

ECONADAPT

The Economics of Adaptation

Welcome to the first ECONADAPT newsletter!

ECONADAPT is a research project funded by the European Union's Seventh Framework Programme for research, technological development and demonstration. This newsletter outlines the objectives of the project and reports on our early stakeholder engagement and policy analysis.

Introduction to the ECONADAPT project

As adaptation moves from theory to practice, there is an increased need for more detailed economic analysis, including estimates of costs and benefits. This need is recognised at the EU level, for example in the EU Strategy on Adaptation, and at various aggregation levels from Member State to local. However, the economics of adaptation remains in its infancy, and involve methodological challenges and low levels of practical application.

Against this background, the objectives of the ECONADAPT project are to advance the knowledge and evidence base on the economics of adaptation, and to convert the findings into practical material to help support adaptation planning and decision makers. To help achieve these objectives, the project is co-developing the research with policy makers, to ensure it is grounded in practice. This will also encourage final dissemination in a user-orientated form that is targeted towards end users.

The project frames the research by asking two questions, each addressed in a separate but linked work-stream.

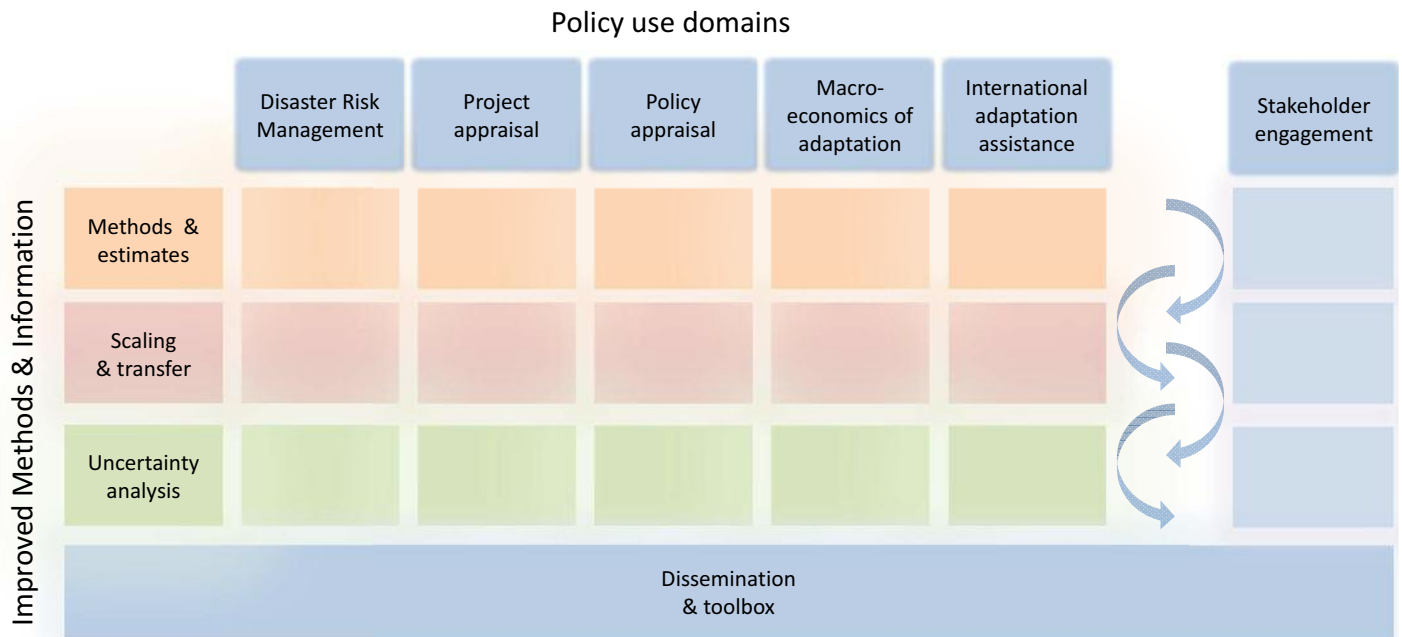
- What are the key methodological advances needed to improve the economic assessment of adaptation?
- What are the big adaptation decisions facing Europe in the next decade where these improved economic methods could be applied?

The first stream focuses on three key areas for improving the analytical methods to tackle the challenges of adaptation and to enhance the information base. The second uses an end-user perspective, focusing on five policy domains which need more advanced economic analysis of adaptation. The two are brought together as shown over the page.



