



Study to support the evaluation of the EU Adaptation Strategy

Summary, December 2017



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Table of contents

Table of contents	i
1 Introduction	1
2 Background to the Strategy	1
3 Method	2
4 Summary responses to evaluation questions	2
4.1 Relevance	2
4.2 Effectiveness.....	3
4.3 Efficiency.....	8
4.4 Coherence	8
4.5 EU added value	9
4.6 Overview	9
5 Recommendations	10
5.1 Continue promoting action by Member States	10
5.2 Continue promoting better-informed decision making.....	10
5.3 Ensuring that EU funding plays a catalytic role	11
5.4 Linking DRR and adaptation	13
5.5 Mainstreaming ecosystem-based adaptation	13
5.6 Ensuring greater coherence between adaptation and mitigation.....	14
5.7 Ensuring more resilient economic sectors	14
5.8 Addressing the EU’s vulnerability to climate impacts taking place outside Europe and cooperating with non-EU countries	15
5.9 Aligning with international obligations under the Paris Agreement.....	16
5.10 Internal coherence of the EU Adaptation Strategy.....	16
6 References	17

1 Introduction

The current EU Adaptation Strategy (European Commission, 2013a)¹ was published in April 2013. This study provides support to the evaluation of the Strategy, examining its actual implementation and performance.

Drawing on available evidence, the study looks at the experience gained, the lessons learnt and assesses whether what has happened, in practice, meets the expectations of the Strategy when it was launched. The study analyses in which sectors the actions derived from the Strategy have shown good progress and the extent to which the implementation of each of the eight actions under the Strategy has advanced.

The study has been carried out in compliance with the requirements of the Better Regulation Guidelines (European Commission, 2017a). The evaluation covers the period from the launch of the Strategy in 2013 to mid-2017. The approach reflects the relatively recent implementation of the Strategy and considers if its objectives and actions respond to the current needs and priorities in different policy sectors at local, national and international level. The evaluation builds on the work of other organisations, particularly recent assessments of the LIFE and Mayors Adapt programmes and an ongoing evaluation of the Climate-ADAPT platform². The evaluation covers all the European Union's Member States.

2 Background to the Strategy

In April 2013, the European Commission adopted the Communication: 'An EU Strategy on Adaptation to Climate Change' (European Commission, 2013a). "The overall aim of the EU Adaptation Strategy is to contribute to a more climate-resilient Europe. This means enhancing the preparedness and capacity to respond to the impacts of climate change at local, regional, national and EU levels, developing a coherent approach and improving coordination."

The Strategy commits to delivering three specific objectives, through the implementation of eight actions. The alignment of the actions with each of the objectives is summarised in Table 2-1 (below).

Table 2-1 Alignment of the Strategy's actions with each of the objectives

Objectives	Actions
Promoting action by Member States	<ol style="list-style-type: none"> 1. Encourage all Member States to adopt comprehensive adaptation strategies 2. Provide LIFE funding to support capacity building and step up adaptation action in Europe. 3. Introduce adaptation in the Covenant of Mayors framework
Better informed decision-making	<ol style="list-style-type: none"> 4. Bridge the knowledge gap 5. Further develop Climate-ADAPT as the 'one-stop shop' for adaptation information in Europe
Climate-proofing EU action: promoting adaptation in key vulnerable sectors	<ol style="list-style-type: none"> 6. Facilitate the climate-proofing of the Common Agricultural Policy (CAP), the Cohesion Policy and the Common Fisheries Policy (CFP) 7. Ensuring more resilient infrastructure

¹ http://ec.europa.eu/clima/policies/adaptation/what/documentation_en.htm

² Note that a draft of this will only be available to the current study later in 2017

Objectives	Actions
	8. Promote insurance and other financial products for resilient investment and business decisions

3 Method

This evaluation considered 10 evaluation questions under five primary evaluation criteria of: relevance, effectiveness, efficiency, coherence and EU added value (European Commission, 2017a).

The Impact Assessment for the EU Adaptation Strategy (European Commission, 2013b) identifies the situation in 2013 before the EU Adaptation Strategy was launched. It also identifies planned inputs, outputs and activities of the Strategy as well as expected results and operational objectives for the Strategy.

The method used to address the evaluation questions compares the current state of play with the expected results and operational objectives from the impact assessment. No comparison is made with the expected situation in the absence of the Strategy as this is not available in the Impact Assessment.

Evidence to date has been gathered through:

- Literature review, complemented by reviews of
 - Adaptation scoreboards for EU Member States
 - Review of Nationally Determined Contributions (NDCs) relating to adaptation for 15 states that are not members of the EU
 - List of EU legislation and guidance documents/guidelines where climate adaptation is currently mainstreamed, or has potential to be mainstreamed
- Targeted stakeholder survey
- Stakeholder interviews
- A stakeholder workshop.

4 Summary responses to evaluation questions

It should be noted that the evaluation is ongoing and therefore these summary responses to evaluation questions are preliminary and based on the evidence to date. Responses to evaluation questions and conclusions may continue to evolve over the remaining period of the study in the light of further evidence.

4.1 Relevance

To what extent do the objectives and actions of the Strategy (still) respond to needs within the EU and at international level?

