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Ministry of Environment and Spatial Planning

Action Plan for the Climate Change Strategy

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LIST OF ABBREVIATIONS

AP – Action Plan

CCS - Climate Change Strategy

DEP - Department of Environment Protection

EU – European Union

GHG - Greenhouse Gases

GIS - Geographic Information System

IMWG - Inter-Ministerial Working Group on Climate Change

KEEP – Kosovo Energy Efficiency Action Plan

KEPA - Kosovo Environmental Protection Agency

KES - Kosovo Environmental Strategy

LEDC - Low emission development component

MAFRD - Ministry of Agriculture, Forestry and Rural Development

MCA – Multi-criteria analysis

MED - Ministry of Economic Development

MEI - Ministry of European Integration

MESP - Ministry of Environment and Spatial Planning

MI - Ministry of Infrastructure

MIA - Ministry of Internal Affairs

MTI - Ministry of Trade and Industry

NAC - National adaptation component

NEAP - National Environmental Action Plan

TPP – Thermo Power Plant

UNFCCC - United Nations Framework Convention on Climate Change

UNDP - United Nations Development Programme

1 INTRODUCTION

Although Kosovo has not participated in or signed the UN Framework Convention on Climate Change (UNFCCC) nor Kyoto Protocol or Paris Agreement yet, it has the responsibility to respond to the requirements of the Convention and the Protocol, as one of the signatories of the Energy Community Treaty.¹ The Energy Community Treaty also sets clear reduction targets for the energy use while it demands increase the share of renewable energies. Therefore the preparation of the climate change strategy was set among the priorities in the Kosovo Environmental Strategy (KES) and National Environmental Action Plan (NEAP) for the period 2011-2015 and also identified as priority for Kosovo's EU approximation process.

The development of the Climate Change Strategy (CCS) has been initiated in December 2012 by the Ministry of Environment and Spatial Planning (MESP) with support from United Nations Development Programme (UNDP). CCS was completed during 2014, containing two main components – Low emission development and Adaptation component. The Strategy also contains 8 LEDC (Low emission development component) intervention sheets and 18 NAC (National adaptation component) intervention sheets.

The Strategy sets comprehensive climate change mitigation policy framework, including guidance towards the next steps to be taken in terms of meeting EU requirements and future global responsibilities of Kosovo.

Kosovo has developed the National Development Strategy 2016 – 2021 (NDS), which structurally is divided into a four thematic pillars: human capital, the rule of law and good governance, development of competitive industries and development of infrastructure. Pillars of Competitive Industries and of Infrastructure describe the development directions of **industrial sector** (utilization of mineral potential, efforts for revitalization of Trepca), **energy sector** (development of new sustainable power generation capacities, establishing an open energy market, implementing energy efficiency measures and rational use of renewables), **railway and road infrastructure, development of agribusiness**, rational use of **water resource** and sustainable management of **forests and wastes**. The Environment Protection and Climate Change are not mainstreamed well into a NDS, and it is not mentioned specifically how to cope with these challenges. The Competitive Industries and Infrastructure represent the two most important pillars for country development and at the same time pose the most challenging threats to environment and climate change.

Kosovo also developed the Kosovo National Water Strategy Document 2015-2034 which is the main document for water resources planning and management, and is divided into four sectoral approaches such: water use, water protection, protection from water and water governance. The document will be utilized by MESP as a guide for the policy, operational and investment development in the water sector for the 20 year timeframe.

The responsible authority for environment and climate policy is the Ministry of Environment and Spatial Planning. In 2012, with the support of UNDP, Kosovo prepared its first national inventory of GHGs for the period 2008 – 2009. The Ministry of Economic Development has responsibility for energy policy and is leading the efforts to achieve the EU 20-20-20 targets in the framework of the Energy Community treaty, including the Renewable Energy Action Plan and Energy Efficiency Action

¹ For UNDP, references to Kosovo shall be understood to be in the context of Security Council Resolution 1244 (1999).

Plan and the Kosovo Energy Efficiency Agency planning several projects to reduce Greenhouse Gases (GHG) in buildings and other sectors.

The strategy development was based on a full participatory process ensuring consultation among central and local institutions. For this purpose an Inter-Ministerial Working Group on Climate Change (IMWG) was established in March 2013 by the Minister of Environment and Spatial Planning.

In order to ensure implementation monitoring and reporting on the level of implementation and achievement of goals set by the Strategy it is necessary to develop detailed Action Plan for CCS implementation.

1.1 Vision

CCS determines a vision of a climate-resilient Kosovo, which is effectively mitigating the causes of climate change, and is effectively anticipating on, and responding to, the impacts of climate change, taking into account internationally endorsed principles for sustainable development.

1.2 Mission

Determined vision of CCS aims to reduce the risk and damage from current and future impacts of climate change in a cost-effective manner and to exploit potential benefits stemming from climate change.

The mission of this particulate document is to ease the process of implementation of CCS, by recognizing necessary action steps and pre-conditions, existing obstacles and priorities.

1.3 Areas of Impact

The Action Plan for CCS implementation covers both key components of CCS – LEDC and NAC. The Plan provides detailed sequence of actions and steps, summarizing priorities and providing for better strategic planning in various sectors, especially when it comes to financial (budgetary) and investment planning in the future period.

1.4 Objectives

General objective of the AP:

To enable achieving CCS goals in a step-by-step manner, allowing better strategic and financial planning, monitoring and reporting on implementation, setting priorities and recognizing redundancies among two components of CCS and relevant strategic documents.

AP specific objective 1:

To ensure integration of national climate change policy in relevant sector policies, avoiding duplication of efforts and overcoming discrepancies between CCS and other relevant strategic documents.

AP specific objective 2:

To ensure adequate legal framework and institutional set-up for implementation of CCS through strengthening of institutions, training of professionals and introduction of appropriate mechanisms for enhanced communication, cooperation and information management.

AP specific objective 3:

To ensure investment in relevant infrastructure and development of appropriate financial/fiscal measures as instruments for achievement of CCS goals.

AP specific objective 4:

To ensure enhanced public awareness about climate change, its negative effects and threats, possibilities to adapt and reduce risk or use potential benefits.

1.5 Assumptions

Commitment of decision makers

The success of this document is highly sensitive to firm commitments of the competent authorities, especially related to securing funds and respecting the deadlines set in the Action Plan.

Functioning of Set up of inter-sectoral coordination mechanisms

Inter-Ministerial Working Group on Climate Change (IMWG) was established in March 2013 by the Minister of Environment and Spatial Planning as a mechanism to facilitate cross-sectoral harmonization as well as vertical linkages between the center and the local level. Functioning of such informal groups is not always easy, since very often there is a lack of clearly formulated rules and responsibilities necessary for proper functioning.

1.6 Constraints

The main constraint related to the rather ambitious Action Plan is to ensure funds both from domestic and international resources in order to implement the Plan.

Furthermore, for measures and interventions which do not require significant financial investment (e.g. administrative measures) it is necessary to obtain high level of commitment of decision makers in order to facilitate capacity building, low-making process and implement timely similar measures.

Administrative capacity can be considered as serious constraint, since small administrations often suffer from lack of certain specific expertise, limited absorption capacity (too many different trainings for the same group of people), overburdening with too many parallel tasks, etc.

Additionally, constraints recognized by CCS have to be taken into account:

- Kosovo is not yet a party to the (UNFCCC)
- The information on GHG emissions and especially projections are still insufficient

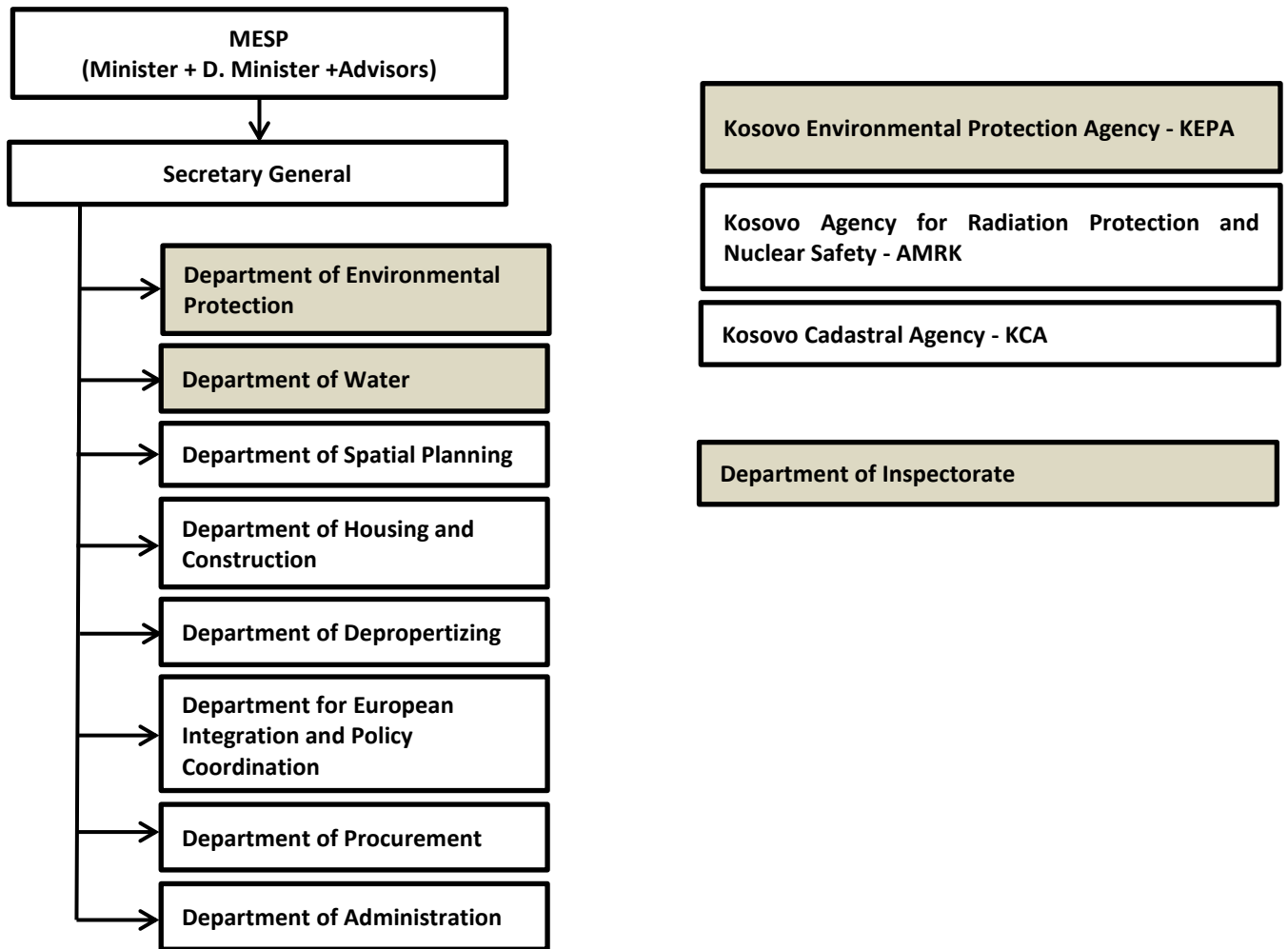
Lack of information on GHG emissions and projections is the main reason for uneven distribution of mitigation and adaptation measures in this Action Plan

It makes adaptation component much stronger and better elaborated, while mitigation component relies more on capacity building and strategic planning.

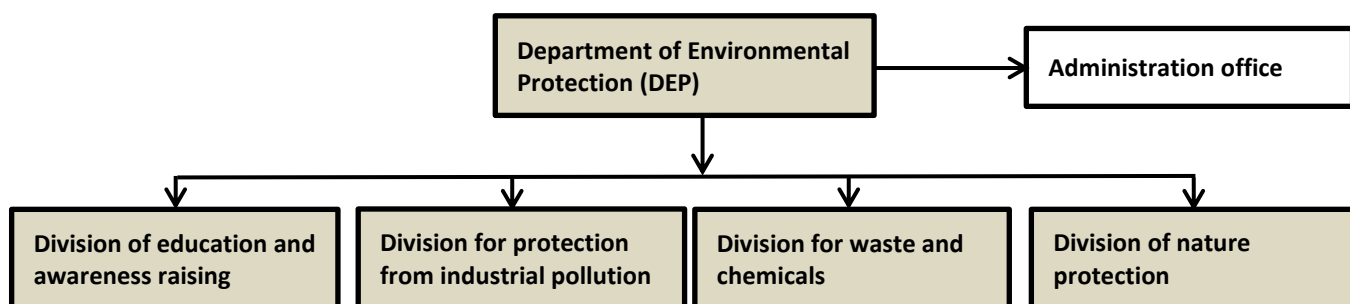
2 MANAGEMENT STRUCTURE

2.1 Organization Chart

Ministry of Environment and Spatial Planning (MESP) has the leading role among the Kosovo Institutions for coordination of national activities related to climate change and coordination of activities of the Government of Kosovo to cope with the expected climate change impacts. The organizational structure of MESP is presented below:



Within the MESP structure, the Department of Environment Protection leads the national activities on drafting the strategic documents for climate change. The structure of the Department is presented in the scheme below:



The leading role of the MESP and the Department for Environment Protection is confirmed with the Decision of the Government of Kosovo No. 05/45 (dt. 21.08.2015) for establishment of National Committee for Climate Change.

2.2 Roles & Responsibilities

National Committee for Climate Change

The National Committee for Climate Change has the responsibility to follow up the implementation and enforcement of strategic documents and of the action plan for climate change in full compliance with the requirements of UNFCCC and Kyoto Protocol.

Main functions of the National Committee for Climate Change are following:

- Coordinates all activities deriving from the UNFCCC and Kyoto Protocol,
- Assures that the project having impact on the climate change are implemented in according to the national legislation and international agreements,
- Drafts required documents for participation and for membership to the international conventions, protocols and membership related to the climate change,
- Establishes and prepares the National Communication for the secretariat of the UNFCCC after ratification of Kyoto Protocol.

