



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL  
CLIMATE ACTION  
Directorate C - Mainstreaming Adaptation and Low Carbon Technology  
Unit C3 - Adaptation

# **An EU Strategy on adaptation to climate change**

## **Results of the public consultation**

**May 2012 – August 2012**

*In line with the Commission's commitment to transparent and interactive policymaking this document aims at providing an overview and general impression of the feedback provided to the Commission in the context of a public consultation. The statements and opinions expressed in the document do therefore in no way necessarily reflect those of the Commission or the Commission services.*

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This report was finalised by DG CLIMA, based on an analysis of the consultation data carried out by Environment Agency Austria (Maria Berglund, Thomas Dworak, Rebecca Bachschmidt, and Sabine McCallum)

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## 1. INTRODUCTION

In April 2009 the European Commission adopted the White Paper on adaptation to climate change entitled "Adapting to climate change: Towards a European framework for action". The implementation phase of the White Paper (2009-2012) led to significant achievements. In particular:

- The vast majority of the 33 actions announced in the White Paper have now been implemented or are about to be.
- The European Climate Adaptation Platform, CLIMATE-ADAPT (<http://climate-adapt.eea.europa.eu/>), was launched in March 2012.
- More and more research findings are being made available on the costs of inaction and action on climate risks.
- Mainstreaming climate change adaptation into key EU policies has been and will continue to be an important element.

Building on this existing work, the EU Adaptation Strategy aims to enhance the preparedness and capacity to respond to the impacts of climate change in the EU, its Member States and regions, down to the local level. This includes, inter alia, preparing for and responding to rising temperatures, changing precipitation patterns, and extreme weather events.

Four key issues have been identified as a priority:

- **Improving knowledge:** the EU Adaptation Strategy should further the understanding of adaptation, improve and widen the knowledge base where knowledge gaps have been identified and enhance dissemination of adaptation-related information.
- **Facilitating cooperation:** the EU Adaptation Strategy should support and facilitate exchange and coordination among Member States, regions, cities and all other relevant stakeholders. In doing so, the Strategy should address cross-border climate impacts and adaptation measures.
- **Improving mainstreaming:** the EU Adaptation Strategy should develop initiatives for a consistent and comprehensive mainstreaming of climate change adaptation considerations into sectors of key EU influence.
- **Capturing the potential of the market:** the EU Adaptation Strategy should invest in capacity building and take advantage of available instruments at EU level to capture the potential of the market, market-based instruments and the public and private sectors to strengthen the adaptive capacity and climate impact preparedness and responses in the EU.

In the context of developing the EU Adaptation Strategy, a public consultation was carried out with the aim to collect opinions from stakeholders and experts in the field of adaptation to climate change. The results of the public consultation will feed into the considerations of which potential policy options to take forward under the Adaptation Strategy. Additionally, the public consultation responses will be used to facilitate the impact assessment work of the Strategy.

## 2. OVERVIEW OF RESPONDENTS

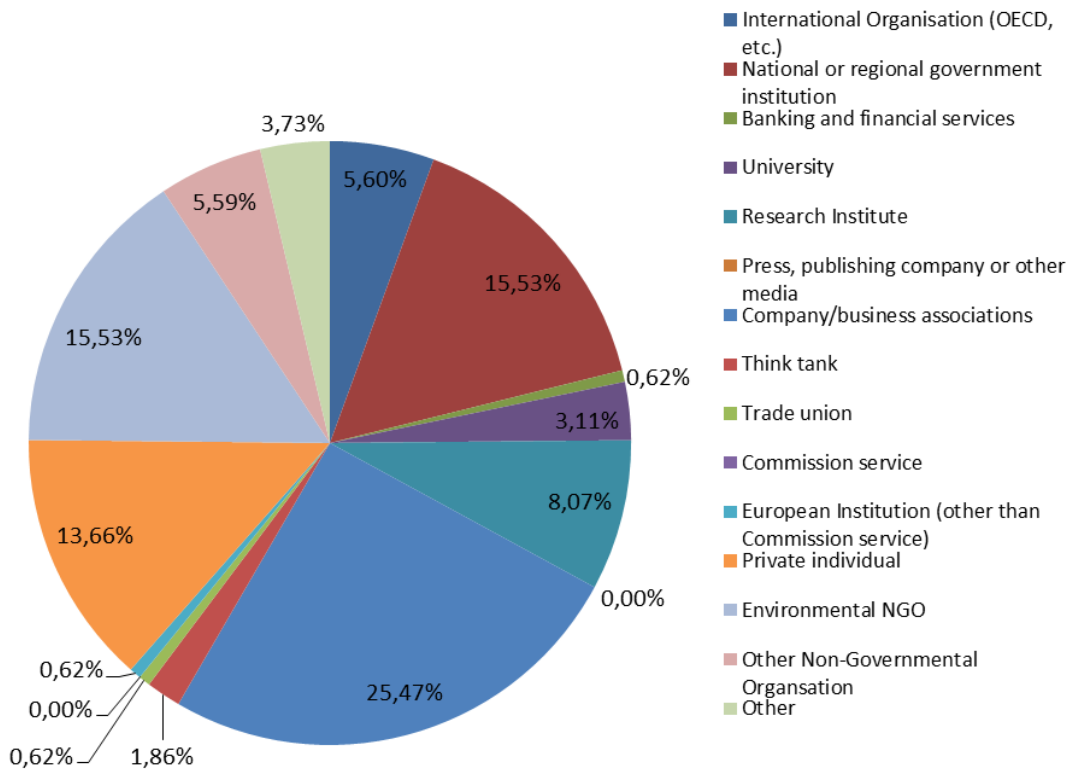
The public consultation on the preparation of the EU Adaptation Strategy received 164 responses. The following graph provides a breakdown of responses by country.

**Table 1: Distribution of responses per country**

	<b>Number of requested records</b>	<b>% records</b>
<b>EU Member States</b>		
Austria	3	1.86%
Belgium	35	21.74%
Bulgaria	2	1.24%
Czech Republic	2	1.24%
Cyprus	2	1.24%
Denmark	1	0.62%
Finland	4	2.48%
France	15	9.1%
Germany	16	9.94%
Hungary	3	1.86%
Ireland	6	3.73%
Italy	9	5.59%
Latvia	3	1.86%
Lithuania	2	1.24%
Malta	1	0.62%
Netherlands	10	6.21%
Poland	2	1.24%
Portugal	3	1.86%
Romania	1	0.62%
Slovakia	1	0.62%
Spain	9	5.5%
Sweden	7	4.35%
UK	24	14.91%
<b>Non-EU</b>	3	1.86%

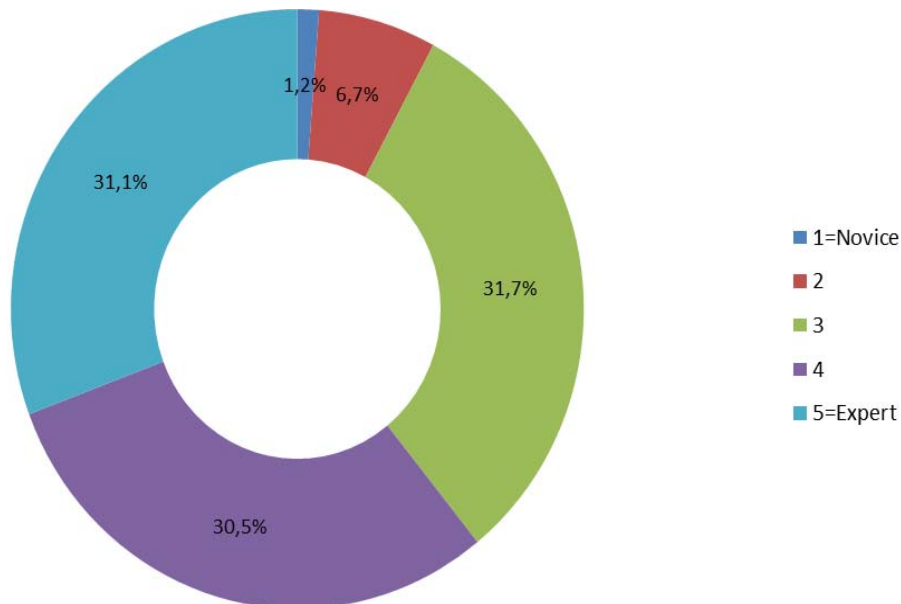
In addition, non-papers responding to the Questionnaire but also highlighting additional aspects were submitted by the UK Government, the Convention of Scottish Local Authorities France, UNEP, the World Food Programme, Eurelectric and Climate Alliance.

The pie chart below presents the distribution of respondents by stakeholder category. The greatest number of participants was company/business associations, followed by an equal share of environmental NGOs and national/regional governmental institutions; private individuals were also well represented. Research facilities, universities and think tanks only marginally took part in the questionnaire; the same for international organisations and European institutions. Both business specific and nature oriented associations were well represented; therefore, the responses to the questions in the public consultation include a broad range of special interests. Out of the 25 respondents from environmental NGOs, almost ½ (11 out of 25) are bird specific interest groups, represented by, for example, national Birdlife chapters and national ornithology groups.