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The research will focus on:

- Improved methods and empirical data on the costs and benefits of adaptation, broadening to non-technical options and non-market sectors. The project will also explore treatment of risk and ambiguity, learning, option values and preferences, undertaking new primary valuation studies to survey preferences for adaptation.
- Scaling, transfer and aggregation, to assess and produce guidance on how to transfer adaptation costs and benefits from one study to another. This will consider transfer of time, location and aggregation (local to macro-economic scales)..
- Analysis of uncertainty, to address how to quantify uncertainty – extending existing methods and tools – and developing new ones.

These are shown on the next page.

The project will undertake these case studies with stakeholders from relevant DGs, Member States, Regional and local policy makers. The case studies will be co-developed with user groups engaged in using economic data for adaptation decision making.

The results and findings from the project will be brought together in a toolbox which provides guidance from the methodological tasks and examples from the case studies to help inform the application of the economic assessment of adaptation.

A two-tier approach is proposed, with detailed guidance and empirical data for economists, as well as 'light-touch' methods and information for other users.

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Policy Domains

The second work stream takes the methodological advances and applies them to five key policy areas for Europe, using case studies to test the developments in each of these contexts.

1) Disaster Risk Reduction

Current climate variability already leads to high economic costs in Europe, including from major floods. Climate change is likely to increase these extremes, even in the short-medium term. As these will be amongst the highest near-term economic costs, managing these risks is an early priority for adaptation.



2) Project appraisal

A major priority is to include adaptation into economic policy appraisal of large infrastructure projects, because of the long life-times and high exposure to future climate change. This includes existing planned investment (risk screening), but also new future investment specifically designed to respond to climate change, recognising the need to consider uncertainty for both.



3) Policy appraisal

The mainstreaming of adaptation in policy appraisal – especially where there are large flows associated with including adaptation in major EU funding areas – requires additional elements to current (regulatory) impact assessment, including the need to address scale and time preference issues.



4) Macro-economics of adaptation

There is an increasing interest in the macro-economic effects of adaptation, and how to assess goals relating to competitiveness, growth and public finances. This involves addressing challenging scale and aggregation issues.



5) International Adaptation Assistance

One of the major flows of adaptation funding – consistent with international pledges – will be from Europe (EU and MS) to developing countries. The effective use of this overseas assistance to address current climate variability and future climate change involves additional challenges, set within the wider context of development



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Stakeholder activities

ECONADAPT has a policy-centred approach, incorporating stakeholder involvement throughout the project. A series of policy workshops are planned to ensure a dialogue with end-users, the first of which took place this summer (see box). The project also aims to build up a community of practice on the economics of adaptation.

Future planned events

2015 promises to be an extremely busy year for climate adaptation. The project will hold a series of further policy workshops, with activities planned around forthcoming international meetings.

Policy Framing and First Policy Brief

An early task in ECONADAPT has been to establish a policy-focussed framework for the project and to provide key building blocks for the subsequent work packages.

A review of the current methodological literature on the economics of adaptation revealed a number of key challenges for practical adaptation, especially the long time-horizons (and discounting of future benefits), the high uncertainty, and the lack of integration with existing policy and other factors.

In response, the project has developed a framework for the study which recommends an

First ECONADAPT Policy Workshop held: Joint Meeting 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, 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.



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adaptation-orientated, policy-first approach, with a shift towards iterative climate risk management and decision making under uncertainty. The literature review findings and the framework have been summarised in a ECONADAPT policy brief, which will be available in late 2014.

Inventory of Adaptation Economic Studies

Previous reviews – including the recent IPCC 5th Assessment – report that the evidence base on the costs and benefits of adaptation remains low.