The National Committee for Climate Change has following composition:

- Minister of Ministry of Environment and Spatial Planning (MESP) – Chair of the Committee
- Minister of Ministry of Economic Development (MED) – member
- Minister of Ministry of Agriculture, Forestry and Rural Development (MAFRD) - member
- Minister of Ministry of Infrastructure (MI) – member
- Minister of Ministry of Trade and Industry (MTI) – member
- Minister of Ministry for European Integration (MEI) – member
- Minister of Ministry of Local Government Administration (MLGA) - member

As part of the National Committee for Climate Change, it is established also the Technical Secretariat of the Committee, which prepares and facilitates the work of the Committee. The Technical secretariat is composed of following members:

- Director of the Department of Environment Protection – Chair
- Director of the Department of Water – Member
- Director of the Department of Energy – Member
- Director of the Department Road Infrastructure – Member
- Director of the Department of Industry – Member
- Director of the Department of Forestry – Member
- Director of the Department of Agriculture Policy and Market – Member
- Director of the Department of Sectorial Policy – Member
- Director of the Hydro-meteorological Institute – Member
- Representative from civil society – Member
- Representative from University – Member
- Representative from UNDP – Member

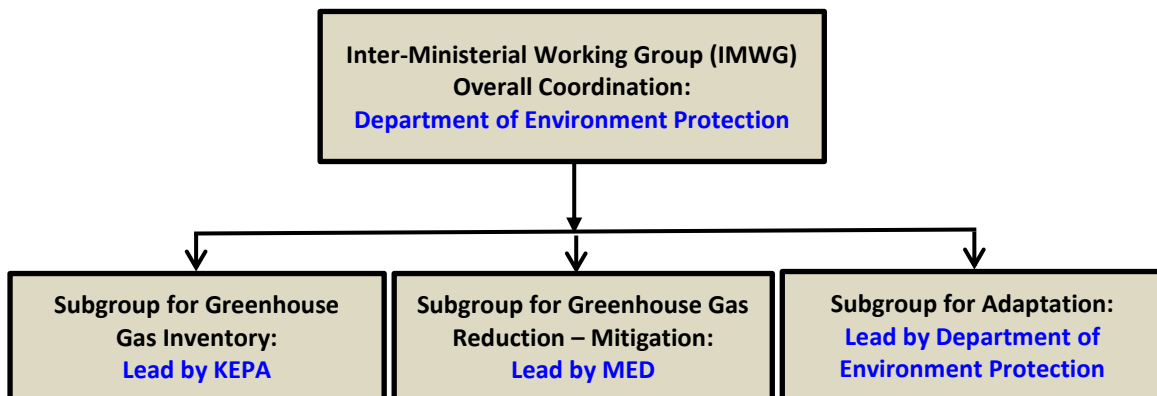
Inter-Ministerial Working Group (IMWG)

The Inter-Ministerial Working Group (IMWG) enhances the Government coordination on climate change policies to ensure it recognizes the country's vulnerability and the adverse effects from the

climate change, and it develops appropriate short-, mid- and long-term mitigation and adaptive measures and actions to ensure that the country is able to cope with climate change impacts.

IMWG has three subgroups:

- Subgroup for Greenhouse Gas Inventory - led by Kosovo Environmental Protection Agency (KEPA)
- Subgroup for Greenhouse gases reduction - led by Ministry of Economic Development (MED)
- Subgroup for adaptation - led by MESP - Department of Environment Protection (DEP)



During the process of development of CCS the following ministries and institutions have been involved as members of the Inter-Ministerial Working Group (through its department and/or divisions).

Ministry of Environment and Spatial Planning (MESP)

The mandate of MESP is regulated by the Regulation 02/2011 on the Areas of Responsibility of the Office of Prime Minister and Ministries. Herewith, the MESP is defined as the main responsible institution in Kosovo for drafting (primary, secondary legislation and other strategic documents), monitoring and implementation of the legislation in the field of Environmental Protection, Water, Housing & Construction and Spatial Planning. MESP is also assigned responsibilities to lead the coordination of activities with line ministries and international authorities in the sector of environment protection; to assess the state of environment in Kosovo, to issue guidelines, to set norms and standards in accordance to the international recognized standards.

In relation to the Climate Change, MESP through its Department for Environment Protection, is leading the Inter-Ministerial Working Group (IMWG), it coordinates activities with other line ministries, agencies and international organizations such as UNDP, and facilitates the process of drafting the National Climate Change Action Plan and Monitoring Plan.

Department of environmental protection

The main duty of the Department of Environmental Protection is to coordinate activities in the environmental protection area in order to promote coherent policies, norms and standards; prepare guidelines; participate in the preparation and implementation of public awareness activities on environmental protection and climate change and conducts various activities for membership to International Organizations. The department has four divisions (as presented in the organizational

chart above): Division of education and awareness raising, Division of protection from industrial pollution, Division for waste and chemicals and the Division of nature protection.

Division of education and awareness raising

The main duties of division for education and awareness raising are to plan and organize the awareness raising campaigns for environment protection, drafting leaflets and outreaching the general public conveying messages and promoting the environment protection and sustainable use of natural resources.

Division for protection from industrial pollution

It conducts professional activities and drafts primary and secondary legislation, including methodologies and strategic documents related to the Environment Impact Assessments (EIA), Strategic Environment Assessment (SEA), protection of air quality, dealing with the issues of climate change, protection against industrial pollution, protection of ozone layer, protection against noise, prevention and planning the in the case of environmental accidents.

Division of nature protection

The main duty of the division for nature protection is to draft primary and secondary legislation for nature protection as stipulated by the Law on Nature Protection.

Division for waste and chemicals

The main responsibility of the division for wastes and chemicals is to draft legislation on waste management, chemicals and biocide products. It also licenses the economic operators for waste management; it issues permits and authorizations for registration of wastes, chemicals and biocide products.

Water department

Main duties of the water departments are to draft primary, secondary legislation strategic documents for sustainable use of water resources and management plans for river basins, regulation norms for protection of water ways. It issues water permits for all users of water resources and proposes capital investments. The department has three divisions: Division for general policies, Division for management of water resources, and the Division for coordination of river basins.

Inspectorate of environment, water, spatial planning and construction

The main responsibilities of the environment, water, spatial planning and construction inspectorate is to conduct continuous inspection, supervision, and control of implementation of laws and administrative instructions related to the environment protection and pollution prevention, water resources management, air quality protection, nature protection, waste & chemicals management, sustainable use of natural resources, urban and spatial planning, construction and compliance to the construction codes. The Inspectorate of environment, water, spatial planning and construction inspectorate is coordinating its activities with the respective municipal inspectorate department on the issues of common interest.

Kosovo environmental protection agency

KEPA is a government institution that engages - through integrated environmental monitoring, efficient system of environmental information and continuous reporting on the environmental situation - to protect and maintain the quality of air, water, soil and biodiversity, and promote the use of renewable energy sources and sustainable use of natural resources in order to ensure a healthy environment for present and future generations, in harmony with sustainable economic and social progress. Its organizational structure is as follows:

According to the Administrative Instruction No. 01/2016 on Mechanism of for Monitoring of Greenhouse Gases (GHG) - KEPA is given the responsibility to prepare the National Inventory for GHG, to report on the projections of the GHG, to report on national adaptations actions and to perform the quality assurance and the quality control.

Hydrometeorology Institute of Kosovo

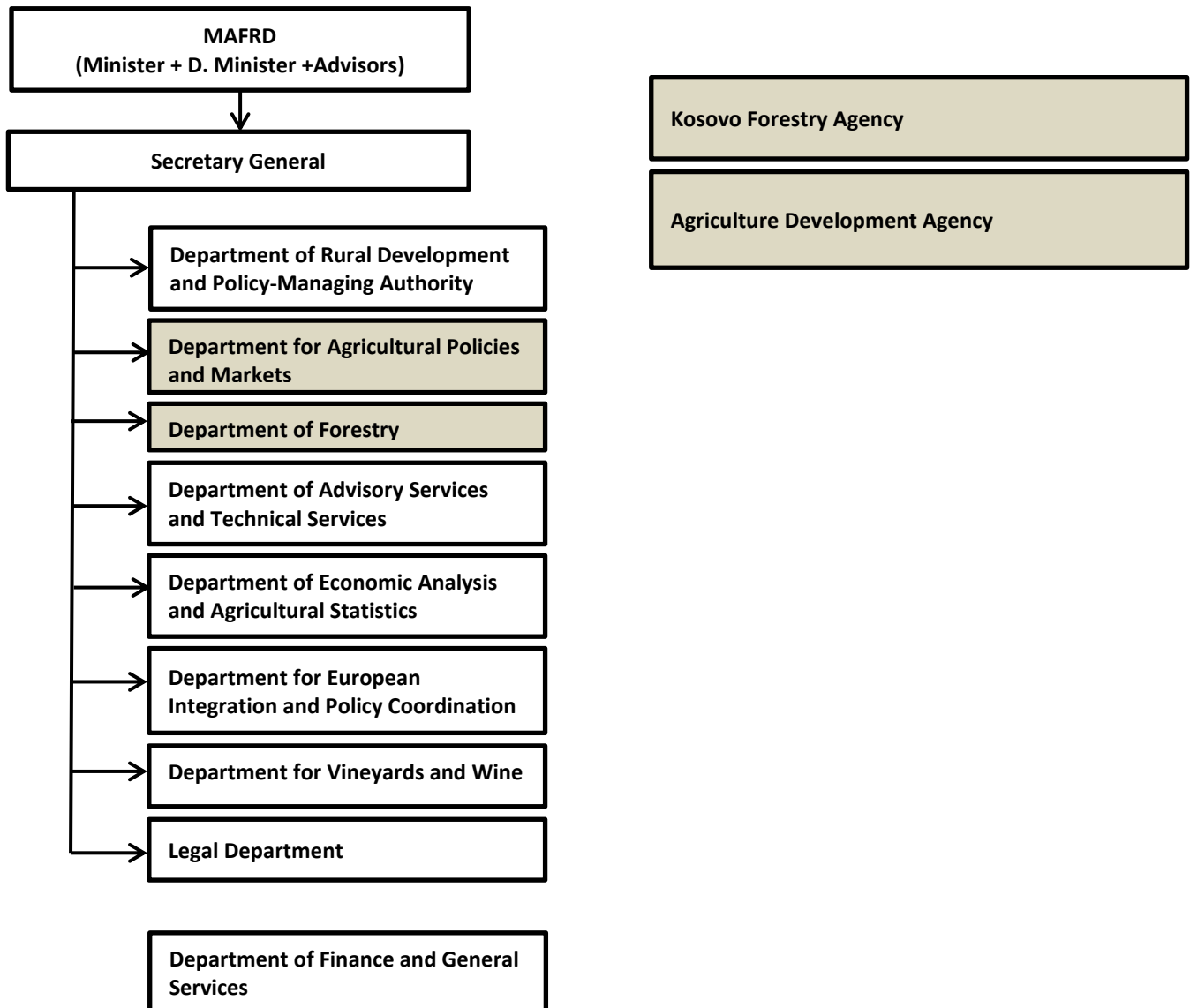
The Law on Hydro-meteorological Activities (No. 02/L-79, 2006) defines the scope of the work and the responsibilities of the Kosovo Hydrometeorology Institute, the manner of accomplishment of the tasks and activities, harmonization of policies and standards with the World Meteorological Organization (WMO). Hydrometeorology Institute conducts all types of tests, measurements and observation of the meteorological, hydrological, bio-meteorological, hydro-biological occurrences; elaboration and publication of the collected results of measurements and observations; publication of regular and periodic information for weather, state of surface & underground waters, quality of the air, conducts researches to assess the impact of climate & temperature changes on hydrological cycle, etc.

For the purpose of development of Climate Change Action and Monitoring Plan, the Hydrometeorology Institute will provide information of temperature variation over time, surface and ground water quality data, flow rates of the main rivers in Kosovo, precipitation ranges and air quality.

Ministry of Agriculture, Forestry and Rural Development (MAFRD)

The role and responsibility of MAFRD is defined by the Regulation 02/2011 on the Areas of Responsibility of the Office of Prime Minister and Ministries. MAFRD is defined as main responsible institution for drafting and implementing the primary and secondary legislation for development of agriculture, land use management, rural development, management of forestry sector, including protection and reforestation, fire protection and prevention, disinfection against insects and different plant diseases. In cooperation with Ministry of Health, Environmental and Spatial Planning surveys control of food quality and related activities for environmental protection.

