



Policy Brief

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www.base-adaptation.eu

Key Policy Issues in implementing and evaluating the EU Adaptation Strategy

Summary

The **BASE project** has produced **ten recommendations** for improving the practical implementation of the three overarching objectives of the EU Adaptation Strategy. The BASE recommendations emerged from general modelling approaches combined with careful analyses of individual case studies across Europe. The recommendations were scrutinized by adaptation stakeholders and experts in a co-creation workshop in June 2016.

The overall message of the recommendations is that we need a **change in adaptation practice, supported by coherent and integrated policies** to take preparedness for current and future climate impacts to the next level. The very nature of climate change impacts calls for diverse and interconnected actions to strengthen adaptive capacity.

The recommendations are accompanied by **ten targeted questions**. The BASE project proposes these questions as a **practical guide for the review of the EU Adaptation Strategy**. The questions can be used to examine how far the objectives of the Strategy are being met and how the Strategy has contributed to a change in practice in particular at the local level. On this basis it will be possible to **identify key areas for revision or strengthening of the Strategy**.



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Overview

The EU Strategy on Adaptation to Climate Change was adopted by the European Commission in April 2013. The Strategy set out a framework and mechanisms for taking the EU's preparedness for current and future climate impacts to a new level. To support these objectives, the EU's 7th Framework Programme for Research has funded several international and multi-disciplinary research projects. **The BASE project** (www.base-adapt.eu) is one of these projects and has run from 2012 – 2016. BASE has focused in particular on questions related to local level action by exploring 23 carefully chosen case studies across Europe with an emphasis on **costs and benefits, policy coherence, implementation and stakeholder participation**.

An important overall empirical finding from BASE is that suitable and successful adaptation policies, planning and actions **are highly context-specific** and thus many

details need to be adapted to countries, regions, local areas, and sectors. Moreover, adaptation may turn out differently depending on the specific economic and societal developments that Europe will experience in the next 50 years and beyond. In other words, **adaptation is contextual and characterised by flexible management**, where strategies and plans are revisited, revised, and refined according to the conditions, changing projections and interests of the stakeholders.

Another important observation is that given a situation of often scarce resources to support local climate adaptation, adaptation planning should systematically seek **measures that provide co-benefits** to ensure that climate adaptation is undertaken in a timely, cost-effective and sustainable manner.

A major challenge is to find ways to integrate the European Adaptation Strategy with specific or local adaptation pathways, as well as the exchange of analysis, evidence and good practice across Member States. This policy brief **highlights policy observations from the BASE project** and the participatory process that was organised to develop them.



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The following **ten recommendations on the implementation of climate change adaptation policies** have emerged from the research carried out in the BASE project. They are accompanied by **ten questions to guide the review of the Adaptation Strategy**. The recommendations and guiding questions were reviewed and developed in the BASE policy workshop in Brussels, June 9th, 2016. The workshop attracted more than 80 participants from 14 countries working across different governance levels (Local, National and European), and different organisations, including NGOs, national and local governments, the European Commission and the OECD.

These co-created policy recommendations are structured according to the three main objectives of the EU Adaptation Strategy (promoting member states actions; informed decision making; promoting sectorial actions). The recommendations inform and support the development of European adaptation policy at different levels. They have been developed to **provide a constructive contribution** to the topics or specific issues that are essential for the practical implementation of the EU Adaptation Strategy and should therefore also be considered by the European Commission in the review of the Strategy.

EU Adaptation Strategy Objective 1: Promoting action by Member States

Recommendation 1: National and local authorities should explicitly consider how their activities affect adaptation at other governance levels, in other policy sectors and across borders.

Justification: Analyses in the BASE project have shown that policy interventions at one governance level and/or in one member state or sector can have spill-over effects into others which may be positive or negative. These are often neglected or underestimated in policies and strategies. Therefore, policy-makers at all levels of governance need to consider the wider effects of sector specific actions at a given governance level. Consultations, policy coordination and assessments should be utilised to identify and take into account wider direct and indirect spill-over effects. Their impact on national and EU adaptation objectives should be considered, and if significant, adjustments of actions should be made where possible to avoid negative spill-over effects and take full advantage of any positive side effects. Mandatory local adaptation plans would help to address this kind of challenge.