1. There is a continuing need for adaptation action to be taken at all levels, because there is good evidence that large economic costs can be associated with inaction in a context of increasing climate change impacts.
2. There continues to be a need for more consistent and comprehensive climate-proofing of EU policies, investments in infrastructure in the EU, insurance and other financial products.

3. There are several key vulnerable sectors where greater focus on adaptation effort is required at EU level including: water and drought; local and urban adaptation; agriculture policy; and climate finance, insurance and business.
4. There continues to be a need to bridge the previously identified knowledge gaps³. In addition, new knowledge gaps have emerged since the Strategy was launched. The flow of this knowledge into information channels like Climate-Adapt needs to improve.
5. New issues and knowledge gaps, not addressed in the present strategy, are relations between adaptation in Europe and adaptation in the rest of the world, as well as the need to align with the Paris Agreement; the impact of high-end climate change and tipping points; and strategies for implementation of adaptation measures and technologies in practice (e.g. climate services).
6. Supporting the integration of adaptation in infrastructural sectors such as energy, transport, water, waste and information and communication technologies (ICT) remains important. Significant benefits are possible with relatively low investments, when measures are taken in the construction phase.
7. Insurance and financial products remain relevant to involve the private sector in adaptation and to reduce disaster risk in business decisions.

How relevant is the Strategy for the different stakeholders at local, regional, national and supra-national level?

1. Evidence from the targeted stakeholder survey and interviews shows that the objective of promoting adaptation action by Member States remains relevant. Respondents have found information and explicit support from the EU helpful for developing and implementing adaptation actions.
2. The local level and the private sector are crucial for climate-proofing of new infrastructure, but there remains a lack of capacity to undertake adaptation measures among these stakeholders.

4.2 Effectiveness

To what extent have the objectives been achieved since 2013?

1. The Strategy's effectiveness in encouraging development and adoption of national adaptation strategies is difficult to assess, as most Member States were already developing them at the time of the Impact Assessment.
2. Other factors, most notably the global adaptation goal established by the Paris Agreement, may have been equally important.
3. Feedback from stakeholders suggests that the Strategy increased political salience of the need for Member States to adopt national adaptation strategies.
4. The adaptation ex ante conditionality for ESIF programmes was a particularly effective mechanism for ensuring adoption of national adaptation strategies.
5. Mainstreaming adaptation into EU policy has been effective in focusing on areas of Commission activity where commitments to mainstream were made in the Strategy.
6. Taking the points above into account, evidence suggests that the Strategy has been effective in progressing delivery of its objectives and associated actions. The only exception may be with regard to Action 8 where evidence is equivocal.

To what extent has each of the eight actions of the Strategy contributed to these achievements?

Action 1: Encourage all Member States to adopt comprehensive adaptation strategies

1. Despite uncertainties about the impact of the Strategy relative to other drivers, it may be inferred that the voluntary nature of the actions under the Strategy has been effective in encouraging Member States to adopt national adaptation strategies.
2. The Strategy appears to have been more effective in encouraging preparatory activities and less effective in promoting implementation and review.
3. The Commission's guidelines have been used by Member States that had not previously developed national adaptation strategies and by other Member States in the review or translation of their existing strategies into national, sectoral or local adaptation plans.
4. As already noted, use of ex ante conditionalities linked to adaptation in the ESIF was important in encouraging adoption of national adaptation strategies.

Action 2: Provide LIFE funding to support capacity building and step up adaptation action in Europe (2014-2020)

1. LIFE funding is not matched to the scale of the climate change challenge but stakeholder feedback suggests that LIFE is acting as an effective catalyst, providing and disseminating solutions and best practices.
2. All LIFE projects include measures for dissemination of information and awareness raising but monitoring focuses in individual projects and is thus ineffective in assessing the programme's role in knowledge transfer and capacity-building across the EU.

Action 3: Introduce adaptation in the Covenant of Mayors framework

1. By 10 July 2017, a total of 874 signatories to the Covenant of Mayors from 33 countries had committed to conduct vulnerability and risk assessments, and develop, implement and report on adaptation plans.
2. Limited stakeholder feedback indicates some uncertainty as to the extent to which the Covenant of Mayors has been effective in having a positive impact on urban adaptation strategies.

Action 4: Bridge the knowledge gap

1. H2020 committed over €225 million to adaptation research projects starting between 2014 and 2017. The JRC may have spent roughly €10 million annually since 2013, but precise figures are not available.
2. With regard to the knowledge gaps identified in the Strategy, most effort has been focused on addressing regional and local-level analyses and risk assessments, and on frameworks, models and tools to support decision making.
3. The conclusions of PESETA 3, which may be released in early 2018, could provide an up-to-date indication of knowledge gaps in relation to climate change adaptation.

Action 5: Further develop Climate-ADAPT as the 'one-stop shop' for adaptation information in Europe

1. The Strategy has been effective in supporting continued development of Climate-ADAPT, including provision of communication tools to make information more readily available to decision makers. Visitor numbers have increased steadily.
2. It is very difficult to substantiate whether further development of Climate-ADAPT has led to better-informed decision making under the Strategy but the ongoing evaluation of the platform by the European Environment Agency (EEA) may provide greater certainty.
3. Feedback indicates stakeholders find Climate-ADAPT a very useful source of EU-level information on adaptation but an increasing number of other means of knowledge exchange, including national platforms, and language barriers make it doubtful that Climate-ADAPT can ever truly be effective as a one-stop shop.