The organization structure of the MAFRD is presented in the figure below:

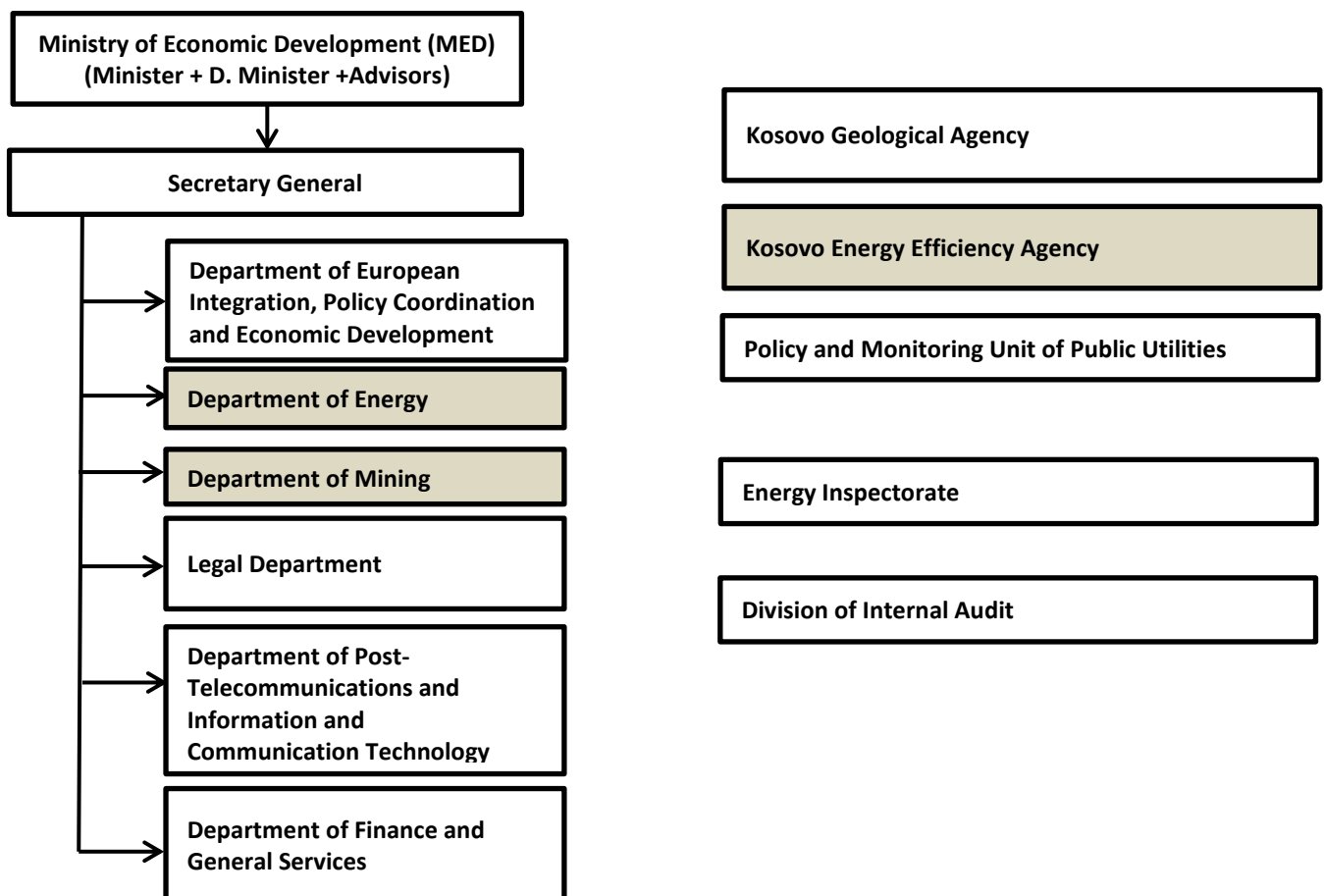


For the purpose of the Developing Climate Change Action and Monitoring Plan, MAFRD is supporting the MESP and IMWG by providing information related to the land use and agriculture production, forestry, farming structure and poultry, etc.

Ministry of Economic Development (MED)

Pursuant to Annex 18 of Regulation No. 02/2011 on the Areas of Administrative Responsibility of the Office of Prime Minister and Ministries, the Ministry of Economic Development (henceforth the Ministry) exercises following competencies: drafts policies and strategies for economic development, supports the development of market economy, market liberalization in public services, chairs the Ministerial Committee on Publicly Owned Enterprises and facilitates Governmental debates on issues pertaining to Publicly Owned Enterprises, prepares the annual report on Publicly Owned Enterprise performance, prepares and monitors implementation of legislation in the sectors of energy and mining, postal services, telecommunications, information technology and supervises the Publicly Owned Enterprises, drafts and implements strategic documents for the energy and mining sectors for energy balance, drafts policies on Energy Efficiency and Renewable Energy Sources, as well as relevant action plans for abovementioned sectors.

The organizational structure of MED is presented in the scheme below:

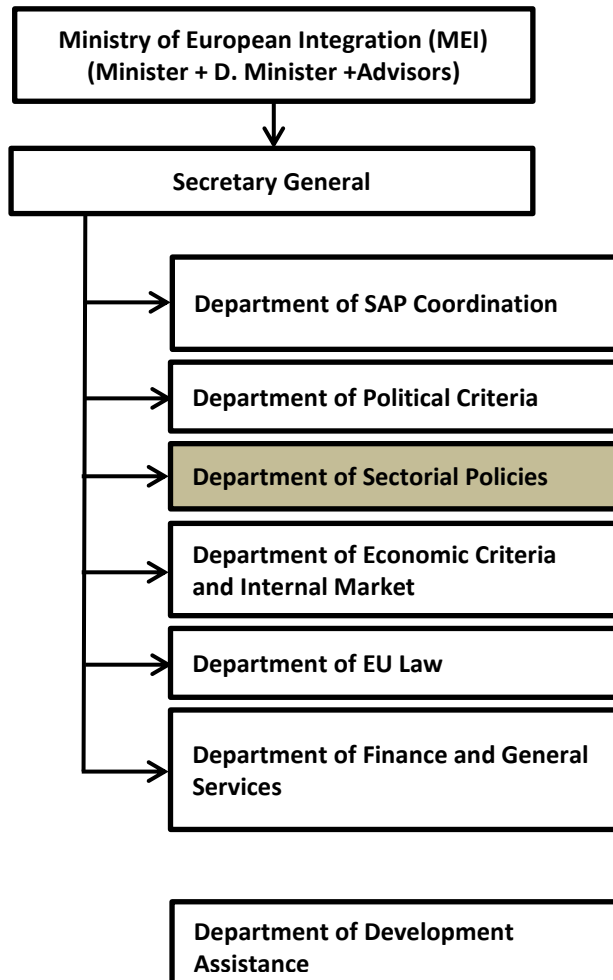


For the purpose of development of Climate Change Action & Monitoring Plan the MED, through its Department of Mining and Energy and respective agencies, will provide to the IMWG the data about the Energy & Mining related data.

Ministry of European Integration (MEI)

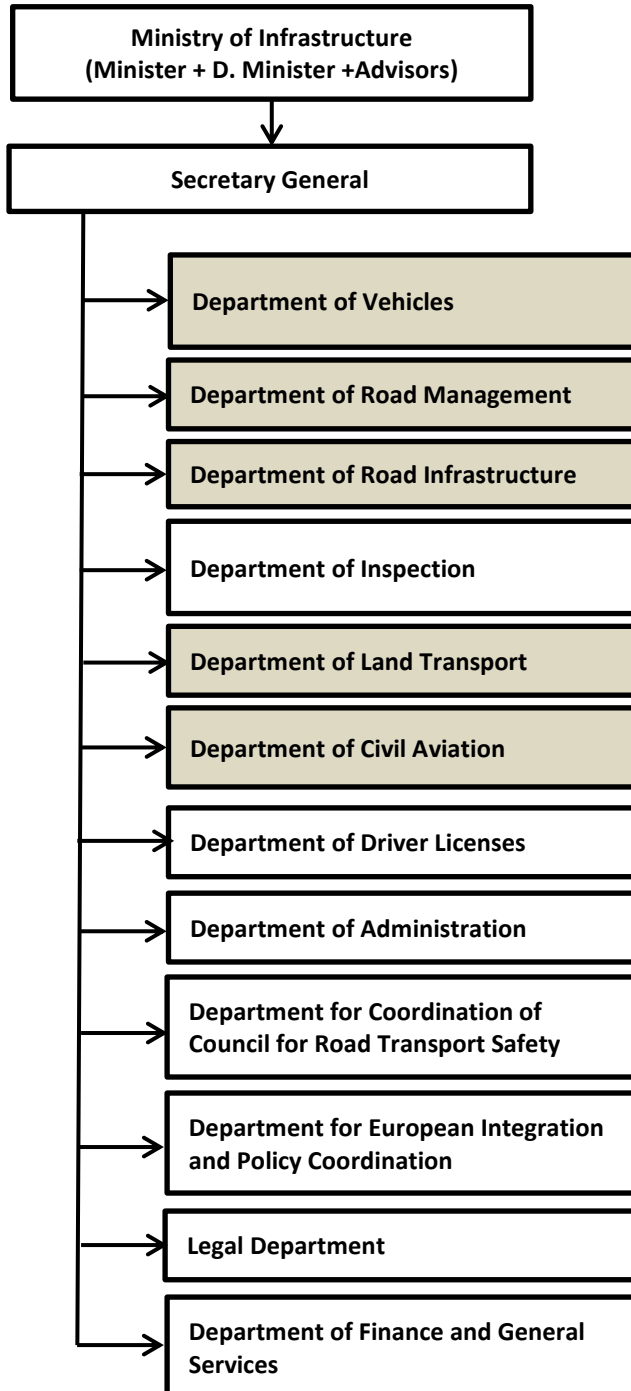
Ministry of European Integration has as its main mission to direct, coordinate and monitor of all activities toward the integration of the Republic of Kosovo in the European Union by: drafting strategic documents for advancing the implementation of criteria and obligations required by the European integration process, assisting and organizing mechanisms of donor coordination, supports line ministries in approximation the legislation in accordance with the specific European Directives.

Organisational structure of the MEI is presented in the scheme below:



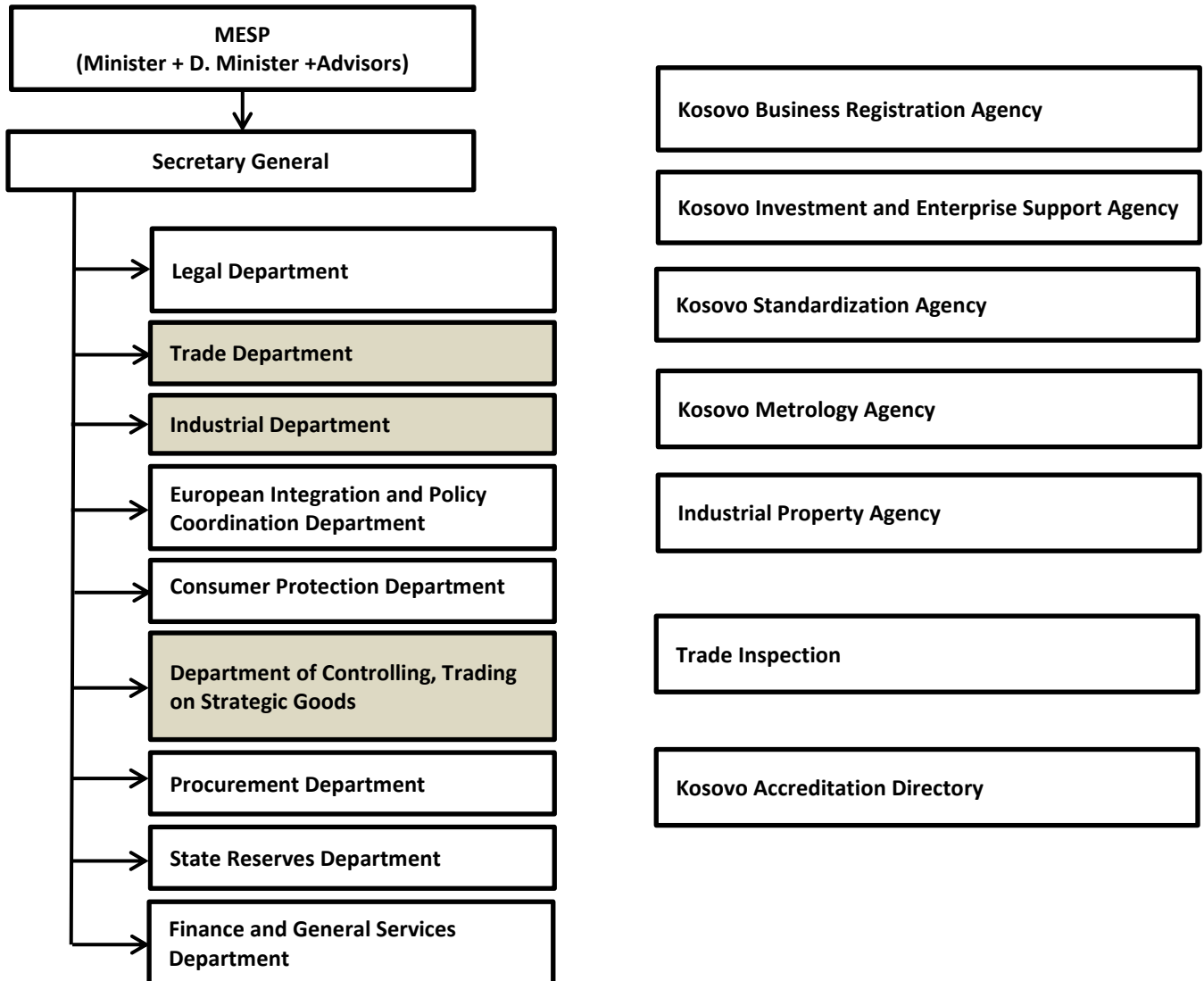
Ministry of Infrastructure (MI)

Duties and responsibilities of the Ministry of Infrastructure are defined in Article 17 of Government Regulation no. 02/2011 on the administrative areas of responsibility of the Office of the Prime Minister and Ministries. The main responsibilities of MI are as follows: to draft and monitors prompt implementation and enforcement of the policies, strategic documents on the infrastructure sector, road transport, railway transport, civil aviation, telecommunication, and information technology.



