

ECRAN Climate Adapt Technical Seminar

Adaptation Planning – Actions to be taken

Zagreb

3 and 4 June - 2015



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2015 – for the first time early spring flowering of hazel, crocus and blackthorn already on 11 January (Normally as from mid February)



Crocus, 11 January
Utrecht



Hazel (*Coryllus avellana*), 11 January
Utrecht



Blackthorn (*Prunus spinosa*), 11 January
Utrecht

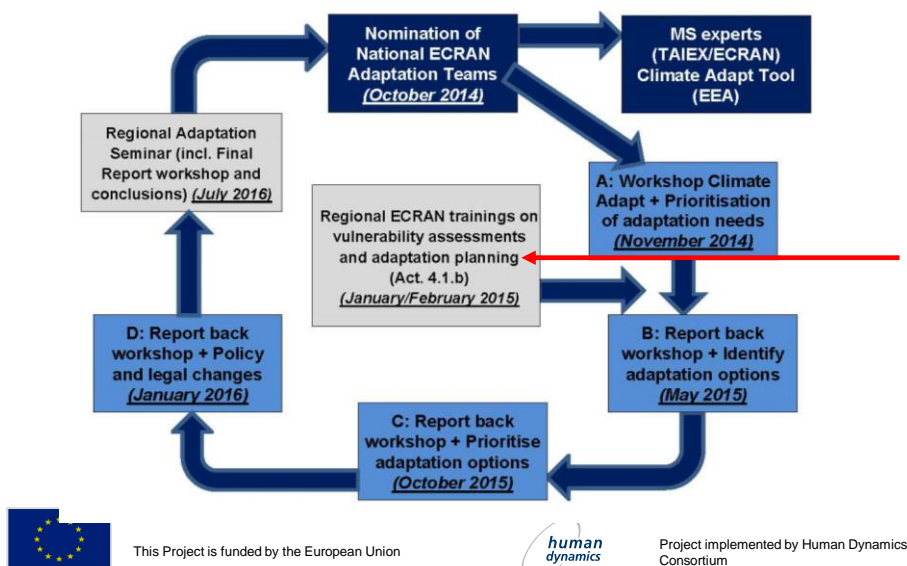


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Working Group 4: ECRAN Adaptation work 2014 - 2016



Step A workshop - Tirana

- Task 1: Position paper on modelling activities (climate models, impact models) performed in your country.
Deadline: **1 February 2015**
- Task 2: Make a qualitative vulnerability assessment of **2 sectors** in your country (Water resources and links to DRM and cross border aspects) and the second one can be any other sector you wish to choose. Method: Use the Adaptation Support Tool. Deadline: **2 April 2015**
- Task 3: Identify the adaptation needs and put in a position paper of the two sectors of your vulnerability assessment. Method: Use the Adaptation Support Tool
Deadline: **1 May 2015**



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Where and How to Start

**There is no single approach:
Prepare a national appropriate
method and use the**

- 1) **ADAPTATION SUPPORT TOOL**
(Climate-ADAPT), based on the
- 2) **EU Guidelines on developing
adaptation strategies**



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Adaptation support tool

**Aligned with EU Guidelines on
developing adaptation strategies –
Climate Adapt**

1. **Step 1: Preparing the ground for adaptation**
2. **Step 2: Assessing risks and vulnerabilities to climate change**
3. **Step 3: Identifying adaptation options**
4. **Step 4: Assessing adaptation options**
 - **Prepare a strategy document and get political approval**
5. **Step 5: Implementation**
 - **Develop an action plan**
6. **Step 6: Monitoring and evaluation**



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Step 2. Assessing risks and vulnerabilities to climate change (1)

- Step 2.a. Analyse how past weather events have affected your country
- Step 2.b. Undertake a climate change risks and vulnerability assessment
- Step 2.c. Take trans-boundary issues into account
- Step 2.d. Develop an approach for addressing knowledge gaps and for dealing with uncertainties



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Methods of Measuring physical vulnerability

Group	Method	Description
Empirical methods	Analysis of observed damage	Based on the collection and analysis of statistics of damage that occurred in recent and historic events. Relating vulnerability to different hazard intensities.
	Expert opinion	Based on asking groups of expert on vulnerability to give their opinion e.g. on the percentage damage they expect for a particular sector having different intensities of hazard/impact.
	Score Assignment	Method using a questionnaire with different parameters to assess the potential damages in relation to different hazard levels.
Models	Climate/impact/adaptation Models	Projection of potential future climate and potential future physical, ecological, social and economic impacts.



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Step 3. Identify Adaptation options

- **Step 3.a. Collect appropriate adaptation options**

have been identified for the country. Adaptation options can be retrieved from literature review and databases, from scientific experts and/or colleagues from other authorities as well as through stakeholder involvement. The collection shall encompass a wide spectrum of adaptation options, including technological, informational, organizational, behavioural, ecosystem based and socio-economic options at all levels, sectoral as well as cross-sectoral.

