



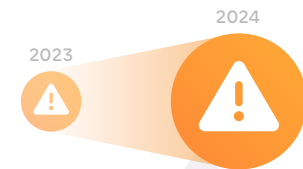
Adaptation



Far too slow

Climate adaptation is necessary to respond to unavoidable climate impacts. It requires implementing effective adaptation measures on the ground as well as supportive governance and financial frameworks.

4.12 Adaptation



Past progress: The development of adaptation in the EU continued to be **far too slow** in the period assessed, with no change to the progress classification of the last year. This is primarily due to key indicators towards the objective of becoming a climate resilient society having moved in the **wrong direction** – economic losses from climate related extremes, for example, have been increasing at an average rate of EUR 6 billion per year – while a notable lack of data surrounding key enablers and other indicators remained.

Policy context: An updated Adaptation Strategy was launched in 2021 to present a long-term vision for EU adaptation and climate resilience by 2050. This strategy, and the implementation and achievement of its objectives at the EU and Member State (MS) level, should support progress on adaptation within the bloc. Adaptation is further considered at the sectoral level through e.g. Water Framework Directive, Biodiversity Strategy, etc. At the MS level, adaptation governance is operationalised through national adaptation policies. Although these aim to formalise the actions being taken at the national and sub-national level, the approaches have a range of content and scopes, and monitoring and reporting efforts remain patchy. The hope is for the EU Adaptation Strategy (EC, 2021f) to enhance the coordination and harmony between national approaches. The EU’s Governance Regulation outlines reporting requirements through National Energy and Climate Plans (NECPs), however requirements related to adaptation remain high-level. This is also true for adaptation finance tracking and reporting. Given that the Adaptation Strategy remains relatively new, and that guidelines on effective national approaches are still in development, more progress on adaptation is expected in the coming years.

Areas of action: To support a climate-resilient society and to achieve the aims of the EU Adaptation Strategy, there is an urgent need for improved data. Basic data on implementation should be enhanced through approaches to track and measure the effectiveness of actions at achieving their resilience objectives. Similarly, information on implementation of certain adaptation plans, and it is important that this continues to be updated; could be enhanced through qualitative evaluation. Improving the data on monitoring, reporting, and evaluation (MRE) in adaptation plans would help in assessing the degree to which plans are being regularly updated. Finally, information on adaptation finance needs significant improvement and streamlining. MS are encouraged (though not required) to develop adaptation budgets. Harmonising the approach to reporting on adaptation actions as well as finance would enable a more comprehensive assessment on the state-of-play of adaptation in the EU.

Table 26: Progress on adaptation towards the objectives and enablers

OBJECTIVE	ENABLERS		
Becoming a climate resilient society 	Implementing adaptation actions 	Setting up robust adaptation governance 	Financing adaptation

Note: Large circles show the progress classification of this year and small circles the one from last year’s progress assessment. Arrows indicate positive or negative changes in classification. See Table 35 for further information.

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Table 27: Details on indicators' past progress and required change

2023 ▼	2024 >	Historical data			Required change	
		Time period	Relative change p.a.	Absolute change p.a.	Benchmark	Absolute change p.a.
OBJECTIVE: Becoming a climate resilient society						
 ND-GAIN country index [score out of 100]		2016–2021 (University of Notre Dame, 2023)	-0.02% per year	-0.01 index per year	n/a	n/a
 Economic losses from climate-related extremes [bnEUR]		2017–2022 (EEA, 2023a)	21% per year	6.0 bnEUR per year	n/a	n/a
ENABLER 1: Implementing adaptation actions						
 Green urban areas [%]		2018 (EEA, 2022b)	n/a	n/a	n/a	n/a
 Gentle tillage practices [%]		2010–2016 (EUROSTAT, 2020)	n/a	n/a	n/a	n/a
 River restoration [km]		n/a	n/a	n/a	n/a	n/a
ENABLER 2: Setting up robust adaptation governance						
 National adaptation policy in place [%]		2018–2023 (EEA, 2023d)	2.0% per year	1.9%-points	n/a	n/a
 Monitoring, reporting, evaluation in place or being developed [%]		2023 (EEA, 2023e)	n/a	n/a	n/a	n/a
ENABLER 3: Financing adaptation						
 Total investment needs [bnEUR]		n/a	n/a	n/a	n/a	n/a
 Total planned expenditure [bnEUR]		n/a	n/a	n/a	n/a	n/a
 Actual spending [bnEUR]		n/a	n/a	n/a	n/a	n/a

