



Policy brief

Western Balkan and Turkey facing CLIMATE CHANGE EFFECTS.

Which of the economic sectors will climate change have an impact on, and what will be OUR RESPOND to these impacts in the NEAR AND LONG FUTURE?

Some perceptions from ENV.net network on specific environmental situation in some part of the region

Prepared by ENV.net network
September 2016



env.net



CONTENT

1. INTRODUCTION TO CLIMATE CHANGE PHENOMENON IN RESPECTIVE COUNTRIES
 2. LEGAL AND INSTITUTIONAL FRAMEWORK ON CLIMATE CHANGE
 3. MAIN ECONOMIC SECTORS IMPACTED BY CLIMATE CHANGE EFFECTS
 4. POLICY RESPONSE
 5. CONCLUSIONS AND RECOMMENDATIONS
- BIBLIOGRAPHY

Abbreviations

AR	Assessment Report
CCFC	Climate Change Framework Strategy
CDM
CO ₂	Carbon dioxide
COP	Conference of the Parties
EAS	Environmental Approximation Strategy
EU	European Union
ETS	Emission Trading System
GCM	General Circular Models
GDP	General Domestic Product
GHG	Green House Gases
HCFC	Hydrochlorofluorocarbons
HCLC
HPMP
INC	Initial National Communication
INDC	Intended Nationally Determined Contribution
IPA	Instrument of Pre Accession
IPCC	Intergovernmental Panel of Climate Change
LEDS	Low Emission Development Strategy
LULUCF	
ME	Ministry of Environment in Albania
MMR
MUSIAD
NAMA
NCCC	National Climate Change Committee
NEA	National Environmental Agency in Albania
NGO	Non- Governmental Organization
NO ₂	Nitrogene dioxide
ODS
OECD	Organization for Economic Co-operation and Development
PM ₁₀	Particula Matters
QELRC	Quantified Emissions Limits and Reduction Commitment
TOBB
TUSIAD
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention of Climate Change

A few words...

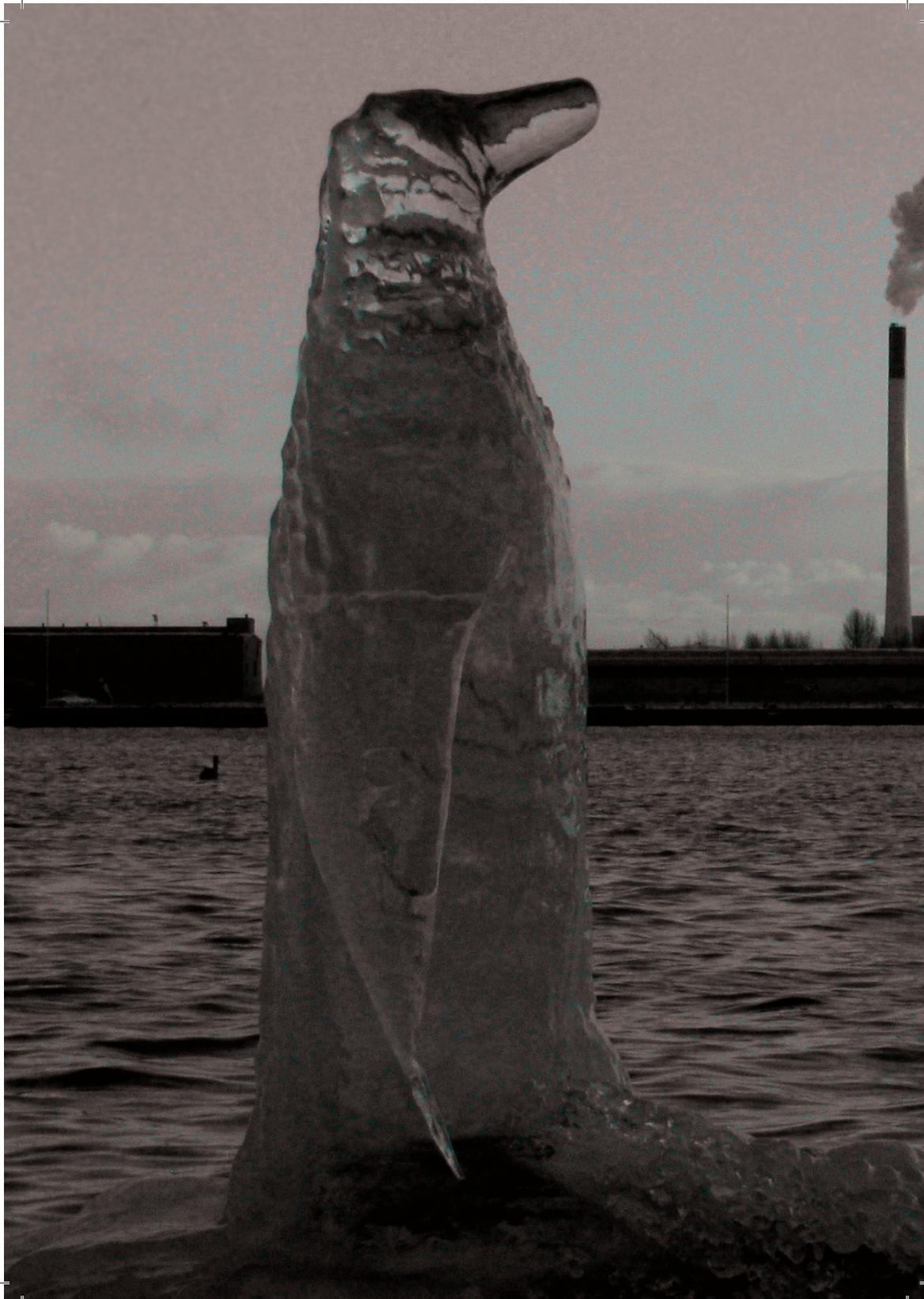
What we do today about climate change has consequence that will last a century or more. Good sense and care about future progress (and the future generations) requires that we act now. Climate change can pose a serious threat to human lives, to economic development and to the natural resources on which much of humankind's prosperity (including ours) depends.

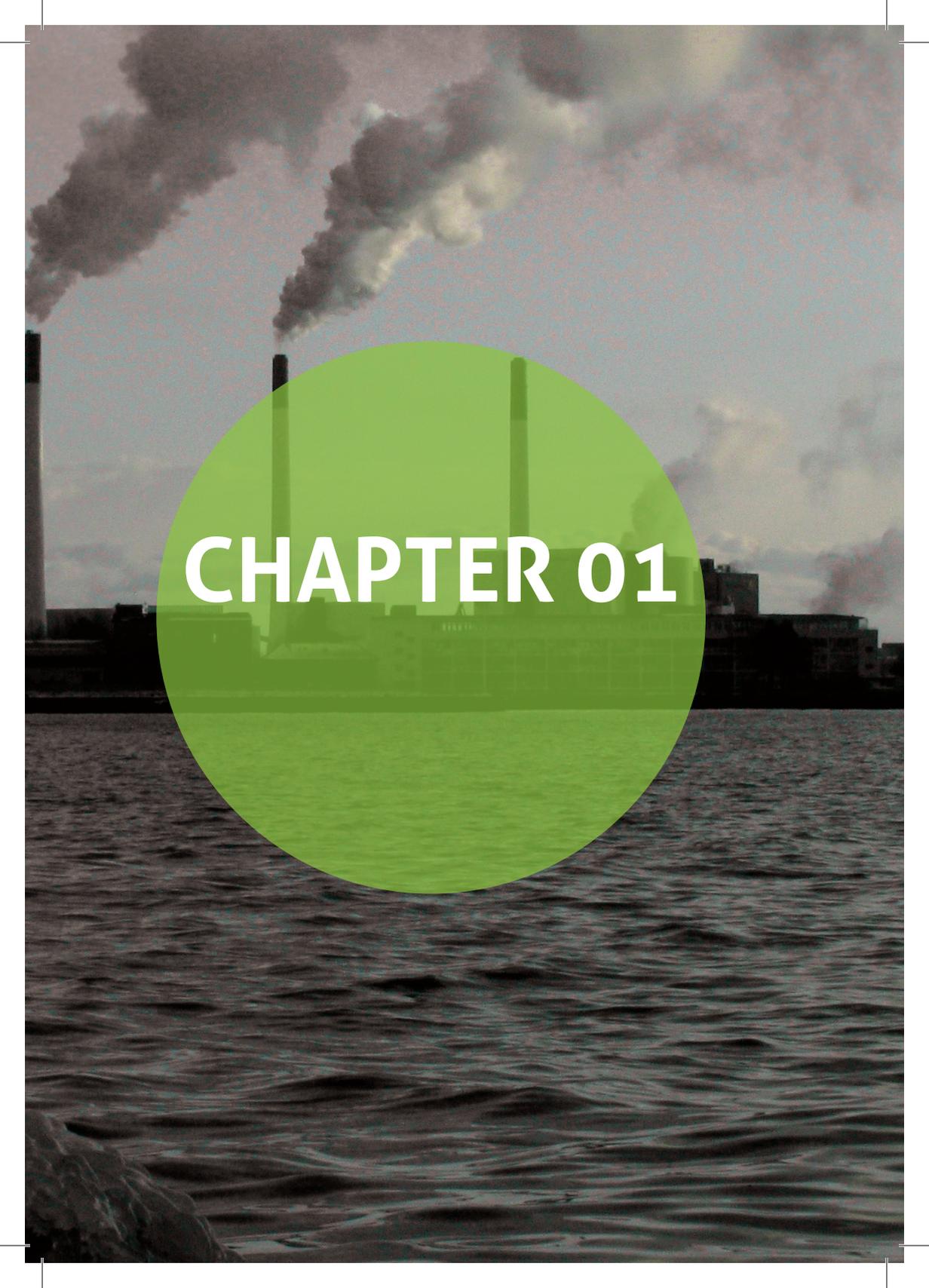
For the second time, team of ENV.net represented by 7 non-profit organizations from 5 countries in the West Balkan and Turkey and two others from the EU member states (Albania – Co-PLAN, Belgium – EEB, Italy – punto.sud, Kosovo – ATRC, Macedonia – 4x4x4BB, Serbia – EASD, Turkey – TEMA) has come to the audience with a second policy paper on issues related to climate change effects in the West Balkan Region and Turkey.

The focus of this policy paper is to represent a review of the policy framework on climate change in respective Balkan network's countries, an assessment of how these effects might impact some of the most important economic sectors of the respective countries in the near and long future and at the end some recommendations at policy level.

The paper is composed in a way that all countries have their space under the same thematic, where some comparison are made when it was seen as appropriate.

ENV.net Team



A photograph of an industrial facility, likely a power plant or refinery, situated along a body of water. Several tall smokestacks are visible, with thick plumes of white smoke rising into a cloudy sky. The water in the foreground is dark and shows ripples. A large, semi-transparent green circle is overlaid on the center of the image, containing the text 'CHAPTER 01' in white, bold, sans-serif font.

CHAPTER 01

Introduction to climate change phenomenon in respective countries¹

Albania

GHGs emission in Albania per capita is still low compared to the industrialized countries. In 2000 our GHGs emission was 2.47 ton CO₂ eq per capita ton, so 4-5 times lower² than the average of the industrialised countries in 2000. These figures show that Albania has minimal contribution to emission of GHGs or responsible to climate change. Today these figures go up to 9,4 milion tonne/year CO₂. Based on figures from the Ministry of Environment the sector of energy and transport are the major contributors to GHGs emission in the country with a 57.29% of share, followed by agriculture with 16.85%, landuse and forest with 8.88% and at last waste with 2.31%. It may sound as a relief for the country and its inhabitants, but on the other way it is an indicator of an economic development not oriented toward big or heavy industries. The latter, significantly increase the GDP of the country and they are the highest GHGs emissions sources. On the other hand, climate phenomenon of the last years happening in the country, show that we are undergoing the same effects from climate change as the rest of the countries contributing to it.

