ECONADAPT

The Economics of Adaptation

Funded by the European Union

D1.1 Stakeholder Selection and Survey Results

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To find out more about the ECONADAPT project, please visit the web-site: www.econadapt.eu

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Executive Summary

The overall aims of WP1 (Framing of policy-focussed economic analysis) are to establish the overall framework for the ECONADPT project and to provide the key building blocks for the subsequent work packages. A key part of this work package is to engage with and consult policy stakeholders.

Work Package 1a, the Stakeholder-centred needs survey, supports this objective by establishing stakeholder engagement, co-ordination and the undertaking of a survey of stakeholder needs for adaptation economics. This deliverable, D1.1 *Stakeholder Selection and Survey Results*, sets out the progress on this work package and future planned activities. In summary:

- The WP started with a review of how to undertake stakeholder engagement and consultation in the project. This led to a focus on science practice interaction. The findings of the review were used to develop the stakeholder methods and engagement plans for the study.

- The project team have held a large number of face-to-face meetings with key policy makers on the economics of adaptation. This includes meetings with key DGs in the Commission, including DG RTD, DG CLIMA, DG ENV, DG ECHO, DGDEVCO, DGREGIO and DGAGRI, and other key European organisations including the EIB, EBRD, and EEA. The team has also held meetings with key international boundary organisations, including the OECD, UNFCCC, UNEP and UNDP. Finally, a number of face-to-face meetings have been held with relevant national and local organisations at the Member State level.

- These interviews have showed a high interest in the project. They have established the potential needs of policy makers and their areas of interest. It has also started the process of research co-production with key end-users. This has highlighted the need for simple and pragmatic approaches for economic analysis, which fit with the processes and capacity of policy users and their institutions.

- During the early work on the task, it was found that there were two existing survey initiatives ongoing in a similar area, one undertaken by the EEA on adaptation in general, and one undertaken by the OECD focusing on the economics of adaptation. The latter provided a key opportunity to reach a wider policy audience for the ECONADPT project, and following discussion, a number of ECONADAPT questions were added to the OECD survey. The results of the survey provided key information on the current state of adaptation economics in Europe (and internationally in the OECD). It revealed a low level of current practice: only three countries responded that they had included adaptation economics in their national assessment process (the UK, the Netherlands, and Slovenia).

- Following this survey, a policy workshop was organised, in collaboration with the OECD, on the 18-19th June 2014 in Paris, with attendees from the European Commission, Member State (adaptation leads), International boundary organisations, large private sector organisations, and some city level adaptation leads. An ECONADPT facilitated session was held at the workshop to survey policy stakeholders and understand their needs, and to investigate demand for information and tools.

- The workshop identified the current state-of-practice among key policy makers in Europe and identified key gaps and needs. A key finding was that large variability exists

amongst the member states in terms of capacity and usage of methods and tools, and that there was a high need for knowledge sharing and capacity development.

- Subsequently, a mapping analysis was undertaken to match various stakeholders to the ECONADAPT project work packages, i.e. to identify their potential areas of interest in the project activities and outputs. This revealed a strong alignment of key stakeholders to specific project work packages and outputs, i.e. WP5 Disaster Risk Reduction (ECHO, ENV, CLIMA), WP6 project appraisal (EIB, EBRD, CLIMA, REGIO), WP7 Policy Appraisal (CLIMA, OECD), WP8 macroeconomics, WP9 international adaptation finance (DEVCO, DFID), and cross-cutting/tools (CLIMA, EEA, UNDP, UNFCCC).

- This was used to cluster end-users, i.e. to identify groups of stakeholders with similar interests and needs. These clusters will form the main basis for stakeholder consultation going forward, to provide *communities of practice*, which focus in on the economics of adaptation in key policy themes. This allows a more targeted and focused stakeholder engagement process, help in the co-development of the research, and allow ECONADAPT outputs to match more clearly to their defined policy needs.

- Three further policy workshops are planned in the next 6 months.

    - The first is a policy session at the European Climate Change Adaptation Conference in Copenhagen (May 2015) held jointly with the OECD.

    - The second aligns to WP9, which is focused on international development assistance for adaptation, recognising this involves different issues to the other policy areas in ECONADPT. A session at the Paris Our Common Futures Conference (July 2015) has been organised. A separate side event to bring relevant policy makers together is also under discussion.

    - The third is a policy focused workshop (June 2015) to engage with agricultural stakeholders, as part of WP7, held in Brussels.

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Abbreviations

Relevant DGS
(AGRI) Agriculture and Rural Development
(BUDG) Budget
(CLIMA) Climate Action
(COMP) Competition
(ECFIN) Economic and Financial Affairs
(ECHO) Humanitarian Aid and Civil Protection
(EMPL) Employment, Social Affairs and Inclusion
(ENER) Energy
(ELARG) Enlargement
(ENTR) Enterprise and Industry
(ENV) Environment
(DEVCO) EuropeAid Development & Cooperation
(SANCO) Health and Consumers
(MARKT) Internal Market and Services
(MARE) Maritime Affairs and Fisheries
(MOVE) Mobility and Transport
(REGIO) Regional Policy
(RTD) Research and Innovation
(SG) Secretariat-General
(TRADE) Trade

Other
EBRD – European Bank for Reconstruction and Development
EIB – European Investment Bank
OECD - Organisation for Economic Co-operation and Development
WHO-E – World Health Organisation Europe
DFID - UK Department for International Development
UNFCCC – United Nations Framework Convention on Climate Change -Bonn

1 Introduction

Stakeholder engagement is a key part of the ECONADPT project proposal, reflecting the policy focused orientation of the study. The project therefore aims to work closely with policy makers to understand end-users needs, and to co-develop the research so that outputs are practical and user friendly. To maximise the relevance and impact of the research, the project will engage with a number of policy organisations at the European and Member State level. These policy partners will help in focusing the research and making it useful.

The first part of this process is therefore to identify the key stakeholders for the project and put in place a plan of activities for their engagement. This is the focus of this work package, WP1A, which has undertaken interviews, stakeholder surveys and workshops to establish needs from a broad range of key stakeholders (see box). Alongside this, WP11 will undertake the stakeholder engagement and dissemination activities. Importantly, the stakeholder engagement process runs throughout the project, to encourage iterative exchange and co-learning between decision-makers and scientists.

WP1a: Description of Work.

This task consists of two closely related activities. Firstly, a stakeholder survey will conducted to establish needs and wishes from a broad range of key stakeholders. Secondly, a stakeholder mapping and stakeholder selection procedure will be undertaken. We will start with surveying a small number of key stakeholders identified by the ECONADAPT team and through an initial stakeholder mapping procedure.

The stakeholder survey will establish the information demands relating to adaptation costs and benefits for a range of governance and policy decisions. This will involve bi-lateral contacts/meetings with policy makers at the European domain (DG Clima, other DGs, EEA, EIB, EBRD, etc.) as well as OECD, a selection of Member States (adaptation leads, i.e. public officials leading co-ordination of adaptation policy with national governments) and local examples. It will identify the potential uses of adaptation cost and benefit information, for example the use in EC and MS Impact Assessment, in the Adaptation Clearinghouse for Europe, in National Strategies, in province or local plans, and other decision contexts. The review findings and stakeholder dialogue will provide a gap analysis to help frame the rest of the WP.

The stakeholder mapping and selection part of this task aims at structurally identifying and analysing the diverse set of stakeholders relevant to the project, including mapping of the positions and interests of these stakeholders in the areas of climate change, adaptation options, and multi-scale policy making. A structured set of criteria will be used to identify stakeholders, including a core of actively participating individuals, policy makers, and a broader range of potential end users. The study team has already approached various European and National level policy makers who are potential users of advanced adaptation economic information and received strong interest for direct collaboration on the project (see letters of interest).

Finally it will identify user needs: Many aspects of the project are orientated towards end users. Before deciding on what will be developed, the team will structurally assess user needs, including: WP1: Framing of adaptation analysis needs; WP2: Data and methodological needs; WP3: Relevant temporal, spatial, and sectoral scales; WP4: Representation of uncertainty; WP5-9: Case study-specific needs; WP10: Components of toolbox.

Deliverable

Delive-rable Number [61]	Deliverable Title	Lead benefi-ciary number	Estimated indicative person-months	Nature [62]	Dissemi-nation level [63]	Delivery date [64]
D1.1	Stakeholder selection and survey results	12	7.00	R	PU	12

To deliver this, the ECONADAPT project is undertaking five key stakeholder / end-users activities:

- An initial survey of stakeholder needs and interest.
- The organisation of a series of policy workshops in areas of common interest (e.g. project appraisal, overseas assistance).
- Undertaking case studies in policy relevant areas.
- Building an adaptation economics toolbox and testing this with end-users.
- Holding a final workshop to bring relevant end-users together and disseminate best practice

This deliverable, D1.1, sets out the stakeholder selection and early survey results undertaken as part of WP1.1. The deliverable is set out as follows.

The Deliverable starts with a review of how best to undertake stakeholder engagement and consultation in the project (science practice interaction). The findings of the review have then been used to develop the stakeholder methods and plans for the study. Key stakeholders are identified.

The Deliverable then discusses early survey results. This includes the results of face-to-face meetings with key policy makers on the economics of adaptation. It also includes the results of an OECD survey, which the ECONADAPT project contributed to.

The Deliverable then discusses the first policy workshop results.

Finally, the deliverable sets out the mapping of key stakeholders and the plans for future engagement for the project.

2 Literature Review

In order to frame the stakeholder engagement activities on the ECONADAPT project, a literature review was undertaken, and this was used to inform the project method in this task. This included a review of the literature on stakeholder engagement in the academic literature, particularly focusing on climate change, and the recent policy literature on science-practice integration. The review is summarised below, along with the implications for the project.