Note: Icons indicate progress classification of this year's progress assessment and coloured lines the change in classification; See Table 35 for further information. n/a indicates that data are not available.

Source: ©ECNO.

Objective: Becoming a climate resilient society

Past progress: From 2016 to 2022, progress on both topline indicators for progress on adaptation was moving in the **wrong direction** (see [Table 26](#)), with little changes to last year's assessment: The average score of EU countries on the University of Notre Dame's Global Adaptation Initiative (ND-GAIN) index was nearly constant, with a slight downward trend between 2016 and 2021. While there remained a wide range of scores at the country level, to meet the objective of building a resilient society, this indicator needs to be increasing rapidly both at the country and EU level. Meanwhile, economic losses from climate-related extremes were increasing, with a change of 6 billion EUR per year between 2017 and 2022. These losses were the result of a combination of factors: more frequent, intense, and thus costly climatic events because of increasing global warming; more exposed and therefore vulnerable infrastructure and populations; and varying levels of disaster preparedness.

Indicators:

- ND-GAIN country index
- Economic losses from climate-related extremes

Policy context: The EU Adaptation Strategy (EC, 2021f) presents a long-term vision to adapt to the impacts of climate change and become climate resilient by 2050. The strategy includes 49 actions split along four key objectives: smarter adaptation, faster adaptation, more systemic adaptation, and stepping up international action for climate resilience. Specifically, to reduce damages from climate-related extremes, the strategy calls for increased investment in resilient, climate-proof infrastructure, improved disaster risk reduction and prevention strategies, and improved coordination and coherence on standards, guidelines, targets, and knowledge. It also links directly to EU-focused initiatives such as the sustainable finance efforts (including the EU taxonomy on sustainable activities), as well the EU Mission on Adaptation. Reporting on adaptation is required every two years according to the Governance Regulation. Adaptation is further included in sectoral policies, such as the Biodiversity Strategy, Common Agricultural Policy, Farm to Fork Strategy, Water Framework Directive, and the Covenant of Mayors.

Areas of action: Effective implementation and achievement of the aims of the EU Adaptation Strategy will be an important step. Significantly increased investment in climate-proof infrastructure and disaster risk reduction will be critical in reducing the economic damage caused by extreme events. National governments have an important role to play here, ensuring that their adaptation policies are based on up-to-date climate risk assessments, and including a coherent, comprehensive approach to developing and implementing adaptation actions. MS would also benefit from developing clear adaptation budgets, as well as ensuring cross-sectoral synchronicity with regards to planned actions. Finally, MRE practices are still lacking in many MS. These should be an area of focus in the coming year to ensure that adaptation progress is tracked and regularly updated. At the EU level, there is an urgent need for improved data and information. This is true both for on the ground actions (e.g. kilometres of rivers restored) as well as high-level policy and financial information (e.g. funds earmarked for adaptation measures). Providing such data will allow for a clearer picture on adaptation progress in Europe. The first European Climate Risk Assessment (EEA, 2024a) is a promising step towards an improved understanding not only of climate risks, but also the resilience needs in Europe.