Action 6: Facilitate the climate-proofing of the Common Agricultural Policy (CAP), the Cohesion Policy and the Common Fisheries Policy (CFP)

1. The Commission's guidance on how to further integrate adaptation into the CAP, Cohesion Policy and the CFP has led to progress but has not yet proved effective in promoting comprehensive and consistent mainstreaming.
2. Climate expenditure under the European Agricultural Fund for Rural Development (EAFRD) has a markedly stronger emphasis on adaptation than on mitigation. However, adaptation is not explicitly an objective of specific measures of rural development programmes; and the way in which both the EAFRD and the European Agricultural Guarantee Fund are tracked
3. Both the European Regional Development Fund (ERDF) and the Cohesion Fund (CF) provide contributions to climate adaptation objectives in many sectors but are particularly important for infrastructure investments.
4. The European Maritime and Fisheries Fund (EMFF) seems to have a minor focus on adaptation, raising questions about the extent to which the fisheries sector is climate-proofed.
5. The European Social Fund (ESF) targets social and employment actions, so it has less potential to be climate-proofed.

Action 7: Ensuring more resilient infrastructure

1. The 'Guide for addressing climate change adaptation in standards', which applies to infrastructure, was developed by CEN-CENELEC and adopted in April 2016.
2. Existing standards have been screened and prioritised resulting in a short list of 13 standards; their revision started in early 2017 and will take about four years.
3. The highly technical language of 'The European Commission Non-paper Guidelines for project managers: making vulnerable investment climate resilient' may limit their use by project developers.
4. Climate change adaptation considerations have been included in the preparation and approval process of European Structural and Investment Funds (ESIF) major projects (i.e. projects having a total eligible cost exceeding €50 million, or €75 million in the case of transport projects) and this has contributed to climate-proofing such projects. However, the requirements do not apply to smaller projects or projects financed through other funds.
5. The EU Adaptation Strategy has been effective in encouraging steps towards ensuring resilient infrastructure.

Action 8: Promote insurance and other financial products for resilient investment and business decisions

1. Evidence is equivocal in relation to the effectiveness of the Commission's actions to promote insurance and other financial products for resilient investment and business decisions. This may be due to insufficient action having taken place since the adoption of the Strategy.

What drivers and barriers (expected or unexpected) contributed to or stood in the way of implementation of the EU Adaptation Strategy and how did they affect it?**Action 1: Encourage all Member States to adopt comprehensive adaptation strategies**

1. As already noted, the Paris Agreement may have been as important as the Strategy in encouraging development of national adaptation strategies, although feedback from stakeholders suggests many other factors may have encouraged climate adaptation, particularly experience of extreme weather events.
2. Knowledge of economic, environmental and social costs of inaction may have less influence on national decision makers than tangible experience of climate impacts.

3. National adaptation strategies were in general not effective in identifying and addressing regional and cross-border issues; although to some extent European Territorial Cooperation programmes under the European Structural and Investment Funds were able to address this shortfall.

Action 2: Provide LIFE funding to support capacity building and step up adaptation action in Europe (2014-2020)

1. The complexities of LIFE funding may be a substantial barrier to its uptake.
2. The LIFE mid-term evaluation (MTE) has highlighted that integrated projects are complex and need public-private partnership models or grant funding to be viable.
3. The Natural Capital Financing Facility (NCCF) has not yet provided loans to any adaptation-related LIFE projects, as it has taken time for the European Investment Bank (EIB) to understand how projects can generate revenue or cost savings from goods that are freely available.
4. From the perspective of EIB, a strong regulatory framework can encourage investment in adaptation but the regulatory framework for adaptation is generally weak, which has implications for the NCCF.
5. As lack of technical assistance in developing viable business models for complex innovative projects may be a barrier to provision of loans by the NCCF, the EIB is building its capacity to support climate change adaptation.

Action 3: Introduce adaptation in the Covenant of Mayors framework (2013/2014)

1. Mayors Adapt experienced challenges which the transition to the Covenant of Mayors framework should have tackled. More evidence will be sought to assess whether this has been the case.
2. Important barriers to adaptation action by cities and local authorities include: insufficient financial resources, difficulties in translating results of cost-benefit analyses to a local level, lack of awareness and relevant technical expertise among staff, uncertainties in climate change projections.

Action 4: Bridge the knowledge gaps

1. Barriers to EU activities increasing knowledge of climate change impacts and adaptation, include: institutional barriers within the Commission, lack of political will in some Member States, insufficient interactions between scientists and policy-makers and practitioners, difficulties with accessing data, insufficient cooperation between policymakers across Member States, and insufficient funding for research.
2. The EU Adaptation Strategy has helped to increase knowledge and awareness of climate change impacts and adaptation through provision of information, including Climate-ADAPT.