**Figure 1: Distribution of responses per affiliation**

Respondents were asked to self-assess their expertise regarding climate change adaptation on a scale from 1 being novice to 5 being expert. Most of the respondents rated themselves with a 3 or higher (151 out of 164).



**Figure 2: Auto-estimated level of expertise regarding climate change adaptation**

Out of the 164 respondents, only 23 requested that their contribution remain anonymous.

The following sections present the detailed results to each question and focus in particular on the responses provided by the top four stakeholder groups (“company/business associations”, “environmental NGOs”, “national/regional governmental institutions” and “private

individuals”) where a distinction between answers is appropriate. Additional contributions from the non-papers are presented as well; the rest on the information provided by the non-papers is summarised in Annex 1.

**3. PROBLEM DESCRIPTION**

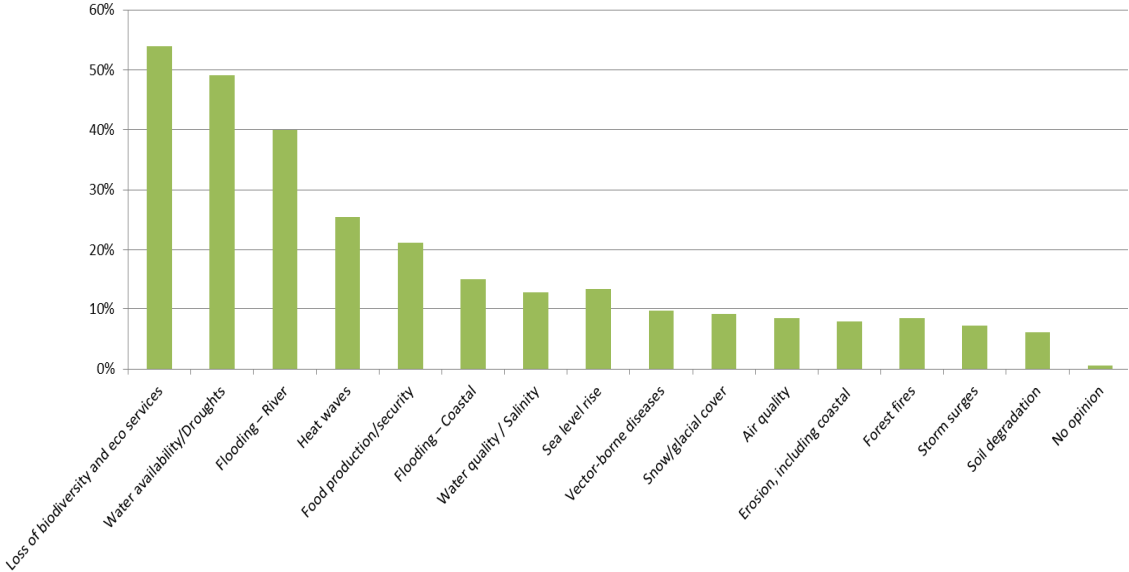
Part 1 of the public consultation asked questions relating to the current problems the environment and society are facing in light of climate change, as well as issues relating to the potential for adaptation measures to increase the economy’s resilience.

**3.1. Effects of climate change on the environment and society**

Respondents were asked to select a maximum of three adverse effects of climate change that concern them the most. The effect with the highest selection was ‘biodiversity loss and degradation of ecosystem services’ (53% of respondents), followed by ‘water availability/droughts’ (49%) and ‘flooding of surface waters’ (41%) (See Figure 3 for a complete picture).

For this question choices vary greatly depending on the stakeholder category. For example, 92% of environmental NGOs selected ‘biodiversity loss and degradation of ecosystem services’ compared to only 24% of the company/business associations. On the other hand, 71.4% of company/business associations selected ‘river flooding’, compared to only 20% of the environmental NGOs. Interestingly, private individuals chose ‘biodiversity losses’ much more often (77.3%) than ‘river flooding’ (18.2%). For ‘water availability/droughts’ – the second most chosen effect – companies/business associations, environmental NGOs and national/regional governmental institutions selected the adverse effect rather equally: 52%, 60%, and 46%, respectively. ‘Food production’ was selected by 41% of private individuals compared to only 12% of company/business associations, and 3.6% of national/regional governmental institutions. Heat waves were selected by about 33% of company/business associations and national/regional governmental institutions, but only 8% of Environmental NGOs and 9% of private individuals selected this problem.

In its non-paper, the UK mentions that the Strategy should not focus only on impacts of climate change within the EU, but also impacts on the EU from effects of climate change globally. The French non-paper stated that all of the adverse effects of climate change must be considered to avoid missing potentially significant environmental problems.



**Figure 3: Most adverse effects of climate change as selected by respondents**



Respondents were asked to select a maximum of 2 populations/groups that in their opinion are the most vulnerable to the adverse impacts of climate change. The ‘elderly population’ and ‘low-income households’ were most often selected (45% and 40.6% of respondents, respectively). The different stakeholders generally shared the same opinion regarding the vulnerability of different societal groups. Environmental NGOs and other NGOs consider low-income households as more vulnerable compared to the elderly. About 1/2 of the business and environmental NGO respondents had no opinion.

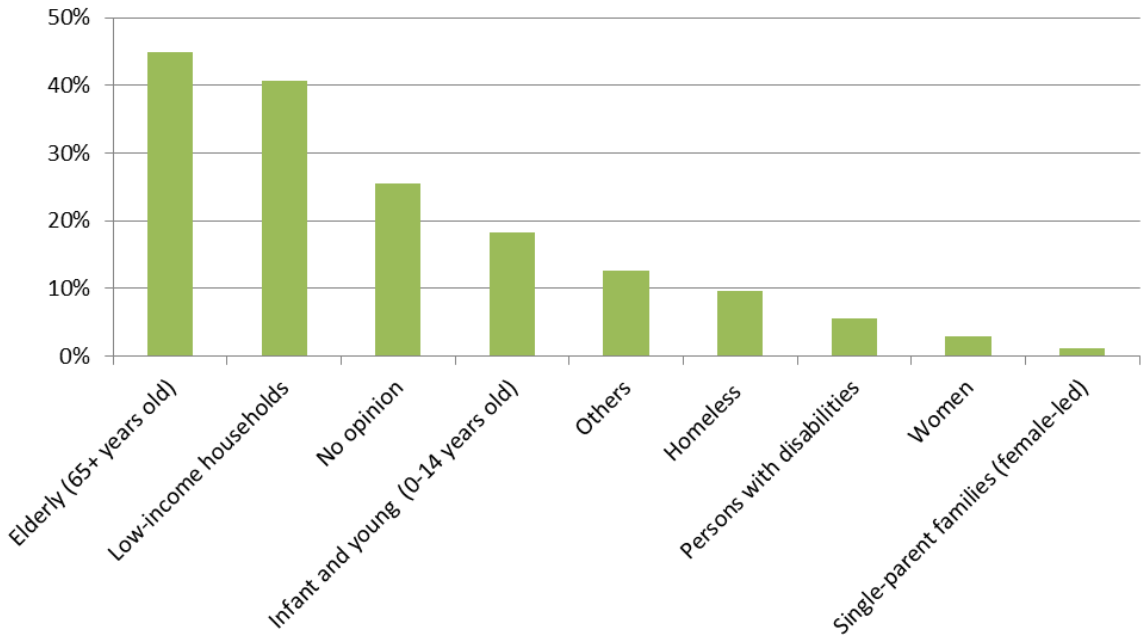


Figure 4: Most vulnerable groups to climate change as selected by respondents

**3.2. Barriers that prevent the economy from becoming more climate resilient**

Respondents were asked to rank suggested barriers (indicated in the graph below) that prevent the economy from becoming more climate resilient. Respondents could either indicate no opinion or rank the barriers from 1 to 5, with 5 being very significant and 1 being not significant at all.

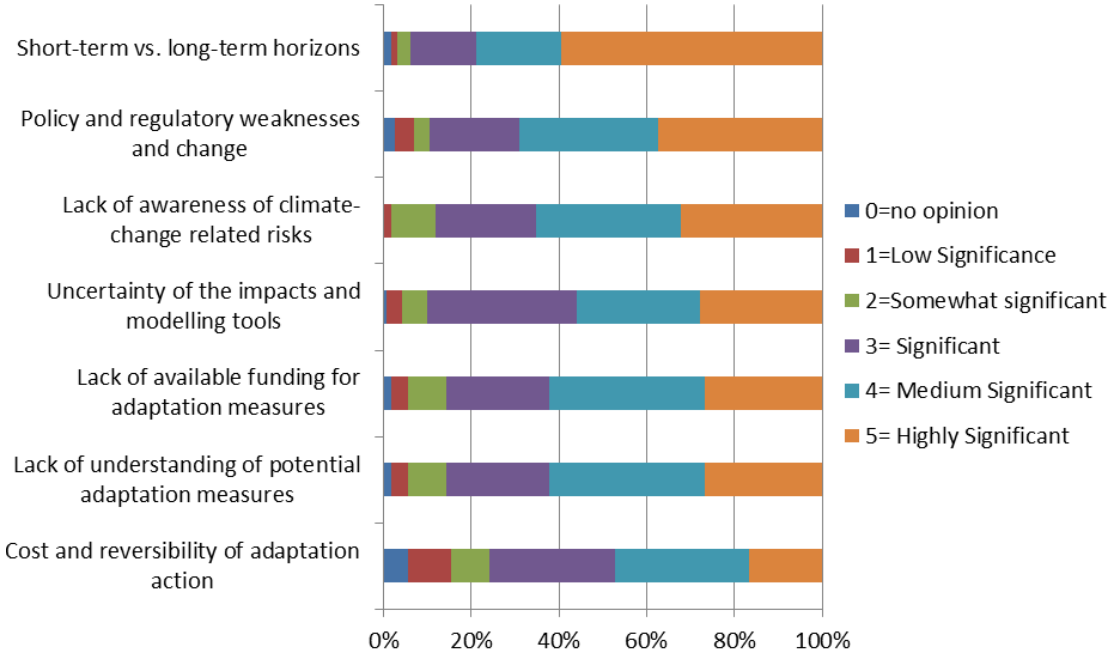
The graph below highlights the level of significance given to each barrier. The barrier ‘Short term vs. long-time horizons’ received the highest ranking with an average 4.4<sup>1</sup>. The average ranking for the barrier ‘Policy and regulatory weaknesses and change’ was 4. ‘Lack of awareness of climate-change related risks” received a 3.8, whereas ‘Cost and reversibility of adaptation actions’ received the lowest average with a 3.4.