Question for the review of the EU Adaptation Strategy: Have EU Member States developed and put in place mechanisms that ensure proper impact assessment of activities and projects that significantly affect possibilities to adapt to climate change?

Recommendation 2: The public sector should provide proactive and sustained leadership in adaptation by securing investments and targeted budgeting that supports local level adaptation.

Broad reviews of adaptation show that spontaneous adaptation does not always progress easily even if the vulnerability is significant. In this way, the public sector plays an essential leadership role. Public authorities can facilitate policy coherence that maximises synergies and minimises contradictions within existing policies across sectors and levels of governance. In times of economic austerity, the search for these synergies and a longer term perspective are particularly important so that public budgets can be efficiently allocated to adaptation.

While the EU and its Member States have dedicated funding for adaptation - for example through the European Structural and Investment Funds - it does not always reach areas where the need is greatest. More effort and capacity building from the EU and Member States is required to support local action. Obstacles to investments in vulnerable areas include the financial risk to public and private funders. The EU can alleviate these problems by providing full or partial financial risk guarantees. Such guarantees can, for example, be achieved through regulation or the issuing of climate investment bonds by the European Commission, individual countries or financing institutions. These instruments can also encourage private investments in adaptation.

Question for the review of the EU Adaptation Strategy: Have Member States explored alternative and complementary ways of encouraging public and private investments in local level adaptation?



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Recommendation 3: National and local authorities should maintain forums for sharing and exchanging adaptation experience with stakeholders across policy sectors and governance levels.

Justification: Those working in different policy contexts, sectors and governance levels should have opportunities to share information on adaptation activities. Authorities can ensure this sharing by strengthening existing forums and creating new ones for dialogues between groups. Care should be taken to allocate

sufficient resources to design and managing these forums. They should bring together different actors and allow for reflection on relevant research findings. Cross-border forums are particularly important but also demanding as they may require the bridging of cultural, administrative and language barriers. Existing and emerging cross-border forums should be actively supported by European and national resources. The forums for sharing and exchanging experiences of enabling factors and constraints to adaptation planning provide a base for innovative learning. Networks and forums also support institutional dialogues that improve integration and policy coherence.

Question for the review of the EU Adaptation Strategy: Have Member States established or provided support to forums that share and distribute information on climate change adaptation at different levels of governance?

EU Adaptation Strategy Objective 2: Better informed decision-making

Recommendation 4: The visibility and usability of the European Climate Adaptation Platform (Climate-ADAPT) should be enhanced and the connection to national adaptation platforms should be strengthened.



<http://climate-adapt.eea.europa.eu/>

Justification: The Climate-ADAPT platform provides European information on adaptation experiences but the visibility of the platform has not reached its full potential. The platform could enhance its visibility and usability for end-users through translation of its content into all European languages and by improving the graphic-user-interface to make it more user-friendly, action-oriented, and specific to different user groups. In particular, there is a need for Climate-ADAPT to support ways to access adaptation financing via European, national and other funding sources. The platform should be more actively used to foster an engaged user community that can be brought together not only to disseminate information but also to co-create adaptation solutions. Climate-ADAPT could strengthen the European adaptation community and improve the implementation of the EU Adaptation Strategy by enhancing links with and between national platforms, in facilitating person-to-person meetings, and acting as a host for webinars. A more active use of Climate-ADAPT will require additional funding but this funding could be a highly cost-effective way of improving the implementation of the European Adaptation Strategy.

Question for the review of the EU Adaptation Strategy: How have the Member States used Climate-ADAPT and what role do they see for the platform in supporting national and local adaptation initiatives?

Recommendation 5: Stakeholder and citizen participation in adaptation decision making should be promoted at all levels of governance.



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Justification: Adaptation decisions affect stakeholders and citizens in different ways. It is therefore crucial that those concerned are involved in developing and making decisions about measures. While participatory processes can take time and require resources, they pay back in the longer term by enhancing common understanding of the challenges and by improving public acceptance and implementation of adaptation actions. Fulfilling the recommendation will require capacity building among authorities and citizens alike to ensure solutions are co-created. Although descriptions and guidelines for participatory methods exist, they should be actively promoted in the climate change adaptation context through relevant web portals, such as Climate-ADAPT. The use of participatory methods should be promoted by making inclusion of stakeholder and citizen participation mandatory in adaptation projects funded by the EU.