Action 5: Further develop Climate-ADAPT as the 'one-stop shop' for adaptation information in Europe

1. Evidence from EEA suggests the development of Climate-ADAPT has been limited by: insufficient past involvement of Directorate Generals other than DG CLIMA, difficulties in implementing specific IT needs of the Covenant of Mayors, and annual resources that have necessitated prioritising dissemination and networking over quality of content update and functionality.
2. Evidence from EEA identifies drivers that have stimulated development of Climate-ADAPT are: increasing interest in adaptation, and efficient linkage to Member States through management of the platform by a European Topic Centre (ETC).
3. Growing interest and engagement of various DGs and EU agencies means EEA is increasingly receiving information on EU policy developments and outputs from

EU-funded work, which is required to reach and promote action by sectoral organisations that should mainstream adaptation.

Action 6: Facilitate the climate-proofing of the Common Agricultural Policy (CAP), the Cohesion Policy and the Common Fisheries Policy (CFP)

1. High-profile political commitment to the Paris Agreement, establishment of the 20% climate mainstreaming target and associated climate expenditure tracking methodology have been important drivers of climate-proofing of the CAP, the Cohesion Policy and the CFP.
2. Mainstreaming promoted by the EU Adaptation Strategy was not always picked up by managing authorities at programme and investment levels.
3. Connections made between adaptation, risk prevention and civil protection in the Cohesion Policy have sometimes helped promote adaptation in key vulnerable sectors.
4. National adaptation strategies have served as a driving force for integrating adaptation considerations into key sectors.
5. It is challenging to define and measure adaptation actions, and establish adequate output indicators.
6. Adaptation measures need to be applied locally and regionally, which makes establishment of high-level political targets more challenging than for mitigation.
7. The lack of focus on adaptation and relevant targets within the Europe 2020 Strategy has made it harder to drive adaptation, than mitigation, actions.
8. Lack of dedicated EU legislation on climate change adaptation can be regarded as a barrier.

Action 7: Ensuring more resilient infrastructure

1. Factors that have contributed to promotion of more resilient infrastructure in the EU include: some European cities' involvement in '100 Resilient Cities' and the 'Making Cities Resilient' campaign (both non-EU initiatives), and the requirement that projects must fulfil conditions set out in the EIB's 'Environmental and Social Handbook' to receive finance from the bank.

Action 8: Promote insurance and other financial products for resilient investment and business decisions

1. As highlighted by the Federation of European Risk Management Associations (FERMA), the market penetration of insurance is influenced by insurance pools and systems controlled by the state, and the maturity of natural disaster insurance markets.
2. It is difficult to compare market penetration rates among Member States, as data collection is not standardised among national authorities.
3. Inadequate risk awareness and variations in the insurance culture among Member States may have limited market development for risk management and insurance policy instruments.
4. An important barrier may be that EU countries' disaster risk management and climate adaptation are dealt with in ministerial silos.

What effects has the Strategy produced so far for different stakeholders, e.g. according to socio-economic background and vulnerability?

1. There were too few responses to the targeted survey to differentiate the Strategy's effects on different stakeholders but more people may respond to the public consultation, which may be also supported by case studies.

4.3 Efficiency

How adequate were the resources for the overall implementation of the EU Adaptation Strategy and how proportionate were those resources across its eight actions?

1. Administrative costs directly resulting from the Adaptation Strategy are very low and mostly limited to the European Commission.
2. Costs for other stakeholders resulting from the strategy are voluntary in the majority of cases and linked to access to EU funds.
3. Feedback was limited but suggests that stakeholders found the resources adequate for implementation of the strategy and proportionate across the actions.
4. Yet there is insufficient evidence to conclude if the resources have been sufficient to truly support the achievement of the Strategy's objectives.
5. There is only a very limited monitoring and evaluation burden from the Strategy and no evidence of unnecessary burdens was found, although the costs could vary per stakeholder.

4.4 Coherence

How well does the Adaptation Strategy fit together with other relevant EU legislation and policies, or similar initiatives at international, national or regional level? Are there any gaps or inconsistencies between policies? Are there components to be further developed or added to increase coherence of actions?

1. Policy coherence has long been recognised by the Commission as an essential element in tackling climate resilience through the mainstreaming of adaptation into other policy areas.
2. Progress has been made in integrating adaptation concerns into a wide range of other EU policy areas, both those cited in the Strategy and others, and thereby achieving greater coherence.
3. However, further progress in identifying and exploiting synergies could have been achieved in some policy areas, particularly external policy areas (which were not addressed in the Strategy), and in climate change mitigation policy.
4. There might have been greater benefits for coherence had there been more central management of the 20% climate mainstreaming target for the 2014-2020 EU budget, with greater separate attention to adaptation as recommended by the European Court of Auditors (European Court of Auditors, 2016).
5. Coherence with action at the international level, while it has not been pursued by the Strategy, is nevertheless broadly present, particularly in relation to key agreements such as the Paris Agreement, the Cancun Adaptation Framework, and the UN Sustainable Development Goals.
6. However, synergies between EU internal adaptation action and external action, and the impact of external climate impacts on the EU's own resilience, have not been pursued.
7. Developments in international policy strongly suggest that international climate adaptation issues (e.g. adaptation as part of the Paris Agreement; UN Sustainable Development Goal 13) require action by the EU.
8. The Strategy does not conflict with action at national and sub-national level, although there is some evidence of gaps in coherence within and between Member States.
9. We have not found evidence of conflicts between the actions set out in the Strategy, although these seem largely to have been developed and implemented separately from each other. Some synergistic links have emerged; our hypothesis is that more systematic identification and pursuit of synergies would have been valuable.