Only during the last 5 years the country has experienced several flooding episodes in the north part in the Region of Shkodra, where around 7,563 families and businesses were damaged³. Lately the floodings were present even in the south-west part of the country. In different areas, especially in the western part, where the agriculture is way more developed than the rest of the territory, frequent and long lasting droughts has had a bad impact on the agriculture crops. Marine erosion continues

1 Albania, Kosovo, Macedonia, Serbia and Turkey

2 Albania's Second National Communication to the Conference of Parties under the United Nations Framework Convention on Climate Change, 2009

3 Special report "On the Situation created after the floodings in the Region of Shkodra" 2012, Ombudsman

every year, were almost 20m length of land were lost in the last 10 years. Air pollution keeps increasing, especially in the main cities where there is a lot of traffic jam, and the values of two most important air pollutants are really high (PM10 $33.5\mu\text{g}/\text{m}^3$ and NO₂ $41,6\mu\text{g}/\text{m}^3$). According to recent studies and IPCC scenarios, if the global contributions to global warming will continue with the same rhythm, until 2050, it is expected that the sea level will increase almost to 30-40 m in the Albanian coast. If this will turn out to be true, from the territorial point of view, it means that the existing Albanian coasts and several dwellings will disappear. The only way that the government has responded to these events were through emergencies fund varying from 6,000,000 euro – 12,000,000 euro covering operational funds and capital investment funds, mainly for the irrigation and drainage systems. These limited capacities to intervene show a low level of preparation from the government and the country itself for these kind of enormous changes that might happen. One of the economic sectors most affected by climate change now and in the future, for Albania, will be the agriculture sector. For the country this is one of the most important sectors of the economy counting 58%⁴ of the population employed in the sector, and the sector counts 21% of the average GDP of the country. If we compare these figures with the ones related to the agricultural sector in the European countries, only 4.5% of the population of these countries is employed in this sector and revenues from it counts only 2% of the average GDP of these countries.

Kosovo

As stated in European Commission's Staff Working Document (2013) 416 final "Kosovo - 2013 Progress Report"2: "Kosovo has neither a comprehensive climate policy nor a strategy, and there are no developments to report regarding alignment with the climate acquis. Six stationary installations for the purpose of future implementation of an emissions trading system were identified and an inventory of greenhouse gases (2008-2009) was prepared.

Kosovo needs to undertake concrete steps to align with and implement the EU climate acquis, starting from the monitoring mechanism legislation. In line with the EU Green Paper on 2030 framework for climate and energy policies, Kosovo is invited to start reflecting on its climate and energy framework for 2030. Inter-institutional cooperation with the Ministry of Economic Development and the Ministry of Transport needs to be established to enable the adoption of low carbon growth policies. Kosovo participated actively in the work on the climate under the Regional Environmental Network for Accession. Efforts are needed to raise awareness at all levels and to promote cooperation among all relevant stakeholders. Although Kosovo has not participated in or signed the *UN Framework Convention on Climate Change (UNFCCC)* and its Kyoto Protocol 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. The Energy Community Treaty also sets clear reduction targets for the energy use while it demands increase the share of renewable energies.

The availability of information on GHG emissions and local capacity to monitor them is insufficient. So far, the only information on historic and future emissions has been developed in the framework of the 2012 Feasibility study of greenhouse gas inventory system for Kosovo, prepared by

the Environment Center of the Charles University in Prague. According to the results, the total emissions of GHG in 2008 reached 9.5 Mt CO₂ eq. They increased by 11% to 10.5 Mt CO₂ eq. in 2009. This relatively high increase was driven almost solely by increased fossil fuel combustion. Carbon dioxide constitutes about 80% of all emissions, while methane and nitrous oxide are both about 10%. The so called F-gasses, such as HFCs and PFCs, are almost negligible. The most important sector for whole inventory is sector "A Fuel combustion activity" which constitute about 80% of all anthropogenic emissions in Kosovo. Most important source of GHG emissions for Kosovo is combustion of solid fuels – domestic lignite. Per capita emissions are just over half of the EU average (9.93 t) and emissions per unit of GDP are almost double of those in the EU average (0.4 kg/EUR). These statistics illustrate the economic and social challenges for Kosovo in the trap with low but growing emissions, and even lower GDP per capita. This situation justifies the application of the principle of common but differentiated responsibility defined in Article 3.1 of the United Nations Convention on Climate Change (UNFCCC).

Macedonia

The entire region of Macedonia is small, and can be compared to a single grid-cell of the current GCMs (General Circulation Models) that are used to simulate the future climate change in a large scale.

In spite of its relatively small area, the Republic of Macedonia has a diverse climate, with different climatic types and subtypes, which are a combination of three major climate drivers: Mediterranean, Continental and Alpine climate.

By geographical regions, the following climate combinations can be found in Macedonia:

1. *South-eastern* part with *sub-Mediterranean* climate;
2. *Central* part with combined *sub-Mediterranean/*

continental climate;

3. *Southern* part with continental climate;
4. *South-western* part with continental climate;
5. *Eastern* part with *continental* climate;
6. *North-western* part with prevailing *mountain/Alpine* climate

The heterogeneity of climate conditions in the country is very high, which is also evident from the observations of air temperature and precipitation. For example, the areas with highest precipitation are the mountain ranges in Western Macedonia; the driest areas of the country are Ovche Pole, Tikvesh and the surroundings of Gradsko.

Serbia

Republic of Serbia is a member of the *United Nations Framework Convention on Climate Change (UNFCCC)* since 10th of June 2001. The Kyoto Protocol has come into force on 17th of January 2008 and the Paris Climate Change Agreement was signed on 22nd of April 2016⁵. The Ministry of Agriculture and Environmental Protection is the focal point for the implementation of the Convention and Protocol. As a non-Annex I Party to the UNFCCC, Serbia has no commitments on the reductions of greenhouse gases (GHG) emissions, but in accordance with the Article 12 of Convention, the country should provide the Conference of the Parties (COP) with the information on national greenhouse gas inventories; national or regional programmes containing measures to mitigate, and to facilitate adequate adaptation to climate change; and any other information that the Party considers relevant to the achievement of the objective of the Convention.

Since the ratification and application of the UNFCCC and the Kyoto Protocol, some efforts have been made in establishing

5 <http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/04/SerbiaE.pdf>, <http://www.energetskiportal.rs/en/tag/paris-agreement/>

legal, institutional and policy frameworks aiming to fulfil the commitments outlined under the Convention and the Protocol. While the first set of environmental laws designed to deal with the climate change was adopted in 2004, considerable progress was achieved with the beginning of the process of European Union (EU) accession and the harmonization of national legislation with EU *acquis communautaire*. The process of developing the Initial National Communication (INC)⁶ of the Republic of Serbia under the Convention is one of these activities. The INC of the Republic of Serbia is the **very first national report** regarding climate change issues. The INC of the Republic of Serbia, as an important national strategic document, was adopted and published in 2010, and highlighted a number of issues recognising the energy sector as the main contributor to GHG emissions in Serbia and also likely the sector with the greatest potential for mitigation. **The Government of Serbia with the assistance from United Nations Development Programme (UNDP) is currently compiling the Second National Communication Report.**

In a process of harmonization of the national legislation with the EU legislation, activities on establishment of institutional and legal framework for the EU emission trading and monitoring mechanism system are on-going. National State-of-the Art Analysis (NAMA) Development Guideline⁷ of the Republic of Serbia is also prepared. One of the priorities in a climate change field is the development of a comprehensive Climate change strategy, with its action plan. Preparation of the Climate Change Strategy⁸, together with an action plan, is also in process through the project "Development of a Climate Change Strategy and its Action Plan". Analysis, conducted for the purposes of the Strategy, include examination of the basic

6 <http://unfccc.int/resource/docs/natc/srbnc1.pdf>

7 http://www.locsee.eu/uploads/documents/reports/A_3_2_National_State-of-the-Art-Report_SERBIA.pdf

8 <http://www.klimatskepromene.rs/english/projects>

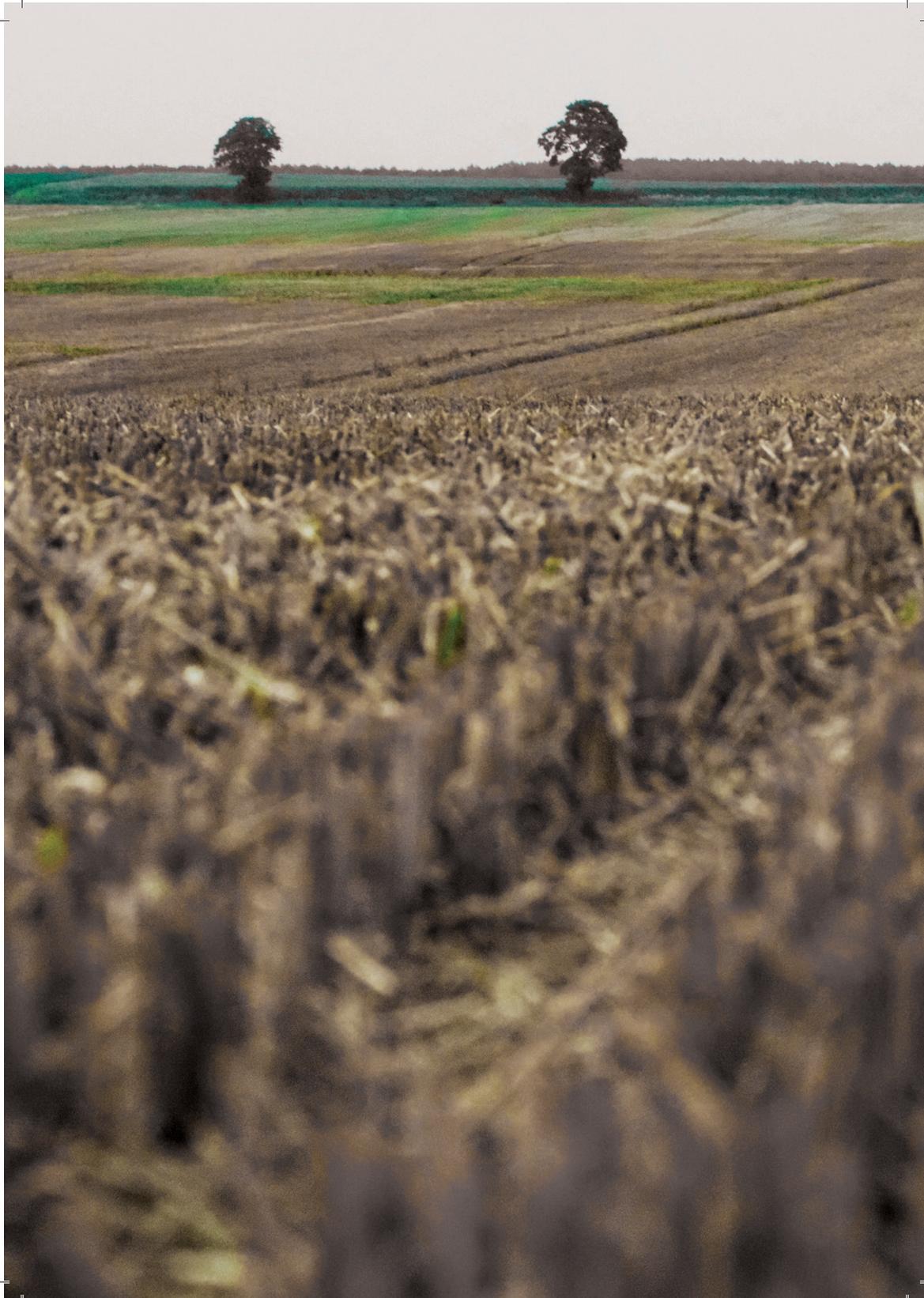
needs in terms of adaptation to climate change in order to define a sustainable path towards limitation/reduction of GHG emissions. The Strategy and its Action Plan will determine GHG limit values/emission, as well as the level of GHG reduction by 2020 and the 2030, respectively and actions that should be realized in order to achieve those reductions.