Stakeholder Consultation / Science-Practice Integration

As outlined in Welp et al. (2006), science-based stakeholder dialogues can be important for:

(i) providing a reality check for research;

(ii) identifying socially relevant and scientifically challenging research questions; and

(iii) providing access to knowledge and data that otherwise would remain unknown or difficult to access.

Stakeholder engagement is particularly relevant to climate change related decision-making, given the complexity, ambiguity and subjectivity of the topic, and is increasingly called for in the scientific literature (Cheng et al. 2008). Stakeholder engagement has become a central element to most planning and policy development processes addressing climate change adaptation responses. It has been widely applied in case studies around the world (e.g. Cairns et.al. 2013; Alcamo 2008; Kok et al., 2011) and has proven to be very effective in terms of generating valuable input for adaptive management.

However, a review of these studies finds that they employ single or at best multiple workshop settings. Structural and continuous engagement of a broad set of stakeholders has rarely been attempted (Kasemir et al. 2000), so that stakeholder interest and engagement is seldom sustained. More recent literature has focused on advancing science practice policy integration (Hollaender and Groot, 2014). This generally advances a set of principles and steps as below:

- Identify users of research, including diversity of users;
- Develop understanding of work context, organisation, roles, objectives;
- Develop understanding of decisions;
- Identify opportunities for research to feed into decision making process;
- Assess end-use needs (needs assessment);
- Facilitate knowledge co-development;
- Produce concrete and tangible outputs;
- Ensure communication mechanisms.

Implications for the ECONADAPT Project

Building on these findings, the ECONADPT project has aimed to move beyond workshop engagement alone, and adopt a more participatory stakeholder processes throughout the duration of the project. This identifies user needs, and aligns to the new science-practice integration literature.

By involving relevant stakeholders from the onset of the project, the link to decision-making and application of research results will be strengthened. Moreover, by enlarging the groups of relevant stakeholders directly involved in the project, broader uptake of project results is enabled and supported by community-building measures.

To this end, the project has proposed a structured stakeholder engagement process that ensures that crucial decision makers and planners are involved, while their needs are documented. By doing so, stakeholders can develop a stronger sense of ownership of, and access to, the process and the final results. This new in-depth integration is a major advance specifically for the issues of the assessment of adaptation economics, where credibility challenges need to be pro-actively addressed with stakeholders, given the timescales and complexities involved.

Application to the ECONADAPT Project

The review findings above have been applied to help plan the stakeholder engagement in the ECONADAPT project. Key aspects are set out below.

Identification of users of the research

Two overall sets of stakeholders are identified for the project:

- First, adaptation specialists or economic policy makers who are likely to want to more advanced information and approaches from the project for the economic assessments of adaptation, focusing on the areas that are likely to require significant economic support in the period post 2013 i.e. after the publication of the EC Adaptation Strategy.

- Second, a broader set of users, including non-economists. This recognises that targeting information too specifically will miss the potential wider application of the project to a broader audience.

The key stakeholders identified are shown below, with organisations that provided letters/emails of support highlighted.

The initial focus is on the European Commission and Member States (i.e. adaptation leads), as well as other European organisations (e.g. EBRD and EIB) involved in adaptation. However, a number of boundary organisations are included, who provide access to broader groups of end-users.

Table 1. Initial list of Key Stakeholders (End-Users)

Stakeholder	Letter of support	Contact points for team
European Commission		
DG RTD		UBath
DGCLIMA		UBath/PWA
EEA	✓	UBath/PWA/ECOLOGIC
DGDEVCO		UBath/PWA/BCM3
DGAGRI		UBATH/PWA/PIK
DGREGIO		UBath/PWA /IVM
DGSG		UBath/PWA
DGENV (Disaster)		UBath/PWA/IIASA
DGECFIN		UBath/PWA /CMCC
EIB	✓	UBath/PWA /IVM
EBRD		UBath/PWA /IVM
Member State		
ASC (UK)	✓	UBath/PWA
Defra (UK)/ DFID (UK) / CCC ASC (UK)		UBath/PWA
Netherlands Ministry of Infrastructure and the Environment Rijkswaterstaat	✓	IVM
German Umweltbundesamt	✓	ECOLOGIC
Ministry of the Environment, Czech Republic	✓	CUEC
Umweltbundesamt GmbH, Austria	✓	UBath/PWA
Spanish Oficina Espanola de Cambio Climatico	✓	BCM3
Local		
Spanish Oficina Espanola de Cambio Climatico	✓	BCM3
Boundary organizations		
EEA	✓	UBath/PWA/ECOLOGIC
OECD	✓	UBath/PWA
UKCIP@ECI		UBath/PWA
UNFCCC		UBath/PWA
Research organizations and institutions		
Multiple		

A more detailed list – broken down by Work Package - is included in the Appendix.

Understanding of Context, Organisations, Roles and Objectives

In broad terms, the ECONADAPT project focuses on two key objectives. First, what are the key methodological advances needed to improve the economic assessment of adaptation? Second, what are the big adaptation decisions facing Europe in the next decade where these improved economic methods could be applied?

The first stream of research therefore focuses on improving the analytical methods to tackle the challenges of adaptation and to enhance the information base. The second stream frames the project from an end-user perspective, focusing on those areas (policy domains) which are likely to require more advanced economic analysis of adaptation. These provide the context and objectives for the study.

Flowing from this, the study has considered how this objective fits within the broader context and process of adaptation, to help understand roles and relevant organisations. A broad set of steps in an adaptation assessment have been identified, and summarised in guidance such as the PROVIA and Mediation projects[1]. These outline a broad policy cycle for adaptation, summarised around five steps.

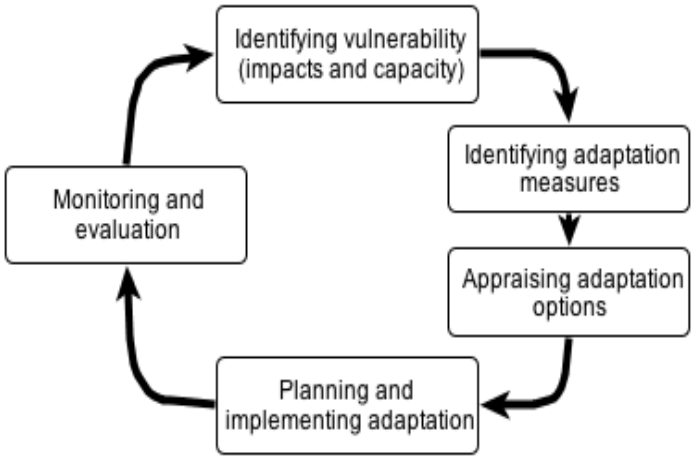
i) identifying vulnerability and impacts;

ii) identifying adaptation measures;

iii) appraising adaptation options;

iv) planning and implementing adaptation; and

v) monitoring and evaluation.



The Adaptation Policy Cycle: Source Hinkel and Bisaro, 2013

[1] Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA) is a global initiative which aims to provide direction and coherence at the international level for research on vulnerability, impacts and adaptation http://www.unep.org/provia/ Provia was supported by the Mediation Project (Methodology for Effective Decision-making on Impacts and AdaptaTION). This project provided scientific and technical information about climate change impacts, vulnerability and adaptation options, including the adaptation learning cycle, methods, decision support and information. http://mediation-project.eu/ (Hinkel and Bisaro, 2013).

In terms of this policy cycle, there are two points where decision support is particularly important, and which are a key focus area for ECONADAPT in supporting organisations and policy makers.

First, for identifying a short-list of options (e.g. scoping or feasibility), e.g. when identifying focus areas for a national adaptation plan, or a broad list of options for an individual policy or project.

Second, for appraising (prioritising) options, as part of detailed policy or project appraisal. In the adaptation context, there is an emerging community of practice and useful examples for both of these steps, outlined below.

Moving from this generic cycle, the ECONADAPT project is based around a context specific approach, aligned to major policy themes, i.e.

- Disaster risk reduction (WP5),
- Project appraisal (WP6),
- Policy appraisal (WP7),
- Macro-economic analysis (WP8),
- International adaptation development assistance funded by the EU (WP9).

There will be separate contexts, organisations, roles and objectives for each of these policy themes, each of which will involve different end-users. This is an critical point and it is reflected in the study stakeholder engagement process, i.e. there is a potential need to cluster organisations into separate areas, rather than treating all areas of adaptation in one generic group.

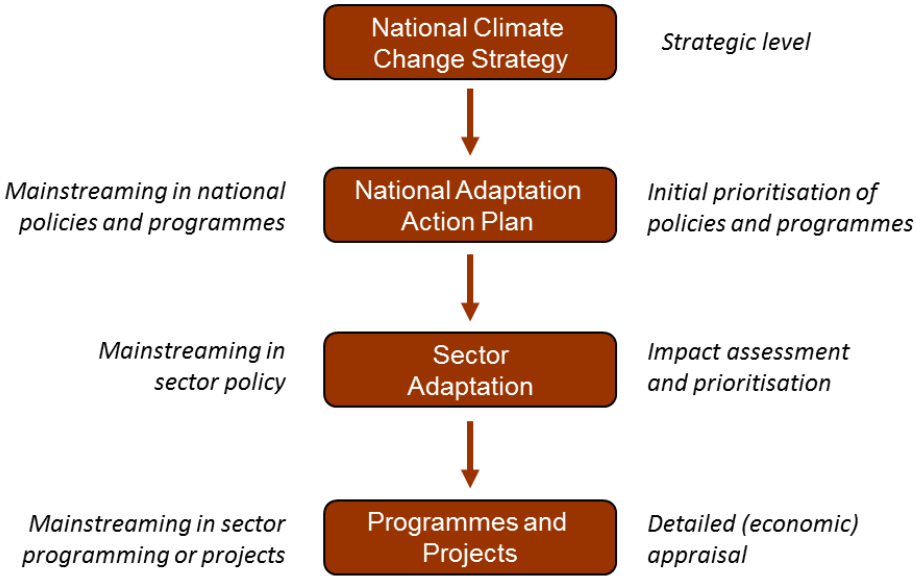
Develop understanding of decisions/ Identify opportunities for research to feed into decision making process

As well as the policy cycle above, a key focus in recent years has been on the mainstreaming of adaptation. While no formal definition exists (e.g. in the IPCC glossary), the term is broadly used interchangeably with 'integration'. As an example, mainstreaming of climate change measures should ensure that they are implemented as "part of a broader suite of measures within existing processes and decision cycles" (OECD, 2009).