10. There is potential for:
 - a. Greater links between risk management under agriculture policy and EU policy on insurance mechanisms
 - b. Improved understanding of the knowledge gaps that impede further progress in adaptation policy at Member State level and concerted action to address them
 - c. Greater coherence between action at city level (encouraged through the Covenant of Mayors) and action to improve national level adaptation activity; and
 - d. Greater coherence between disaster risk reduction (DRR) and Climate Change Adaptation policies, practices and knowledge.

4.5 EU added value

What is the added value of addressing climate adaptation at EU level, in addition to the vertical and horizontal cooperation at national level?

1. Most elements of the EU Adaptation Strategy appear to be adding value, compared with horizontal and vertical actions at Member State level.
2. Elements where the literature and stakeholders indicate there is greatest added value include:
 - a. Areas where the EU is responsible for integrating adaptation into its own policies (Action 6)
 - b. Areas where the EU is encouraging identification and bridging of knowledge gaps and EU wide research (Objective 2 – Actions 4 and 5, and also Action 2).
3. Only in relation to Action 8 is the evidence not strong enough to confirm whether the EU Adaptation Strategy is adding value. This may reflect a relatively low level of activity with regard to this action.
4. The EU added value is greatest where the Strategy is addressing “gaps”: in policies that need further mainstreaming; or in encouraging action in Member States or sectors that have received less attention. There is less added value where action was already underway.

4.6 Overview

Our overall assessment of the Strategy is that it delivered its individual objectives, with progress recorded against each of the individual actions. The nature of a strategy based on voluntary action makes it difficult to point to a counterfactual case of what would have happened in the absence of a strategy. However, the evidence suggests it is likely that the Strategy enhanced the political focus on adaptation issues, and increased awareness among a broad range of EU, Member State, and sub-national policymakers of the need for action.

The largely voluntary approach underpinning the Strategy appears to have been an appropriate response to the early stage of understanding of adaptation action, to the wide range of Member State situations and priorities, and to the need for policy experimentation. A wide range of stakeholders, including officials at EU and national level, now see a need for a step change in the urgency of adaptation action; international developments point to the need for greater collective action on resilience; and there is further evidence of risks from the direct and indirect impacts of high-end climate change. This suggests the need for an intensification and extension of the scope of action.

5 Recommendations

Evidence gathered during the evaluation of the EU Adaptation Strategy can inform recommendations for future activities under the Strategy.

5.1 Continue promoting action by Member States

Despite uncertainties about the relative importance of the Strategy relative to other drivers, evidence suggests that it has played an important role and been effective in progressing delivery of its objectives and associated actions much more still needs to be achieved.

Recommendation 1: There is a continuing need for the European Commission to promote action by Member States to develop a more climate-resilient Europe.

Specific recommendations are as follows.

1.1. While nearly all Member States have adopted national adaptation strategies; and the remaining Member States are in the process of doing so evidence suggests that there are still significant gaps in the effectiveness of Member State implementation of their strategies.

Recommendation 1.1: Further EU action following the voluntary approach to the preparation of national adaptation strategies could focus on tools:

(i) To encourage Member States to maintain and adapt their strategies, including through the energy and climate governance reporting arrangements, the continued use of ex ante conditionalities for ESIF expenditure, and

(ii) To facilitate action, including enhanced opportunities for transboundary cooperation.

1.2. It appears that there may be a lack of awareness as to the extent that the Covenant of Mayors has encouraged adaptation action.

Recommendation 1.2: The Covenant of Mayors should encourage equal emphasis on adaptation and mitigation, for example, not only disseminating information on commitments to adaptation but also on implementation of adaptation strategies and plans.

1.3. Cross-border coordination in respect of national adaptation strategies has been patchy; but is an important element in the EU added value of the Strategy. European Territorial Cooperation programmes have included a prominent focus on climate adaptation action.

Recommendation 1.3: Building on experience from the European Territorial Cooperation Operational Programmes, the Commission should identify areas where cross-border adaptation cooperation could help increase Member States' readiness to climate change impacts.

5.2 Continue promoting better-informed decision making

With regard to the knowledge gaps identified in the Strategy, most effort has been focused on addressing regional and local-level analyses and risk assessments, and on frameworks, models and tools to support decision making. It is very difficult to substantiate whether further development of Climate-ADAPT has led to better-informed decision making under the Strategy but EEA's own ongoing evaluation may provide greater certainty.

Recommendation 2: There is a continuing need for the European Commission to work with Member States to close existing adaptation knowledge gaps, address new ones as

they emerge and promote knowledge exchange between researchers, policymakers and practitioners.

Specific recommendations are as follows.

2.1. Adaptation is seen as a science-led issue and insufficient interactions between scientists and practitioners is a barrier to bridging the knowledge gap and use of research results in decision-making.

Recommendation 2.1: The European Commission should further encourage the practical application of results on adaptation from H2020 projects, further closing the gap between scientists and users.

2.2 New knowledge gaps have emerged since the Strategy was launched that now need to be addressed as a matter of some urgency.

Recommendation 2.2: The European Commission should foster research in two new areas: adaptation to high-end climate change, and the risks to the EU from climate impacts elsewhere, particularly, in neighbouring countries.

