

Environment and Climate Regional Accession Network (ECRAN)

Report on Workshop on National Climate Adaption Policies and Legislation – Step D: Implementation, Monitoring and Evaluation of Adaptation Options

9 – 10 June 2016, Podgorica



ENVIRONMENT AND CLIMATE REGIONAL ACCESSION NETWORK - ECRAN

WORKSHOP REPORT

Activity 4.3

NATIONAL CLIMATE ADAPTATION POLICIES AND LEGISLATION

STEP D: IMPLEMENTATION, MONITORING AND EVALUATION OF ADAPTATION OPTIONS

9 – 10 June 2016, Podgorica, Montenegro







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Enviroment and Climate ECRAN Regional Accession Network

LIST OF ABREVIATIONS				
APS	Adaptation Preparedness Scoreboard			
AST	Adaptation Support Tool			
CA	Climate Adaptation			
СС	Climate Change			
CCA	Climate Change Adaptation			
СоМ	Covenant of Mayors			
СОР	Conference of the Parties			
DG	Directorate-General			
DRR	Disaster Risk Reduction			
ECRAN	Environment and Climate Regional Accession Network			
EEA	European Environment Agency			
EIONET	European Environment Information & Observation Network			
EU	European Union			
GHG	Greenhouse Gas			
ICJ	International Court of Justice			
IPCC	Intergovernmental Panel on Climate Change			
MA	Mayors Adapt			
MMR	Monitoring Mechanism Regulation			
M&E	Monitoring & Evaluation			
M&R	Monitoring & Reporting			
NAP	National Action Plan			
NAS	National Adaptation Strategy			
NCA	Norwegian Coastal Administration			
NGO	Non-Governmental Organisation			
NPRA	Norwegian Public Roads Administration			
NVE	Norway's Water Resources and Energy Directorate			
SDG	Sustainable Development Goals			
UNFCCC	United Nations Framework Convention on Climate Change			
UNSCR	United Nations Security Council Resolution			





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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.





During the regional ECRAN Adapt Seminar in Skopje in July 2014, the ECRAN beneficiaries (Albania, Bosnia and Herzegovina, Croatia¹, the former Yugoslav Republic of Macedonia, Kosovo^{*2}, 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)³ 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, already have worked and will continue to work together on the following:

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

² 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 (*). ³ http://climate-adapt.eea.europa.eu/adaptation-support-tool







¹ Croatia has joined the EU and is currently no longer an ECRAN beneficiary

Working Group 4: ECRAN Adaptation work 2014 – 2016



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







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	24-25 November 2014						
Technical ADAPTATIC enhance B participant effectivene	Technical experts that will contribute to the step-by-step process carried out by the ECRAN ADAPTATION TEAMS have received <u>specific technical training</u> 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 planning (Energy Pla	3 targeted training programmes on vulnerability assessment and adaptation planning (Water Management, Urban Planning and Development , and Energy Planning) have been provided						
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 Regional Closing High Level Seminar on Climate Change Adaptation ⁴	6 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 assists the Beneficiary Countries in further enhancing their knowledge and understanding of their climate vulnerabilities and thus prepare them to take better adaptation actions⁵. The training also draws on the EU Guidelines for National Adaptation Strategies and strengthens regional climate adaptation networking. The outline of the trainings was basically identical for all three training sessions. However, the technical area to be addressed differed per training.

⁵ ECRAN Climate Work Programme, Activity 4.1.b





⁴ ECRAN Climate Work Programme, Activity 4.1.c

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 was 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 planned to be organised in September 2016.







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 planning the implementation of their own country's climate change adaptation priorities
- Strengthened knowledge of workshop participants regarding practices in implementing climate change adaptation options
- Understanding of the need and possibilities to develop and apply appropriate monitoring and evaluation provisions for policy objectives and adaptation options.

To date three of the ECRAN beneficiary countries formally have a climate change adaptation <u>strategy</u> in place: Bosnia and Herzegovina, Kosovo^{*}, and Turkey. Turkey also has a Climate Adaptation Action Plan, as does Albania.







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 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 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.







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.







IV. Highlights from the training workshop

Day 1 – Podgorica, Montenegro, 9 June 2016

Results previous workshop – Rob Bakx (ECRAN)

After introducing the workshop objectives and programme outlines, with a focus on Step 4 (assessing and prioritising adaptation options) and Step 5 (implementation) of the Adaptation Support Tool (AST), speaker looks back at the February 2016 Step C workshop that was held in Ankara.

The Ankara workshop mostly dealt with the prioritisation of climate change adaptation options and was in general well-appreciated by its participants with an 86% score evaluated for the aspect of 'time well spent'.

The workshop contained three important work sessions comprising country-wise self-assessments of the:

- 1. Identification of adaptation options;
- 2. State of play with regard to prioritisation and implementation;
- 3. Application of multi-criteria analysis in prioritising adaptation options.

In the first work session each country made a list of its

more prominent identified adaptation options, to be used at the further workshop activities.

The assessment on the state of play in each country (work session 2) was held using the Adaptation Support Tool as a reference frame. As an average for all countries together, the estimated unofficial completion rates based on participants' best feel, give the following picture:

- Step 4 Preparing the ground (51%);
- Step 5 Assessing risks & vulnerabilities (48%).

Asked about their main successes participants mostly mentioned:

- Communication/decision making structures in place (AL, MK, ME, SR, TR);
- Adaptation Strategy approved (BA, KS, TR);
- Adaptation projects implemented (BA, SR).

As main weaknesses/gaps participants mostly indicated a lack of financial resources, human resources, data availability, and cooperation/coordination issues.

In work session 3, after explaining and discussing the multi-criteria analysis approach, participants applied this approach on the adaptation options that they had identified in work session 1. As was to be expected, country specific adaptation priorities were identified.









Latest Adaptation Developments – Maddalena Dali (DG CLIMA)

Commission Communication

Following COP 21 a Commission Communication on the implications of the Paris Agreement was published in March 2016. The communication inter alia deals with:

- Global goal on adaptation
- Adaptation as solidarity
- Support to most the vulnerable countries

A budget of € 14 billion in climate spending is foreseen, an increasing share of which will be invested in adaptation.

Bonn negotiations

During the May 2016 - Bonn negotiations, adaptation was on the agenda; moreover adaptation is mainstreamed in negotiations on global stock take and transparency.

Synergies between climate action, the Addis Ababa Action Agenda and the 2030 Agenda with its Sustainable Development Goals need to be exploited fully.

'Adaptation futures 2016'

At the 10-12 May 2016 'Adaptation Futures 2016' Conference held in Rotterdam (http://www.adaptationfutures2016.org/), over 1,700 scholars, practitioners, policymakers and business people from 110 different nationalities convened, aiming to move climate change adaptation forward by promoting solutions across sectors, borders and communities. More than 160 high level plenaries, roundtables, science and practice sessions took place covering 7 themes (including disaster risk reduction (DRR), health risk assessments, economics of adaptation, resilient infrastructure, water) and three cross-cutting issues. Conclusions were drawn with regard to:

- the <u>governance framework</u>: strong governance and local action go hand in hand. It is time to move forward to local action, but this will not be successful if not coordinated in a strong governance framework, expressed in a good plan;
- the road <u>from planning to implementation</u>: away from the scientific discussion and time for actual action
- <u>adaptation in financial decision making</u>: adaptation should be no longer regarded to be an environmental policy. It should move away from environmental policy, towards financial decision making

Covenant of Mayors

Coordinated support and peer-to-peer learning through networks of cities benefit climate action. In 2008, the Covenant of Mayors was launched: it focused on reduction of emissions (mitigation) and gathered almost 7,000 signatories in over 50 countries, representing 200 million inhabitants.

In 2014, Mayors Adapt (MA), an initiative on urban preparation to the impacts of climate change (adaptation) was launched, representing 30 million inhabitants and 150 signatory cities.

In 2015, European cities together with the EU have set up a new supporting initiative, the Covenant of Mayors for Climate and Energy

The new *Covenant of Mayors for Climate and Energy* integrates both mitigation and adaptation. Under this new Covenant's commitments, signatories pledge to:







- Reduce CO₂ (and possibly other GHG) emissions by at least 40% by 2030;
- Increase resilience by adapting to the impacts of climate change;
- Translate their political commitment into local results by developing local action plans and reporting on their implementation;

An update on the Monitoring & Reporting (M&R) framework for cities (within the CoM/MA) – the reporting template (both parts – mitigation and adaptation) will be finalised in June 2016 where after it will be published on the CoM website. The M&R template can be useful for any city (including

outside the EU), especially on adaptation as it is meant to serve as a tool and guide cities through the adaptation cycle helping them to identify what is missing, where more progress is needed, etc.

The Covenant of Mayors for Climate and energy has also gone global: a number of international secretariats have been and are being established in different regions of the world (see map).



Possibilities for the further broadening of the CoM initiative to the Balkans could be considered.

Resilient infrastructure

Since mid-2014 work with Standardisation Organizations has been carried out with regard to resilient infrastructure through:

- <u>Developing guidance to mainstream adaptation</u>, i.e. guidance or other type of documents that will ensure that adaptation to climate change can be taken into account in a systematic way in European standardisation, where relevant (*'guidance development phase'*);
- <u>Identifying</u> existing European <u>standards and</u> European <u>standardisation deliverables relevant</u> <u>to adaptation</u>, including those under development, that are most relevant for adaptation to climate change in the three priority sectors (*'programming phase'*);
- <u>Revising</u> identified European <u>standards</u> or European standardisation deliverables and draft new ones if deemed necessary, with a view to enhancing the resilience to climate change of the infrastructure they apply to, all <u>to promote resilient</u>

infrastructure ('standardisation phase').

The main objective of the standardisation is to contribute to building and maintaining a more climate-resilient infrastructure throughout the EU in the three priority sectors identified in the EU Strategy on Adaptation to Climate Change: transport infrastructure, energy infrastructure and buildings/construction.

This work is expected to take 6 years. In the meantime, the guidance work has been completed. The *'Guide for addressing climate change adaptation in standards'* was published in April 2016 (http://www.cencenelec.eu/standards/Guides/Pages/default.aspx).









Planning

Some of the adaptation activities that have been planned by DG CLIMA are:

- A report on the progress made in implementing the 2013 Adaptation Strategy (will be carried out in 2017, as indicated in the Adaptation Strategy.
- Development (in 2018) of a reinforced strategy in areas where the EU can add value.

On the way ahead the Commission will focus on:

- Sectors/approaches where it can add value: DRR, Water, Cities;
- Coherence with other international frameworks (Sendai, SDGs, Quito);
- A transparent and inclusive consultation process towards the development of the reinforced strategy.