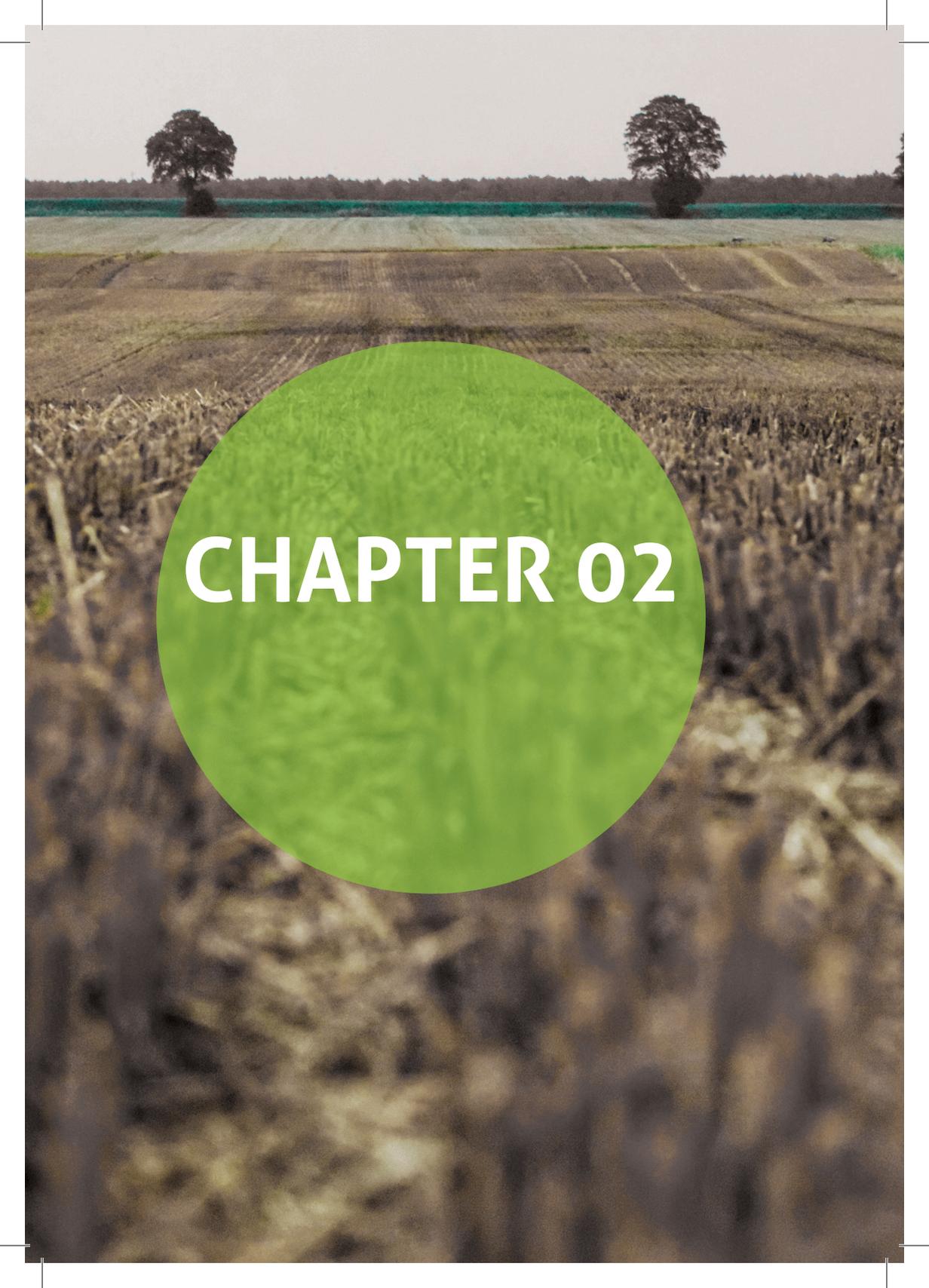
Turkey

The Earth's climate is changing and the 5th assessment report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) asserts that this change is "extremely likely" due to human activities. The global mean surface temperature has increased by around 0.9°C since the beginning of the twentieth century and according to AR5, if people continue to emit greenhouse gasses into the atmosphere at the current levels, the mean temperatures are expected to rise even further in the next century. It is estimated that increases between 1.5°C and 4.5°C will occur, based on different scenarios carried out with meticulously designed climate models. Furthermore, these models suggest that the increases in greenhouse gasses affect not only surface temperatures but also will have impacts on the precipitation amount and on sea level.

An important assertion of the AR5 is that the changes will not be equally distributed around the world, and hence, there will be regions where the impacts will be larger. The Mediterranean basin, where Turkey is situated, is identified as one of the most vulnerable regions to future climate change, especially in terms of reductions in precipitation, which is expected to aggravate the situation on the already scarce water resources. If climate change is not tackled, its effects would devastate development prospects. Thus, adequately addressing climate change through mitigation and adaptation is crucial and it is more cost-effective than adopting a 'business as usual' attitude. Therefore, it is crucial to assist local people understanding the

impacts of climate change.





CHAPTER 02

Legal and institutional framework on climate change

EU legislation on climate change is composed of the following documents: i) Monitoring mechanisms; ii) EU Emission Trading System; iii) Aviation activities Emission Trading System; iv) Decision for the distribution of efforts; v) Ozone depletion substances; vi) Fluorinated gases; vii) Quality of fossil fuel; viii) Emission of CO₂ from cars and minivans; ix) Forest and agriculture; x) Capture and storage of CO₂

The Government of Albania, aims to fully approximate the legislation with the EU one related to climate change, drafting the National Strategy and National Action Plan on Climate Change, establishment of a national inventory system for air emissions of GHGs and strengthening the collaboration with the line bodies to integrate climate change policies in their respective sectorial strategies.

Albania

Existing Policies at **national level** in the field of climate change are the followings:

1. A Policy Document for the Adaptation to Climate Change in the delta of River Drini-Mat – Ministry of Environment 2013 - 2020
2. Strategy to support the Health System from Climate Change – Ministry of Health 2011-2021
3. Administration Plan to Remove Usage of HCLC – Ministry of Environment 2011-2040
4. National Strategy on Air Quality – Ministry of Environment 2015-2020

National Strategy on Air Quality is one of the latest policies document together with the new law "On protection of air

quality in the environment” that will enter completely into force by December 2017. In this regard, the strategy has a focus on improving energy efficiency in every sector to reduce energy demand and the level of emissions of GHGs for energy production. On the other side, the new law aims to protect air quality in the environment, aiming to define limited values for different air pollutants, reduction of health and environmental impacts from air pollution and assessment of air quality based on EU criteria.

At international level, Albania has ratified the Vienna Convention and the Montreal Protocol in October 1999, and also it is a member of the United Nations Framework Convention for Climate Change UNFCCC from January 1995. Albania so far has made three National Communications in 2002, 2009 and in 2013 for the Framework Convention of the UNFCCC. In 2004, the Government of Albania ratified the Kyoto Protocol, which terminated to function in December 2012. During July 2016 the Albanian Parliament ratified the Paris Climate Change Agreement. This Agreement was approved in December 2015 in Paris and it will enter into force only, if 55 countries that contribute at least with 55% to global GHGs emissions will ratify the agreement. According to this agreement, developed countries are required to lower their GHGs emissions to secure levels aiming to decrease temperature increased level with 2 degree Celsius, aiming in the future 1,5 degree Celsius.

By late September 2015, the GoA (Government of Albania) presented its action plan on climate change in the UNO Framework Convention pledged to keep low emission of GHGs from the electric energy production and to keep control of GHGs emitted from other industrial sectors.

The Ministry of Environment (**ME**) is the responsible institution for drafting policies, strategies, plans and national legislation for protection of air quality from pollution. Also the Ministry is in charge to draft national policies for climate change

and coordinates integration of different issues to climate change in sectorial policies as agriculture, tourism, energy, public health, forest, waters ect. The Ministry is the Designed National Authority in the frame of national obligation to the United Nation Frame Convention for Climate Change, for Kyoto Protocol and for pusuiting projects of the Clean Development Mechanism. The National Environmnetal Agency (**NEA**) is the central body to manage the National Network for Monitoring of Air Quality through collecting data and preparing reports for air quality.

Kosovo

The responsible authority for environment and climate change policy in Kosovo is the Ministry of Environment and Spatial Planning. The Ministry has initiated consultations with the Secretariat of the UNFCCC and has started to prepare documentation for the ratification of the Convention.

Based on an agreement between the UNDP and the Ministry, as of December 2012 the Ministry jointly with UNDP, coordinate donor support to the climate change agenda for Kosovo.

The development of the **Climate Change Framework Strategy (CCFS)** has been initiated in December 2012 by the Ministry of Environment and Spatial Planning (MESP) with support from UNDP as an opportunity to look for mitigation and adaptation measures that will boost sustainable development. It consists of two components:

1. Low Emission Development Strategy (LEDS)
2. National Adaptation Strategy (NAS) presented simultaneously in two sections.

Its vision is phrased as: *"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”.

Mission statement: 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.

Considering the large uncertainty regarding the current level and future projection of GHGs emissions in Kosovo it is difficult to set a meaningful mitigation objective in terms of quantitative emission reduction targets.

For the same reason, and for the reason of uncertainty of future social and economic development of the country, it is also difficult to set LEDS objectives for long term (e. g. 2050 as in the EU Roadmap).

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

Kosovo has no register of sources and emissions of GHGs yet and it also has not identified the base year from which GHG emissions will be estimated. The Greenhouse Gas Inventories for 2008 and 2009 are one of the first initiatives in Kosovo contributing to the global efforts to minimize the human impact on the climate change. This project continues with further capacity building activities on GHG monitoring and reporting in 2013-2014. Kosovo has not yet started to submit National Communications to the Secretariat in the UNFCCC.

Macedonia

The Republic of Macedonia is a party to the United Nations Framework Convention on Climate Change (UNFCCC) as a non-Annex I country and party to the Kyoto Protocol without

a quantified emissions limits and reduction commitment (QELRC). However, the country has acceded to the Copenhagen Accord, and it submitted a list of mitigation actions (without quantifying the associated emission reductions) based on these actions.

The Ministry of Environment and Physical Planning is the key governmental body responsible for development of climate change policies. Other ministries that have responsibilities related to climate change are: Ministry of Agriculture, Forestry and Water Economy, Ministry of Economy, Ministry of Transport and Communication, and Ministry of Finance. Most of these ministries have appointed Climate Change Focal Points, who are responsible for mainstreaming climate change into respective policies, strategies and programmes.