Question for the review of the EU Adaptation Strategy: How have Member States promoted participation to ensure the co-design and co-implementation of climate change adaptation at the local level to strengthen adaptation?

Recommendation 6: Economy-wide assessments should be used to analyse the efficiency of adaptation decisions at a national and wider European level.

Justification: Climate adaptation strategies have impacts across the whole economy at the national and European level. It is therefore important that national and EU decision makers use results from sectorial and integrated economic models to develop more coherent and efficient national and EU adaptation strategies. Such integrated models should consider also intangible (social and environmental) and indirect effects. The uncertainties in the model results should be systematically analysed and communicated. It is important that models are brought into transparent operational practice, i.e. EU and national agencies or research institutes should maintain and run such



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models for operational decisions. Economy-wide models support decisions on strategies on the European or national level, but should be complemented with detailed and tailored economic evaluations for specific adaptation decisions on the local level.

Question for the review of the EU Adaptation Strategy: What approaches and models have been used for assessing the economy-wide issues of climate change adaptation and how have these analyses influenced adaptation action at the European and national level?

Recommendation 7: Policy makers should draw on a mix of tailored methods to achieve balanced and nuanced decisions on specific adaptation measures.

Justification: There is a need for contextualised risk scenarios that demonstrate the necessity for, and impact of, specific adaptation measures. Methods to support decisions on these individual adaptation measures at the local and regional level should be tailored to the specific decision situation by combining economic assessment methods such as Cost-Benefit Analysis, Cost-Effectiveness Analysis and Multi-Criteria Analysis, with flexible planning approaches (e.g. Dynamic Adaptation Pathways) and participatory methods (e.g. Scenario Workshops). This will strengthen the knowledge base for local adaptation decisions and will help to identify interactions and synergies between different policy levels and scales. The assessment tools should reflect a wide range of relevant evaluation criteria to allow stakeholders and decision makers to reach balanced decisions. This process also requires systematic analyses of uncertainties that affect the outcomes of the assessments and an empowerment of decision makers and stakeholders at the regional level to use the assessment results.

Question for the review of the EU Adaptation Strategy: What evidence is available on the use of systematic methods for supporting decision making on adaptation at the local and regional level and what are the obstacles that have been encountered in the use of such methods?

EU Adaptation Strategy Objective 3: Climate-proofing EU action - promoting adaptation in key vulnerable sectors

Recommendation 8: Agriculture sector authorities at the EU level (DG AGRI, DG REGIO) and in Member States should prioritise improvement of soil quality to ensure long term sustainability of production and promote natural water retention measures as cost-effective adaptation options.

Justification: Evidence from BASE highlights that effective water management is crucial for agricultural productivity across Europe, as impacts of climate change on water availability and water quality are felt from the Mediterranean to North Western Europe. Farmers across Europe experience the consequences of increasing competition over water resources between agricultural and industrial water uses and a large change in land use is expected across all future climate scenarios. Agricultural and land use policies should promote effective water management including the use of natural water retention measures as cost-effective adaptation options that also

support improvement of soil quality. This is crucial for the long term sustainability of agricultural production. Additional funds are not needed if climate change adaptation considerations are integrated in existing funding and support schemes.

Question for the review of the EU Adaptation Strategy: What is the evidence that soil and water management are progressively taking changing climatic conditions into account? Which are the main stumbling blocks for progress?



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Recommendation 9: Indirect effects of floods should be taken into account in assessing costs and benefits of adaptation and risk management for the water sector

Justification: A significant part of the costs arising from climate change are of an indirect nature, especially in urban areas, (e.g. business interruption, production losses from disaster events, psychological effects on citizens). Thus, they are frequently overlooked in evaluations of costs and benefits of adaptation options. It is therefore vital that effective investments in e.g. flood risk management and other adaptation actions include analyses of these often neglected indirect effects. Organisations such as Eurostat, insurance companies and civil protection authorities need to develop and adopt standards for assessing and monitoring indirect effects. Local governments, NGOs and other local actors need to be empowered to recognise and report on indirect effects, thereby contributing to the information that can be used in comprehensive cost benefit analyses (CBA). The indirect effects should be addressed in full CBAs and other assessments of adaptation measures to correctly estimate the business case of adaptation measures.