Both the private individual groups and the national/regional governmental institutions gave similar average rankings to all seven barriers, ranging between 3.6 and 4.3, indicating that a) these groups find all the barriers moderately important and b) that they show no distinct preference towards a specific barrier. The company/business associations ranked ‘Awareness-raising’ the lowest with a 3 average, while ‘short-term vs. long-term horizons’ received the highest average with 4.2. The environmental NGOs strongly emphasised the barriers ‘Short-term vs. long-term horizons’ and ‘Policy and regulatory weaknesses’, which received averages of 4.95 and 4.6, respectively.

<sup>1</sup> Where the average "m" is calculated as follows:  $m = R \cdot n / T$ , where R=rank, n= number of respondents selecting the rank and T= total number of respondents.

Interestingly, the environmental NGOs indicated that they do not feel that ‘Cost and irreversibility of adaptation measures’ is a significant barrier, giving it an average 1.9 score. This barrier in total received the lowest average, mainly in part due to the lack of importance the environmental NGO representatives allocated to it. The other groups placed a higher emphasis on costs barriers: the company/business associations group gave it an average 3.7, the national/regional governmental institutions a 3.7 and private individuals a 3.9.

Without the strong ranking of the ‘Policy and regulatory weaknesses’ by private individuals (4.5) and environmental NGOs (4.6), this barrier would not have received overall the second highest ranking. Company/business associations only ranked it a 3.2 and national/regional governmental institutions a 3.6.



**Figure 5: Significance of barriers in preventing the economy from achieving climate resilience**

Respondents were asked to list other barriers they had identified that prevent the economy from becoming more climate resilient. Although this question was optional to fill out, 103 responses were received. Some of the additional barriers mentioned are strongly linked to the barriers included in the Questionnaire:

- Short-term vs. long-term horizons:** Respondents from private individuals, business, env. NGOs mentioned that planning horizons (preferring short-term interest over long-term benefits) prevent many from considering adaptation and that uncertainty should be taken into account in planning.
- Costs of adaptation actions/lack of available funding/economic constraints:** Additional barriers mentioned include the lack of effective help for the industry to implement technological solutions; economic pressures on the private sector; price signals that make climate friendly goods & services not the cheapest option; the current economic crisis and the lack of a financial instrument dedicated to climate change adaptation. The need to ensure that there are no gaps in the future EU Multi-Annual Financial Framework 2014-2020 was mentioned by national/regional governmental institution respondents.
- Lack of awareness of climate-related risks:** The environmental NGOs linked to Birdlife International produced a common statement asserting that an additional barrier that prevents the economy from becoming more resilient is the “failure to

*recognize fundamental importance of successful adaptation for the natural environment and its contribution to economic & social well-being*". Respondents from business and national/regional governmental institutions mentioned that the barrier of private actors not being convinced about climate change and a general lack of awareness. National/regional governmental institutions also highlighted uncertainties over the level of risk to accept.

- **Lack of understanding on the potential of adaptation options:** Respondents mentioned the lack of skills and knowledge amongst available workforce.
- **Policy and regulatory weaknesses and change/poor governance:** Respondents from all the stakeholder groups mentioned various problems with the current governance structure, such as conflicts at the national level; inaction at policy-making level; lack of communication between different ministries and conflicting priorities; contradictory requirements from different EU policies and the need to improve existing legislation so it does not impede adaptation; removal of harmful subsidies; the lack of capacity and organisational structure; and at the local the problem that different ownership structures (e.g. on land, forest, water body) hinder measures implementation. Additionally, national/regional governmental institution respondents stressed the need for medium term regulatory predictability so that regional/local councils can better organize their administrative capacities and financial budgets. Another aspect mentioned is the need to avoid duplication of activities undertaken at sub-state, Member State or EU level, so coordinating policy formulation should be enhanced with the Member States and the EU.

Additional common barriers identified include a lack of communication about local & sector-specific actions within and among MS; the inability to move from the identification of risks to the prioritisation and implementation of key projects; and the lack of information on how costs, benefits and risks will vary across Europe and between sectors.

### **3.3. Most relevant sectors for improving Europe's climate resilience**

The public consultation asked respondents **to rank sectors regarding their relevance for improving Europe's resilience to climate change impacts.**

According to the respondents, the sector with the highest relevance for improving resiliency is 'water' (4.5 average score). This is closely followed by 'agriculture and rural development' (4.4) and 'nature conservation' (4.2). The 'energy sector' also received a high overall ranking with a 4.2 average. The 'employment sector' received the lowest overall score with a 2.8. See **Error! Reference source not found.** for a complete picture.

The selection of sectors most relevant (i.e. receiving a '5') for improving Europe's resilience was largely split according to the type of stakeholder; water was highly ranked by all stakeholder groups. Company/business associations focused on the sectors 'energy' (51%), 'water' (43%) and 'transport' (32%). The top three sectors for Environmental NGOs were 'water' (100%), 'nature conservation' (88%) and 'forestry' (80%). National/regional governmental institutions selected 'energy' (52%), 'water' (48%) and 'nature conservation' (40%). Finally, private individuals selected 'water' (73%), 'energy' (68%), and 'forestry' and 'nature conservation' (51%). These responses highlight that the most homogenous group in choosing sectors were the environmental NGOs.

The UK non-paper stated that impacts of climate change and adaptation options are often best defined at local and regional levels and are often sector specific. As a result, the most effective approaches to increasing EU's resilience would be actions defined by, and

implemented at, Member State level, rather than at EU level. There are, however, some sectors where EU intervention could add value to Member States actions, most notably:

- ‘Agriculture and Rural Development’, where CAP is a significant driver of MS policies in this area. Forward planning is also needed within the future programme, and should be coupled with on-going monitoring and refinement – not simply one-off adaptation plans.
- Reliance of Member States’ economies on imports and exports also could support action at EU level to address transboundary issues in relation to ‘Transport’.
- Similarly, transboundary issues relating to ‘Water’ (flooding, water quality and resources) could also be considered.
- ‘Nature conservation’, where currently there are a number of targets and programmes in place across the EU, may also be an area where an EU approach could complement Member States action. The resilience of the natural environment should also be enhanced through promoting and encouraging the use of ecosystem based adaptation approaches.

Areas such as ‘Civil Protection’, ‘Employment’ and ‘Migration’ are best considered at national level, where considerations of domestic circumstances and political drivers will mean EU wide action would not be appropriate or valuable.