At the legislative level, climate change issues are incorporated into the Law on Environment, including details on the preparation of GHGs emissions inventories as well as an action plan on measures and activities to abate the increase of GHGs emissions and to mitigate the adverse impacts of climate change. In July 2013, changes in the Law on Environment were adopted, and a new article (188) has been added regarding the national system of GHGs emissions inventories. This article foresees that a national system of inventories of GHGs emissions will be established and that this system will provide a database of relevant information for the preparation of GHGs inventories as well as monitoring of the implementation of agreements regarding climate change.

Recognising the important steps forward in the institutionalisation of climate change issues and the mainstreaming of climate change in the national and sectoral development policies, the development of three National Communications to the UNFCCC has contributed to strengthening these integration processes as well as to informing the international community on the actions. The

First, Second and Third National Communications on Climate Change were published in 2003, 2008 and 2014, respectively.

In the context of its accession process to the European Union (EU) (a high priority for Macedonia), the Republic of Macedonia has already initiated the process of harmonising its mitigation approach towards EU commitments to the UNFCCC and sections of the EU *acquis* related to climate change. As a potential future member of the EU, Macedonia would be obligated to participate in the EU Emissions Trading System (EU ETS).

Serbia

Republic of Serbia is a non-Annex I Party to the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. However, the Government of the Republic of Serbia shows its willingness to slow down the expected upward trend in GHGs emissions. Assessments made for the purpose of association to the Copenhagen Accord, indicate possibility for emission reduction from 29% on 18% until 2020 compared to emissions in 1990 under the business as usual scenario.

Implementation of requirements is guided by following *strategic documents*:

- National Sustainable Development Strategy for the period 2008-2017 – approved in 2008
- National strategy for inclusion of the Republic of Serbia in the Clean Development
- Mechanism of the Kyoto Protocol for waste management, agriculture and forestry sectors
- (National CDM Strategy) - approved in 2010
- First National Communication (First Report of the RS to the United Nations Framework
- Convention on Climate Change) - approved in 2010
- National Environmental Approximation Strategy for the

Republic of Serbia and EAS for air quality and climate change sector (Environmental Approximation Strategy) - approved in 2011

- National Program for Adoption of the EU Acquis defines objectives of the HPMP project – approved in 2013
- HPMP (HCFC phase out management plan) is prepared in 2010 with the aim to reduce consumption of HCFCs for 35% by 2020. Main activities in the HPMP are update of the legislation, enforcement activities and technology transfer to non-ODS technologies.
- First Biennial Update Report to the UN Framework Convention on Climate Change (UNFCCC) – 2015
- Second National Communication – 2016, in progress
- Climate Change Strategy and its Action Plan (IPA 2014) – 2018, planned with IPA funding

In general, the transposition of the legislation in the field of climate change has remained at an early stage. Certain steps have been undertaken in recent years towards the preparation for transposition in this sector, mainly with the assistance of ongoing projects, in the area of GHGs emissions and alignment with the EU Emissions Trading System (EU ETS). However, significant efforts are still required to align the national legal framework with the EU *acquis*.

No major progress has been recorded with regard to the implementation of the *acquis* in this sector, and it remains at the very low level. However, the Ministry of Agriculture and Environmental Protection of the Republic of Serbia reported that certain activities were performed that will facilitate the beginning of implementation of the *acquis* in this sector, namely EU ETS, MMR and Effort Sharing Decision, the implementation of which has not started yet.

Turkey

Turkey, to this day, has taken a backseat in the battle against climate change since economic growth in the country is based on the use of available fossil fuel resources and related investments. Although the risks of climate change are briefly mentioned in official policy documents, Turkey further invests in fossil fuels instead of taking the proper mitigation and adaptation measures.

Currently the climate policy governance is led and coordinated by the Ministry of Environment and Urbanisation and the Ministry hosts Turkey's chief negotiator under UNFCCC. Along with the Ministry, other important actors regarding climate policy governance are:

- Ministry of Energy and Natural Resources - the key actor for the energy and mitigation policies, usually having a defensive stance against the ambitious climate policy;
- Ministry of Development - the key actor for the analysis of the economic impacts of the policies, also having a defensive stance;
- Ministry of Forestry and Water Affairs - responsible for the adaptation policies
- Ministry of Food, Agriculture and Livestock - working for the adaptation and mitigation policies,
- Ministry of Foreign Affairs - providing diplomatic support during the international negotiations.

The mentioned ministries, together with the three major business associations TUSIAD, MUSIAD and TOBB, are forming the "Climate Change and Air Management Coordination Board". Currently the civil society in Turkey has no representation in this board.

During the international negotiation processes, Turkey has remained reluctant to this day to take part in the collective global effort in combating climate change. Turkish policy

makers have perceived the actions taken to combat climate change as threats to economic growth and development of the country. As an OECD member, Turkey was included to the Annex I and Annex II automatically with other developed countries, implying that Turkey was responsible of committing emission reductions and helping developing countries. However, being a developing country rather than a developed one, Turkey objected this decision and did not become a party to the UNFCCC until a decision taken at COP7, removing Turkey from the Annex II and recognising its "special circumstances". As such, Turkey left Annex II but continued to be in Annex I, with no emission reduction responsibilities. Having joined the convention after quite a delay in 2004, Turkey only ratified the Kyoto Protocol in 2009, very close to the end of first period of actions, but did not actually have time to take appropriate actions. Under the international climate regime, whether Turkey is a developing or developed country is still not clear. Turkey has an increasing trend for the greenhouse gas (GHG) emissions. According to TURKSTAT, the overall greenhouse gases (GHGs) emissions as CO₂ equivalent for the year 2014 are calculated as 467.6 million tonnes (excluding LULUCF)⁹. The increasing trend of the Turkish GHGs trends can be seen in **Figure 3**. Total greenhouse gas emissions as CO₂ equivalent increased by 125% in 2014 compared to the emissions in 1990.

9 <http://www.turkstat.gov.tr/PreHaberBultenleri.do?id=21582>

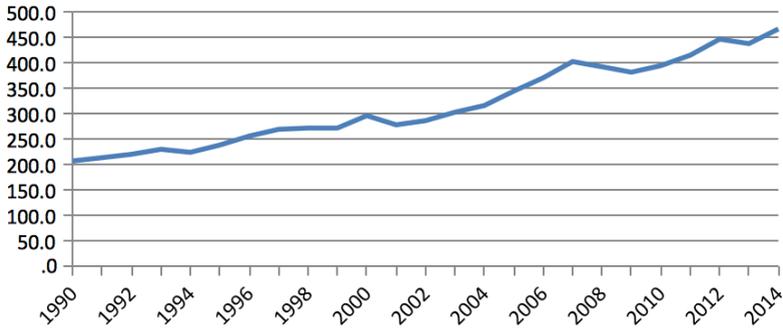


Figure 3: Turkey's GHG Emissions between 1990 and 2014

When we look at the shares of the different sectors in overall emissions, it is evident that the energy sector has the largest share with 72.5%, followed by the industrial processes and product usage with 13.4%, the agricultural activities with 10.6% and the waste with 3.5% (Figure 4)

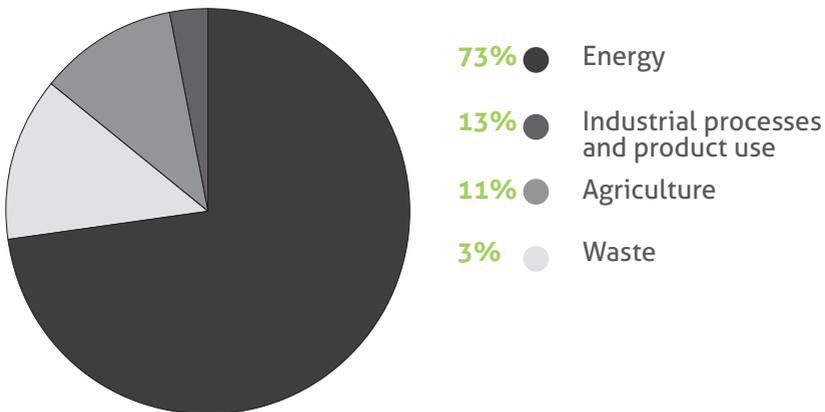


Figure 4: Sectoral distribution of the GHG emissions in 2014 (Source: TURKSTAT)

The energy sector is the primary source of Turkey's GHG emissions, since the energy policy is dominated by the fossil fuel utilisation policies. After the economic crisis in 2008, Turkey started to consider a new coal exploration wave, in an attempt to reduce the country's import dependency. As a part of its development plans called "Vision 2023" Turkey wants to "lift up its energy generation capacity to 120,000 MW"¹⁰, by relying mostly on domestic potential, where fossil fuels (especially coal – 80 planned coal fired power plants¹¹) will be an important contributor, along with nuclear, hydro and renewables. According to the Ministry of Energy, Turkey will utilize all its fossil fuel potential (coal, oil and natural gas) until 2023, through a strategy of transferring the coal mining sites to the private sector under the condition of construction and operation of new thermal power plants and producing electricity¹².

10 Taken from the Ministry of foreign affairs, "Vision 2023" speech: http://www.mfa.gov.tr/speech-entitled-_vision-2023_-turkey_s-foreign-policy-objectives__delivered-by-h_e_-ahmet-davutoglu_-minister-of-foreign-af.en.mfa accessed: 16.05.2014

11 The current installed capacity of 8.5 GW of brown coal fired power plant is planned to be increased to 18,5 GW. Accordingly, the share of coal in electricity generation will be almost doubled (from 32 billion kWh to 57 billion kWh) in 10 years. This would cause a doubling in the greenhouse gas emission due to electricity generation (already forming ¾ of the all greenhouse gas emissions in Turkey), namely the emissions would rise from 110 million tons CO₂eq to over 200 million tons of CO₂eq per year. These new coal plants will lock the energy infrastructure of Turkey in to a high-carbon density pathway for the next 40 years

12 Turhan, E., Cerit Mazlum, S., Şahin, Ü., Şorman, A. H., & Cem Gündoğan, A. (2016). Beyond special circumstances: climate change policy in Turkey 1992–2015. Wiley Interdisciplinary Reviews: Climate Change.