Update on Climate Adapt and EEA developments – Kati Mattern (EEA)

Climate ADAPT has grown into a key tool for sharing adaptation knowledge across Europe.

A number of new reports with useful information have been or are about to be completed:

- Overview and analysis of adaptation platforms (May 2015);
- Monitoring and evaluation of adaptation policies at national level (end 2015);
- Urban adaptation (July 2016);
- Climate change impacts and vulnerability (September 2016, but possibly later);
- Disaster risk reduction and links to climate change adaptation (September 2017).

Over the past year the Climate-ADAPT website underwent а considerable number of improvements. Following the developments in the field, these include the upgrade of existing features and their content, as well as the inclusion of new features.

How to present the information according to the users' needs and their



capacities to understand and uptake the information is a crucial element that drives the efforts to improve the Climate ADAPT products.

According to user feedback in the Climate Change Committee, funded by DG CLIMA, in 2015/2016 a better overview on and map-based access to transnational, national and city level information has been developed.

The table below provides an overview of the improved and new features to the Climate ADAPT website from June 2015 to August 2016.





This Project is funded by the European Union



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CLIMATE-ADAPT website developments						
Website segme	Update	New				
FEATURES June	FEATURES June 2015 – August 2016					
<section-header></section-header>	Mayors Adapt City profiles		\checkmark			
Filter by zone Choose a Conjunction Choose	Mayors Adapt: Accessible via map-based search		\checkmark			
<section-header><section-header><section-header><section-header><text><text><text><text></text></text></text></text></section-header></section-header></section-header></section-header>	Presenting country and transnational information – improved overview and access	\checkmark				
Not Seek the dealbark Upley + Controls, regions, Coll + Dealbark + <thdealbark +<="" th=""> <thdealbark +<="" th=""> <</thdealbark></thdealbark>	Adaptation strategies and plans – improved overview and access	\checkmark				





















Climate ADAPT greatly values its interaction with users and information providers. Through its 5-year Work Plan is provides transparency and predictability about its activities to all stakeholders.

Page.





A project implemented by Human Dynamics Consortium Personal interaction with users inter alia takes place through EIONET meetings and webinars with users, e.g. on case studies. Personal interaction with information providers is also given shape through webinars, e.g. the research community (a new webinar is planned for the autumn of 2016).

Bimonthly newsletters provide for regular promotion of new content and functionalities.

Anyone is invited to share his/her experiences with other countries in Europe by submitting knowledge that will allow other European countries learn from.

Implementation of Adaptation, the Norwegian case – Gordana Petković (Road Authority, Norway)

Norway's climate projections have been updated following the IPCC's 5th Assessment Report. They canbe found in the report '*Klima I Norge 2100, Kunnskapsgrunnlag for klimatilpasning oppdatert i 2015'*. The basis for the calculations are the climate developments in Norway so far and the assumptions about future greenhouse gas emissions. Norway expects:



- More precipitation in most places and seasons;
- Heavy rainfall all over the country;
- Shorter snow season;
- Less snow in lower areas, eventually also in mountain areas;
- Generally more floods: larger rain floods, eventually less 'spring floods' from melted snow.

Due and detailed climate development information for all areas in the country is available which supports the possibilities for detailed climate projections.

Part of Norway's National Framework for Adaptation is the Norwegian Centre for Climate Services. Through a number of websites free access for information can be obtained, such as through:

<u>www.eklima.met.no</u> - access to weather- and climate data: historical, real time, forecast; <u>www.senorge.no</u> - daily updated maps of snow, weather and water conditions and climate.

The Centre also provides information with regard to ea level change for Norway, flood charts and flood projections, and short term precipitation.

After the identification or risks and vulnerabilities, as a first next step towards developing Norway's CC Adaptation Strategy, the country developed a White Paper on Adaptation to Climate Change in Norway⁶ (2013) allowing for the identification of adaptation options. The Paper inter alia included:

- Everyone has a responsibility to adapt to climate change: individuals, businesses, governments (state, regions, municipalities);
- Emphasis: good common knowledge base for adaptation;

⁶ White Paper no. 33 (2012-2013)







- Strengthen knowledge through collaboration across sectors and levels of management /government;
- Adaptation should aim at the high projection of climate change.

The White Paper de facto represents Norway's National Strategy for Adaptation with three leading principles:

- 1. The **responsibility principle** entailing that the agency that is responsible for a specific area in a normal situation is also responsible for handling extraordinary events within this area.
- 2. The **similarity principle** meaning that the organisation used during a crisis should be as similar as possible to the organisation used on a day-to-day basis.
- 3. The **proximity principle** meaning that a crisis should be handled at the lowest possible organisational level.

Following the principles in the White Paper, adaptation measures can increasingly be found in strategies, plans and policies of authorities at all levels. In the following we will briefly address the sectors:

- Transportation roads
- Transportation navigation
- Agriculture & Forestry
- Fisheries & Acquaculture
- Water management & Energy

Transportation - roads

Main responsible authority in this area is the Norwegian Public Roads Administration (NPRA).



Following the Ministry of Transportation's 'Strategy for public security in **Statens vegvesen** transportation', which includes the issue of adaptation to climate change, the

NPRA developed a 'Strategy for Public Security and Adaptation to Climate Change', which as major elements:

- Plan, design and build more robust new infrastructure;
- Manage the existing road network in a better way;
- Be better prepared for extreme events;
- Improve our knowledge base!

In to **implement the strategy** further detailed steps had to be taken. As an <u>example</u>, the implementing action required for the first major element mentioned above ('*Plan, design and build more robust new infrastructure'*) is explained. Implementing actions inter alia include:

- Revise design rules;
- Develop better climate projections;
- Carry out vulnerability analysis when planning infrastructure;
- Etc.

We will focus on the first action ('Revise design rules') and ask ourselves the following questions:

1. Who does what?





- 2. By which time?
- 3. What are the costs?
- 4. How do we follow the work?

The answer to these questions can be rather easily given in a table, like the one below.

	Responsibility	Cost	Time	Priority
Revise design rules:				
Status – list of documents that need to be revised	Technology dept.	10'	Jan 2017	1
Decide the revision ammendments	Technology dept.	20'	May 2017	1
Edit and publish the revised documents	Respective dept's	10'	Jan 2018	1

As concerns costs it will be important to carry out a cost-benefit analysis.

Per responsibility (see 2nd column) it will be important to draw up a monitoring plan that will ensure regular reviews of the status, discrepancies, etc. To be able to know whether any progress is actually being made, it will be needed – as part of the monitoring plan – to define progress <u>indicators</u>.

Some examples of indicators for the road transport sector (not directly linked to the above example) can e.g. be (categorised):

Realised impact:

- number of road closures, costs of closure or repair

Exposure indicators:

- km roads exposed to landslide or flood risk

Vulnerability indicators:

- number of vulnerable points, not yet treated

Action:

- have we managed to complete our action plan?
- are we getting the budgets we need?

Transportation - navigation

The Norwegian Coastal Administration (NCA) manages approximately 20,825 navigation units and about 1,300 quays and breakwaters in connection with state fishing ports. The most prominent climate change adaptation issues it faces are:

- more accidents at sea;
- changing demands on infrastructure and vessels;
- need for knowledge and preparedness for acute pollution.

NCA's 'Climate & Environment Strategy' sets out the course for climate and environmental work. The aims for climate change adaptation are:









- integrate climate issues in:
 - new infrastructure projects; and
 - in operations and maintenance budget;
 - ensure that service levels are maintained;
- conduct risk and vulnerability analyses as a basis for climate adaptation.

What is the top priority and how can these aims be achieved?

A possible indicator that was identified is a 'cut in the maintenance back-log'.

	Time	Responsible
Adapt to a changing climate		
Introduce climate adaptation in	2016	Dept. A &
all maintenance plans		reg. offices
Improve documentation of	2017	Dept. B
weather events		
Carry out vulnerability analyses	2017	Dept. C

Water Management & Energy

Norway's Water Resources and Energy Directorate's (NVE) strategy is to ensure:

- management of watercourses comprehensive and environmentally friendly;
- an effective and evidence-based license processing for power plants production and transmission of energy;
- efficient production, transmission, sale and use of energy;
- that emergency preparedness in the power supply is good;
- communities' ability to deal with flood and landslide risks.

Particular focus is given on management areas where climate change is expected to have particularly serious consequences. NVE's work in climate change adaptation includes all its areas of responsibility as well as facilitation of cross-sectoral cooperation. According to its 'Climate Adaptation Strategy' NVE needs:

- High professional competence and a good data basis + network, research, and collaboration with other state agencies;
- Provide robust recommendations for future flood levels, harmonized with sea level rise, storm surge and heavy rain;
- Etc.

Through an internal discussion on the responsibilities of each respective organisation entity, agreement was reached on breaking down concrete tasks, identifying responsible persons and budgets for each task, the time span of realisation of actions, etc. This led to the develoment of a comprehensive overview of tasks, which functions as a basis for monitoring.



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	Responsible section	Involved section	Time	Prio.	Comment
Complete climate profiles for all regions in Norway	Section 1	Sections 2, 4, 6	2016	1	It is realistic to complete 10 profiles

Agriculture & Forestry

The Norwegian Agriculture Agency has the following responsibilities:

- Management of agricultural grant schemes for agribusiness;
- Legal policy instruments, control and documentation;
- Gather knowledge, monitor trends...;
- Dissemination of agricultural and food policy;
- Dissemination of expertise to regional and local management.

In the area of climate challenges agriculture is considered to be part of the solution, which was already reported in 2009. From a sector perspective climate change is not only seen as a threat, it also brings opportunities. Higher temperatures will be beneficially to production conditions. With the period 1961 – 1990 as a reference, it is e.g. expected that in the period from 2071 – 2100 the annual

growing season of grass will increase by 60 to 120 days. This kind of change in production conditios require the development of new expertis in the sector.

The changing climate will also require attention for:

- Better stormwater management, better drainage;
- Perform risk analyses landslides, floods;
- Preserved water quality in wetter conditions;
- Long growing season requiring adjustements (e.g. fertilisation etc.);
- Surveillance for prevention of spreading of various pests. Notification procedures...

Compensation for climate related damage is only given if advice on drainage and on climate adapted species is followed.

Agriculture & Forestry

Fisheries and acquaculture fall to the responsibility of the Ministry of Trade, Industry and Fisheries. In its 'Climate Strategy' this Ministry recognises adaptation options for the fisheries and acquacultural sector. The strategy identifies a series of research needs: impacts of climate change on ecosystems,



Landbruksdirektoratet







fish health, food safety, food industry etc. and addresses monitoring through better documentation of changes and better planning.

It furthermore urges to implement knowledge into planning and management, and into the design of harbours and aquaculture facilities, as well as to design a surveillance programme, decide on fishing quotas etc.