2.3 There is evidence of the potential benefits of deeper sharing of experience and discussion among Member States.

Recommendation 2.3: A community of practice (going beyond the Climate-Adapt mechanism, and including seminars and workshops) should be established to share good practice examples of adaptation actions among Member State authorities. This would be particularly useful and relevant if experience of successful adaptation measures could be identified for groupings of Member States that share common or similar impacts (e.g. river basins, sea-level risks, habitat degradation and loss or species range changes, disaster risks, or urban heat-island issues).

2.4. In addition to Climate-ADAPT, there is an increasing number of other means of knowledge exchange, including national platforms, and language barriers make it doubtful that Climate-ADAPT can ever truly be effective as a one-stop shop.

Recommendation 2.4: Climate-ADAPT should be focused on EU-level information. The development of national platforms that link to Climate-ADAPT should be encouraged through sharing experience and learning from existing national platforms.

5.3 Ensuring that EU funding plays a catalytic role

Funding under the LIFE programme has been identified as playing an important catalytic role; and the areas of the EU budget identified as priorities for adaptation mainstreaming (CAP and cohesion policy) have the potential to make a more targeted contribution to adaptation.

Recommendation 3: In developing proposals for the next financial framework, it will be important to address the potential contribution of a range of programmes to climate adaptation. In doing so, the added value of EU expenditure should be clearly identified, either in the form of a catalytic contribution (LIFE), or through the importance of using major EU budget instruments to address shared EU policy priorities (CAP, cohesion).

Specific recommendations are as follows.

3.1. The LIFE programme puts a strong focus on measurable impacts but does not monitor if projects are leading to knowledge transfer and capacity-building across the EU.

Recommendation 3.1: While it is compulsory for LIFE projects to demonstrate potential for transferability, monitoring appears to be focused on the LIFE projects themselves and new emphasis should be given to monitoring the extent to which they are leading to knowledge transfer and capacity-building across the EU.

3.2. The 2016 Court of Auditors report⁴ recommends that spending on climate mitigation and climate adaptation should be separately identified, and the Council conclusions of 21 March 2017⁵ recommend consideration of this option.

Recommendation 3.2: Commission should investigate the potential for separately tracking spending on climate mitigation and climate adaptation in the next financial framework, to provide clearer information on the overall EU budget contribution to improved climate resilience.

3.3. Expenditure under the European Agricultural Fund for Rural Development addresses adaptation objectives, but concerns have been raised that the expenditure tracking methodology leads to over-estimation of climate action, and that adaptation expenditure is not separately tracked.

Recommendation 3.3: Future programming and monitoring requirements for the EAFRD could enhance the effectiveness and relevance of expenditure by:

- (i) More clearly distinguishing between mitigation and adaptation objectives
- (ii) Clearer definition of the objectives for improved resilience, including more clearly distinguishing between action that enhances the resilience of participating land-use businesses and action that enhances broader societal resilience.

3.4. While the “greening” of direct payments under the European Agricultural Guarantee Fund (EAGF) has been justified primarily by reference to climate mitigation benefits, rather than adaptation benefits, there are nevertheless aspects of the obligations placed on recipients of direct payments which have clear adaptation benefits (for example, elements of Ecological Focus Areas; and elements of the cross-compliance requirements).

Recommendation 3.4: The European Commission should consider options for improving the future impact of EAGF with respect to adaptation including:

- (i) Action to optimise farm business choices in Ecological Focus Areas from the perspective of flood risk and water resource management (e.g. through guidance or allowing some limited modification of coefficients⁶ in relevant areas)
- (ii) More active use of Good Agricultural and Environmental Condition requirements for soils to improve water management and flood risk management.

3.5. The Commission has developed three guidance documents supporting the climate proofing of the Common Agriculture Policy, the Cohesion Policy and the Common Fisheries Policy. Although this action fulfils the call of Action 6 of the Strategy there is a need to better understand how these documents are being used by the Member States. Based on the programme documentation we have studied, our assessment is that managing authorities have not relied on the guidance documents significantly in the preparation of their programmes.

Recommendation 3.5: The promotion of a greater use of the adaptation technical guidance could help stimulate awareness within the managing authorities. This promotion should be based on an assessment of the extent to which the EC guidance documents on climate proofing the CAP, Cohesion Policy and the CFP were used in practice by managing authorities; and the use of this assessment to guide preparation of materials for the preparations of the post-2020 programming period.

3.6. Neither the European Social Fund (ESF), nor the European Maritime and Fisheries Fund (EMFF), has a direct focus on climate adaptation, reflecting the low

⁴ European Court of Auditors (2016). Special Report on ‘Spending at least one euro in every five from the EU budget on climate action: ambitious work underway, but at serious risk of falling short’.

http://www.eca.europa.eu/Lists/ECADocuments/SR16_31/SR_CLIMATE_EN.pdf

⁵ <http://data.consilium.europa.eu/doc/document/ST-7495-2017-INIT/en/pdf>

⁶ Farmers with arable areas exceeding 15 ha must ensure that at least 5% of that land is an ‘ecological focus area’. A range of types of feature can qualify as contributing to meeting a farm’s overall 5% requirement; their precise contribution is determined by weighting coefficients.

relevance of adaptation objectives compared to other European Structural and Investment Funds. Nevertheless, there is potential for a contribution from both to adaptation outcomes.