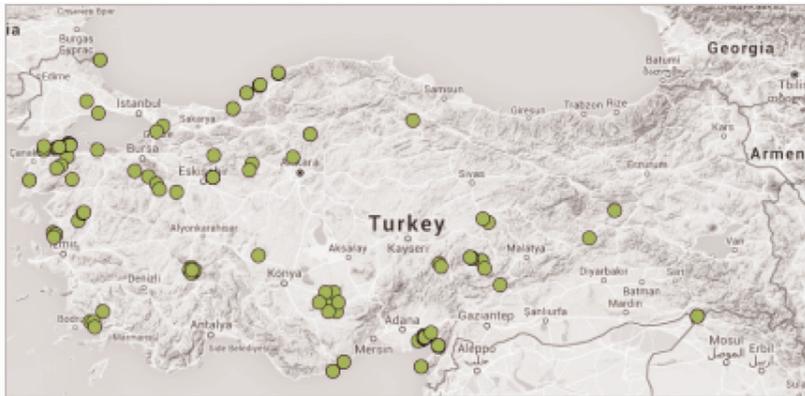


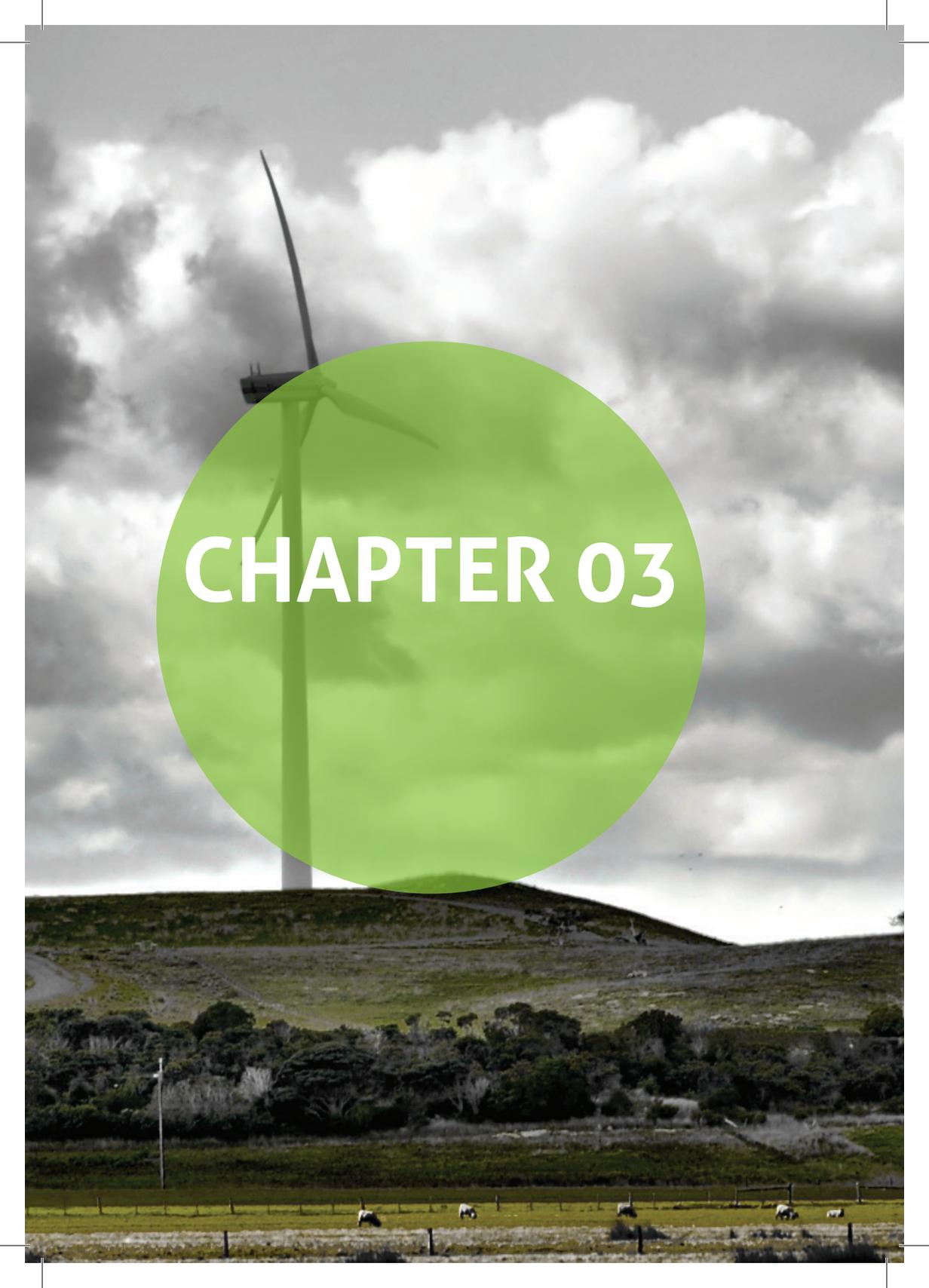
Figure 5: Map of planned coal power plants in Turkey

A range of political steps have been taken about climate change in Turkey since 2007.

- In 2007 - the First National Statement of Turkey was prepared;
- In 2009 the Climate Change Strategy Document was completed; and
- In 2011 the Climate Change Action Plan started to be implemented.

While these steps are indications of the will to combat climate change, they remained incomplete due to the lack of public participation in the policy making process, originating partly from the low levels of awareness about climate change and related impacts. Furthermore, the planning conducted at the national scale in a top-down manner and therefore it has failed to take account of regional and local needs.



A landscape photograph featuring a wind turbine on a hill under a cloudy sky. A large green circle is overlaid on the image, containing the text 'CHAPTER 03'. The scene includes a grassy field with sheep in the foreground and a utility pole on the left.

CHAPTER 03

Main economic sectors impacted by climate change effects

Albania

Climate change is one of the biggest future challenges for Albania. However, it is one of the countries with the lowest GHGs emission level, it is one of the most exposed countries in the region to climate change effects. The main direct effects from climate change to the country are:

- Increase of average temperatures
- Increase of droughts seasons
- Decrease of rainfalls
- Increase of number of nature disasters
- Increase of water level
- Depletion of underground and ground water resources

Agriculture, forest management and energy are the three economic sectors most vulnerable to climate change effects, and at the same time they are the most important economic sectors in the country with a considerable contribution to the GDP.

Agriculture is one of the most important sectors in the country with 24.9% share of the GDP. Climate change effects as temperature increase and decrease of rainfalls (increasing of drought seasons), will directly impact the yearly production. It is forecasted that the yearly average temperature will increase from 1.7-2.3 degree celcius by 2050 and in 2100 from 2.9-5.3 degree celcius. This phenomenon will drastically decrease the agriculture crops and harvesting season. On the other hand, it is also forecasted that the rainfalls will decrease from 5.5%- 6.9% by 2050 and from 8.8%-16.9% by 2100. This will cause very long drought seasons that will directly impact on the agriculture production, and year by year less and less

will be produced. In this situation the country will end up with very high import costs of agricultural products that will considerably impact our economy in the years to come.

Forest and forest management in the country has a special importance because they represent 36% of the Albanian area, where 62% of them is used for timber and 38% for fire wood. Part of these areas are also protected areas by status. In the country there are distinguished 4 floors of vegetations as: i) Mediterranean bushes as macchia; ii) Area of oaks; iii) Area of Beech; iv) Area of alpine pastures and subalpine bushes.

Due to climate changes, especially temperature increase and increase of water level, they will impact directly into the forest ecosystem, where changes in the vegetation and the forest structure will be noticed (some of the vegetations will be more developed than the others). Compare to the sea level, vegetation will tend to grow to greater heights due to the increase of temperatures. It may happen that the vegetation period may last longer and it requires higher quantities of water to grow, which is ironic because the drought seasons will increase, and as a consequence this will have a considerable impact on losing the vegetation species.

So, as a result in general it is expected that evergreen forest areas and oak forest areas are expected to grow, meanwhile the beech area, very important for production of timber, are expected to decrease. Forests areas like fir, are expected to be extinct and alpine pasture will be decreased. Apart from increase of temperature, the country is very exposed to fire wood, which is becoming more common in the last years. However, most of them are due to human causes, increase of temperature will have a considerable effect on them, where coniferous species are the most damaged ones.

90% of the production of **Electrical Energy** in the country is provided by water resources, where the cascade of Drini River provides 86% of general electrical energy for the country

with its three biggest hydro power plants (Vau Dejes, Koman, Fierza). Given the facts, energy sector in Albania is directly involved with water resources and river flows, which are seriously at risk from climate change effects, as decrease of rainfalls. During 2006 and 2007 the country went through a real energy crisis, due to long periods of droughts, which ended on energy cuts for several hours during the day and high costs of energy import. Climate forecasts design an increase of drought seasons that will bring serious hydrological changes and will decrease the yearly average energy production with 15% from the small hydro power plants and 20% from the big ones by 2050. In these circumstances the country should start to think of alternatives for production of electrical energy, as from solar energy (due its geographical position), wind energy, or thermal plants.

Kosovo

A Climate Change Adaptation Strategy is crucial for responding and anticipating the impacts of climate change in Kosovo. Exposure to hazards such as droughts, floods, and forest fires will become greater with climate change. Rising intensity and frequency of precipitation extremes like heavy rain events, as well as more severe drought, particularly since the 1980s will increase. Flash floods are getting more common in mountain areas, while river floods occur more often in plains and lowlands. Higher temperatures will make heat waves and forest fires more likely. Since 2000 there have been an increasing number of forest fires in Kosovo. Kosovo has been struck by drought several times in the last two decades (1993, 2000, 2007, and 2008). Increased temperatures, more uncertain rainfall, and reduced runoff combined with socio-economic developments and increased use of water resources will heighten exposure to drought. Since 2004, 80% of Kosovo municipalities have suffered from water shortages due to hydrological drought

and the misuse of water resources (OSCE, 2008). Ecosystem degradation and reduction of ecosystem services and increase and new forms of pollution and water-related diseases.

Water resources - Kosovo has relatively small and limited amounts of fresh water resources. Fresh water resource shortages are most likely to occur in near future dry years if appropriate adaptive actions are not implemented right now. Pressure on the already limited natural water resources is being enhanced by human activities, which are contributing to the depletion and deterioration of resources through increases in water demand in all sectors and pollution along the water courses.

The expected increase of temperature and decrease of rainfall patterns will be directly reflected in river flow regimes, in the groundwater levels and amount of groundwater recharge, as well as to the evaporation of water from the soil. Furthermore, climate change will increase vulnerability to extreme flooding and drought events with unpredictable socio-economic impacts on human well-being and environmental conditions. Based on the above considerations, freshwater vulnerability assessment to identify potential risks, providing decision makers with an early warning signal about the need to monitor potential variation over time is crucial. This is highly important in order to detect the occurrence of threats as early as possible, for being able to properly design and implement appropriate measures to reduce negative impacts, as: i) program for for risk management, including flood protection and identification of the flood prone areas; ii) Program for management for droughts, water allocation/ portioning and prioritizing the customer categories under the drought situations.

Macedonia

In the national context, areas such as agriculture, electricity production, energy demand, human health, biodiversity and forestry are all directly linked to the climate. They are therefore vulnerable to impacts from climate change.

Projected changes in climate are serious risks to agricultural production, food security, water availability, and economic growth for Macedonia. Across the country there will be significant variations in both vulnerability and associated adaptive capacity, depending on a range of factors. These factors include the current climatic exposure, financial capacity, social structures, institutional capacity, knowledge and education, and access to resources.

Agriculture is of significant importance to Macedonia in terms of employment, rural livelihoods, food security and exports. This sector, however, is highly climate-sensitive. Potential undesirable changes in temperature and precipitation will have a significant impact on this sector (reduction of the yields of most crops). As most crop production is rain-fed, there can be significant changes in mix and crop area planted on a year-to-year basis, depending on the timing and quantity of rainfall, as well as associated extreme events, like droughts and floods. Even for irrigated crops there are likely to be losses, though these losses are projected to be less than for non-irrigated crops. Without adaptation, these climate change damages may become approximately the same or bigger than current net income – jeopardizing the economic sustainability of farming in some areas.

The population in areas that are already under marginal rain-fed production will be at increasing risk, while communities in relatively high rainfall or irrigated areas will have more adaptation options to buffer their production systems against projected changes in climate. If appropriate measures are put in place, potential opportunities to increase production as a

result of climate change also exist in some instances.

Electricity consumption: The electricity demand for all sectors (commercial, residential, transport, industry and agriculture) by 2030 is expected to grow by 65%, compared to 2006 level. Climate change is expected to increase these costs by up to EUR 263 million – especially due to increased demand for air conditioning during hotter summers. Efforts can be made to reduce the consumption of electricity during both winters and summers through various energy efficiency improvements.

