, the majority of local and regional authorities that reported under the EU Mission on Adaptation to Climate Change through CDP in 2024 have either already developed a climate plan or are in the process of doing so. These plans include both standalone adaptation plans and integrated climate plans that address adaptation alongside mitigation and/or energy. In some cases, local and regional authorities have developed both a standalone adaptation plan and an integrated plan that also includes adaptation components.

In total, Signatories have reported 78 climate plans, encompassing both standalone and integrated approaches (NB: some local authorities reported multiple entries of either plan type; see the methodology section for clarification). There is a tendency towards integration: 68% of the reported plans combine adaptation with other policy areas such as mitigation and/or energy. The most common type, found in 45% of plans, integrates all three pillars: mitigation, adaptation and energy, indicating a preference for comprehensive, cross-sectoral climate planning among reporting authorities.

Sectors covered by climate adaptation plans

The water sector is the most addressed area in climate adaptation plans, reflecting widespread concerns over drought, flooding and the resilience of water systems. Specifically, water supply is prioritised in 56% of plans, while wastewater management features in 53%.

> Info Box 3.
> **Supporting local and regional adaptation planning**
>
> The Mission, through its Implementation Platform (MIP4Adapt), helps European regions and local authorities plan and implement climate adaptation. It provides technical support to develop adaptation plans based on risk assessments, access funding opportunities and engage citizens and stakeholders. MIP4Adapt also runs a Community of Practice and shares tools and guidance via the Mission Portal on Climate-ADAPT.

Agriculture is also well represented, with 48% of plans addressing this sector, likely due to its high vulnerability to climate risks such as heatwaves, prolonged droughts and crop failure. Other key sectors include human health (45%) and waste management (44%), both of which demonstrate increasing awareness of the broader impacts of climate change on public health and critical infrastructure. Close behind are energy supply, construction and transport, underscoring the cross-sectoral nature of climate risk.

When it comes to setting up adaptation goals, out of 59 Signatories, 48 have already established adaptation goals, while an additional 9 are planning to introduce such goals within the next two years, indicating strong and expanding commitment to local and regional adaptation. The goals refer to a wide range of climate ambitions, ranging from green infrastructure and biodiversity to implementation targets and governance. There is a notable upward trend in adaptation planning, with many goals being set in recent years, particularly after 2020, reflecting growing momentum and awareness of climate risks at the subnational level.

Adaptation goals

An analysis of the dates when adaptation goals were adopted shows that the most frequent years were 2021 (23%), 2024 (13.5%) and 2017 (11.35%). Looking forward, 2030 has emerged as the most common target year, used in 70% of adaptation goals set since 2017. This widespread use of 2030 aligns with the primary goal of the EU Mission on Adaptation to Climate Change (Mission Portal, 2025), which is to support the Signatories in becoming climate resilient by 2030, but also the broader EU and international policy frameworks, including the EU Climate Law, the sustainable development goals and the UNFCCC nationally determined contributions cycle. This alignment supports greater policy coherence and integration across governance levels. Furthermore, the 2030 time horizon could also be explained by the Signatories' involvement in the EU Covenant of Mayors, an initiative that translates and brings the EU policy framework closer to local authorities.

In terms of climate hazards, the top three most frequently addressed through adaptation goals are extreme heat, urban flooding and heavy precipitation. These priorities are consistent with the hazards highlighted earlier in local and regional climate risk assessments, underscoring the need for targeted, hazard-specific adaptation actions.

Stakeholder engagement

Stakeholder engagement in climate planning and implementation is strongest at the local and regional levels, as opposed to the national level. A large majority of plans involve local governments (78%) and citizens (72%), reflecting a clear focus on community-level buy-in and municipal cooperation. In addition, the business sector (69%) and academia (65%) are also highly engaged, underscoring the importance of knowledge sharing, innovation and public–private collaboration in advancing local adaptation efforts.

The findings show a clear imbalance between vertical and horizontal engagement in climate planning and action. As noted in the governance section, while collaboration with higher levels of government is strong in risk assessments, adaptation goals, and the implementation of climate action plans, it is much weaker in the planning stage, where only 60% of authorities involve regional bodies and just 42% involve national governments. This indicates that higher-level authorities are more often engaged in reviewing and supporting the implementation of measures, rather than shaping plans from the outset.

By contrast, horizontal collaboration in planning is notably strong. Local governments, citizens, businesses, and academia are actively engaged, suggesting that adaptation planning is more embedded in local networks and benefits from diverse input.

Taken together, these results suggest that adaptation planning is well connected at the local level but less integrated across governance tiers. To strengthen multilevel governance, greater involvement of regional and national authorities in the planning stage will be critical. This would help ensure coherence between national strategies and local priorities, reduce implementation gaps, and enhance the effectiveness of adaptation measures.

Equity and inclusion remain areas for improvement. While NGOs (52%) and vulnerable groups (45%) are moderately involved, there is room to strengthen participation from civil society stakeholders and ensure more equitable representation in climate processes. Trade unions (13%) and indigenous peoples (2%) are particularly underrepresented. With vulnerable groups being the most considered factor in climate assessments and the elderly consistently identified as most at risk, the limited engagement of vulnerable groups points to a noticeable gap and a need to better integrate marginalised communities and labour unions into climate planning and decision-making. Similar findings are highlighted in EEA's report on social fairness (EEA, 2025), which shows that only 4% of adaptation plans assessed involve vulnerable groups in the planning process. In addition, just 3% of plans include one or more adaptation goals with a justice component.

To address these gaps, there are two key opportunities for action.

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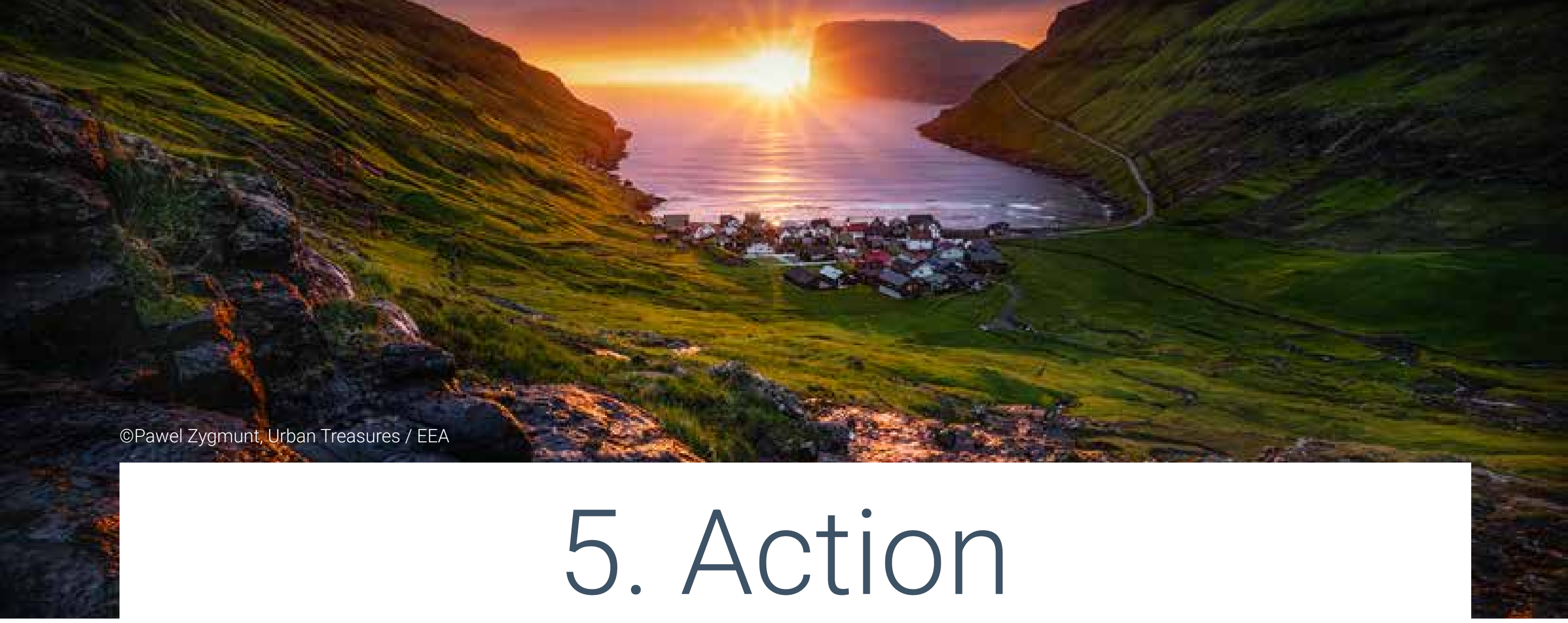
Info Box 4.
Supporting inclusive participation

