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Turkey and climate change:

An evolving issue in a developing country or no change for climate change?

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Abbreviations

Abbreviation	Turkish	English
AFAD	Afet ve Acil Durum Yönetimi Başkanlığı	Department for Disaster Management
AIGM	Afet İşleri Genel Müdürlüğü	General Directorate of Disaster Affairs
AKP	Adalet ve Kalkınma Partisi	Justice and Development Party
BINGO	Ticaret ve Sanayi Sivil Toplum Kuruluşları	Business and Industry Non-Governmental Organizations
BSEC	Karadeniz Ekonomik İşbirliği Örgütü	Organization of the Black Sea Economic Cooperation
BTI	Bertelsmann Transformasyon Endeksi	Bertelsmann Transformation Index
BTYK	Bilim ve Teknoloji Yüksek Kurulu	High Council of Science and Technology
Buğday	Ekolojik Yaşamı Destekleme Derneği	Association for the support of Ecologic Life
CAN	İklim Aksiyonu Ağı	Climate Action Network
ÇEDBİK	Çevre Dostu Yeşil Binalar Derneği	Association for Green Environmental Buildings
ÇEKÜL	Çevre ve Kültür Değerlerini Koruma ve Tanıtma Vakfı	Foundation for the Protection and Promotion of the Environment and Cultural Heritage
ÇEVKO	Çevre Koruma ve Ambalaj Atıkları Değerlendirme Vakfı	Environmental Protection and Packaging Waste Recovery and Recycling Trust
ÇEVKOR	Çevre Koruma ve Araştırma Vakfı	Foundation for the Protection of and Research on the Environment
CLERDEC	İklim Araştırmaları ve Geliştirme Merkezi	Climate Research and Development Center
ÇOB	Çevre ve Orman Bakanlığı	Ministry of Environment and Forestry
COP	Kyoto Protokolü Tarafları Buluşması olarak işlev gören Taraflar Konferansı	Conference of the Parties serving as the meetings of the Parties to the Kyoto Protocol
ÇSB	Çevre ve Şehircilik Bakanlığı	Ministry of Environment and Urbanization
CSIS		Center for Strategic and International Studies
ÇYGM	Çevre Yönetimi Genel Müdürlüğü	General Directorate of Environmental Management
DHKD	Doğal Hayatı Koruma Derneği	Association for the Protection of Natural Life in Turkey
DHKV	Doğal Hayatı Koruma Vakfı	WWF Turkey
DKM	Doğa Koruma Merkezi	Center for Environmental Protection
DKMP	Doğa Koruma ve Milli Parklar Genel Müdürlüğü	General Directorate of Environmental Protection and National Parks
DPT	Devlet Planlama Teşkilatı	State Planning Institution
DSİ	Devlet Su İşleri Genel Müdürlüğü	General Directorate of Water Affairs
ECOSOC	Birleşmiş Milletler Ekonomik ve Sosyal Konseyi	United Nations Economic and Social Council

EEA	Avrupa Çevre Ajansı	European Environmental Agency
EFTA	Avrupa Serbest Ticaret Birliği	European Free Trade Agreement
ENGO	Çevre Kuruluşları	Environmental Non-Governmental Organizations
ENIVA	Enerji ve İklim Değişikliği Vakfı	Energy and Climate Change Foundation
EPA	Çevre Koruma Ajansı	Environmental Protection Agency
EPI	Dünya Çevre Performansı Endeksi	Environmental Performance Index
ESS METU	Department of Earth System Sciences at the Graduate School of Nature and Applied Sciences at Middle East Technical University
ETKB	Enerji ve Tabii Kaynaklar Bakanlığı	Ministry of Energy and Natural Resources
ETS	Emisyon Ticaret Sistemi	Emission Trade Systems
EU	Avrupa Birliği	European Union
EVI	Çevresel Kırılganlık Endeksi	Environmental Vulnerability Index
FAO	Gıda ve Tarım Örgütü	Food and Agricultural Organization
FEE	Uluslararası Çevre Eğitim Vakfı	International Foundation for Education on the Environment
FSC	Orman Yönetim Konseyi	Council for Forest Management
GATT	Gümrük Tarifeleri ve Ticaret Genel Anlaşması	General Agreement on Tariffs and Trade
GDP	Gayrisafi Yurt İçi Hasıla	Gross Domestic Product
GEF	Küresel Çevre Fonu	Green Environmental Fund
GFK	Gesellschaft für Konsumforschung' (German)	GFK Group (Society for Consumer Research)
GHG	Sera Gazı	Greenhouse Gas
GOSIC	Global Observing Systems Information Center
HDI	İnsani Gelişme Göstergesi	Human Development Index
İDEP	İklim Değişikliği Eylem Planı	Climate Change Action Plan
İDEP	İklim Değişikliği Eylem Planı	Climate Change Action Plan
İDGM	İklim Değişikliği Genel Müdürlüğü	General Directorate of Climate Change
İDKK (CBCC)	İklim Değişikliği Koordinasyon Kurulu	Coordination Board on Climate Change
İKV	İktisadi Kalkınma Vakfı	Foundation for Economic Development
ILO	Uluslararası Çalışma Örgütü	International Labour Organization
IMF	Uluslararası Para Fonu	International Monetary Fund
IPCC	Hükümetlerarası İklim Değişikliği Paneli	Intergovernmental Panel on Climate Change
İTÜ	İstanbul Teknik Üniversitesi	Istanbul Technical University
MGM	Meteoroloji Genel Müdürlüğü	General Directorate on Meteorology
MURCIR	Marmara Üniversitesi Uluslararası İlişkiler Araştırma ve Uygulama Merkezi	Marmara University Research Center for International Relations
NAMA	Ulusal Programlara Uygun Azaltım Eylemi	Nationally Appropriate Mitigation Action
NATO	Kuzey Atlantik Antlaşması Örgütü	North Atlantic Treaty Organization
NCCAP	Ulusal İklim Değişikliği Eylem Planı	National Climate Change Action Plan

