

# EU White Paper on Adaptation to Climate Change: Objectives, Strategy And Timeframe

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## Key documents

- **White Paper adopted on 1/4/2009**
- **Commission staff working documents accompanying the White Paper**
  - ➔ Impact Assessment and executive summary SEC(2009)387-388
  - ➔ Adapting to Climate Change: the Challenge for European Agriculture and Rural Areas SEC(2009)417
  - ➔ Human, Animal and Plant Health Impacts of Climate Change SEC(2009)416
  - ➔ Climate Change and Water, Coasts and Marine Issues SEC(2009) 386

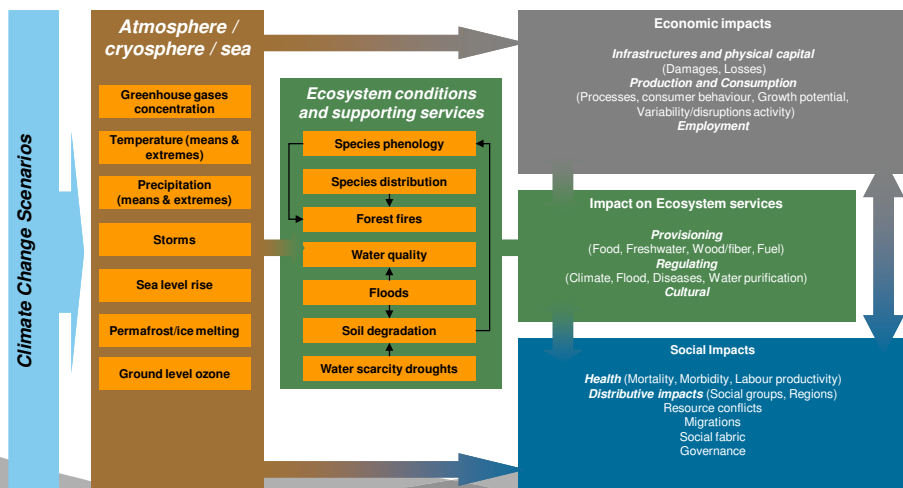


## Climate Change Adaptation: A new agenda for public policy

- **Understanding vulnerability**
  - Build pro-active adaptation policies not restricted to the analysis of the **impacts**, but also assessing the uneven **adaptive capacity** of sectors, regions or social groups.
- **Dealing with uncertainty**
  - Need to build **robust** adaptation policy by considering a wide range of **scenarios**. The available information (e.g. 2008 EEA/JRC/WHO report) still fragmented.
- **Integrated assessment**
  - Put in place a **holistic** evaluation framework which goes beyond the direct impacts and economic repercussions of climate change, and take on board the role of **ecosystem services** and the **social dimension** of climate change.
- **Multiple institutional levels**
  - Need to understand the **cross-border dimension** of many climate change **impacts** AND adaptation **measures**, assess their impact on Common policies and EU budget



## Potential Impacts of Climate Change



Source: Environment DG based on (EEA, 2008), OECD 2008 and TEEB. **Potential impacts** are all impacts that may occur given a projected change in climate, without considering adaptation.



## Broad (complementary) adaptation approaches

- **“Grey” infrastructure approaches**
  - Protective infrastructure and Contingency Plans/Measures – In the light of uncertainties, cost and effectiveness becomes issues
- **“Green” structural approaches**
  - Strengthen resilience against climate change impacts by improving natural water retention and strengthening biodiversity. “Green infrastructure” (e.g. floodplains, land use changes to improve soil water retention, establishment of ecosystem connectivity etc.)
  - Advantage of complementary approach: improved potential for ecosystem services (fresh water, food, health), potential to improve cost-effectiveness, reduce costs for future generations and synergies with mitigation (ecosystem absorption of CO<sub>2</sub>) – possible “no regrets” measures
- **“Soft” non-structural approaches**
  - Awareness raising, Institutional framework, Economic instruments, etc.



## Adaptation policy is on-going

- **Large difference in progress among the Member States**
  - Some are already well advanced in their thinking on adaptation
  - Others still at the phase of identifying the problem
- **Initiatives and growing demand at regional and local level**
- **Potential for action at EU level:**
  - Provide a consistent analytical framework
  - Help identifying cross-cutting issues
  - Promote the exchange of best practices



## Need for taking action at EU level

- **Many climate change impacts AND adaptation measures have a cross-border dimension**
  - E.g. forest fires, effects on migratory species, infectious diseases, floods, etc.
  - Need to identify “upstream” adaptation measures
- **Climate impacts and adaptation will affect single market and common policies.**
  - Transport, energy networks, forestry, agriculture, water, biodiversity, fisheries, etc.
- **Climate change vulnerabilities and adaptation trigger a new paradigm for solidarity**
  - Impact on future cohesion policy, social agenda, etc.
- **EU spending programmes could complement the resources spent by the Member States for adaptation.**
- **Potential economies of scale for capacity building, research, information and data gathering, knowledge transfer, etc.**