MIP4Adapt has developed a practical manual to help regional and local authorities strengthen stakeholder engagement throughout the adaptation planning process. The guide offers step-by-step advice, participatory tools and real-life examples to support inclusive, locally anchored climate action. It is designed for both experienced authorities and those new to citizen engagement, helping build shared ownership of adaptation plans.

- Strengthen inclusive engagement, particularly with vulnerable groups and trade unions, to ensure more representative and socially just climate strategies.
- Enhance multilevel governance coordination, by more consistently involving national and regional authorities in planning, implementation and monitoring processes.

These findings demonstrate how local and regional authorities are translating climate risk assessments into concrete adaptation objectives, actions and plans, in line with the approach outlined in Steps 3 and 4 of the RAST. Step 3 encourages the identification and selection of adaptation options that are aligned with local climate risks and priorities, while Step 4 guides the development of assessment criteria and the prioritisation of actions within a coherent adaptation plan. The emerging developments among Mission Signatories, such as setting adaptation goals and targets, identifying funding sources and weighing adaptation actions against multiple risks, show growing alignment with this structured and iterative process.



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5. Action

Adaptation actions represent a critical bridge between planning and implementation. The Signatories across Europe reported a wide range of adaptation actions, providing valuable insights into how strategic commitments are being operationalised. This section explores the characteristics, nature, focus and financing of these actions and how they contribute to resilience on the ground. The data reported under the Mission's section on Action closely aligns with the processes described in Step 5 of the RAST, showing how local and regional authorities move from planning to delivery. Step 5 examines how commitments are put into practice, focusing on the processes, resources, and governance arrangements that enable implementation. It highlights how planned measures are translated into tangible outcomes, and how embedding adaptation across policies and institutions helps ensure lasting resilience on the ground.

Adaptation action overview

A total of 592 adaptation actions were reported by 53 of 59 of the Signatories, with local authorities accounting for the majority and regions contributing around one fifth. On average, each Signatory reported approximately 10 actions. But there is a large variation, as some only reported one and others over forty; however, the number of actions by a Signatory is not necessarily related to its level of ambition.

In terms of timelines for which they expect to experience increased resilience, the majority of adaptation actions are planned for the medium term (2026–2050), representing just over half of those with a defined time frame. Around one-fifth are intended for short-term implementation (by 2025), and a similar share target the long term (after 2050). A small number of actions have timelines that are either unknown or not possible to define. This distribution suggests a strong focus on sustained, forward-looking adaptation planning.

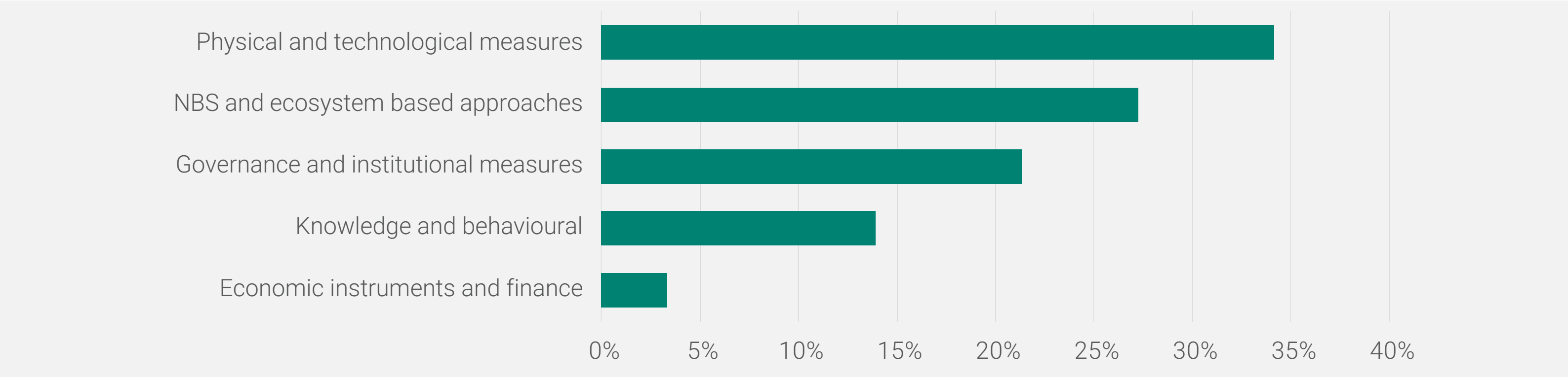
Notably, three quarters of actions are embedded within broader climate or development plans rather than existing in isolation, only underpinning the integrated approach presented in the governance section. This shows that these are not standalone efforts, but components of wider climate initiatives. Importantly, the Signatories with established climate strategies or adaptation frameworks are more likely to translate governance into action, suggesting that a strong governance structure is a key enabler for implementation. Policy alignment is also important, ensuring the efficient use of resources, preventing duplication and fostering greater community support as projects with a clear vision are more likely to be endorsed (Mission Portal, 2024; EEA, 2024a).

Among the actions with a reported implementation status, 27% are in the process of implementation, 35% are already operational, and 6% are completed. While these figures point to implementation, they also highlight that a proportion of actions remain in the early stages. The need for ongoing institutional, financial and technical support presents an opportunity to drive actions towards tangible implementation and impact.

Areas and types of action

The reported adaptation actions are diverse in typology and reflect the locally specific climate risks and capacities. Key type measures (KTMs) for adaptation to climate change were established to respond to the need for a standardised reporting format and to better support adaptation planning, monitoring and evaluation. EU Member States are now asked to report on these voluntarily under Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action (EEA, 2024a). Figure 9 provides an overview of the relative share of actions as reported by the Signatories, grouped under the five main KTMs.

Figure 9 Share of actions taken by main key type measures*



*Submissions with 'No data' have been excluded.

Physical and technological measures were reported the most frequently, covering 34% of actions, followed by nature-based solutions (27%) and governance (21%). Knowledge-based measures made up 14%, and economic measures were the least reported at 3%. There is near exact correlation with preferences towards measures presented in another EEA analysis, even though the latter covered only local authorities (EEA, 2024a). Actions can address more than one hazard or sector; they can also naturally overlap between the KTM categories. The interconnectedness is especially important, as their combination often maximises effectiveness. For this analysis, we categorised adaptation actions as the KTM they were mainly addressing, but a technological measure can of also be accompanied by nature-based solutions or governance measures.

By digging a little deeper, light can be shed on how Signatories are working across a variety of types of actions such as water management, where flood resilience is improved through rainwater retention and upgraded drainage systems, and stormwater management or nature-based solutions, where Signatories use nature-based solutions like green corridors, tree planting and ecosystem restoration to reduce heat, improve biodiversity and absorb stormwater.