NCCC	İklim Değişikliği Ulusal Bildirimi	National Communication on Climate Change
NCCCS	Ulusal İklim Değişikliği Stratejisi	National Climate Change Strategy
NGO	Sivil Toplum Kuruluşları	Non Governmental Organization
OECD	Ekonomik İşbirliği ve Kalkınma Örgütü	Organisation for Economic Co-operation and Development
OGM	Orman Genel Müdürlüğü	General Directorate of Forestry
OIC	İslam İşbirliği Teşkilatı	Organisation of the Islamic Conference
Ormansu	Orman ve Su Bakanlığı	Ministry of Forestry and Water Affairs
OSCE	Avrupa Güvenlik ve İşbirliği Teşkilatı	Organization for Security and Cooperation in Europe
RCC	Bölgesel İklim Merkezi	Regional Climate Center
REC	Bölgesel Çevre Merkezi	Regional Environmental Center
RERDEC	Yenilenebilir Enerji Araştırma ve Geliştirme Merkezi	Renewable Energy Research and Development Center
RES	Yenilenebilir Enerji Kaynakları	Renewable Energy Sources
SOPAC	South Pacific Applied Geoscience Commission
STK	Sivil Toplum Kuruluşu	Non-Governmental Organization
TEMA	Türkiye Erozyonla Mücadele, Ağaçlandırma ve Doğal Varlıkları Koruma Vakfı	Turkish Foundation for Combating Soil Erosion, Deforestation and the Protection of Natural Habitats
TEMEV	Temiz Enerji Vakfı	Foundation for Clean Energy
TEP	Temiz Enerji Platformu	Clean Energy Platform
TGNA	Türkiye Büyük Millet Meclisi	Turkish Grand National Assembly
TİKDEK	Türkiye İklim Değişikliği Kongresi	Turkish Congress on Climate Change
TISK	Türkiye İşveren Sendikalar Konfederasyonu	Turkish Confederation of Employer Associations
TOBB	Türkiye Odalar ve Borsalar Birliği	Undersecretary of Treasury, the Union of Chambers and Commodity Exchanges of Turkey
TRAEE	Enerji Ekonomisi Derneği	Turkish Association for Energy Economics
TTGV	Türkiye Teknoloji Geliştirme Vakfı	Technology Development Foundation of Turkey
TÜBİTAK	Türkiye Bilimsel ve Teknik Arastırma Kurumu	The Scientific and Technological Research Council of Turkey
TÜÇEV	Türkiye Çevre Koruma Vakfı	Turkish Foundation for the Protection of the Environment
TÜDEF	Tüketici Dernekleri Federasyonu	Federation of Consumer Associations
TÜDEV	Türk Deniz Araştırmaları Vakfı / Deniz Eğitim Merkezi	Turkish foundation for Marine Research and Education
TÜİK	Türkiye İstatistik Kurumu	Turkish Statistical Institute
TÜRÇEV	Türkiye Çevre Eğitim Vakfı	Turkish Foundation for Environment and Education

TÜSIAD	Türk Sanayicileri ve İşadamları Derneği	Turkish Industry and Businessmen Association
UN	Birleşmiş Milletler	United Nations
UNBC	Birleşmiş Milletler Biyolojik Çeşitlilik Sözleşmesi	United Nations Convention on Biological Diversity
UNCCD	Birleşmiş Milletler Çölleşmeyle Mücadele Sözleşmesi	United Nations Convention to Combat Desertification
UNCED	Birleşmiş Milletler Çevre ve Kalkınma Konferansı	United Nations Conference on Environment and Development
UNCTAD	Birleşmiş Milletler Ticaret ve Kalkınma Konferansı	United Nations Conference on Trade and Development
UNDP	Birleşmiş Milletler Kalkınma Programı	United Nations Development Programme
UNEP	Birleşmiş Milletler Çevre Programı	United Nations Environment Programme
UNESCO	Birleşmiş Milletler Eğitim, Bilim ve Kültür Örgütü	United Nations Educational, Scientific and Cultural Organization
UNFCCC	Birleşmiş Milletler İklim Değişikliği Çerçeve Sözleşmesi	United Framework Convention on Climate Change
UNGA	Birleşmiş Milletler Genel Kurulu	United Nations General Assembly
UNHCR	Birleşmiş Milletler Mülteciler Yüksek Komiserliği	Office of the United Nations High Commissioner for Refugees
UNIDO-ICHET	Uluslararası Hidrojen Enerjisi Teknolojileri Merkezi'	United Nations Industrial Development Organization International Center for Hydrogen Energy Technologies
UNIFIL	Birleşmiş Milletler Geçici Görev Gücü Lübnan	United Nations Interim Force in Lebanon
UNRWA	Birleşmiş Milletler Ortadoğu Mültecilerine Yardım Ajansı	United Nations Relief and Works Agency for Palestine Refugees in the Near East
UNSC	Birleşmiş Milletler Güvenlik Konseyi	United Nations Security Council
WCED	Dünya Çevre ve Gelişme Komisyonu	World Commission on Environment and Development
WCRP	Dünya İklim Araştırmaları Programı	World Climate Research Programme
WERDEC	Su Mühendisliği Araştırma ve Geliştirme Merkezi	Water Engineering Research and Development Center
WMO	Dünya Meteoroloji Örgütü	World Meteorological Organization
WTO	Dünya Ticaret Örgütü	World Trade Organization
WWF	Doğal Hayatı Koruma Vakfı	World Wide Fund for Nature
YEGM	Yenilenebilir Enerji Genel Müdürlüğü	General Directorate for Renewable Energy