In practice, mainstreaming involves a shift in thinking. It moves away from the implementation of adaptation as a stand-alone activity (in which new policy and programmes are formulated and carried out with the specific goal of addressing climate change vulnerability) towards the introduction of adaptation strategies, policies or measures as part of existing policies, e.g. through the national planning process and other (line) Ministries and sectors (McGray et al., 2007). In this regard, adaptation is very different to mitigation (Watkiss, Benzie and Klein, 2015), as the latter is generally been implemented as a stand-alone policy, cascading down from a national assessment or goal through to sectors, using a common methodological approach and single prioritisation method, which is built around cost-effectiveness analysis. In contrast, while adaptation usually starts with a national assessment, e.g. as part of a national climate change strategy, it is mainstreamed when moving from planning to implementation. This is due to the strong overlap between adaptation and existing activities that address current climate resilience (e.g. disaster risk reduction, water management, etc.), the need to consider non-climatic drivers, and due to the existing governance (policy ownership and responsibility) for these types of activities.

A critical part of the mainstreaming process – as identified in the UNDP/UNEP guidance on mainstreaming, 2011 – and for science-policy interaction - is to find relevant entry points. This requires an understanding of the linkages between climate change adaptation and national/sector development priorities, and how these cascade through to implementation, as well as an understanding of governmental, institutional, political contexts and needs.

As a simple example, in a country context, the flow of adaptation may move from a national strategy to a national action plan – then down into the sectors and finally to specific programmes and projects, as shown in the figure below. However, in the mainstreaming context, these should not be delivered stand-alone, but be integrated in similar activities at each level (shown on the left), and also be consistent with the relevant decision-making context (shown on the right).



Mainstreaming steps and entry points

For each of these steps, there will be an entry point for mainstreaming adaptation. A critical part of the integration process is therefore to identify these entry points and to look for opportunities on how best to include adaptation. This forms a key priority for ECONADAPT – identifying the relevant entry points to embed adaptation in the decision process.

At the national level, strategic decisions are taken that create the enabling environment for public- and private-sector actors, as well as communities and individuals. There are now a large number of national OECD climate change strategies (see Wilby, 2012; EEA, 2014) and an emerging number of national adaptation action plans. In Europe, two early examples of mainstreaming exist. In the UK, where a national climate change risk assessment (Defra, 2012) was followed up with a detailed analysis of adaptation, as part of the Economics of Climate Resilience study and the National Adaptation Programme (Frontier, 2013; HMG, 2013). In the Netherlands, the delta programme (Delta Commissie, 2008) provides a more transformational mainstreaming example, following the mandate to re-formulate a vision on the long-term protection of the Dutch coast and its hinterland that included climate change. Importantly, this extended further than just flood protection, also considering fresh water supplies, and the wider interactions with life and work, agriculture, nature, recreation, landscape, infrastructure and energy, with a strong consideration of sustainability. This has also been extended to consider an iterative adaptive management approach that prepares for the future and considers decisions in a timely fashion to plan investments (Delta

Programme, 2011), and most recently, in the development of adaptation plans (e.g. Delta Programme, 2014).

By contrast, in the developing country (non-OECD) context, relevant for WP9, mainstreaming activities usually follow a slightly different path with different entry points, reflecting the differences in national strategic planning. The NAP guidance (LDC Expert Group, 2012a: b) outlines the need for mainstreaming in developing such plans, because of the strong overlap with existing development activities. In this context, there are a different set of entry points for mainstreaming, operating through different organisational leads (e.g. Planning Commission, Sector Ministries, etc.). Some countries already include 'environment' as a cross-cutting theme in their national development vision (long-term), national development plans (e.g. medium-term plans, five year plans or poverty reduction strategies), and sector development plans (and in some cases, district or local plans). An example is the Government of Rwanda, which has integrated climate change mainstreaming (with environment) as one of seven cross cutting issues in national development and sector development planning (RoR, 2014), and it is also including indicators for this in the budgeting process and public financial management. Other countries have adopted a slightly different approach, developing stand-alone sectoral adaptation action plans which complement existing sector development plans and activities. Examples include Ethiopia, with its Climate Resilience Strategy for Agriculture (FDRE, 2014) and Tanzania, which has developed a sector Agriculture Climate Resilience Plan, 2014–2019 (GoT, 2014). These mainstreaming initiatives are led by the relevant sector ministries/line-ministries and build on existing sector development plans, but produce stand-alone and costed adaptation plans, because of the differentiation/opportunity for climate finance.

An additional – and often complementary entry point – relates to the mainstreaming of adaptation into programmes and projects. These are often the practical implementation step for mainstreaming, within the broader strategy or policy areas highlighted above. They also provide a mainstreaming route for other modalities outside of the national planning process. A good example of this mainstreaming approach is in relation to existing appraisal or safeguard processes/steps, though it is interesting to note that a variety of entry points have been used. One approach is to integrate climate change adaptation as part of existing safeguards, e.g. as part of strategic environmental assessment (SEA) for policies and plans, and into environmental impact assessment (EIA) for projects. This can apply in a national policy context, i.e. where these safeguard systems already exist, or when required for public or private projects. Another approach is to develop new climate risk screening methods and/or tools, which are integrated into the existing policy cycle as an additional safeguard system or step. The latter has emerged strongly in relation to investment projects funded by the international finance institutions and multi-lateral development banks (whether in the OECD or the developing world, and whether public or private loans/grants). For example, the African Development Bank (AfDB, 2011) have introduced a Climate Safeguard System (CSS), which operates a traffic light system/scorecard to identify which projects may be highly vulnerable to climate risk and require a more detailed evaluation to consider integration of climate aspects into design and implementation. These tend to have a strong focus on what might be termed 'climate proofing' of infrastructure or major investments (or more accurately, building climate resilience). Importantly these systems are integrated within the existing project cycle, thus they align to the processes of the organisation.

Other examples include the alteration of existing appraisal guidance (e.g. for public policy and projects) to incorporate climate change – or at least allow the consideration of some of the additional aspects/challenges of adaptation. A good example in the OECD was the publication of the supplementary guidance for public policy appraisal in the UK Green Book (HMT, 2009) on economic appraisal for adaptation.

Assess end-user needs

There are some findings related to the literature review above.

Adaptation decision processes and mainstreaming does not occur in a vacuum, and it is essential to understand and integrate within the existing socio-institutional landscape, especially as adaptation will often be one of many policy objectives, and not necessarily the dominant one. This requires the identification of entry points for mainstreaming.

These processes will be country and even organisation specific, i.e. they need to align to the policy and institutional landscape, and consider the existing processes or guidance, e.g. such as with the existing project cycle steps or existing appraisal documentation. Approaches that embed in existing systems and processes are more likely to be used. While there is potential for learning, especially within similar organisations, this cautions against the development of generic tools for mainstreaming:

Experience shows there is often a need for pragmatism. Any tools or guidance needs to fit with the resource and time available, and the capacity and expertise, for policy or project analysts, otherwise there is a danger that it will not get used. As an example, while the UK supplementary guidance on adaptation (HMG, 2009) recommends the use of real options analysis, to date, there have been no applications of the approach in UK public policy (Mullan, personal communication. This may mean a focus on providing information and processes that are good enough, rather than perfect, particularly given the potential complexity of climate change (and uncertainty analysis).

Timing is critical. It is important to ensure that the mainstreaming activities come early enough in the process to influence the decision, or are targeted at key windows of opportunity / intervention points (Ballard, 2014) especially where there are long-lived decisions or defined policy opportunities for change.

It is important to understand the barriers or constraints to adaptation. This recognise the disconnect between an idealised model of adaptation planning and the reality of how it plays out in practice. The UK experience provides some useful lessons (Cimato and Mullan, 2010; HMG, 2013), including the need to identify key barriers to effective adaptation (including market, policy, behavioural and governance failures) and to build organisational adaptive capacity and introduce enabling actions that are likely to lead to more effective adaptation.

A detailed end-user needs assessment has also been undertaken – and is presented in the next chapter.

Facilitate knowledge co-development/Produce concrete and tangible outputs / Ensure communication mechanisms

ECONADPT has a dissemination plan (WP11, see below) to produce and communication the project results. The project will build communities of practice in each of the five policy themes, using the case studies to facilitate knowledge co-development. The project plans are set out below.

The initial proposal had a large number of workshops, but following review, the budget of workshops was reduced.

Policy workshops

Two policy workshops are included in the project plan. The first of these workshops was designed to provide opportunities for participants to share/exchange information relating to both the methodological and case study components of the project, and so start the engagement process in Month 6.

This was organised with the OECD, in June 2014. The ECONADAPT project had a designated slot, at the end of the first day, to discuss 'gaps, research needs and end-user tools'. This provided a direct opportunity to work with policy makers to seek out key priorities that the ECONADAPT project can focus on. This is written up in the next chapter.