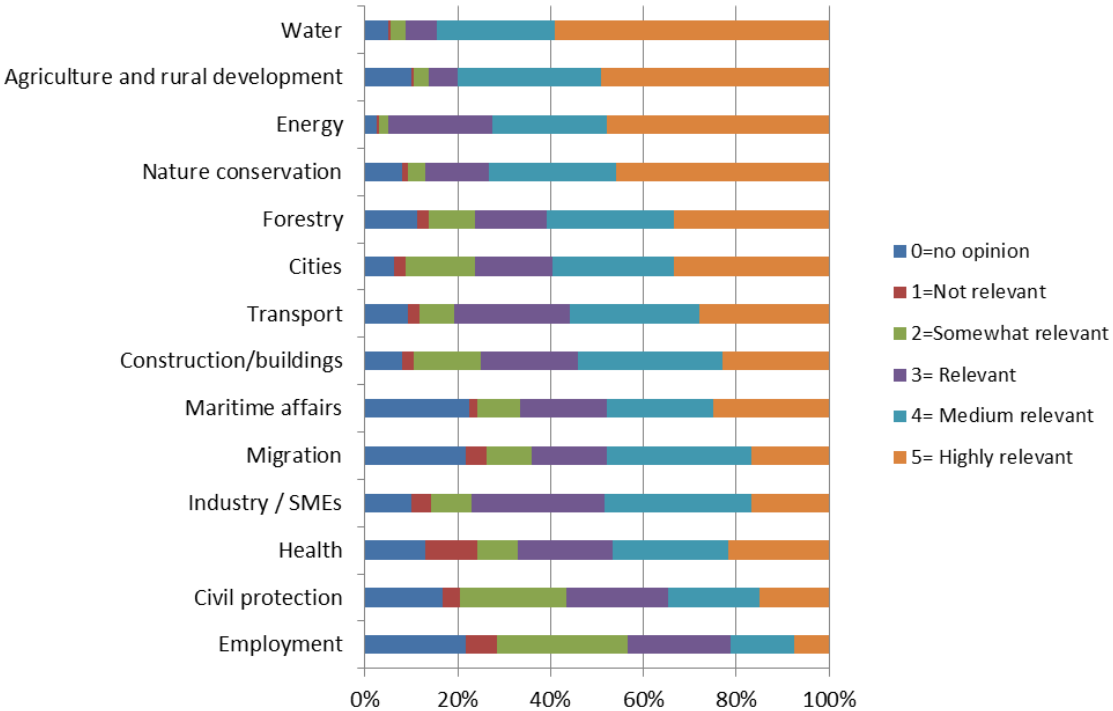


Figure 6: Reported relevance of EU action on climate resilience per sector

### 3.4. The potential outcomes of climate change adaptation actions

The results of the public consultation have underlined that climate change is considered a pressing issue and EU action is very important in a number of sectors in order to improve the EU’s resilience to the identified climate change impacts. Respondents were asked to indicate in what time scale adaptation efforts will lead to certain outcomes; multiple answers were possible.

Whereas respondents think that ‘job creation and growth’ will largely happen in the short (60.8% of responses) and medium term (68.9%), ‘social objectives’ will more likely be achieved in the medium (69%) and long term (57%). Attaining a ‘resilient economy’ will more like happen in the medium (79.5%) and longer term (71.4%). Similarly, attaining a ‘resilient environment’ will more likely occur in the medium (71%) and longer term (71.4%) due to climate change adaptation efforts. The responses highlight that overall the stakeholders think that most of the outcomes are less likely to be realised in the short term. Medium to long term time horizons should, therefore, be considered when analysing the impacts of climate change adaptation efforts.

However, the breakdown of answers according to stakeholder groups shows diverging opinions regarding the timescale of certain outcomes. Whereas 47% of the company/business associations had no opinion for the outcomes ‘to create jobs’ and ‘contribute to EU social objectives’, the environmental NGOs, national/regional governmental institutions and private individuals felt that they are likely to occur in the medium term. Only the environmental NGOs strongly felt that adaptation actions could ‘create jobs’ in the short term (92%). With respect to the outcome ‘social objectives’, 96% of environmental NGO respondents think this can happen in the medium term compared to 41% of the company/business associations. Regarding the question on whether adaptation could make the ‘EU’s environment more resilient’, just 17% of business respondents felt that this outcome can be achieved in the short term, compared to 76% of environmental NGO respondents and 56% of national institution respondents.

**Table 2 Potential of climate change adaptation to achieve certain outcomes according to timescale**

	<b>In the short term (2020)</b>	<b>In the medium term (2030-2040)</b>	<b>In the longer term (2050 and beyond)</b>	<b>Not at all</b>	<b>No opinion</b>	<b>Total # of records</b>
Create or secure jobs and growth in the European economy	98 (60.8% of respondents)	111 (68.9% of respondents)	72 (44.7% of respondents)	5 (3% of respondents)	18 (11.2% of respondents)	304
Contribute positively to the EU’s social objectives	56 (34.8% of respondents)	112 (69% of respondents)	92 (57% of respondents)	6 (3.2% of respondents)	26 (16%)	292
Make the EU's economy more resilient to climate change and extreme events	65 (40.4% of respondents)	128 (79.5% of respondents)	115 (71.4% of respondents)	2 (1.2% of respondents)	5 (3.1% of respondents)	315
Make the EU's environment more resilient	74 (46% of respondents)	114 (71% of respondents)	115 (71.4% of respondents)	4 (2.5% of respondents)	9 (5.6% of respondents)	316

**3.5. Important issues regarding the effectiveness of adaptation policies and measures**

Out of the total of 164 respondents, 144 provided input regarding **the three most pressing issues the EU should address for adaptation policies and measures to be effectively implemented**. A wide variety of issues were submitted; the most frequent issues raised concerned ensuring funding (47 times), taking a long-term approach (15 times) and facilitating cooperation among and within Member States at all levels of government (15 times). Responses included:

- **Policy frameworks:** Respondents emphasized the need to take a cross-sectoral, horizontal approach to climate change adaptation in order to capitalise on the multiple co-benefits across the sectors for almost any measure. Respondents believe that adaptation should be integrated in long term planning for energy, housing, city planning, agriculture and other infrastructure and development, thus mainstreaming adaptation within key EU policies. In addition, the respondents called for policy frameworks to be established to encourage adaptive responses at EU level and at all levels of governance. However, due to differences in how climate change will impact regions, some respondents felt that concrete regulatory and/ or strategic action should be left within the responsibility of Member States. Instead the respondents think the EU should rather focus on are: facilitating knowledge sharing, programmes supporting awareness, support for local authorities and exchange at local level between stakeholders; EU action is seen as especially important regarding transboundary issues. Some stakeholders called for the EU to propose a legal framework for establishing an effective insurance system for adaptation, including ex ante payments in cases of natural disasters.
- **Financing:** Many respondents called for the establishment of financial mechanisms to support adaptation, including the development of market oriented initiatives. Suggestions included raising revenue from innovative sources, such as carbon markets and financial transactions. The respondents emphasized that the EU should ensure that adaptation financing is transparent. Additionally, the EU should ensure central harmonisation and alignment of funding mechanisms so that funding for multi-country projects is properly tracked and accounted for. An additional aspect highlighted by some respondents is that the private and public sectors should focus on the long-term perspective when initiating programmes and that Public-private partnerships should be introduced that focus on adaptation.
- **Increasing research knowledge dissemination:** Respondents highlighted the need to increase knowledge about impacts and vulnerability at regional and local level. Actions the EU could take include facilitating pilot studies between Member States and exchanging information on good practices. Respondents also highlighted the need to raise awareness in the business sector and also suggested that efforts should target capacity building and governance at the local level to implement local solutions. Respondents would like researchers to work on improving data and scenario availability, as well as developing indicators and promoting clear and easy-to-implement guidelines and recommendations. In addition, research undertaken under EU funding programme should be better integrated into policy making.
- **Water and natural environment:** Adaptation in the water sector was raised a number of times as a pressing issue in terms of reducing vulnerability and water scarcity problems. In addition, multiple respondents stressed the need to ensure successful adaptation of the natural environment, its biodiversity, habitats, ecosystems and their services through better understanding the value of public goods. Respondents also mentioned that economic growth should be decoupled from natural resource use and environmental impacts.
- **Addressing all sectors:** Respondents from health NGOs stressed the need to fully integrate health impacts of climate change into EU adaptation policies and to increase recognition of the link between climate change, rates of vector borne disease and the impact that this may have on public health.

For the companies/business associations, the main issues to be addressed are facilitating cooperation and raising awareness at all level (local, regional, national and international), and

ensuring funding. For the environmental NGOs and the national or regional government institutions, the indicated priorities are the adaptation of the water sector and the natural environment, the implementation of financial mechanisms and improving the policy framework. International organisations, other NGOs and private individuals mainly consider the need to facilitate cooperation and to raise awareness at all level. Other, NGOs, private individuals and research institutes also consider the water sector and natural environment as priority issues.