Recommendation 3.6: The Commission should identify proportionate approaches to improving the adaptation impact of both funds, including through an identification of skills gaps in relation to adaptation investments, and through measures such as protection and restoration of marine biodiversity.

5.4 Linking DRR and adaptation

This recommendation is based on findings regarding the relevance of the current adaptation actions, as well as the coherence of the current adaptation activities for linking adaptation with disaster risk reduction policies. Both policy areas work towards similar overarching objectives. However, the review of the current state-of-play and stakeholder views revealed that, rather than trying to find stronger synergies, currently both policy areas are mainstreamed (in parallel) into key EU policies and strategies, including those for critical infrastructure protection, environmental protection, financial instruments of the Cohesion Policy and the EU Structural and Investment Funds (ESIF), agriculture, food and nutrition security, and integrated coastal management. Hence, there is still a need to foster further coherence between DRR and CCA policies, practices and knowledge.

Recommendation 4: The coherence between climate change adaptation (CCA) and disaster risk reduction (DRR) should be further enhanced across all levels of governance (global, European, national levels) via closer vertical and horizontal, cross-border and transnational coordination and collaboration.

5.5 Mainstreaming ecosystem-based adaptation

In general, mainstreaming has been effective in focusing on areas of Commission activity where there is a need to follow through on commitments made in the EU Adaptation Strategy, however, there appears to have been notably less effort to integrate ecosystem-based approaches to adaptation.

Recommendation 5: The EU Adaptation Strategy recognised that ecosystem-based adaptation is cost-effective, easily accessible and provides multiple benefits, so greater efforts should be made to mainstream ecosystem-based approaches across all areas of Commission activity.

Specific recommendations are as follows.

5.1. Although the Covenant of Mayors already promotes cities' consideration of climate-related green infrastructure (e.g. through its inclusion in the Urban Adaptation Support Tool) more needs to be done to raise its profile.

Recommendation 5.1: The scope of the Covenant of Mayors should be explicitly extended to promote cities' consideration of climate-related green infrastructure.

5.2. The guidance on the mobilisation of ecosystem-based approaches to adaptation referred to in Action 7 of the EU Adaptation Strategy has not been issued.

Recommendation 5.2: The mobilisation and market uptake of green infrastructure and ecosystem-based approaches to adaptation should be further promoted.

5.6 Ensuring greater coherence between adaptation and mitigation

Better integration of, and the reinforcement of synergies between, adaptation and mitigation action is seen as an important objective by many stakeholders; it can help to improve the effectiveness of adaptation action.

Recommendation 6: EU action should encourage and facilitate better integration of, and the reinforcement of synergies between, adaptation and mitigation action.

Specific recommendations are as follows.

6.1. There is some evidence that the potential for greater coherence between adaptation and mitigation policy is not fully exploited.

Recommendation 6.1: Efforts should be renewed to identify actions that mutually reinforce adaptation and mitigation in the European context, drawing on work at UNFCCC level⁷, as a first step to ensuring greater coherence between mitigation and adaptation objectives and actions.

5.7 Ensuring more resilient economic sectors

Climate-proofing EU action through adaptation in key vulnerable sectors is an important goal of the Strategy and is important to prevent economic and social costs. Some progress has been made in ensuring that EU funding goes to projects that include climate resilience, that guidance is available to the private sector and that financial and insurance markets develop to support this, but more can be done.

Recommendation 7: The EU should ensure more resilient economic sectors and infrastructure by expanding and deepening efforts to include climate resilience.

Specific recommendations are as follows.

7.1. The inclusion of climate risk assessment requirements in EU-funded major projects has been useful, incentivising beneficiaries to incorporate adaptation considerations in project development. Yet some beneficiaries may apply for smaller projects or other funds rather than major projects to circumvent the climate-proofing requirements.

Recommendation 7.1: To ensure consistency across EU-financed projects and further promote the climate-proofing of vulnerable investments the requirements for climate risk assessment should be extended from EU-funded major projects to all EU-funded infrastructure projects.

7.2. The Non-paper on "Guidelines for Project Managers: Making vulnerable investments climate resilient" uses highly technical language and is thus difficult for beneficiaries that are not adaptation experts (e.g. infrastructure developers, energy providers, road companies) to understand. The expert survey showed relatively low awareness of the guidelines.

Recommendation 7.2: The European Commission Non-paper on "Guidelines for project managers: making vulnerable investment climate resilient" (European Commission, 2013a) should be reviewed to: ensure that the language is accessible to project developers; improve the visibility and awareness of the guidelines; support capacity building for implementation of the guidelines.

7.3. Mobilising private capital to fund sustainable investment by identifying ways to create financial regulation that accelerates the shift of private capital from environmentally and socially unsustainable to sustainable projects will be important

⁷ See: http://unfccc.int/resource/climateaction2020/media/1281/unfccc_spm_2016.pdf

to developing climate resilient infrastructure. The November 2016 proposal to amend the capital requirements legislation (CRR/CRD IV) would create a more risk-sensitive regulatory environment to promote high-quality infrastructure projects and reduce risks for investors.