Electricity production: In general, climate change is expected to decrease precipitation and therefore hydropower production. Due to the changes in annual precipitation, the hydropower electricity production is already very vulnerable, (which for instance, in 2010 represented some 33.5% of the electricity producing capacity in the country, while in 2013 it diminished to some 25%¹³). Energy efficiency measures can help to reduce consumption, which can reduce pressure to produce more energy. The planned investments in the hydropower sector are quite large and should be examined to ensure if they are “climate resilient.” Additionally, to the need to become climate-resilient, the country as a partner with the EU has already committed to moving towards a low-emission economy and renewable energy production.

To guard against climate change, the development of the country must be carried out in such a way as to make it as much as possible “climate-resilient”. It is certain that the country’s preparedness to respond to climate change challenges, especially investments in vulnerable sectors such as agriculture, water and forests, as well as in energy efficiency and renewable resources will be costly and will require long-term commitment and efforts from all segments of the society – policy and decision makers, public administration, private sector, CSOs, academic and research institutions and others.

13 World Development Indicators (WDI); Available at <https://knoema.com/WBWDIGDF2016May/world-development-indicators-wdi-june-2016>

Serbia

In Serbia, the main sectors responsible for emissions are: power generation, transport, agriculture, as well as industry, housing and construction.

Recent floods in the region, in 2014, pointed the importance of climate change mitigation and adaptation measures. Climate change alters the hydrological cycle, with changes to the amount, timing, form, and intensity of precipitation and occurrences of floods and droughts, further influencing the quality and quantity of water resources and public health and safety. This is expected to have negative effects on other sectors, such as agriculture, forestry etc in the Republic of Serbia.

Turkey

Since 1990s, there is an ever growing number of environmental problems in Turkey. During the last two decades, the size of the economy more than doubled and urbanisation levels reached to more than 75% of the whole population, which itself increased about 40%. All these factors put immense pressure on the ecological system of Turkey. Even though there is an increasing awareness about local environmental problems (such as air pollution, land and water contamination) caused by the thermal power plants; the awareness about the links between coal investments and climate change mitigation and adaptation are yet to be materialised, partly because the impacts of climate change such as droughts or extreme precipitation are not as immediate as air pollution.

According to the reports of the Intergovernmental Panel on Climate Change (IPCC), situated at the heart of the Mediterranean basin, Turkey is highly vulnerable to the impact of climate change. If the current global emission trends continue, Turkey will become warmer and more arid with higher frequency of extreme events. These especially result in critical repercussions on the livelihoods of population living in

rural and coastal areas, and those working in the agricultural and fisheries sectors. In the past years, Turkey has witnessed various impacts of a changing climate. The mean temperatures are rising everywhere in the country and the warm season has been expanding. Rainfalls are increasing in the north eastern parts of the country and decreasing in the south¹⁴. And the frequency of natural hazards due to extreme weather events seems to be rising with the changing climate. If the current global emission trends continue, it is projected that Turkey will become even warmer (between 1oC and 5oC) in the next century (Figure 1) and precipitation patterns will change heavily (even less rainfall in the south, more rainfall in north) in the same period (Figure 2).

Future projections are modelled using the same code as IPCC. Greenhouse gas emissions are assumed to be high, similar to that of Turkey between 1.0oC and 2.5oC for period (a) and between 2.5oC and 5.0oC by the end of the 21st century.

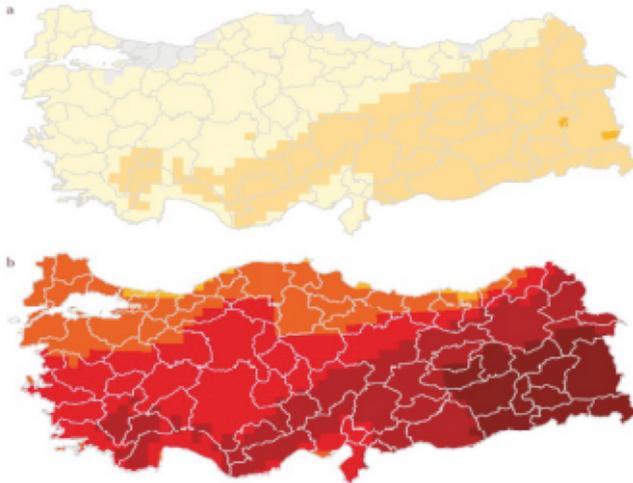


Figure 1: Temperature anomalies with respect to 1961 – 1990, averaged for periods (a) 2041 – 2070 and (b) 2071 – 2099

14 Şen, Ö.L., 2013. A Holistic View of Climate Change and Its Impact in Turkey. Istanbul Policy Center, Turkey, 32 pp. url: <http://ipc.sabanciuniv.edu/en/wp-content/uploads/2012/09/A-Holistic-View-of-Climate-Change-and-Its-Impacts-in-Turkey.pdf>

Future projections show a decreasing annual precipitation in the southern Turkey and increase in the northern parts. Mediterranean region may experience from 20% to 30% reductions in precipitation after the second half of the 21st century.

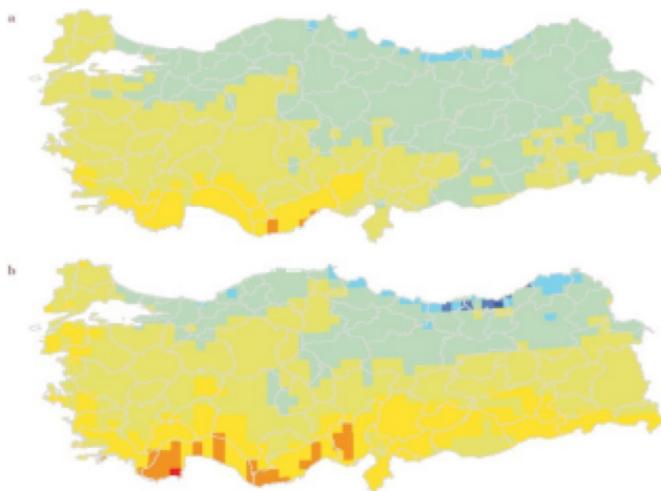


Figure 2: Rate of annual precipitation change with respect to 1961 – 1990, averaged for periods (a) 2041 – 2070 and (b) 2071 – 2099

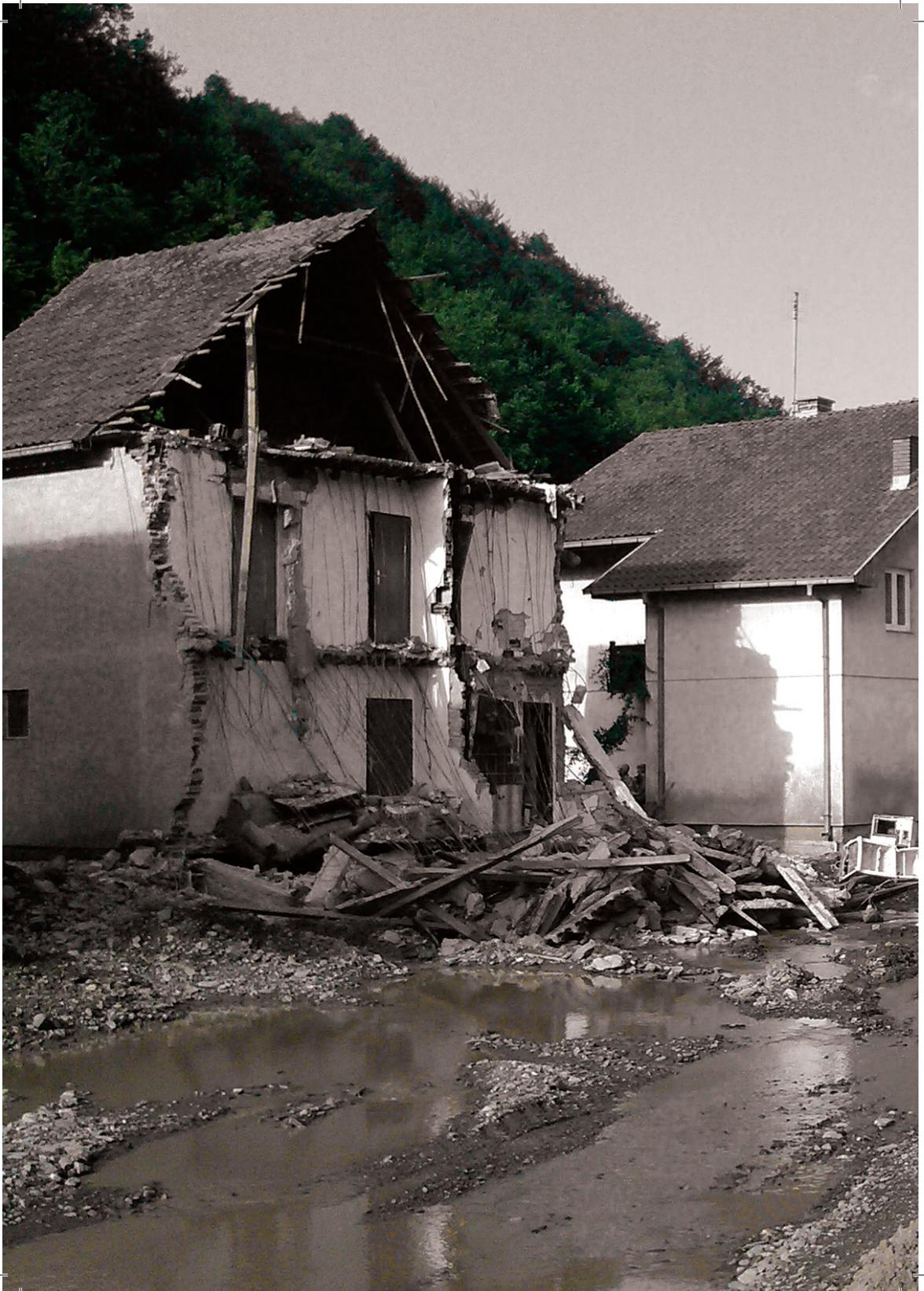
Even though the country is located in a high risk region, the society's awareness in relation to climate change and its implications is low. According to a survey conducted by the Turkish Ministry of Environment and Urbanisation¹⁵, 40% of Turkish population think that climate change is a seasonal change (i.e simply having a year warmer than the year before), and 53% of the population believe that the reason for climate change is air pollution. There is a clear need to enhance the local knowledge about the impact of climate change and raise awareness about the links that tie the droughts with coal investments. The local people, who contribute the least about climate change, are in fact the most affected groups by climate