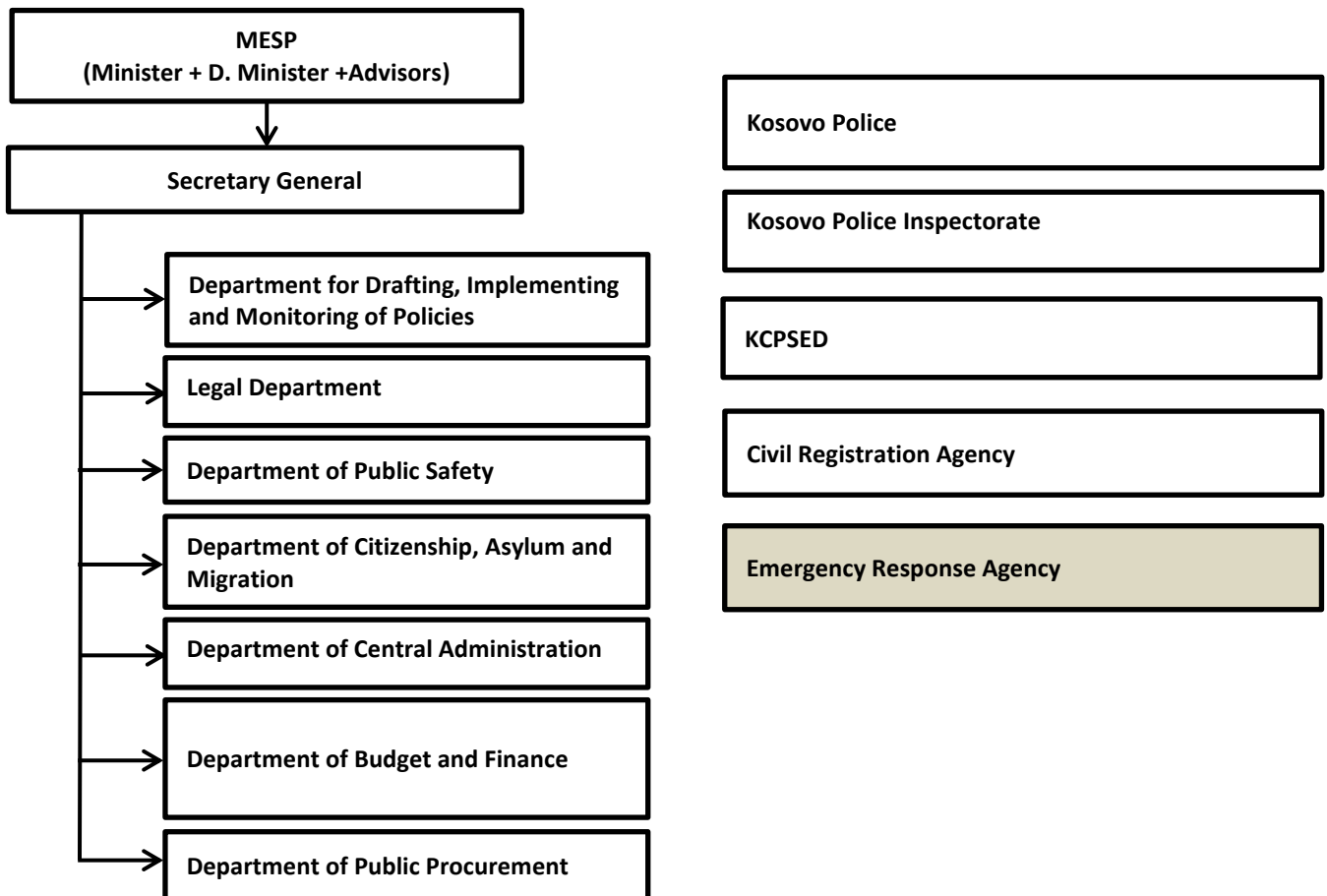
Ministry of Trade and Industry (MTI)

Ministry of Trade and Industry drafts, supervises and enforces implementation of primary & secondary legislation and strategic documents for trade, industry, commerce, industrial and construction products. It promotes investments in Kosovo, provides information to potential investors, matching Investors with local partners, assisting investors in obtaining necessary permits and authorizations and compiling and publishing data on foreign investment.



Ministry of Internal Affairs (MIA)

Although the MIA is neither member of the National Committee for Climate Change or member of the Secretariat, we believe the MIA could be involved via its Emergency Response Agency, in particular in the field of public safety, emergency preparedness and response.



3 METHODOLOGY

3.1 Prioritization of actions

The process of identification of priorities among measures envisaged by Climate Change Strategy 2014-2024 encompassed analysis of various factors related to the actual situation in Kosovo, taking into account development policies, availability of funds and specific risks and opportunities connected with the phenomena of climate change.

Climate Change Strategy for Kosovo proposes two sets of measures:

- Recommended Low Emission Development Measures
- Recommended Adaptation Measures

These two sets of measures have been elaborated through CCS with different level of details and prior analysis. Both sets contain 9 general recommendations presented in tables 1 and 2 below by sector, in sequence of their priority.

However, every of these general measures have to be disaggregated into sequence of steps, taking into account that many steps of different measures can be performed simultaneously.

Recommended adaptation measures have been further elaborated based on multi-criteria analysis (MCA²), in order to provide an overall ordering of recognized 38 interventions and to distinguish between short term, medium term and long term interventions, while for GHG emission reduction measures some steps were recognized, but further elaboration was skipped due to insufficient level of information about present emissions and mitigation impact of the individual actions.

Table 1. GHG emission reduction measures

	General sectoral measures
1	Capacity building
2	Energy efficiency
3	Renewable energy
4	District heating and industrial co-generation
5	Thermal power plants and coal mines
6	Transport
7	Waste management
8	Agriculture
9	Forests and nature

Table 2. Adaptation measures

	General sectoral measures
1	Flood protection

² The following 8 criteria have been used for the analysis: (1) Technical considerations (e.g. ease of implementation, redundancy and robustness of the solution, flexibility to changing conditions, durability); (2) Estimated costs; (3) Water quality and quantity impacts; (4) Habitat disturbance (aquatic, riparian, upland); (5) Ecological & environmental impacts; (6)

Socio-economic impacts (community amenities, tourism opportunities, village disruption, religious considerations, historic/archaeological); (7) Institutional (compatibility) considerations (8) Political considerations

2	Drought/low flow/water scarcity
3	Forest and biodiversity management
4	Public health
5	Information management and exchange
6	Capacity building, training, awareness raising
7	Finances, cost recovery and risk management
8	Cooperation structures
9	Miscellaneous

At the first glance it is obvious that there are certain overlappings among sectors from these two sets, although mitigation and adaptation might have different approach. However, some measures such as capacity building and forest management can be treated as common measures, eventually with diverse steps. The same apply to measures designed to improve information management and exchange and cooperation structures.

Although an overall prioritization of measures is given by CCS, in order to build a proper action plan for a long-term period (2016-2024), it was necessary to define periods for implementation of short-term, medium-term and long-term measures. Therefore, urgent measures shall be implemented as soon as possible, from the moment of the adoption of the Action Plan by the end of 2018. Medium term measures shall be implemented in the period 2019-2021, and long-term measures in the period of 2021-2024. In addition to that, it was necessary to define a number of measures which should be continuously implemented over the whole period covered by the Action Plan.

Determination of the precise period of implementation for every measure and step is based on several limitation and favourable factors:

Limitation factors considered were:

- **Timeframe** – the (un)possibility to implement measure in the certain timeframe;
- **Unavailability of funds** – certain measures require substantial funding to be invested over a period of time;
- **Lack of expertise** – implementation of certain measures requires high level of expertise;
- **Lack of legal or institutional framework** – implementation of certain measures require establishment of proper legal or institutional framework prior to their implementation;
- **Lack of precisely defined competences** – undefined or vaguely defined competences are the most often serious obstacle for implementation of planned measures;
- **Level of efficiency** – while some measures proved limited efficiency in international practice, for some measures assessing efficiency might be difficult due to insufficient data.

The following factors were considered **favorable**:

- **Timeframe** – corresponds with the timeframe recommended by CCS
- **Horizontal measures** – measures with multiple and general effect that would systematically contribute to combat climate change were favored;
- **National measures** – measures which implementation is nation-wide were favored over local/regional measures that target single local problem;

- **Seriousnes of the problem** – is a key factor in definition of priorities (for example, if floods are already recognized as a serious treath, measures to prevent them will prevail over measures related to threats that might happend in the future due to climate change);
- **Proved efficiency of the measure** - certain measures proved the efficiency in international practice, hence prevailing over measures which were not tested enough or showed moderate results;
- **Availibility of funds** – if funds for implementation of the certain measure are completely or partially ensured it gives it absolute priority for the rational strategic planning;
- **Existing legal/institutional framework** – for large number of measures it represents an unavoidable precondition.

3.2 Classification of interventions

The analysis of interventions proposed by CCS resulted in recognition of several types of interventions which can be treated similarly for purposes of planning, monitoring and reporting. Those are:

3.2.1 Strategic interventions

Interventions that comprehend monitoring of implementation of strategic documents are mainly requiring continuos implementation throughout the timespan covered by this Action Plan. This approach ensures integration of the climate policy in other sectoral policies on a long-term period. Taking into account that some existing strategic documents already have a limited timeframe, some strategic interventions are foreseen for the short-term period in order to initiate the process of integration of climate policy in other sectoral policies and ensure reporting on key sectors affecting or affected by climate change. Moreover, it is necessary to highlight that majority of interventions proposed by CCS intersect with already existing strategies, thus creating duplication of efforts. It is of outmost relevance to insist on integration of adequate sectoral interventions in relevant sectoral policies and strategies and focus on monitoring of their implementation within their sectoral framework, rather than wasting time and efforts on duplication of similar obligations.

These interventions are presented as „strategic“ interventions, since they belong to the national strategic framework.

3.2.2. Administrative interventions

This group of interventions is connected with functioning of the public administration and is of crucial significance, since it represents a major precondition for implementation of the strategy. Interventions in this group include capacity building activities, strengthening and establishment of institutions and bodies, training of professionals, establishment of legal framework and administrative procedures. Although some general steps have been identified throughout CCS, this group of interventions requires precise strategic planning with clear responsibilities. It is encouraging that funds needed for implementation of this kind of interventions are moderately low. There are also several types of administrative interventions:

- **Legal interventions** – requiring drafting and adopting of certain legal acts and administrative procedures;

- **Strengthening of institutions and establishment of bodies** - CCS recognizes the need for strengthening of certain institutions (Nature Protection Institute, Meteorological Service, etc.). These interventions should have priority since it represents a precondition for implementation of numerous interventions proposed by CCS.
- **Provision of training for professionals** -This action is quite comprehensive, taking into account different type of trainings and target groups which are needed in the scope of implementation of CCS. While some steps are explicitly recognized trough CCS, such as training on negotiations under UNFCCC and EU respectively, training on efficient irrigation management for farmers, training on climate change adaptation for advanced professionals in water, agriculture, forestry, land use planning, public health and other sectors, other will certainly arise during the implementation process. It is advisable to produce the list of necessary trainings with defined priorities and take it into account when planning dynamics of implementation for all interventions.
- **Information managemant and exchange** - Under this title CCS (adaptation component) recognizes set of actions: Strengthening joint/participative information production; Modernizing the hydrometeorology sector; Improving communication (exchange of data and produced information; Improving utilization of information. However, this was considered as a common intervention (both for mitigation and adaptation) since establishment of the National Inventory System is not possible without improvement of information production and exchange. It will certainly require enhancing of official statistics as well as cooperation of many different actors.
- **Development of cooperation structures** - Under this title CCS (adaptation component) recognizes set of actions: Strengthening the level of, or provisions for, stakeholder participation; Improving cross-sectoral cooperation; Improving cooperation between administration levels; Improving cooperation across administrative boundaries. This is a classic example of administrative intervention that have long-term application since every new obligation requires some administrative fine-tuning and increased cooperation among responsible actors. Moreover, mechanisms of transparency and public participation needs to be constantly improved.

3.2.3 Investment in infrastructure

There are several interventions that require significant investment in infrastructure. Taking into account availability of funds and scope of interventions they are mainly considered as long-term interventions, such as:

- Increasing the efficiency of production of electricity though replacement of TPP Kosovo A with Kosova e Re Power Plant
- Leakage reduction in drinking water distribution network
- Recultivation of industrial tailing sites
- Reconstruction of railways
- Increasing river discharge capacity

3.2.4 Public awareness activities

A number of interventions proposed by CCS are related to promotional activities. They include:

- Public awareness programs on climate change and how to deal with its impacts, including a) Awareness campaign on the risks of building, living and working in vulnerable areas, b) Awareness campaign on saving water for citizens, companies, factories, etc;
- Promotion and awareness raising on energy efficiency;
- Promotion of public road transport;
- Promotion of walking and cycling;
- Promotion of home composting;
- Promotion of good agricultural practice (manure storage, preparation and application methods, proper application of mineral and organic fertilizers);
- Promotion of rainwater harvesting;
- Awareness program on climate change and health among public health and medical practitioners.

Similarly to training activities, promotional activities should be planned throughout the timespan covered by the Action plan, according to priorities. However, single media campaign cannot provide significant results. Therefore it is necessary to spread public awareness activities over the longer period of time, repeating certain actions in order to rise public awareness.

3.2.5 Financial and economic interventions

Financial and economic interventions relate to financial instruments like subsidies or fees, taxes, incentives, etc. In order to create adequate package of financial instruments it is necessary to make cost-benefit analysis showing to decision makers that planned instruments such as incentives could bring benefits in long-term periods, or that taxes or other fees correspond to the certain level of negative effects of climate change and do not represent an unnecessary burden for business.

4 ROADMAP FOR IMPLEMENTATION

On the basis of the key objectives of the CCS, proposed interventions and performed analysis, this roadmap is prepared in order to ease achieving CCS goals, allowing for better strategic and financial planning through emphasizing of necessary pre-conditions, existing constraints and required efforts.

In order to approach to the vision of climate-resilient Kosovo, which is effectively mitigating the causes of climate change, CCS has two main components: Low emission development component (LEDC) and National Adaptation component (NAC).

4.1 Common interventions (LEDC&NAC)

As already explained before, analysis of interventions proposed by CCS during development of this AP showed some overlapping between two main components of CCS as well as some interventions that could be beneficial for both components. For the sake of easier planning, monitoring and reporting those interventions are treated as common. In general, priority should be given to these

group of interventions, since majority of them are directed to establishment of proper set-up which will enable implementation of CCS components (LEDC and NAC).

4.1.1 Common strategic interventions

1. Monitoring and reporting on implementation of CCS

- a. Step 1 – Designation of responsible staff for monitoring and reporting on implementation of CCS
- b. Step 2 - Development and adoption of the 1st Report on implementation of CCS
- c. Step 3 - Development and adoption of the 2nd Report on implementation of CCS
- d. Step 4 - Revision of the Action Plan if necessary
- e. Step 5 - Development and adoption of the Final Report on implementation of CCS
- f. Step 6- Revision of CCS and development of the post-2024 AP

2. Integration of CCS goals in relevant strategic documents/sectoral policies

- a. Step 1 – Introduction of CCS goals in post 2017 NEAP and post 2020 Strategy and Action Plan for biodiversity
- b. Step 2 – Introduction of CCS goals into post 2018 KEEP, Heating Strategy and Energy Strategy
- c. Step 3 – Introduction of CCS goals into post 2020 NREAP
- d. Step 4 – Introduction of CCS goals in National Drought Management Plan (NDMP)
- e. Step 5 – Introduction of CCS goals in Forest Protection Policy
- f. Step 6 - Introduction of CCS goals in Health Protection Policy
- g. Step 7 – Introduction of CCS goals in Strategic Waste Management Plan (SWMP) and Municipal Waste Management Plans
- h. Step 8 – Introduction of CCS goals in Groundwater management strategy (or groundwater management goals integrated in other sectoral strategic document)

3. Implementation of the National Environmental Action Plan (NEAP) for the period 2013-2017

- a. Step 1 – Monitor and enhance of implementation of existing NEAP

The main objective of this AP is to ease the implementation, monitoring and reporting on implementation of CCS. Therefore, the key steps related to this process are presented here as parts of the most important intervention with highest priority. More detailed monitoring plan is provided in Chapter 6.