ECONADAPT Policy Workshop held: Joint Worshop with the OECD

Expert Workshop on Adaptation Financing and Implementation: Putting Priorities into Practice in OECD Countries

ECONADAPT held its first policy workshop in collaboration with the OECD, at a meeting at the OECD Conference Centre in Paris on the 18-19 June 2014. The workshop included presentations from a range of speakers, including national and local policy makers, the private sector and researchers, and involved around 50 international participants.

Speakers included the OECD, members of the ECONADAPT project team, DG Clima European Commission, UK Government, Federal Environmental Agency Germany, UN Development Programme, European Environment Agency, Agricultural University of Athens (Bank of Greece), Finnish Institute for Environment, IIASA, Consorzio Venezia Nuova and the City of Copenhagen, as well as Électricité de France, Siemens and the International Finance Corporation.

The workshop also included a session to discuss end-user needs and to identify gaps that the project could research, which was facilitated by the ECONADAPT project team.

The second workshop will constitute the final stakeholder workshop and will bring together all the findings of the case studies. It will be structured to maximise learning for stakeholders and researchers across sectors and the case studies, enhance awareness of results and explore their utility from the users' perspectives, define the nature and scope for further refinements of results and for their dissemination, and identify next steps related to engagement and dissemination. This is anticipated for Month 36 (September 2016) in Brussels.

European Narratives workshop

The DOW discusses a European narratives workshop in month 16. It is now proposed that this aligns with existing activities (e.g. other RTD projects).

Tools workshop

A policy tool workshop is anticipated in month 30. It maybe that an smaller meeting can be held in month 30, followed by tool dissemination at the final policy workshop.

WP workshops

Four WP workshops were originally planned. There is not sufficient WP budget to hold all of these separately, so it is proposed that these the project uses themed sub-working session at the policy workshops, with more case study specific co-development with key stakeholders. In addition, the study will hold additional meetings around European policy appraisal, and international adaptation finance meetings. Three such meetings have already been organised.

The first is a policy session at the European Climate Change Adaptation Conference in Copenhagen (May 2015) jointly with the OECD.

The second aligns to WP9, which is focused on international development assistance for adaptation, recognising this involves different issues to the other policy areas in ECONADPT. A session at the Paris Our Common Futures Conference (July 2015) has been organised. A separate side event to bring relevant policy makers together is also under discussion.

The third is a policy focused workshop (June 2015) to engage with agricultural stakeholders, as part of WP7, held in Brussels.

Work Package Description. 11. Dissemination

The dissemination of the project results will involve a series of activities to maximise the results and outreach of the project, and ensure impacts are achieved.

Task 11.1. Dissemination planning and delivery. At the start of the project a series of activities will be undertaken to set out the dissemination activities for the project. The project web-site, a project presentation and a project brochure (i.e. an information factsheet) will be produced at the start of the project (Deliverable 11.1).

The project will then produce a dissemination and impact strategy with a pathways-to-impacts plan (Deliverable 11.2) including agreed success criteria. This plan will include timely and targeted dissemination of outputs (co-generated with stakeholders) and how these will be achieved, e.g. using thewebsite, existing EU (e.g. European Climate Adaptation Portal (Climate Adapt)) and MS dissemination platforms (along with the potential of links to other international adaptation portals such as weADAPT).

Task 11.2. Stakeholder engagement. This task will organise and facilitate a number of stakeholder workshops as participatory processes, as explained in WP1. The workshops will build on each other allowing for an iterative exchange and co-learning between decision-makers and scientists throughout the project. In total, one European workshop on adaptation narratives will be organised, and it is envisaged that this will be followed by 3 workshops in the various case studies; this will be finalised following completion of the stakeholder survey and the European workshop thereby effectively building on stakeholders' preferences . . The stakeholders are currently envisaged as informing and benefiting from the case study work in WPs 5, 6, 7 and 9 through participation in the four workshops. A toolbox feedback workshop will be held in Brussels to inform the toolbox development in WP10.

Task 11.3 Communication and transfer of Knowledge and Results. ECONADAPT has a strong focus on stakeholder engagement and outreach activities, which are a key part of dissemination. External communication and timely transfer of knowledge to relevant stakeholder groups will involve the following activities:

a) Direct meetings with relevant policy makers to ensure policy research needs are considered throughout the project. We will form/build on our existing excellent links with policy makers in the DGs and MS to elicit policy research needs throughout the project; direct contact with key interface and dissemination organisations, e.g. European Commission, European Environmental Agency (Climate Adapt), and other Member State Portals, organisations (e.g. UKCIP) and international organisations

(e.g. OECD). The team has approached number of policy making bodies (including EEA and OECD) who have confirmed interest in this engagement process. Previous FP7 projects undertaken by the consortium have shown that while workshops are effective in raising awareness of research, the most effective way of disseminating key results and getting impacts is through targeted bi-lateral meetings, e.g. with relevant groups in DG Clima, Member States, Regional and local policy makers. ECONADAPT therefore includes a set of bi-lateral meetings to ensure these activities.

b) Two Policy Workshops. The first of these workshops is designed to provide opportunities for participants to share/exchange information relating to both the methodological and case study components of the project, and so start the engagement process in Month 6. The second of these workshops will constitute the final stakeholder workshop and will bring together all the findings of the case studies. It will be structured to maximise learning for stakeholders and researchers across sectors and the case studies, enhance awareness of results and explore their utility from the users' perspectives, define the nature and scope for further refinements of results and for their dissemination, and identify next steps related to engagement and dissemination.

c) Training and capacity building with policy makers and practitioners: As highlighted in Task 11.2 a toolbox workshop targeted at the various target groups of the project will offer guidance on how to apply the methods and tools developed within ECONADAPT. This will include a capacity building component (e.g. on project appraisal for adaptation) working with our policy partners (EEA, OECD, EC).

d) Policy briefs will be prepared annually that summarise the results and findings in a way that is easily accessible to key user groups, and be hosted on the project website. This will include more detailed economic material, but also material for use by a broader range of users (non-economist).

e) Academic publications. ECONADAPT will produce a wide range of academic papers, linked to the economic and methodology work, and the case studies.

f) A regular newsletter will be produced that provides an update on progress and key results.

g) A policy synthesis will be produced, i.e. a summary for policy makers, that summarises the project in clear English, for wide dissemination of the project findings.

h) The project website will be regularly updated. The external website will provide links to related resources such as links CLIMATE-ADAPT and MS adaptation portals. Innovative and appropriate website technologies, consistent with the spectrum of capabilities of the targeted audiences will be exploited to ensure that the website is a recognised and sought-after source for information to support adaptation.

i) Engagement with key interface and boundary organisations, will be undertaken to maximise the project dissemination and reach. The proposal team has already engaged with key outreach organisations, including the EEA and the Climate-Adapt portal, to agree that the results of the project can be linked to this information platform. Similar activities are also planned for Member State boundary organisations and portals, and a dialogue has already started with other key actors (e.g. the OECD) for wider outreach of the project.

j) Targeted presentations at key meetings. The dissemination of project results will be enhanced through presentations at key conferences and meetings. The consortium will support specific requests by the Commission services, such as attending side-events in UNFCCC.

3 Survey Results and Policy Workshop Findings

Early Interviews

WP1 initially undertook a large number of face-to-face meetings with key policy makers on the economics of adaptation. This included meetings with key DGs in the Commission, including DG RTD, DG CLIMA, DG ENV, DG ECHO, DGDEVCO, DGREGIO and DGAGRI, and other key European organisations including the EIB, EBRD, and EEA. The team has also held meetings with key international boundary organisations with an interest in this area, including the OECD, UNFCCC, UNEP and UNDP. Finally, a number of face-to-face meetings have been held with relevant national and local organisations at the Member State level.

These meetings followed a survey and questionnaire based approach, as well as a general discussion on needs. The initial survey asked questions such as:

- What decisions are they are making?
- What methods do they currently use to make decisions?
- What information sources they consult?
- What time frame do these decisions get made in?
- What sorts of methods and/or data in what format would help make better decisions?
- What time frame would they need these in order for them to be useful?

The initial interviews are outlined below.

Initial Face to Face Meetings

Organization	Relevant WP	Date	People	Person / Result
DG RTD Brussels	All	25/11/2013	Alessia Pietrosanti (Project Officer) Rossella Riggio	Paul Watkiss, Alistair Hunt Agreement on survey/dissemination Agreement of protocol for contacting and meeting DGs
EIB Luxembourg	6 (Project)	6/11/2013	Peter Carter Head Environment	Paul Watkiss Discussion of project and needs. Consideration of EIB as policy partner.
DFID UK	9 (Intern.)	28/11/2013	Annika Olsson Malcolm Smart Leads on Adaptation Economics	Paul Watkiss Discussion of project and needs Linkages to development partner community
OECD France	WP 7 (policy) WP11	4/12/2013	Michael Mullen, head of adaptation economics,	Paul Watkiss, Alistair Hunt, Ariella Helfgott Discussion of project and needs, plus opportunities for collaboration (outcome – ECONADAPT/OECD joint policy workshop agreed)
European Environment	WP11	9/12/2013	Stephane Isoard Andre Jol	Paul Watkiss, Ariella Helfgott Discussion of ECONADAPT on