Example Box 4.
Municipality of Strasbourg

Nature-based solutions: The Municipality of Strasbourg is implementing strategic tree planting and urban greening to counter heat islands and enhance ecological resilience in a project called *Plan Canopée*. The initiative aims to increase canopy cover across the city, improving comfort during heatwaves and supporting biodiversity. (CDP, 2025a).

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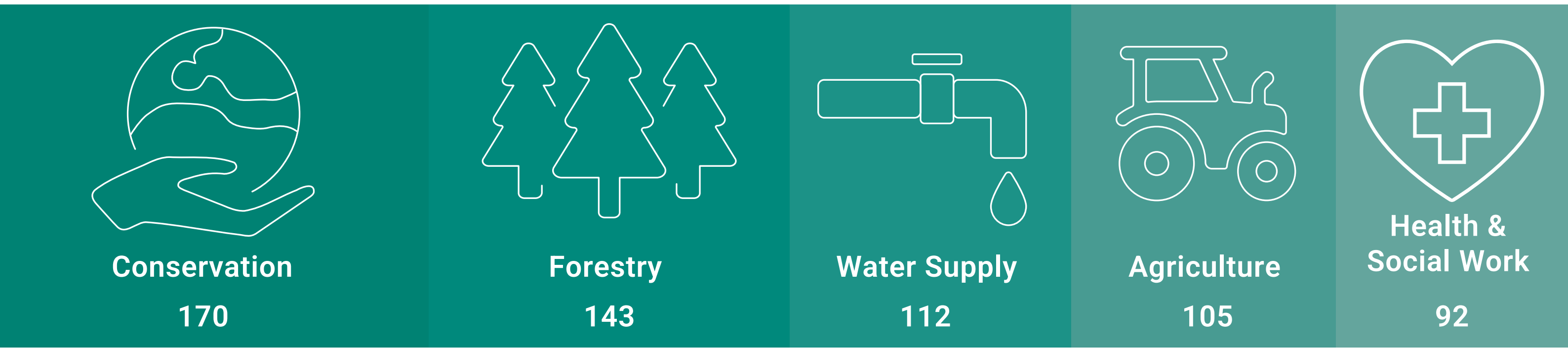
Overall, among the hazards reported by Signatories (1,731 hazards were selected across 592 actions by Signatories), one action addresses on average three hazards. Actions have been taken to address a range of hazards, with extreme heat (256), drought (171) and heavy precipitation (139) among the most frequently reported hazards addressed. Nearly half of all adaptation actions target extreme heat specifically. The emphasis on heat-and water-related hazards in the action phase efficiently mirrors the hazards prioritised in climate risk assessments and adaptation planning. Overall, we see that hazards are consistently prioritised across the adaptation cycle, from assessments and action.

In terms of where Signatories are acting, most adaptation actions focus on conservation or forestry as the key affected sectors, with water supply, agriculture, and human health and social work coming in closely behind as the top sectors for action.

Figure 10 Top five sectors addressed by adaptation actions (count)*



*Excluding responses with 'No data' or 'Other'

On average, an action addressed at least two sectors, with 1,342 reported vulnerable sectors across 592 actions. This is somewhat consistent with what was reported under planning, where water supply and agriculture were also highly ranked. Other assessments, such as those by the Covenant of Mayors, highlight similar priorities, with environment and water supply as the most targeted sectors (albeit in 2023) (European Commission, 2024). Taken together, these findings suggest a convergence across initiatives, emphasising the central role of natural resource management in adaptation strategies.

Co-benefits

Beyond risk reduction, many adaptation actions are designed to deliver multiple co-benefits, such as improving biodiversity, supporting public health and protecting vulnerable populations. Signatories reported a total of 1,777 co-benefits linked to 592 adaptation actions, meaning on average three co-benefits were linked per action reported. These include enhanced biodiversity and improved public health, particularly in relation to heat-related illnesses and improved air and water quality. The prominence of enhanced biodiversity as a co-benefit likely reflects that conservation was the most frequently targeted sector, underscoring the link between ecosystem protection and broader environmental and social benefits. These co-benefits contribute to well-being and resilience beyond climate objectives. Some actions aim to protect vulnerable populations and low-income households.

These findings point to several critical enablers for advancing from plans to results: mainstreaming adaptation across other sectors and policies and maintaining strong interinstitutional coordination and stakeholder engagement throughout implementation.

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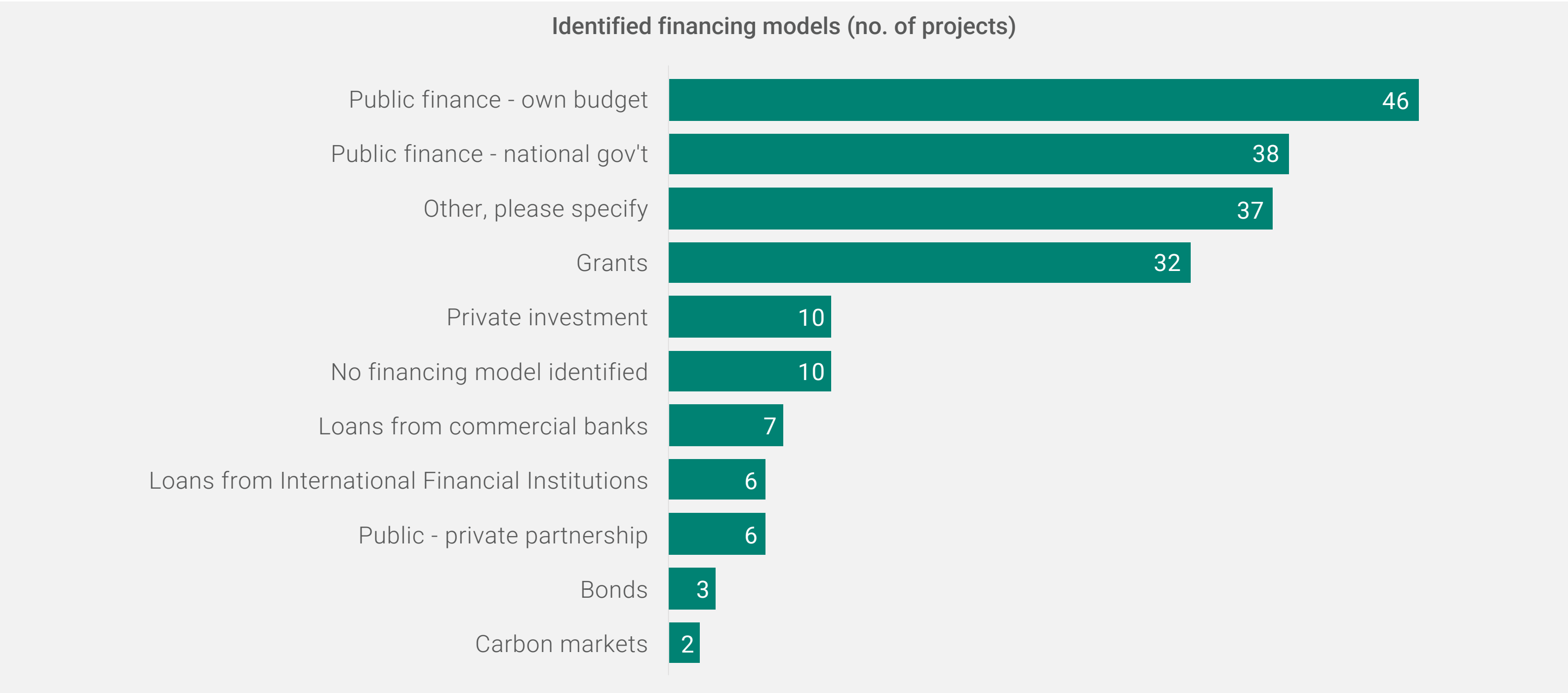
6. Funding and financing