## Objectives of the White Paper (4 Pillars)

1. **Improve the knowledge base on CC vulnerability (impacts and adaptive capacity) and on the costs and benefits of adaptation options;**
  - Build on EU and national research
  - European Clearing House Mechanism (CHM),
2. **Ensure early implementation of no-regret and win-win measures and avoid mal-adaptation, by mainstreaming adaptation into EU policies;**
  - Key areas: Water, Coastal & Marine, Biodiversity, Agriculture, Health, Transport, Energy, etc.
3. **Put in place a process to better co-ordinate adaptation policies and assess next steps, review instruments and launch a debate on future funding.**
  - « Impact and Adaptation Steering Group »
4. **Advance work internationally on Adaptation**

### Phase 1 : Action plan 2009-2012

- Working in Partnership with EU, national, regional and local authorities



## Pillar I: Strengthening the Knowledge Base – an essential step forward (1/3)

### ■ Objectives:

- Develop consistent, comprehensive and regularly updated climate change and socio-economic scenarios (projection data) for analysis across Europe.
- Build a structured information dataset to better understand the territorial and sectoral distribution of vulnerability to climate change impacts
- Set up a European wide data repository and a platform for knowledge transfer on impacts and adaptation measures (Clearing House Mechanism)



## Pillar I (2/3)

### ■ Build on on-going global, EU and national research projects and studies



- Further improvement of the quality and coverage of the analysis of climate change impacts for major sectors at scales relevant to adaptation measures
- Identification of the limits to resilience beyond which human systems and ecosystems are no longer capable to maintain the required functions and providing the needed services to society
- Investigation of how to use the ecosystem approach can be used for adaptation efforts as alternative to infrastructure projects.



## Pillar I (3/3)

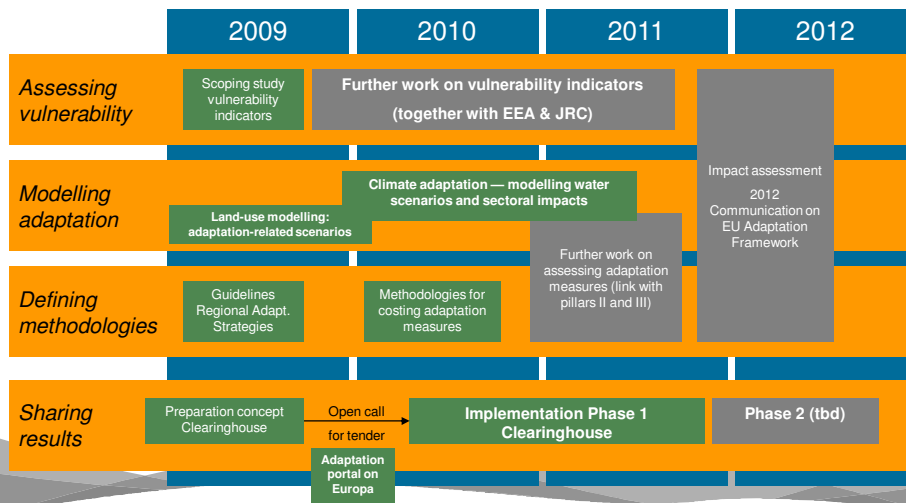
### ■ Fill-in gaps with specific projects

- Preliminary assessment and roadmap for the elaboration of Climate Change vulnerability indicators at regional level (final report X/09)
- Design of guidelines for the elaboration of Regional Climate Change Adaptation Strategies (final report X/09)
- Integrated Assessment Modelling of water-related scenarios and adaptation measures (start XI/09)
- + further projects under WP 2010-11 (DG ENV, JRC, EEA, others)

### ■ Bottom line: provide structure and contents for the EU Clearinghouse



## Activities under Pillar 1 (2009-2012)



## Pillar II: mainstream adaptation into key EU policy areas

- **Step by step approach - based on solid scientific and economic analysis**
  - What are the actual and potential impacts of climate change in the sector?
  - What are the costs of action/inaction?
  - How can adaptation objectives be embedded into current EU instruments? Which additional measures should be proposed for action at EU level?
  - How do proposed measures impact upon and interact with policies at other levels and in other sectors?
- **Key areas: Water, Coastal & Marine, Agriculture, Health, Transport, Energy etc.)**
- **Develop guidelines and further Adaptation Strategies outlining the action required**
- **Link with**
  - Pillar I (ensure cross-sectoral consistency in vulnerability assessment, impact assessment)
  - Pillar III (impact on funding and economic instruments)



## Pillar III: Employ a combination of policy instruments

- **Short term:**
  - European Economic Recovery Plan – contains a number of proposals (modernising European infrastructure, promoting energy efficiency in buildings etc.)
  - Identification of “No Regrets” measures –under existing national funding or EU Rural Development or Regional Funds
- **Next steps:**
  - Better understanding of the cost of adaptation measures and investments (study to be launched)
  - Exploring the potential of insurance, financial services products, market based Instruments
  - Guidance for using revenue generated from auctioning allowances for adaptation purposes
  - Contribute to debate on future multi-annual financial framework



