Environment and Climate Regional Accession Network ECRAN

Environment and Climate Regional Accession Network (ECRAN)

Report on Workshop on National Climate Adaption Policies and Legislation – Step B2: Identification of Adaptation Options (continued)

9-10 November 2015, Zagreb

Enviroment and Climate Regional Accession Network ECRAN

ENVIRONMENT AND CLIMATE REGIONAL ACCESSION NETWORK - ECRAN

WORKSHOP REPORT

Activity 4.2

NATIONAL CLIMATE ADAPTATION POLICIES AND LEGISLATION

STEP B2: IDENTIFICATION OF ADAPTATION OPTIONS (CONTINUED)

9-10 November, Zagreb, Croatia

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LIST OF ABREVIATIONS	
APS	Adaptation Preparedness Scoreboard
AST	Adaptation Support Tool
CC	Climate Change
CCA	Climate Change Adaptation
CoM	Covenant of Mayors
DG	Directorate-General
DRM	Disaster Risk Management
EC	European Commission
ECRAN	Environment and Climate Regional Accession Network
EEA	European Environment Agency
ESIF	European Structural & Investment Funds
ETC/CCA	European Topic Centre on Climate Change impacts, vulnerability and Adaptation (ETC/CCA
EU	European Union
FICCM	Financial Instruments for Climate Change Management
GHG	Greenhouse Gas
ICJ	International Court of Justice
IPCC	Intergovernmental Panel on Climate Change
JRC	Joint Research Centre
LIFE	European Union's funding instrument for the environment
M&E	Monitoring and Evaluation
MoE	Ministry of Environment
MS	Member State
MMR	Monitoring Mechanism Regulation
MRE	Monitoring, Reporting & Evaluation
NAP	National Action Plan
NAS	National Adaptation Strategy
NGO	Non-Governmental Organisation
PACE	Air-Climate-Energy Plan (Walloon Region, Belgium)
TA	Technical Assistance
TAIEX	Technical Assistance and Information Exchange instrument
ToR	Terms of Reference
TR	Training
UNFCCC	United Nations Framework Convention on Climate Change
UNSCR	United Nations Security Council Resolution

I. Background/Rationale

General

Today, all countries recognise the reality and the challenges caused by global warming and its effects. Two subsequent World Bank 'Turn down the Heat' Reports confirm climate change as a fundamental threat to development.

Many countries are already affected by climate change including the Western Balkans and Turkey. These countries are considered to be highly vulnerable and expected to experience the effects of rising temperatures and disruption to their precipitation regimes, along with more extreme events, including droughts, floods, heat waves, windstorms and forest fires. Water availability and quality will be affected, energy supply disturbed, food production will come under pressure and food prices will rise while biodiversity will decline.

This makes it a must to manoeuvre economic, environmental and social interests and costs to safe havens through adaptation measures. Adaptation planning means anticipating the adverse effects of climate change and taking the appropriate action in order to prevent or minimise the damage that the effects of disrupted climate regimes can cause, or taking advantage of opportunities that may arise, such as e.g. through an increase in wind and solar options, adjustment of agricultural production practices, water farming and others. Identification of vulnerabilities and risks is at the forefront of adaptation action.

Climate Change Vulnerability

There are different ways in which vulnerability and risk can be defined and analysed. Vulnerability is often defined as a function of the character, magnitude, and rate of climate variation and change to which a system is exposed, together with its sensitivity and adaptive capacity. Humans can increase their vulnerability by e.g. urbanisation of coastal flood plains, by canalisation of rivers, the way energy production and supply has been shaped, deforestation of hill slopes or by constructing buildings in risk-prone areas.

In the framework of the UNFCCC seven criteria are distinguished to identify key vulnerabilities:

- magnitude of impacts;
- timing of impacts;
- persistence and reversibility of impacts;
- likelihood (estimates of uncertainty) of impacts and vulnerabilities and confidence in those estimates;
- potential for adaptation;
- distributional aspects of impacts and vulnerabilities;
- importance of the system(s) at risk.

Key vulnerabilities are associated with many climate-sensitive systems, including food supply, infrastructure, health, water resources, coastal systems, ecosystems, global biogeochemical cycles, ice sheets and modes of oceanic and atmospheric circulation.

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During the regional ECRAN Adapt Seminar in Skopje in July 2014, the ECRAN beneficiaries (Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Kosovo*[1], Serbia, and Turkey) have identified the sectors in the Western Balkans and Turkey that are most vulnerable to climate change.

Measures have been discussed for effective adaptation. However, the key to adaptation to climate change is the integration of the issue of climate change in all relevant strategic, planning and programme documents both at national and regional levels as well as the local level.

The EU's Adaptation Strategy provides a framework for a more climate-resilient Europe by enhancing the preparedness and capacity to respond to the impacts of climate change at local, regional, national and EU levels. The Strategy consists of three priorities: (1) Promoting action by Member States, (2) Better Informed Decision making and (3) Climate proofing EU action.

Proper information about climate vulnerabilities is an important starting point for any form of adaptation action. Detailed understanding of vulnerable areas brings focus to the adaptation priorities and the tools to be used.

ECRAN Support

Within its Climate Component, ECRAN promotes 'climate-proofing' action by further encouraging adaptation in key vulnerable sectors ensuring that the infrastructure is made more resilient, and will support better informed decision-making by addressing gaps in knowledge about adaptation. ECRAN addresses adaptation action by optimizing the coordination of adaptation activities with the European Climate Adaptation Platform (Climate-ADAPT) as the 'one-stop shop' for adaptation information in Europe. Inter alia the Adaptation Support Tool (AST)[2] and the framework of the European Commission's Adaptation Preparedness Scoreboard are offered as tools that can be of potential support to the adaptation work of the beneficiary countries.

In October 2014 the ECRAN Environment Ministers/Climate Coordinators have been requested by the European Commission to nominate NATIONAL ECRAN ADAPTATION TEAMS which, with the assistance of EU Member States experts, will work together on the following:

- Prioritisation of Adaptation Needs
- Identification of Adaptation Options
- Selection and Prioritisation of Adaptation Options
- Policy and Legal Changes

[1] This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence. Further indicated in this report with an asterisk (*).
[2] http://climate-adapt.eea.europa.eu/adaptation-support-tool

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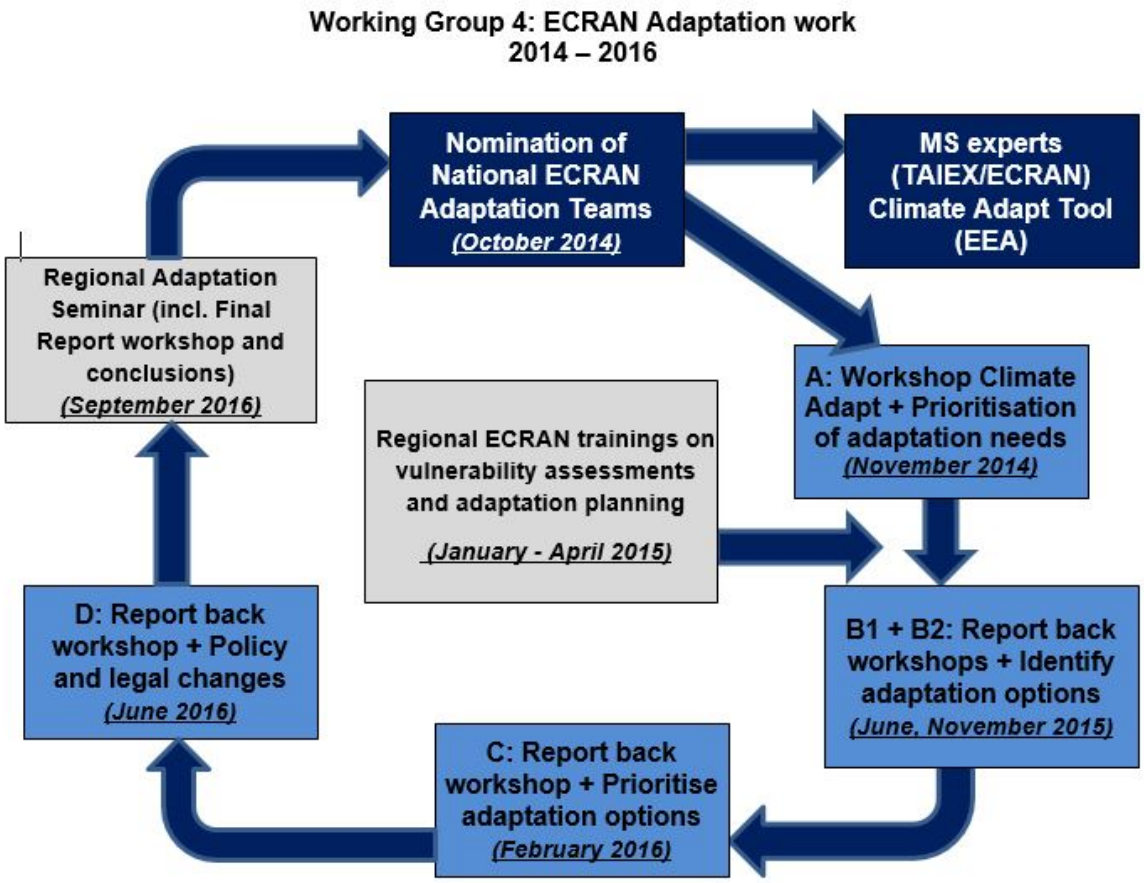

Training and Workshops Programme outline

General considerations

The ECRAN Adaptation Programme includes a series of workshops that will guide the National ECRAN Adaptation Teams through the different stages towards developing national climate adaptation policies and legislation, combined with regional technical training sessions that support Beneficiary Countries' experts from selected technical areas to carry out risk and vulnerability assessments and adaptation planning.

The programme delivered three regional technical training workshops on vulnerability assessment and adaptation planning, each lasting two days. The three priority fields that were selected for the training are:

- Water Management;
- Urban Planning and Development;
- Energy Planning.

Each of these fields relates to a large variety of other (non-)selected fields, calling for strong cooperation among stakeholders in general and public administration sectors more in particular. The overall theme for the training included aspects of cooperation and collaboration, mainstreaming, and inter linkages. These are aspects that are key to successful (adaptation) responses to climate vulnerabilities in each of the selected (and other) fields. In this context there is a link with disaster risk management, as disaster risk reduction and climate change mitigation and adaptation share common

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goals. Both fields aim to reduce the vulnerability of communities and achieve sustainable development. The training incorporated options for reducing disaster risks related to climate change.

The overall programme outline is as follows:

Step A	Climate Adapt Tool - Prioritisation of adaptation needs	24-25 November 2014
*Technical experts that will contribute to the step-by-step process carried out by the ECRAN ADAPTATION TEAMS have received **specific technical training** after Step A. This is expected to enhance Beneficiary Countries' adaptation skills securing a harmonised approach among all participants in the National Teams and thus contribute to adaptation practice coherence and effectiveness.*		
***3 targeted training programmes** on vulnerability assessment and adaptation planning (**Water Management**, **Urban Planning and Development**, and **Energy Planning**) have been provided*		19-20 January 2015 23-24 February 2015 16-17 April 2015
Step B1	Report back workshop + Identification of adaptation options	3-4 June 2015
Step B2	Identification of adaptation options (continued)	9-10 November 2015
Step C	Report back workshop + Prioritisation of adaptation options	18-19 February 2016
Step D	Report back workshop + Introduction of Policy and legal changes	9-10 June 2016
	Final Report at Regional Adaptation Seminar	14-15 September 2016

As shown in the outline the National Teams' workshops and development actions are supported through targeted training on vulnerability assessment and adaptation planning for selected categories of technical experts (January – April 2015). The first of these three training sessions was on Water Management (held in Ankara on 19 and 20 January 2015), the second on Urban Planning and Development (held in Podgorica on 23 and 24 February 2015), and the third on Energy Planning (held in Tirana on 16 and 17 April 2015).

ECRAN will assist the Beneficiary Countries in further enhancing their knowledge and understanding of their climate vulnerabilities and thus prepare them to take better adaptation actions[3]. The training also draws on the EU Guidelines for National Adaptation Strategies and strengthens regional climate adaptation networking. The outline of the trainings is basically identical for all three training sessions. However, the technical area to be addressed differs per training.

[3] ECRAN Climate Work Programme, Activity 4.1.b

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National ECRAN Adaptation Teams Workshops

As indicated above the National Adaptation Teams will, supported by EU Member States experts, carry out their activities in 4 steps. These are addressed in 5 consecutive workshops: Steps A to D. Due to administrative reasons Step B has been offered through 2 workshops (Step B1 and Step B2), thus allowing involvement of a broader audience with enhanced coverage of the topics at stake.

The Teams consist of representatives of public administration sectors that are relevant for climate change adaptation. Their composition differs per country depending on the most important adaptation aspects and current possibilities to mobilise sectors.

The Steps A to D workshops accommodate up to 10 National Team members per country. The workshops programme basically builds on the Adaptation Support Tool and draws from the framework of the Adaptation Preparedness Scoreboard, to establish a common framework among climate adaptation practitioners in the region, and will allow sufficient space until the next workshop for the teams to carry out the national policy development activities that are required in each phase of the process, while inter alia supported by country experts that attended the technical training programme, building up their knowledge and skills that can feed into the policy development process.

The entire training programme will be rounded off with a concluding regional conference to be organised by the summer or autumn of 2016.

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II. Objectives of the training

General Objective

To keep the steady progress that already started on climate adaptation action in the Western Balkan countries and Turkey.

Specific Objective

To enhance the understanding about climate adaptation action among a core of Beneficiary Countries' representatives, creating climate adaptation policies and planning as a basis for action.

Results/outputs

The expected results are:

- Enhanced understanding of workshop participants about their own country's state of progress and involvement of stakeholders towards developing a national climate adaptation strategy and action planning;
- Workshop participants' understanding of their own country's specific gaps between current levels of knowledge and skills and the levels required to successfully proceed with the development of their national climate change adaptation strategy;
- A country-by-country view on the national level actions and external support needed to bridge the gaps identified under result 2 above.

To date three of the ECRAN beneficiary countries formally have a climate change adaptation strategy in place: Bosnia and Herzegovina, Kosovo*, and Turkey. Turkey also has a Climate Adaptation Action Plan.

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III. EU policy and legislation covered by the training

EU Adaptation Strategy

Adaptation means anticipating the adverse effects of climate change and taking appropriate action to prevent or minimise the damage they can cause, or taking advantage of opportunities that may arise. It has been shown that well planned, early adaptation action saves money and lives later.

Examples of adaptation measures include: using scarce water resources more efficiently; adapting building codes to future climate conditions and extreme weather events; building flood defences and raising the levels of dykes; developing drought-tolerant crops; choosing tree species and forestry practices less vulnerable to storms and fires; and setting aside land corridors to help species migrate.

Adaptation strategies are needed at all levels of administration: at the local, regional, national, EU and also the international level. Due to the varying severity and nature of climate impacts between regions in Europe, most adaptation initiatives will be taken at the regional or local levels. The ability to cope and adapt also differs across populations, economic sectors and regions within Europe.

In April 2013 the European Commission adopted an EU Strategy on Adaptation to Climate Change. The strategy aims to make Europe more climate-resilient. By taking a coherent approach and providing for improved coordination, it will enhance the preparedness and capacity of all governance levels to respond to the impacts of climate change.

The EU Adaptation Strategy focuses on three key objectives:

- Promoting action by Member States: The Commission will encourage all Member States to adopt comprehensive adaptation strategies (currently 20 have strategies) and will provide funding to help them build up their adaptation capacities and take action. It will also support adaptation in cities through the Mayors Adapt initiative, a voluntary commitment within the framework of the Covenant of Mayors;
- 'Climate-proofing' action at EU level by further promoting adaptation in key vulnerable sectors such as agriculture, fisheries and cohesion policy, ensuring that Europe's infrastructure is made more resilient, and promoting the use of insurance against natural and man-made disasters;
- Better informed decision-making by addressing gaps in knowledge about adaptation and further developing the European climate adaptation platform (Climate-ADAPT) as the 'one-stop shop' for adaptation information in Europe.

EU adaptation actions include mainstreaming of climate change (mitigation and adaptation) into EU sector policies and funds, including marine and inland water issues, forestry, agriculture, biodiversity, infrastructure and buildings, but also migration and social issues.

The EU also addresses knowledge gaps through research and the European climate adaptation platform (Climate-ADAPT). This platform, launched in March 2012, provides several useful resources to support adaptation policy and decision making, such as: a toolset for adaptation planning; a projects and case studies' database; and information on adaptation action at all levels, from the EU through regional and national to the local level.

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Moreover, stakeholders from the local, regional and national level are encouraged to participate in the development of the EU Adaptation Strategy. The EU is providing guidelines on integrating climate into policies and investments and on how to use the instruments and funds provided by the Commission for climate change adaptation.

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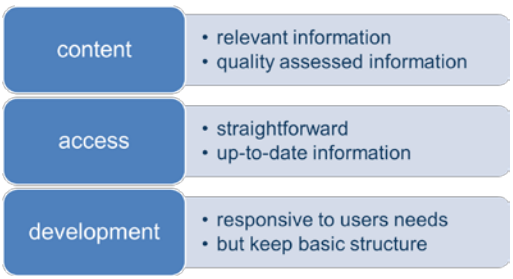
IV. Highlights from the training workshop

Day 1 – Zagreb, Croatia, 9 November 2015

Adaptation Support Tool in detail (1) – Kati Mattern (European Environment Agency)

The Adaptation Support Tool (AST) adds value to developing national CCA Strategies. The tool is presented through the CLIMATE – ADAPT website (http://climateadapt.eea.europa.eu), which in 2014 was visited an average 5,800 times per month by 3,600 unique visitors. Most visited are the country pages of the AST.