The first specific objective of this AP is to ensure integration of national climate change policy in relevant sector policies, either they are existing or planned to be developed in accordance to CCS goals.

Implementation of NEAP is considered common measure, since CCS proposes designation and development of protected areas (which might be connected with protection of forests and increase of GHG sinks under the LEDC component) and ecological corridors under the NAC component. According to the EU Progress Report for Kosovo³, „there is very little progress in starting to set up the Natura 2000 network of protected areas. Institutions in this area remain weak”. Therefore,

³ Commission staff working document Kosovo* 2015 report
http://ec.europa.eu/enlargement/pdf/key_documents/2015/20151110_report_kosovo.pdf

further actions proposed by CCS related to establishment of protected areas and ecological corridors, strengthening of Institute for Nature Protection and introduction of biodiversity criteria in spatial planning shall be integrated into post-2017 NEAP.

4.1.2 Common administrative interventions

CCS recognizes a lot of administrative interventions, especially in the NAC component, which aim to improve information management and exchange, development of cooperation structures, improvement of mechanisms for transparency and public participation as well as strengthening of institutional set-up. The following interventions were considered beneficial for both components:

- 1. Improvement of information production, utilization of information and communication**
 - a. Step 1 - Development of IT tools and administrative procedures for data collection and exchange
 - b. Step 2 - Strengthening the level of stakeholders participation in decision making related to climate change
 - c. Step 3 – Improvement of cross-sectoral cooperation
 - d. Step 4 – Improvement of cooperation among administrative levels
 - e. Step 5 – Improvement of cooperation across administrative boundaries

- 2. Training of professionals (proposed list is non-exhaustive)**
 - a. Step 1 - Training on climate change adaptation for advanced professionals in water, agriculture, forestry, land use planning, public health, etc.
 - b. Step 2 - Training in the proper use of facilities and associated equipment for manure handling
 - c. Step 3 - Training in GIS implementation and database system integration
 - d. Step 4- Training on efficient irrigation management for farmers
 - e. Step 5- Training on negotiations under UNFCCC and EU respectively

- 3. Establishment of an inter-governmental task group of institutions responsible for forest protection**
 - a. Step 1 - Creation of the work-plan of the inter-governmental task group on the basis of LEDC Intervention Sheet No. 8 and NAC Intervention Sheet No. 16

It is necessary to establish mechanisms for functional information exchange among administrative bodies. This is vital for implementation of numerous interventions foreseen by CCS (establishment of the national inventory system, establishment of risk reduction platform, etc.) but also in order to collect information on implementation of various CCS interventions in different sectors and implementation of relevant sector policies and strategic documents.

Also, it is necessary to enhance cooperation at all levels in the context of climate change where the first steps are related to recognition of relevant institutions and personnel in charge of climate related issues.

Capacity building activities rely on training of professionals in various fields. Training activities should be always followed by other complementary actions. Taking into account the absorption capacity of the public administration a precise plan for staff training on different subjects should be made at least on annual basis. It should be considered to finance training activities through dedicated programmes (e.g. EU TAIEX, ECRAN, other donor's activities).

4.1.3 Public awareness interventions

CCS recommends numerous public awareness activities in both components. Although different topics are covered in LEDC and NAC component, an overall awareness of general public on climate change and its impacts is necessary in order to understand and accept promoted activities. Generally, almost all CCS interventions and especially those related to introduction of new concepts and mechanisms need certain public awareness activities. The main objective of public awareness activities on climate change is achievement of gradual behavioral change towards more sustainable life styles. Hence, there is a need for a long-term programme, covering different topics with emphasis on those which are followed by appropriate actions. It is recommendable to develop long-term cooperation with media (newspapers, radio, TV, social media) and contribute weekly with articles designed to promote different adaptation or mitigation techniques such as water saving, walking and cycling, energy efficiency, etc.

1. Planning of public awareness activities (proposed list of steps is not exhaustible)

- Step 1 - Public awareness campaign for water conservation and rainwater harvesting
- Step 2 - Awareness rising programs for medical practitioners about negative impacts of climate change
- Step 3 - Promotion of public road transport, promotion of walking and cycling
- Step 4 - Promotion of good agricultural practice (manure storage, preparation and application methods, proper application of mineral and organic fertilizers, home composting)
- Step 5 - Planning of other public awareness actions, using special events and occasions for PA activities

4.1.4. Financial and economic interventions

CCS also proposes different financial and economic interventions such as taxes, incentives and promotion of public-private partnerships. While single instruments might be effective to the certain limits, strategically planned fiscal packages certainly give significantly effective results. For example, greening of public procurement can lead to improvement of vehicle fleet, energy efficient equipment and buildings and have multiple effects related to both low emission development and adaptation.

1. Development of climate tax package

- a. Step 1 - Develop feasibility study on potential climate-friendly tax incentives and fees taking into account international practice and local economy circumstances
- b. Step 2 - Amending legal framework
- c. Step 3 - Monitoring and evaluation of effects of financial and economic measures

4.2 Low emission development

Low emission development component focuses on two objectives:

- Capacity building to fulfill its future obligations under the UNFCCC and EU;

- Slowing down increase of GHG emissions through increased energy efficiency in all sectors, development of renewable energy sources and sustainable use of natural resources

As highlighted before, lack of data on GHG emissions and projections makes strategic planning in this area more difficult, which negatively affects fund-rising and budgetary investments due to impossibility to quantify GHG emission reductions (effects of interventions). Therefore, this component is rather focused on capacity building and improvement of strategic framework, recognizing interventions in relevant sectors where GHG emissions can be reduced or GHG sinks increased.

4.2.1. LEDC Strategic interventions

Among LEDC “strategic” interventions, aimed at improvement and enhancement of implementation of the current strategic framework, there are following actions and steps recognized:

- 1. Implementation of the Kosovo Energy Efficiency Action Plan 2010-2018**
 - a. Step 1 – Monitor and enhance of implementation of existing KEEP
- 2. Implementation of the National Renewable Energy Action Plan (NREAP 2011 -2020)**
 - a. Step 1 - Monitor and enhance implementation of existing NREAP
- 3. Development of strategic framework for waste management**
 - a. Step 1 – Development of Strategic Waste Management Plan (SWMP)
 - b. Step 2 – Development of municipal waste management plans in accordance with the SWMP
 - c. Step 3 – Development of feasibility study for waste co-processing in industry

These actions and steps are formulated on the basis of existing strategic framework with the approach that interventions covered by relevant sectoral policies should not be repeated through this AP in order to avoid duplication of efforts and overlapping of responsibilities. Moreover, integration of climate policy into relevant sectoral policies is the main precondition for its successful implementation due to its cross-sectoral nature.

According to the Annual implementation report of the Energy community Secretariat (published on 1st September 2015)⁴ Kosovo was the first Contracting Party of EE which submitted a draft for the second EEAP, which was adopted in December 2013. It is of a very good quality and proposes an adequate package of energy efficiency interventions in all sectors. It includes a thorough analysis and evaluation of the first EEAP and report on the energy savings and fulfillment of the intermediate target (32 ktoe or 3% in 2012). The household and transport sectors, having the largest share in total final energy consumption, are properly treated in the second EEAP and tackled by various energy efficiency interventions. Having this in mind, as well as the fact that existing KEEP is limited with time span by 2018, as well as National Heating Strategy and Energy Strategy, AP recommends introduction of CCS goals in these strategy instruments during their revision for period after 2018,

⁴Annual implementation report of the Energy community Secretariat (published on 1st September 2015) https://www.energycommunity.org/portal/page/portal/ENC_HOME/DOCS/3872267/23B450386A075E64E053C92FA8C0F69F.PDF

while interventions already covered by existing strategic framework⁵ were not further elaborated through this AP.

The same applies to implementation of NREAP, which targets three sectors: electricity generation, transport and heating and cooling sector.

When it comes to waste management interventions, while first steps of this intervention are necessary in terms of introduction of climate change strategic goals into waste sector policy, the third step and achievement of the goal as set in CCS (Using non-hazardous solid waste as alternative fuel) might be in contrary to other environmental goals such as recycling rate and air quality. It is necessary to take into account these considerations, since in the process of EU integration candidate country must meet AQ standards as well as recycling rates set by EU. Furthermore, other interventions foreseen by CCS in the waste sector (e.g. building of infrastructure for separate waste collection and recycling) should be integrated into Waste management policy in order to avoid duplication of efforts.

4.2.2. LEDC Administrative interventions

The main LEDC capacity building (administrative) intervention is related to establishment of the National Inventory System and 'system for policies and measures and projections' according to the Article 3 (2) and (15) of the EU Regulation No 525/2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information relevant to climate change. It is important to establish capacities and structure for mitigation potential assessment. Although Kosovo still does not have reporting obligations, there is a certain need for improvement of the GHG data in order to enable more appropriate planning in this area, as explained above.

1. Setting up National Inventory System and strengthening reporting on GHG

- a. Step 1 – Introducing main requirements of Regulation 525/2013 EU into national legal framework
- b. Step 2 – Appoint staff in charge of establishment and maintenance of GHG inventory
- c. Step 3 – Appoint staff for emission projections
- d. Step 4 – Regular update and maintenance of GHG inventory

2. Utilization of equipment for prevention of lignite self-ignition

Setting up of the National Inventory System is elaborated in the LEDC Intervention Sheet No.1, with predicted time for investment in the period 2014 – 2020. However, taking into account that Kosovo still do not have formal international obligation to report on GHG, as well as the fact that according to the EU Regulation No 525/2013 it is necessary to continuously upgrade the data quality and the National Inventory System as a whole, this is a long-term activity, closely connected with improvement of information management and exchange.

⁵ Interventions such as promotion and awareness rising on energy efficiency, improving efficiency of existing TPPs, reconstruction and extension of district heating networks, introducing renewable energy in energy generation, establishment of energy auditing system, etc.

Taking into account that equipment for firefighting in mines was purchased back in 2005/2006 it is necessary to utilize this equipment as soon as possible. The intervention will contribute to reduction of GHG emitted from lignite self-ignition.

4.2.3. LEDC interventions related to investment in infrastructure

1. Increasing the efficiency of production of electricity through replacement of TPP Kosovo A with Kosova e Re Power Plant

- a. Step 1 - Development of necessary project documentation and contracting
- b. Step 2 - Start of building and construction works

2. Reconstruction of railways

3. Developing EU CIVITAS pilot project(s)

CCS recognizes several infrastructural projects that would in different ways address climate change effects. However, the most significant investments for reduction of GHG emissions are related to energy and transport sectors which are considered as major contributors to GHG emissions in Kosovo.

Regarding the construction of the new TPP, the Action step 1 comprehends all documents needed prior to construction of TPP, including spatial plans, EIA and NERP (National Emission Reduction Plan) for LCP Directive. Kosovo has two plants falling under the scope of the Large Combustion Plants Directive with a total of five units and a total rated thermal input of 3,350 MW. All units are fired by lignite. The Ministry of Environment and Spatial Planning has to decide on the timeframe according to which KEK must meet all obligations related to the reduction of emissions from LCPs. Kosovo is currently making emission measurements in its two large combustion plants, TPP Kosovo A (three units) and TPP Kosovo B (two units) as a precondition for preparing a National Emission Reduction Plan. Realization of this heavy investment project (estimated 1,2 bill € 2x300MW) will depend on availability of funds/investors, but since modernization in energy production is a must, preparatory steps should be taken as priority in order to allow for better financial planning and as support for finding funds/investors.

Kosovo Railway network consists of 334,451 km for public transport and 103,4 km for industrial use. Railway transport uses diesel as source of energy. Railway is not in full function and needs gradual modernization. Costs are not estimated.

CCS recalls to EU CIVITAS program. Over the last ten years CIVITAS has managed to test over 800 interventions and urban transport solutions.⁶ Even if projects on sustainable transport are not implemented within EU CIVITAS programme, database on tested interventions should be used in order to find appropriate solutions tested in practice.

4.3 National Adaptation component

Adaptation component of CCS formulates three objectives:

- Introducing new and improving existing mechanisms for disaster risk reduction

⁶ <http://www.civitas.eu/about-us-page>

- Enhancing adaptive capacity of natural systems
- Capacity building

This component of CCS is elaborated in more details, which resulted with numerous interventions. Analysis of the proposed interventions was based at the same approach as for LDC was used for this component, aiming to avoid duplication of efforts and avoid unnecessary administrative burden.

4.3.1. NAC strategic interventions

Apart from common strategic interventions which are related to the both CCS components (LEDC and NAC), the adaptation component recognize the following strategic interventions:

- 1. Development of Platform for Risk Management**
- 2. Reducing flood risk**
 - a. Step 1 - Creating registry database for river flows
 - b. Step 2 - Mapping of flood prone areas
 - c. Step 3 - Development of flood risk management plans – Kosovo wide
- 3. Preparation of Draft National Drought Management Plan (NDMP)**
- 4. Development of groundwater management plans**
- 5. Public health related interventions**
 - a. Step 1 - Conduct Vulnerability Health Impact Assessment
 - b. Step 2 - Develop Adaptation plan for health sector

CCS describes the situation related to disaster risk reduction in the following manner: “The Department for Emergency Management (DEM) within the Ministry of Interior is formally in charge of the coordination and or conduct of damage assessments. Data collection and storage for each disaster event is ad hoc. In 2009 the Kosovo Risk Assessment was conducted covering all potential hazards for the population of Kosovo and attempting to quantify the expected level of damage. The assessment focuses mostly on hazards and structural vulnerability, while climate change vulnerability data for Kosovo is not available. “Therefore, in order to achieve the primary objective of the NAC component, it is important to assess climate change vulnerability in the most vulnerable sectors (water, agriculture, biodiversity, forestry, health) and to establish appropriate platform and consequently mechanisms for risk reduction.