Authorities finance 85% of plans and 81% of actions with their own resources. It is important to note that this is often in combination with other funding sources; only 18% of actions reported are funded solely by the authority's own resources. This is in line with an earlier survey conducted among Signatories, where 70% of them fund or intend to fund adaptation actions using local sources (European Commission, 2023). For example, they are most often combined with national funds and programmes (65% for plans and 31% for actions) and regional funding sources (56% for plans and 29% for actions), pointing to a disconnect between planning and implementation support. A funding gap emerges, as national and regional funding levels drop between strategy development and implementation. Funding is needed at all stages of the adaptation cycle, but is make-or-break in the implementation phase (EEA, 2024a). However, this is based on data that reflects budget intentions when it comes to planning, not necessarily actual allocation. Some also chose the category 'Other' and mostly specify that they use EU funding for plans and actions, such as Horizon 2020, Interreg or LIFE programmes. A few (5 plans in total) also mention climate finance in the form of carbon credits, suggesting this remains an untapped potential source of funding. While Signatories are demonstrating a strong commitment to action, this also underscores a gap: many are facing barriers in accessing external financing or funding. In a 2023 survey of Signatories, nearly all respondents (93%) cited insufficient funds as being among the challenges they face (European Commission, 2023).

Regarding the financial impact, approaches vary considerably. Some local authorities have developed dedicated climate adaptation financing plans, while others finance adaptation projects directly from the municipal budget without allocating earmarked resources for climate risk management and resilience. Some authorities also receive support via national funding mechanisms dedicated to subnational climate change adaptation. Over a third of reporting local authorities and regions have shared information on their budget allocations and the extent to which adaptation is prioritised in broader financial planning. This reinforces the picture that, while local budgets are the backbone of adaptation financing, their integration into local or regional financial strategies is uneven, with a significant reliance on higher-level or project-based support.

Signatories have also reported on climate-related projects, which in the CDP context are specific, often investment-oriented initiatives that may address mitigation, adaptation or both. A total of 338 projects were reported, and of those, 44% were found to have an adaptation component. The top project areas are again within the recurring themes of nature-based solutions (22) or green spaces (21) and water management (33). Of those with an adaptation component, half of them have partial funding and are seeking more; see the identified financing models below.

Figure 11 Identified financing models (number of projects)



The majority of regional and local authorities use their own budgets, but likely in combination with a mix of financing models from bonds to national government funds.

Overall, while local and regional authorities are clearly committed to advancing climate adaptation, financing remains a critical challenge. Own resources continue to provide the backbone of support, but they are rarely sufficient on their own, creating a need for higher-level funding, EU programmes or innovative mechanisms such as bonds and carbon credits. This uneven integration of adaptation into financial planning, combined with persistent gaps in external funding access, highlights the need for more structured, long-term financing pathways. Under the EU Mission on Adaptation to Climate Change, initiatives such as P2R can play a role in bridging this gap, helping authorities turn intentions into investment plans.

Info Box 5.
Turning strategies into fundable plans

Pathways2Resilience (P2R) supports regions and communities in turning climate resilience strategies into actionable, fundable plans. Through the *Regional Resilience Journey*, P2R offers step-by-step technical guidance, capacity building and access to a climate resilience toolbox. This process equips projects with investment plans and fosters knowledge exchange, helping initiatives secure the financing they need to deliver climate action.

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7. Monitoring, evaluation and learning

Monitoring, evaluation and regular updates are essential for ensuring that climate plans remain effective and aligned with changing risks and evolving policy frameworks. Step 6 of the RAST supports local and regional authorities in building and strengthening MEL systems. While MEL is presented as a separate step, it should ideally be embedded across the entire adaptation cycle. However, as reporting data shows, the extent of MEL practices varies widely. The information available remains limited and fragmented, making it difficult to assess overall progress towards meeting established goals and targets. The 2024 EEA analysis of the adaptation policy landscape (ETC-CA, 2024) also highlights this issue, identifying the development of robust MEL frameworks, particularly those capable of assessing the outcomes and effectiveness of adaptation actions, as a persistent challenge across countries.

The reported data reveals notable differences in how often plans are monitored, evaluated and updated. Thirty-four percent of plans are monitored and publicly reported annually, while 26% report progress every one to three years. Another 8% are monitored every three to five years, and only 2% monitor their plans on a five-year or longer cycle.

Evaluation follows a similar pattern. Twenty percent of plans are evaluated annually, 18% every one to three years, another 18% every three to five years, and 2% every five or more years. When it comes to updating and publishing plans, only 7% are updated annually or more frequently, while 11% are updated every one to three years, 13% every three to five years, and 7% every five or more years. Notably, 20% of reporting authorities indicated they follow different or unspecified revision time frames.

Info Box 6.
Underpin Project

A new project under the Mission, 'Outcome indicators to measure progress on climate resilience' (Underpin), aims to address gaps in MEL for climate adaptation by developing an outcome-oriented framework with standardised indicators to track progress across governance levels. By combining Earth observation, citizen science and AI-enabled analysis, it helps to measure real-world progress at local, regional, and national levels.

Figure 12 Climate plans evaluation and update frequency

Frequency	Evaluation	Update
Annually	20%	7%
One to Three Years	18%	11%
Three to Five Years	18%	13%
Five or More Years	2%	7%
Different/Unspecified	N/A	20%

These figures suggest an uneven commitment to institutionalising MEL processes. Regular monitoring is more common, particularly through annual reporting cycles, but plan updates and formal evaluations still lag behind. This indicates a potential disconnect: while data is increasingly being collected, it is not always being used to inform timely adjustments to adaptation plans.

The gap between monitoring and plan revision is particularly notable. Without regular updates that reflect new information, emerging risks or implementation challenges, adaptation plans risk becoming outdated and misaligned with local realities and evolving policy frameworks. Establishing consistent and integrated MEL practices across all stages of the adaptation cycle remains a critical area for improvement but also for increased ambition and urgency in climate adaptation efforts at all levels.

Implementation progress also varies considerably, reflecting the diversity of local contexts and planning timelines. Of the 78 reported climate plans, 72 include information on implementation status. Roughly 33% report moderate progress, and 22% have made significant strides, bringing the total share of actively implemented plans to 55%. At the same time, 13% report limited progress, which may stem from recent adoption, limited capacity or political barriers. Another 13% of the plans are newly adopted, while 19% have other statuses, such as revised, replaced, completed or undefined.

Notably, half of all reported plans have been developed since 2020, underscoring the dynamic and evolving nature of climate adaptation and mitigation planning. These findings highlight the importance of ongoing support, capacity building and mechanisms for peer learning, not only to scale up implementation but also to ensure that plans remain relevant, responsive and aligned with the realities of accelerating climate risks.