Key Principles of Climate Adapt

The AST consists of 6 steps, each divided into sub-steps with more detailed support. The AST is available in a general version and a version for urban areas. Through a 'Self-check', included under each step, the website provides a powerful tool in the form of a checklist for practical implementation. Each of the 6 steps furthermore include pull-down menus with links to other tools and useful resources from the database linked to the site.

The 6 steps distinguished by the AST are:

Step 1: Preparing the ground for adaptation

Step 2: Assessing risks and vulnerabilities to climate change

Step 3: Identifying adaptation options

Step 4: Assessing adaptation options

Step 5: Implementation

Step 6: Monitoring and evaluation

Step 1 (preparing the ground for adaptation) is subdivided in 5 recommended sub-steps:

- Obtain high level support
- Set up the process
- Estimate human and financial resources and identify funding opportunities
- Collect information
- Communicate and raise awareness

Step 2 (assessing risks and vulnerabilities to climate change) is subdivided in 5 recommended sub-steps:

- Analyse how past weather events have affected your area
- Undertake a climate change vulnerability and risk assessment
- Take trans-boundary issues into account
- Develop an approach for addressing knowledge gaps and for dealing with uncertainties
- Select your areas main concerns and set your strategic direction

This step is presented and discussed in more detail in the next intervention, by Ms. Linda Romanovska, and can be found below.

Step 3 (identifying adaptation options) is subdivided in 3 recommended sub-steps:

- Collect appropriate adaptation options for your country
- Explore good practices and adaptation measures

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- Describe adaptation options in detail

Under each sub-step a more detailed description is given. E.g. Step 3.c ('Describe adaptation options in detail') supports the ability to compare and prioritise adaptation options by characterising all eligible options as concretely as possible. This will also provide an important basis for proper implementation. Therefore, information is to be generated 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

The earlier mentioned self-check under step 3 suggests the following topics 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

Adaptation policy and planning in practice can make use of the AST as 'state of the art' guidance, but there is a need to adapt to national/local needs. From a broad perspective, countries in Europe have taken similar pathways in addressing climate change adaptation, but according to their specific national circumstances they used varying approaches.

In the June 2015 Step B1 workshop Ad Jeuken (Deltares, The Netherlands) pointed out that 'policy does not naturally follow the AST structure'. Point is to look for policy opportunities or to try creating them. Important elements are the setting clear objectives, establish adaptation pathways, to leave options open, and refine during the process.

In Germany the national adaptation policy process lasted some 10 years. It started in 2005, delivered its strategy in 2008 and the Action Plan in 2011 (framework at federal level), with its first indicator based reporting in 2015. Such elements as guiding questions and cause-effect relationships were important elements.

CLIMATE-ADAPT website developments				
	Timing	**Website segment**	**Update**	**New**
	June 2015	Urban vulnerability maps		√
	August 2015	Time Series Tool: Improved visualization of observations and projections		√

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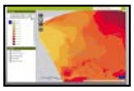
	June 2015	Content-wise clean-up of Adaptation options	√	
	November 2015	Improved visualization of maps	√	
	November 2015	Updated and harmonized European countries policy overview Countries pages: Improved access via an interactive map	√	√
	December 2015	Improved section on MRE	√	
	December 2015	Modified/updated European Sector Policies	√	
	December 2015	More systematic and transparent database update	√	
	December 2015	Mayors Adapt - Searchable city profiles Easy access via an interactive map		√
	December 2015	Transnational regions pages: Improved access via an interactive map	√	
	2016	Improve functionalities Benefit from EEA Content Management System now and in future	√	
	2016	Improve the updating of content ETC CCA Stronger focus on webpages	√	
	2016	Evaluate the content and functionalities of the platform - External evaluation	√	

UNIQUE FEATURES in CLIMATE-ADAPT

1. Case Studies

These studies boast the following characteristics:

- Successful and verified adaptation approaches
- Metadata sheet with easy access to all aspects of planning and implementation
- Including images and documents
- Searchable via filter criteria
- Accessible via different entry points including an interactive map based search tool

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2. European Countries Adaptation Policies

- Presenting official information based on governmental reporting (Art. 15 EU MMR)
- Unique summary of adaptation policy of EEA Member countries
- Web-based template with links to key national documents and official web-pages
- Accommodating different user groups via multiple entry points

3. Adaptation Policy Tools

Stepwise policy and planning tool:

- Available in a general and in a version for the specific needs of cities

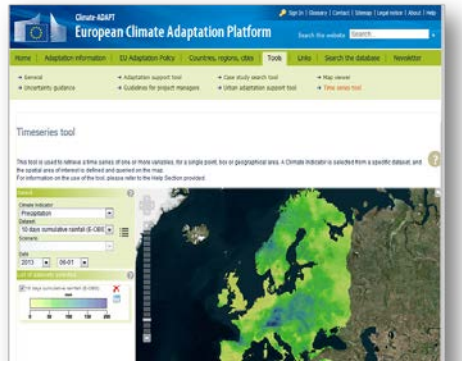
For each step:

- Pull-down menus with links to other tools
- Further resources from the database highlighted
- Check list for practical implementation

4. Visualisation of climate observation and projection data

Time Series Tool:

- Visualizing the time dimension of observations and projections of selected climate indicators and datasets
- Based on European project data, presented through the time-series tool
- Developed by Joint Research Center (JRC)



5. EU Sector policies

- Mainstreaming of adaptation into EU sector policies
- Including links to key documents and official web-pages
- Highlighting key information from the Climate-ADAPT database

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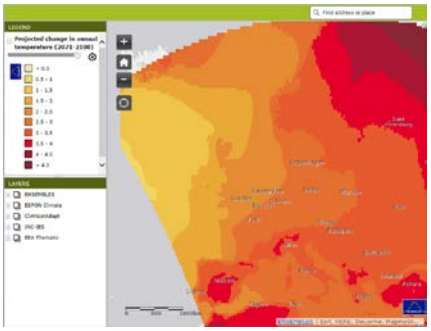
6. Interactive Urban vulnerability maps

- Interactive map book based on European data presenting urban climatic threats
- A way to join single pieces of information to present a complex matter

7. Map viewer

- Visualisation of climate observation and projection data
- European data from research projects and Joint Research Centre (JRC)
- Easy navigation
- Easy access to the data sources
- Metadata available



Adaptation Support Tool in detail (2) – Linda Romanovska (Mayors Adapt)

Step 2 of the AST (assessing risks and vulnerabilities to climate change) is subdivided in 5 recommended sub-steps:

1. Analyse how past weather events have affected your area
2. Undertake a *climate change vulnerability and risk assessment*
3. Take *trans-boundary issues* into account
4. Develop an approach for addressing *knowledge gaps* and for dealing with *uncertainties*
5. Select your areas *main concerns* and set your *strategic direction*

Information required to analyse past weather events **(2.a)** can inter alia be found through the following sources:

- National Risk Assessments
- National Meteorological Agencies
- Information from a wide range of stakeholders in various vulnerable sectors
- Media reports
- Insurance company data
- Research projects

Information needed to undertake a climate change vulnerability and risk assessment **(2.b)** can inter alia be found in:

- International analyses – EEA (for Europe), IPCC (global)
- Research projects – European and national
- Sectoral assessments, including private sector

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Specific knowledge should possibly be collected or developed, including but not limited to:

- Developing climate scenarios and combining with climate trends
- Identifying most likely hazards and overlay with population, infrastructure and assets distribution ➔ risk maps
- Timescale of projected risks (short-, medium-, and long-term)
- Level of confidence in risks happening (in the light of uncertainties)
- Socio-economic, technological and other developments and factors that can influence adaptive capacity/vulnerability

Several methods exist to assess physical vulnerability (see table below).

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.

Key in taking trans-boundary issues **(2.c)** into account is the establishment of contacts with neighbouring countries to:

- inform about the adaptation process and
- inform about areas of concern with regard to cross-border impacts
- identify approaches for coordination over different political, legal and institutional settings
- start joint adaptation and disaster risk management efforts based on the identification of common threats

In the approach for dealing with knowledge gaps and dealing with uncertainties **(2.d)** three different areas, with their actions, are distinguished:

Dealing with knowledge gaps and uncertainties	
Areas of interest	**Related actions**
Knowledge	• Recognize gaps • Seek ways to fill the gaps • Update assessments and adaptation plans based on new knowledge
Uncertainties	• Make explicit • Use confidence rating

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	• Update with new information
Priority setting	• Flexible adaptation measures • No-regret actions • Measures with most co-benefits

The main concerns in selecting adaptation areas and setting the strategic direction **(2.e)** include:

- Impacts happening already today
- Risks that will increase significantly due to climate change
- Affection of systems with a long life span or key infrastructure
- Irreversible affection of systems
- Increase of risks due to climate change combined with additional non-climate drivers

Adaptation Strategy Development (1) – Jurga Rabazauskaité-Survilé (Ministry of Environment, Lithuania)

CCA policies and actions in Lithuania are inter alia based on the 'Law of the Republic of Lithuania on Financial Instruments for Climate Change Management' (FICCM) (2009), the 'Strategy for National Climate Change Management Policy by 2050' (2012), and the 'Inter-institutional Action Plan for the implementation of the goals and objectives for the period of 2013-2020 of the Strategy' (updated in 2015).

The 'Strategy for National Climate Change Management' covers adaptation to climate change and climate change mitigation policies and is implemented by respective ministries, municipalities and other institutions each within their remit. The Ministry of Environment (MoE) coordinates its implementation which is funded through the state budget, municipal budgets and EU funds.

The Lithuanian CCA policy development is closely related to the developments at the EU level. The Strategy is expected to be updated prior to 2020 following the EU 2030 climate and energy framework legislation.

From the perspective of Lithuania, the distinct Steps as included in the AST were given shape as set out below.

⇨ Step 1 – Preparing the ground for adaptation

- High-level support was obtained with the approval of the Law on FICCM (2009)
- The main elements of the development process were set up by the Law on FICCM (2009)
- Human and financial resources were estimated during the development of the ToR (2011)
- Communication and awareness raising – National Climate Change Committee

The Ministry of Environment was responsible for the development of the Strategy and the Inter-institutional Action Plan, whereas external experts were contracted (following public procurement) to prepare the draft Strategy. Respective ministries, municipal and science institutions, and NGOs were engaged in the preparation of the draft Strategy.

The involvement of other ministries was shaped as follows:

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Persons were appointed to coordinate the preparation of the draft Strategy in their ministry. Ministries were obliged to provide external experts with all relevant information: respective policies and objectives under their competence, studies, projections, research, programmes, relevant EU legislation, etc.

The contracted experts were assigned the collection of all potentially relevant information, the assessment of risks and vulnerabilities, and the identification of adaptation goals, objectives and measures. All steps were performed in close collaboration with competent governmental and municipal institutions.

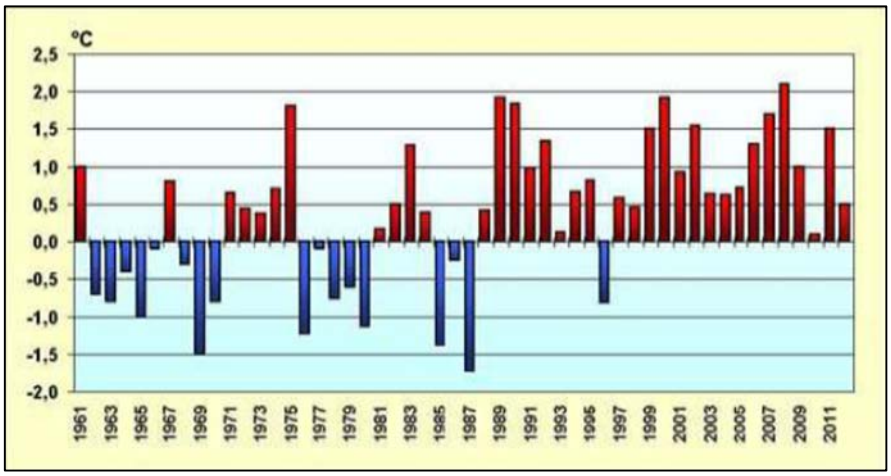
⇨ Steps 2 and 3 - Assessing risks and vulnerabilities to climate change and identifying adaptation options

Assessing past weather events

Air temperature observations in Lithuania started in 1770 in Vilnius University - more than 240 years ago. The Lithuanian Hydro-meteorological Service is responsible for meteorological and hydrological observations and forecasts. Its network of meteorological observations covers the entire territory of the country. Further improvements regarding observations are foreseen in the Strategy.

Some facts from the middle of the 20th century in Lithuania include:

- average air temperature increased ~ 0,8 °C
- average precipitation increased ~ 3%
- the number of days with a temperature of more than 30 °C increased by a factor 3
- the number of days with a temperature below 0 °C decreased with 10 days per year



Average temperature anomalies in Vilnius 1961 - 2011

- the average Baltic sea level rose by about 12 cm

Assessing risks and vulnerabilities

Use was made of relevant existing work like the study on climate change carried out by the Institute of Ecology of Vilnius University (2007). Furthermore, findings and results of trans-boundary cooperation were used, emphasising the importance of addressing common challenges – in case of

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Lithuania meaning the Baltic Sea Region. The fact that Lithuanian NGOs and academic institutions are active in various regional projects proved to be beneficial.

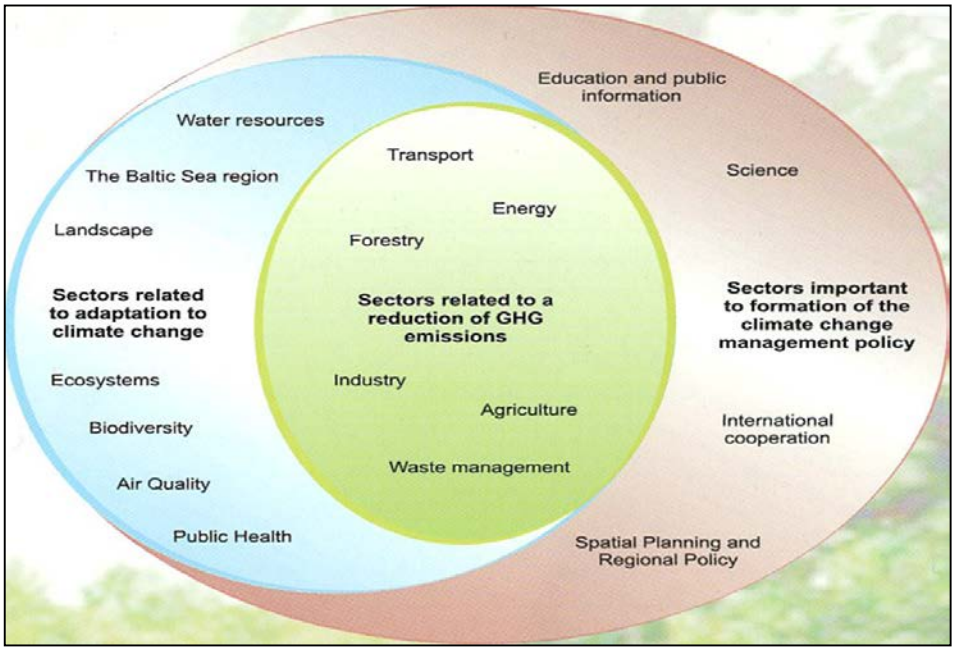
Presumptions for the establishment of adaptation goals and objectives

Priority adaptation sectors were defined following the Law on FICCM. An analysis was carried out during the preparation of the Baltic Sea Region Climate Change Adaptation Strategy, taking into account:

- Principles and data used for preparation of the EU Adaptation Strategy
- Sectors indicated in the EU Strategy for the Baltic Sea Region (2009)
- Examples from the Adaptation Strategies of other EU Member States (i.e. Denmark, Finland, Germany)
- Different level and relevance of current research

Setting strategic direction

The strategic goal of the Lithuanian adaptation policy is to reduce the vulnerability of the country's natural ecosystems and national economic sectors and to ensure favourable conditions for social life and economic activities.



To implement the strategic goal, the following main approach is applied:

- Integrated approach
- Synergy of mitigation and adaptation measures
- Contribution of country-specific scientific research to adaptation
- Strong knowledge basis

Addressing knowledge gaps

Research was planned for the sectors in which areas affected by climate change had not been identified or research was inadequate:

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- Study identifying the climate change threats to human health, incl. recommendations (2014)
- Study identifying the vulnerability to climate change of individual sectors, risk assessment and opportunities to adapt to climate change, the most efficient adaptation measures, and evaluation indicators (2015)

⇨ Step 4 – Assessing Adaptation Options

The prepared draft Strategy was considered with:

- Institutions subordinate to the MoE and relevant departments of the MoE
- Other ministries
- National Climate Change Committee
- NGOs
- The public

Meetings were organised to consider the comments provided within the MoE and by other institutions and organisations. After the approval by the Government, the Strategy was submitted to Parliament for the approval.

⇨ Step 5 – Implementation of the Adaptation Policy

The Inter-institutional Action Plan for the goals and objectives (2013-2020) was approved in April 2013. The Plan was developed according to the methodology used for strategic planning. The methodology was approved by Government; the Plan is prepared for a three-year period and is updated annually. It includes:

- Goals, objectives, measures, allocations and implementing institutions
- Assessment criteria and values, e. g. the:
  - number of implemented measures in order to reach goals and objectives
  - number of prepared programming documents, studies, science programmes, etc.
  - percentage of the public considering itself aware of climate change impacts
  - increase of the territory in which certain measures are implemented, etc.