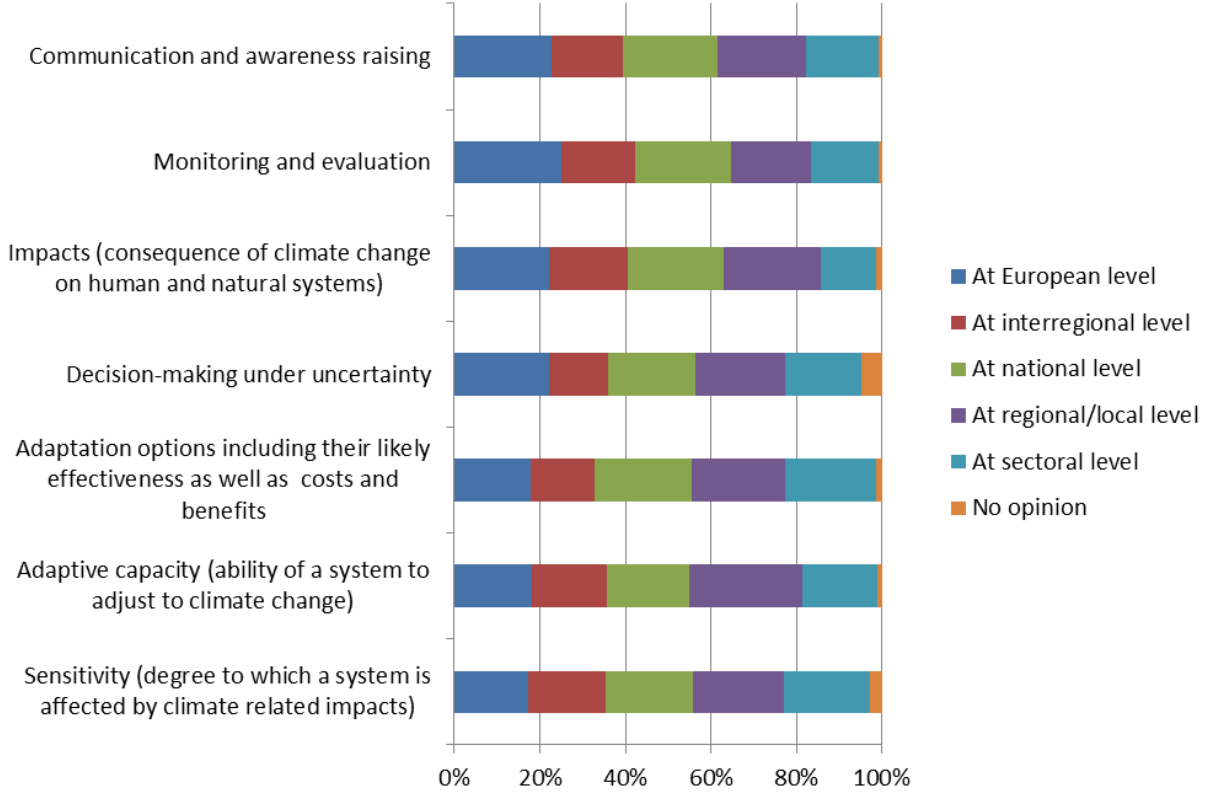
**4. KNOWLEDGE**

Part 2 of the consultation asked participants to consider where gaps in research remain and how best to develop funding mechanisms further.

**4.1. Research areas on climate change adaptation requiring attention**

Respondents were asked to **point out which areas of climate (adaptation) research require attention and/or resources at different levels of governance.**

Respondents favoured action at European level with respect to ‘Monitoring and evaluation’ and ‘Communication and awareness-raising’. For ‘Sensitivity’ and ‘Adaptation options’, respondents most often felt that national and regional/local level administrations should be involved. Respondents felt that ‘Research on adaptive capacity’, however, should rather be facilitated at the regional/local level. ‘Decision-making under uncertainty’ and ‘Research on impacts’ were evenly spread between EU, national and regional level, while interregional level was not considered as relevant in this research domain (34%). Sectoral level involvement only received moderate support for research relating to ‘Sensitivity’ (51.5%), ‘Adaptation options’ (59%) and ‘Communication’ (57%).



**Figure 7: Levels of governance that should be involved in addressing gaps in certain climate adaptation research topics**

According to the French non-paper, fundraising efforts for knowledge generation should be maintained and should also encourage bridging the knowledge gap in certain areas, including outermost areas or areas of strategic interest such as the Mediterranean basin.

The Climate Alliance emphasized that adaptation strategies and action plans at local and regional levels are not yet very common, so more research and exchange is needed at these levels of government to better organize the integration of adaptation into local climate policy. Regional research should be supported by EU funding programmes (e.g. Structural funds, Life).

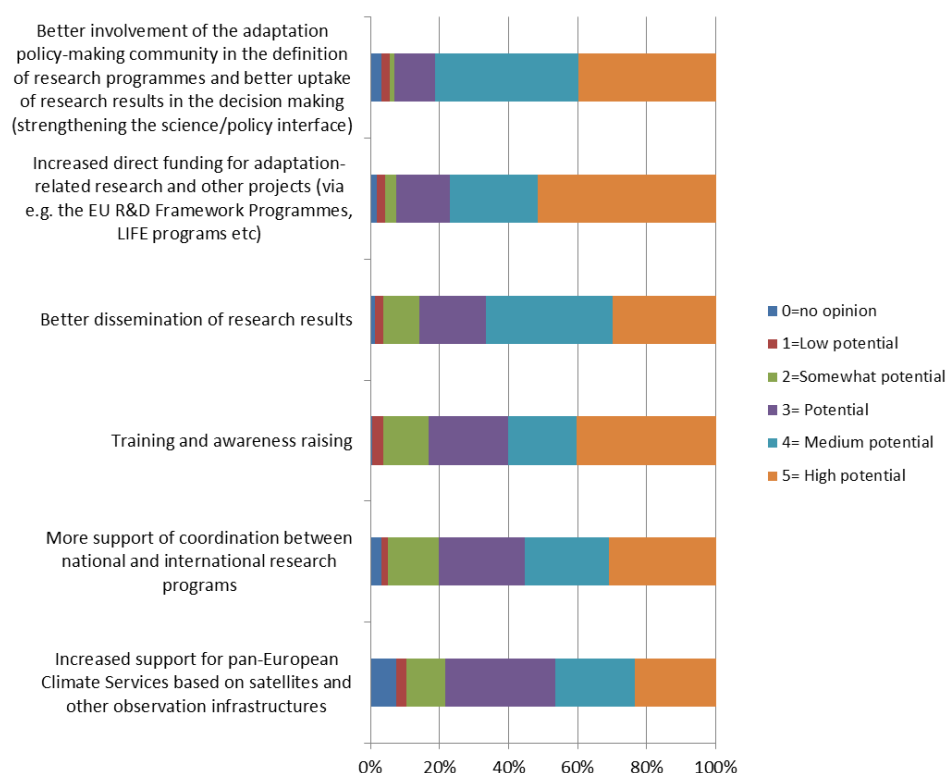
The UK Government mentioned that where EU action can provide the most effective direct support would be through funding of the underpinning analysis and evidence base needed to support policy decisions on climate change impacts and sensitivity of systems. In addition, the UK non-paper mentioned that the interdependencies between risks and impacts on sectors should be further researched. While many of these issues are at a national level, the EU could usefully investigate interdependencies between Member States for cross-border issues covering all sectors. In addition, little is known about the impacts of climate change which occur outside the EU and how these might affect the EU's markets, resources, supply chains etc, and this is an area where coordination of research by the EU would be of great value across all Member States.

#### **4.2. Potential of measures/actions to improve the use of EU funding for climate change adaptation projects**

Respondents were asked **to rank the capability of actions to improve the use of EU funding for climate change adaptation projects.**

Out of the 6 actions presented in the questionnaire, the options to 'Increase direct funding for adaptation-related research' and 'Better involvement of the policy-making community' received the highest average ranking with a 4.2. 'Better dissemination of research results' and 'Training and awareness-raising' both received an average rating of 3.8. Respondents gave 'More support of coordination between national and international research programmes' a 3.7. The least selected action to improve the use of funding was 'Increased support for pan-European Climate Services', which received an average score of 3.6. Overall, the 6 actions were well-scored and none of them were particularly discarded by the respondents.





**Figure 8: Options to improve EU funding of climate change adaptation research**

The French non-paper states that in France EU funds will be top of the list of funding devices for adaptation. France mentions that various financial tools should be mobilized in accordance with the objective of integration of climate change adaptation policy into other Community policies, for example the common regulation to all the Structural Funds (ERDF, EAFRD, ESF, CF FEAMP6) guaranteeing priority to climate change adaptation and risk management, the framework for future research and development (PCRD), the Common Agricultural Policy, or the European financial instrument for the environment (LIFE) with the creation of a new subroutine dedicated to climate change. France emphasizes that whatever the funding mechanism for adaptation investments is, care must be taken not to create distortions in access to finance and the award criteria. In any event, the French authorities do not wish for a development of a specific Community financial instrument on adaptation.

#### 4.3. Additional actions to facilitate knowledge dissemination

The final question in this section asked respondents **to judge additional actions that could be considered at EU level to facilitate further knowledge and dissemination and sharing**. Respondents could make multiple selections.

As the table below shows, most of the options were well regarded. ‘Activities to promote the use of the European Climate Adaptation Platform’ was not as well received as the other options, although it was nevertheless selected by over half (54.66%) of the respondents. ‘Support of pan-European discussion forums to exchange best practice’ was most often selected by respondents (76.4%).

**Table 3: Additional actions that could be taken at EU level to improve knowledge sharing**

Actions	Number of responses	Percentage of respondents
Support of pan-European / pan-regional discussion fora on adaptation to share experience and good practice	123	76.40%

Actions	Number of responses	Percentage of respondents
Direct support to targeted dissemination and awareness-rising campaigns (e.g. local communities, stakeholder groups)	119	73.91%
Training/Dissemination activities to stakeholders and decision makers of climate change and adaptation information	114	70.81%
Activities to promote the use of CLIMATE-ADAPT, the European Climate Adaptation Platform	88	54.66%
Other	27	16.77%
No opinion	2	1.24%

Only 17.7% of respondents (29 out of 164) from 10 different stakeholder groups chose to suggest more additional actions, such as:

- Raising awareness about costs and benefits of adaptation options and synergies with climate mitigation (NGOs)
- Integrating adaptation into policy objectives on sustainability of construction sector (Company/business sector)
- Taking advantage of professional associations to train people at the local level (University)
- Setting out a clear vision of what a “well adapted” EU would look like (Company/business sector)
- Focusing on bottom-up approaches to better inform the general public (Company/business sector) and supporting greater public participation in implementation (Environmental NGOs)
- Improving research: Ensuring that science guides policy and not vice versa; ensuring that results of adaptation research projects are specific and applicable; focusing on making the results of research more accessible to policy makers (private individuals); ensuring transparent EU water information base and an EU innovation platform and market place for water solutions (‘other’); Better linking EU databases and research projects (research institute and think thank); Creating an intersectoral and interdisciplinary discussions for better understanding the role of ecosystem services (Environmental NGO); Focusing on including local and regional adaptation policies in the European Climate Adaptation Platform

## 5. FACILITATING COOPERATION WITH STAKEHOLDERS

This section of the consultation focused on how respondents view the role of the EU in facilitating working among the Member States, also in the context of transboundary issues.