Agency, Copenhagen, Denmark				Climate-Adapt and aligning project to EEA dissemination activities (outcome – ECONADAPT page on Climate-Adapt)
European Investment Bank, Luxembourg	WP6 (project)	11/12/2013	Nancy Saich, Edward Calthrop; Matthias Zoellner; Peter Carter Matthew Arndt; James Grant	Paul Watkiss Discussion on Bank user requirements for project appraisal, discussion of bank portfolio and project cycle. Policy partner discussion.
DG CLIMA Brussels	All	21/1/14	Meeting with DG Clima Joan Canton (economics) Alfonso Gutierrez Teira (research)	Paul Watkiss, Alistair Hunt, Ariella Helfgott Presentation of project and needs Discussion of links DG Clima and other DGs
UK DFID, London	WP9	24/1/14	Meeting with Annika Olsson and Malcolm Smart.	Paul Watkiss Discussion of the project, discussion of end user needs around LDC adaptation.
EBRD, London	WP 6 (project)	31/1/14	Meeting with Craig Davies	Paul Watkiss Discussion on Bank user requirements for project appraisal, discussion of bank portfolio and project cycle. Policy partner discussion.
DG ENV/ECHO Brussels	WP5 (DRR)	28/3/14	DG CLIMA (Claus Kondrup) DG ENV (Ioannis Kavvadas: floods) DG ECHO (Yordanka Mincheva)	Paul Watkiss, Alistair Hunt Plus Alessia Pietrosanti Presentation on the project
DG REGIO Brussels	WP6	20/6/2014		Paul Watkiss, Alistair Hunt, Onno Kuik Plus Alessia Pietrosanti Presentation on the project and discussion of potential needs
DG DEVCO	WP9	18/7/2014	Meeting with Laura Giappichelli, DG DEVCO, Brussels	Paul Watkiss, Alistair Hunt Plus Alessia Pietrosanti Presentation on the project plus potential needs
JASPERS team	WP6	18/7/2014	Meeting with JASPERS team, Hans van Os. Massimo Marra	Paul Watkiss, Alistair Hunt Plus Alessia Pietrosanti Presentation on the project
DG AGRI	WP7	11/12/14	Meeting with AG AGRI	Alistair Hunt, Ekko van Ierland, Anne Biewald Plus Alessia Pietrosanti Presentation on the project

Meetings were also held with:

- UNFCCC Bonn (Paul Desanker, Manager, National Adaptation Plans and Policy Adaptation Programme United Nations Climate Change Secretariat UN Bonn);

- UNDP (Pradeep Kurukulasuriya, Head- Climate Change Adaptation (Global), UNDP - Global Environment Facility, UNDP).
- The UK Committee on Climate Change Adaptation Sub-Committee (Kathryn Humphrey);
- UKCIP at Oxford (Roger Street).
- Umweltbundesamt GmbH, Austria (Martin Konig).

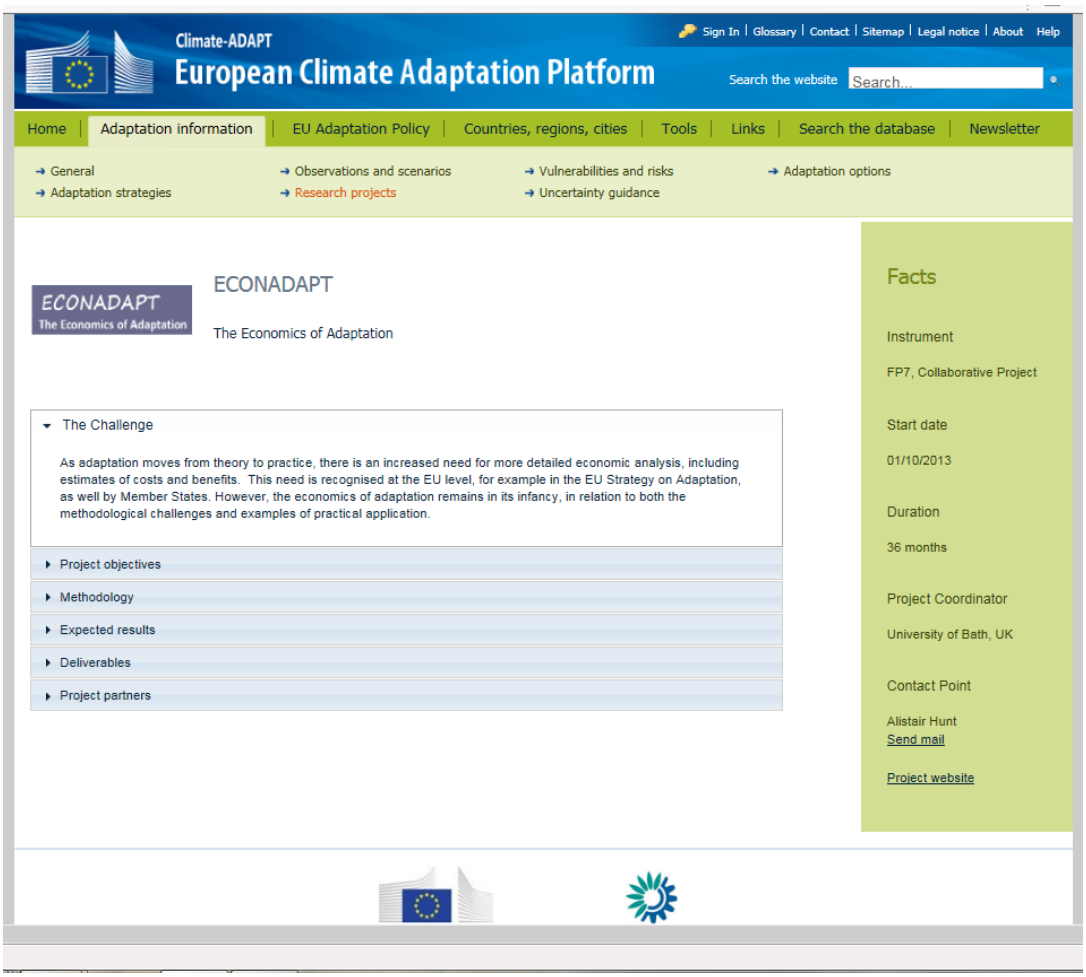
Early Findings

The early interviews revealed a number of useful points for the end-user focus and research agenda in ECONADAPT.

- The interviews suggested there are different clusters of end-users, who have different needs.
- These clusters align well to the policy themes in ECONADAPT (e.g. WP5 Disaster Risk Reduction (ECHO, ENV, CLIMA), WP6 project appraisal (EIB, EBRD, CLIMA, REGIO), WP7 Policy Appraisal (CLIMA, OECD), WP8 macroeconomics, and WP9 international adaptation finance (DEVCO, DFID).
- In the EC context, a particular interest emerged around the proposal in the draft 2014-2020 Multi-annual Financial Framework (MFF) for increasing climate-related expenditure to at least 20 % of the EU budget, and the need to prioritise and appraise adaptation investments in line with this (e.g. through EU funds, MS initiatives, and financing through EIB/EBRD). The issue of uncertainty for infrastructure investment appraisal was highlighted by EBRD and EIB.
- The need for simple and pragmatic approaches was highlighted, i.e. to fit the project cycle of the organisation, and the capacity of organisations involved.
- There was a strong interest in the prioritisation of adaptation in developing countries, especially in terms of National Adaptation Plans (NAPs) and bi-lateral funding of international adaptation.

Links with other Projects or Initiatives including RTD

One of the most important linkages for the ECONADAPT project is with the EEA ClimateAdapt Platform (the European Climate Adaptation Platform). Following discussion with the EEA, a web page for ECONADAPT has been established on the platform (http://climate-adapt.eea.europa.eu/web/guest/project/econadapt).



A number of other RTD project have been identified of relevance. These include the completed projects:

- EURO-CORDEX
- CLIMATECOST
- IMPACT 2C
- CLIMSAVE
- MEDIATION
- RESPONSES

And ongoing ones:

- TOPDAD
- BASE
- RAMSES
- IMPRESSIONS
- HELIX

The latter are particularly relevant and contacts and links with these groups have been established.

Survey Results

During the early consultation, it was found that there were two existing survey initiatives ongoing, one undertaken by the EEA on adaptation in general, and one due to be undertaken by the OECD, focusing on the economics of adaptation. The former provided key context for the ECONDAPT study. The latter provided a key opportunity to reach a wider policy audience for the ECONADPT project, and following discussion, a number of ECONADAPT questions were added to the OECD survey. The results of the survey provided key information on the current state of adaptation economics in Europe (and internationally in the OECD), but revealed a low level of practice: only three countries responded that they had included adaptation economics in their national assessment process (the UK, the Netherlands, and Slovenia). Key results of relevance to the project are summarised below.