The strategy also aims to ensure robust maritime structures, to improve facilities and infrastructure to safeguard fish. In the area of aquaculture it calls for research on climate adapted feed and vaccines, disease surveillance are other measures, and climate labeling (branding) of feed.

Coordination and monitoring

The Norwegian Environment Agency (Miljødirektoratet) carries responsibility for the coordination and monitoring of the the national adaptation work. The Agency is not only responsible for coordination of climate change adaptation activities (in support of the Ministry of Climate and the Environment), but also for the work on indicators in order to be able to monitor progress.



Through the Agency monitoring support is rendered to municipalities. Mucipalities submitted a considerable number of application for support, 30 of which were approved. Reports will be a way of monitoring CCA.

Entry points, stakeholder and action planning – Peter Heiland (I & U, Germany)

Strategies, plans and programmes are only of use, if they are actually **implemented**. The Adaptation Support Tool recognises three main elements that play a role in implementing selected adaptation options:

- 1. Mainstreaming: identify and make use of entry points for adaptation;
- 2. Seek agreement with stakeholders responsible for implementation;
- 3. Develop an action plan.

Mainstreaming

What does 'mainstreaming climate change adaptation' mean? According to 'Mainstreaming, a Practitioner's Handbook'⁷ mainstreaming means:

- describing a process of considering climate risks in many different sectors, policies, activities, decision making, projects;
- adjusting sector activities and project activities and approaches to address risks of CCA and make them robust for CC;
- different from a 'targeted' community-based adaptation project, where the explicit goal is to build resilience to climate change.

Mainstreaming climate change adaptation can achieve 2 main objectives:

⁷ CARE International in Vietnam, 2009





- ensuring that plans, programmes or project activities maximise their contribution to adaptive capacity of target populations
 - and do not increase vulnerability to climate change
 - but contribute to build resilience while achieving development goals
- reducing the risks posed by climate change to decision making, investments or project activities, stakeholders, and results
 - sometimes referred to as 'climate-proofing'

When mainstreaming it is important to identify and make use of entry points for adaptation into existing instruments and / or create new instruments. Adaptation should not be performed in isolation from existing policies, management structures and processes. To allow synergies, instruments in place with relevance for adaptation should:

- be reviewed and modified
- to cope with current and future impacts of climate
- including better considerations for disaster risk management practices.

Integrating adaptation through reviewing and modifying existing instruments shall:

- not be restricted to the environmental sector or to the public authority
- also refer to economic sectors and private organisations.



The table below shows an overview of instruments that can possibly be used in support of implementing climate change adaptation.







Categories	Instruments
Legal instruments	laws, regulations, policies, decrees, guidelines, standards
Economic instruments	taxes, fees, tax incentives, funds, grants, interest- free loans, public procurement, negotiations, compensation
Informational instruments	studies, brochures, websites, campaigns, events, labels, training
Partnership instruments	voluntary agreements among companies, partnerships, collaborative projects, stakeholder consultation, commissions
Hybrid planning / strategic instruments	plans, strategies, action plans, programmes

It is important to identify instruments that are already in place and only then to start thinking about the need for additional new instruments to be developed. When determining the need for action with respect to modifying existing instruments, all instruments shall be assessed in terms of their suitability to integrate adaptation by checking them against preferred adaptation options and answering the following questions:

- Which adaptation options are already covered by existing instruments and how? If covered, is the instrument sufficiently addressing the option's objective? Are any modifications necessary?
- Which adaptation options could be covered by existing instruments if the aspect of adaptation was added? Who needs to be consulted for the modification and what efforts are needed?
- What prevents / impedes the integration of adaptation into existing instruments? How can these conflicts be resolved?
- Which adaptation options cannot be implemented through existing instruments and must be facilitated by establishing new instruments?

The Commission's Adaptation Preparedness Scoreboard contains hints on instruments that support implementation of adaptation action (see the cut-out of the scoreboard below).

			8a	Consideration of climate change has been included in the national frameworks for environmental impact assessments
	8	Climate change adaptation is mainstreamed into priority and key national planning and sectoral policymaking	8b	Prevention/preparedness strategies (e.g early warning systems) in place under national disaster risk management plans comprehend current and projected climate extremes
			8c	Key land use and resource management planning policies take into account the impacts of climate change
Step 4: Implementing			8d	National policy instruments promote adaptation at sectoral level, in line with national priorities and in areas where adaptation is mainstreamed in EU policies
adaptation action			8e	Adaptation is mainstreamed in insurance or alternative policy instruments, where relevant, to provide incentives for investments in risk prevention
			9a	Adaptation policies and measures are implemented, e.g. as defined in action plans or sectoral policy documents
			9b	Cooperation mechanisms foster and support adaptation at relevant scales (e.g. local, subnational)





Instruments have strong and weak sides and generally have their own ideal area of application. The table below gives a more comprehensive insight in these aspects.

	INSTRUMENTS – WEAK AND STRONG SIDES
	LEGAL
Strong	 Strong and rapid controlling effect Effective achievement of Objectives
Weak	 Unpopular / politically risky Inflexible in achieving objectives; requires monitoring Often complicated and expensive to implement (for the regulators and the regulated)
Ideal for	Ensuring a minimum standardEmergency situations
	ECONOMIC
Strong	 Behaviour control through economic incentives rather than bans / requirements Makes use of market mechanisms, flexible in implementation
Weak	 Unpopular (taxes) or expensive (grants) Achievement of objectives is not always ensured because behavioural changes are uncertain
Ideal for	 Fostering innovation Creation of niche markets Alternative to legal instruments
	INFORMATIONAL
Strong	 Apolitical, unproblematic because of cost-effectiveness and limited interference in personal freedoms Fosters awareness and individual responsibility
Weak	 Only indirect and frequently weak or uncertain effects Effectiveness is difficult to assess
Ideal for	 New problems whose resolution is in the self-interest of individuals Promoting awareness
	PARTNERSHIP
Strong	 Politically unproblematic because not mandatory Pools resources of several actors Cost-efficient for the public sector
Weak	 Complex process (high transaction costs) Achievement of objectives uncertain Often ineffective
Ideal for	Problems that one actor alone cannot solve because of a lack of resources (e.g. money, knowledge, contacts)
	HYBRID PLANNING / STRATEGIC
Strong	 Facilitates a holistic view Presents an overview and establishes connections Combines several instruments, exploiting their strengths and avoiding their weaknesses
Weak	 Implementation is often difficult (due to low levels of political interest over longer periods) Requires the cooperation of several actors
Ideal for	Systematic approach to the solution of complex problems

 ${}^{\rm page}24$





The <u>starting basis</u> for the identification of possible entry points are the <u>characteristics of each</u> <u>adaptation option</u>.

Stakeholder Agreement

To secure implementation of your strategic framework on adaptation, close collaboration and agreements will be needed with all affected stakeholders which includes:

- Identifying and appointing roles and responsibilities for implementing selected adaptation options (including the private sector);
- Developing and agreeing upon a detailed timetable for action including a timeframe for revision;

Estimating resources needed for implementation and seeking to allocate sufficient budget (if possible) within the chosen timeframe of the strategy.

What are the most difficult contras of stakeholders? Do stakeholders consider adaptation to be attractive with e.g. arguments like 'freedom to develop', 'growth', 'extension/increase', 'individual ideas'.....

Or are stakeholders the opinion that adaptation is not attractive with e.g. arguments like 'restrictions', 'recommendations', 'changes', 'uncertainty', 'additional costs',



To involve stakeholders, never ask 'What do you need?', but ask 'What will you contribute to the Adaptation Action Plan and its implementation'?

Opportunities and chances form important entry points, like combination with mitigation (in public debate), low (no-)regret measures, funds for combined measures, using windows of opportunity, etc.

Examples of windows of opportunity include:

- National planning, and regulation, zoning ...
- Public-private partnerships
- Fiscal revenues
- Enabling and mobilization
- Low-cost / no-cost actions
- Extreme events ...
- Integrating climate change adaptation with disaster risk reduction
- Scoping an assessment exercise

All relevant sectors, stakeholders, policy makers are to be involved, including top and medium level management, multipliers, champions and networkers.

Ways of involvement include:

- Informing;
- Consulting;
- Collaborating;
- Deciding;
- Controlling.

Develop an action plan

This third and final implementation step is elaborated under workshop Day 2









WORK SESSION 1 – Adaptation instruments

In a break out session the participants of each country listed – to their best knowledge – their country's already existing and required adaptation instruments.

Country groups also defined actions to be taken with regard to existing and required instruments. The results of the work were presented by posting them to the wall of the main conference room, allowing other country groups to take note of them. The full overview of the work session results can be found in <u>Annex 2</u> to this report.

Each country group was supported by an external facilitator from EU Member States or institutions/ initiatives, as follows:

- Albania Maddalena Dali (DG CLIMA, Belgium)
- Bosnia & Herzegovina Dragana Bojović (CMCC, Italy)
- The former Yugoslav Republic of Macedonia Peter Heiland (U & I, Germany)
- Kosovo* Višnja Grgasović (Ministry of Environment, Croatia))
- Montenegro Kati Mattern (EEA, Denmark)
- Serbia Gordana Petković (Road Authority, Norway)
- Turkey Patrycja Ener (Deltares, Netherlands)

Monitoring and evaluation: identifying indicators – Imre Csikós (ECRAN)

The presentation focused on the effects in case of a 2° Celsius rise of global temperature, on monitoring and evaluation of adaptation measures/methods, and on the identification of indicators for climate change adaptation action.

The Paris agreement contributed to reducing the probable rise of global mean temperature beyond 4° С by 80%, expectedly limiting this rise to $2.7 - 3.5^{\circ}$ Celsius. То keep climate change under control it will however be needed to keep temperatures well below a 2° C rise.



The impacts of current GHG emissions are immense:

- 2 billion people suffer from increasing water scarcity;
- 10-12 billion people/year are exposed to heatwaves;
- Cooling demands have doubled;
- 70-90 million people/year are affected by flooding rivers;







- 50% of plant species are in jeopardy or disappearing, which is half of the habitat;
- 60% of crop lands are less suitable for agriculture.