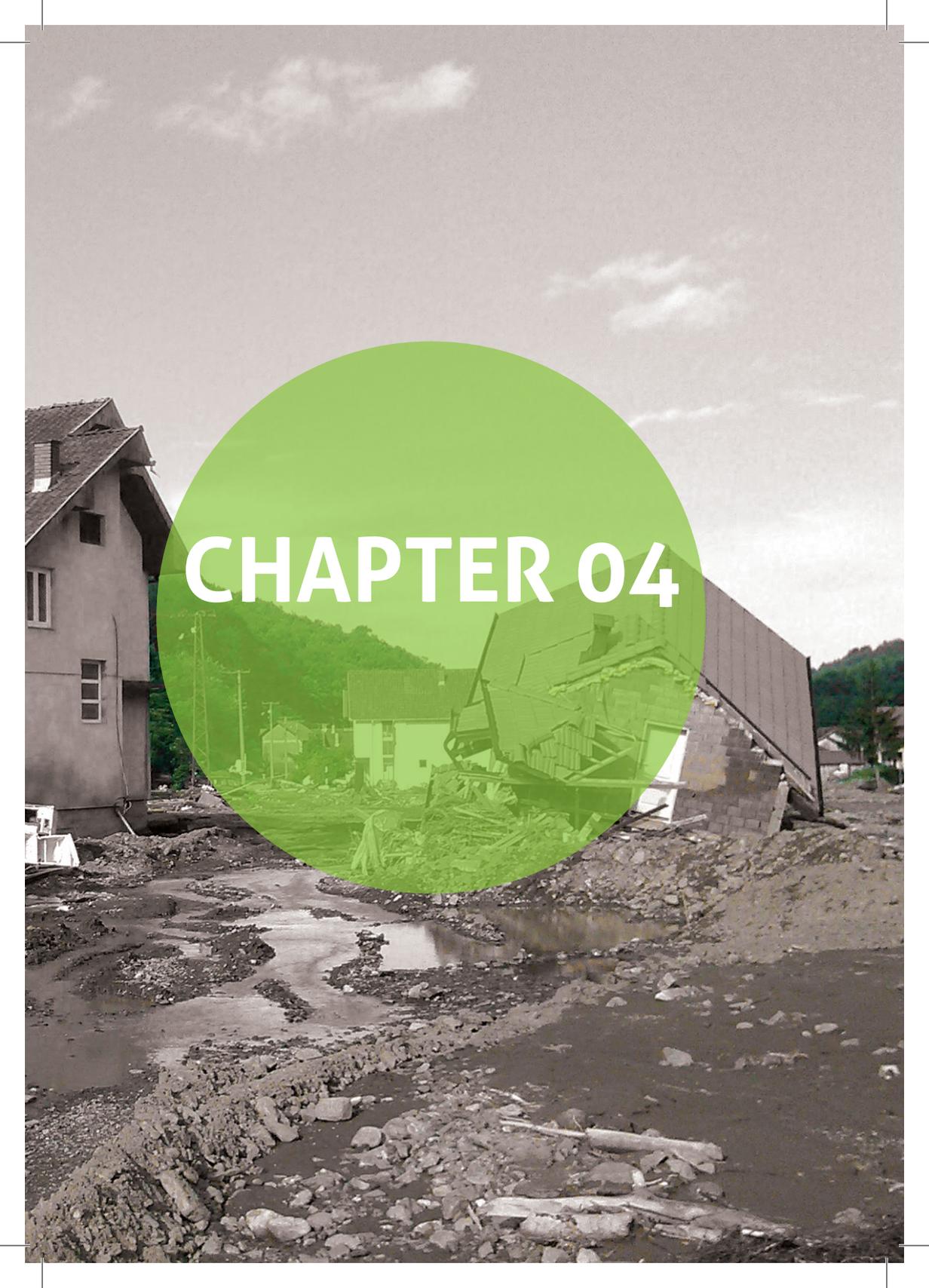
15 <http://iklim.cob.gov.tr/iklim/Files/Anket.pdf>

change. There is an urgent need to inform and mobilise them in order to protect their livelihoods (e.g. agriculture, fisheries, and forests).

The aforementioned survey results are not surprising, considering that, a) most of the information and resources about climate change are in English, limiting the access to information on climate change for the general public, and b) the issue of climate change is not prioritized in Turkey's political and economic agenda and local impacts are not yet investigated in a coherent way.

There is a visible need for capacity building in Turkish civil society, especially at the rural areas, where the underprivileged and the most disadvantaged groups live on climate-sensitive livelihoods such as agriculture and fishery, making them disproportionately vulnerable to impacts of the climate change. For this reason, it is important to reach out to the people; especially local communities, local NGOs, local environmental movements, local decision makers and farmer communities; in order to increase their awareness and help them make the link between climate change and climate-related disasters.





CHAPTER 04

Policy response

So far no real progress is made toward approximation to acquis for climate change in almost all the above countries in the region, and therefore establishment of a monitoring and verification and reporting system for emissions of GHGs in line with Monitoring Mechanisms of EU should be prioritised.

The respective governments should be more concentrated on developing and approving comprehensive policies and strategies for climate in line with EU Framework 2030 for climate and energy. In the mean time the strategies should take care to consider climate change effects in all other sectors of the economy.

Some countries had made some progress more than the others, as Albania, Macedonia and Serbia, where they are part of the UNFCCC and are obligated to made some assessments and report yearly. It is a fact that in these countries the legal framework regarding climate change has started to be improved, however at a very low speed. Special measures are being taken, especially toward usage of energy efficiency on energy production etc.

In Macedonia a National Climate Change Committee (NCCC) was established by the Government consisting of representatives of all relevant stakeholders: government bodies, academia, private sector and civil society. The NCCC is a participatory platform aimed at providing high-level support and guidance for overall climate change policies in the country. Moreover, a National Council for Sustainable Development has also been established to provide advice on economic affairs. The Law on Environment stipulates that a National Plan for climate change is to be adopted for the purpose of stabilizing GHG concentrations at a level that would prevent

any dangerous anthropogenic impact on the climate system within a timeframe sufficient to allow ecosystems to naturally adapt to climate change, in accordance with the principle of international cooperation and the goals of the national social and economic development.

Then there is Turkey that, in spite the fact that is part of the UNFCCC, it has made several steps back due to usage of fossil fuel fro energy production at a considerable percentage. On September 30, 2015, Turkey submitted its Intended Nationally Determined Contribution (INDC) to combat climate change, prior to COP21. According to this submission, a 21% economy wide emission cut by 2030 is foreseen under the business as usual scenario, which projects 1175 million ton CO₂eq. According to the mitigation scenario provided in the INDC, total greenhouse gas emissions is projected 929 million ton CO₂eq (a goal that will allow the emissions to more than double over the next 15 years), which means an average of 5% increase per year between 2012 and 2030 (Figure 6). Furthermore, unlike many other developed and developing Furthermore, unlike many other developed and developing countries, Turkey does not project any peak emission year until 2030¹⁶.

16 The INDC document can be accessed at http://www4.unfccc.int/Submissions/INDC/Published%20Documents/Turkey/1/The_INDC_of_TURKEY_v.15.19.30.pdf

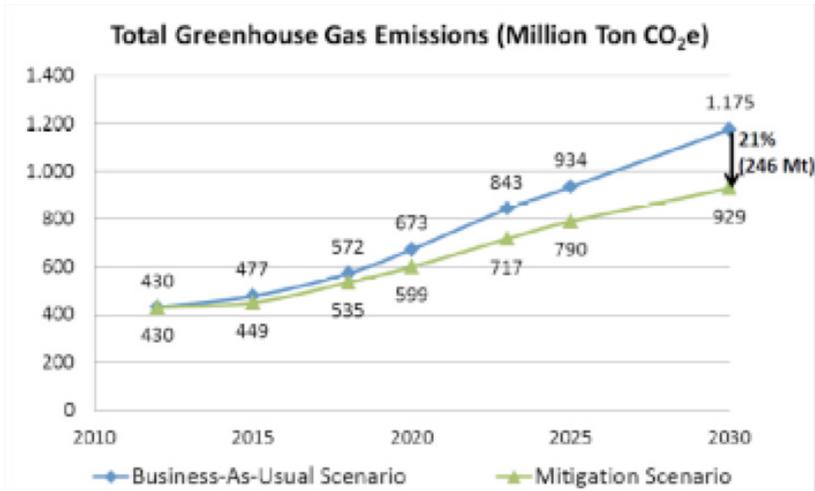


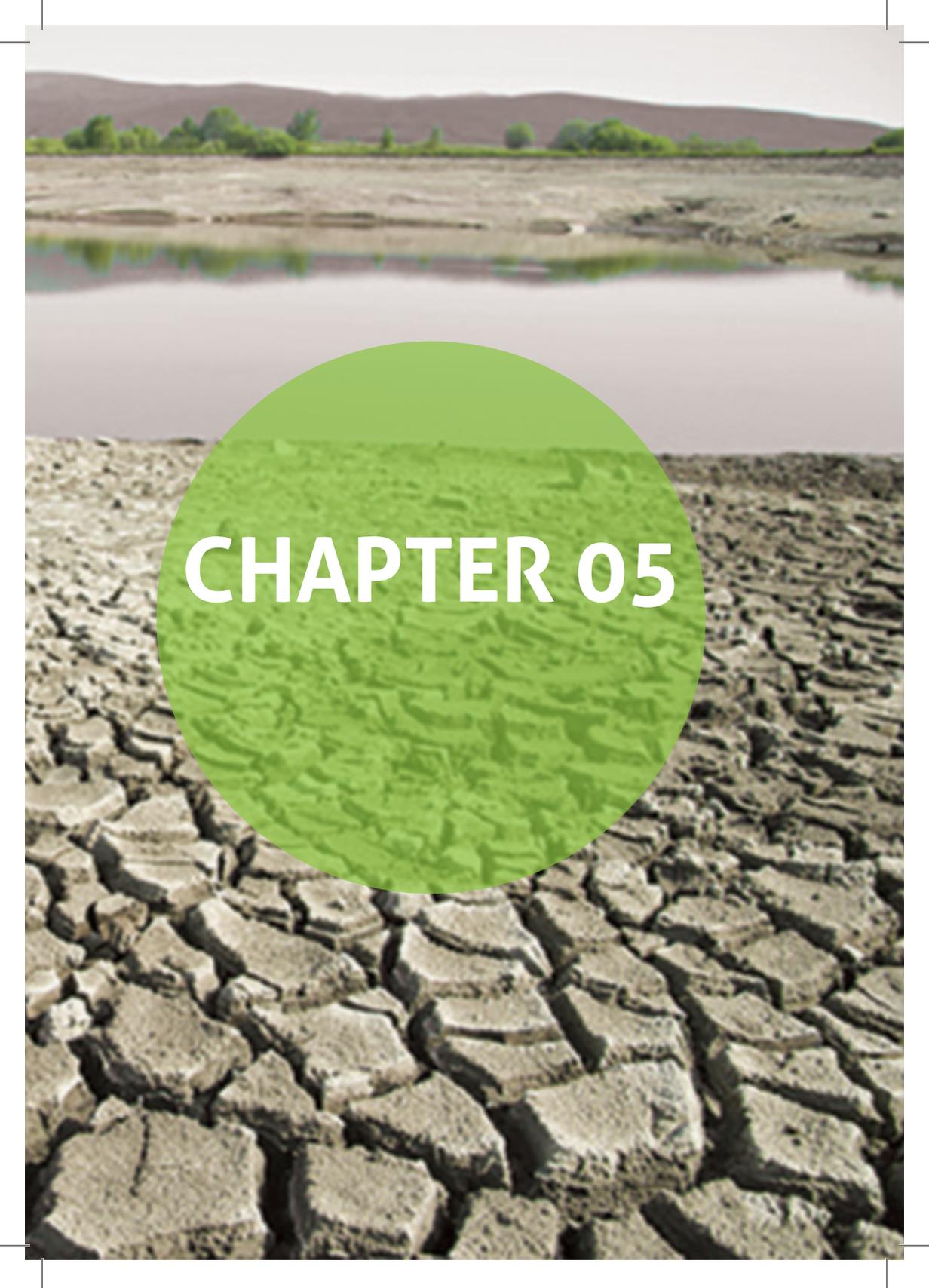
Figure 6: The GHG emissions projections according to the INDC document submitted prior to COP21.