Since floods are recognized as the major threat related to climate change, separate strategic approach is needed for reduction of flood risks. Instead of policy on national level, local risk management plans are much more effective considering different terrain, water bodies and size of endangered population.

National drought management plan should comprehend a number of interventions proposed by CCS, such as water saving technologies in irrigation systems, selection of high resilient crop seeds, securing minimum flows in dry periods, water transfer policy, construction of retention areas, etc.

Depending on the current situation in the water sector, there is a need recognized by CCS to develop specific groundwater management strategy. If it is more appropriate this strategic document can be incorporated in framework strategy of the water sector.

4.3.2. NAC administrative interventions

As explained in the Chapter 3, administrative interventions are connected with functioning of the public administration and often represent a precondition for proper policy development. For example, appropriate legal and institutional framework represent key factor for adaptation interventions related to the following topics:

- 1. Drafting and adoption of the new Law on Construction**
- 2. Drafting construction standards and guidelines for green buildings and green roofs**
- 3. Developing and adoption of necessary legal acts and the EIA related to water transfer**
- 4. Development of necessary legal acts on groundwater exploitation and protection**

In order to ensure that urban development plans will use urban areas more rational and functional and aim to prevent uncontrolled construction and development of the settlements in prone areas, there is a need to amend the existing Law on construction, introducing also other interventions proposed by CCS, such as promotion of green standards in buildings, incorporating local biodiversity objectives into the planning, delivery and management of green infrastructure interventions, etc.

Legal interventions are also necessary for promotion of mechanisms to improve adaptive capacity such as green roofs, water transfer, protection of groundwaters, etc.

4.3.3. NAC interventions related to investment in infrastructure

Reducing the risk and damage from current and future impacts of climate change and enhancing adaptive capacity requires lot of investment in infrastructure. CCS recognizes different fields of intervention focused on introducing new and improving existing mechanisms for risk reduction.

- 1. Modernizing hydrometeorology monitoring networks**
 - a. Modernize existing water resources monitoring network
 - b. Modernize and extend existing meteorological network
- 2. Leakage reduction in drinking water distribution network**
- 3. Re-cultivation of industrial tailing sites**
 - a. Develop feasibility studies, EIA, project design and spatial planning documentation for Mitrovica Industrial Park, Stari Trg and Zvecan tailings
 - b. Implementation of remediation interventions
 - c. Construction of treatment plant for acid mine water
- 4. Increasing river discharge capacity**
 - a. Deepening of summer bed,
 - b. Adjustment or removal of hydraulic obstacles in river bed
 - c. Floodplain restoration
 - d. Replacement of dykes to enlarge river bed capacity
- 5. Development of pilot “green roof” project(s)**
- 6. Development of pilot projects for water reclamation**
 - a. Mapping and selection of industrial sites, institutional and/or residential buildings which are appropriate for implementation of pilot projects
 - b. Development of feasibility studies and project designs of selected sites for water reclamation
 - c. Implementation of appropriate recycling technologies of selected sites for water reclamation
- 7. Development of design of rehabilitation measures to ensure structural integrity of Iber-Lepenci hydro-system**

8. Develop design of treatment plant for acidic discharge water (Novobrdó mine)

CCS estimates that modernization of hydro-meteorology services in Kosovo would cost some 20-30 million €. Before such investment is made, proper institutional framework should be established both on central and local levels and training of key staff ensured.

Taking into account that according to CCS estimates listed interventions could cost more than 150 million €, in setting priorities and deadlines and taking commitments regarding implementation is quite demanding task. Therefore, this set of interventions should be implemented step-by-step, insuring that preparatory works (such as technical documentation, legislative framework, institutional set-up, etc.) are completed before the start of project. Also, since majority of listed interventions should be implemented Kosovo wide, certain interventions could be performed gradually (e.g. reconstruction of water distribution network or rehabilitation of river banks) or partially, municipality by municipality. It also underlines the necessity that these measures are considered long-term and in certain cases may be completed after the expiry of this AP.

5 ACTION PLAN

5.1 Continuous measures (2016-2024)

1. Monitoring and reporting on implementation of CCS

Type of intervention: Strategic intervention		Sector: Capacity building		
Goal: National climate change policy developed and implemented				
Action step 1: Designate responsible staff for monitoring and reporting on implementation of CCS				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP	2016 (IV quarter)	N/A		Regular monitoring and reporting
Action step 2: Develop and adopt 1st Report on implementation of CCS				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP	2018 (IV quarter)	N/A		Public informed on initial phase of implementation of CCS
Action step 3: Develop and adopt 2nd Report on implementation of CCS				
MESP/responsible person or group	2021 (IV quarter)	N/A	N/A	Public informed on second phase of implementation of CCS
Action step 4: Revise the Action Plan if necessary				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/responsible person or group IMWG	2022 (I quarter)	N/A	N/A	Updated Action Plan with rescheduling of measures which are not implemented as planned
Action step 5: Develop and adopt 3rd Report on implementation of CCS				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/responsible person or group	2024 (I quarter)	N/A	N/A	Public informed on level of implementation of CCS
Action step 6: Revise CCS and develop post-2024 AP				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result

MESP/responsible person or group	2024 (I quarter)	N/A	N/A	Updated CCS and Action Plan
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2. Integration of CCS goals in relevant strategic documents/sectoral policies

Type of measure: Strategic measures			Sector: all	
Goal: Monitoring of CCS goals integrated in other strategic documents/sectoral policies				
Action step 1: Introduce and monitor implementation of CCS goals in post-2017 NEAP and post 2020 Strategy and Action Plan for biodiversity				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/responsible person or group	2016 - 2024	N/A	N/A	Regular monitoring of implementation of CCS goals
Action step 2: Introduce and monitor implementation of CCS goals in post-2018 Energy Efficiency Action Plan (KEEP), Heating Strategy and Energy Strategy				
MESP/responsible person or group	2016 - 2024	N/A	N/A	Regular monitoring of implementation of CCS goals
Action step 3: Introduce and monitor implementation of CCS goals in post-2020 National Renewable Energy Action Plan (NREAP)				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/responsible person or group	2016 - 2024	N/A	N/A	Regular monitoring of implementation of CCS goals
Action step 4: Introduce and monitor implementation of CCS goals in National Drought Management Plan (NDMP)				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/responsible person or group	2016 - 2024	N/A	N/A	Regular monitoring of implementation of CCS goals
Action step 5: Introduce and monitor implementation of CCS goals in Health Protection Policy				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/responsible person or group	2016 - 2024	N/A	N/A	Regular monitoring of implementation of CCS goals
Action step 6: Introduce and monitor implementation of CCS goals in Forest Protection Policy				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/responsible person or group	2016 - 2024	N/A	N/A	Regular monitoring of implementation of CCS goals
Action step 7: Monitoring of CCS goals integrated in Strategic Waste Management Plan (SWMP) and municipal waste management plans				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/responsible person or group	2016 - 2024	N/A	N/A	Regular monitoring of implementation of CCS goals
Action step 8: Monitoring of CCS goals integrated in groundwater management plans (or groundwater management goals integrated in other sectoral strategic document)				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/responsible person or group	2016 - 2024	N/A	N/A	Regular monitoring of implementation of CCS goals

3. Improvement of information production, utilization of information and communication

Type of measure: Administrative/Institutional			Sector: all	
Goal: Improved information production, utilization of information and communication				

Action step 1: Develop IT tools and administrative procedures for data collection and exchange				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Government	2016 - 2024	N/A	N/A	Improved data collection and exchange
Action step 2: Strengthen the level of stakeholders participation in decision making related to climate change				
Government	2016 - 2024	N/A	N/A	Improved stakeholders participation
Action step 3: Improve cross-sectoral cooperation				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Government	2016 - 2024	N/A	N/A	Improved cooperation
Action step 4: Improve cooperation among administrative levels				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Government	2016 - 2024	N/A	N/A	Improved cooperation
Action step 5: Improve cooperation across administrative boundaries				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Government	2016 - 2024	N/A	N/A	Improved cooperation

4. Training of professionals

Type of measure: Administrative/training			Sector: all	
Goal: Improved information production, utilization of information and communication				
Action step 1: Training on climate change adaptation for advanced professionals in water, agriculture, forestry, land use planning, public health, etc.				
Responsible institution	Deadline ⁷ (TBC)	Necessary resources	Potential challenges	Result
Government/Public administration bodies	(2016 – 2024)	N/A	N/A	Improved staff knowledge and skills
Action step 2: Training of staff of Hydro-meteorological Institute/Local meteorological stations				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Kosovo Hydro-meteorological Institute/Local meteorological stations	2018 (IV quarter)	Not estimated	Availability of funds	Strengthened capacities of local institution officials to permanently obtain recorded data, to analyze the data, to use numerical models and software's for simulation and projection of climate change impact on water resources and eco-system services
Action step 3: Training on the proper use of facilities and associated equipment for manure handling				
MAFRD	2016 - 2024	N/A	N/A	Improved knowledge and skills of farmers or staff employed in farms
Action step 4: Training on GIS for mapping of risk prone areas				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result

⁷ to be confirmed in the separate planning document

MESP/MAFRD	2016 - 2024	N/A	N/A	Improved staff knowledge and skills
Action step 5 Training on efficient irrigation management practices for farmers				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/MAFRD	2016 - 2024	N/A	N/A	Improved knowledge and skills of farmer
Action step 6: Training on climate negotiations under UNFCCC and EU				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP	2016 - 2024	N/A	N/A	Improved staff knowledge and skills
Action step 7: Training on GHG inventory and emission projections				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
KEPA/MESP	2016 - 2024	N/A	N/A	Improved staff knowledge and skills

5. Public awareness interventions

Type of measure: Public awareness			Sector: all	
Goal: Public awareness on climate change improved				
Action step 1: Public awareness campaign for water conservation and rainwater harvesting				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/MFARD	2016 - 2024	N/A	N/A	Water saving
Action step 2: Awareness rising programs for medical practitioners about negative impacts of climate change				
Ministry of Health	2016 - 2024	N/A	N/A	Improved awareness of medical practitioners on climate change
Action step 3: Promotion efficient practices for the utilization of public road & railway transport instead of individual vehicles, promotion of walking and cycling				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Ministry of Transport and Post Telecommunication	2016 - 2024	N/A	N/A	Improved public awareness on alternative transport
Action step 4: : Promotion of good agricultural practice (manure storage, preparation and application methods, proper application of mineral and organic fertilizers, home composting)				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MFARD	2016 - 2024	N/A	N/A	Improved public awareness on good agricultural practice
Action step 5: Planning of other public awareness actions, using special events and occasions for PA activities				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/IMWG/responsible person or group	2016 - 2024	N/A	N/A	Strategic planning of public awareness activities

6. Development of climate tax package

Type of measure: Financial			Sector: Horizontal	
Goal: Development of climate tax package				
Action step 1: Develop feasibility study on potential climate-friendly tax incentives and fees taking into account international practice and local economy circumstances				

Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MED/MoF	2019 (II quarter)	Not estimated	Availability of expertise	Clear vision on fiscal policy related to CCS
Action step 2: Amend legal framework				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Government/competent Ministries	2021 (IV quarter)	N/A	Length of administrative procedures, political will	Financial and economic measures to combat climate change are legally binding
Action step 3: Monitor and evaluate effects of financial and economic interventions				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MED/MoF	2024 (IV quarter)	12-15 mill (€) (Total estimation for the goal)	N/A	Data on effects of implemented fiscal/financial measures

7. Setting-up National Inventory System

Type of intervention: Administrative		Sector: Capacity building		
Goal: National GHG inventory system established and functioning				
Action step 1: Introduce main requirements of Regulation 525/2013 EU into national legal framework				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
KEPA/MESP	2017 (III quarter)	N/A	Available expertise	Obligation on data provision regulated for all data holders, including format and frequency of reporting
Action step 2: Appoint responsible staff for inventory set-up, regular maintenance and reporting				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
KEPA/MESP	2018 (IV quarter)	N/A	N/A	Responsibilities for inventory set-up and maintenance established
Action step 3: Appoint staff for emission projections, scenario development and interpretations				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
KEPA/MESP	2020 (IV quarter)	N/A	N/A	Responsibilities for inventory set-up and maintenance established
Action step 4 : Regular maintenance and update of GHG Inventory				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
KEPA/MESP	2024 (IV quarter)	N/A	N/A	National Inventory system established and functioning

8. Public health related interventions

Type of measure: Administrative/Institutional		Sector: Public health		
Goal: Improvement of public health system response to climate change effects				
Action step 1: Conduct vulnerability health impact assessment				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result

Public Health Institute Ministry of Health	2018 (IV quarter)	Not estimated	Availability of expertise	Clear vision on health policy related to CCS
Action step 2: Develop adaptation plan for health sector				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Public Health Institute Ministry of Health	2021 (IV quarter)	Not estimated	Availability of expertise/funds	Health policy related to CCS developed

5.2 Short-term interventions (2016-2018)

9. Enhancing the implementation of NEAP for the period 2013-2017

Type of measure: Strategic measure		Sector: Forests and biodiversity protection		
Goal: Designation and development of protected areas and ecological corridors				
Action step 1: Monitor and enhance implementation of existing NEAP				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP	2018 (IV quarter)	N/A	Availability of funds	CCS goals integrated in Environmental policy and monitored

10. Enhancing the implementation of the KEEP 2010-2018

Type of measure: Strategic measure		Sector: Energy efficiency		
Goal: Implementing Kosovo Energy Efficiency Action Plan 2010-2018				
Action step 1: Monitor and enhance implementation of Energy Efficiency Action Plan (KEEP)				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP	2016 (IV quarter)	17,6 million EUR (total estimated funds)	availability of funds	Improved level of implementation of the Energy Efficiency Action Plan