Global heating also brings a number of benefits, but pros and cons widely vary among regions. In the Western Balkans temperatures are expected to rise with $3.5 - 4^{\circ}$ C by the year 2100. The region emerges as one of the planet's Warming Hot Spots, with:

- more frequent heat waves, escalating to as much as 80% of summer months;
- the mean average summer temperature could climb **to 7.5° C** above pre-industrial times. As climate warms the area's **Small Glaciers will be gone** within decades;
- rainfall is projected to decline 20–30%;
- the increasing occurrence (by 20%) of **drought days** will be a major threat to agriculture;
- water availability in summer is expected to decrease through the century;
- winter and spring flood risk is expected to increase, particularly along the Danube, Sava and Tisza rivers;
- **crop yields in the former Yugoslav Republic of Macedonia** alone could drop by 50% by 2050 as the temperature climbs;
- hydropower which plays an important role in the region's electricity supply, will be at risk. In Albania for example the annual average output from large hydropower plants could be reduced by 15% and 20% for smaller plants;
- **health risks** will grow as the climate warms with the growing threat of dengue fever. Heat-related mortality would increase 20% to 1,000 per million people.

Principles	Description
Effectiveness	An effective intervention is one that achieves its stated objectives: reducing risk, building adaptive capacity or increasing resilience. An 'effective' adaptation is flexible – to change in response to altered circumstances–and therefore robust against uncertainty.
Efficiency	cost-effectiveness of a particular project.
Equity	socio-economic factors. Successful adaptation actions should not reinforce existing inequalities between communities, sectors or regions.
Legitimacy	Decisions must be accepted by participants and non- participants that are affected by these decisions
Sustainability	looking beyond project duration and its immediate impact.

Principles of successful adaptation exist and are set out in the following table.

Any adaptation action requires monitoring and evaluation (M&E). In its Step 6 the Climate ADAPT tool (<u>http://climate-adapt.eea.europa.eu/knowledge/tools/adaptation-support-tool/step-6</u>) provides guidance on monitoring and evaluation. Objectives of monitoring and evaluation include:

- Tracking and reporting of adaptation policy progress and effectiveness;
- Learning, to improving adaptation policies, policy-making and practices;
- Increasing accountability by providing evidence of policy effectiveness and to assess whether or not adaptation investments represent an appropriate use of public funds (efficiency);
- Improve knowledge/awareness and communication.

Essential building blocks for effective monitoring and evaluation inter alia include:







- <u>Legal and Institutional</u>: appropriate M&E provisions for both your adaptation policy's objectives and selected adaptation options;
- <u>Legal and Institutional</u>: all stakeholders with a role and responsibility for implementation are involved in the M&E process;
- <u>M&E Methods</u>: the M&E approach is tailored to the type and scale of activity and the purpose is clearly communicated and agreed;
- <u>Indicators</u>: Appropriate indicators are developed.

A number of suitable M&E methods can be distinguished, as indicated in the table below.

M&E Methodology	Focus on	Approach
Risk, Cause-Impact evaluation	Vulnerability assessment	Elements of adaptive risk
		evaluated against a set of
		indicators
Evaluation of Institutional Change	Good governance, management	Benefits of new management
and management processes	change, awareness and	practices in terms of
	participation of stakeholders	empowerment and ownership of
		actions
Input-Output-Outcome evaluation	Effectiveness	Elements of adaptive capacity
		evaluated against a set of
		indicators
Economic evaluation	Efficiency	Benefits of adaptation is
		measured in terms of economic
		costs

In any monitoring and evaluation approach indicators to monitor and evaluate against are an indispensable element, relating to intervention logic practice.

Indicators:

- Should be associated with the outcome (results, immediate objectives and wider objective);
- They should be 'SMART': <u>Specific</u>, <u>Measurable</u>, <u>A</u>chievable/Accurate, <u>R</u>ealistic, <u>T</u>ime bound;
- In more simple terms: 'What', 'where', and 'when'.

Example 1

Outcomes	Indicators
Wider Objective: <i>Economic and social integrity of area maintained under more water stress</i>	GDP growth (<i>what?</i>) in area xyz (<i>where?</i>) in period To – Tn (<i>when?</i>)
Immediate objective: <i>Housing areas maintained, Flooding risk contained/decreased</i>	Flood risk reduced <i>(what?)</i> from 1 occurence in 10 years to 1 in 500 years in area xyz <i>(where?)</i> as from year To <i>(when?)</i>
Result 1: Increased Room for water in river bed	 Nr of relocated housing from floodbed completed in year To Floodplain on location xyz increased from x ha to x+y ha in year To



Example 2





Outcomes	Indicators
Wider Objective: <i>Economic and social integrity of area maintained under more water stress</i>	GDP growth (<i>what?</i>) in area xyz (<i>where?</i>) in period To – Tn (<i>when?</i>)
Immediate objective: <i>Housing areas maintained, Flooding risk contained/decreased</i>	Flood risk reduced (<i>what?</i>) from 1 occurence in 10 years to 1 in 500 years in area xyz (<i>where?</i>) as from year To (<i>when?</i>)
Result 2: Protective dikes	 Km of new dike on location xyz by year To Km of restored or reinforced dike on location xyz by year To

For inspiration a number of potential elements of indicators for specific sectors is included in the following table.

POTENTIAL ELEMENTS OF INDICATORS – SECTOR SPECIFIC				
Damage Reduction				
Infrastructure assets in flood risk areas with 'significant' risk of flooding (fluvial, coastal and				
pluvial) taking into account level of protection				
Number of properties subject to unplanned water supply interruptions of 12 hours or more				
Water Supply				
Available water resources				
Water saved through demand management measures				
Take up of water efficient technologies				
Health and well-being				
Reduced summer mortality during heatwaves				
Hospital admissions for temperature-related causes				
Change in the extent of urban greenspace				
Housing type and age				
Built environment and natural environment				
Green versus manmade cover (proxy)				
Changes in abundance of climate sensitive species				
Nutrient levels in rivers and lake				
Number of forest fires				

Work Session 2: Country self-assessments – AST, Step 6

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 step 6 of the Adaptation Support Tool. The assessment followed a template based on the AST and APS.

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.







By the end of the break out session the country groups prepared a brief feedback session and presented this to the plenary workshop, informing the other country groups of important findings in terms of successes, improvements and gaps.

State of play June 2016		Completion of adaptation actions (as per AST) in % as estimated by country groups						
	A	& VINA	*C	W	GRO	7	٨	36
STEP 6 – Monitoring & Evaluation	ALBANI	BOSNIA HEREZEGO	KOSOV	The fYRc	MONTENE	SERBIA	TURKE	AVERAG
6.1 Appropriate M&E provisions for both your adaptation policy's objectives and selected adaptation options developed	5	51	0	50	30	70	100	44
6.2 All stakeholders with a role and responsibility for implementation are involved in the M&E process	0	75	10	40	-	70	80	39
6.3 The M&E approach is tailored to the type and scale of activity and the purpose is clearly communicated and agreed	0	30	0	50	5	15	90	27
6.4 Appropriate indicators developed	10	25	0	70	10	10	95	31

The figures estimated by the workshop participants, show that by June 2016 the ECRAN beneficiary countries, as an average have completed approximately one third of the actions needed for the completion of step 6 that is part of the Adaptation Support Tool.

With regard to Step 6 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	biay June 2016				
Identification of most important and most urgent actions to be taken					
	Most Important	Most urgent			
V	STEP 6 – Monitor	ing & Evaluation			
ALBAN	 Detail the Action Plan matrix Detail the list of stakeholders and responsibilities in M&E 	- Detail the Action Plan matrix			
NA	Most Important	Most urgent			
A &	STEP 6 – Monitor	ing & Evaluation			
BOSNI	 Putting M&E into practice Develop indicators for CCA 	- Better definition of M&E (when, who)			
	Most Important	Most urgent			
	STEP 6 – Monitoring & Evaluation				
KOSOVO*					







	Most Important	Most urgent				
_ ₹	STEP 6 – Monitori	ing & Evaluation				
The fYR of MACEDONI	 Regular Impact Assessment (processing of collected data – qualitative and quantitative assessment) More detailed Work Plan for time schedule and resources 	 Systematic involvement of the stakeholders Developing formal links of communication (CC Committee for Communication) 				
RO	Most Important	Most urgent				
BEI	STEP 6 – Monitori	ing & Evaluation				
MONTEN	 Development of National Adaptation Plan following the guidelines of UNFCCC and EU 	- To improve public awareness				
	Most Important	Most urgent				
	STEP 6 – Monitoring & Evaluation					
SERBIA	 Define indicators for M&E of adaptation measures; not regular job of gov. institutions Define institutions responsible for M&E Put M&E into system (establish a routine) Increase cross institutional and cross sectoral communication 	- Develop MMR law				
	Most Important	Most urgent				
	STEP 6 – Monitori	ing & Evaluation				
TURKEY	 According to the scientific studies executed by the institutions and ongoing data collection, the new indicators will be completed 	 Revisions and review of the adaptation action plans and strategy according to changing situation in the context of climate change 				

Annex 3 to this report provides for additional information regarding the state of affairs under step 6, and the assumed needs for further action.

Day 2 – Podgorica, Montenegro, 1 June 2016

For the second day of the workshop, work sessions were planned with a view on identifying indicators and preparing action planning materials for the implementation of prioritised adaptation options. The action planning work to be preceded by an explanatory presentation.

Work session 3: Identification of Indicators

Under Work Session 3 participants were invited, with their own country group, to identify indicators for selected adaptation options. As appropriate this exercise could link to the country findings regarding adaptation options in the Step C workshop. The results were written on flipcharts, posted to the wall of the main conference room and discussed with the experts in the plenary session.







The results of the work session are presented in Annex 4 to this report. As may be understood from that Annex further capacity building on indicators development seems indicated. Good steps have been set, but skills in this area require further refining.

Developing an action plan – Peter Heiland (I & U, Germany)

Action planning is the third element of Step 5 ('Implementation') of the Adaptation Support Tool. When developing an action plan the following issues should be addressed:

- Ways for implementation of preferred adaptation options and including opportunities and synergies;
- Roles and responsibilities, explicitly considering the need for coordination between authorities at all levels;
- Detailed timetable for implementation and provisions for revision;
- Estimation of human and financial resources needed;
- Funding possibilities;
- Open research questions and ways to close knowledge gaps;
- Potential barriers to action and mechanisms to overcome these;
- Mechanisms to monitor and evaluate the implementation success.

In more simple terms one might say that the core of an Action Plan consists of an answer to the questions: 'What', 'who', 'how' and 'when'?