Apart from the Action Plan, ministries and other governmental institutions are obliged to:

- integrate the goals and objectives set by the Strategy
- establish implementation measures
- ensure close inter-institutional cooperation

⇨ Step 6 – Monitoring and Evaluation

The progress is evaluated by a set of criteria established in the Action Plan. The MoE is responsible for the monitoring and evaluation. State and municipal institutions provide the MoE with:

- Information on the progress by submitting annual activity reports
- reports on planned measures that could be included in the Action Plan

The MoE annually collects the information on the progress and planned measures. Government prepares a biannual report for Parliament on the implementation of the Strategy. The outcomes of

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the monitoring, reporting and evaluation feeds into further development of the Action Plan and the update of the Strategy.

Implementation challenges in Lithuania

Lithuania faces a number of implementation challenges, including:

- Ensuring efficient collaboration
- Sectors' vulnerability assessment:
  - challenge - inadequate research
  - solution - short-term climate adaptation measures were planned feeding into further development of the adaptation policy in Lithuania
- Ensuring implementation of adaptation goals and objectives
- Reporting on implementation:
  - establishment of a consistent reporting system that would also feed into the preparation of the reports under EU and UNFCCC requirements
  - evaluation of the effectiveness of adaptation measures

Adaptation Strategy Development (2) – Johan Bogaert (Flanders Region, Belgium)

The development of national policies and strategies in Belgium generally is a complicated process due to the country's internal decision making structures which are a result of its bilingual character and related social, cultural and political differences.

Map of Belgium with Flanders (Dutch speaking) in the north and Wallonia (French speaking) in the south. Brussels (bi-lingual) in the centre.

The Belgian decision making system is characterised by a three tiered organisation of the state's administration. The upper tier is formed by the Federal Government, the governments of the Flemish, Walloon and Brussels regions, and the Flemish, French and German communities. These authorities intervene on an equal footing, but in different areas of competence.

The middle tier consists of the 10 provinces that are subordinate to all higher authorities. At the bottom tier exists of 589 municipalities that are financed and controlled primarily by the regions.

Therefore, adaptation planning in Belgium is the result of a number of autonomous, yet linked processes.

At the national level, the Working Group Adaptation under the Coordination Committee for International Environmental Policy monitors and discusses European and international decisions in relation to adaptation, which might have national consequences or bring obligations (such as the European Commission's Green Paper and White Paper on Adaptation and, later on, the EU's CCA Strategy).

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At the same time, and in order to develop a National Adaptation Strategy, an Adaptation Working Group was created under the National Climate Commission. This group focused on issues of local adaptation, as the follow-up of adaptation policies and measures elaborated in the regional and federal administrations.

In practice, both groups consist of the same people, although operating under different mandates depending on the context and the theme of their discussion.

At the regional level, committees and contact groups were set up. These groups brought and bring together representatives of various sectors likely to be affected by climate change (such as water, air, agriculture, nature and forests, health, spatial planning). The roles of these groups are:

- To exchange data and gather information on current actions undertaken by the different departments, which in practice constitute bottom-up climate change adaptation measures, and
- To coordinate an official regional position towards the national level and to identify priority goals and other adaptation strategies to be developed or implemented at the regional level (Wallonia, Flanders and Brussels).

The Flemish, Walloon and Brussels regions each initiated a process leading to the development of their own regional adaptation planning. Also a Federal Adaptation Plan has been drafted. The National Adaptation Plan (NAP) is not yet in place, but should be seen as the elaboration and complement of the current National Adaptation Strategy (NAS), such that it builds on the regional and federal adaptation plans and identifies synergies.

The National Adaptation Plan is currently in its final phase of development focusing on the things that are lacking in the federal and regional plans. The NAP includes approximately 10 action points.

The Flemish Climate Policy Plan 2013-2020 was adopted in 2013. The Plan includes 76 actions in the area of climate change adaptation, together involving 11 sectors. The focus of the plan is on Flanders' vulnerability to climate change and improving adaptation action. The first progress report is expected by the end of 2015.

The Walloon Adaptation Plan is part of the region's Air-Climate-Energy Plan (PACE). It involves 7 sectors. Proposed actions mainly focus on strengthening the knowledge base and pursuing international collaboration.

The Adaptation Plan for the Brussels Region is still in the process of public consultation. Like in Walloon it will be part of the region's Air-Climate-Energy Plan. The plan will be specific to the urban character of Brussels with four major themes: infrastructure, forestry management, water management, and natural heritage.

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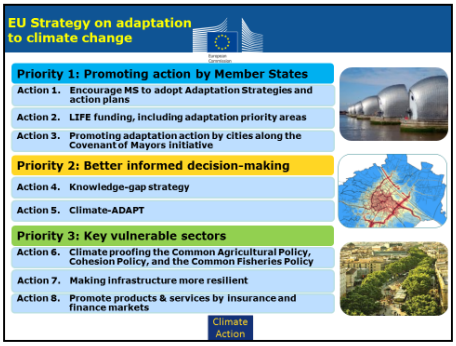
The Federal Adaptation Plan covers the period 2014-2020 and includes 34 actions involving 10 sectors. The main focus is on building capacity to assess, anticipate and respond to risks associated with climate change impacts (strengthening the knowledge base), as well as on anticipating and mitigating risks, and maximise the potential benefits of climate change.

Guidance for assessing the progress; the Adaptation Preparedness Scoreboard; Framework and indicators – Maddalena Dali (European Commission, DG CLIMA)

EU Strategy on Adaptation to Climate Change - developments



The EU Strategy on Adaptation to Climate Change consists of three priority areas, each subdivided into actions.

So far 20 EU Member States have developed their Climate Change Adaptation Strategy and more are in the pipeline. Substantial EU funding is available for adaptation: ESIF 2014-2020, Horizon 2020, LIFE.

The Mayors Adapt Initiative has been integrated in the Covenant of Mayors which now covers both mitigation and adaptation issues. CLIMATE-ADAPT, operated by the European Environment Agency, forms the main web-portal on adaptation information in Europa. An important development lies in actions that promote mainstreaming of adaptation in sector like infrastructure, disaster risk management, water, etc.

A number of implementation challenges are ahead. These include increasing resilience across the entire EU territory as all the EU Member States need an adaptation strategy. The implementation of adaptation action plans needs speeding up and additional mainstreaming, like in the sectors of energy, transport, and social issue, is required. Another field of interest is to stronger incorporate adaptation in investment and business decision. Not in the least the challenge will be to deal with climate impacts that may turn out to be more significant than expected so far.

Mayors Adapt

Mayors Adapt[4] was the first Pan-European initiative to support cities in leading the way on adaptation to climate change. It was launched by the European Commission (DG CLIMA) in March 2014 and so far more than 150 European cities have committed to the Initiative!

Key objectives of the Mayors Adapt Initiative are to inform and inspire cities, regions and local governments to show leadership on climate change adaptation, to support them in developing strategies for concrete action, and to translate and accelerate action on adaptation to improve local resilience to climate impacts.

[4] www.mayors-adapt.eu

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On 15 October 2015 a Joint ceremony was held of the Mayors Adapt Initiative and the Covenant of Mayors (CoM). The ceremony[5] included the political endorsement of the new integrated CoM for climate and energy. The new Covenant consists of three main elements:

- New target of at least 40% reduction in CO_2 emissions by 2030;
- Integration of the mitigation and adaptation pillars under one umbrella (integrated approach, coherence, synergies, efficiency)
- Reinforcing the external dimension of the Covenant of Mayors.

Climate-Adapt

Key ongoing developments include the further development of Climate-Adapt as Europe's Climate Adaptation platform, and information dissemination and capacity building.

Further platform development comprises the update of sectoral pages and of country information (recently finished); the integration of the Mayors-ADAPT Initiative; increased user friendliness, access to information (based on users' feedback); interaction with country platforms and regional information. Dissemination and capacity building relates to science and policy forums (2014), communities of practice (2015), and newsletters.

Adaptation Preparedness Scoreboard

The Adaptation Preparedness Scoreboard (APS) was developed following the approval of the EU Adaptation Strategy: *'by 2014 the Commission will develop an adaptation preparedness scoreboard, identifying key indicators for measuring Member States' level of readiness'*.
The aim of the APS is to provide a system for assessing in a comparable way the level of preparedness of EU Member States to the current and projected impacts of climate change, and thus the level of preparation of the EU as a whole.

As planned the Scoreboard was developed in 2014. National scoreboard fiches were filled in by the European Commission (EC) in early 2015 (informal exercise) providing a baseline for comparison with the situation in 2017. In 2017, the EC will assess whether action being taken in MS is sufficient (based on 2014 MMR and on the 2017 scoreboard). In the same year the EC will report to the European Parliament and the Council on the state of implementation of the Climate Adaptation Strategy and propose its review if needed.

As outcomes would be too heterogeneous for a standardised assessment, the focus of the Scoreboard is on adaptation policy processes rather than on their outcomes. Adaptation is a relatively new and complex area and the scoreboard tries to give a framework for good tracking. The Scoreboard builds on existing structures, such as the AST (6 steps approach for adaptation policy making) and the Guidelines for Adaptation Policies (EU Adaptation Strategy). The Scoreboard aims to streamline, to avoid confusion, and to highlight elements that help adaptation planning. It is not a one size fits all tool.

[5] http://mayors-adapt.eu/taking-action/signature-ceremony/

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General structure of the scoreboard:

1. Each Member State's policy framework is recalled, indicating whether adaptation strategies and action plans have been adopted at national and sub-national levels.

Policy framework		
Adaptation strategies	A1	A national adaptation strategy has been adopted and/or
	A2	Number and scope (% of population or territory covered) of adaptation strategies adopted at relevant subnational levels, in line with national multilevel governance arrangements
Adaptation action plans	B1	A national adaptation action plan has been adopted and/or
	B2	Number and scope of adaptation action plans adopted at local or relevant subnational levels, and/or
	B3	Adaptation action plans adopted at sectoral level, or embedded in sectoral strategies

2. The scoreboard focuses on information to be collected for each of the **'five steps'** of adaptation policy making:
    - i/ preparing the ground for adaptation
    - ii/ assessing risks and vulnerabilities to climate change
    - iii/ identifying and assessing adaptation options
    - iv/ implementing adaptation action
    - v/ monitoring and evaluation of adaptation activities
3. Within each of the five steps, main **performance areas (11 in total)** are defined. They correspond to necessary components considered for an effective adaptation policy-making process.
4. Within each area, key **domains of relevance (33 in total)** are highlighted. They provide details on an array of issues to be considered to successfully deliver on each performance area.

Adaptation policy-making process	Main areas of performance		Key domains of relevance	
	N	Definition	N°	Definition
Step 1: Preparing the ground for adaptation	1	A central administration body is in charge of adaptation policy making and vertical and horizontal coordination arrangements are in place with other governmental bodies	1a	A central administration body officially in charge of adaptation policy making
			1b	Horizontal (i.e. sectoral) coordination mechanisms exist within the governance system, with division of responsibilities
			1c	Vertical (i.e. across levels of administration) coordination mechanisms exist within the governance system
	2	Stakeholders (e.g. interest groups, scientists and general public) are involved in the preparation of adaptation policies	2a	A dedicated process is in place to facilitate stakeholders' involvement in the preparation of adaptation policies
			2b	Transboundary cooperation is planned to address common challenges with relevant countries

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Step 3 Identifying adaptation options	6	For priority sectors, a range of adaptation options are considered, consistent with the results of sector risk assessments and taking into account good practices and measures	6a	Adaptation options considered are consistent with the results of sector risk assessments and with measures and good practices identified in similar context
			6b	The selection of priority options is based on robust methods and consistent with existing decision making frameworks
			6c	Mechanisms are in place to coordinate DRM and CCA
	7	Dedicated and adequate funding resources have been identified and made available to implement adaptation	7a	A dedicated budget is available for financing cross cutting/coordinated adaptation action
			7b	Where relevant finding is available to increase resilience in vulnerable sectors.

The collected Member States' information has been summarised along the structure of the Scoreboard. For the relevant key domains (text columns to the right in the tables above), the Commission assessed the information of the Member States (MS themselves did not participate) and assigned a Yes/No answer to each of the simple questions.

Performance levels (text column in the middle in tables above) – as concerns the level of progress made – were then scored with 'very good', 'good', 'limited' or 'insufficient'. This was done by combining the Yes/No answers in the lower level, assigning weights to the performance areas. The used criteria are transparent and known by Member States.

At the adaptation policy step level (left column in the tables above), a summary on the level of readiness for each step of the adaptation policy-making process was then added.

Next steps to be taken following the Scoreboard, which is considered a useful, comprehensive exercise, yet an unofficial test, will be to fill in a formal Scoreboard in 2017. The results will be published as part of the Commission's assessment, as announced in the 2013 Adaptation Strategy. Most likely aggregated results will be reported to European Parliament and the Council. The informal 2015 Scoreboard conclusions will be further analysed with MS.

EU Guidance for reporting on national adaptation actions under the MMR

Article 15 of the Mechanism for Monitoring and Reporting Regulation[6] mentions that *'Member States (MS) shall report to the Commission information on their national adaptation planning and strategies, … to facilitate adaptation to climate change (…)'.*

[6] Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC (1), and in particular Articles 7(7), 7(8), 8(2), 12(3), 17(4) and 19(5) thereof

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The first report is due by 15 March 2015. Subsequently, every 4 years, the reporting is aligned with the timing for reporting to the UNFCCC.

DG CLIMA has proposed guidance to facilitate reporting by MS, aiming to streamline the reporting mechanisms (UNFCCC, Climate-ADAPT) and ensure consistency and homogeneity. Guidance was built on the existing Climate-ADAPT 'country page', by providing the same template, slightly modified, as well as guidelines on what, how, and how long.

Six section heading are proposed to be used for all countries:

1. Policy and legal framework;
2. Impact, vulnerability and adaptation information and assessments
   a. Observations and projections
   b. Impacts & vulnerability assessment
   c. Research
3. Progress monitoring. Effectiveness/efficiency. Priority sectors and adaptation action
4. Participation & capacity building (engaging stakeholders)
   a. Governance
   b. Adaptation capacity, dissemination, education, training
5. Summary Table
6. Contact

Annex. First report on national adaptation actions under art. 15 of MMR[1] - Reporting template

1. **Policy and legal framework**
2. **Impact, vulnerability and adaptation information and assessments**
   a. **Observations and projections**
   b. **Impacts & vulnerability assessment**
   c. **Research**
3. **Priority sectors and adaptation action. Progress monitoring. Effectiveness/efficiency.**
4. **Engaging stakeholders**
   a. **Governance**
   b. **Adaptation capacity, dissemination, education, training**
5. **Summary table**

Item	Status	Web links
National[2] Adaptation Strategy	• Adopted/Completed and submitted for adoption/Being developed	• •
Action Plans	• Adopted/Completed and submitted for adoption/Being developed	• •
Impacts, vulnerability and adaptation assessments - National (screening NAS) - Sectoral & Other (territorial)	• Completed/ • Currently being undertaken	• • •
Research programs - National Programmes - Key research initiatives (added value)	• Currently being undertaken	•
Climate Services / Met Office - Observation - Climate projections and services	• Established/Being developed	•
Web Portal(s) / Adaptation platform(s) (5a)	• Online/Being developed	• •
Monitoring, Indicators, Methodologies	• Established/Being developed	•
Training and education resources	•	•
National Communication to the UNFCCC	• Last NatCom Submitted (2014)	•

6. **Contact**

At present all 28 Member States have sent their MMR Reports to the Commission. Next steps will include:

- Use of MMR reports in 2017 (adaptation progress evaluation) report
- Update of the Climate-ADAPT country pages
- Further alignment with the UNFCCC reporting

WORK SESSION 1 – Country Self-assessments

In a break out session the participants of each country carried out a self-assessment on their state of play in the area of climate change adaptation with a focus on steps 1 to 3 of the Adaptation Support Tool. The assessment followed a template based on the AST and APS. Each country group was supported by an external facilitator from EU institutions or MS, as follows:

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- Albania – Johan Bogaert (Belgium)
- Bosnia & Herzegovina – Jurga Rabazauskaité – Survilé (Lithuania)
- Former Yugoslav Republic of Macedonia – Maddalena Dali (European Commission, DG CLIMA)
- Kosovo* – Kati Mattern (European Environment Agency)
- Montenegro – Sandra Pennekamp (Germany)
- Serbia – Carlo Giupponi (Italy)
- Turkey – Linda Romanovska (Mayors Adapt)

Country specific results can be found in Annex II. ***It must be emphasized that the country assessment is only based on the understanding and observations of the workshop participants and that the findings in no way can be considered binding or representative for the beneficiary countries. They just represent an honest and professional impression of the work session members as a possible prerequisite for further action.***

The findings of this first work session were used to assess (on workshop day 2) the quality of the countries' Position Papers 1 to 3 that have been developed during the first 6 months of 2015, exploring the possibility to harmonise them as much as possible with the actions as recommended in the Adaptation Support Tool.

By the end of the break out session the country groups prepared a brief feedback session to be presented at the start of workshop day 2, informing the other country groups of important findings in terms of successes, improvements and gaps and how these can be used in assessing the quality of the Position Papers.