EEA Survey

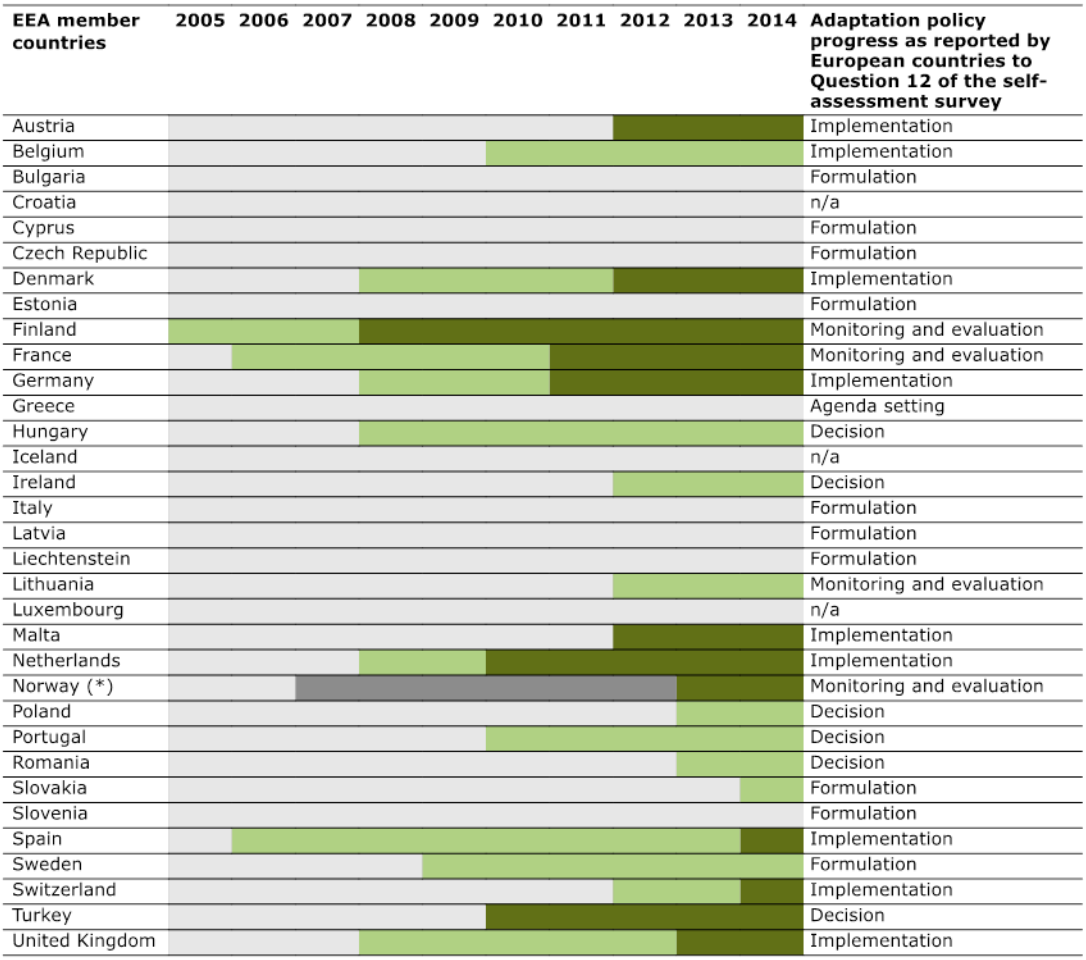
In 2013 the European Environment Agency (EEA) conducted a self-assessment survey on national adaptation policy processes in Europe. The survey was sent out to authorities in countries responsible for coordinating adaptation at national level: the 32 EEA member countries, and in Croatia in July 2013. Thirty EEA member countries provided their responses on a voluntary basis. In 2014 the results of this survey became available and the EEA published publicly available reports detailing the results of the study (EEA 2014b, a). The full responses of each of the countries to the survey are also available online (EEA 2014c). According to the EEA, these reports represent the largest and most comprehensive analysis of national adaptation policy processes in Europe, to date.

In the context of this report, 'adaptation' refers to actions taken in response to current and future climate change impacts and vulnerabilities (as well as to the climate variability that occurs in the absence of climate change) in the context of ongoing and expected socio-economic developments. It involves not only preventing negative impacts of climate change, but also building resilience and making the most of any benefits it may bring.

The study showed that European countries are “aware of the need for adaptation to climate change” (EEA 2014b). The study revealed that by 2014, 21 European countries had adopted a national adaptation strategy (NAS) and 12 had developed a national adaptation plan (NAP). More than half of all European countries reported that they have made progress in identifying and assessing adaptation options, and 13 report that they are in the implementation or the monitoring and evaluation stages of the adaptation policy process. These results are summarized in Figure 1.

The survey identified eight key topics for adaptation in Europe, these are:

- Public and policy awareness of the need for adaptation.
- Knowledge generation and use.
- Planning adaptation.
- Coordination of adaptation.
- Stakeholder involvement.
- Implementation of adaptation.
- Transnational cooperation.
- Monitoring, reporting and evaluation.



Note: ☐ No policy

☐ National adaptation strategy (NAS) in place

☐ National adaptation strategy (NAS) and national and/or sectoral adaptation plans (NAP/SAP) in place

(*) Norway had a NAP before a NAS.

Question 12 of the self-assessment survey was formulated as follows:

In what stage of the adaptation policy process is your country?

☐...Adaptation process has not started

☐...Agenda-setting (i.e. adaptation is politically recognised as important)

☐...Formulation (i.e. responsible actors respond by formulating adaptation policies)

☐...Decision (i.e. policymakers have adopted an adaptation policy)

☐...Implementation (i.e. measures foreseen in the policy are being implemented)

☐...Monitoring and evaluation (i.e. review and updates of policy/actions)

Sectors within countries are at various levels of advancement. This diversity is not reflected by the responses provided by European countries to Question 12 of the self-assessment survey as shown in Table ES.1. Adaptation is an iterative process for the sectors involved, and calls for consideration of 'Agenda-setting', 'Formulation', 'Decision', 'Implementation' and 'Monitoring and evaluation' issues, at various levels of advancement.

More information on the levels of advancement within sectors can be found in Key topic 6 (cf. Section 2.6).

Overview of national and sectoral adaptation strategies in Europe. Source EEA.

The findings are summarised below.

Public and policy awareness of the need for adaptation

All respondents to the survey reported an increase in public awareness of adaptation, the development of a knowledge base about adaptation and the Incorporation of adaptation into policy and the development of specific policy instruments.

Knowledge generation and use

A great deal of research has been conducted into adaptation over the past 5 years. Adaptation knowledge informing policymaking is reported to have increased in the last five years. The EEA study revealed that risk or vulnerability assessments are available for 22 of the responding 30 European countries" (EEA 2014a). Further, 18 countries report that uncertainties in future climate-change projections have been explicitly addressed in adaptation policy processes" (EEA 2014a). However, to support adaptation further in European countries, **more information is needed on costs and benefits of adaptation**. Knowledge on risks, uncertainties and vulnerabilities are still needed at the local level. Availability of data for monitoring and evaluation purposes is also needed. The assessment of risks and vulnerabilities varies greatly by sector. The sectors that have attracted the greatest attention throughout Europe in terms of risk and vulnerability assessment at national level are agriculture, water, forestry, human health and biodiversity.

Planning adaptation

Nineteen countries reported that they have made progress in identifying and assessing adaptation options – this is more than half of the European countries. Seven further countries have said they will begin identifying and assessing adaptation options in the near future. The method most often reported as being used to identify and assess these options is "expert judgment" sometimes combined with other approaches such as participatory processes.

Coordination of adaptation

All countries currently implementing adaptation agree that coordination of adaptation could be improved but find their current coordination mechanisms are at least 'medium-effective' or 'effective' and fulfil their purpose. Working groups and task forces are common ways to coordinate adaptation action across sectors and levels of governance.

Knowledge exchange, coordination of stakeholders and assignment of responsibilities can support coordination of adaptation action. Countries can improve their coordination of adaptation further by learning about the diversity in coordination mechanisms across countries, and by sharing experiences and lessons learned.

Stakeholder involvement

The importance of stakeholder involvement throughout the adaptation process is widely recognized, however, mechanisms for stakeholder involvement are limited and vary greatly across countries. There is room for improvement and capacity development. There is also limited experience of involving stakeholders in the implementation, monitoring and evaluation of adaptation policies. Finally, processes that increase commitment to adaptation of private sector and civil society stakeholders are yet to be explored.

Implementation of adaptation

Adaptation is most often implemented by applying 'soft' measures (e.g. providing information or mainstreaming). 'Green', 'grey' or 'combined' options are also used. Project-based support was shown to be the most important financing mechanism currently in place for implementing adaptation. In those cases where funds from government budgets have been explicitly earmarked for adaptation, these funds have been allocated principally to the water and agriculture sectors.

The water, agriculture and forestry sectors are reported to be the most advanced in terms of implementing portfolios of adaptation measures at all administration levels. Countries were also asked the policy areas for which they were currently planning for adaptation (e.g. identifying options). Biodiversity was reported as the one most frequently addressed.

Trans-national cooperation

Half the European countries report considering transnational cooperation in national adaptation policy processes. Transnational cooperation in adaptation has often been developed with the support of European funding instruments, and in the context of established cooperation forums such as European regional conventions.

Monitoring, reporting and evaluation

Only seven countries are currently implementing a monitoring, a reporting or evaluation (MRE) scheme (Finland, France, Germany, Lithuania, Spain, Switzerland and the United Kingdom), though many more countries are initiating them. Approaches to MRE include reviews by independent bodies, self-assessment by sectors, and indicator development. Information from MRE schemes is to be used to revise national strategies and plans, suggesting countries recognize adaptation is an iterative process. Feedback and learning is important to improve adaptation pathways.

Success factors and barriers for adaptation

The EEA study finds that a number of interrelated factors influence the success of adaptation including effective coordination among authorities, stakeholder involvement, local knowledge and availability of reliable information, and clarity of roles of responsibilities.

Barriers to adaptation are not simply the inverse of success factors. Lack of resources such as time, money, equipment and accurate information were highlighted as the main barriers. “Uncertainties are a common feature across all levels of advancement in policymaking. Policymaking can benefit from embedding processes that focus on learning from experiences, reviewing progress and policy objectives, and encouraging innovative experimentation” (EEA 2014b).

Future Directions

As well as these themes the study identified issues that will shape the future of adaptation at national levels across Europe. More attention is needed to further improve understanding of approaches to adaptation governance in Europe at the national level, and the same is true for implementation. There is a strong need for knowledge sharing across countries which would be greatly facilitated by a common understanding of appraisal tools and monitoring and evaluation schemes. “Finally, capacity-building and advanced communication methods also feature as key elements for fostering adaptation policy at national level in future” (EEA 2014b).

OECD Survey

In 2014, the OECD undertook a survey on adaptation. Following an earlier meeting with the OECD, a number of ECONADAPT questions were added to the OECD survey.

The survey included four sections that covered questions on: i) policy framework of climate change adaptation, ii) evidence base for planning and prioritisation, iii) approaches for

mainstreaming adaptation into policy and project appraisal methods, and iv) monitoring and evaluation of adaptation. Key results are summarised below.

Over the past decade, 23 OECD countries have published adaptation strategies, with an additional six countries currently developing theirs. The European results are shown below.