Enabler 1: Implementing adaptation actions

Past progress: Progress on adaptation actions remained difficult to assess, largely due to a lack of data. The previous report assessed adaptation across the dimensions of greening cities, adapting agriculture and forestry, and blue measures. In this report, we selected one indicator to represent each of these dimensions. With regards to urban adaptation, there remained a strong lack of data, with the share of green urban areas still containing only one data point for 2018. Data for gentle tillage practices in agriculture remained unchanged, with the most recent data coming from 2016, at which point the trend was heading in the **wrong direction** since 2010. Finally, for blue measures, there continued to be no data on kilometres of rivers restored to a free-flowing state. The EU Biodiversity Strategy set out a target to restore 50,000 km of free-flowing rivers by 2030, however there appears to be no monitoring of progress towards this goal.

Indicators:

- Green urban areas
- Gentle tillage practices
- River restoration

Policy context: At the EU level, adaptation action is described from a high-level perspective in the EU Adaptation Strategy, which lays out objectives and guiding principles for application in MS (e.g. promoting nature-based solutions, improving data availability). The more 'on-the-ground' aspects of adaptation, as tracked under this enabler, will generally be outlined in national, local, regional, and sectoral policy documents (such as a national adaptation strategy, urban planning documents, or a river basin management plan). Increasing the coherence between these documents can help improve the effectiveness of adaptation actions. Monitoring, reporting, and evaluation also plays an important role in ensuring that adaptation actions are achieving their objectives. The Adaptation Strategy also links to the Mission on Adaptation, which supports EU regions, cities, and municipal authorities in implementing adaptation and building resilience. The Governance Regulation established rules for planning, reporting, and monitoring. Though primarily focused on mitigation and energy, the regulation also covers reporting on adaptation, including plans and strategies as well as monitoring and evaluation frameworks.

Areas of action: Generally, adaptation actions will be implemented at local and regional levels, given the highly contextual nature of the implementation. However, there is currently no comprehensive reporting on what can be perceived as 'best-practice' adaptation that could apply across spatial scales. In addition to the importance of local contexts, this is also due to a lack of experience surrounding needs and the effectiveness of adaptation responses. MRE is a critical area of action for tracking progress in adaptation actions. Effective MRE relies not only on qualitative assessment and reflection, but also data. There is a notable lack of data tracking adaptation actions in the EU and MS at the national, regional, or local level. Land cover and land use information is available through the EEA's 'Urban Atlas' datahub, but is only updated every six years, and remains challenging to access and evaluate. Data on EU-level objectives, such as the river restoration target, should also be readily available. The adoption or updating of EU standards or norms would also be a positive development. Adopting the EC (2023t) guidelines aiming to harmonise national adaptation strategies and plans will enable improved assessment of adaptation actions in the EU.

Enabler 2: Setting up robust adaptation governance

Past progress: There was notable progress on adaptation governance in the period assessed, as the topic reached the mainstream in the last decade or so. The adoption of the new EU Adaptation Strategy in 2021 was an important development, laying out a clear framework to accelerate and improve adaptation implementation across the EU by 2050. It is a positive sign that all EU MS have a national adaptation policy document in place. Some MS have even begun developing regional and sectoral adaptation plans, though they remain a minority. With only one data point, it was harder to identify a trend in the adoption of MRE practices. However, as these form integral parts of national adaptation strategies and plans, it can be assumed that there is a general trend towards increased development of these approaches. This is echoed in the EEA's study on the topic (EEA 2023d). In general, we see that monitoring is most commonly in place, followed by reporting and then evaluation. The latter of these is difficult and time consuming, which may explain the notable lack of efforts within Member States. However, it is worth noting that simply identifying whether MS have adaptation policies and MRE approaches does not allow us to gain insight on the quality or robustness of their approaches, which would require a more detailed assessment.

Indicators:

- National adaptation policy in place
- Monitoring, reporting, evaluation in place or being developed

Policy context: Adaptation governance at the EU level is formalized through the EU Adaptation Strategy. At the MS level, adaptation policy is operationalised through national adaptation strategies or plans (NAS/NAP), which have existed in all 27 MS since 2020. However, while all countries report having such policies in place, these do not all have the same scope, content, or structure (EEA, 2023d). In some countries (15), NAS/NAP documents have already been through at least one revision cycle since their initial adoption. The EEA is currently carrying out a more in-depth review of MS' adaptation policy instruments, to understand their frameworks and legal obligations, monitoring and reporting mechanisms, and updating cycles. The requirements of the Governance Regulation also lay out certain stipulations with regards to national adaptation reporting.