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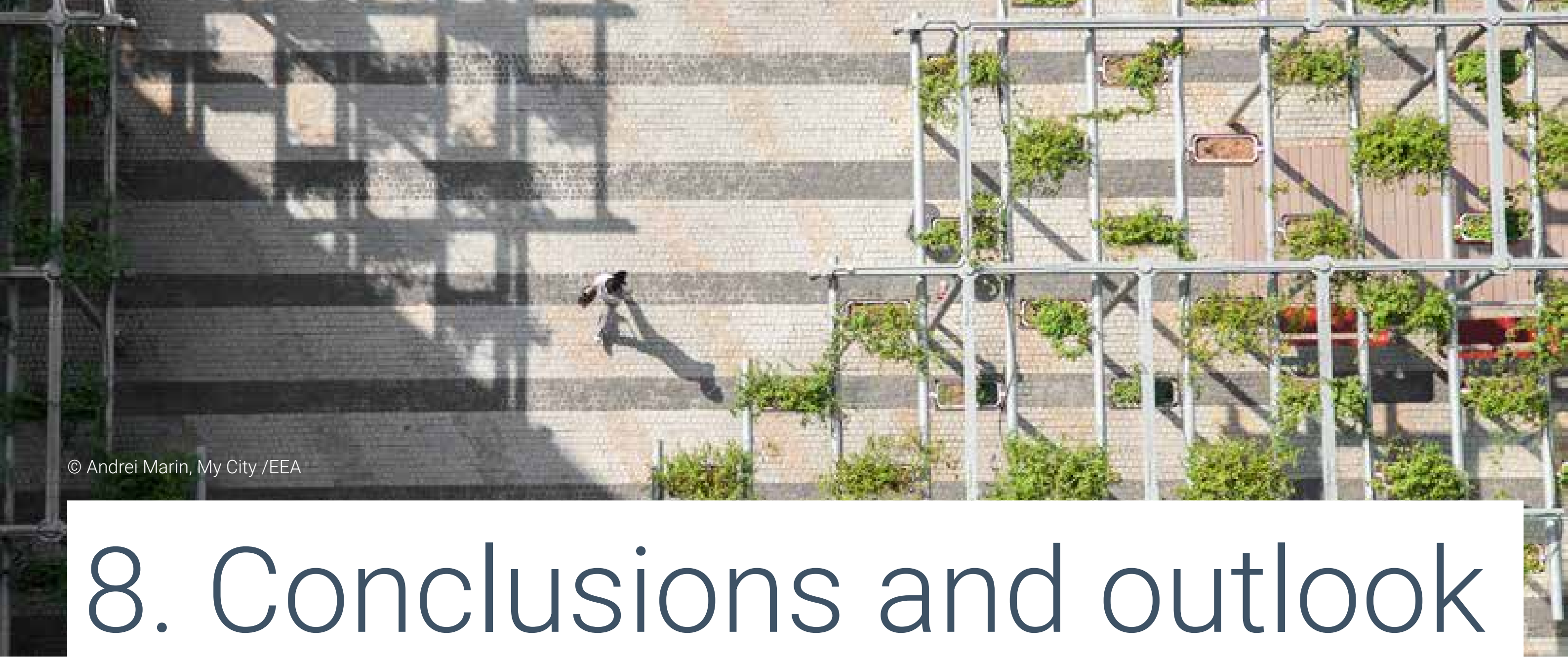

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8. Conclusions and outlook

Reporting by local and regional authorities under the EU Mission on Adaptation to Climate Change provides valuable insights into how local and regional authorities that are Signatories to the Mission are responding to the growing climate risks. Based on self-reported data from 59 Signatories in 2024, this initial assessment establishes a picture of the state of subnational adaptation efforts. While self-reported data has been used in other assessments of local and regional climate action, this is the first time CDP data has been collected and analysed specifically from Mission Signatories in a way that allows annual, systematic tracking of progress over time. As such, the results provide a reference point for monitoring developments, identifying challenges, and supporting evidence-based policy decisions in the future. At the same time, important limitations need to be acknowledged. Only 59 of the 328 Mission Signatories submitted data in 2024. Reporting was requested for the first time in 2024, reflecting the early stage of the Mission's reporting process and the time needed to onboard participants. Those who reported were likely either early adopters in adaptation planning or authorities with prior experience in structured reporting processes, meaning the data may overrepresent frontrunners. Many Signatories have yet to share their progress, and their inclusion in future rounds will be critical to building a more representative picture.

Despite these caveats, the first reporting cycle is an important milestone. It highlights where action is already taking place and demonstrates the need to engage a wider group of Signatories in the coming years. Reporting is not only a tool for accountability but also helps identify where local and regional authorities stand in building resilience, identifying common challenges and pinpointing where support is most needed. Through the Mission, targeted support is being provided to strengthen resilience through the planning, implementation and monitoring of adaptation actions.

On governance, the analysis shows that Mission Signatories are further along in embedding climate adaptation into their planning processes than many other local and regional authorities across Europe. As shown in the JRC assessment of the Covenant of Mayors data, the majority of action plans focused only on mitigation. Mission Signatories, on the other hand, have already taken substantial steps to integrate or dedicate plans to adaptation. This difference likely reflects their explicit commitment to the Mission, prioritising resilience earlier than many other local and regional authorities across Europe. However, their progress should be seen as characteristic of a more advanced subset of authorities, rather than representative of the broader European picture.

Signatories are also stepping up efforts to assess climate risks, often focusing on similar priorities such as protecting vulnerable populations and investing in nature-based solutions. Despite the increased focus on vulnerable groups, engaging civil society in planning phases in a meaningful way remains limited.

While the extent and methods of risk assessments vary, many regions and communities are using this knowledge to shape more targeted adaptation strategies. Extreme heat emerges as a particularly pressing hazard, frequently cited as both highly probable and high in impact.

The findings point to an opportunity to build more inclusive, multilevel processes. Water management, agriculture and public health are the most identified priority sectors, although the degree of progress and stakeholder involvement in these sectors vary significantly. While vulnerable groups are an important factor in assessments, and local governments and citizens are often engaged in shaping climate plans, the participation of marginalised groups – which includes vulnerable populations, indigenous people and trade unions – and higher tiers of government remains more limited. This gap suggests that adaptation actions may not yet fully reflect the needs of those most affected.

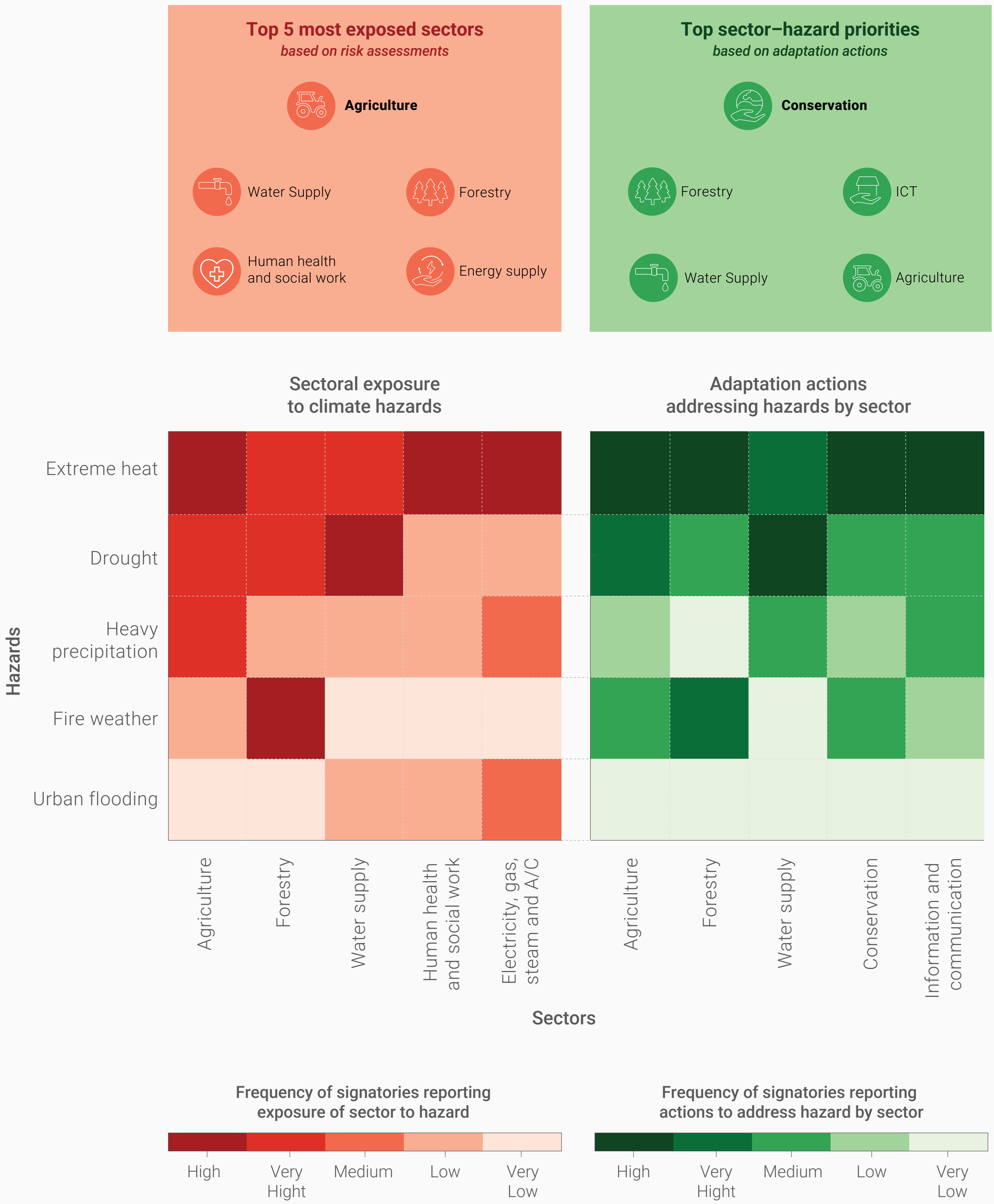
Similar observations can be made when comparing these results with broader European assessments. The 2023 JRC report on the Covenant of Mayors, which draws on CDP and MyCovenant data, analysed submissions from 11367 entities (10414 of which were in the EU-27). Although some Mission Signatories are included in this wider dataset, they represent only a small share. By contrast, the Mission's reporting covers a much a narrower group but provides a focused picture of the adaptation progress of engaged Signatories.