1. Introduction

Since the discovery that there exists a growing anthropogenic influence on the global climate and that this in turn could lead to serious consequences for the human living conditions, global climate change has been framed in very diverse ways in the international discussions. In the beginning climate change was mostly treated as an environmental issue (like acid rain, forest dieback etc.) to be left to specific advocacy groups, scientist or the ministries of the environment. At that time (approximately 1985 until 1992) environmental NGOs began to link the topic with security concerns to raise awareness and set it on the agenda of political leaders (*World Watch Institute, the Climate Institute, the New Economics Foundation or the Friends of the Earth*) (Oels 2012). One effect¹ of this first phase of securitization was the establishment of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 at the Rio Summit of the United Nations Conference on Environment and Development (UNCED) as well as the establishment of the Kyoto Protocol later on. The discussion shifted in a more economic direction after scientific evidence showed the serious anthropogenic effects on the global climate and the fact that immense costs are associated with future adaptation measures. The debates were from then on dominated by questions of the cost of climate adaptation and mitigation compared to non-action, such as for example the Stern Report 2006, which can be regarded as the culminating point of this line of thinking. Since the turn of the millennium the discussion about the possible security effects of climate change gained renewed momentum (Brzoska and Oels 2011) in science and politics internationally. In line with more accurate forecasts about the widespread physical effects of climate change (e.g. more and more intense extreme weather events, altered precipitation, shifting climate zones, sea level rise, desertification etc.) and their effect on human habitats and lifestyles, the discussion about climate change as a security threat became more relevant again. The primary actors raising awareness about the link between climate change and security were once again not solely scientists and political bodies but also non-governmental organizations (NGOs) and Think Tanks (Christian Aid 2007; CNA Corporation 2007; Center for Strategic & International Studies (CSIS)

¹The security discussion was apparently not the only cause that led to the establishment of the UNFCCC, but it certainly contributed to this process.

and Center for a New American Security (CNAS) 2007; Smith and Vivekananda 2007). Based on earlier debates on environmental security (Mathews 1989) and the possibility of widespread environmentally induced migration and conflict (Homer-Dixon 1994; Homer-Dixon 1999; Myers 1995, 2002) they pointed out how the effects of global climate change could contribute to these problems. It was only after these independent scientific and NGO efforts that the climate security debate accumulated momentum in the political sphere as well. In the year 2007, the United Nations Security Council (UNSC) held its first session about the possible implications of climate change on international peace and security (UNSC (United Nations Security Council) 2007a), followed by a report of the secretary general (UNGA (United Nations General Assembly) 2009b), various resolutions (UNGA (United Nations General Assembly) 2008, 2009a) and a second session of the UNSC in the year 2011 (UNSC (United Nations Security Council) 2011a). In especially social and political sciences and the media, this involvement is sometimes seen with concern. Firstly the direct link between climate change effects and conflict, which is drawn in some of these reports, is called into question in various peer reviewed publications (Pol. Geog 2006)² and research projects (University of Colorado Boulder 2012). And secondly there is a growing concern about the political effects of this “securitization” of climate change³. Departing from the Copenhagen School’s (Buzan *et al.* 1998) concept of securitization and combining it with the concept of discourse, the *ClimaSec* project tries to uncover these effects and the actors involved in the securitization process. It will do so from a comparative perspective, looking at four countries which differ in regard to their socio-economic development and their standing in the international and domestic climate politics. These countries are: the USA (industrialized country, laggard in the climate negotiations), Germany (industrialized country, vanguard in the climate negotiations), Turkey (emerging economy, laggard in the climate negotiations), and Mexico (emerging economy, vanguard in the climate negotiations). The climate security debate gained momentum especially through the involvement of NGOs and think tanks. Hence the *ClimaSec* project looks particularly at reports and contributions of these actors. This paper concentrates on the case of Turkey. Through a survey of the most relevant secondary and

² Barnett and Adger (2007); Reuveny (2007).

³ Brzoska (2009); Hartmann (2010); Oels (2012); McDonald (2005); McDonald (2008); Rothe (2011); Rothe (2012); Methmann and Oels (2013 (in press)); Methmann and Rothe (2012).

primary sources it sheds light on the most important climate policies, lawmaking, dynamics in the country and international standing and identifies key actors that are involved in these processes. As the ClimaSec project tries to uncover how securitization processes have influenced policy making – and which actors contributed most – special attention is given to climate security debates, as far as these can be identified, without neglecting the overall picture. The paper is structured as follows: A “Country Background” in section two informs about Turkey and its general standing in the world from political, economic and development perspectives with special emphasis on climate and environmental matters. Section three on “Domestic Climate Policies” includes an overview of the most important milestones in domestic climate policies, lawmaking and perception in the media and public. Section four on “International Climate Policies” presents Turkey’s performance in the International Climate Change Regime. Section five presents a variety of actors involved in the Turkish climate change debates, such as governmental actors, NGOs, business organizations and science actors. As only an almost evanescent small number of actors in Turkey is engaged in climate-security debates, space is also given to actors who are engaged in environmental and climate protection in general, but who have the potential to become securitizing actors in the climate change-security debate. The paper closes with a summary of main insights, questions and challenges concerning the case of Turkey within the overall project.