State of play November 2015	Completion of adaptation actions (as per AST) in % as estimated by country groups							
STEP 1 – Preparing the ground for adaptation	**ALBANIA**	**BOSNIA & HEREZEGOVINA**	**KOSOVO***	**The fYROM**	**MONTENEGRO**	**SERBIA**	**TURKEY**	**AVERAGE**
1.1 Obtaining high level support	**40**	**60**	**100**	**80**	**90**	**80**	**90**	**77**
1.2 – 1.4 Set up the process	**56**	**70**	**80**	**80**	**84**	**52**	**85**	**72**
1.5 Estimate human and financial resources and identify funding opportunities	**30**	**10**	**60**	**70**	**60**	**20**	**80**	**47**
1.6 – 1.8 Collect information	**50**	**90**	**70**	**78**	**92**	**70**	**95**	**78**
1.9 – 1.11 Communicate and raise awareness	**33**	**40**	**50**	**55**	**77**	**80**	**90**	**61**
STEP 2 – Assessing risks and vulnerabilities								
2.1 Analyse how weather events have affected your area	**70**	**90**	**68**	**80**	**90**	**80**	**100**	**83**
2.2 – 2.3 Undertake a climate change risk and vulnerability assessment	**50**	**90**	**80**	**75**	**88**	**70**	**70**	**75**
2.4 Take trans-boundary issues into account	**30**	**100**	**50**	**30**	**95**	**70**	**75**	**64**

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2.5 Select your area's main concerns and set your strategic direction	**50**	**70**	**60**	**80**	**70**	**85**	**70**	**69**
2.6 Develop an approach for addressing knowledge gaps and for dealing with uncertainties	**50**	**60**	**70**	**100**	**100**	**75**	**50**	**72**
STEP 3 – Identifying adaptation options								
3.1 Collect appropriate adaptation options given your country's main concerns	**20**	**50**	**70**	**100**	**100**	**45**	**80**	**66**
3.2 Explore good practices and existing measures	**40**	**80**	**80**	**100**	**50**	**70**	**70**	**70**
3.3 Describe adaptation options in detail	**40**	**60**	**100**	**70**	**50**	**70**	**60**	**64**

The figures estimated by the workshop participants, show that by November 2015 the ECRAN beneficiary countries, as an average have completed approximately two third of the actions needed for the completion of steps 1 to 3 that are part of the Adaptation Support Tool. Averages per step are approximately 67% for both Step 1 and 3 and 73% for Step 2.

Participants were also requested to mention the 2 main successes and the 2 main weaknesses/gaps to date in the process of development of their country's Adaptation Strategy and Action planning. The table below provides an overview of the conclusions.

State of play November 2015	**Result of country groups discussions on main successes and weaknesses/gaps in the process of developing CCA Strategy and Action Planning**	
Country	**Main successes**	**Main weaknesses/gaps**
Albania	- NAP platform in place - Planning (sectors) INITIATIVES / National----Local - Inter-Ministerial Working Group (Climate-Change) - Trans-boundary cooperation Research	- Common Database /Data sharing - No network of professionals ----/ limited consistency - Human Resources /technical capacities - Financial resources / CCA-specific - Vertical coordination - Public Participations / awareness
Bosnia & Herzegovina	- We already have climate change adaptation strategy - National and regional projects for adaptation: (by IPA, GEF, bilateral support: Drina river, Vrbas river, Bosna river, Japan, Finland….)	- No money for implementation. External help needed - Lack of human resources
Kosovo*	- Development and adoption of adaptation strategy within 3 years (2012 to 2014) - Medium participation process carried out	- Increase budget for carrying awareness campaign - Overcome missing willingness of health sector, - Better involve private enterprises (farmers) and science, NGOs and civil society - Better cooperation between central and local level government (vertical cooperation)
The former Yugoslav Republic of Macedonia	- Institutional setting: focal points in the Ministry, National Committee - Thorough assessments at sector level including modelling, vulnerability assessment, identification of challenges…	- Lack of a law on climate change and long term strategy (will be prepared through an IPA project, planned as of mid-2017) - Monitoring and implementation of adaptation and lack of budget
Montenegro	- Montenegro dedicated to deal with climate change – climate change becoming visible - Established National Council on Climate Change	- Lack of data - Improvement of involvement of local experts and employees - Funding

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	- Directorate for Climate Change within ministry - Part of National legislation	- Need for capacity building (human resources)
Serbia	- Climate and impact modelling; climate vulnerability assessment - SEEVCCC + research projects (III43007) - SRNWP + LRF -> EWS; CWS; SEECOF - National climate change committee	- Funding - Lack of input data
Turkey	- Adaptation action plan was adopted - Climate Change Coordination Board was set up and works well	- Financial and technical problems - Implementation of actions

Each of the beneficiary countries has obvious successes to celebrate! Three countries even have a CCA Strategy in place. In the weaknesses countries generally share the problem of lack of adequate financial and human resources, lack of data, cooperation among (some) authorities and interaction with the civil society.

With regard to each of the Steps 1 to 3 the country groups were asked to identify the most important and the most urgent actions to be taken in their country to further bring the process of CCA Strategy development and action planning forward. The table below provides an overview of the responses received:

State of play November 2015

Identification of most important and most urgent actions to be taken		
ALBANIA	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	- Establish better cooperation engagement - Public /Stakeholders/ ...forums - Policy-Makers .... Agenda - Capacity BUILDING Human /Tools/ - Secure Financial Support..... - Through trainings / coaching / workshops / applying in projects.	- Create a common database /network/platform - Ensure common understanding on climate change through creating formats for all target groups and informing everyone through media and activities
	STEP 2 – Assessing risks and vulnerabilities	
	- Monitoring and evaluation of data related to CC for each sector including cost of erosion and droughts - Involve identify non-climatic stress factors in sectoral priorities	- Creating GIS information platform - Providing the vulnerability adequate adaptation response for the main sectoral challenge
	STEP 3 – Identifying adaptation options	
	- Critical analysis existing policies and activities /+ missing ones identified - More research on successful practices of other EU member states	- Selecting the most suitable options - Implementing through experimental pilot projects in the most vulnerable areas / sectors
BOSNIA & HERZEGOVINA	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	STEP 2 – Assessing risks and vulnerabilities	
	STEP 3 – Identifying adaptation options	
KOSOVO*	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	

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	STEP 2 – Assessing risks and vulnerabilities	
	STEP 3 – Identifying adaptation options	
The former Yugoslav Republic of Macedonia	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	- Campaigns for raising awareness, more detailed and technical for institutions, as well as for the public.	- Law on climate change
	STEP 2 – Assessing risks and vulnerabilities	
	- More recent assessment to the extent possible, more extreme event to be analysed, data matching among relevant institutions in order to obtain the bigger picture. - Modelling needs to consider other variables like snow cover, frost…	- Law on climate change
	STEP 3 – Identifying adaptation options	
	- Each option need to be assessed based on criteria on feasibility, number of people impacted, environmental effects and especially side effects (potential for job creation, health effects etc.)	- Law on climate change
MONTENEGRO	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	- Cooperation between institution should be improved - Horizontal + Vertical (1.1)	- Cost of adaptation measures (1.5)
	STEP 2 – Assessing risks and vulnerabilities	
	- Considering urban planning (2.3)	- Getting on vulnerability analysis (2.1)
	STEP 3 – Identifying adaptation options	
	- Considering and describing adaptation options (3.2, 3.3)	- Defining missing adaptation options (which sectors)
SERBIA	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	- NAP and CCA Strategy	- Funding, capacity building and raise awareness
	STEP 2 – Assessing risks and vulnerabilities	
	- Local impact analysis for specific sectors; Adaptation measures in running norms	- Information on damages and losses
	STEP 3 – Identifying adaptation options	
	- Promotion and common language	- Complete the missing portfolios of adaptation options
TURKEY	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	- Public participation and NGO's should improve by online platform and public consultation	- Budget should increase
	STEP 2 – Assessing risks and vulnerabilities	
	- Improve cooperation and coordination with our neighbours	- Knowledge gap analysis needs to be undertaken
	STEP 3 – Identifying adaptation options	

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	- All sectors should be provided to consider	- The action plans will be upgraded

Day 2 – Zagreb, Croatia, 10 November 2015

WORK SESSION 2 - Position papers assessed – identification of possible improvements

Following Adaptation workshop STEP A in November 2014 all beneficiary countries submitted three Positions Papers to ECRAN, respectively on:

1. Climate modelling
2. Vulnerability assessment
3. Adaptation needs

During Work Session 2 each country group assessed its own Position Papers against the elements of the Adaptation Support Tool in order to identify in which of the three papers each of the AST elements is discussed (or is not discussed at all). Furthermore, the country groups discussed and selected the most important and most urgent points of improvement for each paper. The results of the works session are presented in the table below.

State of play November 2015	AST actions can be found in Beneficiary Countries' Position Papers[7] 1, 2 or 3 (or not: '-')						
STEP 1 – Preparing the ground for adaptation	**ALBANIA**	**BOSNIA & HEREZEGOVINA**	**KOSOVO***	**The fYROM**	**MONTENEGRO**	**SERBIA**	**TURKEY**
1.1 Obtaining high level support	-	**2,3**	-	-	-	-	-
1.2 – 1.4 Set up the process	**3**	**2**	-	-	-	-	-
1.5 Estimate human and financial resources and identify funding opportunities	**3**	**2,3**	**2**	**1,2,3**	**3**	**1**	-
1.6 – 1.8 Collect information	**3**	**1,2,3**	**1,2**	**1,2,3**	**2,3**	**1,2,3**	**1,2**
1.9 – 1.11 Communicate and raise awareness	**3**	**2,3**	**1,3**	-	**2**	**1,2,3**	**2,3**
STEP 2 – Assessing risks and vulnerabilities							
2.1 Analyse how weather events have affected your area	**3**	**1**	**1, 2**	**1,2,3**	**1**	**2**	**1,2**

[7] Developed by each ECRAN Beneficiary Country as agreed at the Step A Workshop in November 2014

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2.2 – 2.3 Undertake a climate change risk and vulnerability assessment	**3**	**2**	**1**	**1,2,3**	**1,2**	**1,2**	**1,2, 3**
2.4 Take trans-boundary issues into account	**3**	**3**	**-**	**-**	**1**	**1,2**	**-**
2.5 Select your area's main concerns and set your strategic direction	**3**	**1,2,3**	**2**	**2,3**	**2**	**2,3**	**2,3**
2.6 Develop an approach for addressing knowledge gaps and for dealing with uncertainties	**3**	**-**	**3**	**-**	**2**	**3**	**-**
STEP 3 – Identifying adaptation options							
3.1 Collect appropriate adaptation options given your country's main concerns	**3**	**1,2,3** (part.)	**3** (indir.)	**2, 3**	**-**	**-**	**-**
3.2 Explore good practices and existing measures	**-**	**2, 3** (part.)	(part.)	**2,3**	**3**	**3**	**3**
3.3 Describe adaptation options in detail	**-**	**-**	**-**	**-**	**-**	**3**	**-**

State of play November 2015

Issues mentioned as most important and most urgent points of improvement for the Position Papers		
ALBANIA	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	- Establish better cooperation engagement - Public /Stakeholders by creating Forums - Mainly Local Policy-Makers by including CCA in their political Agenda	- Create a common database /network/platform
	STEP 2 – Assessing risks and vulnerabilities	
	- Monitoring and evaluation of data related to CC for each sector including cost of erosion and droughts - Involve and identify non-climatic stress factors in sectorial priorities	- Creating GIS information platform to map specific risks
	STEP 3 – Identifying adaptation options	
	- Critical analysis of existing policies and activities and identifying missing ones - More research on successful practices of other EU member states and regional countries	- Selecting the most suitable adaptation options after having done thorough research and consulted a full portfolio of options - Implementing concrete actions through experimental pilot projects in the most vulnerable areas / sectors
BOSNIA & HERZEGOVINA	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	- adoption of NAP	- Core team nomination, start developing activities on NAP
	STEP 2 – Assessing risks and vulnerabilities	
	- improvement of national risk assessment with hazards mapping, scenarios, research and studies	- Implementation of urgent response measures in the case of extreme events
	STEP 3 – Identifying adaptation options	
	- involvement of all relevant stakeholders in the process of adaptation	- exchange of good practice, awareness raising, education

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	Most Important	Most urgent
KOSOVO*	*STEP 1 – Preparing the ground for adaptation*	
	- revise section on the process	
	STEP 2 – Assessing risks and vulnerabilities	
	- check if lack of historical data is covered, check if lack of non-climatic data is covered	
	STEP 3 – Identifying adaptation options	
	- check if the need to revise e the options is covered	
The former Yugoslav Republic of Macedonia	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	- Need to include info on financing, describing the situation: there no secure financing from the Government. All funds come from external sources	- need to include a paragraph describing general governance situation
	STEP 2 – Assessing risks and vulnerabilities	
	- More info on agreements with neighbours	- more information and analysis on knowledge gaps needed (sector level), including on non-climatic stress factors
	STEP 3 – Identifying adaptation options	
	- Some information is present for sectors, but more details could be provided also on the basis of the 3rd national communication	- Some information is present for sectors, but more details could be provided also on the basis of the 3rd national communication
MONTENEGRO	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	- Describe core team, cooperation as it is and stakeholders involved	- Define more target – groups and develop information strategy
	STEP 2 – Assessing risks and vulnerabilities	
	- Further analysis on non-climatic stress-factors	- Describe gaps and uncertainties in more detail in relevant sectors
	STEP 3 – Identifying adaptation options	
	- Adding adaptation options for some sectors	- Describe adaptation options for main sectors in more detail
SERBIA	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	- Include Information on National CC Committee	- List research institutions and stakeholders
	STEP 2 – Assessing risks and vulnerabilities	
	STEP 3 – Identifying adaptation options	
	- Problem of public promotion and understanding	
TURKEY	**Most Important**	**Most urgent**
	STEP 1 – Preparing the ground for adaptation	
	STEP 2 – Assessing risks and vulnerabilities	
	- Risks and vulnerabilities assessment for all sectors	- Risks and vulnerabilities assessment for all sectors
	STEP 3 – Identifying adaptation options	
	- Detailed options should be added	- Prioritization of options should be added

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WORK SESSION 3 – Country Needs Identified

Under the 3rd Work Session country groups were requested to discuss their country's training and (other) technical assistance needs in the area of developing their climate change adaptation policies, strategies and institutional structures, and to score these against each of the action areas described in the earlier explained template based on the AST and APS.

Identified needs were rated both against their importance (low, medium or high) and their urgency (again, low, medium or high). The table below only shows the needs that were reported by the groups as with high importance and/or urgency:

Training (TR) and Technical Assistance (TA) needs identified by country groups
(with high urgency and/or high importance)

Country / AST Action	1. ALBANIA		2. BOSNIA & HEREZEGOVINA		3. KOSOVO*		4. The fYROM		5. MONTENEGRO		6. SERBIA		7. TURKEY		Description *Numbers (..) indicate the countries that mentioned the need with high importance or high urgency*
STEP 1 – Preparing the ground for adaptation	**TR**	**TA**	**TR**	**TA**	**TR**	**TA**	**TR**	**TA**	**TR**	**TA**	**TR**	**TA**	**TR**	**TA**	
1.1		x	x	x			x	x			x				- Guidance in pilot projects; twinning (1) - Trainings, events, twinning with international experts (2) - More help is needed on drafting Climate Change Law (4) - In future: TA for implementation of Climate Change Law (4) - Harmonisation with EU law; MRR reporting (6)
1.2 – 1.4			x				x	x			x				- Exchange of good practices (2) - More help is needed on drafting Climate Change Law (4) - In future: TA for implementation of Climate Change Law (4)
1.5	x		x	x		x	x	x	x	x	x	x			- Training format with key actors involved (1) - Projects development, access to funding sources (2, 3) - TA to define human resources needs (3) - More help is needed on drafting Climate Change Law (4) - In future: TA for implementation of Climate Change Law (4) - Funding options and proposal writing (6) - Setting up project gaining money from funds. Practice oriented workshops with best practise FAQ (Frequently Asked Questions), etc. (5)
1.6 – 1.8	x	x			x	x									- Open forum; training format with key actors involved; twinning (1) - TA to help fill gaps in action plans (3) - Training on data gathering and management (3)
1.9 – 1.11		x		x	x										- Workshop; follow-up (1) - Establishment of adaptation platform on the web (2) - Trainings or study tours for municipal and central levels (3)
STEP 2 – Assessing risks and vulnerabilities	**TR**	**TA**	**TR**	**TA**	**TR**	**TA**	**TR**	**TA**	**TR**	**TA**	**TR**	**TA**	**TR**	**TA**	
2.1				x		x				x					- Improvement of observation network, GIS platform, weather radar supply, experts' assistance and training (2) - Improvement of meteorological network stations in coastal area, weather radar supply (5) - Data collection (3)

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2.2 – 2.3	x		x	x	x	x			x					- Finding an approach on raising awareness and understanding in the civil society and all institutions (1) - Practical work and research (2) - Training for modelling (3) - Preparation of legislation and strategies (3) - Capacity building (Non-climatic factors) (5)
2.4	x	x	x	x	x	x	x							- Specific bilateral trainings on different sectors on managing resources and climate change issues (1) - On implementing in practice the measures foreseen in common plans of management and acknowledging mutual systems and effects (1) - Projects development, monitoring & evaluation assistance (2) - Workshops and training (3) - TAIEX experts bringing knowledge on trans-boundary issues (4)
2.5		x			x	x								- Identifying responses to the specific concerns (1) - Review of CCS (3)
2.6		x	x	x	x	x					x	x		- Creating a common platform of sharing where to gather all the information that must be summarized, from previous researches and databases (1) - Exchange of good experience (2) - Finding donors (workshops) (3) - Computer resources (6)

STEP 3 – Identifying adaptation options

	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	
3.1			x	x	x	x	x	x							- Education, developing certain tools and models for overcoming information gaps (2) - How to access donor funding (3) - Institutional awareness needed to make implementation happen (4) - Technical expertise to implement adaptation options (4)
3.2	x	x				x	x	x							- Adaptation options and their implementation (1) - Adoption of options and selecting the suitable ones (1) - How to access donor funding (3) - Institutional awareness needed to make implementation happen (4)
3.3	x	x			x	x									- Adaptation options in detail and case studies (1) - Designing ad hoc options adapted to country contexts (1) - Donor funding (3)

STEP 4 – Assessing adaptation options

	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	
4.1											x		x	x	- Consulting in CBA related to CCA (6)
4.2															
4.3											x				- Consulting in CBA related to CCA (6)
4.4											x	x			- Learn how to get political commitment (6)

STEP 5 – Implementation

	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	
5.1											x				- Consulting in implementation of adaptation measures into national legislation (6)
5.2											x	x			- Capacity building (inter-sectoral and collaboration within sectors) (6)

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5.3								x		x	x			- How to set priorities (6) - New Action Plan should be made and therefore there is need of exchange of good practices and results (5)
STEP 6 – Monitoring and evaluation														
	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	TR	TA	
6.1			x	x	x	x									- Dealing with M&E based on good practice examples, learning by doing practice (2)
6.2			x	x	x	x									- As supplemental instrument to M&E (to be developed based on objective criteria and guidance suitable for the region (2)

Asked about their Top 5priority of technical assistance and training needs, country teams responded as indicated in the following table.