On climate risks and vulnerabilities, the JRC report found that local authorities are relatively advanced in identifying risks, with extreme heat, heavy precipitation, drought and floods most frequently reported. Mission Signatories show a consistent picture: extreme heat was cited most often, followed by heavy precipitation, drought, urban flooding and fire weather. In an earlier survey done with the first Signatories, temperature increase and/or heatwaves were also the most significant impacts identified by 76% of respondents (European Commission, 2023). Despite the smaller sample, this alignment suggests that Signatories prioritise similar hazards to those reported across Europe.

Sectoral analysis reveals commonalities. In the Covenant of Mayors, the most reported vulnerable sectors were food and agriculture, environment and biodiversity, public health and civil protection. Mission Signatories showed similar trends: agriculture was the most consistently exposed, followed by water supply, forestry and public health. Both datasets therefore converge on key vulnerabilities in food systems, ecosystems, water and health, highlighting where adaptation support will be most critical.

Figure 13 provides an overview of the hazards and sectors most frequently reported as interlinked in risk assessments (left) and those most often addressed at the same time by adaptation actions (right). The figure shows that there is overlap in the five hazards which are the most significant in both risk assessments and adaptation actions, whereas the sectoral landscape is more uneven. Agriculture, forestry and water supply feature strongly in both exposure and actions, but health and electricity (highly exposed sectors) receive less attention in actions. Notably, health does appear among the top five when looking only at sectors addressed overall (see Figure 10), but it drops out when considering sector-hazard linkages. Conversely, sectors such as conservation and Information and communication emerge more prominently in actions when looking at these linkages, than in risk assessments. This suggests that local adaptation priorities are shaped not only by risk assessment but perhaps also by opportunities for co-benefits, local priorities, or resource availability.

Figure 13 Overview of the hazards and sectors most frequently reported in risk assessment and adaptation actions



On the left, the darker gradient indicates a higher number of authorities identifying the sector as exposed. On the right, the darker the gradient, a higher number of actions addressing that sector and hazard at the same time.

Looking at the next phase of the adaptation cycle, most adaptation actions are already included in formal plans, and many are designed to deliver co-benefits such as improved biodiversity, better public health outcomes and protection for vulnerable communities. These actions predominantly address extreme heat stress and target sectors like conservation, forestry, agriculture and water supply. As we observe that identified risks and hazards are to a degree reflected in planning and implementation, we can conclude that the reporting Signatories are increasingly using existing governance structures and climate risk assessments to support more targeted and strategic planning.

When it comes to financing, Signatories are largely drawing on their own resources in combination with other funding sources to implement actions and maintain plans. However, many are actively seeking additional support, especially for nature-based solutions and water-related investments, pointing to the need for expanded access to funding and technical assistance. This also is highlighted by an earlier survey, where financial resources and financial advice were cited as the biggest challenges and specific needs among Signatories (European Commission, 2023).

While the analysis points to significant progress in monitoring frequency, it is worth noting there is a gap between the monitoring and revision of plans. This suggests that many Signatories are collecting the necessary information, but there is a lack of mechanisms to translate the collected data into policy revisions and strategic updates, even though we consider an iterative approach and learning essential for the effectiveness of action and for increasing resilience. The lack of clear linkages between data collection and plan updates raises questions about the effectiveness of investing in monitoring systems if they do not systematically inform adaptation policies, strategies and/or plans. Embedding consistent MEL processes across the entire adaptation cycle will be key to maintaining momentum, scaling up implementation and ensuring that adaptation actions deliver meaningful and lasting resilience.

Looking ahead

Regular monitoring and reporting under the Mission is essential for tracking progress and strengthening the EU's collective climate resilience. Continuous reporting helps regions and communities better understand their preparedness, identify gaps and improve alignment with EU objectives.

Beyond transparency, reporting under the Mission brings a range of practical benefits.

- It demonstrates a Signatory's commitment to building climate resilience, helping local and regional authorities show leadership in addressing climate risks.
- It supports evidence-based decision-making, ensuring that policies are guided by reliable data and real-world outcomes.
- It enables peer learning and collaboration, as Signatories can share challenges, successes and innovations with others facing similar climate threats.
- It strengthens local planning, helping communities identify vulnerabilities, monitor progress and refine their adaptation responses.
- And importantly, it can help unlock access to EU climate finance and technical support, rewarding those who show tangible commitment and progress.

These initial reporting efforts provide insight into how Signatories are approaching climate adaptation. As more authorities contribute data and refine their practices, the overall picture will become clearer. This will help identify where support is most needed and guide the development of more practical, targeted solutions. Over time, this process may contribute to stronger local planning, better coordination and more effective adaptation across Europe.

Info Box 7.
What can you do? Encourage Signatories in your region to report!

To start reporting, Signatories can access the CDP platform using their email and password. The reporting window opens in May-June and closes in December each year.

We invite Signatories to reach out if you have any questions or if you do not yet have a user profile. Contact: cities.europe@cdp.net or statesandregions.europe@cdp.net.
The first webinar on key insights from the 2024 reporting for Signatories has been held, and the recording is available on the Mission Portal.

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Annex A – Methodology

Data source and scope

This analysis is based on data submitted in 2024 by local and regional authorities to the CDP-ICLEI Track reporting platform. While the platform refers to these entities as 'cities', we use the term 'local authorities' to reflect the broader scope of governance levels involved in climate adaptation at the subnational level.

The report focuses exclusively on local and regional authorities that are Signatories of the EU Mission on Adaptation to Climate Change and that submitted responses to CDP in 2024. Other European authorities that reported information via the CDP-ICLEI Track 2024 have not been included. All figures refer to the respondents only, not to the total number of Mission Signatories.

Data collection process

Local authorities voluntarily report their climate-related data to CDP annually. The 2024 dataset includes both quantitative and qualitative information on climate risks, vulnerability assessments, adaptation planning and implementation. The data is self-reported by the local authorities and submitted through a standardised questionnaire developed by CDP. Responses were reviewed for completeness, clarity and relevance to adaptation efforts.