2. Country Background

To account for the domestic and international climate politics of a country, it is important to first take a look at its underlying conditions and its initial positions in world politics, economy and international relations. Therefore, some basic country indicators, such as important political and economic developments, the political system and the stance towards environmental protection and international climate policies are outlined in this section.

Regarding its geographical position, Turkey comprises parts of Europe, the Near East and Asia within an area of 783,562 km². The country is a peninsula and due to its geographical position

at the crossroads of important regions which renders Turkey both significant and vulnerable, Turkey matters to great powers such as Russia and the European Union (EU). To the EU and NATO it is of strategic importance as it acts as an important energy hub and a buffer between Europe and conflictuous regions in the Caucasus and Near East.

During the cold war, Turkey had an important role as a NATO member bordering the Soviet Union and was closely aligned with the West. Turkey lost some of its strategic importance after the end of the cold war but continued its traditional westward orientation and its efforts to join the European Union. Regarding its geostrategic position, some scholars called the Turkish foreign policy a “360-degree nightmare”, being geographically, ethnically or politically connected to nearly all countries that were engaged in post cold-war conflicts, such as Iran, Iraq, Cyprus, Russia, Syria and Islamic Fundamentalism (Friedman 1995).

Some of the potential sources of conflict between Turkey and its neighbors can be regarded as closely related to climate change, as for example water scarcity, droughts and questions of energy supply. Turkey is assessed as highly vulnerable to climate change and its threats by international institutions and international and national scholars (T.C. Çevre ve Orman Bakanlığı 2010a). A diminished biodiversity, extreme droughts and water conflicts have been predicted for the future (European Environment Agency 2010). In the Environmental Vulnerability Index⁴ (EVI), Turkey is categorized as highly vulnerable and ranks 62nd among 235 (Baykan 2008). Moreover, in 2007, the 4th Evaluation Report of the Intergovernmental Panel on Climate Change (IPCC) mentioned Turkey among the most vulnerable countries concerning the effects of climate change (T.C. Çevre ve Şehircilik Bakanlığı 2013b: 10).

As the 34th largest country in the world, Turkey’s territory consists of 35 percent agricultural land and 27 percent forests (UNFCCC (United Nations Framework Convention on Climate

⁴ The EVI Index has been developed by the South Pacific Applied Geoscience Commission (SOPAC), the United Nations Environment Programme (UNEP) and their partners. It comprises 50 indicators including Climate Change, Biodiversity, Water, Agriculture and Fisheries, Human Health Aspects, Desertification and Exposure to Natural Desasters.

Change) 2009). Both forests and farmlands are already affected by wildfires and droughts. In the future, fires and droughts are likely to increase (T.C. Çevre ve Şehircilik Bakanlığı 2013b: 10). Concerning Turkey's climatic map to date, most of the Turkish coastline displays a typical Mediterranean climate, whereas the inner areas of Anatolia are characterized by an arid steppe climate (Ediger and Kentel 1999). Turkey has strong climatic variations that range from subtropical zones to dry steppe and from harsh winters to very hot and dry summers (UNFCCC (United Nations Framework Convention on Climate Change) 2009), but over the past five decades summer temperatures have increased while winter temperatures decreased (European Environment Agency 2010). Long term climate statistics show that Turkey will be severely affected by rising temperatures and increasing extreme weather conditions as a consequence of climate change. Particularly, water stress is already apparent in many parts of Turkey and water policies play an increasingly important role in the country (T.C. Çevre ve Şehircilik Bakanlığı 2013b: 10). At the same time, water and energy demands are on the rise due to a fastly developing economy, industry and agricultural production (European Environment Agency 2010). Notably, the social and economic development has been the most important reason since the 1960s, issues like energy production and consumption rank higher on Turkey's agenda than environmental and climate protection.

Considering Turkey's energy supply, its indigenous energy resources comprise large deposits of lignite, but the country is still dependent on oil and gas imports. While Turkey aims at becoming independent from energy imports, it has been predicted that due to economic growth, dependency will double over the next decade (Hürriyet Daily News 2013). To decrease dependency, the use and exploration of domestic energy sources such as fossil fuels, hydroelectric and nuclear power are on the rise. Though Turkey has a great potential for the use of renewable energy resources (RES), such as wind, solar, geothermal and biomass energy (UNFCCC (United Nations Framework Convention on Climate Change) 2009), it amounts to a relatively low share of Turkey's overall energy consumption (Uyar 2012).

Together with industrialization and economic development, urbanization and rural depopulation are increasing. Particularly in metropolitan regions and industrially important

cities such as Istanbul, Izmir and Ankara, the population and the economy explode (Mustafa Sönmez 2013). Istanbul as a mega-city and the economic, social, cultural and financial center of the country play an important role in climate actions like mitigation and adaptation. A reduction of traffic emissions in Istanbul alone for example, would lead to a recognizable reduction of Turkey's total emissions.

Regarding the scope of its population, Turkey is comparable to Germany but has a different population structure. Turkey's population is relatively young, about 26.9 percent of the population are 14 years or younger. In Turkey, the population growth amounted to about 1.35 percent in 2011. This contrasts considerably with the countries of the European Union; for example, Germany had a population growth rate of close to 0.0 percent in 2011 and 0.1 percent in 2012 (World Bank 2013). Turkey is also high above the OECD average, which was close to zero in 2011 and 0.68 percent in 2007.