Example 1 – Reduce water consumption in the agriculture sector

- <u>Adaptation objective</u> → reduce water consumption in agriculture
- <u>Strategy</u> → water saving agriculture + irrigation concept
- <u>Adaption options</u> → e.g. less water-intensive crops in draught areas, improve effectiveness of irrigation systems …
- Action for Implementation → forbid certain crops in draught areas, raise awareness & funds for improved irrigation systems
- Instruments \rightarrow laws to forbid ..., funds for ..., information ...
- <u>Ressources</u> → ministry of agriculture, agri-cooperations ...
- <u>Timeframe</u> → until 2017
- <u>Responsible</u> \rightarrow Ministry for agriculture
- <u>Action Plan</u> \rightarrow one action = all of above






Example 2 – Reduce heat effects in urban areas

•	Adaptation	objective >	reduce h	neat effects	in effected cities
		-			

- <u>Strategy</u> → create 15% of urban surface as green space ...
- <u>Adaption options</u> → create cooling elements at buildings, more water in cities, more parks, unseal surfaces
- <u>Action for Implementation</u> → inform investors & architects about cost-effective solutions, raise awareness, building-standards ...
- Instruments → information, funds for ..., improved standards ...
- <u>Ressources</u> → persons + budget for information, funds, …
- <u>Timeframe</u> → until 2020
- <u>Responsible</u> → ministry of urban development & buiding
- <u>Action Plan</u> → one action = all of above

An Action Plan could be seen as a Road Map that shows how to move from an idea to a realised measure.

WHAT?	Action	Ways for implementation preferred adaptation options	including opportunities and synergies
WHO?	Responsible + involved	Roles and responsibilities	explicitly considering the need for coordination between authorities at all levels
WHEN?	Timeframe	Detailed timetable for implementation	and provisions for revision
HOW?	Ressources + Instrument	Estimation of human and financial resources needed	and instruments in place or missiong
FUNDS?	Funding options	Possible funds	and where to apply
KNOW- LEDGE		Open research questions	and ways to close knowledge gaps
BARRIERS?		Potential barriers	and mechanisms to overcome these
SUCCESS?	M&E	Mechanisms to monitor and evaluate, indicators	the implementation success

Example 3 – Template of an action plan (tabular form)









Example 5 – Cut out from Action plan

Selected actions to implement selected adaptation option			Detailed description / information of identified / selected actions						
No	Adaptation option to be imple- mented	Actions to be taken	Comment / explanation for implementation	Relevant ongoing or planned projects or activities / research	Time horizo n for compl etion	Respo nsible institu tion (invol ved)	Priortiy of action	Success indicator	Comments e.g. ressources / preconditions / bottlenecks / cross-sectoral synergies or dependencies / instruments
24	Increase green roofs and green walls in cities suffering heat problems	Review and improve building act, standards for construc- tions	For certain cities and / or parts of cities strict regulations shall require greening of roofs etc. to improve cooling effects	Research projects on the effects of green roofs on heat island situations; environment agency, 2015 - 2017	medium term (<2020)	PB; DoUP; DoEnv (see abbr. above)	HIGH	area of green roofs per km²	Legal situation has to be reviewed; legal study on restrictions regarding possibilities to restict roof contructions to be clarified. Synergies with water retention to be evaluated.
		Funding programme for green roof contructions	National or regional funds shall be set up; applicants can be cities or investors	none	long term (<2025)	PB; DoUP; DoEnv (see abbr. above)	LOW	area of green roofs per km²	Budgets to be made available by national level. Set up funding programme at regional or national level.







WORK SESSION 4 – Action plan for priority adaptation options

In Work session 4 participants, in their own country groups, elaborated on preparing an outline for an action plan for their own country, using their own selected country adaptation options, linking as much as possible to the indicators they selected in works session 3, as well as to assumed stakeholders for each option.

The results of the group discussions were written on flipchart paper and presented and discussed in plenary with the workshop experts. The results showed that in general a beginning of understanding of action planning is in place, but also that further refining of the skills in this area would be beneficial for the development of more robust plans.

The flip-chart results of this work session are presented in Annex 5 to this report.







V. Evaluation

Statistical Information

62% of the evaluating participants indicated that their expectations were fully met as concerns the workshop objective on 'enhanced understanding about planning the implementation of their own country's climate change adaptation priorities'. An additional 38% indicated that expectations in this area were partially met.

Equal scores were obtained with regard to 'strengthened knowledge of practices in implementing climate change adaptation options'.

Only slightly different were the scores for the objective of 'understanding the need and possibilities to develop and apply appropriate monitoring and evaluation provisions for policy objectives and adaptation options'. Expectation were fully met among 69% of the participants and partly among 29%.

An overall total of 92% of the evaluation scores regarding the quality aspects of the workshop such as presentations, facilitators, and logistics, obtained the marks 'excellent' (48%) to 'good' (44%) with 7% scoring 'average', and 1% 'acceptable'. No less than 91% of all participants indicated that they found the workshop 'time well spent' ('excellent' or 'good') with 9% scoring 'average'.

Expectations



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







Workshop and Presentation



Regarding workshop quality and logistical aspects participants scored as follows:







ANNEX 1 – Agenda

Thursday 9 June 2016

Topic:	Topic: Implementation, Monitoring and Evaluation of Adaptation Options (STEP D workshop)					
Moder	ators: Ro	b Bakx, Imre Csikós				
Start	Finish	Торіс	Speaker(s)	Sub topic/Content		
09:00	09:30	Registration				
09:30	09:45	Welcome and Introduction	Rob Bakx Moderator, ECRAN	 Introduction participants Step D workshop: the focus Programme outline and logistics 		
09:45	10:00	Results of previous workshop	Rob Bakx Moderator, ECRAN	 Summary of findings and conclusions of February 2016 workshop Countries' progress 		
10:00	10:15	Latest adaptation developments	Maddalena Dali European Commission, DG Clima	 Brief update of workshop participants on latest developments in EU context Questions and answers 		
10:15	10:30	Update on Climate- ADAPT and EEA developments	Kati Mattern European Environment Agency	 Brief update on latest developments regarding Climate-ADAPT and EEA developments Questions and answers 		
10:30	11:15	Implementing the Adaptation Strategy - the Norwegian case	Gordana Petkovic Road Authority, Norway	 Preparing for implementation Implementation planning Monitoring and evaluation of implementation progress Questions and answers 		
11:15	11:30	Coffee Break				
11:30	12:30	Implementation: Entry-points, stakeholders and action planning	Peter Heiland Infrastruktur & Umwelt, Germany	 Implementation instruments Review/update of instruments Seeking stakeholder agreement Implementation roadmap/ plan Questions and answers 		
12:30	13:30	Lunch Break				
13:30	15:00	WORK SESSION 1 In-country discussion	Rob Bakx and Imre Csikos Moderators, ECRAN <u>Facilitators:</u> (one per country)	Break-out session (7 country groups) Per country group: In-country discussion defining existing and required instruments		
			Linda Romanovska, Kati	for adaptation		







			Mattern, Maddalena Dali, Dragana <u>Bojović</u> , Gordana <u>Petković</u> , Patrycja Enet, Višnja Grgasović, Peter Heiland	 Defining actions to be taken with regard to existing and required adaptation instruments Prepare reporting materials and concise presentation for plenary feedback (use templates that will be provided) 	
15:00	15:15	Coffee			
15:15	15:45	Monitoring and Evaluation	Linda Romanovska Mayors Adapt, Latvia	 Monitoring & Evaluation tools How to identify indicators Questions and answers 	
15:45	17:00	WORK SESSION 2 Country self- assessments	Rob Bakx and Imre Csikos Moderators, ECRAN <u>Facilitators:</u> (one per country) Linda Romanovska, Kati Mattern, Maddalena Dali, Dragana Bojović, Gordana Petković, Patrycja Enet, Višnja Grgasović, Peter Heiland	 Break-out session (7 country groups) <u>Per country group</u>: Focus is on indicators for 'Monitoring and Evaluation' In depth country discussion and self-assessment inspired on AST and Adaptation Preparedness Scoreboard (supporting materials will be provided) Prepare reporting materials and concise presentation for plenary feedback (use templates that will be provided) Plenary feedback 	
17:00	End of D	ay 1			
Countr	Countries are invited to submit specific technical questions/issues that they want to discuss with one of the workshop experts at the clinics on day 2 of the workshop.				







Friday 10 June 2016

Topic:	Topic: Implementation, Monitoring and Evaluation of Adaptation Options (STEP D workshop)				
Start	Finish	Topic	Speaker(s)	Sub topic/Content	
09:00	09:15	Registration	L		
09:15	10:30	WORK SESSION 3 Identification of indicators	Rob Bakx and Imre Csikos Moderators, ECRAN <u>Facilitators:</u> (one per country) Linda Romanovska, Kati Mattern, Maddalena Dali, Dragana Bojović, Gordana Petković, Patrycja Enet, Višnja Grgasović, Peter Heiland	 Country groups identify indicators for selected adaptation options (link to findings in workshop Step C) Identified indicators are shared with all other country groups Country groups discuss applicability of indicators of other countries on their own situation and add them as appropriate Plenary feedback through flipcharts, posted to the wall 	
10:30	10:45	Coffee Break			
10:45	11:10	Developing an action plan	Peter Heiland Infrastruktur und Umwelt, Germaany	 Action plan models Setting the timetable SMART actions Questions and answers 	
11:10	12:30	WORK SESSION 4 Action plan for priority adaptation options	Rob Bakx and Imre Csikos Moderators, ECRAN <u>Focilitators:</u> (one per country) Linda Romanovska, Kati Mattern, Maddalena Dali, Dragana <u>Bojović</u> , Gordana <u>Petković</u> , Patrycja Enet, Višnja Grgasović, Peter Heiland	 Break-out session (7 country groups) <u>Per country group</u>: Groups prepare an outline for an <u>action plan</u> for their country regarding their selected adaptation options and linking to their selected indicators and assumed stakeholders In depth country discussion and conclusions 	
12:30	14:00	Lunch Break (extend	led, allowing participants	to collect per diems)	
14:00	15:30	WORK SESSION 4 Action plan for priority adaptation options (continued)	Rob Bakx and Imre Csikos Moderators, ECRAN	 Prepare reporting materials and presentation for plenary feedback Plenary feedback presentation per country (5 minutes each) 	







				 Questions and answers, discussion, conclusions
15:30	15:45	Coffee		
15:45	16:45	EXPERT CONSULTATION SESSION	Rob Bakx and Imre Csikos Moderators, ECRAN <u>Experts:</u> Linda Romanovska, Maddalena Dali, Dragana Bojović, Gordana Petković, Patrycja Enet, Višnja Grgasović, Peter Heiland	 Each expert has room for 4 consultation sessions of 15 minutes each Country groups are expected to take the opportunity to subscribe for 4 consultation sessions Topics may cover any aspect of the AST and adaptation practice in general Questions and answers will be administered for sharing with others
16:45	17:00	Conclusions and wrap-up	Rob Bakx and Imre Csikos Moderators, ECRAN	 Conclusions workshop Workshop evaluation
17:00	End of L	Day 2		







ANNEX 2 – Existing and Required Adaptation Instruments (Work Session 1)