For this analysis:

- submissions marked as 'No data' were excluded from the calculations;
- in selected questions, responses listed as 'Other' were also excluded when they did not provide interpretable or relevant detail;
- quantitative data was aggregated and summarised, while qualitative responses were manually coded using pre-defined thematic categories to ensure consistency.

This structured approach allows for comparability across responses while capturing the diversity of local contexts and practices.

Assessment criteria

Adaptation-related data was evaluated using the following main themes:

- governance and coordination;
- climate risk and vulnerability assessments;
- adaptation planning and target setting;
- the implementation of adaptation actions.

The dataset has several strengths that instil confidence in the findings. First, it draws directly on input from local and regional authorities, providing first-hand insight into how adaptation is being addressed in practice. The use of a standardised questionnaire ensures comparability across responses while still allowing space for context-specific detail. Importantly, the dataset captures an important share of authorities formally committed to the EU Mission on Adaptation to Climate Change, making it especially relevant for assessing progress towards climate resilience among Mission Signatories. The combination of quantitative metrics and qualitative narrative responses offers both measurable insights and richer contextual understanding. While these features make the dataset a valuable source of insight, some limitations and considerations should be noted:

- **Data gaps.** Certain questions had limited responses due to skipped or incomplete submissions, and open-text answers were sometimes interpreted differently across authorities. Some 'Other' responses could not be categorised and were therefore excluded from the analysis.
- **Non-representative sample.** The analysis covers only those local authorities that submitted responses in 2024 and may not fully reflect the broader landscape of adaptation planning across Europe. Participation varied by region (urban adaptation report classification):
    - 61% (36 authorities) from southern Europe (Croatia, Cyprus, Greece, Italy, Portugal, Spain, Türkiye);

- 20% (12 authorities) from northern Europe (Denmark, Estonia, Ireland, Lithuania, Finland);
- 14% (8 authorities) from western Europe (France, Netherlands, Austria);
- 5% (3 authorities) from central and eastern Europe (Poland).

- **Self-reported nature.** The quality and depth of responses vary across authorities. Data accuracy depends on the knowledge and capacity of the respondent.

Despite these limitations, the dataset remains a robust and meaningful evidence base, providing valuable insights into how Mission Signatories are advancing climate adaptation and identifying emerging issues, practices and areas for further support.

Annex B – Reporting questionnaire

In the list below, the questions highlighted in light blue are those that were assessed as part of this report.

1.3	**Provide information on your jurisdiction's oversight of climate-related risks and opportunities and how these issues have impacted your jurisdiction's planning.**
C1	Select the processes that reflect your jurisdiction's oversight of climate-related issues
C2	Provide further details on your jurisdiction's oversight of climate-related issues
C3	Describe how climate-related issues have impacted your jurisdiction's master/development planning
C4	Describe how climate-related issues have impacted your jurisdiction's financial planning
C5	Describe the risks to your jurisdiction related to the transition to a low-carbon economy
1.4	**Report how your jurisdiction assesses the wider environmental, social, and economic opportunities and benefits of climate action.**
C1	Does the jurisdiction assess the wider opportunities/benefits of climate action?
C2	Outline how your jurisdiction assesses the impact of these wider opportunities/benefits*
C3	Describe the wider opportunities/benefits of climate action the jurisdiction has identified
C4	Outline if and how your jurisdiction ensures the equitable distribution of climate action opportunities/benefits
C5	Outline how your jurisdiction quantifies equitable and inclusive distribution of climate action*
C6	Provide evidence and/or more details on the actions your jurisdiction is taking to ensure equitable and inclusive distribution of climate action
1.5	**Report on your engagement with other levels of government regarding your jurisdiction's climate action.**
C1	Climate component
C2	Other types of governments engaged in the development, implementation and/or monitoring of component*
C3	Outline the purpose of this engagement*
C4	Comment
1.6	**Report your jurisdiction's most significant examples of collaboration with government, business, and/or civil society on climate-related issues.**
C1	Primary entity collaborated with (selection mandatory)
C2	Mechanisms used to collaborate*
C3	Areas collaboration focused on*
C4	Description of collaboration and any progress, if applicable*
C5	Other entities collaborated with*

2.1	**Has a climate risk and vulnerability assessment been undertaken for your jurisdiction? If not, please indicate why.**
C1	[Selection based list]
2.1.1	**Provide details on your climate risk and vulnerability assessment.**
C1	Assessment attachment^
C2	Assessment direct link^
C3	Confirm attachment/link provided to assessment (selection mandatory)
C4	Boundary of assessment relative to jurisdiction boundary^
C5	Year of publication or approval
C6	Factors considered in assessment
C7	Please explain
2.2	**Provide details on the most significant climate hazards faced by your jurisdiction.**
C1	Climate-related hazards^
C2	Vulnerable population groups most exposed
C3	Sectors most exposed^
C4	Describe the impacts on vulnerable populations and sectors
C5	Proportion of the population exposed to the hazard
C6	Current probability of hazard^
C7	Current magnitude of impact of hazard^
C8	Expected future change in hazard intensity
C9	Expected future change in hazard frequency
C10	Timeframe of expected future changes
2.3	**Identify and describe the most significant factors impacting on your jurisdiction's ability to adapt to climate change and indicate how those factors either support or challenge this ability.**
C1	Factors that affect ability to adapt
C2	Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction (selections mandatory)
C3	Describe how the factor supports or challenges the adaptive capacity of your jurisdiction
C18	Comment
5.1	**Does your jurisdiction have an adaptation goal(s) in place? If no adaptation goal is in place, please indicate the primary reason why.**
C1	[Selection based list]
5.1.1	**Report your jurisdiction's main adaptation goals.**
C1	Select a reference ID for the goal
C2	Adaptation goal^
C3	Climate hazards that goal addresses^
C4	Base year of goal (or year goal was established if no base year)^
C5	Target year of goal^
C6	Description of metric / indicator used to track goal and evidence of implementation
C7	Comment

8.1	**Does your jurisdiction have a climate action plan or strategy that addresses mitigation, adaptation (resilience) and/or energy?**
C1	[Selection based list]
8.1.1	**Report details on the climate action plan or strategy that addresses mitigation, adaptation (resilience) and/or energy-related issues in your jurisdiction.**
C1	Climate action plan type^
C2	Plan attachment^
C3	Name of plan and URL link, if applicable^
C4	Confirm attachment/link provided to plan (selection mandatory)
C5	Boundary of plan relative to jurisdiction boundary
C6	Processes for monitoring evaluation and updates of plan
C7	Plan status/progress towards plan
C8	Funding sources and financial instruments to finance plan
C9	Communities and organisations engaged
C10	Describe if and how climate-related scenarios have informed the plan
C11	Primary author(s) of plan^
C12	Assessment of co-benefits, trade-offs, and synergies of actions included in plan
C13	Year of formal approval of plan
C14	End year of plan
C15	Total cost of implementation of plan (in currency specified in 0.1)
C16	Sectors covered by action plan
C17	Please explain
9.1	**Describe the outcomes of the most significant adaptation actions your jurisdiction is currently undertaking. Note that this can include those in the planning and/or implementation phase.**
C1	Select a reference ID for the action
C2	Action (selections mandatory)^
C3	Select the attributes of resilience this action enhances
C4	Climate hazard(s) that action addresses
C5	Action description and web link to further information^
C6	Sectors adaptation action applies to
C7	Co-benefits realised
C8	Timeframe for which increased resilience is expected to last
C9	Proportion of the total jurisdiction population within the jurisdiction boundary (specified in 0.1) with increased resilience due to adaptation action (%)
C10	Proportion of natural or modified terrestrial, freshwater, coastal and/or marine ecosystems within the jurisdiction boundary (specified in 0.1) with increased resilience due to adaptation action (%)
C11	Funding source(s)
C12	Status of action in the reporting year
C13	Inclusion in climate action plan and/or jurisdiction development/master plan^
C14	Total cost of action (in currency specified in 0.1)

C15	Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^
C16	Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^
9.3	**Describe any planned climate-related projects within your jurisdiction for which you hope to attract financing.**
C1	Project area
C2	Project title*
C3	Stage of project development*
C4	Status of financing*
C5	Identified financing model*
C6	Project description and URL link*
C7	Attach project proposal, if applicable*
C8	Total cost of project (in currency specified in 0.1)*
C9	Total investment cost needed if relevant (in currency specified in 0.1)*
C10	If this project is related to a previously reported adaptation or mitigation action, select the ID of the action

Annex C – Glossary of terms

1. **Adaptation actions.** Concrete measures and interventions undertaken by local and regional authorities to reduce vulnerability and build resilience to the impacts of climate change. These can range from policy development and educational initiatives to infrastructure improvements and nature-based solutions.