Regarding its level of "Human Development", Turkey ranked 92nd of 187 countries in the Human Development Index (HDI) of 2011. In many areas, such as education and health, the level is still lower than the level of industrialized countries, but Turkey is transforming fast, as the "Bertelsmann Transformation Index" (BTI) shows. Turkey ranked 21th among 128 countries in the BTI, confirming the fast transformation that other indicators like urbanization, economic and population growth suggest. Comparing Turkey to the other cases of the ClimaSec Project, Turkey (21th) ranks higher than Mexico (35th). Germany and the US as non-transforming countries are not included in the Index (Bertelsmann Stiftung 2012). Turkey ranked 43rd in the "Global Competitiveness Report" of the World Economic Forum, far behind Germany (6th) and the USA (7th), but higher than Mexico (58th) (Schwab 2012: 13).

Accordingly, even in 2008, at a time when the world economy seemed to be falling prey to the global recession, Turkey continued to emerge as a regional power and economic giant. After times of high inflation rates and a weak economy, during the last decade, Turkey has become the world's 17th largest economy and a member of the G20 group of larger economies since its

formation in 1999 (Bagci 2011: 147). Turkey has made remarkable economic progress: its GDP more than tripled from 231 billion dollar in 2002 to 772 billion in 2011. Over the same period, the real GDP per capita rose from 8.676 to 17.034 dollar (Turkish Statistical Institute 2013).

Despite the fast economic and industrial development, the total GHG emissions of Turkey were still less than 1 percent of world emissions in 2010. Likewise, Turkey's primary energy consumption value per capita was equivalent to 1.36 tons of oil in 2010, while the OECD average was about 4.56 and the world average about 1.83 tons of oil (Türkmenoğlu 2012). Still, Turkey displays rapid growth rates: from 1990 to 2009, Turkey's GHG emissions almost doubled from 187 million tons to 370 million tons of CO₂ (T.C. Çevre ve Şehircilik Bakanlığı 2013b: 10), and the country has the second highest energy consumption growth after China. Predictions say that the primary energy consumption of Turkey will rise from around 92 million tons in 2006 to 222 million tons of oil in 2020 (Hisarçiklioğlu , M. Rifat 2010).

Apart from looking at the basic indicators of a country, it is necessary to look at its political system, processes and ongoing debates in order to situate climate and security issues within a larger picture. The Turkish state is a Republic and was founded by Kemal Atatürk in 1923. The present Constitution is the third and was passed in 1982 by a national referendum. In the constitution, sovereignty is assigned fully and unconditionally to the nation. It emphasizes that the Turkish state, with its territory and nation, is an indivisible entity, and a secular, democratic and social state under the rule of law (Constitution of the Turkish Republic, Article 1, 2). A process of revision of the constitution started during the AK-Party rule in 2010 and has not yet been accomplished. Legislative power in Turkey is assigned to the Turkish Grand National Assembly (*TGNA*). It is composed of 550 deputies and parliamentary elections are held every four years. Important duties and powers of TGNA are the adoption of draft laws, the amendment and repeal of existing laws, the declaration of war, the establishment of martial law or emergency rule and the ratification of international agreements, (The Republic of Turkey Prime Ministry 2013) such as the UNFCCC in 2004 and the Kyoto Protocol in 2009.

In 1923, Turkey established a civil law system that is based on various European legal systems, most importantly the Swiss Civil Code. Judicial power in Turkey is exercised by independent courts and high judicial organs. Recent legal cases like “Ergenekon” and “Sledgehammer” led to the constitution of highly criticized special courts. In the course of these processes, high administrative bodies, prosecutors, journalists, academics, parliamentarians and military officials were accused of “terrorism” and conspiracies against the state. The ongoing trials have been regarded as measures of the ruling Conservative-Islamic elite to dispose of the former Kemalist elite and take revenge for decades of suppression of Turkey’s Islamic identities.

The Turkish military traditionally had an important, powerful and exceptional role in the political system and viewed itself as the guarantor of the Republic and the protector of its secular Kemalist principles. The military openly intervened in the political process in Turkey at least five times since 1960. In the course of Europeanization and the crises over the possible closure of the ruling AK-Party, the military was forced to restrain and give up some of its powers. Though it viewed the AKP as a possible threat to the secular principles during the debate on the party’s closure in 2008, it took no action aside from calling for caution and respect for the law. Through the consolidation process of the constitution since 2010, the rights of the military to intervene in the political process have become even more restricted and a subordination of the Turkish Armed Forces to the Ministry of defence (*Türkiye Cumhuriyeti Millî Savunma Bakanlığı*) is discussed (Stargazete 2013). Traditionally, civilian leaders have had only limited control over the military, but this seems to have changed during the AK-Party rule. The EU has advocated many of the reforms introduced by the AK-Party and has pressed Turkey to adopt a completely new constitution. Due to these processes, the AK-Party rule had mostly been regarded as a period of democratization. Nevertheless, recent developments in Turkey have shown that despite a push back of the military and an empowerment of civilian forces, the state has become dangerously autocratic.

Turkey’s domestic politics have been turbulent before, but have taken a different lead during the AK-Party rule not only with regard to the military. The struggle for power and identity

between conservative Islamic and secular-Kemalist parts of the population divided the society before, but now it is perhaps even more brutally than before. Turkish society is almost completely affected by this divide, particularly in the areas of education, media, the judiciary and culture. After the fall 2002 elections, the AK-Party was able to form the first single-party government in many years in Turkey. Today, it has the ability to pass laws against any resistance through its majority in parliament. Not only some of the legal changes, but mostly the “Gezi Park” protest movement, a relative spontaneous series of mass-protests that evolved and grew after police used massive force against environmental activists in summer 2013, that is regarded as a reaction to these restrictive policies, raised doubts about the democratic convictions of the AK-Party government. Due to the societal divide along different ideologic lines, that became visible through the Gezi-Protests, a spontanouos wave of protests in summer 2013 that were marked by the use of massive police force against protestors, Turkish foreign policy and Turkish politics will continue to be in confusion.