### 5.1. How the EU can facilitate the work of local authorities in adapting to climate change

The consultation asked respondents **how the EU can facilitate the work of local authorities in adapting to climate change**. Respondents could select between 1 and 4 answers. Only 13 (8%) felt that no direct EU intervention is needed. The three other options were often selected; ‘Enhancing awareness’ and ‘Providing guidance on adaptation at regional/local level’ received the greatest support.

The respondents from the environmental NGOs group strongly supported the 3 actions: 96% selected ‘Enhancing awareness of the potential consequences at sectoral level’ and all of them

selected ‘Enhancing awareness of the potential consequences at regional/local level’ and ‘Guidance on climate risk assessment’. None of the environmental NGO respondents felt that EU intervention was not needed. This is in stark contrast to the respondents from the company/business associations, where 19.5% selected ‘no direct EU intervention needed’.

The company/business associations respondents most often selected ‘Providing guidance on climate risk assessment’ (73.2%) and ‘Enhancing awareness at regional/local level’ (61%). Only about 50% of the company/business associations selected the option ‘Awareness at sectoral level’ in contrast to the other main stakeholder groups (68% of national/regional governmental institutions and private citizen respondents).

The national/regional governmental institutions and private individuals very much agreed with ‘Enhancing awareness at regional/local level’ (80% and 77%, respectively) and ‘Providing guidance on climate risk assessments’ (72% and 77%, respectively).

**Table 4: Actions the EU should take to help local authorities adapt to climate change**

Actions	Number of times selected	Percentage of respondents
Provide guidance on developing climate risk assessment and adaptation strategies at local level	133	82.61%
Enhance awareness of the actual and potential consequences of climate change and the need and possibilities for adaptation to climate change at regional/ local level	126	78.26%
Enhance awareness of the actual and potential consequences of climate change and the need and possibilities for adaptation to climate change at sectoral level	108	67.08%
No direct EU intervention needed	13	8.07%
No opinion	1	0.62%

The UK non-paper also emphasized the need to make funding available through relevant funding streams, including under the MFF, to support activities in this area. However, the UK government stressed that such support should be channeled through climate proofing of current policies and instruments, rather than specific or additional funding for adaptation.

The Climate Alliance non-paper mentioned that while the EU’s support to local authorities is important, exchanging experiences and sharing know-how among different levels of government - Member states, regions and municipalities - should also be encouraged. They suggest that this could partly be done via projects but also by enhancing the work of Climate-ADAPT by inviting interested parties to discuss and develop policy recommendations on relevant adaptation issues.

EURELECTRIC highlighted that adaptation responds to local risks and that the benefits are realised at local and/or national levels. Since responses to adaptation needs will vary between Member States, within Member States and between industry sectors, Eurelectric considers that the national and local levels are the best choice to conduct adaptation strategies.

**5.2. EU role in addressing transboundary climate change impacts**

In the context of transboundary issues relating to climate change, respondents were asked to **select between 1 and 4 options that the EU could take.**

Most of the options were well regarded, but only 26% of respondents feel that the ‘Creation of EU agencies to address transboundary risks’ was an action the EU should consider.

‘Facilitating cooperation among countries’ received the greatest number of responses (82.6%) and was consistently selected by the major stakeholders. For the option ‘Awareness and guidance’, around 50% of environmental NGOs selected this measure, compared to 77% of private individuals and 63% of company/business associations.

**Table 5: EU options to improve its handling of transboundary climate change impacts**

<b>Actions</b>	<b>Number of times selected</b>	<b>Percentage of respondents</b>
Facilitate cooperation and coordination among affected countries	133	82.61%
Provide EU funding to address transboundary adverse effects of climate change, increase resilience and reduce vulnerability	123	76.40%
Enhance awareness and develop guidance on the transboundary adverse effects of climate change	102	63.35%
Promote the creation of dedicated EU Agencies in charge of managing transboundary risks	42	26.09%
No opinion	1	0.62%

## **6. MAINSTREAMING ADAPTATION IN EU POLICIES AND STRENGTHENING ADAPTATION BY THE PRIVATE SECTOR**

This section focused on the link between EU policies and the private sector and on what can be done at EU level to facilitate work on the national level.

### **6.1. Potential EU actions to support Member States in preparing adaptation strategies**

The consultation asked respondents **to select which type of instruments would bring the most added-value to further support and incentivise Member States to develop national adaptation strategies (NAS)**. Respondents were able to select between 1 and 4 answers.

By far, respondents felt that ‘Guidance on developing national adaptation strategies’ would have the most value added (60.25%). Company/business associations (71%) and environmental NGOs (68%) selected this option more often than national/regional governmental institutions (60%) and private individuals (41%). The option ‘To review existing legislation’ was selected by 68% of national/regional governmental institutions, significantly more so than by other stakeholders. Only 36% of company/business associations and private individuals and 8% of environmental NGOs selected this option.

The option to have ‘Legislation in place that requires Member States to develop NAS’ received the least number of responses (around 25%). None of the business sector respondents selected the legislation option, whereas 68% of environmental NGO respondents did; only 6% of national institutions and 13.6% of private citizen respondents selected enacting legislation. It is important to note that 35% of the respondents selected a combination of the three instruments; thus, the low percentage of respondents that selected ‘Legislation’ alone as a potential instrument should be interpreted in view of this result.

**Table 6: Potential Instruments to include in national adaptation strategies**

<b>Instruments</b>	<b>Number of times selected</b>	<b>Percentage of respondents</b>
Development of guidelines or guidance on national adaptation strategies and action plans	97	60.25%
Review of existing EU legislation such as horizontal directives and regulations (mainstreaming/integration of adaptation into EU legislation)	69	42.86%

All these options together	52	32.30%
Legislation asking Member States to develop a national adaptation strategy	40	24.84%
No opinion	1	0.62%

According to the French non-paper, France supports the proposal that each Member State should develop a national action plan for adaptation, but with a flexible framework based on methodological tools proposed by the Commission. However, it is not desirable to impose on each State member a too rigid framework for developing an adaptation policy. France believes that information exchange for the preparation of such documents would be useful at European level. French authorities also support the action taken by the Commission aimed at mainstreaming adaptation into all EU policies (existing or new).

The UK non-paper mentioned that legislative approaches (‘Legislation asking MS to develop a National Adaptation Strategy’) would be premature, given that most Member States are already in the process of developing domestic national adaptation strategies. The Commission’s efforts would be best placed in providing support for Member States rather than using legislation. It also stated that the Commission can provide most support through drawing from experiences across Member States and providing guidance, rather than guidelines – developed by taking best practice from Member States that have written adaptation strategies.

The Climate Alliance thinks that a legal framework would ensure that adaptation is mainstreamed, with flexibility to deal with regional, local and sectoral problems. National governments could be required to prepare national adaptation plans with an emphasis on creating common ground between mitigation and adaptation and thus creating coherent and integrated approaches. Climate Alliance stressed that the European Commission should encourage cooperation between national governments and regional / local governments when drafting these plans.

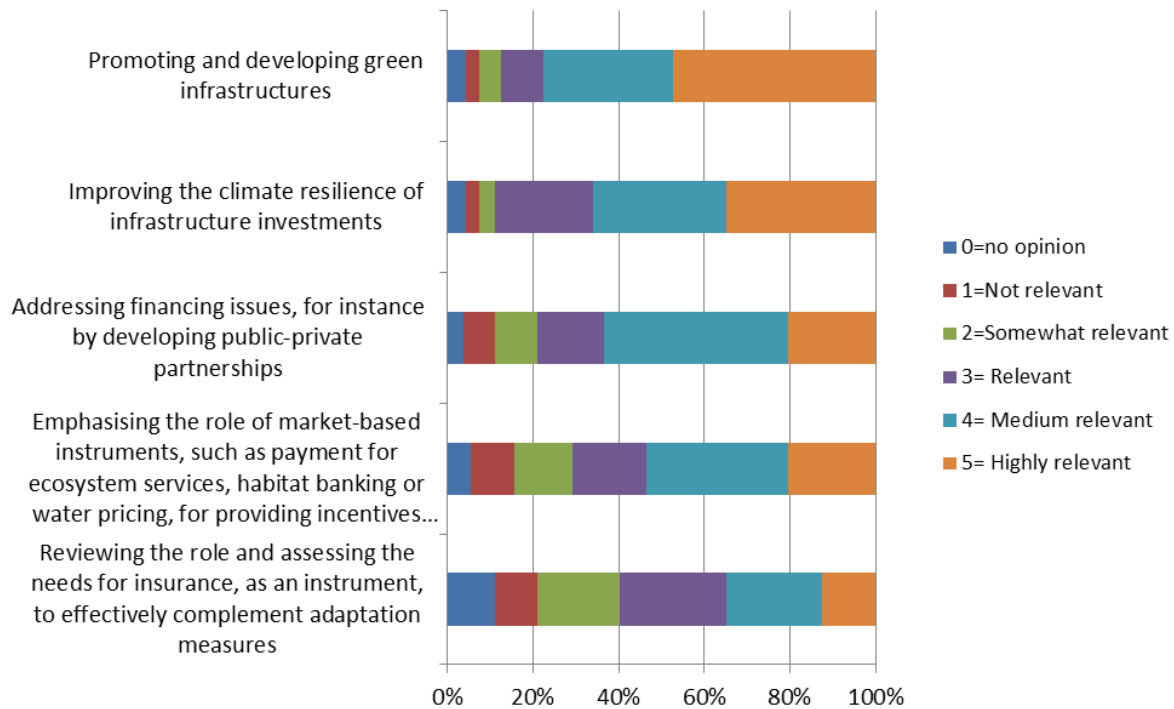
## **6.2. Potential EU actions to help strengthen the adaptive capacity of the private sector**