2. **Adaptation cycle.** A systematic process encompassing various stages of climate adaptation efforts, typically including governance, risk assessment, planning, action, and monitoring and evaluation.

3. **CDP.** A global non-profit organisation that provides a structured online platform for companies, cities, states and regions to report on their environmental impacts, including climate risks, planning and actions.

4. **Civil society.** This refers to entities such as academia, climate initiatives/networks, residents/community groups, vulnerable population groups, NGOs and associations, the education sector, faith-based organisations, trade/labour unions (in order to align with reported information, the explanation provided is extracted from CDP's questionnaire guidance from 2024).

5. **Climate-ADAPT.** The European platform for climate change adaptation, serving as a hub for information and guidance on adaptation strategies and practices across Europe.

6. **Climate adaptation governance.** The institutional structures, policies and processes put in place by authorities to steer, coordinate and oversee climate adaptation activities.

7. **Climate adaptation policies.** Official documents or frameworks adopted by authorities that outline their strategies and commitments to address climate change impacts. These can be standalone plans or integrated into broader climate or energy plans.

8. **Climate hazard.** A potential natural or human-induced physical event or development that may cause loss of life, injury or other health impacts, along with damage and loss to property, infrastructure, livelihoods, service provision, ecosystems or environmental resources. Examples in the text include extreme heat, heavy precipitation, drought, urban flooding and fire weather.

9. **Climate risk and vulnerability assessment (CRVA).** A systematic evaluation of the potential risks posed by climatic events and developments, along with an analysis of the vulnerabilities of populations, infrastructure and ecosystems to these risks. These assessments are fundamental for evidence-based adaptation planning.

10. **Co-benefits.** Additional positive outcomes that result from adaptation actions beyond their primary goal of reducing climate risks. Examples include improved biodiversity, enhanced public health and better air and water quality.

11. **Covenant of Mayors (MyCovenant platform).** A European initiative that brings together thousands of local governments voluntarily committed to implementing EU climate and energy objectives. Its MyCovenant platform is used for reporting on climate action.

12. **European Climate Law.** An EU regulation that sets a legally binding target of net-zero greenhouse gas emissions by 2050 and establishes a framework for continuous progress towards the Paris Agreement's global adaptation goals.

13. **European Commission.** The executive arm of the European Union, responsible for proposing legislation, enforcing EU law and directing the EU's administrative operations.

14. **European Environment Agency (EEA).** A European Union agency that provides sound, independent information on the environment, including climate change impacts and adaptation.

15. **European Union Mission on Adaptation to Climate Change.** An EU initiative focused on supporting at least 150 European regions and communities on their pathway towards climate resilience by 2030, through various support mechanisms and reporting tools.

16. **Fire weather.** Risk of wildfires.

17. **Horizon Europe.** The EU's key funding programme for research and innovation, which supports projects related to climate change adaptation and other societal challenges.

18. **Key type measures (KTMs).** The KTMs are standardised reporting requirements or indicators for adaptation to climate change. They are how Member States are asked to report voluntarily under Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.

19. **Mainstreaming adaptation.** The process of integrating climate change adaptation considerations into existing policies, plans and decision-making processes across various sectors and levels of governance.

20. **Mission Signatories.** Local and regional authorities that have formally committed to the objectives of the EU Mission on Adaptation to Climate Change by signing the Mission Charter.

21. **Monitoring, evaluation and learning (MEL) systems.** Frameworks and processes used to track the progress and assess the effectiveness of climate adaptation efforts and facilitate learning from them, ensuring that plans remain relevant and responsive.

22. **Multilevel governance.** The coordination and collaboration between different levels of government (e.g. local, regional, national and international) and other stakeholders in addressing shared challenges like climate change.

23. **Nature-based solutions (NBS).** Actions that involve working with nature to address societal challenges, such as using green infrastructure (e.g. parks, green roofs) to reduce heat stress or absorb stormwater.

24. **Regional Adaptation Support Tool (RAST).** A guidance document developed by the EU Mission on Adaptation to Climate Change to assist local and regional authorities in designing and maintaining their climate change adaptation plans and strategies.

25. **Transition risks.** Transition risks are risks related to the transition to a low-carbon economy. These risks can include changes in tax revenue mix and sources, resulting in decreased revenues for jurisdictions, costs to transition to lower emissions technology related to the pricing of assets (e.g. fossil fuel reserves, land valuations, securities valuations), etc. (in order to align with the reported information, the definition provided is extracted from CDP's questionnaire guidance from 2024).

26. **United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement.** An international treaty on climate change adopted in 2015, aiming to limit global warming to well below 2 degrees Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

27. **Vulnerable populations.** These include individuals or groups of people who are less able than the general population to anticipate, cope with, resist or recover from the impacts of disasters. Vulnerable populations may be described by race or ethnicity, culture, socioeconomic status, geography, gender, disability, age or other characteristic, and may be disproportionally likely to be affected by climate hazards (in order to align with the reported information, the definition provided is extracted from CDP's questionnaire guidance from 2024).

Annex D – Reporting Signatories in 2024

The following presents the list of Mission Signatories that reported publicly in 2024. An additional 14 Signatories disclosed information confidentially.

Local authorities

1. Aarhus Municipality
2. Bursa Metropolitan Municipality
3. City and Metropolitan Municipality of Strasbourg
4. City of Arezzo
5. City of L'Aquila
6. City of Lisbon
7. City of Malmö
8. City of Paris
9. City of Porto
10. City of Tallinn
11. City of Tampere
12. City of Tartu
13. City of Turku
14. City of Warsaw
15. City of Zagreb
16. Copenhagen Municipality
17. County Galway
18. Istanbul Metropolitan Municipality
19. Klaipėda City Municipality
20. Metropolitan Municipality of Rouen
21. Municipality of Amarante
22. Municipality of Braga
23. Municipality of Caldas da Rainha
24. Municipality of Cascais
25. Municipality of Figueira da Foz
26. Municipality of Guimarães
27. Municipality of Loulé
28. Municipality of Matosinhos
29. Municipality of Murcia
30. Municipality of Rotterdam
31. Municipality of Thessaloniki
32. Municipality of Torres Vedras
33. Municipality of Valongo
34. Municipality of Vitoria-Gasteiz
35. Municipality of Évora
36. Umeå Municipality
37. İzmir Metropolitan Municipality

Regional authorities

1. Autonomous Community of Andalusia
2. Autonomous Community of Catalonia
3. Autonomous Community of Galicia
4. Autonomous Community of Navarre
5. Autonomous Community of the Basque Country
6. Auvergne-Rhône-Alpes Region
7. Lesser Poland Voivodeship
8. Region of Päijät-Häme

European Environment Agency
Kongens Nytorv 6
1050 Copenhagen K
Denmark
Tel.: +45 33 36 71 00
Web: eea.europa.eu
Enquiries: eea.europa.eu/enquiries

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