Existing and Required Adaptation Instruments

State of play June 2016	Result of country groups discussions on identifi in support of climate of	ication of existing and required instruments change adaptation		
Country	EXISTING	REQUIRED		
ALBANIA	Energy Sector - NREAP - Draft NAPEE - Section on Adaption on the web - State/private investment in infrastructure <u>Territorial Development</u> - General National Plan - Integrated cross-sectorial plan for the coast + Durana - 31 municipal plans	 <u>Energy Sector</u> NES 2016-2030 Dam management in Drini River cascade Incentives for adapting; facilities to become energy-efficient <u>Territorial Development</u> Incentive for municipal adaptation PDV; PPP Detailed local plans/ToRs 		
	ACTIO	NS		
	- Local training modules: awareness raising			
	- Pilots for integrated coastal zone management			
BOSNIA and HERZEGOVINA	 Fund for the environment Networking between institutions Famers' consultation (by different institutions) LEAPs Subsidies in agriculture Financial support for vulnerable groups Infrastructure reconstruction informed by climatological info EV funds for infrastructure Rural development plans Water Framework Directive transposed into the Law on Water and bylaws Sava River Commission (Sava Basin Management Plan) Energy certificates for buildings Energy standards, informed by climatological data Disaster Management Plans for wildfires Mapping of flood prone areas 	 Water quality monitoring Buffer zones (by the rivers) Health protection by legally prescribed heat waves measures (definition of heat wave) Landslides prevention Consideration of CC spatial plans, land use & urban planning Agricultural land remediation Forest Management strategy and forest inventory 		
	ACTIO	NS		
	- Funding for and better regulation of subsidies			
KOSOVO*	 Strategy for Climate Change 2014-2024 (LEDC and NAC components) Laws on: Water; Environment; Irrigation of agricultural land; Forestry; Water Protection; Hydrometeorological activities (to be adopted) 	 Forest Strategy Reviewed Climate Change Strategy Action Plan for Climate Change Law on Climate Change Reviewed Agriculture and Rural Development Plan 		







	 National Reaction Pan Agriculture and Rural Development Plan 	 Strategy for reduction of risks from natural disasters (review) Local adaptation action plans Financing: EU funds; bilateral funding; state budget; ECO-fund; local budgets
	ACTIO	INS
	 (Stakeholders) communication Capacity building; training; awareness raisir Include adaptation in educational programme Preparation of educational materials, leafle Collection of data for M & R 	ng mes its, booklets, guidelines etc.
The former Yugoslav Republic of MACEDONIA	 Laws on: Water; Environment Bylaws (regulations, decrees) Taxes, fees, grants (foreign and domestic) Information: brochures, websites, campaigns, events Partnerships: NGOs, public Plans, strategies, action plans, programming 	 Law on Climate Change and additional articles in existing laws Bylaws for some sectors Higher budget for stakeholders Media coverage (radio/TV campaigns) Education: raising awareness at all levels of education Increase in public events Involve more NGOs Cooperation on regional and local levels Cooperation with faculties Long term strategy on Climate Change Implementation of strategic documents
	ACTIO	DNS
	 Establish legal obligations Procurement of financial resources Strengthen internal communication at state le Capacity building Designation of local focal points in each munic Inter municipal portal on CC; communal focal Awards (as a stimuli) 	evel cipality point website
MONTENEGRO	- Early warning system	 Statistical data on medical treatment due to heat
	-	in3
SERBIA	 Draft Climate Change Strategy (NAP, NC) MMR Law (in progress) Spatial plans Capacity development (education) NCCC Environmental taxes 	 Instruments for cross-sectoral communication Standard revision Research Climate Change Forum User-friendly we-mobile application Environmental Fund Insurance measures Subsidies
	ACTIONS	
	 Include instruments for cross-sectoral commu Pursue existing legislation Stimulate supporting climate action Connect providers and stakeholders to Climate Establish Environmental Fund Establish obligation for pro-active subsidies (state) (flood, drought, hail) 	nication in legislation e Change Forum ubvention of measures → self-protection







TURKEY	 Flood management Plans Drought Management Plans Strategy/Action Plan for combating agriculture growth Climate Change Action Plan Climate Change Advisory Board Action Plan on Erosion Plantation Action Plan Grants, emergency payments Farmers subsidies Risk Assessment Committee Meteorological data, forecasting, projections Climate database
	 Climate database Awareness raising (TV, brochures, reports)
	ACTIONS
	- Build, operate and transfer a cooperation agreement between government and
	companies
	 Set up agricultural insurance system together with private sector
	- Build dams for hydro-energy and water for irrigation

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ANNEX 3 – Detailed Results Country Self-assessments (Work Session 2)

Where does your country stand as concerns climate adaptation preparedness?



Adaptation Support Tool - STEP 6

Monitoring & Evaluation

No.	Essential issues with regard to Implementation	Completed 0 - 100%
	Appropriate M&E provisions for both your adaptation policy's objectives and selected adaptation options developed	
6.1	<u>Status</u> : In process – partially mentioned in the NAP document.	5%
	Which actions to be taken: After detailing the Action Plan for CCA, M&E provisions should be identified.	
	All stakeholders with a role and responsibility for implementation are involved in the M&E process	
6.2	<u>Status</u> : No M&E process yet.	0%
	Which actions to be taken: Identify stakeholders responsible for implementing the actions.	
	The M&E approach is tailored to the type and scale of activity and the purpose is clearly communicated and agreed	
6.3	<u>Status</u> : No M&E approach defined yet.	0%
	Which actions to be taken: -	
	Appropriate indicators developed	
	Status:	
6.4	NAP – partially NAS – not yet	10%
	Which actions to be taken:	
	NAS – to be developed after defining actions	
	Overall assumed completion %	4%







BOSNIA AND HERZEGOVINA

Adaptation Support Tool - STEP 6

Monitoring & Evaluation

No.	Essential issues with regard to Implementation	Completed 0 – 100%		
	Appropriate M&E provisions for both your adaptation policy's objectives and selected adaptation options developed			
6.1	<u>Status</u> : M&E envisaged by the CC Strategy	51%		
	Which actions to be taken:-Better definition of M&E (when, who)-Putting M&E into practice			
	All stakeholders with a role and responsibility for implementation are involved in the M&E process			
6.2	tus: defined roles and responsibilities related to M&E 75%			
	 Which actions to be taken: Clearer divide of competences and responsibilities Development of the missing action plans 			
	The M&E approach is tailored to the type and scale of activity and the purpose is clearly communicated and agreed			
6.3	<u>Status</u> : Unequal priority given to M&E in different sectors	30%		
	Which actions to be taken: Clear and detailed definition of M&E (who, when, how, funds)			
	Appropriate indicators developed			
6.4	<u>Status</u> : Not clearly defined or missing indicators	25%		
0.1	Which actions to be taken:-Develop indicators for CCA-Adjust and agree upon existing indicators	23/0		
	Overall assumed completion %	45%		









Adaptation Support Tool - STEP 6

Monitoring & Evaluation

No.	Essential issues with regard to Implementation	Completed 0 - 100%	
	Appropriate M&E provisions for both your adaptation policy's objectives and selected adaptation options developed		
6.1	<u>Status</u> : There is no provision for M&E, in sectorial policies	0%	
0.1	Which actions to be taken: In Climate Change Action Plan, which is in drafting stage, should be added a provision related to M&E and of integrating climate change adaptation in sectorial policies, including e.g. by developing relevant indicators	U%	
	All stakeholders with a role and responsibility for implementation are involved in the M&E process		
6.2	<u>Status</u> : There is a provision that obliges stakeholders in sectorial policies to develop their action plans. There is a provision that obliges stakeholders to monitor and report the implementation of their adaptation action	400/	
	<u>Which actions to be taken:</u> In the Climate Change Action Plan a provision will be added clearly defining stakeholders' roles and responsibilities, at local and national level, for implementation of the M&E and reporting process related to adaptation actions, that would allow the state body responsible for adaptation, to collect and disseminate information on adaptation actions, including e.g. the related expenditures	10%	
	The M&E approach is tailored to the type and scale of activity and the purpose is clearly communicated and agreed		
6.2	<u>Status</u> : Monitoring and evaluation has not been established yet.		
6.3	Which actions to be taken: A monitoring and evaluation process should be established that is tailored to the type and scale of activity and should be agreed with stakeholders. Cooperation with local administrations should be established that allows to collect information on adaptation action at sub-national levels	0%	
	Appropriate indicators developed		
	<u>Status</u> : Indicators have not been established yet.	0%	
0.7	Which actions to be taken: Indicators will be developed that should allow effective M&E and reporting on adaptation actions implemented at local and national level	070	
	Overall assumed completion %	3%	





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The former Yugoslav Republic of MACEDONIA

Adaptation Support Tool - STEP 6

Monitoring & Evaluation

No.	Essential issues with regard to Implementation	
6.1	Appropriate M&E provisions for both your adaptation policy's objectives and selected adaptation options developed Status: Obligation for M&E (Law on Environment); Strategy on Monitoring of Environment, Environment Data Management Strategy. No M&E system in place Measurements for: air, water and soil quality. (via 17 measurement stations) Annual reports (reports published). Which actions to be taken: Regular Impact Assessment (processing of collected data – qualitative and quantitative assessment). More detailed Work Plan for time schedule and resources. 	50%
6.2	All stakeholders with a role and responsibility for implementation are involved in the M&E process Status: - Stakeholders are involved - No obligation by law Which actions to be taken: - Obligation by law - Systematic involvement necessary - Developing formal links of communication (CC Committee for Communication)	
6.3	The M&E approach is tailored to the type and scale of activity and the purpose is clearly communicated and agreed Status: - 8 thorough studies for 8 different sectors (Water, Agriculture, Forestry, Human Health, Biodiversity) for the purpose of the preparation of the Third Communication - Reporting on request Which actions to be taken: - - Concept for regular monitoring - Agreement on objectives and goals - System reflecting the action plan	50%
6.4	Appropriate indicators developed Status: - - Indicators exist for sectoral monitoring (set up with stakeholders) - Focal point assigned in MoEPP to collect/assess and publish the indicators	70%

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Indicators to measure the status/success of implementation of CCA – measures and actions? Monitoring Overall assumed completion %	53%
 No indicators for CC Strategy actions exist Mainstreaming indicators When are actions successful? 	
Which actions to be taken:	