11. Development of strategic framework for waste management

Type of measure: Strategic measure		Sector: Waste management		
Goal: Using non-hazardous solid waste as alternative fuel				
Action step 1: Development of Strategic Waste Management Plan (SWMP)				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP	2017 (IV quarter)	Not estimated	Availability of specific expertise	Climate change policy integrated into waste management policy
Action step 2: Development of municipal waste management plans in accordance with the SWMP				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Municipalities	2018 (IV quarter)	Not estimated	Limited time and resources	Climate change policy integrated into waste management policy at local level
Action step 3: Development of feasibility study for waste co-processing in industry				

Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MED/Industry sector (cement industry)	2018 (IV quarter)	Not estimated	Availability of specific expertise	Pre-conditions for implementation of the goal established, if the study confirms benefits of the proposed action

12. Development of Platform for Risk Management

Type of measure: Strategic measure			Sector: Risk management	
Goal: Improving risk management and restrict settlement building in risk prone areas				
Action step 1: Development of platform for risk management				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Government/Municipalities	2017 (IV quarter)	0.6 mill €	Availability of funds	Reduced risks, improved risk management
Action step 2: Mapping and survey all risk-prone areas				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Government/Municipalities	2017 (IV quarter)	0.6 mill €	Availability of funds	Reduced risks, improved risk management

13. Preparation of National Drought Management Plan (NDMP)

Type of measure: Strategic measure			Sector: Draught/low flow/water scarcity	
Goal: Crop adaptations - selection of high resilient crop seeds (crops with more efficient water use and higher yield under increased temperature conditions)				
Action step 1: Preparation of Draft National Drought Management Plan (NDMP)				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MAFRD	2017 (IV quarter)	not estimated	Availability of specific expertise	Climate change policy integrated into agricultural policy

14. Establishment of an inter-governmental task group of institutions responsible for forest protection

Type of measure: Administrative measure/institutional			Sector: Forest and biodiversity protection	
Goal: Strengthening forest protection policy				
Action step 1: Establishment of an inter-governmental task group of institutions responsible for forest protection				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Government	2016 (IV quarter)	N/A		Better management of forest resources
Action step 2: Creation of the work-plan of the inter-governmental task group on the basis of LEDC Intervention Sheet No. 8 and NAC Intervention Sheet No. 16				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
inter-governmental task group on forest protection	2017 (I quarter)	N/A		Further elaboration of steps and actions for implementing CCS in the forest sector

15. Drafting construction standards and guidelines for green buildings and green roofs

Type of measure: Administrative measure/legislative		Sector: Flood protection		
Goal: Development of innovative standards for green buildings				
Action step 1: Drafting construction standards and guidelines for green buildings and green roofs				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP	2017 (I quarter)	N/A	Availability of expertise	Developed new construction standards that promote green building concepts, in particular the green roof concept

16. Development of plans on groundwater characterization and protection

Type of measure: Administrative measure/legislative		Sector: Draught/low flow/water scarcity		
Goal: Sustainable groundwater management and protection				
Action step 1: Development of management plans on groundwater				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP	2017 (II quarter)	N/A		Established plans and structures for the effective and sustainable management and protection of groundwater resources

17. Prevention of lignite self-ignition

Type of measure: Investment		Sector: Thermal power plants and coal mines		
Goal: Prevention of lignite self-ignition in Kosovo coal mine				
Action step 1: Utilization of equipment for prevention of lignite self-ignition				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
KEK/ MESP (supervision)	2017 (II quarter)	50.000 – 100.000 (€)	N/A	Cessation and prevention of lignite self-ignition and therefore prevention of the emission of CO2 and NH4.

18. Development of design of rehabilitation measures to ensure structural integrity of Iber-Lepenci hydro-system

Type of measure: Investment		Sector: Drought/low flow/water scarcity		
Goal: Management plan and rehabilitation measures for Iber-Lepenci hydro-system				
Action step 1: Development of design for rehabilitation measures to ensure structural integrity of Iber-Lepenci hydro-system, development of plans & feasibility studies for implementation of 2nd phase of project – to connect the Ibër channel (Ibër River Basin) with the Lepenci River Basin.				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Government – MESP and Municipalities	2018 (IV quarter)	15- 17 mill (€) (Total estimation for the goal)	Availability of data, coordination and cooperation	Data on needed reconstruction systemized and coupled with appropriate design of rehabilitation measures which will provide for more realistic estimate of funds

19. Develop design of treatment plant for acidic discharge water (Novobrdo mine)

Type of measure: Investment		Sector: Drought/low flow/water scarcity		
Goal: Design and construction of treatment plant for Novobrdo mine				
Action step 1: Develop design of treatment plant for acidic discharge water				

Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Trepca company (MESP supervision)	2018 (IV quarter)	1 mill (€) (Total estimation for the goal)	N/A	Final design of treatment plant completed

5.3 Medium-term measures (2019-2021)

20. Enhancing the implementation of the NREAP (2011-2020)

Type of measure: Strategic measure		Sector: Renewable energy		
Goal: Implementing NREAP 2011-2020				
Action step 1: Monitor and enhance implementation of existing National Renewable Energy Action Plan (NREAP)				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP	2020 (IV quarter)	Not estimated	availability of funds	Improved level of NREAP implementation

21. Modernizing hydrometeorology monitoring networks

Type of measure: Administrative measure/ Institutional		Sector: Information management and exchange		
Goal: Modernizing the hydrometeorology sector				
Action step 2: Modernize existing water resources monitoring network: monitoring stations for surface & ground water (quality and quantity).				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Kosovo Hydro-meteorological Institute	2020 (IV quarter)	Total estimation 20-30 mill €)	Availability of funds	Improved hydrological data and other environment parameters.
Action step 3: Modernize and extend existing meteorological network: precipitation monitoring stations, temperatures, incl. other environmental quality parameters				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Kosovo Hydro-meteorological Institute/Local meteorological stations	2021 (IV quarter)	as above	Availability of funds	Improved quality of meteorological data

22. Reducing flood risk

Type of measure: Administrative/Strategic		Sector: Flood protection		
Goal: Restriction of settlement building in risk-prone areas and prevention of flood risks				
Action step 1: Creating registry database for river flows and vulnerabilities				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/IMWC	2019 (I quarter)	Not estimated	N/A	Ensure that urban development plans will use urban areas more rational and functional and preventing uncontrolled construction and development of the settlements
Action step 2: Mapping of flood prone areas				

Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/IMWC	2020 (I quarter)	Not estimated	N/A	Ensure that urban development plans will use urban areas more rational and functional and preventing uncontrolled construction and development of the settlements
Action step 3: Development of flood risk management plans – Kosovo wide				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/IMWC Municipalities	2021 (IV quarter)	Not estimated	Cooperation with municipalities, availability of funds and expertise at local level	Reduction of threats from floods

23. Developing and adoption of necessary legal acts related to water transfer

Type of measure: Administrative measure/legislative		Sector: Flood protection		
Goal: Water transfer (from one river basin to the other)				
Action step 1: Developing and adoption of necessary legal acts and approvals related to water transfer				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/MAFRD Inter-ministerial Water Council	2017 (II quarter)	N/A	Availability of funds and environment impacts might be a challenge for implementation of this action	Legal preconditions are in place to enable further actions needed to achieve this goal.

24. Developing EU CIVITAS pilot project(s)

Type of measure: Investment measure		Sector: Transport		
Goal: Development of sustainable mobility concepts				
Action step 1: Propose appropriate pilot action and address donors				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MOT/MESP/ Municipalities	2021 (IV quarter)	2 million €	Availability of EU (or other donors) funds	Reduction of CO ₂ from transport

25. Developing pilot “green roof” project(s)

Type of measure: Investment measure		Sector: Flood protection		
Goal: Implementation of pilot project promoting green buildings standards				
Action step 1: Select attractive pilot location and implementation of pilot green roof projects				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP	2019 (IV quarter)	0.15-0.2 million € per project	Lack of specific expertise	Promoted green building concepts, in particular the green roof concept

28. Development of pilot projects for water reclamation

Type of measure: Investment measure			Sector: Drought/low flow/water scarcity	
Goal: Water reclamation, reuse and recycling				
Action step 1: Mapping and selection of industrial sites, institutional and/or residential buildings which are appropriate for implementation of pilot projects				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/MED	2018 (II quarter)	Not estimated	Cooperation with selected site owners	Raised awareness among institutions, industries and residential sector
Action step 2: Develop feasibility studies and project designs for selected sites				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Contractor, MESP (supervision)	2018 (IV quarter)	Not estimated	Availability of expertise and funds	Preconditions for development of pilot projects established
Action step 3: Implementation of appropriate recycling technologies for selected sites				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Contractor, MESP (supervision)	2019 (IV quarter)	0.35 – 0.5 mill € (total estimated cost)	Availability of funds	At least one pilot project developed.

5.4 Long-term measures (2022-2024)

29. Increasing the efficiency of production of electricity through replacement of TPP Kosovo A with Kosova e Re Power Plant

Type of measure: Investment measure			Sector: Thermal power plants and coal mines	
Goal: Increasing the efficiency of production of electricity through replacement of TPP Kosovo A with Kosova e Re Power Plant				
Action step 1: Development of necessary project documentation and contracting				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Government MED/MESP	2019 (I quarter)	Not estimated	Readiness to enter in significant investment project Government decision to enter into contractual agreement with the potential investor and pending decision for decommissioning of Kosovo A and rehabilitation of Kosovo B blocks.	Pre-conditions for construction of the new TPP established
Action step 2: Start of building and construction works				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result

Investor /Government KEK/MED	2021	1,2 - 1,5 billion € (Total estimated cost)	Finding investor/necessary funds	Reducing CO2 emissions from TPP Reducing electricity consumption for heating by co-generation
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30. Leakage reduction in drinking water distribution network

Type of measure: Investment		Sector: Drought/low flow/water scarcity		
Goal: Leakage reduction in drinking water distribution network				
Action step 1: Replacement and repair of deteriorated water distribution network in urban and rural areas				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
7 RWC in Kosovo/Municipalities	2016 - 2024 (IV quarter)	150 mill (€) (Total estimation for the goal)	Availability of funds	Leakage rate reduced from 58% to 35%

31. Recultivation of industrial tailing sites

Type of measure: Investment		Sector: Drought/low flow/water scarcity		
Goal: Recultivation of industrial tailing sites				
Action step 1: Develop feasibility studies, project design and spatial planning documentation for Mitrovica Industrial Park, Stari Trg and Zvecan tailings				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Trepca company/MESP	2019 (IV quarter)	1.5 mill (€) (Total estimation for the goal)	N/A	Preparatory documentation completed
Action step 2: Implementation of remediation measures				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Trepca company/MESP	2024 (IV quarter)	12 mill (€) (Total estimation for the goal)	N/A	Remediation measures completed
Action step 3: Construction of treatment plant for acid mine water				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Trepca company/MESP	2024 (IV quarter)	3 mill (€) (Total estimation for the goal)	N/A	Treatment plant functional

32. Reconstruction of railways

Type of measure: Investment		Sector: Transport		
Goal: Reconstruction of railway infrastructure				
Action step 1: Gradual implementation of railway reconstruction works				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
Kosovo railways/Ministry of Transport and Post Telecommunications	2024 (IV quarter)	Not estimated	Availability of funds	Improved railway infrastructure

33. Increasing river discharge capacity

Type of measure: Investment		Sector: Flood protection		
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Goal:				
Action step 1: Deepening of river beds				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/IMWC/MIA MAFRD/Municipalities	2024 (IV quarter)	5 mill € (total estimated for the goal)	Availability of data, availability of funds	Reduced flood risk
Action step 2: Adjustment or removal of hydraulic obstacles in river bed				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/IMWC/MIA MAFRD/Municipalities	2024 (IV quarter)	5 mill € (total estimated for the goal)	Availability of data, availability of funds	Reduced flood risk
Action step 3: Floodplain restoration				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/IMWC/MIA MAFRD/Municipalities	2024 (IV quarter)	10 mill € (total estimated for the goal)	Availability of data, availability of funds	Reduced flood risk
Action step 4: Replacement of dykes to enlarge river bad cap				
Responsible institution	Deadline	Necessary resources	Potential challenges	Result
MESP/IMWC/MIA MAFRD/Municipalities	2024 (IV quarter)	3 mill € (total estimated for the goal)	Availability of data, availability of funds	Reduced flood risk

6 MONITORING PLAN

The Action Plan for implementation of the Climate change strategy for Kosovo foresee five key steps related to monitoring and reporting on implementation of CCS:

- Step 1 – Designation of responsible staff for monitoring and reporting on implementation of CCS
- Step 2 - Development and adoption of the 1st Report on implementation of CCS
- Step 3 - Development and adoption of the 2nd Report on implementation of CCS
- Step 4 - Revision of the Action Plan (if necessary)
- Step 5 - Development and adoption of the Final Report on implementation of CCS

The AP also takes the pro-active approach to the monitoring of implementation coupling the monitoring activities with enhancement of implementation. Hence, it is necessary to develop mechanisms of enhancement such as sending reminders to institutions/persons in charge of implementation, organizing meetings, informing the public and using appropriate instruments of administrative or even political pressure.

Obviously, the first step foreseen might be the most significant, since there is of outmost importance to establish clear set of roles and responsibilities for monitoring and reporting on implementation of CCS.

Having in mind that an Inter-Ministerial Working Group on Climate Change (IMWG) was established back in march 2013, this existing structure should be used for establishment of the team in charge of monitoring and reporting on implementation of CCS.

Following the structure of the AP it would be wise to assign responsible person(s) to each of recognized group of measures, according to tasks formulated in Table 1.