	Assessment of climate data			Adaptation options and policy responses				
	Historical climatic trends	Climate change scenarios	Impact assessments	Identification of adaptation options	Mention of policies synergistic with adaptation	Establishment of institutional mechanisms for adaptation responses	Formulation of adaptation policies	Explicit incorporation of adaptation in projects
Czech Republic - planned for 2014	●	●	●	●	○		●*	●*
Estonia - planned for 2016	●*	●*	●	○	○	○	○*	
Greece - planned for 2014	●	●	●	●	●	○*	○	○*
Iceland	●	●*	●					
Italy - planned for 2014	●	○	●	●	●		○	○
Slovenia	○*	○	●	○			○	
Sweden	○	●	●	●	○	●*	○	
Austria	●*	●	●	●*	●	○*	●*	○
Belgium	●*	●	●	●	●	●*	●	
Denmark	●	●*	●	●*	●*	○	●	●
Finland	○*	●*	●	●	●	○	●	○
France	●	●	●	○	●	●*	●	
Germany	○	●*	●	○	○	○*	●	○
Hungary	○*	●	●*	●*	○*	○*	○	○
Ireland	●	●*	●	●*	●	●*	○	
Luxembourg	●*	○	●*	●*	●*		●*	
Netherlands (new NAS in 2016)	○	●*	●	●	○	○*	●	●*
Norway	●	●	●	●*	●*	●	●*	
Poland	○	●	●	○	●*	○*	●*	
Portugal	○*	○*	●*	●*	●*	●*	●	
Slovak Republic (publication currently underway)	●	●	●	●	●*	*	●*	○*
Spain	○	●	●	●	●*	●*	●	
Switzerland	●	●	●	●*	●	○	●*	○*
United Kingdom	○	●*	●	●	●	●	●	●*

Coverage in NCs:

	Extensive discussion	*	Changes that occurred since last National Communication published
	Some mention / limited discussion	Recently changed category	
	No mention of discussion		

Quality of discussion in NCs:

●	Discussed in detail, i.e. for more than one sector or ecosystem, and/or providing examples of policies implemented, and/or based on sectoral/national scenarios
○	Discussed in generic terms, i.e. based on IPCC or regional assessments, and/or providing limited details/no examples/only examples of planned measures as opposed to measures implemented

Source OECD, 2015. Based on Mullan, M., et al. (2013), "National Adaptation Planning: Lessons from OECD Countries", OECD Environment Working Papers, No. 54, OECD Publishing, Paris. http://dx.doi.org/10.1787/5k483jpfpsq1-en,

The results from the OECD country survey show that all of the respondent countries have applied analytical tools to assess the consequences of current or future climate change, or both. The survey results, however, also highlight that it seems more difficult for countries to undertake monetary and quantitative analyses than more qualitative assessments, especially for future consequences. Conversely, there is no substantial difference in the status of qualitative analysis between current climate variation and future climate consequences.

Status of the evidence base for climate-related risks at the national level

	Identifying the impacts of current climate variability:			Projecting the impact of future climate change		
	Monetary impacts	Quantitative analysis	Qualitative terms	Monetary impacts	Quantitative analysis	Qualitative terms
Austria						
Belgium						
Czech Republic						
Denmark						
Estonia						
EU Commission						
Finland						
Greece						
Hungary						
Ireland						
Italy						
Netherlands						
Norway						
Poland						
Portugal						
Slovak Republic						
Slovenia						
Spain						
Sweden						
Switzerland						
Turkey						
United Kingdom						

No national risk assessment has been undertaken to provide evidence base
Some examples of risk assessment have been provided, but systematic analysis is not implemented
Systematic analysis has been provided at national level

Source OECD, 2015.

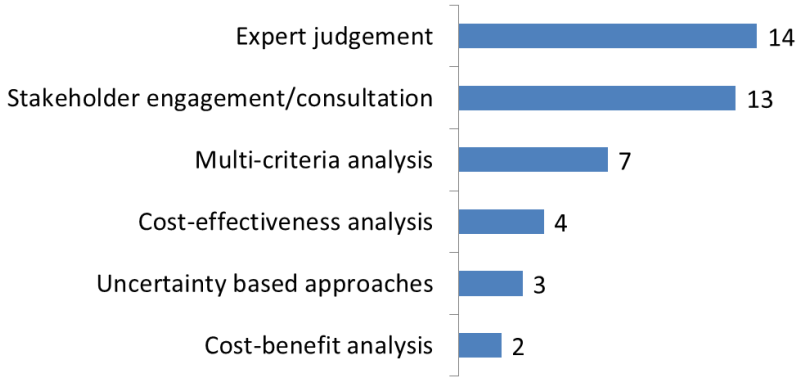
The OECD survey results show that not all sectors have been subject to equally detailed assessment. Sectors where most detailed analysis has been carried out include agriculture, water, coastal areas and infrastructure. These sectors are often viewed as vulnerable to climate change.

Most critically, the survey investigated the approaches used by countries for assessing (appraising) adaptation: the key focus area for ECONADAPT. Methodologies can include qualitative or quantitative approaches. For instance, quantitative approaches include cost-benefit analysis, cost-effective analysis and multi-criteria analysis. Qualitative approaches include, for example, expert judgement, stakeholder consultation and stakeholder engagement. Although quantitative approaches are useful to quantify additional benefits from reducing particular risks and additional costs of implementing measures to reduce the risks, quantification of costs and benefits is often costly because of time needed and sparse data availability.

The results of the OECD survey – below - show that OECD member countries have taken more qualitative approaches than quantitative approaches to inform the development of their adaptation policies. Qualitative tools include expert judgment and stakeholder engagement. Around a half of the respondents have used these approaches for setting priorities for the national adaptation strategies or plans. Quantitative tools such as multi-criteria analysis, cost-benefit and cost-effectiveness tools are used in the limited number of countries, due

partly to limited availability of necessary datasets that can quantify probabilistic or scenario uncertainties regarding risks.

Techniques used for prioritising the measures to be included in the national adaptation strategies or plans



Note: The number shows how many responding countries have applied each technique for developing their national adaptation strategies or plans. (Multiple answer)

Source OECD, 2015.

Finally, nearly a half of 27 respondent countries to the OECD survey have decided or considered regular updates of their assessments as of September 2014 (OECD, 2014c). In the response to the survey, the European Commission mentions that EU member states will have a legal obligation to develop risk assessments and make a summary of the relevant elements available to the Commission by 22 December 2015, and every 3 years thereafter.

Other relevant findings of the OECD survey (2015) were:

- Countries have adopted a diverse set of approaches to address their climate risks, reflecting domestic circumstances. Common objectives, however, are to demonstrate political commitment and to facilitate co-ordination.

- Political commitment can help to mobilise the resources needed to act on climate risks, but the presence of organisational processes that facilitate the integration of adaptation into national planning and budgeting processes is also important.

- Climate tools and information can inform decision-makers on the potential effects of climate change and the comparative merits of different policy options. But they must be matched by decision-support tools that help translate the information into practice.

- Action on adaptation at the sub-national level can greatly benefit from the guiding principles agreed upon at the national level. Due to capacity constraints, win-win opportunities and possible synergies are important at the sub-national level.

- Private sector action on adaptation is primarily driven by profit motives. National governments can support private sector action by putting in place an enabling environment that facilitates action (e.g. providing access to information, tools and guidance, maintaining regulatory coherence, establishing reporting requirements, and using procurement policies).

- To address the social vulnerability of the elderly or other marginalised groups to the effects of climate change, a dialogue between relevant policy areas (e.g. health,

transport and agriculture) and ‘adaptation-proofing’ of policies developed by different ministries, can be beneficial

- When planning in an uncertain environment, continuous learning is important. Monitoring and evaluation can shed light on what approaches to adaptation are effective in achieving agreed objectives. However, to facilitate learning, decision-makers should be incentivised to use the findings in their planning and budgeting processes.

Overall, the results of the survey provided key information on the current state of adaptation economics in Europe (and internationally in the OECD), but revealed a low level of practice.

Policy Workshop

The first policy workshop was organised, in collaboration with the OECD, on the 18-19th June 2014 in Paris, with an attendee list that included Member State leads on adaptation, key private sector organisation, International organisations, and city scale adaptation leads. An ECONADPT facilitated session was held at the workshop to survey policy stakeholders and understand their needs, and to investigate demand for information and tools.

Background

Recent years have seen significant progress in countries’ preparations for the effects of climate change. As of 2014, more than three-quarters of OECD countries had published, or are currently developing, national strategies for climate change adaptation. There are a wide range of methods to support national planning and strategic decision-making for adaptation, backed with an increasing amount of evidence. However, while sophisticated approaches have been used to support this process in some cases, practice varies widely in policy appraisal and prioritisation. Furthermore, the test of these approaches lies in the extent to which they are being used to inform decisions towards implementation.

Accordingly the OECD held an expert workshop, jointly with ECONADAPT in order to share experiences and examples of good practice amongst member states, to identify user needs and gaps and to shape future research priorities. A representative from every WP in the ECONADPT project was represented. This workshop brought together policy-makers from across the OECD, along with leading experts on adaptation to share experiences of the approaches that are being applied to inform policy appraisal and decision-making. The purpose was to ensure that the right evidence, tools and approaches are in place to make the case for action and help to shape the most effective adaptation pathways.

ECONADAPT session

An ECONADPT facilitated workshop session was held on the first afternoon. The aim was to discuss and record:

- Methodological and research gaps, i.e. key areas for primary research to help in the applications of the economics of adaptation for policy support (e.g. costs and benefits, preferences, scale, transfer, uncertainty);

- Areas where methods or guidance might be useful on practical adaptation implementation (e.g. on mainstreaming, policy appraisal, project appraisal, decision support tools, prioritization, etc.).