Respondents were asked **to rate actions at the EU level to strengthen the adaptive capacity of the private sector.**

‘Promoting and developing green infrastructure’ received the overall highest average with a 4.2. ‘Improving the climate resilience of infrastructure investments’ receive the next highest overall average with a rating of 3.9. ‘Public-private partnerships’ received an overall average score of 3.6, and ‘Emphasising the role of market-based instruments’ received an overall average score of 3.4. The action to ‘Review the role and assess the needs for insurance’ received the lowest overall average rating with a 3.1.

There are clear differences on the emphasis different stakeholders give to the potential actions to strengthen EU adaptive capacity. The respondents from the environmental NGOs group ranked ‘Green infrastructure’ with an average 4.76, while the respondents from the company/business associations ranked this option with a 3.7. National/regional governmental institutions and private individuals ranked ‘green infrastructure’ highly with a score of 4.4 and 4, respectively. Conversely, for the action ‘Improving infrastructure investments’, the business respondents ranked this action the highest with an average 4.1, while the environmental NGO respondents ranked this action with an average 3.4. The national institutions and private citizen respondents were more in line with the business respondents, ranking this action with an average 3.9 and 4, respectively.

The four major stakeholder groups were in agreement with respect to the action on ‘Insurance’; it received between a 2.7 and 3 average score, by far the least ranked action. Additionally, the stakeholder groups ranked the action relating to ‘Public-private partnerships’ about the same with a range between 3.2 and 3.8. Interestingly, the environmental NGOs rated this action with an average score (3.8) greater than that of the business respondents (3.5). With respect to the action supporting ‘market-based instruments’, the business respondents gave it a low average rating of 2.9, whereas the environmental NGOs, the national institutions and private citizen respondents gave similar ratings between 3.4 - 3.6.



**Figure 9: Priority actions at EU level to strengthen the adaptive capacity of the private sector**

Respondents were also asked if they had **identified other priority actions at EU level that could strengthen the adaptive capacity and climate impact preparedness and responses of the private sector**. This question was optional; nevertheless, 82 out of 164 respondents provided input. Shared interests included:

- **Reliable regulatory and legislative framework:** Some respondents would like to see a clear framework on adaptation at national level. Respondents mentioned that in order to facilitate investment in infrastructure, it is essential that investors have confidence in the regulatory regime.
- **Information/Guidance:** Respondents would like to see guidance on how to integrate the valuation of biodiversity and ecosystems into the accounting systems and decision-making processes of private companies. Guidance on interdependencies between sectors was also suggested.
- **Knowledge dissemination and exchange:** Respondents mentioned that sectors should exchange expertise, especially on the use of ecosystem based adaptation. In addition, respondents encouraged more collaborative networks to bring communities together to support each other and become more resilient. Respondents also suggested that best practice in the field of cost-benefit analysis should be disseminated to businesses to promote consideration of adaptation.

- **Research and Development:** Respondents emphasized the need to develop schemes supporting and facilitating the investment of SMEs and strengthening their adaptive capacity.

In its non-paper, EURELECTRIC stressed the importance of mainstreaming adaptation concerns in other EU policies in a consistent manner. Any initiative on climate change adaptation in the energy sector should bear in mind possible conflicts with mitigation goals. They also emphasized that adaptation measures should be proportionate to adaptation risks and should reflect the levels of uncertainty. EURELECTRIC suggested that the EU can improve adaptive capacity by strengthening the common energy market, i.e. remove still existing barriers to competition.

The Convention of Scottish Local Authorities stated that they agree that the public sector should play the leading role in defining the priorities and setting the strategic framework and in steering the market towards the supply of appropriate products, services and processes. However, it is also clear that the private sector needs to be brought on board early so that planning and research and development work is focused on areas that will fulfil long term demand (i.e. examples of bridges, buildings needed to be ‘climate proof’ mentioned in the green paper). The Convention points out that while European and national governments have a role in steering the market towards appropriate processes, it is vital to involve and cooperate with the private sector to get adaptation measures right.

### 6.3. Additional issues that should be addressed in the EU Adaptation Strategy

The final question in the consultation asked respondents whether there are other issues that should be addressed in the EU Adaptation Strategy that were not mentioned in the questionnaire. 105 responses were recorded. All of the stakeholder groups made additional comments covering many different topics and different sectors. As such, there are no discernible differences among the stakeholder groups in terms of issues raised.]. The comments received have been grouped along the four main objectives of the EU Adaptation Strategy. Comments included:

- **Improving knowledge:** Respondents mentioned that a good Adaptation Strategy at European level should propose/promote adaptive approaches and methodologies, and the European Commission should develop a central knowledge base proposing to national and local authorities specific decision-support with real cases of adaptation solutions implemented in the EU or outside. They emphasized that a potential weakness of a Climate Change Adaptation Strategy (at European, National or local level) is the lack of certainty and/or knowledge. To improve the knowledge base, the Respondents recommended that an analysis of the extreme weather events in the EU should be developed, taking into account: requirements for construction of wind turbines, solar panels, demands related to flood protection, emergency response plans, etc. Those analyses should be developed at the local level, so the operators of assets/infrastructure are able to analyse the impact of climate change on their plants/devices, and identify subsequent necessary adaptation action. A few of the company/business associations considered an assessment of vulnerability of infrastructure and enhancement of its resilience as a critical component of any adaptation strategy.
- **Facilitating cooperation:** Cooperation between all levels of government and among sectors was stressed by the Respondents in order to improve the harmonization and coordination between the different EU policies concerned, including Environment, Climate Action, Enterprise and Industry and Energy policies. A specific suggestion is

to promote cooperation between insurers and policymakers to ensure that a flexible approach to adaptation and natural catastrophes in Europe is taken.

- **Improving mainstreaming:** According to all the respondents, the Adaptation Strategy must provide an effective framework and funding for adaptation of the natural environment, biodiversity, habitats, protected areas, landscapes and ecosystem services to impacts of climate change. In this context, some respondents emphasized the need to manage Natura 2000 sites for climate change, with measures to accommodate species range shifts and better integration with wider land use. This statement was made by 12 out of 19 responses from environmental NGOs (i.e. those linked to Birdlife International). Other NGOs emphasized that health needs to be given a higher priority in adaptation planning, and it should be at the heart of the EU Climate Adaptation Strategy. Respondents also focussed on disaster management systems and that they need to become “climate proofed” based on future oriented strategies (including “climate smart” preparedness measures). Specific requests by some respondents also included the need to include adaptation in relevant national building codes and Eurocodes to ensure that future constructions resist the consequences of climate change. In addition, standards for assessment of sustainability of buildings such as CEN/TC 350 standards should take into account adaptation to climate change as an aspect of sustainability.
- **Capturing the potential of the market:** The Respondents agreed that adaptation to climate change is a critical issue for business and industry and that climate change is one out of many challenges for industry and SMEs, in particular in the future. Given the wide range of impacts and interconnectivity of the solutions required, respondents view collaborative efforts as essential in finding a way forward. These need to be encouraged at EU level by promoting public support and finance for adaptation. Another issue raised is that the EU should consider research into alternative economic systems to continued economic growth and unregulated markets that can deliver adaptive capacity and resilience while reducing consumption of fossil fuels and other scarce resources. Similarly, the strategy should encourage market-driven initiatives and permit risk transfer mechanisms to adapt to the local conditions of the region where risk transfer systems are implemented. Some respondents feel that the costs of climate change policy could very negatively affect the economy and that any measure taken must be assessed in terms of economic efficiency. Therefore, some respondents think that the EU Adaptation strategy must consider that e.g. costs and availability of energy and resources or competition on international markets are challenges for businesses in Europe.
- A final comment made by a few Respondents is that it is of utmost importance that mitigation measures are seen in close connection with an adaptation strategy. This is of special relevance when it comes to water management policies and hydropower production.