## Pillar IV: Advance Work Internationally On Adaptation

- **The EU is committed to working with third countries to improve their resilience and capacity to adapt to the adverse effects of climate change through for example:**
  - Bilateral and Regional Agreements
  - The Global Climate Change Alliance
  - The UNFCCC - EU Proposal for a Comprehensive Framework for Action on Adaptation (FAA)



## Working in partnership

- **Close co-ordination with EU Member States is essential in preparing effectively to address the impacts of Climate Change**
- **Establish a forum for dialogue and co-operation - Impact and Adaptation Steering Group (IASG)**
  - IASG would develop the 4 Pillars and take Adaptation Framework forward
  - Steering Group would be supported by technical groups and will consult with civil society and the scientific community
  - Composition – high-level experts from EU MS and EEA countries - should be "light forum".
  - Frequency of Meetings: two meetings per year. 1st meeting planned for September 2009. Terms of Reference will be elaborated and discussed with MS.
  - Technical/Working Groups will carry-out main work and report to IASG. IASG may comment/give guidance to work of Technical Groups.
- **Working group on assessment of impacts, vulnerability and adaptation**
  - Support for design and implementation Clearinghouse
  - Co-ordination / merging with existing groups: EIONET, EPA-IG, CIRCLE, etc.



## European Clearinghouse on Climate Change Impacts, Vulnerability and Adaptation

### ■ Concept note being finalised

- First version discussed at EIONET meeting June 2009, comments received from EEA Member countries, WHO, Commission services
- Input from scoping study
- Inter service consultation September 2009

### ■ Contract for Phase I implementation

- Open call for tender December 2009
- 18 months, Clearinghouse available by 2011

### ■ Discussions for Phase II

- Parallel to Phase I implementation
- Working group (EEA Member countries, Sectoral platforms, key partners)



## Objectives

- **Facilitate the collection and dissemination of scientific information, data and case studies about climate change impacts and vulnerability, and adaptation policies and measures.**
- **Ensure an effective uptake of this knowledge by EU, national, regional, local or sectoral decision makers.**
- **Provide a greater level of co-ordination between actors.**



## Content of the Clearinghouse

<b>Climate change observations and scenarios</b> <i>Comprehensive EU wide dataset on CC scenarios and indicators</i> •GMES - Essential climate variables •ENSEMBLES •Link with GFCS + regional / national centers	<b>Impacts &amp; Vulnerability</b> <i>Integration information on climate, land-use, water, ecosystems, socio-economic variables</i> •Exposure to impacts, sensitivity and adaptive capacity •Detailed geographical and sectoral perspective •Vulnerability indicators, policy-oriented	<b>Adaptation plans and strategies</b> •Information on existing adaptation strategies, key institutions and stakeholders •Joint activities between MS and third countries (research, adaptation measures) •Practical tools for the development of adaptation policy	<b>Adaptation measures, actions</b> <i>Extended database of measures</i> •Typology •Assessment of their environmental, social, economic impacts •Identifying no-regret measures
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## Knowledge integration

- **The Clearinghouse would not be a mechanism to generate new data but rather rely on data generated and produced by other sources**
- **It needs to be a knowledge generating mechanism, already during the first phase.**
  - More than a pure result of collection and dissemination of existing data.
  - Ensure comparability, quality assessment & screening
  - Provide recommendations on the use of data (e.g. scenarios) and methods (e.g. vulnerability indicators, assessment of costs and impacts of adaptation measures, etc.)
- **include detailed analytical tools for using the information in the database at expert level, and for visualisation purposes.**
- **Coordination with FP7 and national research programmes to feed into Clearinghouse process in a cost-effective way**



## Link between CH and national initiatives

- **Identified portals (existing or projects)**
  - DE, UK, FR, NL, SE, DK, NO, FI
  - Others?
- **Preparation phase 1**
  - Workshop with national platforms
- **Phase 1:**
  - Complementary application
  - Focus the scope of EU Clearinghouse on elements of added value to national initiatives
  - Contribution from EU-wide projects & data sources
  - Building synergies with national initiatives: e.g. common definitions and taxonomies, metadata for information sources, etc
- **Phase 2:**
  - Common technical framework built on EU-wide, national and local sources
  - Front-runner application of SEIS principles and INSPIRE



## Link with (EU) thematic tools

- **Existing thematic tools, like:**
  - WISE, Water Information System for Europe,
  - the Forest Fires Data Centre,
  - the JRC Floods Portal
  - European Community Biodiversity Clearing House Mechanism
- **Planned thematic tools, like:**
  - the exchange platform on Integrated Coastal Zone Management OURCOAST
  - the European Drought Observatory
  - the European Marine Observation and Data Network (EMODNET),
  - Actions in the field of developing knowledge-based prevention policies
- **The Clearinghouse will gradually integrate information from these systems.**
- **The extraction of adaptation-relevant information can be a resource-consuming process and its cost-effectiveness needs to be carefully assessed.<sup>2</sup>**



## Potential users

- **European Commission and agencies**
- **Member states**
- **Regional authorities**
- **EU-wide stakeholders**
- **Researcher/academics**
- **Other users: priority access through national portal (when available)**
  - local authorities
  - Practitioners (consultants, NGOs, Industry, etc.)
  - Citizens



**Thank you for your attention!**

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