With the currently planned rate of increase in the emissions, per capita emissions in 2030 will be around 10,50 ton CO₂eq. The projection will allow Turkey’s emissions to increase at an even faster rate to its growth over the previous ten years. And if the reduction targeted by EU between now and 2030 is also taken into account, Turkey’s yearly per capita emissions would surpass the EU’s projected per capita emissions at 2020, and it would be at least double of the EU’s targets towards 2030. Turkey is an EU candidate country and has the responsibility to approximate its legislation and align strategies with the EU. However, with this INDC submission, Turkey lags significantly behind the strategies and legislations of the EU which by themselves feel less enthusiastic than the civil society expectations. Furthermore, there is no reference to adaptation plans in the INDC even though in decision 1/CP.20 the UNFCCC COP invited all Parties to consider communicating their undertakings in adaptation planning or consider including an adaptation component in their intended nationally determined contributions and Turkey is located in a vulnerable

zone to climate change

The last formed country is Kosovo is not yet a party to the UN Framework Convention on Climate Change, and no climate change strategy, action plan, economy-wide mitigation targets or policies and measures on climate change is in place. It is still not recognized by United Nation Institutions and it is not eligible to be party to international conventions and it can participate in negotiations only as an observer. The government of the Republic of Kosovo has made efforts to approximate with the *acquis communautaire* its legal framework has initiated consultations with the secretariats of different conventions and has started to prepare necessary documentations for ratification of Conventions.





CHAPTER 05

Conclusions and recommendations

In 2007 EU leaders endorsed an integrated approach to climate and energy policy and committed to transforming Europe into a highly energy-efficient, low-emission economy. In cooperation with international partners such as the EU, the UN, the World Bank and others, the national development pathway for Macedonia can be green, low-emission and climate-resilient. The countries are vulnerable to climate change.

Vulnerability assessments have shown that certain sectors, essential for our economic development are likely to be affected by climate change.

In order to **set a pathway towards climate resilient economy and society**, a separate national long-term Strategy and Law on Climate Action need to be developed to further elaborate strategic goals, the specific objectives and resulting strategic measures in climate action. The long-term Strategy on Climate Action should be the main national framework strategy document for climate action. Additionally, the Law on Climate Action should provide the legal framework for transposition of priority elements of the EU climate acquis and for coordinated action at national and local level for mitigation and adaptation to climate change. The implementation of the Strategy and Law on Climate Action needs to be managed through the National Climate Change Action Plans. Long-term objectives of the climate action should include full transposition and implementation EU climate acquis, achieving a competitive low carbon economy and achieving a climate resilient society and economy.

In order to **move down the green, low-emission and climate-resilient development path**, it is necessary to improve the institutional capacity for assessing/ analysing the impact of climate change. This will be crucial to better adapt to climate change and to better manage and plan the use of today's

resources. Cross-sector collaboration in data collection is also important. National institutions will need to further develop the tools and information to support informed policy decisions, especially on the economic value of the physical impacts of climate change in the areas important for the national economy – agriculture, water resources, energy demand and electricity production. Having a better idea of the economic impacts will make it possible to then better assess options for becoming more climate-resilient of the existing infrastructure investments and ensuring that these are climate friendly.

As climate change agenda is composed of mitigation and adaptation measures, we as a network propose the following ones:

Mitigation policies

- Urban growth plans should incorporate collective public transport systems, be well-coordinated and connected to neighbouring cities. Cities should be structured to be economically dynamic and healthier and to have lower emissions.
- Food production should be increased by policies that aim to increase crop and live stock productivity and by using comprehensive approaches and new technologies for water management. In this way, emissions arising from land use can be diminished.
- To satisfy the demand for energy that is affiliated with economic growth, energy efficiency solutions and controlling energy demands should be prioritized instead of focusing on increasing the energy supply that increase carbon emissions when relying on fossil fuels such as domestic lignite.
- Carbon taxes could be introduced to eliminate the

externalities caused by GHGs. This fund then could be used to invest in climate friendly infrastructure projects.

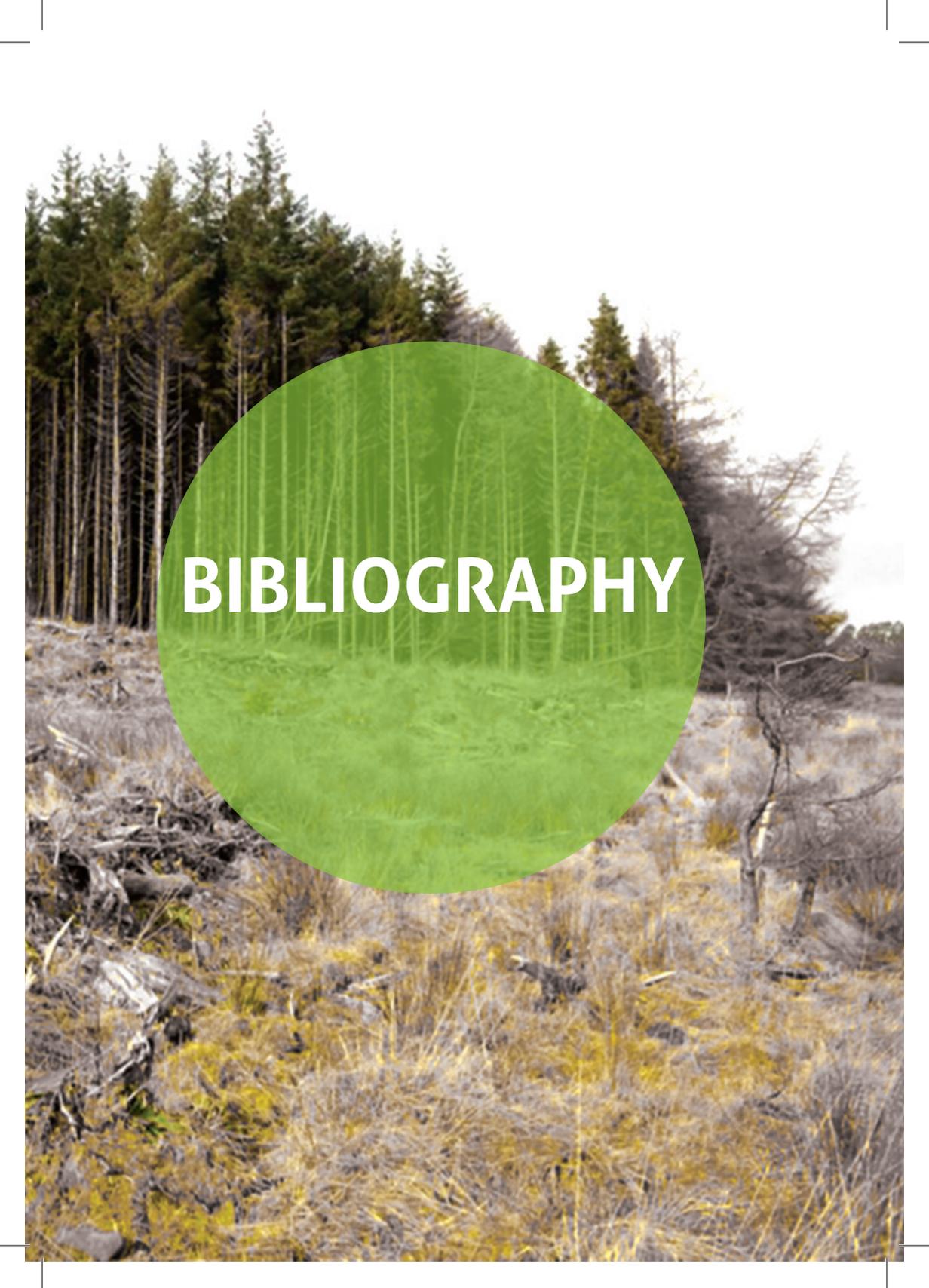
- The potential for solar and wind power in the region should be utilized and fossil fuels should be substituted with renewable energy resources.

Adaptation Policies

- Adoption of protective policies for high-risk groups (farmers, women, low income groups) is of great importance, as effects of climate change may vary for different groups within the society. Establishment of social policies to target income inequality is vital to ensure climate justice.
- As risk of droughts increases, protection of fresh water resources is essential. In this sense existing water policies should be revised; ground and surface water reserves should be protected and sustained. Polluting and unsustainable means of production should be substituted with cleaner and sustainable techniques.
- An insurance fund should be established to control price increases due to drought driven crop productivity and quantity declines. Investments should be redirected to drought resistant and local seeds to advance agricultural technology.
- Most importantly, the governments, civil society and real sector should cooperate to formulate these policies in a participatory, democratic and transparent manner. The environmental problems are those with far reaching social and economic impacts and can only be tackled with good governance from a bottom up perspective. In this respect, NGOs play a significant role in raising awareness of the public in order to make a behaviour shift towards reducing both the effects of climate change (adaptation) and causes of the global warming and greenhouse gas emissions (mitigation), as well as getting them involved in local policymaking.

- Last but not least, it should be kept in mind that the quality of growth is as important as the rate of growth. The aforementioned low-carbon policies would provide benefits like more energy security, less traffic jams, better life quality, resilience to climate change and a healthier environment along with others. In comparison, the benefits are more than the costs that are affiliated with the above mentioned low-carbon policies.



A landscape photograph showing a dense forest of tall, thin evergreen trees in the background. The foreground is a field of dry, yellowish-brown grasses and shrubs, with some dark, charred tree trunks and branches scattered on the ground. A large, semi-transparent green circle is centered over the image, containing the word 'BIBLIOGRAPHY' in white, bold, uppercase letters.

BIBLIOGRAPHY



Bibliography

Ministry of Environment in Albania, 2009. Albania's Second National Communication to the Conference of Parties under the United Nations Framework Convention on Climate Change

Ombudsman in Albania, 2012. Speaci report "On the situation after the floodings in the Region of Shkodra

Ministry of Environment in Albania, 2015. Draft Environmental Intersectoral Strategy 2015-2020

MESP/UNDP, 2014. Climate Change Framework Strategy (CCFS) for Kosovo, (http://mmp-h-rks.org/repository/docs/Climate_Change_Framework_Strategy_19022014_FINAL_717626.pdf)

BIRN, 2009. Kosovo and Climate Change A Strategic Approach to the Copenhagen Climate Change Conference

KEPA, 2008-2013. Kosovo Green House Gas Emissions (http://www.ammk-rks.net/repository/docs/RAPORTI_GHG_2008-2013.pdf)

MESP/UNDP Climate Report 2014, Energy Security and Climate Change, Kosovo http://www.kas.de/upload/dokumente/2014/12/Climate_Report/Kosovo.pdf)

MESP, Climate Change Report, Kosovo Conference http://www.ks.undp.org/content/dam/kosovo/docs/dragash/Climate_change_report.pdf)

Turhan, E., Cerit Mazlum, S., Şahin, Ü., Şorman, A. H., & Cem Gündoğan, A. (2016). Beyond special circumstances: climate

change policy in Turkey 1992–2015. Wiley Interdisciplinary Reviews: Climate Change.

Şen, Ö.L., 2013. A Holistic View of Climate Change and Its Impact in Turkey. Istanbul Policy Center, Turkey, 32 pp. url: <http://ipc.sabanciuniv.edu/en/wp-content/uploads/2012/09/A-Holistic-View-of-Climate-Change-and-Its-Impacts-in-Turkey.pdf>