Priority levels	Need for support	TA of TR
ALBANIA		
1.	Specific bilateral trainings on different sectors on managing resources and climate change issues	TR
2.	On implementing in practice the measures foreseen in common plans of management and acknowledging mutual systems and effects	TA
3.	Creating a common platform of sharing where to gather all the information that must be summarized, from previous researches and databases	TA
4.	Adaptation options and their implementation and Adoption of options for Albania and selecting the suitable ones	TR/TA
5.	Adaptation options in detail and case studies and Designing ad hoc options adapted to specific Albanian contexts	TA
BOSNIA and HERZEGOVINA		
1.		
2.		
3.		
4.		
5.		
KOSOVO*		
1	Donor funding	TR/TA
2.	Training on modelling	TR
3.	Preparation of legislation and strategies	TR/TA
4.	Data gathering and management	TR
5.	Filling plans in Action Plans	TR/TA
The former Yugoslav Republic of MACEDONIA		
1.	Technical assistance for law on climate change	TA
2.	Help for technical implementation of adaptation options	TR/TA
3.	Awareness raising activities at institutional level and public	TR/TA
4.	Trans-boundary issues	TR
5.	Workshops on assessing adaptation options	TR
MONTENEGRO		

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1.	Setting up project, access to money from funds	TA
2.	Capacity building (Non-climatic factors)	TR
3.	Practical oriented workshops with best practise FAQ (Frequently Asked Questions), etc.	TR
4.	Implementation of adaptation options and measures by sector, in detail	TR
5.	Capacity building on target – group specific information and involvement	TA
SERBIA		
1.	Find funding possibilities and write proposals	TR/TA
2.	Computer resources	TA
3.	Learn how to get political commitment	TR/TA
4.	Expert missions (for harmonization with EU legislation, obligations regarding reports to MRR and other CC issues)	TR
5.	To analyse non-climatic stress factors	TR
TURKEY		
1.		
2.		
3.		
4.		
5.		

V. Evaluation

Statistical Information

79% of the evaluating participants indicated that their expectations were fully met as concerns the workshop objective on 'enhanced understanding about their own country's state of progress and involvement of stakeholders towards developing a national climate adaptation strategy and action planning'. An additional 19% indicated that expectations in this area were partially met.

According to the received evaluations more than half (56%) of all participants increased their 'understanding of their own country's specific gaps between the current levels of knowledge and skills in their country and the levels required to successfully proceed with the development of their national climate change adaptation strategy'. Generally, the same result (51% fully met) was found with regard to the 'identification of their country specific view on national level actions and external support that are needed to bridge the identified gaps'. In both cases all the remaining participants found that these objectives were partially met.

An overall total of 87% of the evaluation scores regarding the quality aspects of the workshop such as presentations, facilitators, and logistics, obtained the marks 'excellent' (47%) to 'good' (40%) with 6% scoring 'average', 2% 'acceptable', 1% 'poor'. No less than 91% of all participants indicated that they found the workshop 'time well spent' ('excellent' or 'good'). 7% scored 'average' and 2% (1 participant) scored 'acceptable'.

Expectations

The extent to which specific expectations were met, or not met:

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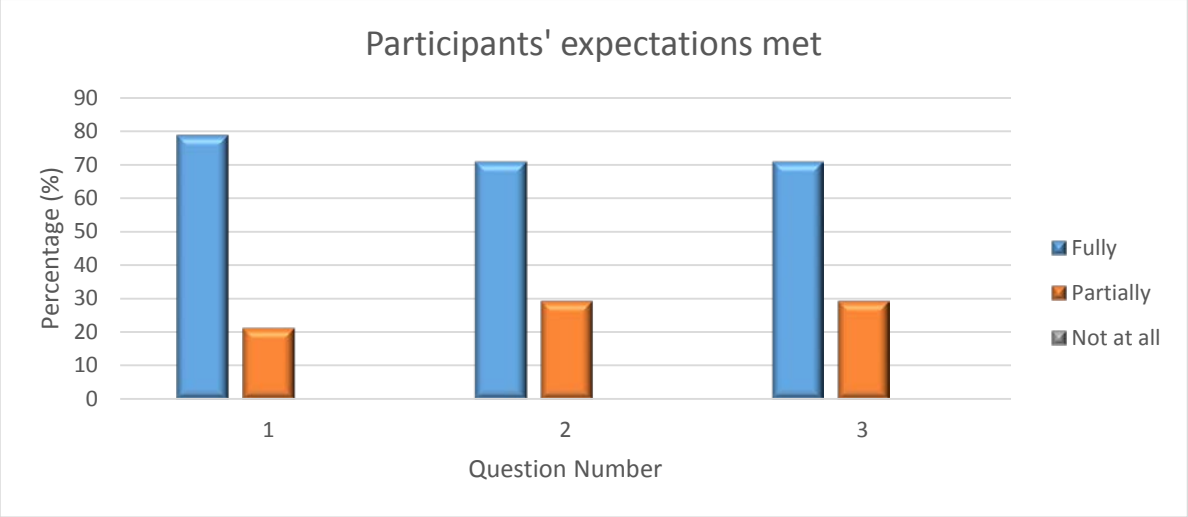

Workshop objectives	My expectations were met		
	Fully	Partially	Not at all
1. Enhanced understanding about my own country's state of progress and involvement of stakeholders towards developing a national climate adaptation strategy and action planning	IIIII IIIII IIIII IIIII IIIII IIIII IIII (79%)	IIIII III (19%)	I (2%)
2. Increased understanding of my own country's specific gaps between current levels of knowledge and skills and the levels required to successfully proceed with the development of their national climate change adaptation strategy	IIIII IIIII IIIII IIIII IIII (56%)	IIIII IIIII IIIII IIII (44%)	
3. A country-by-country view on the national level actions and external support needed to bridge the gaps identified under result 2 above accomplished	IIIII IIIII IIIII IIIII II (51%)	IIIII IIIII IIIII IIIII I (49%)	

Workshop and Presentation

Please rate the following statements in respect of this training module:

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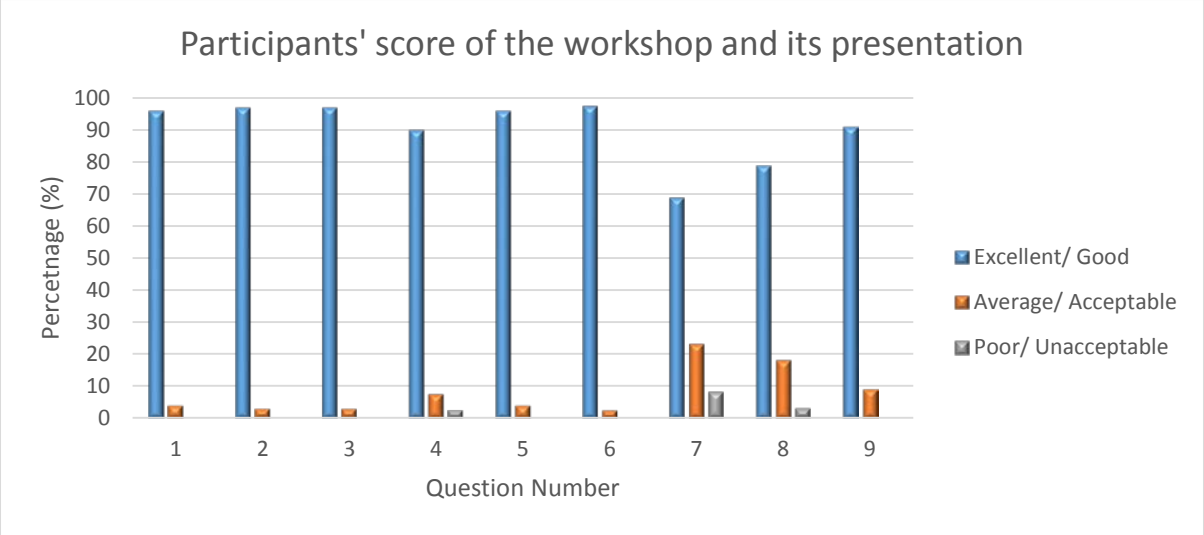

Aspect of the workshop	Excellent	Good	Aver-age	Accept-able	Poor	Unaccep-table
1. The workshop achieved the objectives set	IIIII IIIII IIIII II (39%)	IIIII IIIII IIIII IIIII IIIII (57%)	II (4%)			
2. The quality of the workshop was of a high standard	IIIII IIIII IIIII II (46%)	IIIII IIIII IIIII IIIII (51%)	I (3%)			
3. The content of the workshop was well suited to my level of understanding and experience	IIIII IIIII IIIII IIIII (45%)	IIIII IIIII IIIII IIIII III (52%)	I (3%)			
4. The practical work was relevant and informative	IIIII IIIII IIIII IIII (47.5%)	IIIII IIIII IIIII II (42.5%)	III (7.5%)		I (2.5%)	
5. The workshop was interactive	IIIII IIIII IIIII IIIII IIIII IIIII I (71%)	IIIII IIIII I (25%)	II (4%)			
6. Facilitators were well prepared and knowledgeable on the subject matter	IIIII IIIII IIIII IIIII IIIII IIIII I (77.5%)	IIIII III (20%)	I (2.5%)			
7. The duration of this workshop was neither too long nor too short	IIIII IIIII III (30%)	IIIII IIIII IIIII II (39%)	IIIII I (14%)	IIII (9%)	III (6%)	I (2%)
8. The logistical arrangements (venue, refreshments, equipment) were satisfactory	IIIII IIIII IIIII (38%)	IIIII IIIII IIIII I (41%)	IIIII (13%)	II (5%)	I (3%)	

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Aspect of the workshop	Excellent	Good	Aver-age	Accept-able	Poor	Unaccep-table
9. Attending this workshop was time well spent	IIIII IIIII IIIII IIIII IIIII II (61%)	IIIII IIIII III (30%)	III (7%)	I (2%)		

Comments and suggestions

The following comments and/or suggestions were submitted in addition to the questions already answered:

Workshop Sessions:

- I am satisfied;
- I know it is difficult, but we need to respect the agenda time frame;
- Good;
- It was very good;
- + Bilateral discussion with neighbours;
- Perhaps templates should be merged in one single multi-session;
- Not enough time to address all issues properly.

Facilitators:

- Good;
- Very well prepared and with a very good and understandable of English;
- Excellent;
- High;
- Facilitators should have knowledge about work done by participant countries;
- Were well prepared and knowledgeable on the subject;
- Was well prepared, just it will be better if they were more inform about country which they gave recommendation;
- Johan was very helpful and supporting;
- Very professional;
- Maddalena was very well prepared, supportive and informative.

Workshop level and content:

- Satisfied;
- More practice/ Case studies taken from successful status in CCA;
- Most of this is already done on the previous meetings. Need more practical project with concerned stakeholders.

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ANNEX I – Agenda

Monday 9 November 2015

Topic: Identification of Adaptation Options – continued (STEP B2 workshop) **Moderators: Rob Bakx, Imre Csikós**				
Start	**Finish**	**Topic**	**Speaker**	**Sub topic/Content**
09:00	**09:30**	***Registration***		
09:30	09:50	Welcome and Introduction	**Rob Bakx**, Moderator	- Introduction participants - Step B2 workshop: retrospective and focus - Programme outline and logistics
09:50	11:00	Adaptation Support Tool (AST) in detail[8]	**Kati Mattern,** European Environment Agency **Linda Romanovska**, Mayors Adapt, Latvia	- AST: Preparing the Grounds - AST: Assessing Risks and Vulnerabilities to Climate Change - AST: Identifying Adaptation Options - Questions and answers
11:00	**11:30**	***Coffee Break*** **Special Session with 8 (nominated) Coordinators of the Country Teams to explain the steps in the workshop, objectives and expected results and to provide detailed instructions for the Country Teams in the Day 1 and Day 2 break-out sessions**		
11:30	12:00	Adaptation Strategy development (1)	**Jurga Rabazauskaité – Survilé,** Ministry of Environment, Lithuania	- Description of the strategy development process in Lithuania - Bottle-necks and their solutions - Lessons learned - Questions and answers
12:00	12:30	Adaptation Strategy development (2)	**Johan Bogaert**, Flanders region, Belgium	- Description of the strategy development process in Lithuania - Bottle-necks and their solutions - Lessons learned - Questions and answers

[8] http://climate-adapt.eea.europa.eu/adaptation-support-tool

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12:30	**13:30**	***Lunch Break***		
13:30	14:15	Guidance for assessing the progress – the Adaptation Preparedness Scoreboard – Framework and indicators	**Maddalena Dali**, DG CLIMA	- The Scoreboard unveiled - Structure and indicators in detail - Questions and answers
14:15	14:30	Country assessments - introduction	**Rob Bakx,** Moderator	- Purpose of the work session - Explanation of the work session - Questions and answers
14:30	17:00	<u>WORK SESSION 1</u> Country self-assessments	**Rob Bakx and Imre Csikos,** ECRAN, Moderators <u>*Facilitators*</u>*:* *(one per country)* **Carlo Giupponi**, **Sandra Pennekamp**, **Kati Mattern**, **Linda Romanovska**, **Jurga Rabazauskaité-Survilé, Johan Bogaert**, **Maddalena Dali**	Break-out session – 7 country groups <u>*Per country group*</u>: - Focus is on '*Preparing the Grounds'*, '*Assessing Risks and Vulnerabilities*', and '*Identifying Adaptation Options*' - Introductory presentation by lead country representative on country progress made in the field of CCA (summary) - In depth country discussion and self-assessment inspired on Adaptation Preparedness Scoreboard (supporting materials will be provided) - Identification of successful actions already taken covering priority sectors, weak points, and gaps to be addressed - Prepare reporting materials (use templates that will be provided) - Prepare concise presentation for plenary feedback on day 2 (max. 5 minutes)
15:00	**15:30**	***Coffee***		
17:00	***End of Day 1***			

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Tuesday 10 November 2015

Topic: Identification of Adaptation Options – continued (STEP B2 workshop)

Moderators: Robert Bakx, Imre Csikós

Start	Finish	Topic	Speaker	Sub topic/Content
09:00	**09:30**	**Registration**		
09:30	10:30	Feedback session – Successes, weak points and gaps	**Rob Bakx and Imre Csikos,** ECRAN, Moderators **Representative of each ECRAN country**	- Plenary feedback presentation from day 1 per country (max. 5 minutes per country) - Questions and answers, discussion, conclusions
10:30	11:00	***Coffee Break***		
11:00	12:30	WORK SESSION 2 Option papers assessed – identification of possible improvements	**Rob Bakx and Imre Csikos,** Moderators *Facilitators:* *(one per country)* **Carlo Giupponi, Sandra Pennekamp, Kati Mattern, Linda Romanovska, Jurga Rabazauskaité-Survilé, Johan Bogaert, Maddalena Dali**	Break-out session – 7 country groups *Per country group*: - Assessing the 3 existing country Option Papers[9] against the findings and feedback received at the Step B workshop in June 2015[10] and against the self-assessment findings identified on day 1 (successful actions, weak points, gaps) - Identify and list adjustments to be made in the Option Papers - Prepare brief presentation for plenary feedback (max. 3 minutes)
12:30	14:15	***Lunch Break (extended, allowing participants to collect per diems)***		
14:15	15:00	Feedback session – Possible Improvements to Option Papers	**Rob Bakx and Imre Csikos,** Moderators **Representative of each ECRAN country**	- Plenary feedback presentation per country (3 minutes each) - Improvement actions position papers - Questions and answers, discussion, conclusions

[9] http://www.ecranetwork.org/Files/Country_Position_Papers_ADAPT_Climate_Modelling.pdf and http://www.ecranetwork.org/Files/Adaptation_Country_Position_Papers,_Tasks_2_and_3,_May_2015.pdf

[10] http://www.ecranetwork.org/Files/Report_-_Adaptation_Step_B_-_June_2015_Zagreb.pdf

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15:00	16:20	<u>WORK SESSION 3</u> Country Needs Identified	**Rob Bakx and Imre Csikos,** Moderators *<u>Facilitators</u>:* *(one per country)* **Carlo Giupponi**, **Sandra Pennekamp**, **Kati Mattern**, **Linda Romanovska**, **Jurga Rabazauskaité-Survilé, Johan Bogaert**, **Maddalena Dali**	Break-out session – 7 country groups *<u>Per country group</u>*: - Detailed identification of capacity building and technical assistance needs (what is needed, who is/are the addressee(s), when to be done) with regard to weaknesses and gaps (see country self-assessment day 1). Template will be provided. - Prepare flipchart(s) with structured capacity building and TA needs for use in plenary session. Template will be provided
15:30	**15:45**	***Coffee***		
16:20	16:50	Feedback session – Needs analysed	**Rob Bakx and Imre Csikos,** Moderators	- Plenary identification of country specific stand-alone needs and of synergies among capacity and TA needs of some and all countries - Discussion, conclusions
16:50	17:30	Conclusions and wrap-up	**Rob Bakx and Imre Csikos,** Moderators	- Conclusions workshop - Next Steps: Towards Step C - Workshop evaluation
17:30	***End of Day 2***			

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ANNEX II – Detailed Results Work Session 1

Where does your country stand as concerns climate adaptation preparedness?