Recommendation 7.3: Climate resilient investment should continue to be promoted by further pursuing the 2016 proposal (CRR/CRD IV) to amend the capital requirements legislation thereby creating a more risk-sensitive regulatory framework better incorporating climate risks into investment decisions.

7.4. Reducing policy risk has been identified as one of the major enablers to increase private climate finance. The interim report of the High Level Expert Group on Sustainable Finance⁸ concludes that the EU should “encourage the development of sustainable financial products, including by considering new political risk guarantees⁹ for sustainable infrastructure, and support for the development of green and social bond markets”. Thinking about concrete models for implementation, one scenario might be to structure the EU-policy risk insurance along the lines of a World Bank Political Risk Guarantee Scheme.

Recommendation 7.4: The introduction of political risk guarantees for sustainable (climate-resilient) infrastructure investments should be explored.

7.5. DG ECHO and CLIMA have been promoting the use of disaster insurance through dialogues and stakeholder meetings with MS and stakeholders, including the insurance sector. Whilst the activities undertaken to date by the Commission in this area have been useful there is a need to further increase climate risk awareness as a means of indirectly promoting insurance and risk prevention.

Recommendation 7.5: The Commission should continue to support development and sharing of disaster loss and damage data, as well as dialogue with Member States and stakeholders (through expert groups and stakeholder meetings) on disaster-risk insurance.

5.8 Addressing the EU’s vulnerability to climate impacts taking place outside Europe and cooperating with non-EU countries

The current EU Adaptation Strategy focuses solely on domestic action and does not address international climate change adaptation issues. There are examples of Commission policy documents identifying external climate risks and resilience challenges, although these generally address the impacts from a development policy perspective. Some stakeholders have pointed to a risk of not sufficiently recognising and addressing the EU’s own vulnerability to climate impacts taking place outside Europe, and of missing the potential opportunities for cooperation with non-EU countries.

Recommendation 8: The Commission should consider external aspects of climate vulnerability, including the impact on EU resilience, and the potential for synergies between EU domestic adaptation activity and the adaptation needs of other economies.

Specific recommendations are as follows.

8.1: The current EU Adaptation Strategy focuses on domestic action and as such it potentially risks failing to identify and address areas where there is potential for cooperation between the EU and other economies. This has particular relevance

⁸ https://ec.europa.eu/info/sites/info/files/170713-sustainable-finance-report_en.pdf

⁹ This is a form of insurance that protects investors from the hazard that a government will take actions that cause the insured large financial losses, for example retroactively removing or reducing subsidies/incentives for a sustainable infrastructure project.

now, as since the adoption of the EU Adaptation Strategy significant developments took place in the international sphere.

Recommendation 8.1: In line with the latest developments in the international adaptation framework, including the Paris Agreement, the Sustainable Development Goals and the Sendai Framework for DRR, the revised EU Strategy should address the links between EU and non-EU adaptation actions, including:

(i) The scope for EU experience and climate modelling to be shared more widely, particularly with developing countries, and

(ii) The identification of risks to the EU from climate impacts elsewhere, particularly in neighbouring countries, and commensurate actions required to improve the resilience of the EU accordingly (adaptation spillover).

8.2: The EU has made a submission to the UN on its undertakings in adaptation planning which is separate from its intended Nationally Determined Contribution (NDC). As a result, the EU's NDC focuses solely on mitigation actions, unlike the NDCs of a majority of parties (particularly developing countries) which cover both mitigation and adaptation.

Recommendation 8.2: Rather than providing a separate submission to the UN on EU undertakings in adaptation planning, it would be better to include adaptation in the Nationally Determined Contribution (NDC). This would send a stronger signal to other countries about the balance of efforts being made by the EU in relation to mitigation and adaptation.

5.9 Aligning with international obligations under the Paris Agreement

The Paris Agreement established the global adaptation goal to enhance adaptive capacity, strengthen resilience, reduce vulnerability to climate change and, thereby, contribute to sustainable development. Furthermore, it identified that Parties to the Agreement should strengthen their cooperation to enhance adaptation action.

Recommendation 9: The EU Adaptation Strategy should be aligned with international obligations under the Paris Agreement.

The specific recommendation is:

Recommendation 9.1: The cycle of the EU Adaptation Strategy should be aligned with the Paris Agreement cycle of the Global Stocktake in 2023 and every five years thereafter (i.e. the Strategy should be revised on the same schedule to keep it up-to-date and fit-for-purpose).

5.10 Internal coherence of the EU Adaptation Strategy

The internal coherence of the Adaptation Strategy is largely dependent on the absence of conflicts between its actions; however, limited effort appears to have been spent on exploiting synergies between the actions.

Recommendation 10: The current internal coherence should be maintained and further consideration given to how to enhance it further.

Recommendation 10.1: Internal coherence of the EU Adaptation Strategy should be enhanced for instance by considering:

(i) Greater links between risk management under agriculture policy and EU policy on insurance mechanisms;

(ii) Improved understanding of the knowledge gaps that impede further progress in adaptation policy at Member State level and concerted action to address them; and

-
- (iii)** Greater coherence between action at city level (encouraged through the Covenant of Mayors) and action to improve national level adaptation activity.

6 References

European Commission, 2013a. *Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions: An EU Strategy on adaptation to climate change, COM (2013) 216 final*, Brussels: European Union.

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