Question for the review of the EU Adaptation Strategy: Have Member States recognised the diversity of climate change impacts and have systematic approaches been adopted for identifying and assessing indirect effects?

Recommendation 10: To ensure coherent, cost-effective and sustainable climate adaptation, decision makers should systematically consider potential co-benefits in implementing combinations of different adaptation measures.

Justification: BASE research shows that different types of measures - grey, green and blue infrastructure or soft measures - offer different risk reduction advantages at different geographical and temporal scales. For instance, adapted buildings can significantly reduce flood risks especially in urban areas (see the BASE Flood model), but the reinforcement of dikes can be a more cost effective measure when looking at regional or even macro-regional planning. Yet again, natural water retention measures (NWRM) may offer multiple benefits, reducing climate change impacts on, for example, both biodiversity and physical infrastructure. It is therefore important that decision makers working in specific sectors and/or at local/regional level consider how combinations of measures can provide co-benefits that lead to more coherent, cost-effective and sustainable climate adaptation responses. Analysing combinations of measures is also important to ensure coherence across responses where climate change impacts are inter-connected, as in the case of flooding and erosion.

Adaptation measures that provide wider benefits for society at relatively low cost and risk should be actively identified and adopted. For example in the health sector, the Heat Health Watch Warning System (HHWWS) is a measure that can provide high benefits at relatively low cost in terms of reducing the risks caused by heatwaves.

Question for the review of the EU Adaptation Strategy: What approaches and methods have been adopted by Member States and the European Commission to allow for systematic assessment of co-benefits of climate change adaptation measures?

Conclusions

A combination of general modelling approaches, careful analyses of individual case studies across Europe and close interaction with stakeholders have provided salient findings that provide practical support to the EU Adaptation Strategy and its adoption in Member States.



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The overall conclusion is that we need a **change in adaptation practice, supported by coherent and integrated policies** to take preparedness for current and future climate impacts to the next level. The very nature of climate change impacts calls for diverse and interconnected actions to strengthen adaptive capacity. The EU Adaptation Strategy needs to provide a base for sustained leadership in adapting to climate change with a focus on the local and regional level.

Each of the three key objectives of the strategy has its own specific features that require dedicated action to progress beyond rhetorical statements on the importance of adaptation to climate change. **Member States in particular must act to provide**

leadership and funding at the local level where a large part of the practical activities take place.

To achieve better-informed decision making the EU and Member States should **strengthen Climate-ADAPT**, support additional **economy-wide assessments** of costs and benefits, make better use of **combinations of analytical tools** and, above all, develop **transparent and participatory practices**. These support measures will improve practical action in particular at the local level where some of the most important decisions on climate adaptation will be made.

Improved climate-proofing will require awareness-raising in different sectors to support the emergence of cost-effective innovative solutions for adaptation. In particular, **sectors should be encouraged to actively search for solutions that provide co-benefits** for other areas and that are meaningful to implement, regardless of the pace of climate change. This will encourage a diversity of innovative local solutions that can be adjusted and replicated to achieve a genuine upscaling of climate change adaptation.

By examining and evaluating how the EU Adaptation Strategy has contributed to a change in practice under each of the three main objectives it will be possible to **identify key areas for revision or strengthening the Strategy.**

The co-creation of this document

BASE work-package leaders and leaders of the production of deliverables jointly identified the policy relevant conclusions from each of the deliverables. These approximately 40 policy relevant conclusions were assembled and aggregated into eleven key observations that were distributed to all participants in a co-creation workshop that was organised June 9, 2016. Participants in the workshop included representatives of local cases, national policy makers, representatives of DG Clima, DG Research and OECD as well as researchers. After general discussions on findings from different cases the workshop participants discussed in detail the 11 policy observations in groups of 5-6 persons. Each discussion was documented and reported to the plenary. Based on the discussions the facilitators of the discussions at the co-creation workshop revised the observations that were turned into ten policy recommendations with justifications. The workshop participants were given an opportunity to comment on the draft recommendations.



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