ALBANIA

Adaptation Support Tool - STEP 1

Preparing the ground for adaptation

No.	Essential issues when preparing the ground for adaptation	Completed 0 – 100%
1.1	**Support for adaptation guaranteed at high level** Status: Yes Which actions to be taken: In the National Plan for European Integration is foreseen the adoption of the National Plan for adaptation. The adaptation issues are integrated to the national strategy for Development and Integration as well as the national Crosscutting strategy on environment. Some actions are undertaken to integrate the adaptation to the sectoral plans such as Coastal zone management, urban planning, National territorial plan etc.	40%
1.2	**A core team on adaptation in place** Status: Inter-ministerial Working Group on Climate Change Which actions to be taken: The national capacities have been low, so ministry of environment has used the opportunities to involve members of IWG in different workshops and trainings to increase their capacities.	100%
1.3	**Institutional cooperation set up** Status: Inter-ministerial Working Group on Climate Change set up with the Order of Prime Minister on April 2014 Which actions to be taken: The Inter-Ministerial Working Group on Climate Change has organised 5 meetings both in adaptation and mitigation	50%
1.4	**All affected stakeholders involved** Status: Level of involvement and participation is still is low Which actions to be taken: No society forums (stakeholders) No documents yet (in process) public info & hearings	20%
1.5	**Human and financial resources secured in the long term** Status: There is no any plan for increasing the human and financial resources Which actions to be taken: No CCA specific program/funding / no research	30%
1.6	**A first overview on climate-related impacts gained** Status: From 2014 now, based in the activities organised by ECRAN and GIZ on adaptation the level of knowledge in the line ministries is improved Which actions to be taken: Can be more information (to improve)	70%

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1.7	**Ongoing activities with relevance for adaptation identified** Status: National Plan on Adaptation GIZ, ECRAN, World Bank, Reducing vulnerability to Climate Change in Albania Agricultural Systems. Which actions to be taken: No local activity (awareness raising)	**50%**
1.8	**Overview on relevant information gained and access provided** Status: Line ministries involved in NAP process are going to identified action to be part of NAP process Which actions to be taken: Restricted information / not publicly shared / no common platform of info Access	**30%**
1.9	**Target group-specific formats for awareness raising carried out** Status: Line institutions Which actions to be taken: Limited activities & formats/group In between coordination	**30%**
1.10	**Common understanding on climate change adaptation gained** Status: There are improvements because of involvements of different bodies in NAP and ECRAN activities Which actions to be taken: Limited activities & formats/group In between coordination	**40%**
1.11	**An approach on how to deal with uncertainties developed** Status: A specific project to be developed in the national level with focus on adaptation Which actions to be taken: Process limitations	**30%**
Overall assumed completion %		

Adaptation Support Tool - STEP 2

Assessing risks and vulnerabilities to climate change

No.	Essential issues when assessing risks and vulnerabilities to climate change	Completed 0 – 100%
2.1	**A systematic overview on past weather events, their consequences and response actions in place** Status: As regard to improve the Hydro- meteorological National Network since 2008 in Albania is implemented the World Bank Project, Albania Disaster Risk Mitigation and Adaptation (AL-DRMAP). The objective of this project is to strengthen institutional capacities (a) to reduce Albania's vulnerability to natural and man-made hazards; and (b) to limit human, economic, and financial losses due to these disasters. The main outcome of this project is Strengthening of Hydro- meteorological Services. In frame of this project the Institute of Geosciences, Environment, Water, and Energy (IGEWE) is launching an upgrade of the monitoring and forecasting system via the Automated Hydro-meteorological Network and Central Data Management System, to be installed by early June 2012. In total will be installed 16 Hydro- stations and 16	**70%**

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	Meteorological stations. Also, climate digitize data from past 30 years will be published on the website of the IGEWE. Actually through the state budget (Ministry of Education and Sciences) has been bought 20 Hydro- meteorological stations, which are in the installation phase. Despite efforts to develop an integrated monitoring system, the significant gaps in IGEWE network may be summarized as follows: • the lack of the real time communication system; • need to upgrade the network; • need to build the capacities to make use of new technology and methods; • lack of meteorological radar all over the country.	
	Which actions to be taken: Different projects such as GIZ project and WB projects are implemented to increase their capacities. The GIZ financed project on the Drin river basin already aiming to increase resilience to flood and drought related issues. Similar on hand resilience building activities are needed in critical sectors and regarding critical infrastructure in the coming decades, which is most effective if climate change is mainstreamed into sectoral strategies and also taken up in local planning. 15-years gap in monitoring + limited areas and stations	
2.2	**Understanding of future climate change gained** Status: Climate change effects in Albania are predicted to follow trends that have been seen thus far: "more frequent extreme climatic phenomena are projected to occur, such as high temperatures, floods and prolonged droughts, which increase the risk of landslides and fires respectively." "The future climate scenario for Albania predicts changes such as increased temperatures, decreased precipitation and a reduction of water resources and arable land." "It is also expected that *climate change* will cause temperatures to increase by 0.8 to 1.0 ºC by 2025, between 1.2 and 1.8 ºC by 2050, and by 2.1 to 3.6ºC by 2100. This climate change will reduce water resources and humidity and will have an unfavourable impact on agriculture, forests and biodiversity." Overall, these differing effects will have varying impacts depending factors such as the region, specific crop and infrastructure in place. Current strategies must take all potential scenarios into consideration and adapt to the effects of climate change.	**70%**
	Which actions to be taken: Different strategies included the strategy on Agriculture and Rural development addresses the climate change issues, but the capacities for implementation in human and financial are too low. No understanding of INDIRECT effects	
2.3	**Non-climatic stress factors identified and considered** Status: Case by case, especially in case of flooding has been identified also the Non-climatic stress factors	**30%**
	Which actions to be taken: Lack of knowledge & studies	
2.4	**Trans-boundary issues taken into account** Status: The legislation on Environmental Impact Assessment, Strategic Impact Assessment (SIA) on trans-boundary context is in place.	**30%**
	Which actions to be taken:	

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	DCM 620/2015 on SIA is adopted in July 2015. There are examples on cooperation between border authorities in Albania, Montenegro, the former Yugoslav Republic of Macedonia, Kosovo* for common issues on water, alps, biodiversity; No practical implementation actions	
2.5	**Main concerns are identified that require an adaptation response** Status: Energy sector, Water resources, agriculture, health, tourism Which actions to be taken: • Integrate CC in the above sectoral policy documents; • Building capacity among national and local stakeholders to assess the impacts of climate change and to develop adaptation measures in climate risks sectors; • Strengthening institutional and legal framework to enable adaptation • Improving the way that institutions monitor, forecast, and disseminate information on meteorological and hydro-meteorological conditions. • facilitate thinking of a long-term growth model • development and implementation of policy instruments and estimate potentials for new green employment opportunities in the country/region level. • Flood Risk Management essential for adapting to Climate Change; Flood Directive good guidance but needs to be adopted to local realities; • Focus on land-use planning is essential; • Raising awareness of the threat of climate change • Improve cooperation and coordination among donors • No mapped & translated info GIS • No responses / action of prevention	**50%**
2.6	**Knowledge gaps and uncertainties in climate change summarized and made explicit** Status: • Lack of capacities in all areas of government • Low staff capacities for climate change • Data is crucial- special challenge regarding Climate Change • Relatively low climate change knowledge level in line ministries • Policy and public awareness don`t acknowledge relevance on Climate Change • Limited consistency among different areas of policy making Which actions to be taken: No overarching NETWORK PLATFORM DATABASE	**50%**
	Overall assumed completion % →	**30%**

Adaptation Support Tool - STEP 3

Identifying Adaptation Options

No.	Essential issues when identifying adaptation options	Completed 0 – 100%
3.1	**Gaps and barriers that hindered an adequate response in the past identified and understood**	**20%**

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	Status: Lack of capacities Lack of financial resources	
	Which actions to be taken: Preparation the NAP in process Lack of knowledge	
3.2	**A full portfolio of adaptation options considered**	**40%**
	Status: No	
	Which actions to be taken: A critical overview of sectoral policies Lack of knowledge and lack of research	
3.3	**Suitable adaptation options were described in detail**	**40%**
	Status: In Agriculture, energy, water, forestry, health studies from WB, UNDP, WHO suitable adaptation options were described in detail	
	Which actions to be taken: May be some measures are implemented… we don't have any system in place to identified what measures are implemented with regard to adaptation Lack of knowledge and lack of research LACK OF TIME	
	Overall assumed completion % →	**33%**

BOSNIA AND HERZEGOVINA

Adaptation Support Tool - STEP 1

Preparing the ground for Adaptation

No.	Essential issues when preparing the ground for adaptation	Completed 0 – 100%
1.1	**Support for adaptation guaranteed at high level**	**50**
	Status: Full support is guaranteed	
	Which actions to be taken: New legislations are needs to support some specific parts of adaptations	
1.2	**A core team on adaptation in place**	
	Status: Not officially. For specific project we have experts that work on adaptation	
	Which actions to be taken: We need initiative to create official team for adaptation on different level Focal point could start that question	
1.3	**Institutional cooperation set up**	
	Status: Partly	
	Which actions to be taken: Setting up inter-institutional working group of concerned stakeholders	
1.4	**All affected stakeholders involved**	

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	Status: Not all	
	Which actions to be taken: Put together NGOs, university, private sector…	
1.5	**Human and financial resources secured in the long term**	
	Status: No	
	Which actions to be taken: To found new ways for finance new experts. Trough projects, IPA, EU projects…	
1.6	**A first overview on climate-related impacts gained**	
	Status: yes	
	Which actions to be taken: Keep with climate analysis of new events	
1.7	**Ongoing activities with relevance for adaptation identified**	
	Status: Yes	
	Which actions to be taken: Project preparation, insurance of continuities of on-going projects in water management sector-flood protection sector.	
1.8	**Overview on relevant information gained and access provided**	
	Status: yes	
	Which actions to be taken: Keep with climate analysis of new events	
1.9	**Target group-specific formats for awareness raising carried out**	
	Status: No	
	Which actions to be taken: -	
1.10	**Common understanding on climate change adaptation gained**	
	Status: Yes	
	Which actions to be taken: -	
1.11	**An approach on how to deal with uncertainties developed**	
	Status: **No**	
	Which actions to be taken: Research, exchange of experience	
Overall assumed completion %		

Adaptation Support Tool - STEP 2

Assessing risks and vulnerabilities to climate change

No.	Essential issues when assessing risks and vulnerabilities to climate change	Completed 0 – 100%
2.1	**A systematic overview on past weather events, their consequences and response actions in place**	
	Status: Yes	
	Which actions to be taken:	
2.2	**Understanding of future climate change gained**	

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	Status: Yes	
	Which actions to be taken:	
2.3	**Non-climatic stress factors identified and considered**	
	Status: +/-	
	Which actions to be taken: Research	
2.4	**Trans-boundary issues taken into account**	
	Status: Yes	
	Which actions to be taken:	
2.5	**Main concerns are identified that require an adaptation response**	
	Status: Yes	
	Which actions to be taken:	
2.6	**Knowledge gaps and uncertainties in climate change summarized and made explicit**	
	Status: Yes	
	Which actions to be taken:	
Overall assumed completion %		

Adaptation Support Tool - STEP 3

Identifying Adaptation Options

No.	Essential issues when identifying adaptation options	Completed 0 – 100%
3.1	**Gaps and barriers that hindered an adequate response in the past identified and understood**	
	Status: No. lack of communication, lack of funding…	
	Which actions to be taken: Education of concerned stakeholders…	
3.2	**A full portfolio of adaptation options considered**	
	Status: yes	
	Which actions to be taken:	

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3.3	**Suitable adaptation options were described in detail**	
	Status: No	
	Which actions to be taken:	
Overall assumed completion % ⟹		

KOSOVO*

Adaptation Support Tool - STEP 1

Preparing the ground for Adaptation

No.	Essential issues when preparing the ground for adaptation	Completed 0 – 100%
1.1	**Support for adaptation guaranteed at high level**	
	Status: We have taken all appropriate measures during the drafting of the document Decision of government was made within the government strategy plan, (but no specific budget), supported by donors, action plan in next year strategy plan (2016)	
	Which actions to be taken: none	
1.2	**A core team on adaptation in place**	
	Status: We have taken all appropriate measures during the drafting of the document\ A core team has been set up, 1 subgroup from several ministries (meet 3 or 4 times a year; after that approval, first support by contractors for the NAS, but no more: health ministry missing	
	Which actions to be taken: No action	
1.3	**Institutional cooperation set up**	
	Status: During the process of appointments for drafting strategy in the subgroup for adaptation are included representatives of relevant institutions (horizontal)\vertical with NGO, 38 municipalities with each one official represented in the consultation process (online available), 1 month after workshop: all documents translated in three languages (Albanian (93 %), English, Serbian (5 %) (as all official documents: health missing, will possibly join for the next step, Tourism in trade	
	Which actions to be taken: No action needed	
1.4	**All affected stakeholders involved**	
	Status: All stakeholders which are involved in this process are affected Larger companies yes, there could be a plan to invite more for the NAP (good relationship with companies: e.g. Thermo power plant, all sectors covered smaller farmers will be involved in action (UNDP support) Science (university, climatology, naturalist scientists, no social science so far, sectoral experts	

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	Strengthen the relationship with science; separate budget needed to invite them, but by donors, count on donors	
	Which actions to be taken: Budget for science and local experts	
1.5	**Human and financial resources secured in the long term**	
	Status: All activities are included in the Climate Change Strategy (CCS) 2014-2024 for the Kosovo* Not enough human resources, (e. g. only one person in the ministry of environment) 5 or 6 in the agency but not enough budget available	
	Which actions to be taken: For specific topics (legislation, strategy documents more human resources needed, specific projects, no knowledge about the other ministries: we don't know how to judge the status of resources needed (Energy and Mining): Interior lack of resources for DRR should be supported for prevention (flooding> forest fire 2007 fire, also 2015)	
1.6	**A first overview on climate-related impacts gained**	
	Status: All activities are included in the Climate Change Strategy (CCS) 2014-2024 for Kosovo*, first overview is o.k., 70 experts involved Lack of health impacts: specific risk assessment for DRR in place: infrastructure, transport, energy not so well covered	
	Which actions to be taken: Assessment of vector-borne diseases	
1.7	**Ongoing activities with relevance for adaptation identified**	
	Status: Good overview about all activities are included in the Climate Change Strategy (CCS) 2014-2024 for Kosovo*	
	Which actions to be taken: No action	
1.8	**Overview on relevant information gained and access provided**	
	Status: All activities are included in the Climate Change Strategy (CCS) 2014-2024 for Kosovo* Data are available, lack of overview, research results and company data	
	Which actions to be taken: Support of relationship with science with companies	
1.9	**Target group-specific formats for awareness raising carried out**	
	Status: All target groups are identified in CCS, but knowledge not tailor-made for municipalities and other stakeholders. Leaflets ad booklets	
	Which actions to be taken: Translate to disseminate to target groups for better understanding	
1.10	**Common understanding on climate change adaptation gained**	
	Status: During the drafting of the strategy has been understanding and cooperation of all stakeholders Problems with all stakeholder, in particular with municipalities, committee of rural area	
	Which actions to be taken: Support for common language needed	
1.11	**An approach on how to deal with uncertainties developed**	
	Status: No uncertainty strategy available	

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	Which actions to be taken: Need to specify this at national level	
Overall assumed completion ⟹		**72 %**

Adaptation Support Tool - STEP 2

Assessing risks and vulnerabilities to climate change

No.	Essential issues when assessing risks and vulnerabilities to climate change	Completed 0 – 100%
2.1	**A systematic overview on past weather events, their consequences and response actions in place**	
	Status: We haven't historical data (before 1999)	
	Which actions to be taken: Maybe data from Neighbouring countries, ex –Yugoslavia: political union ECRAN can find a solution to calculate with area or calculation	
2.2	**Understanding of future climate change gained**	
	Status: It is taken in consideration during drafting CCS, scenarios, but not sufficient	
	Which actions to be taken: More scientific information, project funding for modelling	
2.3	**Non-climatic stress factors identified and considered**	
	Status: It is taken in consideration during drafting CCS, improvement needed:	
	Which actions to be taken: Scientific information needed, statistical info needed mechanism needed for statistical agency prime minister office reporting	
2.4	**Trans-boundary issues taken into account**	
	Status: It is taken in consideration during drafting CCS: not sufficient at the moment: Montenegro, Albania, the former Yugoslav Republic of Macedonia, Serbia (river cooperation) flood management Waste, water pollution	
	Which actions to be taken: begin more projects, funding via IPA, or UNDP: GIZ, USAID> World Bank, KfW, etc.	
2.5	**Main concerns are identified that require an adaptation response**	
	Status: It is taken in consideration during drafting CCS: a systematic review would be helpful,	
	Which actions to be taken: Systematic review more scientific information needed > more collaboration with scientists and other institutions,	
2.6	**Knowledge gaps and uncertainties in climate change summarized and made explicit**	
	Status: Gaps not covered for agriculture, health, private enterprises, involve more NGO's civil society	
	Which actions to be taken: Identification of knowledge gaps needed, involve all stakeholders	