Regarding international treaties and agreements, Turkey has joined over 40 international and regional organizations and treaties and over 30 protocols during its 80 years of existence (Baykan 2008: 5). Within the UN Framework, of which Turkey is a founding member, Turkey is part of the ECOSOC, UNESCO, UNHCR and UNCTAD, to name only some important organizations, and participates in several UN missions such as UNRWA and UNIFIL. Turkey is also a member of the IMF, ILO and FAO and GATT. It joined the WTO in 1995 and as a consequence of its westward orientation Turkey became a member of NATO in 1952. Since then, especially during the Cold War, the country has functioned as a strategically vital member of the Western Alliance. One headquarter of NATO is located in Izmir while another important NATO air force base is located in Inçirlik, close to Adana (Central Intelligence Agency 2013a). Apart from NATO, Turkey has been a member of the OECD since 1961, the Conference on Security and Cooperation in Europe (OSCE) since 1973, the Islamic Development Bank and the Organization of Islamic Conference (OIC) since 1969. Turkey has signed the European Free Trade Agreement (EFTA) and joined the Organization of the Black Sea Economic Cooperation

(BSEC) in 1992. Turkey joined the two most important agreements on climate change in 2004 (UNFCCC) and 2009 (Kyoto Protocol).

Concerning its foreign policy, Turkey has been pursuing an ambitious “Zero-Problem with Neighbors” foreign policy during the AK-Party rule which however has seemed to fail in many cases such as in its relations to Israel. Turkey recently emphasized its relations with Asia and Africa. Traditionally, Turkey is a western-oriented country but with the conservative and Islamic government, a foreign policy change has taken place that is emphasizing Turkey’s identity as a middle-eastern, Asian and Islamic country. Accordingly, there have also been changes to Turkey’s National Security Agenda in recent years. As the National Security Document of Turkey is classified, one can only employ secondary sources for the analysis of the National Security Strategy. Traditionally, Russia, Greece and Iran were considered as threats to Turkey’s National Security. As domestic threats, the Kurdish issue and Islamization were high-ranking (Çakmak 2010), but after a revision of the document in 2010, countries like Russia and Greece have been removed from the list of external threats (Hürriyet Daily News 2010). Climate change is still far from being framed as a threat to National Security in Turkey, as it is hardly addressed in politics. Many Turkish experts on climate change and environmental issues such as Ünal Asan, who worked for the Ministry of Environment and Forestry (*Çevre ve Orman Bakanlığı, ÇOB*), agree that it would be first and foremost a task of the civil society and the media to raise awareness on climate change in Turkey (cp. Yalçın 20.05.2013c). This paper will therefore also elaborate on the civil society in Turkey besides outlining domestic climate policies in the framework of the International Climate Change Regime. The following section 3 gives a broad assessment of Turkish climate policies during the last decades, followed by section 4 on domestic debates and section 5 which examines the Turkish behavior in international climate negotiations.

3. Domestic Climate Policies

3.1. Overview and Milestones

After having elaborated on the background of Turkish politics from different angles, this section illustrates the climate and environmental policies of Turkey, including milestones in policy-, lawmaking and awareness on climate change in the country.

Environmental issues and therefore also climate change have long been neglected by governments in Turkey and thus the country lacks a comprehensive and consistent environmental policy and law, not to speak of climate change policies and laws. Nevertheless, environmental issues have been subject to Turkish governmental programs and development plans since the late 1970 (Çokgezen 2007). The legal foundations of environmental issues such as water affairs even date back to the 1960s, when for example the Groundwater Law was issued. Even if not explicitly linked to climate change, the government programs display the emergence of an environmental consciousness that together with other factors finally lead to a politicization of climate change in Turkey. Climate change, in contrast to other environmental issues, has emerged on the agenda mainly after 2000 (Yalçın 29.04.2013a). Important factors in this process have been the process of Europeanization together with the International Climate Change Regime and Turkey's growing involvement in the international framework of climate policies (cp. Cavlak: 506; Yalçın 20.05.2013c).

The evolution of awareness of environmental problems and climate change and relating policies can be traced in the nine Turkish "Five Year Development Plans" that have been published in Turkey from the 1960s onwards. In the "First Five Year Development Plan" for the period of 1963 – 1967, climate change is not addressed, just as in international politics. The related topics - environmental problems and consciousness - are also lacking. The general concern is the solution of the economic and social problems that the country faced at that time (T.C. Başbakanlık Devlet Planlama Teşkilatı 1963; Yalçın 20.05.2013c).

In the “Second Five Year Development Plan”, which was prepared for the period of 1968 – 1973, environmental issues are only mentioned on one and a half pages in a 1000 page report (T.C. Başbakanlık Devlet Planlama Teşkilatı 1968)). The “Third Five Year Development Plan” for the period of 1973 - 1977, distinguishes between developed/industrialized countries and developing countries. Concerning environmental protection, this distinction is used to justify that Turkey prioritizes its development rather than environmental protection (T.C. Başbakanlık Devlet Planlama Teşkilatı 1973).