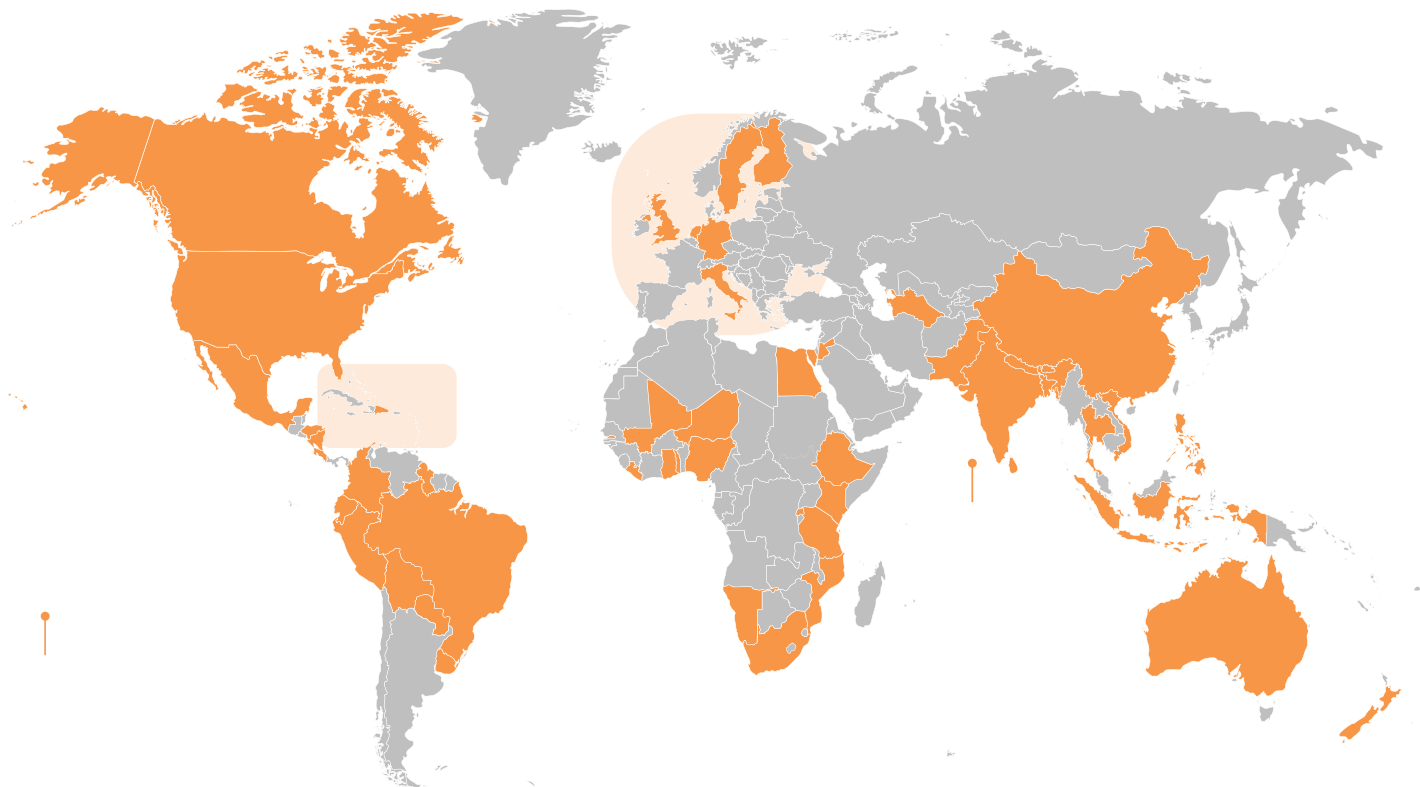
However, over recent years, more evidence has emerged. This is due to an increasing number of global and country level initiatives, which have focused on sector or national-level estimates, but also by a growing interest in early adaptation, which involves the application of existing options to new contexts or locations, and for which more information already exists.

The ECONADAPT project has investigated this wider knowledge base, building up an inventory of studies. This has identified around 500 studies on the costs and benefits of adaptation from the grey and academic literature.

An analysis of the inventory has provided new insights on the global and national costs of adaptation, which have been included in the recent UNEP Adaptation Gap report (published in December, 2014): a map showing the coverage of these studies is included below.

A more comprehensive analysis of the inventory by sector is currently underway, and this will be reported as part of an update for the OECD on Economics of Adaptation, to be published in 2015.

Country Coverage of the ADAPTCOST study inventory on the economics of adaptation



Source: ECONADAPT inventory

The ECONADAPT project commenced in October 2013 and will run for 36 months. This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 603906.

To find out more about the ECONADAPT project, please visit the web-site: www.econadapt.eu.
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ECONADAPT is co-ordinated by the University of Bath (UK) and involves 14 teams across Europe.