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Overall assumed completion %	

Adaptation Support Tool - STEP 3
Identifying Adaptation Options

No.	Essential issues when identifying adaptation options	Completed 0 – 100%
3.1	**Gaps and barriers that hindered an adequate response in the past identified and understood**	
	Status: It is taken in consideration during drafting CCS Barriers are understood, barriers of historical data understood, small municipalities with no risk management plans, lack of funds, limited budget for the ministry: lack of budget for all ministries: lack of economic power, infrastructure adaptation is a future priority	
	Which actions to be taken: No barrier analysis needed, Find funding for risk management and all other adaptation action for all ministries	
3.2	**A full portfolio of adaptation options considered**	
	Status: Systematic analysis of options done in NAS, prioritisation already done based on expert judgement and public consultation, also on municipality level It is taken in consideration during drafting CCS	
	Which actions to be taken: Additional inspiration by case studies and study visits in EU member states helpful	
3.3	**Suitable adaptation options were described in detail**	
	Status: Done It is taken in consideration during drafting CCS	
	Which actions to be taken: None, but revise on the basis of better climate models and projections	
	Overall assumed completion 80 %	

The former Yugoslav Republic of M A C E D O N I A

Adaptation Support Tool - STEP 1
Preparing the ground for Adaptation

No.	Essential issues when preparing the ground for adaptation	Completed

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		0 – 100%
1.1	**Support for adaptation guaranteed at high level**	**80%**
	Status: Key institutions identified, focal points in some institutions appointed (MOEPP, MH, MAFWM)	
	Which actions to be taken: Put obligation in legal frame.	
1.2	**A core team on adaptation in place**	**80%**
	Status: Key institutions identified, focal points in some institutions appointed (MOEPP, MH, MAFWM)	
	Which actions to be taken: Put obligations in legal frame	
1.3	**Institutional cooperation set up**	**80%**
	Status: National Climate Change Committee established	
	Which actions to be taken: Put responsibility in legal frame	
1.4	**All affected stakeholders involved**	**80%**
	Status: National Climate Change Committee established	
	Which actions to be taken: Put responsibility in legal frame	
1.5	**Human and financial resources secured in the long term**	**70%**
	Status: Human and financial resources are not secured at long term	
	Which actions to be taken: Put responsibility in legal frame	
1.6	**A first overview on climate-related impacts gained**	**90%**
	Status: Deep overview gained	
	Which actions to be taken: Transfer findings in real implementation plans	
1.7	**Ongoing activities with relevance for adaptation identified**	**70%**
	Status: Yes, some. One of the projects for example: DRIM project supported by GIZ on climate change adaptation.	
	Which actions to be taken: We need a Long Term Strategy on climate change and Law on climate action. coordination. Put obligation on reporting on action and legal frame.	
1.8	**Overview on relevant information gained and access provided**	

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	Status: Scientific modelling and different measures are provided and all the relevant information's are gained.	**100%**
	Which actions to be taken: Sustainability of process	
1.9	**Target group-specific formats for awareness raising carried out**	**20-30%**
	Status: Still needed. Example: Urban resilience for city of Skopje.	
	Which actions to be taken: Targeted program is needed at different governance level and different stakeholders. Awareness rising in different groups. Recommendation: Prioritize different affected groups for ex. elderly, farmers…	
1.10	**Common understanding on climate change adaptation gained**	**70%**
	Status: Institutional understanding is good. Public understanding is relatively good, more general information.	
	Which actions to be taken: Campaigns for raising awareness, more detailed and technical for institutions, as well as for the public.	
1.11	**An approach on how to deal with uncertainties developed**	**40-50%**
	Status: Modelling has already been done, studies have been compared.	
	Which actions to be taken: We need more modelling for extreme events. Updating.	
	Overall assumed completion %	

Adaptation Support Tool - STEP 2

Assessing risks and vulnerabilities to climate change

No.	Essential issues when assessing risks and vulnerabilities to climate change	Completed 0 – 100%
2.1	**A systematic overview on past weather events, their consequences and response actions in place**	**80%**
	Status: Systematic overview of past weather events (heat waves and cold waves, tropical and summer days, frost and ice days) By 1961-2012 has been done by UHMR for 11 meteorological stations for the TNC. Response actions in place are performed by the government and crisis response centre. However, it is extremely difficult to obtain this last information and to match the extreme weather events with the consequences and response actions in place.	
	Which actions to be taken: More recent assessment to the extent possible, more extreme event to be analysed, data matching among relevant institutions in order to obtain the bigger picture. Modelling needs to consider other variables like snow cover, frost…	
2.2	**Understanding of future climate change gained**	

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	Status: Climate change scenarios for the country developed by the country by 2100.	**80%**
	Which actions to be taken: **Use the capacities of the virtual centre in Belgrade to develop seasonal weather forecast and scenarios on regional/ municipality level.**	
2.3	**Non-climatic stress factors identified and considered**	**70%**
	Status: Land use change, biodiversity laws, soil erosion, evapotranspiration, nitrification, water and heat balances, invasive species transportation, air quality, increased run off and water pollution taken in the consideration in the third national communication. Urban heat Islands for city of Skopje in development as part of the climate change strategy for City of Skopje.	
	Which actions to be taken: More detailed assessments and regular updates of data.	
2.4	**Trans-boundary issues taken into account**	**30%**
	Status: Example of one trans-boundary projects: DRIM project supported by GIZ (former Yugoslav Republic of Macedonia and Albania)-quantity information about the water, data management, hydro-meteorological information…	
	Which actions to be taken: To negotiate with the neighbour countries about different adaptation options. Ex. Water resources, lakes, protected areas, landscapes…	
2.5	**Main concerns are identified that require an adaptation response**	**80%**
	Status: Detailed assessments performed for different sectors (biodiversity, health, water resources, agriculture, forestry, tourism, cultural heritage and disaster risk reduction.	
	Which actions to be taken: The actions for all different sectors are part of and explained in the TNC (action plan). www.unfccc.org.mk	
2.6	**Knowledge gaps and uncertainties in climate change summarized and made explicit**	**100%**
	Status: Elaborated national documents: - Third National Communication - First Biannual Update Report www.unfccc.org.mk	
	Which actions to be taken:	
	Overall assumed completion % ⟹	

Adaptation Support Tool - STEP 3

Identifying Adaptation Options

No.	Essential issues when identifying adaptation options	Completed 0 – 100%
3.1	**Gaps and barriers that hindered an adequate response in the past identified and understood**	**100%**

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	Status: Yes, we have identified gaps and barriers in all analysed sectors including water, agriculture, forestry...	
	Which actions to be taken: Transfer them into concrete implementation plans with identification of key responsible institution, budget needed and means of implementation.	
3.2	**A full portfolio of adaptation options considered**	**100%**
	Status: Yes	
	Which actions to be taken: Transfer them into concrete implementation plans with identification of key responsible institution, budget needed and means of implementation.	
3.3	**Suitable adaptation options were described in detail**	**70%**
	Status: Not in detail	
	Which actions to be taken: Each option need to be assessed based on criteria on feasibility, number of people impacted, environmental effects and especially side effects (potential for job creation, health effects etc.)	
Overall assumed completion % →		

MONTENEGRO

Adaptation Support Tool - STEP 1
Preparing the ground for Adaptation

No.	Essential issues when preparing the ground for adaptation	Completed 0 – 100%
1.1	**Support for adaptation guaranteed at high level**	**95**
	Status: Government of Montenegro is dedicated to deal with climate change and dedication has expressed last several years and also trough the document National Strategy on Climate Change until 2030, recently adopted (24/09/2015). In that sense Government of Montenegro has established National Council for Sustainable Development and Climate Change. Also, Montenegro submitted two National Communications on Climate Change and is ready to start with preparation of third National Communication.	
	Which actions to be taken: Cooperation between institution should be improved	
1.2	**A core team on adaptation in place**	**95**
	Status: There is a National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management within which functioning a working group for climate change. For the purposes of ECRAN project the team is formed.	
	Which actions to be taken: No actions	

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1.3	**Institutional cooperation set up** Status: Cooperation has been established between following institution: Ministry of Agriculture and Rural Development, Ministry of Sustainable Development and Tourism, Ministry of Economy, Environment Protection Agency of Montenegro, University of Montenegro, Montenegrin Academy of Science, Statistical Office of Montenegro, Union of Municipalities, Institute of Hydrometeorology and Seismology of Montenegro, Non-governmental organizations, Institute of Public Health, Ministry of Internal Affairs etc. Involvement of institutions was established in 2007. Which actions to be taken: Coordination should be improved. Involve transport/traffic sector Every institution should appoint a person who will be a contact for the relevant tasks and to coordinate activities	**80**
1.4	**All affected stakeholders involved** Status: Public institutions, NGOs, public and private sectors. Which actions to be taken: Widen the number of stakeholders involved e.g. private sectors	**75**
1.5	**Human and financial resources secured in the long term** Status: According to the National Strategy currently there is relatively small number of mechanisms for assessing the costs of adaptation. Which actions to be taken: More knowledge about cost of adaptation measures; Human resources: administrative capacity on strategic planning; Finding different funding	**60**
1.6	**A first overview on climate-related impacts gained** Status: First National Communication on Climate Change; Second National Communication on Climate Change; Economic assessment; Climate Change legislation; Air quality legislation; Third National Communication on Climate Change under preparation. Which actions to be taken: No actions	**100**
1.7	**Ongoing activities with relevance for adaptation identified** Status: Preparation of the National Plan; Activities within the third National Communications. It is planned to develop an Action Plan in the field of climate change as well as legislation on climate change. It is also planned to develop a strategy approximation in the area of climate change. Which actions to be taken: To improve vertical coordination of activities within relevance on adaptation; Gain more information about such activities (on going activities);	**75**
1.8	**Overview on relevant information gained and access provided** Status: Information on climate change are available at the following web sites: - Climate Change in Montenegro http://www.unfccc.me/ - Ministry of Sustainable Development and Tourism http://www.mrt.gov.me/ - Government of Montenegro http://www.gov.me/ - European Environment Information and Observation Network http://www.eionet.europa.eu/countries/montenegro Press conference and media. Information are available and upon request.	**100**

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	Which actions to be taken: All web sites must be regularly updated.	
1.9	**Target group-specific formats for awareness raising carried out**	**80**
	Status: Public health complaint…	
	Which actions to be taken: More comparing on e.g. using renewable energy	
1.10	**Common understanding on climate change adaptation gained**	**70**
	Status:	
	Which actions to be taken: Networking, information and communication across institutions	
1.11	**An approach on how to deal with uncertainties developed**	**80**
	Status:	
	Which actions to be taken: Improvement coordination between different activities	
Overall assumed completion % ⟹		

Adaptation Support Tool - STEP 2

Assessing risks and vulnerabilities to climate change

No.	Essential issues when assessing risks and vulnerabilities to climate change	Completed 0 – 100%
2.1	**A systematic overview on past weather events, their consequences and response actions in place**	**90**
	Status: A significant increase in air temperature, the increase in sea surface temperature and mean sea level, changes in extreme weather and climate events.	
	Which actions to be taken: Obtain quantitative vulnerability assessment with focus on water resources, agriculture and forestry, public health and coastal areas, as these were identified in INC as further priority steps.	
2.2	**Understanding of future climate change gained**	**90**
	Status: Climate analysis was performed by climate decades, to obtain a summary of the observed extreme events in Montenegro in the past 15 years and their projections parallel to the EBU-POM regional model.	
	Which actions to be taken: Monitor the quality of meteorological and hydrological data. The availability of the data string, and also improve observation stations in the coastal areas because lack of them provides little basis for assessing current and future changes in sea level.	
2.3	**Non-climatic stress factors identified and considered**	**85**

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	Status: Socio-demographic factors include, but are not limited to: patterns of human migration and travel, effectiveness of public health and medical infrastructure in controlling and treating disease.	
	Which actions to be taken: In connection with the process of adaptation to climate change in the fundamental role of urban planning is to ensure adequate use of space, allowing or not specific purposes in specific areas. Spatial planning system must provide an opportunity for all stakeholders to influence decision-making in response to the challenges posed by the layered policy of adapting to climate change in Montenegro.	
2.4	**Trans-boundary issues taken into account**	**95**
	Status: The most frequent natural hazards in Montenegro and Albania are floods. The biggest floods were recorded in 1963, 1979, 1999, 2000, 2010 and 2011. Areas potentially most vulnerable to floods are the hydrological system Zeta – Moraca – Skadar Lake – Bojana, the river Lim with its tributaries (confluences of Lim's Tributaries) and Tara before entering the canyon. Past experience shows that forest fires can occur and the transfer of fire from neighbouring countries.	
	Which actions to be taken: Framework Directive that require cross-border cooperation in the water sector (including activities such as risk assessment and planning, the exchange of good practice, improving the knowledge base training and exercises).	
2.5	**Main concerns are identified that require an adaptation response**	**70**
	Status: Atmosphere and Climate (e.g. air temperature increase, decrease frosty days, reducing the amount of rainfall, retreat of snow cover); Coast and coastal area (e.g. the increase in sea surface temperature, sea level rise); Water resources (e.g., river flow); Agriculture (e.g. plant productivity due to temperature rise); Forestry and health.	
	Which actions to be taken: Improve professional and scientific research on human health vulnerability to climate change; State policy on the impact of climate change on agriculture needs to be defined.	
2.6	**Knowledge gaps and uncertainties in climate change summarized and made explicit**	**100**
	Status: Lack of an adequate policy framework, lack of technical and scientific research, the lack of data (there is no database to determine the impacts of climate change on different sectors / fields, e.g. on the impact of weather and climate on human health because the mandatory health records are not kept in a way that to enable easy acquisition of adequate data for such analysis); The main weaknesses identified are the lack of strategic planning, underdeveloped infrastructure and a lack of systematic integration of environment climate change in all sectors' policies.	
	Which actions to be taken: Research, social learning, exchange of good practice and stakeholder cooperation can help reduce the lack of knowledge related to the climate change adaptation.	

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Overall assumed completion % →	

Adaptation Support Tool - STEP 3

Identifying Adaptation Options

No.	Essential issues when identifying adaptation options	Completed 0 – 100%
3.1	**Gaps and barriers that hindered an adequate response in the past identified and understood**	**100**
	Status: Limitations and gaps of a technical and methodological nature, institutional limitations and lack of capacity, lack of financial resources for implementing mitigation/adaptation measures.	
	Which actions to be taken: No actions	
3.2	**A full portfolio of adaptation options considered**	**50**
	Status: We are not at the point to define adaptation options; It is no full portfolio; Adaptation options missing for some sectors;	
	Which actions to be taken: Adding adaptation options of some sectors into the National Strategy	
3.3	**Suitable adaptation options were described in detail**	**50**
	Status: Adaptation measures by sector **Water resources** Efficient water management and the introduction of a water information system • Strengthening the network of measuring stations for monitoring hydrology and meteorology in Montenegro is necessary; • There is a need for better coordination between the government, the Environment Protection Agency and the Institute of Hydrometeorology and Seismology in order to ensure the development of a system of quality national water archives to store and make available data; • There is a need to encourage relevant agencies to use GIS tools and to identify all GIS needs relating to the environment in Montenegro; • There is a need to harmonize data set standards and to clearly define responsibilities and "ownership" regarding specific sets of data, as well as defining procedures for controlling data versions managing data exchanges between institutions;	

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- Exploring ground water in Montenegro and carrying out GIS mapping of hydrogeological boundaries of ground water used to supply water;
- There is the need for a water information system; options for the implementation of a better software information system for a water/cadastre should be considered (e.g. WaterWare, WISYS or WISKI) and decisions should be made about the structure of an information system for a water/cadastre.

Agriculture

- The impact of climate change on agriculture and on various cultures should be researched;
- Breeds and hybrids of different ripening periods should be introduced in order to avoid the least favourable parts of the year;
- Irrigation and drainage systems are needed to regulate the content of water in root systems;
- A reduced level of cultivation is necessary as well as deep cultivation, covering the surface with harvest remains, changes in the density of sowing and planting, with a view to preserving certain levels of moisture in root systems;
- The early application of pesticides and insecticides is necessary;
- Changes should be made in the use of fertilizers, i.e. their quantity and time of application;
- A more flexible agriculture system should be established in order to reduce climate change consequences;
- A national forestry management policy is required.

Livestock breeding

- Montenegro needs to carry out research on the impact of climate change on livestock breeding and on which regions are best for certain breeds and types of livestock;
- In livestock breeding attention should be paid to breeds that are less sensitive to warmer weather and to possible thermal stress;
- Adequate conditions for growing plants in new climate conditions should be ensured and new technology should be used. It should include direct management and should focus particularly on systems for ventilation, the control of temperature and humidity
- in buildings;
- Advisory activities should be organized with a view to educating producers to apply new techniques;
- With a view to preventing or slowing down climate change, proposals should be made for the construction of pits and digestors in farms; these would use fertilizers from the production process as biomass for energy generation - composting waste on farms;
- Material support should be given to research programmes.