During the 1970s, global environmental movements emerged and environmental issues appeared on the agenda both at the governmental and non-governmental level. They embodied an environmental consciousness that had an impact on political thinking in many countries. In Turkey, the negative consequences of rapid urbanization and industrialization during the 1960s and 1970s became more apparent in the 1980s and raised awareness at least on specific environmental problems like air pollution. While global climate change significantly emerged as an international political issue in the 1980s as a consequence of climate science (McDonald 2013), other issues remained dominant in developing countries such as Turkey. As environmental problems such as water and air pollution in Ankara and other densely industrialized regions became directly observable and actually affected people, discussions on the solution of the problem were primarily about a simple reduction of the pollution and therefore only short-range without any awareness of preventive action or sustainable management (cp. Cavlak: 507). Relating to the phenomena of air pollution, the “Fourth Five Year Development Plan” of 1979 refers to environmental protection in the framework of urbanization, which shows an increase of environmental consciousness due to rapid urbanization and environmental pollution. While the report comprises 700 pages, environmental matters are discussed on one page only. Nevertheless, the report emphasizes that foundations, organizations and associations working on environmental matters need to be supported. For the first time, solar energy is discussed as a potential energy supply, which had become even more important in Turkey due to the oil crises in 1974 (T.C. Başbakanlık Devlet Planlama Teşkilatı 1979; Yalçın 20.05.2013c). Still, concepts like sustainability or prevention

were not present in the environmental discourse (Cavlak: 507). A discourse on climate change was unthinkable at that time. Only later, during the period of Prime Minister Turgut Özal (1983 – 1987), the concept of *clean energy* was linked to the climate and environment and set on the political agenda. These suggestions also pointed to sustainability and are first signs of an emerging consciousness for preventive action. In the “Fifth Five Year Development Plan” (1983 – 1987), environmental issues are discussed in relation to social policies. Environmental pollution and biodiversity are discussed and the support of organizations working on these matters is advised (T.C. Başbakanlık Devlet Planlama Teşkilatı 1985; Yalçın 20.05.2013c).

By the 1990s, environmental consciousness had gained even more importance in Turkey. For example, the „Sixth Five Year Development Plan“ for 1987 – 1992 mentions the environment for the first time in a section on „Environment and Settlement“ (T.C. Başbakanlık Devlet Planlama Teşkilatı 1990: 312–317) and grants two pages to the issue in the 360 pages plan. An environmental consciousness is clearly visible (T.C. Başbakanlık Devlet Planlama Teşkilatı 1985). During this time, the government declared that the environment and its protection had the same priority as economic and industrial development. However, this commitment was never and perhaps was never meant to be realized. Back then and today, Turkey’s priorities clearly lie with the economic and industrial development. Still, then Prime Minister Tansu Çiller was the first in Turkey to use the term „*sustainable development*“ in the 1990s. She also directly emphasized the importance of environmental aspects in the process of Turkey’s accession to the EU (Cavlak: 507).

In 1992, the “*National Climate Change Coordination Group*”, formed under the General Directorate of State Meteorology Services (*Meteoroloji Genel Müdürlüğü, MGM*), prepared two influential reports: “*Protection of the Atmosphere and Climate Change*” and “*Energy and Technology*”. Between 1995 and 2000, Turkish environmental policy was explicitly defined in line with the principles introduced in the EU’s environmental action plans. Accordingly, the “Seventh Five Year Development Plan” (1996 – 2000) mentions the “Protection of the

Environment” in a sub-heading and admits shortcomings in policies and Environmental Law (T.C. Başbakanlık Devlet Planlama Teşkilatı 1996: 189).

After 2000, Turkish climate policies emerged together with a growing engagement of the country in the International Climate Change Regime. Accordingly, the “Eighth Five Year Development Plan” for the period of 2001 – 2006 foresees the foundation of a Special Commission on Climate Change (*İklim Değişikliği Özel İhtisas Komisyonu*) and advises the publication of reports such as the *Report of the Special Commission on Climate Change*, the *National Desertification Action Plan*, and the *National Biodiversity Strategy and Action Plan* (T.C. Başbakanlık Devlet Planlama Teşkilatı 2001: 187). Climate change as a concept is mentioned in the 254 page long development plan in different sections on sectors such as transport (T.C. Başbakanlık Devlet Planlama Teşkilatı 2001: 153) and in the three page section on the environment (T.C. Başbakanlık Devlet Planlama Teşkilatı 2001: 187–189). Compared to previous programmes, this is an improvement. Furthermore, there have been a number of actions and projects being carried out to improve the awareness of global climate change in Turkey (cp. Aladag 2008). Turkey’s Ninth Five Year Development Plan for the period of 2007 – 2013 refers to the UNFCCC and instructs the preparation of a National Action Plan for the reduction of Greenhouse Gas Emissions and the fulfillment of commitments as stated in the UNFCCC. Algedik (2013), in his evaluation report of Turkey’s National Climate Change Action Plan, states that the preparation of this action plan has been targeted since the the millennium, but pushed only as late as 2009 (Algedik 2013: 18).

Notably, Turkey was one of the few countries to accept and promise financial support for the government of Ecuador in the worldwide acknowledged “Yasuni” Project. The project represented a pioneer endeavor of climate action of the international community of states: By committing financial support to Ecuador, the government of president Correa promised to leave the vast rainforest of “Yasuni” untouched and not to dig for oil in order to reduce global GHG emissions. While countries such as the U.S., Japan, Britain and China acted courtly reserved, Turkey as a developing country that can not even primarily be held historically

responsible for climate change, contributed at least a figurative amount of money. While Turkey with regard to climate change has generally been regarded as a laggard, actions such as this one are refreshingly surprising (Chimienti and Matthes 2013).