6.1 Roles & Responsibilities

Table 1 – Roles & Responsibilities

	Role	Responsibilities/tasks
1	WG (or responsible person) for monitoring of CCS interventions related to strategic framework and CCS interventions related to functioning of public administration	<p>Monitoring and reporting on implementation of strategic measures</p> <p>Enhancement of implementation of strategic measures</p> <p>Integration of CCS goals in new and updated sectoral strategies</p> <p>Ensure public participation in policy development process</p> <p>Monitoring and reporting on implementation of administrative measures</p> <p>Enhancement of integration of CCS goals in legal framework</p> <p>Enhancement of strengthening of existing and establishment of new institutions/bodies in accordance with AP</p> <p>Creation of time-table of necessary trainings and integration of training component in all relevant on-going and future project activities</p> <p>Enhancement of improvement of communication and information exchange</p>
2	WG (or responsible person) for monitoring of CCS interventions related to investment in infrastructure and CCS interventions related to financial and economic interventions	<p>Monitoring and reporting on investment related measures</p> <p>Monitoring of budgetary planning on national and local level</p> <p>Monitoring of international technical assistance and other projects</p> <p>Ensuring financial planning in accordance with CCS goals</p> <p>Monitoring and reporting on implementation of financial and economic interventions</p> <p>Enhancement of introduction of subsidies or fees, taxes, incentives in accordance with CCS goals.</p>

3	WG (or responsible person) for monitoring of CCS interventions related to public awareness activities	<p>Monitoring and reporting on implementation of public awareness activities</p> <p>Creation of time-table of necessary public awareness activities</p> <p>Integration of public awareness component in all relevant on-going and future project activities</p> <p>Establishment of long-term cooperation with media (newspapers, radio, television, social media) to promote CCS goals</p> <p>Press clipping</p>
4	IMWG / key advisory body	<p>Organizes meetings at least once a year to discuss internal annual reports or official reports on implementation of CCS</p> <p>Gives advises and instructions to IMWG sub-groups in the form of meeting conclusions</p> <p>Ensures timely data submission by responsible institutions</p> <p>Participates in public consultations on draft reports</p>
5	MESP /institution implementing AP and monitoring plan	<p>Coordinates the process of monitoring and reporting on implementation of CCS</p> <p>Provides logistic support (meeting rooms, organization of public consultation, data management, etc.)</p> <p>Submits official reports to the Government for adoption</p> <p>Publishes adopted reports on its website</p>
6	Government	<p>Adopts official reports</p> <p>Supports implementation of CCS by special decisions if necessary</p> <p>Ensures budgetary support for implementation of CCS</p>
7	Institutions responsible for implementation of CCS⁸	<p>Implement CCS interventions</p> <p>Provide information on implementation process to IMWG sub-groups upon request</p>
8	Civil society	<p>Actively participates in decision making, monitoring and reporting process</p>

⁸ Although CCS Intervention sheets in majority of cases note multiple responsible institutions for a single intervention, one of them have to be marked as leader/coordinator of intervention and provide all requested data on certain intervention implementation status.

6.2 Logical Framework

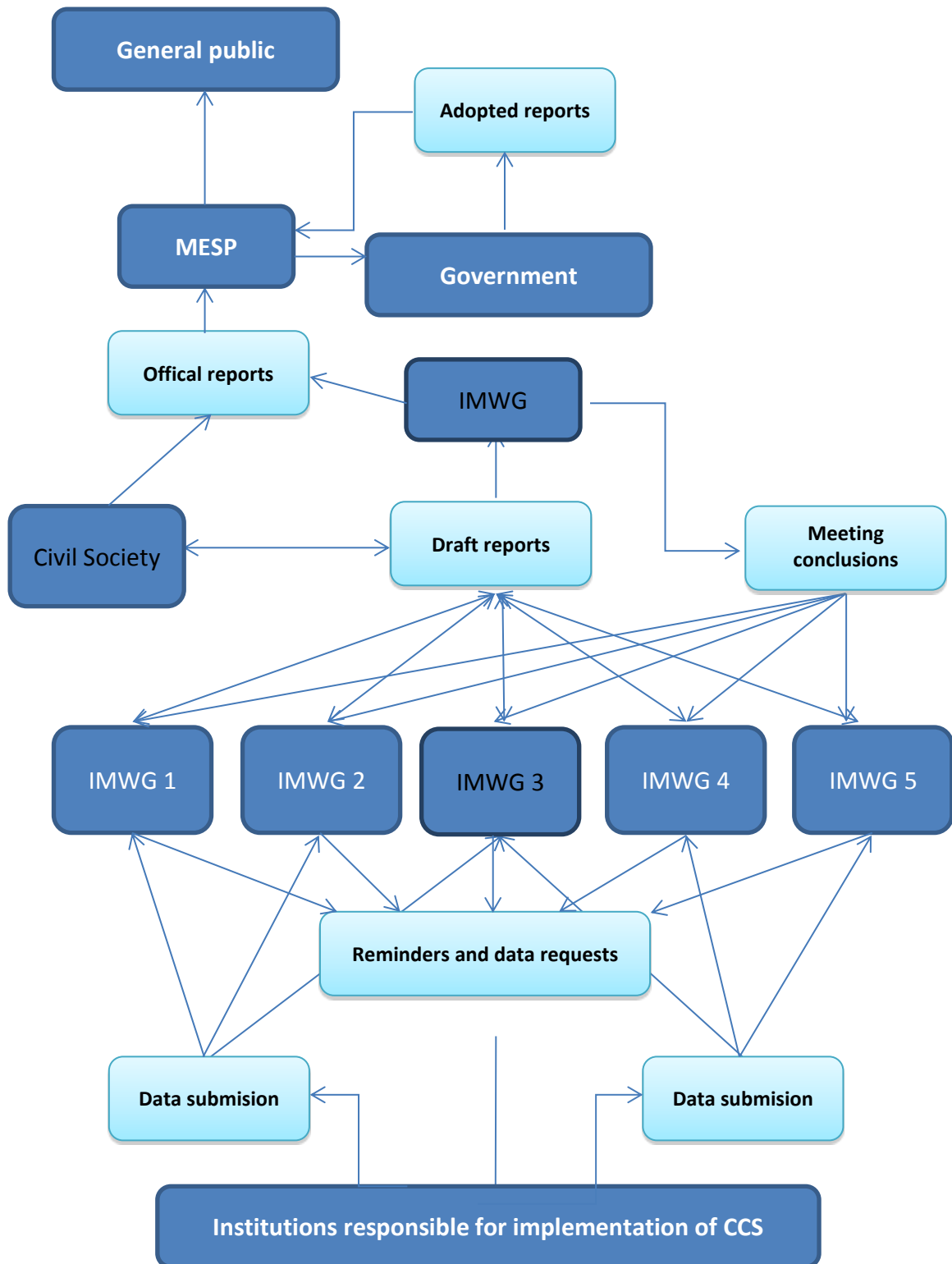
Tasks formulated in Table 1 have to be performed in accordance with foreseen reporting dynamics, having in mind that monitoring, especially a pro-active one, (unlike reporting) is continuous activity which requires serious commitment and creation of timetable of activities.

Table 2 – Logical framework

Action	Responsible Institutions	Deadline
Meeting of IMWG	MESP/IMWG	2017 (I quarter)
Reminder to responsible institutions	IMWG sub/groups	2017 (II quarter)
Request for information/data collection	IMWG sub/groups	2017 (III quarter)
Annual internal report	IMWG sub/groups	2017 (IV quarter)
Meeting of IMWG	MESP/IMWG	2018 (I quarter)
Reminder to responsible institutions	IMWG sub/groups	2018 (II quarter)
Request for information/data collection	IMWG sub/groups	2018 (III quarter)
Public consultation on draft report	MESP/IMWG	2018 (IV quarter)
Adoption of the 1st Report on implementation of CCS	Government	2018 (IV quarter)
Meeting of IMWG	MESP/IMWG	2019 (I quarter)
Reminder to responsible institutions	IMWG sub/groups	2019 (II quarter)
Request for information/data collection	IMWG sub/groups	2019 (III quarter)
Annual internal report	IMWG sub/groups	2019 (IV quarter)
Meeting of IMWG	MESP/IMWG	2020 (I quarter)
Reminder to responsible institutions	IMWG sub/groups	2020 (II quarter)
Request for information/data collection	IMWG sub/groups	2020 (III quarter)
Annual internal report	IMWG sub/groups	2020 (IV quarter)
Meeting of IMWG	MESP/IMWG	2021 (I quarter)
Reminder to responsible institutions	IMWG sub/groups	2021 (II quarter)
Request for information/data collection	IMWG sub/groups	2021 (III quarter)

Public consultation on draft report	MESP/IMWG	2021 (IV quarter)
Adoption of the 2nd Report on implementation of CCS	Government	2021 (IV quarter)
Meeting of IMWG	MESP/IMWG	2022 (I quarter)
Revision of the AP if necessary	IMWG/IMWG subgroups	2022 (I quarter)
Reminder to responsible institutions	IMWG sub/groups	2022 (II quarter)
Public consultation on revised AP	MESP/IMWG	2022 (II quarter)
Request for information/data collection	IMWG sub/groups	2022 (III quarter)
Adoption of the revised AP	Government	2022 (III quarter)
Annual internal report	IMWG sub/groups	2022 (IV quarter)
Meeting of IMWG	MESP/IMWG	2023 (I quarter)
Reminder to responsible institutions	IMWG sub/groups	2023 (II quarter)
Request for information/data collection	IMWG sub/groups	2023 (III quarter)
Annual internal report	IMWG sub/groups	2023 (IV quarter)
Meeting of IMWG	MESP/IMWG	2024 (I quarter)
Start of drafting of the new CCS	MESP/IMWG	2024 (I quarter)
Reminder to responsible institutions	IMWG sub/groups	2024 (II quarter)
Request for information/data collection	IMWG sub/groups	2024 (III quarter)
Public consultation on Draft Final report	MESP/IMWG	2024 (IV quarter)
Adoption of the Final report on implementation of CCS (eventual adoption of the new CCS)	Government	2025 (I quarter)

6.3 Data Flow



6.4 Data Management

Data should be managed in accordance with regular office rules (registered mail, data storage, etc.). Each IMWG sub-group shall maintain record on sent reminders and data requests, submitted data, internal reports, minutes and conclusions of IMWG meetings and meetings with other stakeholders, public consultation documentation and reports on implementation.

6.5 Indicators

The main objective of the monitoring of implementation of CCS is to assess implementation level and subsequently effects of implemented interventions. To ease that process, the Table 3 proposes indicators and sources of verification for all 33 interventions listed in the Action Plan.

Intervention	Indicator	Source of verification
1. Monitoring and reporting on implementation of CCS	Last update of data on implementation of CCS	Internal annual reports Official reports
2. Integration of CCS goals in relevant strategic documents/sectoral policies	Indicator can be expressed in % or in total number of strategic documents where CCS goals are integrated	Relevant sectoral policies
3. Improvement of information production, utilization of information and communication	Indicator is qualitative. A survey based on simple questionnaire can be conducted for the purpose of development of the Final report. Alternative: number of data collection and exchange introduced	Survey, data submitted by responsible institutions
4. Training of professionals	Total number of trainings Total number of persons trained	Data submitted by responsible institutions
5. Public awareness interventions	Total number of public awareness campaigns, Alternative: estimate of audience reached	Press clippings, promotional materials.
6. Development of climate tax package	Number of financial instruments introduced	Legal acts /Official Gazette
7. Setting-up National Inventory System	Last update of National GHG Inventory	GHG Inventory Report
8. Public health related interventions	Indicator is qualitative.	Data submitted by responsible institutions
9. Enhancing the implementation of NEAP for the period 2013-2017	Level of implementation of NEAP ⁹	NEAP implementation report
10. Enhancing the implementation of the KEEP 2010-2018	Level of implementation of KEEP	KEEP implementation report
11. Development of strategic framework for waste management	Number of strategic document adopted	National waste management plan/Municipal waste management plans
12. Development of Platform for Risk Management	Established body and mechanisms for risk reduction	Government decision
13. Preparation of Draft National Drought Management Plan (NDMP)	Draft NDMP prepared	Draft NDMP
14. Establishment of an inter-governmental task group of	Established body	Government decision

⁹ Level of implementation can be expressed in % of realized measures, or in a qualitative manner (For example: "Implemented in accordance with planned dynamics" or "There are delays in implementation of CCS related measures")

institutions responsible for forest protection		
15. Drafting and adoption of the new Law on Construction	CCS goals introduced in new Law on construction	Law on construction/Official Gazette
16. Drafting construction standards and guidelines for green buildings and green roofs	Drafted and adopted standards	Legal acts /Official Gazette
17. Development of legislation on groundwater	Adopted legal acts	Legal acts /Official Gazette
18. Prevention of lignite self-ignition	Performed interventions	Data submitted by responsible institutions; Inspection reports
19. Development of design of rehabilitation measures to ensure structural integrity of Iber-Lepenci hydro-system	Design of rehabilitation measures completed	Data submitted by responsible institutions; Environmental impact Assessment
20. Develop design of treatment plant for acidic discharge water (Novobrdo mine)	Design of treatment plant completed	Data submitted by responsible institutions; Environmental impact Assessment
21. Enhancing the implementation of the NREAP (2011-2020)	Level of implementation of NREAP	NREAP implementation report
22. Development of groundwater management strategy	Strategy developed	Government decision on adoption of Strategy
23. Modernizing hydrometeorology monitoring networks	Number of stations modernized	Data submitted by responsible institutions;
24. Reducing flood risk	Database for river flows created; Mapping of flood prone areas completed; Number of local flood risk management plans developed	Data submitted by responsible institutions
25. Developing and adoption of necessary legislation related to water transfer	Legal acts adopted	Legal acts /Official Gazette
26. Developing EU CIVITAS pilot project(s)	Number of pilot projects developed	Data submitted by responsible institutions
27. Developing pilot "green roof" project(s)	Number of pilot projects developed	Data submitted by responsible institutions
28. Development of pilot projects for water reclamation	Number of pilot projects developed	Data submitted by responsible institutions
29. Increasing the efficiency of production of electricity through replacement of TPP Kosovo A with Kosovo e Re Power Plant	Project documentation developed Investment contract signed Construction works started	Data submitted by responsible institutions
30. Leakage reduction in drinking water distribution network	% of leakage reduced	Data submitted by responsible institutions
31. Recultivation of industrial tailing sites	Feasibility studies, project design and spatial planning documentation completed Number of Implemented remediation interventions Construction of treatment plant for acid mine water started/completed	Data submitted by responsible institutions
32. Reconstruction of railways	Number of km of reconstructed railways	Data submitted by responsible institutions
33. Increasing river discharge capacity	Estimated % of capacity increased	Data submitted by responsible institutions