## **7. ANNEX: SUMMARY OF ADDITIONAL COMMENTS FROM THE SUBMITTED NON-PAPERS**

Non-papers were received from the UK, France, the Convention of Scottish Local Authorities, EURELETRIC, the Climate Alliance, the UNEP and the World Food Programme. Much of their content responded directly to the Questionnaire; this information was summarized in the relevant sections in the body of the report.

This Annex presents a summary of the additional comments made in the non-papers seen as outside the scope of the specific questions asked in the online Public Consultation.

### **7.1. The United Kingdom**

According to the UK non-paper, the Strategy should not focus only on impacts of climate change within the EU, but also impacts on the EU from effects of climate change globally. Since adaptation and mitigation decisions taken by other Governments will also have consequences for the EU, it is important that the EU works with other countries to address global climate change. The EU should therefore take advantage of opportunities to share best practice globally and learn from those countries already dealing with climates that Member States may experience in the future. Such exchange could be furthered by, for example, strengthening links, through the UNFCCC and UNEP.

On addressing financing issues, the EU can provide most value through further investigating financing options available and identifying potential mechanisms which would be viable and utilised across the EU. The UK's overriding priority is to achieve restraint in the EU budget with the maximum acceptable increase in the next MFF a real-terms freeze in payment appropriations, year-on-year from a baseline of actual spending. Therefore, the UK would not want to see an increase in any area of the budget – even priority areas. However, finding appropriate mechanisms to support effective adaptation actions is important; many actions required are costly, with benefits not apparent for many decades. Support should be through climate proofing of current policies and instruments available, rather than specific or additional funding for adaptation. However, in many cases, tools and options available for further incentivising action or for funding are best considered and managed at Member State level. Insurance industry is one such example where diverse approaches are taken across Member States to suit national/local needs and as such EU intervention would not be of any significant value.

### **7.2. France**

French authorities support the action of the European Commission to develop a European climate change adaptation strategy, as well as its wider efforts in the implementation of the White Paper on adaptation since 2009. France stressed that the European strategy must respect the principles of subsidiarity and proportionality on the one hand, and promote the establishment of conditions for the development of national strategies and plans, border or subnational on the other hand. In addition, it will be essential to maintain, in parallel with this adaptation strategy, a strong ambition in terms of reducing greenhouse gas emissions, in order not to increase the need for future adaptation.

French authorities support the action taken by the Commission aimed at mainstreaming adaptation into all EU policies (existing or new). On-going actions in the Common Agricultural Policy, the recent consultations on the water policy (Blueprint), the provisions of the Flood Directive or proposals on the use of EU funds such as those of the cohesion policy, in particular, are welcomed. At the national level, France also carries the same approach of mainstreaming adaptation applied to public policies, which

optimizes the on-going or new actions, to ensure their consistency with existing policies and facilitate the adoption of the cross-cutting nature of adaptation. In parallel, funding opportunities of the other Community policies should contribute to the financing of adaptation actions.

The French authorities support the idea that the EU adaptation strategy is submitted to the European Parliament to strengthen its visibility and mark the commitment of the EU in fight against climate change and adapting to its effects.

### **7.3. The Convention of Scottish Local Authorities (COSLA)**

COSLA expectations for the EU Adaptation Strategy:

- COSLA reiterates that Climate Change Adaptation Strategies should be developed in full partnership with local and regional authorities to make full use of their proximity and better understanding of local climate impacts and to provide them with sufficient leadership and resourcing that could enable them to implement local adaptation initiatives.
- COSLA holds that place-based integrated policies may be used as a vehicle to help address horizontal and cross-policy challenges such as those posed by climate change as part of a mixed approach. In so doing, overlaps, inconsistencies and gaps between different policies and between governance levels, including the subnational levels can be addressed.
- Any future EU strategy, to be realistically implemented on the ground, should recognise from the outset that there are limited organisational and financial resources at national and local level.
- It is crucial to develop comprehensive and integrated methodologies including indicators to measure the success of responses; improve European-wide risk, impact and cost/benefit assessment for adaptation responses, as compared with "no action"; compare integrated EU-wide responses with sectoral approaches including analysis of socio-economic costs and benefits; improved integrated assessment and the development and use of tools for demonstrating economic, environmental and social benefits of adaptation for European regions crossing national boundaries.

### **7.4. EURELECTRIC**

EURELECTRIC welcomes the launching of the European Climate Adaptation Platform last March. They noted that the energy sector is not represented on the platform and are willing to exchange with stakeholders to present the strategies adopted or foreseen by the power sector to adapt to a changing climate. Adaptation to climate change is two-fold and covers both adaptation to long-term changes and adaptation to extreme weather events whose number and severity are expected to increase.

EURELECTRIC wants to stress the importance of mainstreaming adaptation concerns in other EU policies in a consistent manner. Any initiative on climate change adaptation in the energy sector should bear in mind possible conflicts with mitigation goals. Adaptation and mitigation measures must work together to reduce climate change risks. There is a concern that adaptation-driven revisions to environmental regulation and the planning process may lead to onerous requirements for the approval of new energy projects.

The Electricity Industry is also concerned by risks associated with the implementation of a "one size fits all" policy in particular for water-related issues. It is vital to recognise and

respect the sunken investment in water-dependent infrastructure assets (which includes power plants and associated assets such as transport infrastructure, grids, etc).

### **7.5. Climate Alliance**

The EU adaptation strategy must ensure that adaptation to climate change is perceived as an important part of climate policy and that it is integrated into necessary regulatory procedures. As adaptation is fairly local issue, financial constraints, information gaps, and the lack of resources in general in measuring future climate impacts needs to be carefully considered. Transboundary organisations and networks of local authorities, such as Climate Alliance, can help to make a link with the overall EU strategy and the local needs.

Even if adaptation is largely a local issue, the European level has a great potential in pushing forward the adaptation agenda through awareness raising, integrating climate issues in the existing and new policy initiatives and in supporting future research and concrete projects in this field.

### **7.6. UNEP**

The input from the UNEP Brussels focusses on how the UNEP's Programme of Work may potentially complement the development of the EU Adaptation Strategy:

- The UNEP-facilitated “Programme of Research on Climate Change Vulnerability, Impacts and Adaptation” (PROVIA) aims to improve the coordination of international research on these topics and to strengthen the provision of high quality scientific information for decision makers.
- Harnessing the expertise and resources of the private sector in addressing climate risks, through the UNEP Finance Initiative (UNEPFI), which is actively engaging the insurance industry to explore risk management approaches, can facilitate adaptation to climate change.
- Collaboration on the economics of adaptation, where many countries are looking at ways to make their economies resilient to climate change. Determining appropriate and cost-effective responses to climate change risks and impacts is critical, and UNEP together with its partners are working closely together to better understand these and assist countries.
- The UNEP Flagship Programme on Climate Change – Ecosystem-Based Adaptation (EBA) coordinates projects in a range of ecosystems, to reduce human vulnerability to climate change by ensuring a strong natural resource base linked to well-functioning ecosystem services. Using EBA tools and knowledge, studies are already underway in the EU and elsewhere, and are currently assessing the cost-effectiveness of EBA approaches.
- UNEP is ready to discuss these and related areas of potential collaboration in our yearly High Level Meeting, which will take place on 10 October 2012 in Brussels, with the UNEP delegation to be led by the Head of executive Office, Michele Candotti.
- UNEP also expects that adaptation will be addressed under a strategic partnership meeting, in preparation between DGCLIMA and UNEP, that will address both mitigation, adaptation, REDD, and climate change science and outreach.
- UNEP would value continued engagement with the EC in the development and implementation of the EU Adaptation Strategy.

## 7.7. The World Food Programme

Although the new EU Strategy for adaptation to Climate Change will be largely EU focused, adaptation is a trans-boundary issue and it will have an impact also on developing countries which are most vulnerable to climate change. The increased frequency of climate change-related natural disasters threatens to significantly increase rates of hunger and malnutrition, disproportionately affecting the most vulnerable people, particularly women and children. Producing food without damaging the environment is one of the greatest challenges the world faces today. Accordingly, it is important to help poor communities to address environmental concerns and become more able to resist future shocks.

Practical considerations:

- Enhance resilience-building outcomes for vulnerable people.
- Support governments and local communities in emergency preparedness and risk management by developing vulnerability analysis for food security, improving emergency preparedness and response, early warning systems and disaster risk reduction, and by developing new food technologies and logistics. It is important to minimize the impact of natural disasters through Disaster Risk Reduction (DDR) and contingency plans and support their mainstreaming into national plans.
- Support the establishment of safety net systems: because of recurrent disasters, there is growing demand for more predictable, long-term safety nets that take into account climate risks.
- Food and nutrition security should become focal sectors of EU development strategies and national governmental strategies.
- Support stronger partnerships: integrated, multi-sectoral approaches at various levels such as: local communities, governments, regional institutions, the private sector, NGOs, International Organisations and regional bodies. Analytical tools for anticipating and assessing the impacts of climate on food security, hunger and malnutrition are still largely missing.
- To counteract climate change-related hunger and undernutrition, a policy framework for mainstreaming climate change into EU development strategies is needed. Best practices should be identified.
- Adaptation and mitigation measures should be part of development programmes, including national and regional food and nutrition policies, strategies and action plans.