ΜΟΝΤΕΝΕGRΟ

Adaptation Support Tool - STEP 6

Monitoring & Evaluation

No.	Essential issues with regard to Implementation	Completed 0 - 100%	
	Appropriate M&E provisions for both your adaptation policy's objectives and selected adaptation options developed		
	Status: Government of Montenegro developed National Strategy on Climate Change until 2030, recently adopted (24/09/2015). National Council for Sustainable Development and Climate Change has been established. Also, Montenegro submitted two National Communications on Climate Change and is ready to start with preparation of third National Communication.		
6.1	Implementation of the Decision for monitoring mechanism is in the process by ratification of the UNFCCC and the Kyoto Protocol, although some steps towards implementation have already been made in 2007. Further implementation efforts are associated with adaptation of an appropriate legal framework by which Montenegro will regulate emissions of greenhouse gasses.	30%	
	We are in the process of improvement of climate monitoring including adaptation: describing the progress made by Institute of Hydrometeorology and Seismology and other related entities (independently, or in conjunction with the MORT). Specifically, those related to the quantity and quality of climate information generated and reported.		
	Conclusion: Montenegro have already climate change monitoring, but we don't have impacts and adaptation actions monitoring		
	 <u>Which actions to be taken:</u> National adaptation plan following the guidelines of UNFCCC and EU; Assess climate change impact on new sectors and areas which have not been assessed (public health, water management and agriculture), and no proper studies have been developed yet; 		
6.2	All stakeholders with a role and responsibility for implementation are involved in the M&E process		





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	Status:Cooperation on other matters has been established between following institutions:Ministry of Agriculture and Rural Development; Ministry of Sustainable Development andTourism; Ministry of Economy; Environment Protection Agency of Montenegro;University of Montenegro; Montenegrin Academy of Science; Statistical Office ofMontenegro; Union of Municipalities; Institute of Hydrometeorology and Seismology ofMontenegro; Non-governmental organizations; Institute of Public Health; Ministry ofInternal Affairs etc.All relevant institutions should be involved but in the stage of monitoring and evaluation we didn't yet established good cooperation.	
	Which actions to be taken: - Cooperation between institutions on the meter of M&E should be established - Widen the number of stakeholders involved e.g. private sectors	
	The M&E approach is tailored to the type and scale of activity and the purpose is clearly communicated and agreed	
6.3	<u>Status</u> : We have to consider this question in the future.	5%
	Which actions to be taken:	
	Appropriate indicators developed	
6.4	<u>Status:</u> Everything will be developed through Climate adaptation strategy and Action Plan. The resources to develop this scheme has to be on Government level. We don't have external budget and grants so we have to use Government capacity.	10%
	Which actions to be taken:-Resources-Discuss with experts from different sectors	
	Overall assumed completion %	



Adaptation Support Tool - STEP 6

Monitoring & Evaluation

No.	Essential issues with regard to Implementation	Completed 0 - 100%
	Appropriate M&E provisions for both your adaptation policy's objectives and selected adaptation options developed	
6.1	<u>Status</u> : Development and implementation of Monitoring Mechanism Regulation law (MMR) still missing.	70%





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	Which actions to be taken:-Define institutions responsible for M&E-Develop MMR law-Define indicator for adaptation of agro-technical measures-Monitoring of areas covered with irrigation systems		
	All stakeholders with a role and responsibility for implementation are involved in the M&E process		
6.2	<u>Status</u> : Monitoring is carried out by governmental institutions		
	Which actions to be taken:-Include private sector-Increase public availability of monitoring data-Put M&E into system (establish a routine)-Increase cross institutional and cross sectoral communication	70%	
	The M&E approach is tailored to the type and scale of activity and the purpose is clearly communicated and agreed		
6.3	<u>Status</u> : Monitoring & Evaluation system is not developed for CC adaptation purposes and it is not clearly communicated and agreed. Some monitoring exists, but not tailored for that purpose / not regular job of Government Institutions		
	Which actions to be taken: Define indicators for M&E of adaptation measures/not regular job of Gov. institutions		
	Appropriate indicators developed		
6.4	<u>Status</u> : 10		
	Which actions to be taken: Through MMR systematically develop M&E indicators		
	Overall assumed completion %	41%	



Adaptation Support Tool - STEP 6

Monitoring & Evaluation

No.	Essential issues with regard to Implementation	Completed 0 – 100%
6.1	Appropriate M&E provisions for both your adaptation policy's objectives and selected adaptation options developed	100%







	Status:6 sectors are being monitored and evaluated under the adaptation action plans and annual reports are prepared for those. Each sector has specific time period (2011- 2023) and actions related to measures also have a time period to implement and monitor each indicator of adaptation activities. Coordinating institution is the Ministry of Environment and Urbanization.Which actions to be taken: The current system requires further development to make it more efficient.		
	All stakeholders with a role and responsibility for implementation are involved in the M&E process		
6.2	<u>Status</u> : Each responsible institution reports the monitoring and evaluation process to the coordinating institution, which is he Ministry of Environment and Urbanization; Climate Change Board evaluates the latest situation to make the necessary policy.	80%	
	Which actions to be taken: The contributions of NGOs and private sector should be added to the ongoing processes.		
	The M&E approach is tailored to the type and scale of activity and the purpose is clearly communicated and agreed		
6.3	<u>Status</u> : All of 6 sectors have specific indicators for taking action and implementation which are a perfectly tailor-made approach for the activities.	90%	
	Which actions to be taken: It requires improvements/revisions according to changing situation in the context of climate change policy.		
	Appropriate indicators developed		
6.4	<u>Status</u> : There are indicators for the measures under 6 sectors.	95%	
	Which actions to be taken: According to the scientific studies executed by the institutions and data collection period, new indicators will be added.		
Overall assumed completion %			







ANNEX 4 – Identification of Indicators (Work session 3)

Identification of most important and most urgent actions to be taken			
	Adaptation option	Indicator	
٩	ENERGY		
	Efficiency in transmission and distribution <u>Immediate action</u> : Reduction of technical and non-technical losses of energy on the T&D grid from 31.4% to 20% (2016-2020)	Yearly energy balance (Ion) of the Albanian T&D system in the 2016-2020 period	
AN	AGRICU	ILTURE	
ALB	Rehabilitation and maintenance of drainage and irrigation systems in agricultural areas (from 180,000 to 360,000 ha)	Area (ha) of agricultural land (Albania) irrigated and drained, yearly during the 2016-2025 time- frame	
	URBAN DEV	ELOPMENT	
	Limiting building and urbanisation only within already urbanised areas (non-vulnerable)	Number of buildings in vulnerable areas in the Albanian coastal zone for the 2016-2030 period	
	Adaptation option	Indicator	
	AGRICU	ILTURE	
INA		 Number of applicants for subsidies in agriculture for adaptation activities Area (ha.) under drip irrigation or other water saving irrigation system 	
NO ⁶	WATER		
& HERZEO		Number of water quality measures conducted by authorised institutions in rural areas (for smaller water bodies)	
NIA	ENEI	RGY	
BOS		Number of buildings with energy efficiency certificates	
	HEALTH		
		Legally prescribed heat wave health protection measures	
	Adaptation option	Indicator	
	FLOO	ODS	
KOSOVO*	Protection measures	 Number of kilometres of reconstructed river boards for flood protection up to 2030 in comparison to 2017 Percentage of households under flood risk due to construction of new or enhanced defences in 2030 in comparison to 2017 	
	DROU	L GHTS	

State of play June 2016





	Building of irrigation systems	 Number of kilometres of newly constructed irrigation systems in 2030 compared to 2017 Number of farmers connected to irrigation system in 2030 compared to 2017
	WATE	R USE
	Protection against water leakage	Number of kilometres of constructed network for water supply in 2030 compared to 2017
	Adaptation option	Indicator
	WA	TER
	Modification of existing water supply and irrigation system	 Number of systems improved (%) Water demand reduces (m³) Percentage of the irrigated area (in ha)
ИАС	AGRICULTUR	E (livestock)
The fYR of N	Subsidies for implementing adaptation measures for farmers	 Funding (subsidy) programme within the Agency for Support of the Agricultural sector The amount of funds given to the farmers Increased measures undertaken by farmers (tolerant breeding, feeding techniques, better housing for animals)
	Adaptation option	Indicator
	HEA	LTH
NEGRO		
ENEGRO	 Awareness raising Early warning systems Adjust working hours to heat Facilitate well-being of socially endangered or marginal groups 	Reduced number of heat related work accidents
ONTENEGRO	 Awareness raising Early warning systems Adjust working hours to heat Facilitate well-being of socially endangered or marginal groups 	Reduced number of heat related work accidents TER
MONTENEGRO	 Awareness raising Early warning systems Adjust working hours to heat Facilitate well-being of socially endangered or marginal groups WAT Early warning systems Dikes, drainage systems Urban planning measures Better enforcement against illegal construction Rethink recovery help for destroyed houses 	Reduced number of heat related work accidents TER - Percentage of flood proof river basins - Drainage systems - Kilometres of dikes - Enlarged flood plains - Artificial basins
MONTENEGRO	 Awareness raising Early warning systems Adjust working hours to heat Facilitate well-being of socially endangered or marginal groups WAT Early warning systems Dikes, drainage systems Urban planning measures Better enforcement against illegal construction Rethink recovery help for destroyed houses 	Reduced number of heat related work accidents TER - Percentage of flood proof river basins - Drainage systems - Kilometres of dikes - Enlarged flood plains - Artificial basins Indicator
MONTENEGRO	 Awareness raising Early warning systems Adjust working hours to heat Facilitate well-being of socially endangered or marginal groups WAT Early warning systems Dikes, drainage systems Urban planning measures Better enforcement against illegal construction Rethink recovery help for destroyed houses Adaptation option 	Reduced number of heat related work accidents TER - Percentage of flood proof river basins - Drainage systems - Kilometres of dikes - Enlarged flood plains - Artificial basins Indicator TER
A MONTENEGRO	 Awareness raising Early warning systems Adjust working hours to heat Facilitate well-being of socially endangered or marginal groups WAT Early warning systems Dikes, drainage systems Urban planning measures Better enforcement against illegal construction Rethink recovery help for destroyed houses Adaptation option WAT 	Reduced number of heat related work accidents TER - Percentage of flood proof river basins - Drainage systems - Kilometres of dikes - Enlarged flood plains - Artificial basins Indicator TER - Forecast verification (in conjunction with other part of the system) + impact indicator
SERBIA MONTENEGRO	 Awareness raising Early warning systems Adjust working hours to heat Facilitate well-being of socially endangered or marginal groups WAT Early warning systems Dikes, drainage systems Urban planning measures Better enforcement against illegal construction Rethink recovery help for destroyed houses Adaptation option WAT 	Reduced number of heat related work accidents TER - Percentage of flood proof river basins - Drainage systems - Kilometres of dikes - Enlarged flood plains - Artificial basins Indicator TER - Forecast verification (in conjunction with other part of the system) + impact indicator - Improved chemicals & biological parameters - Reduced number of days when water supply is not possible due to pollution - Reduced number of municipalities exposed to water pollution