- Possible tools, inventories or knowledge sharing priorities on the economics of adaptation.

Participants were divided into three break-out groups. Each group assessed a common set of issues around the key objectives above. They were then assigned one of three additional themes:

- Futures and scenarios (analysis of future socio-economic and scenarios modeling, exploring, challenging assumptions, narratives, worldviews(how to capture non-climatic drivers, counterfactuals, future scenarios).

- Transformation (do the methods and tools we currently have allow us to advance transformative adaptation?)

- Cross-sectoral assessment, synergies and trade-offs (how to advance cross-sectoral adaptation, in technical analysis and governance)

Within each theme participants brainstormed and discussed the methods and tools they currently use in practice, challenges they are facing, research gaps, and what would be most useful in terms of methodologies, tools and approaches for dealing with the issues that arise within these themes. This information provides the basis for work taking place within ECONADAPT to develop such methods and tools together with end-users.

The aim was to encourage knowledge sharing amongst participants and between participants and researchers on current practices and state-of-the-art decision support methods and tools, and to help with the co-identification of research gaps and end-user needs.

Workshop Results

The methods and tools for policy and project appraisal currently in use across all participating member states were collected through a card clustering exercise. These included:

- CGE/IAM modelling
- Risk Assessment and Management (including GIS, vulnerability, impact assessment and Iterative Risk Management)
- Cost Benefit Analysis
- Multi-Criteria Analysis
- Expert Workshops (foresight exercises, expert judgment)
- Decision making under uncertainty (stress testing)
- Scenarios (including narratives and discourses)
- Serious Games
- Real options analysis
- Robust decision analysis
- Sensitivity analysis
- Environmental Social screening/safeguards
- Checklists
- Decision Tree Analysis
- Adaptation pathways
- Knowledge and Information Sharing

In terms of the key gaps, the following were identified:

Theory:

- Economic theory of adaptation.
- Discounting (social rate of time preference).

Governance/policy:

- Better political coordination.
- Different opinion on climate change in different sectors.
- Overlapping of different policies and programs, lack of alignment and coherence.
- Lack of cooperation between ministries and academia.
- Lack of capacity within organizations and coordination between organizations.
    - Need capacity building, training and education.
    - Broader and better knowledge sharing is need.
- More time for an in-depth dialogue between different communities and disciplines – building understanding, relationships and trust take time.
- Distribution and definition of responsibility for managing climate change over actors.
- Improved policy coherence analysis.
    - Cross sector and vertical.
- Better understanding of adaptation governance.
- Guidance on how to use adaptation pathways in project design.

Cross-sectoral:

- Methods for exploring cross-sectoral impacts, feedbacks and interdependencies.
- Methods for improving cross-sectoral coherence.
- Tools for mainstreaming cross-sectoral analyses into the policy cycle.
- Coordination between sectors on gathering and sharing of knowledge.
- Non-silo/sector oriented TORs for in country projects from IFIs so as to enable integrated approaches and new thinking with more than only policy development.

Communications, engagement and knowledge sharing:

- More emphasis on communications and general awareness raising.
- Benefits of the reduced risk resulting from adaptation.
- Align databases of information relating to economic costs & benefits.
- Understanding & communication of indirect effects.
- How economics of adaptation can foster innovation & business opportunities.
- How to engage relevant sectors to take action.
- Methods for incorporating stakeholder views into economic analyses.
- Equity - support most vulnerable actors/sectors.
- More effective knowledge sharing.
- Public databases.

Impacts:

- Knowledge gaps in specific sectors, e.g. health.
- Coherent damage data to derive damage functions and adaptation functions.
- Linking sector specific impacts with an adaptation response in a macro-economic integrated framework.
- Economic impact models dealing with extreme events.
- Linking of climate risks/adaptation to economic growth.
- Macro-economic modeling.

Adaptation costs and benefits:

- Costs and benefits of building adaptive capacity and other soft measures.
- Information on costs and benefits to save digging through literature:
- Look up tables on options, costs, benefits and examples.

- Measurement of opportunity cost.
- Handbook on how to calculate adaptation costs.

Scale:
- Going from local to national assessments.
- Aggregation of information may reduce impacts or adaptation costs.
- Knowledge transfer between countries/regions.
- How to reach municipality levels.

Prioritization:
- How to prioritize action plans.
- Understandable and easy-to-use prioritization for different policy scales (e.g. MCA based).

Decision support:
- How to do (guidance) light touch applications of Robust Decision Making, Real Options Analysis, Portfolio Analysis etc. with good practice examples.
- Sensitivity analysis, e.g. simple analysis to see sensitivity of postponing decision for a year.
    - Knowledge about cost of inaction
    - Business case for action to trigger mandate
    - Cost of inaction versus benefits of inaction

Entire Appraisal Cycle:
- Include economic analysis both earlier in process and in implementation.
- Real Impact Evaluation, i.e. assess effectiveness of measures.
- Clear directions on how to develop monitoring and evaluation systems.
- Data regarding monitoring and impact evaluation.
- Monitoring of systems at stake.
- Adjustment of existing instruments and financing mechanisms (mainstreaming).
- Guidance about a step wise approach and when to use different methods.
- Database of past appraisals.
- Intergenerational Assessment.

Risk Assessment:
- Attribution of extreme events to changing climate.
- Sound understanding between resilience and a changing climate.

Uncertainty:
- Risk management framing with respect to uncertainty.
- Uncertainty analysis that also scopes out long tail events.
- Methods to support decision-making under uncertainty and different futures.
- Methods to support decision-making when data is not available.
- Dealing with inevitable uncertainty rather than just trying to remove/reduce it.
- Simple tools
- Sensitivity analysis

Good Practice:
- Real World case studies on implementation of adaptation.
- Work between – rather than just within – sectors.
- Integration of science and practice.
- Best practice descriptions also bad practice examples on adaptation.

Futures methods gaps:

- Visioning
- Scenarios for reframing the future
- Rethinking narratives
- "Think Tank" : Reframing the future for practitioners

A key finding was that large variability exists amongst the member states in terms of capacity and usage of methods and tools, with some doing almost no formal decision-support and relying on "a political black box" and others doing very advanced economic, climate and futures orientated work.

There is a need and benefit for knowledge sharing to try to bridge these gaps and provide opportunity to learn from good practice in different countries though a lot of capacity development in certain countries is needed.

Next Steps

The findings of the policy workshop have been disseminated to the project work packages in the ECONADAPT project.

The key policy makers have also been clustered into groups of end-users, i.e. to identify groups of stakeholders with similar interests and needs. These clusters will form the main basis for stakeholder consultation going forward, working with *communities of practice* which focus in on the economics of adaptation in key policy themes, related to the five policy themes in the project.

For each policy theme, targeted activities are planned.

- For policy and project appraisal (WP6 and 7) an ECONADAPT policy session has been organised at the European Climate Change Adaptation Conference in Copenhagen (May 2015) held jointly with the OECD. A more detailed policy focused workshop is planned (June 2015) to engage with agricultural stakeholders, as part of WP7, held in Brussels.

- For WP8 (Macroeconomics), contact has been made with key stakeholders, including DG ECFIN, DG CLIMA and also key MS leads (in UK and Austria). This engagement will start over the next 6 months as the modelling task commences.

- For WP9, which is focused on international development assistance for adaptation, am ECONADAPT session at the Paris Our Common Futures Conference (July 2015) has been organised. A separate side event to bring relevant policy makers together is also under discussion.

Further activities will be undertaken as the project evolves.

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5 Appendices

Stakeholder Matrix

	THEME			
LEVEL	**Disaster Risk Reduction (WP5)**	**Project appraisal (WP6)**	**Policy appraisal (WP7)**	**Macro-economics (WP8)**
EUROPE / Inter-national	DG ENV DG CLIMA DG REGIO DG MARKT DGMARE EEA Europelticl ? Insurance companies? WHO-E	DG CLIMA DG REGIO DG MOVE DG ENER DG ENV EBRD EIB	DG CLIMA DG ENV DG SG DG AGRI (WP 7 Edwin) DG MARE	DG ECFIN DG CLIMA OECD
REGION				
MEMBER STATE	Defra/EA/ASC (UK) Italian ISPRA – Environmental Protection Agency	Defra/HMT (UK) UKCIP@ECI Rijkswatensaat (NL) (Onno) CPB (Netherlands Economic Policy Assessment Agency) (Onno) Ministry of the Environment, Czech Republic, Department of Energy and Climate Protection	Defra/HMT (UK) Ministry EL & I (NL) LTO Netherland (NL) (WP7 Edwin) Water schappen (NL) MATT M Italian Ministry of the Environment (Italy)	Defra/HMT (UK)
LOCAL		Basque Environmental Public Corporation		

	THEME		
LEVEL	**International aid (WP9)**	**Toolbox (WP10)**	**Cross-cutting**
EUROPE / Inter-national	DG DEVCO DG CLIMA OECD UNFCCC UNDP EIB EBRD ADB AfDB World Bank WHO	EEA DG CLIMA OECD Plus boxes to the left.	DG RTD DG CLIMA DG ENV EEA OECD UNFCCC
REGION			
MEMBER STATE	DFID (UK) GIZ (Germany) SIDA (Sweden) NORAD (Norway) DANIDA (DK) Others? Government of Tanzania/ Zanzibar Government of Rwanda Government of Nepal	Defra/ASC (UK) UKCIP@ECI German Umweltbundesamt PBL (NL) Environmental Assessment Agency (Edwin)	Defra/EA/ASC (UK) German Umweltbundesamt Austrian Umweltbundesamt Spanish Oficina Espanola de Cambio Climatico Ministry of the Environment, Czech Republic National/regional water authorities (Edwin)
LOCAL			EUROCITIES ILCEI