Areas of action: As discussed, comprehensive implementation of MRE frameworks across MS is of utmost importance to insure consistency and effectiveness of adaptation approaches. Similarly, it is important that national adaptation policies are assessed for their ambition and coverage, to ensure that they are working towards the high-level objectives of the EU Adaptation Strategy. Furthermore, cross-sectoral policy coherence is a key opportunity for coordination of adaptation actions (EEA, 2023d). Despite the adaptation mainstreaming occurring in all MS, only seven countries currently report sectoral adaptation policies. Similarly, regional adaptation plans present an opportunity for countries to specifically target adaptation actions in areas where certain climate impacts may be more important, or where certain sectors are significantly more vulnerable and require extra adaptation actions.

Enabler 3: Financing adaptation

Past progress: The situation surrounding adaptation finance is challenging. At the EU level, adaptation finance – as a distinct measure from climate finance (covering both adaptation and mitigation) – remains a relatively new topic. As such, gaining a clear picture on the state of adaptation finance remained especially difficult. At the national level, the situation varied significantly. Few countries detailed either required budgets for adaptation or actual spending on adaptation in their national adaptation policies. Even fewer demonstrated comprehensive tracking of planned adaptation expenditure (Ramboll et al., 2023). Furthermore, the methodologies employed, and scope of such budgets differed significantly. Consideration of other aspects of adaptation planning (such as ancillary or co-benefits) was virtually non-existent with regards to budgeting and finances.

Indicators:

- Total investment needs
- Total planned expenditure
- Actual spending

Policy context: Despite recognition of the challenges associated with incorporating climate risks and investment in national budgets, the EU Adaptation Strategy includes an action related to ‘integrating climate resilience in national fiscal frameworks’ under the umbrella of ‘more systemic adaptation’. The strategy notes that extreme weather events and slower-onset climate effects will lead to increased government spending and potentially negative impacts on economic growth. These need to ‘be reflected in budgetary planning’, with significant emphasis placed on the need for sound risk assessments, scenario analyses, and stress-tests. Effective disaster risk management is also highlighted as a key element. The strategy also points to ‘dedicated funds and instruments, both at EU and national level, such as from the EU Solidarity Fund’ as integral to contributing to disaster recovery efforts. Climate adaptation and resilience are furthermore identified as important elements of the EU’s pandemic recovery efforts, especially via the Recovery and Resilience Facility. Related national plans are required to allocate at least 37% of their budgets to climate action covering both mitigation and adaptation. The Adaptation Strategy also links to other EU-focused initiatives such as the sustainable finance efforts, including the EU taxonomy on sustainable activities. Finally, the Governance Regulation covers national reporting on adaptation, but no requirements related to budgets or finance.

Areas of action: Monitoring and tracking adaptation finance needs to be improved and streamlined. Availability of information and data on adaptation finance (i.e. investment needs, planned expenditure, actual spending) at the MS level is low, and cannot be assessed in a comprehensive manner. Additionally, it would be important and helpful to monitor the integration of climate risk assessments into other investment areas, such as infrastructure, spatial planning, housing, etc. The EC’s guidelines on harmonising adaptation strategies and plans across MS (EC, 2023v) specifically recommend the development of a dedicated adaptation budget in the context of a comprehensive national climate action budget, considering synergies between mitigation and adaptation. It also suggests that investment needs in the action plans identify the share coming from public budgets versus the share under the mobilisation of private finance. Generally, improved adaptation MRE practices will help gain a clearer picture not only of this enabler, but also in the areas of adaptation governance and adaptation actions.