	Agro-technical measures	 Yield (measured revision of plant varieties) Increase of wood mass (same as for woody plants)
	Adaptation option	Indicator
	WAT	TER
>	Natural disasters caused by climate change (extreme events)	 Insurance claims related to natural disasters Number of people migrating because of natural disasters
KE	AGRICULTURE	
TUR	Irrigation efficiency	 Water supply demand balance Subsidies
	CROSS-CUTTING ISSUES	
	Provide incentives for R&D activities	 Funds, grants for R&D activities Number of projects related to R&D







ANNEX 5 – Action Plans for Priority Adaptation Options (Work session 4)

C. LIMMING BUILDING OND CIROANIEASION ON UNING AND A CIRCADY URBANIZED, NON-VULNERABLE AREAS. ALBANIA ACTIONS A O. Addessing Awareness raising. Legally A2. General Local Plan - LAND USE MAP restricting building in vulnerable areas A3. Reationating existing buildings in vulnera-ble areas (nick >>>) (Inhabitants) A4. Adapt existing buildings in vulnerable areas. (risk <<<)

u, estricting b	wilding in
A1. Legally restrictions	M&E
Instruments:	Indicators:
· Spatial Plans NATIO	NAL -017 :
-REGIO	NAC tox place?
- Fine/punishment system	
Resources:	onr. of fines
+ MUD (TWG) 8-10 people	MTPA
- Funds (gov donors al	= 30-40
Reconcil : 12-18 month	45
Mud Mrplanmin	
Barriert Municipe	Agency Asendy
- pontrael will, coo	rdination theme
	pho6."
	Contraction of the second

our testillette managine in	
A3. Relocating existing buildings in vulnerable areas. <u>Hee</u> rv.	
Instruments: legal: - Authorization/mechanism allowing	
intensivize rulecation Resources:	
human: technical exports / Agency of Boperty Treatment	
Time-france: 3-0	
Resp. : M/urb.dev. + Min.of Justice	
Barriers : community resistance Sector	







BOSNIA AND HERZEGOVINA

BUDINIA AIND HERECEGOVITIA
ID ACTATION OBJECTIVE: DECEMBER (PESILIENCE OF
ADAFTATION to climate change stresses
Goplande the state of and
STRATEGY: Improving knowledge on cc min
e OPTIONS agro-lechnical measures
ACTION(S): STEP 1:
- Mapping of zones vulnerable to CC
RESPONSIBLE: Ministry of Agriculture
INVOLVED: Agr. Jost.; Hydro Hets; MSP; SP JOST., MOE)
Local communities and farmers
RESOURCES: DATABASE; Spahial Abus; Climate Poreconts and + INSTRUMENT: maps (scenarios); Hydrological Poreconts (scen) local knowledge and autonomous adaptation, participatory involvment
FUNDS: Budget planning fuuds; Aropeats
COMMUNICATION: Inter-sectoral colaboration
BARRIERS: Lach of inter-sectoral col; The Project of 10
RAMANA HAR ANTAL New research might be needed
TIMEFRANE: September 2014

BOSNIA AND HERZEGOVINA- ACTION PLAN	
England STEP 2: Define best my practice in current evers	
twoged: Agriculture experts	
Ressources: Expert knowledge	
+ Instruments prioritization based on crops' vulnerability	1
proposition of concrete adaptance adaptance	
Computing : Information comparison in the detected	
most needed areas	
Barriers: Lack of in country expectise	
STP3: Subsidies for identified adaptation measures	
Jovelued: The tarmens	
Resources + : NAP; Adjustment of existing subsidies; focus ou Instruments : new and efficient irritation systems	
Funds: National budget; Nunicipality budgets; Funds;	
Communication: Farmers' consultation; Romotion campaign	
Barriers : Lack of kinancial resource; Lok of acceptatorility (interest) on the side of farmers	
Time Rame: 2017-2022	
MRE: Regular data collection and monitoring	
ou awal baris-No. of farmers applying for subsidies	







K O S O V O*



and uction bla	m ter [1] - em	March			
Low					
Netter			I Inground ageretics	COSE	Time frame
Achicul Olimigation	Legislation	MAFRD	MAFRD + Regional Water	30.00000	2017 + 2022
Street Netus	Constraction of intigation system	nin	Companies <u> <u> </u> <u> </u> </u>	150.mil.€	2018-2023
Loc-	fublic owereness for formers	MAFRD MESP	MATRD MESP Local Lever	600.000 Euro	2017
	Carteria -				
1		1			







The former Yugoslav Republic of MACEDONIA

MACEDON 1.2 (Agriculture Sector) research / impl Action 1 Development of techniques and procedures for cultivation, fatilizer utilization and soil reclamation for the key crops in coeffected what 1.1. Min. of Agriculture, Scientific Institutes, Faculty of Agric UNU / 1.2. LSG, Water- economy Enterprise, Farmers Financies - Budget (MoA), EU Funds (IPARD) /1.1. Scientist, profesors, foreign experts Human Resources 1.2. MoA, foculty - Formers HOW 1.1. Research -> Timeframe -> end of 2019 (3 years) when 1.2. Implement. 2013-2022 (+ 1xear to see the results) No Financial Resources NO GOOD COOPERation among and between the Stately POSIBLE BARRIERS Rand D fails ; Acceptance of the farmers fails Adept robust crops available to the market Really used by farmers (arcepted)





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ΜΟΝΤΕΝΕGRΟ

	Action P6n Montehegro Example
Health	0
whot Measure	adjust working hours to heat water
acho4 3 9 2 4 5	(change regulation on work conditions) haise avareness on the need to impose the regulation prepose paparel for legislithin vind. (establish enforcement mechanism) Establish Monitong of hat relate work accidents

2 prepore legischon on reduced Lork hours (hert) Who: Ministry of Look (head) WG supporting (ENV, Heath) When: A year (in porellel to choose as) Gupeign How write dink the popolal pocedare public constitution pocedare Funding: Openhouse zov. Budget Communication charactered with in Goomann Ministric character which pla Domen: Lossying from Schikers sector Mouth : Quartery provers reporting (Minis) Humm koones. X person days by ear ministry Evolution: all 4 5 years based on their toping of heat table work accidents

Achin A Roise Awareness ALIKAN COMPANY LIND: MinSDT (Lend); ENU) + Roles suprettinishing of Work, Health torget article: NGOS, Unions, Business Associations, HOW: Print media Saturd, Workshops, Time frome: 1 year Finding: Openhical gov. bidget + Eh finds + other donors Bornier: Conflict of interest prote us. public, lack of findings Hanitong Shrbey on sweekers Human resources: t.6.9(



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and the second
b) IMPROVE MODELS
-> WHO : RHMSS , INSTITUTES (FACULTY)
-> HOW : INTRODUCING STATE - OF-THE - ART MODELS
INCREASE SPT RESOLUTION
ASSIMILATION OF OBSERVATIONS (IN HOUSE)
-> WHEN : 2017
-> FUNDING : RESEARCH PROJECTS
STATE BUDGET
20 PERSON / YEAR
> KNOWLEDGE : CONFERENCES, WORKSHOPS
SUNMER SCOOLS, PHDS GOVER. ADM =>
> BARRIERS : LIMITED COMPUTER RESOURCES
SUCCESS : PERIODICAL REPORTS ON DEVELOPM.
SCIENTIFIC PAPERS







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T U R K E Y

HOW? Finance - National Budget EU Funding <u>HR:</u> In collaboration of experts from universities, private sector and government IT v? THAT Information Resource from argoing and finalized rejects - Meteorological data / forecada - Historical Flowd and Angelt Records WHX Just - Ministy of Development 3 Notional IPA C Instruments, TAIEX Local, GEF, World Bank FAO Regional Western punds, JICA (2)



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ANNEX 7 – Presentations (under separate cover)

Presentations can be downloaded from: <u>http://www.ecranetwork.org/Events/</u>







ANNEX 8 – Evaluation

Your Expectations

Please indicate to what extent specific expectations were met, or not met:

	My expectations were met				
Workshop objectives	Fully	Partially	Not at all		
 Enhanced understanding of workshop participants about planning the implementation of their own country's climate 	(62%)	 (38%)			
 Change adaptation priorities Strengthened knowledge of workshop participants regarding practices in implementing climate change adaptation options 	(62%)	 (38%)			
 Understanding of the need and possibilities to develop and apply appropriate monitoring and evaluation provisions for policy objectives and adaptation options 	(69%)	(29%)	l (2%)		

Workshop and Presentation

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

	Aspect of the workshop	Excellent	Good	Aver- age	Accept- able	Poor	Unaccep- table
1.	The workshop achieved the objectives set	(48%)	 (48%)	ll (4%)			
2.	The quality of the workshop was of a high standard	(40%)	 (48%)	(12%)			
3.	The content of the workshop was well suited to my level of understanding and experience	(39%)	(52%)	(9%)			
4.	The practical work was relevant and informative	 (40%)	 (57%)	l (3%)			
5.	The workshop was interactive	 (61%)	(36%)	l (3%)			
6.	Facilitators were well prepared and			III			
		(62%)	(31%)	(7%)	_		_





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	Aspect of the workshop	Excellent	Good	Aver- age	Accept- able	Poor	Unaccep- table
	knowledgeable on the subject matter						
7.	The duration of this workshop was neither too long nor too short			III	II		
		(37%)	(51%)	(7%)	(5%)		
8.	The logistical arrangements (venue, refreshments,			Ш	I		
	equipment) were satisfactory	(48%)	(44%)	(5%)	(3%)		
9.	Attending this workshop was time well spent	1000-0000-0000-0000 1000		1111			
		(58%)	(33%)	(9%)			

Comments and suggestions

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

Workshop Sessions:

- All presentations were well except one. The presentation was too much detailed and makes feel stressed. But, overall good
- More detailed indicator examples selecting from a good implemented country example
- It is good
- Climate change criteria that will affect the future were the ones that left an impression on this stage
- Excellent
- Excellent!

Facilitators:

- Facilitators are supposed to have more knowledge on the matter. I think some conflicts between facilitators, that I understood during the workshop
- They are excellent
- Very good
- Excellent team work, discussion on this subject with her was a very helpful
- Kati Mattern was really helpful for our team in understanding of the given tasks
- Kati was well prepared and her knowledge was very helpful!
- Excellent teamwork, discussion on this subject with her (Kati Mattern) was very helpful
- Excellent

Workshop level and content:

- High
- Level is good and content is also good. Nothing to say more
- Content of workshop is more interesting for me and topics are very good
- Satisfied
- Excellent, we improved our knowledge and skills in this field
- Satisfactory
- Excellent, we improved knowledge and skills in this field