Identifying adaptation options

Collect appropriate adaptation options given your country's main concerns

Explore good practices and existing measures

Describe adaptation options in detail

SELF-CHECK

Assessing adaptation options

Implementation

Monitoring and evaluation

Climate impact: Temperatures

Adaptation sector: Health

- Awareness campaigns for behavioural change
- Crises and Disaster Management Systems and Plans
- Establishment of Early Warning Systems
- Heat Health Warning System
- Provision of buildings and open spaces
- Provide Shading
- Public education and awareness campaigns
- Economic incentives for behavioural change
- Monitoring, modelling and forecasting systems



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Step 3. Identify Adaptation options

- **Step 3.a. Collect appropriate adaptation options**

Climate Impacts:

- Temperatures
- Water scarcity
- Flooding
- Sea level rise
- Drought
- Storm
- Ice and snow



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Step 3. Identify Adaptation options

• Step 3.a. Collect appropriate adaptation options

Adaptation Sector :

- Agriculture and forests
- Biodiversity
- Coastal areas
- DRR
- Financial
- Health
- Urban areas
- Infrastructure
- Marine/fisheries
- Water Management



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Step 3. Identify Adaptation options

• Step 3.a. Collect appropriate adaptation options / example

This compilation should focus on adaptation options which are able to address the identified risks. Adaptation options can be retrieved from scientific experts and/or colleagues from other authorities as well as through a wide spectrum of adaptation options, including technical, behavioural, ecosystem based and socio-economic options at all levels.

Climate impact:

Adaptation sector:

Adaptation options given your climate impact and sector:

- » Drought monitoring and drought communication systems
- » Awareness campaigns for behavioural change
- » Improved water retention in agricultural areas
- » Water Recycling
- » Financial tools for risk management
- » Adaptation of drought and water conservation plans
- » Adaptation of Fire Management Plans
- » Adaptive management of natural habitats
- » Agro-forestry and crop diversification
- » Establishment of Early Warning Systems

[View all](#)



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Step 3. Identify Adaptation options

• **Step 3.b. Explore good practices and existing measures**

in options given your

existing measures

in detail

Climate impact: Droughts

Adaptation sector: Agriculture and Forest

- 1 Agroforestry: agriculture of the future? The case of Montpellier
- 2 CALCHAS - An integrated analysis system for the effective fire conservancy of forests
- 3 Climate-adapted management of the Körös-Maros National Park
- 4 Infrastructure and economic incentives to reduce vulnerability to drought in Segura and Tagus ba
- 5 Tatabánya, Hungary, addressing the impacts of urban heat waves and forest fires with alert mea

Research projects and information portals

- 1 Climate Adaptation Knowledge Exchange (CAKE)
- 2 INFOBASE - Climate adaptation research



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Step 3. Identify Adaptation options

• **Step 3.c Describe adaptation options in detail**

Information should be provided for the following points, as far as this is feasible:

- General aim of the adaptation option,
- Spatial scope,
- Social, economic and ecological context,
- Necessary steps of implementation and maintenance,
- Responsible actors and supportive actors for the implementation,
- Financial resources required,
- Time frame for planning and implementing to be fully effective.



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Step 3. Identify Adaptation options

Step 3.d Selfcheck

The following key issues are suggested as essential when identifying adaptation options:

- Gaps and barriers that hindered an adequate response in the past identified and understood
- A full portfolio of adaptation options considered
- Suitable adaptation options were described in detail



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Step 4. Assess Adaptation options

Step 4.a Asses options in terms of time, cost, benefits and efforts

The screenshot displays the 'Assessing adaptation options' step of the Adaptation Support Tool. The interface includes a sidebar with a navigation menu where '4. Assessing adaptation options' is selected. The main content area provides instructions on assessing responses to climate change impacts, followed by a section titled 'Explore the Cost Benefit Database'. This section features dropdown menus for 'Climate impact' (set to 'Droughts') and 'Adaptation sector' (set to 'Agriculture and Forest'). Below these, there is a link to 'Costing the impacts of climate change in the UK. Overview of guidelines'. At the bottom, there are sections for 'Guidance and tools' and 'Publications'.



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Step 4. Assess Adaptation options

Step 4.b Asses cross cutting issues/ synergies of options

- Negative side effects for another policy area/sector if not coordinated
- Or synergies when mutually designed.
- coordination is needed across a wide range of political, legal and institutional settings, as well as different information-management approaches and financial arrangements.



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Step 4. Assess Adaptation options

Step 4.c Prioritise options and select preferred ones

- **Effective** options reduce a particular vulnerability or number of vulnerabilities to a desired level.
- **Efficient** options are those whose benefits exceed costs and are more cost-effective than the alternatives.
- A feasibility assessment of economic, social and environmental benefits
- A multi-criteria analysis can prove useful for ranking and selecting preferred options.
- Evaluations typically include an assessment of effectiveness and efficiency.



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Step 4. Assess Adaptation options

Step 4.c Prioritise options and select preferred ones

Multi-criteria analysis

- Significance/Relevance
- Urgency
- Robustness
- Flexibility and Reversibility
- Cost/Benefit Ratio
- Positive Side Effects
- Simultaneous Mitigation Effects
- Interactions with Other Recommended Actions
- Political Feasibility



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Step 4. Assess Adaptation options

Step 4.d Prepare a strategy document to implement options

With the strategic document on the table and having carried out a (wider) consultation with relevant authorities and further stakeholders, the political approval is essential for having a framework in place for implementing adaptation action



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