Forestry

<u>Measures for forest management:</u>

- Nature friendly forest management should be the basis for the stability of forest stand;
- Increase in the share of high natural forests in comparison to the low-productive ones;
- natural regeneration as the basis for forest growth, adequate support through afforestation if the natural process of forest regeneration fails;
- indigenous tree types should be used in afforestation;
- Encouragement of a mixed forest stand, particular attention should be given to the preservation of selected stands of beech, silver fir, spruce (stands of various ages);

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- Preservation of the forest genofund, particularly through the protection of key habitats and varieties, and of trees, plants and animals.

Organisational and technical measures:

- Fire-protection measures should be developed (with an emphasis on prevention and fast response in the case of fire);
- Work on the improvement of logistics for fire extinction: road infrastructure, fire breaks, the removal of easily flammable material from forests; establishment of hubs with fire extinguishing materials, closer control of activities in forests during dry periods;
- Re-establishment of forest order after harvesting; adequate and timely rehabilitation of surfaces damaged by fire;
- Adequate reporting-forecasting services for forest protection, establishment of ecological indicators indicating current changes in forest ecosystems.

Coast and coastal area

CAMP - Recommendations for the size of the flooding zones and the vulnerability of the Montenegrin coast:

- Regarding flooding zones, in the present and in the near future, Montenegro should assume that the sea level will rise by 96 cm;
- In terms of assessing areas regarding coastal delineation, the CAMP project should recommend, as the most realistic and the most probable, a projection of a rise in sea level of 62 cm by the end of the 21st century
- Analysis of small watercourses in the Montenegrin coastal region
- Further analyses of high waters in watercourses in the Montenegrin coastal region are required;
- Mapping of surfaces endangered by high waters is needed, as well as an analysis of options enabling the hydrological service of IHSM and the relevant municipal services to organise and monitor networks in priority watercourses;
- Particular attention should be paid to defining the erosion potential of these
- watercourses, both due to the protection of the sediment and due to the possible
- impact of this sediment on the preservation of beaches in the Montenegrin
- coastal region.

Health

- Implementation of bio-meteorological forecasting is necessary in order to ensure early warning about the favourable or unfavourable impact of weather on
- human beings, particularly on people with chronic diseases;
- It is necessary to establish an early warning system for heat waves and periods
- of cold weather;
- It is necessary to implement the bio-classification of various weather conditions, to collect data and to archive it; to collect data from questionnaires on bio-meteorological responses and also from ambulance service records for diseases linked with biometeorology. The Public Health Institute should collect, sort and analyse data and together with the IHSM it should work on its validation.

Which actions to be taken:

Adding adaptation options of some sectors into the National Strategy

Overall assumed completion % 

SERBIA

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Adaptation Support Tool - STEP 1

Preparing the ground for Adaptation

No.	Essential issues when preparing the ground for adaptation	Completed 0 – 100%
1.1	**Support for adaptation guaranteed at high level** Status: Yes, (Climate change committee established) Which actions to be taken: Establish a unit within the Ministry in charge for Environment or at least one person within the Ministry, to work mainly in the scope of adaptation issues	**80**
1.2	**A core team on adaptation in place** Status: Partially Which actions to be taken: One of the options could be that Climate change committee establish Working group on adaptation	**45**
1.3	**Institutional cooperation set up** Status: Partially Which actions to be taken: To increase interest in cooperation on adaptation through various forms of communication: projects, working groups, workshops, conferences etc.	**60**
1.4	**All affected stakeholders involved** Status: Partially Which actions to be taken: To increase interest in cooperation on adaptation through various forms of communication: projects, working groups, workshops, conferences etc. Include more stakeholders. Raising awareness that adaptation is important.	**50**
1.5	**Human and financial resources secured in the long term** Status: No (especially financial) Which actions to be taken: Concerning financial situation in country, probably to increase effort to secure resources from the EU and UN funds. More project application (H2020, LIFE funding, other?)	**20**
1.6	**A first overview on climate-related impacts gained** Status: Yes Which actions to be taken: Some socioeconomic sectors still without assessment, for example, energy production (hydro-power) and infrastructure and some sectors still need more in-depth assessment like a biodiversity and human health.	**80**
1.7	**Ongoing activities with relevance for adaptation identified** Status: Yes Which actions to be taken: Prioritisation of adaptation options defined in SNC in National Adaptation Plan (2015). This will lead to CC strategy and Action Plan (2018), and National Adaptation Strategy.	**80**
1.8	**Overview on relevant information gained and access provided** Status: Partially. We have hydro-met data, but not on damages. Which actions to be taken: Awareness rising within the relevant stakeholders and institutions, strengthening cooperation and increasing interest in cooperation on adaptation through various forms of communication: projects, working groups, workshops, conferences etc. Lack of data on damages and losses – collect more data on extreme events impact on different sectors of economy. More observations.	**50**
1.9	**Target group-specific formats for awareness raising carried out**	

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	Status: Partially	65
	Which actions to be taken: To prepare reports similar to one prepared for Agriculture (Report on the impact of climate change on agricultural production in Serbia) Education of stakeholders, civil protection, local authorities, private sectors – leaflets, workshops, recommendations…	
1.10	**Common understanding on climate change adaptation gained**	90
	Status: Yes	
	Which actions to be taken: Raise awareness among young people; Introduce education on climate change basics and need for adaptation in schools	
1.11	**An approach on how to deal with uncertainties developed**	85
	Status: Yes	
	Which actions to be taken: Introduce more experts and institutions wiling for collaboration. Capacity building	
Overall assumed completion % →		**64**

Adaptation Support Tool - STEP 2

Assessing risks and vulnerabilities to climate change

No.	Essential issues when assessing risks and vulnerabilities to climate change	Completed 0 – 100%
2.1	**A systematic overview on past weather events, their consequences and response actions in place**	80
	Status: Yes	
	Which actions to be taken: Improve systematic overview on material losses from extreme events.	
2.2	**Understanding of future climate change gained**	90
	Status: Yes	
	Which actions to be taken: Focus on local impact analysis with more complex assessments related to the specific sector Increases computer power	
2.3	**Non-climatic stress factors identified and considered**	50
	Status: Partially	
	Which actions to be taken: Increase effort in identification; increase horizontal communication between institutions and people with expertise in different areas. Downscaling of socio-economic aspects of IPCC scenarios to the local level.	
2.4	**Trans-boundary issues taken into account**	70
	Status: Partially. Initialized through SEE climate change framework action plan for adaptation and establishment of South East European Virtual Climate Change Center. Different bilateral projects.	
	Which actions to be taken: Organize regional meeting to intensify regional cooperation in area of adaptation	
2.5	**Main concerns are identified that require an adaptation response**	85
	Status: Yes – agriculture (drought/diseases), forestry (drought/forest fires/diseases), water management (drought/floods)	
	Which actions to be taken: Introduce adaptation measures in running norms. EWS, LRF, agro-technical measures	

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2.6	**Knowledge gaps and uncertainties in climate change summarized and made explicit**	**75**
	Status: Yes	
	Which actions to be taken: Profound statistical assessment of uncertainties especially for extreme events.	
	Overall assumed completion % →	**75**

Adaptation Support Tool - STEP 3

Identifying Adaptation Options

No.	Essential issues when identifying adaptation options	Completed 0 – 100%
3.1	**Gaps and barriers that hindered an adequate response in the past identified and understood**	**45**
	Status: Partially	
	Which actions to be taken: Summarize and collect more convincing evidence and promote them publicly; speak in common language.	
3.2	**A full portfolio of adaptation options considered**	**70**
	Status: Yes, but some for sectors still missing (for example, energy production from hydropower and infrastructure)	
	Which actions to be taken: More focus on sectors that are not analysed in detail.	
3.3	**Suitable adaptation options were described in detail**	**70**
	Status: Partially (drafted for agriculture, water resources, forestry and bio diversity (SNC, NAP in preparation), no for other sectors)	
	Which actions to be taken: Focus on: human health, energy, infrastructure NAP – prioritisation of adaptation options.	
	Overall assumed completion % →	**62**

TURKEY

Adaptation Support Tool - STEP 1

Preparing the ground for adaptation

No.	Essential issues when preparing the ground for adaptation	Completed 0 – 100%

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1.1	**Support for adaptation guaranteed at high level**	**90**
	Status: Following from "National Climate Change Strategy (2010-2020)" (NCCS) in 2010 and the "National Climate Change Action Plan (2011-2023)" in November 2011, Turkey's "National Climate Change Adaptation Strategy and Action Plan" became available in 2011. These Strategy and Action plan was approved by Coordination Board on Climate Change and air Management.	
	Which actions to be taken: Coordination Board on Climate Change and air Management twice meeting in a year and evaluate and monitoring these plans. CBCCAM will meet more than twice a year.	
1.2	**A core team on adaptation in place**	**95**
	Status: Ministry of Environment and urbanization department of Climate change ha division which have specifically work on and coordinate adaption issues included 5 people.	
	Which actions to be taken: -Experience of expert working in department should be increased	
1.3	**Institutional cooperation set up**	
	Status: Working group on climate Change İmpact and Adaptation was established in 2014 under the Coordination Board on Climate Change and air Management(CBCCAM) which includes all related ministries, institutions and stakeholders. Working group on climate Change Impact and Adaptation meeting regularly or if needed and evaluate and monitoring Climate Change adaptation issues Working group on climate Change Impact and Adaptation meeting regularly or if needed and evaluate and monitoring Climate Change adaptation issues	
	Which actions to be taken: - Build up technical capacity of Climate change and Adaptation Groups - Training, meetings, etc. - Improve participation of all ministries. - Need specific working plan for per year	
1.4	**All affected stakeholders involved**	**80**
	Status: All stakeholders, involved. They are: All related Ministries and • Under-secretariat of Treasury • Disaster and Emergency Management Presidency • Turkish Statistical Institute • Turkish Union of Chambers and Commodity Exchanges (TOBB) • Turkish Industry and Business Association (TUSIAD) • Independent Industrialists and Businessmen's Association (MUSIAD)	
	Which actions to be taken: Public participation and NGO's should be improved by online platform and public consultation.	
1.5	**Human and financial resources secured in the long term**	**80**
	Status: Finance related to adaptation actions secured in related Ministry budget year by year. Core team will be secured for the long term. Funding is also available from National budget and GEF, FAO, EU resources	
	Which actions to be taken: -Budget should increase	
1.6	**A first overview on climate-related impacts gained**	

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	Status: 1. Revision and synthesis of current situation about the vulnerable areas and impacts of climate change in Turkey (Stocktaking Analysis), 2. Realization of "Participatory Vulnerability Analysis" at the local level, Which actions to be taken: -	**100**
1.7	**Ongoing activities with relevance for adaptation identified** Status: Strategy and Action Plan for Combatting Agricultural Drought Agricultural Insurance Land Consolidation Program Rangeland Rehabilitation In Environmentally Based Agricultural Land Protection (ÇATAK) Program Organic Agriculture and Good Agricultural Practices "Climate Change Impacts on Water Resources" project "Preparation of Flood Management Plans" project "Preparation of Drought Management Plans" project "Currently on climate change, Legislative and Institutional Gap Analysis Report, Report of impacts, vulnerability analysis and showing on GIS maps, Report on lesson learned about historical disaster, report of the best examples issues work continues." "For IPA II period "Technical Assistance in Enhancing the Capacity to Determine and Reduce the Disaster Risks stemming from the Climate Change in Turkey" "Project for Increasing the capacity of public institutions for staff in the provinces and collaboration studies between institutions " Which actions to be taken: We don't know private sector yet.	**90**
1.8	**Overview on relevant information gained and access provided** Status: We can access all necessary existing information such as Monitoring and İntegrated Agricultural Information System (TARBIL), meteorological data etc. All information are summarized in national communication plan. Which actions to be taken: -	**100**
1.9	**Target group-specific formats for awareness raising carried out** Status: Lots of activities doing for raising awareness on CC such as Periodical Training Programs for Field Staff and Farmers, public spots, awareness project for students, workshops, leaflet, website etc. Which actions to be taken: Reach more specific target groups. Disseminate Good practices Sharing Research results	**70**
1.10	**Common understanding on climate change adaptation gained** Status: yes Which actions to be taken: -	**100**
1.11	**An approach on how to deal with uncertainties developed** Status: Climate Change projections with different scenarios and multiple models which global and regional. We use this result in our decision making process. Also use expert judgment.	**100**

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	Which actions to be taken: -	
Overall assumed completion % →		

Adaptation Support Tool - STEP 2

Assessing risks and vulnerabilities to climate change

No.	Essential issues when assessing risks and vulnerabilities to climate change	Completed 0 – 100%
2.1	**A systematic overview on past weather events, their consequences and response actions in place** Status: Turkish State Meteorological Service is the only legal organization which provides all meteorological information in Turkey and . The main objectives of the TSMS are: ▪ To make observations, ▪ To provide forecasts, ▪ To provide climatological data, archive data, and other information, ▪ To communicate these to the public, ▪ To provide meteorological needs of army and civil avition. When examining meteorological data between 1950-2010, statistically significant warming tendencies in general have been observed in Mediterranean Region of Turkey. Only some statistically significant cooling tendencies have been detected in the Black Sea Region and in the central and western regions of Turkey. The average spring temperature has shown a tendency to rise across most of Turkey. The average spring temperature has shown a tendency to rise across most of Turkey. Regarding precipitation, the Mediterranean precipitation regime remains dominant across Turkey in terms of winter and spring precipitation total; but there has been a significant decrease in precipitation (aridification) in Marmara, Aegean, Mediterranean and Southeast Anatolia, and in the inner and southern part of the Central and Eastern Anatolia regions. During the winter season, the tendency for reduced precipitation observed especially in western, southern and continental central southern regions still continues despite the more humid conditions, compared to the averages that have been experienced over the last few years in these regions. Which actions to be taken: -	**100**
2.2	**Understanding of future climate change gained** Status: Several climate modelling studies have been carried out for Turkey and its surrounding in recent years. Detailed information could be obtained from the national communications submitted to United Nations Framework Convention on Climate Change. Turkish State Meteorological Services and General Directorate of Water Management have some ongoing studies of climate change projection. *Regional Climate Model (Rcm) Studies of* Turkish State Meteorological Services RCM projections in the TR2013-CC by using dynamic downscaling method are based on general circulation models (GCM) in CMIP5 project and RCP scenarios. RCP4.5 is chosen as mild model and RCP8.5 as severe model. The global models are HadGEM2-ES, MPI-ESM-MR and GFDL-ESM2M. Resolution is 10 x 10 km.	**100**

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	Climate Modelling Studies Of General Directorate Of Water Management In the project 3 climate models are being run, which are in the archive of Coupled Model Intercomparison Project (CMIP5) comprising the base of IPCC 5th Assessment Report, and RCM projections by using dynamic downscaling method are based on general circulation models (GCM); RCP4.5 is chosen as mild model and RCP8.5 as severe model. Projections are run for the years between 2015 and 2099, while the period between the years 1971-2000 has been chosen as reference years in compliance with the analysis tests. The global models are HadGEM2-ES, MPI-ESM-MR and CNRM-CM5. Resolution is 10 x 10 km.	
	Which actions to be taken: -	
2.3	**Non-climatic stress factors identified and considered**	**40**
	Status:Not enough knowledge on other factors onyl some project are going on	
	Which actions to be taken: Make progress Non-climatic stress factors with specific projects.	
2.4	**Transboundary issues taken into account**	**75**
	Status: Transboundry flood disaster reduce projects and emergeny response such as flood and forest fires collabration with neighbour. Transboundary water sharing Transboundry disease and insects effecting in the context of agriculture İnvasive species Transboundry lessons learning sharing UNEP-MAP Adaptation action paln member for Mediterranean and Black sea commission for black sea, INBO.	
	Which actions to be taken: Improve cooperation and coorrdination with our neighbours. On transboundry issues.	
2.5	**Main concerns are identified that require an adaptation response**	**70**
	Status: There are some on going studies on sectoral vulnurability assessment. Sectors are determined and priotarization work are going on Geographical vulnerable areas were determined according to projections on basin scale.	
	Which actions to be taken: Improve sector knowledge.	
2.6	**Knowledge gaps and uncertainties in climate change summarized and made explicit**	**50**
	Status: National communication plan included knowledge gaps section.	
	Which actions to be taken: This kind of gap analysis needs to be undertaken	
Overall assumed completion %		

Adaptation Support Tool - STEP 3

Identifying Adaptation Options

No.	Essential issues when identifying adaptation options	Completed 0 – 100%
3.1	**Gaps and barriers that hindered an adequate response in the past identified and understood**	**80**

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	Status: - Not enough technologies - Not enough coordination - Not enough expertise	
	Which actions to be taken: After 2010 establish Disaster Management Authority having well coordination on disaster management also National Emergency Response Plan prepared in 2013 Also we still need to improve of Database Scientific experts Stakeholder participation Early warning system and monitoring Specialist /experts on subject	
3.2	**A full portfolio of adaptation options considered**	**70**
	Status: **Many of adaptation options are considered but not all**	
	Which actions to be taken: All sectors should be provided to consider	
3.3	**Suitable adaptation options were described in detail**	**60**
	Status: we have adaption action plan but not in detail such us cost benefit measurable points, life time of the measure, side effects etc.	
	Which actions to be taken: The action plans will be upgraded.	
Overall assumed completion %		

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ANNEX III – Participants

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ANNEX IV – Presentations (under separate cover)

Presentations can be downloaded from: http://www.ecranetwork.org/Climate/Adaptation

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