The policy process today is coordinated by the Coordination Board on Climate Change (*iklim Değişikliği Koordinasyon Kurulu, IDKK*) which was established in 2001 and reorganized in 2004, the same year that Turkey ratified the UNFCCC. As a forerunner, the already mentioned National Coordination Group on Climate Change was subordinated to the State Meteorological Agency (Meteoroloji Genel Müdürlüğü 2013). When the IDKK was founded, it took the responsibilities and became the national focal point for climate change in Turkey. While Turkey did not undertake decisive steps until 2001, activities increased after the UNFCCC decision 26./CP 7 that acknowledged Turkey's special circumstances as a developing country. Turkey was then ready to make commitments and participate in the process. A series of institutional changes was made with regard to climate change, and Turkey actively supported and hosted international events that relate to climate change, such as the Foundation of the United Nations Center for Hydrogen Energy Technologies (UNIDO-ICHET) in Istanbul in 2003. Turkey also hosted a UNCCD meeting on desertification in November 2011 and the 5th World Water Forum in March 2009 in Istanbul as well as the 30th session of the IPCC in April 2009 in Antalya (T.C. Çevre ve Orman Bakanlığı 2010b). Accordingly, the number of documents and government reports published on climate change and policies considerably increased after 2001: a second National Forest Inventory was published in 2004, and in the same year Turkey became a party to the UNFCCC, reorganized its Coordination Board on Climate Change and founded the Regional Environmental Center (*Bölgesel Çevre Merkezi REC Türkiye; REC*) within an international institutional framework in Ankara.

The project for the preparation of Turkey's initial National Communication on Climate Change started in 2005, IPCC documents were translated into Turkish and provided to decision makers, and the first National GHG Inventory Report was submitted in April 2006. The most extensive and one of the two main Turkish documents on climate change was published in 2007: the

Grand National Assembly Investigation Commission Report on “The Effect of Global Warming and sustainable Management of Water Sources” comprises 510 pages (Turkish Prime Ministry 2013). In 2007, Turkey also submitted its first National Communication on Climate Change to the UNFCCC, prepared by the Ministry of Environment and Forestry (T.C. Çevre ve Orman Bakanlığı 2007). Subsequently, in 2010, a project for the support of the preparation of Turkey’s Second National Communication on Climate Change started and was meant to be submitted to the UNFCCC in December 2012.

As ministries were reorganized in Turkey in 2011, the ministerial responsibility for climate action moved from the Ministry of Environment and Forestry (*T. C. Çevre ve Orman Bakanlığı*) to the Ministry of Environment and Urbanization (*T.C. Çevre ve Şehircilik Bakanlığı*), while the former became the Ministry of Forestry and Water Affairs (*T. C. Orman ve Su İşleri Bakanlığı*). Considering the different country cases of the ClimaSec Project, it is remarkable that a National Coordination Board on Climate Change was constituted in Turkey in 2001 while it was constituted in Mexico only in 2004 – as Turkey is otherwise known as a laggard in climate policies and Mexico is known as a vanguard.

In the implementation of climate actions under the IDKK, several governmental and some non-governmental organizations are involved. Through the coordination of the IDKK, Turkey has prepared a *National Climate Change Strategy (NCCCS)* in 2010 for the period of 2010 – 2020 and the already mentioned *National Climate Change Action Plan (İklim Değişikliği Eylem Planı, IDEP)* in 2011 for the period of 2011 – 2023. Turkey’s Climate Change Action Plan was published as the only report to date that addressed future issues of climate change and planning of climate action. The dependency of the German Heinrich Böll Foundation has published an evaluation report of Turkey’s Climate Change Action Plan and stated in July 2013, that the implementation process of the action plan has been obscured and that few information and sources could be provided on the process (Algedik 2013).

Concerning the objectives of Turkey's National Climate Change Strategy, the fulfillment of UNFCCC obligations, the control of GHG emissions, the development of clean production technologies and human resources and institutional capacity building constitute priorities (Türkmenoğlu 2012). The strategy states that Turkey is committed to active participation in international negotiations. The strategy paper also makes a reference to the National Climate Change Action plan and defines the construction of a well structured climate action organization as well as knowledge management as strategic targets (Türkmenoğlu 2012).

The updated National Climate Change Action Plan of 2012, following international agreements, comprises mitigation as well as adaptation measures. While mitigation measures in the report are foreseen to be conducted in the areas of energy, industry, transportation, building, waste, agriculture, land use and forestry and other cross-cutting issues, adaptation measures will be taken in the areas of water resource management, agriculture and food security, ecosystem services, biodiversity and forestry, natural disaster risk management, public health and additional cross-cutting issues (T.C. Çevre ve Şehircilik Bakanlığı 2012). Apart from action plans and national communications, a number of projects have been implemented since 2005. Some of them, such as the Project for *“Enabling activities for the preparation of Turkey's initial National Communication to the UNFCCC”*, *“Enhancing the Capacity of Turkey to adapt to Climate Change 2008 - 2011”* and *“Evaluation of the National Capacity in the face of Global Environmental Agreements”* (2008-2010) have been completed and some, such as the *“EU Twinning Project on Improving Emissions control”* (2011 – 2013) are still ongoing at the time of writing. Among them are internationally motivated and financed projects (by for example the UNDP or FAO) such as the project for *“Capacity Building for Climate Change Management in Turkey”* and the Project of *“Developing Turkey's National Climate Change Action Plan”* (Devlet Su İşleri Genel Müdürlüğü 2013).

In April, 2013 Turkey submitted the GHG emissions inventory report of 2011 to the UNFCCC secretariat. The GHG emission inventory has been submitted regularly from 2006 on (UNFCCC 2014). It takes the year of 1990 as a basis and is a summary of Turkey's climate actions in

numbers. The GHG emissions inventory report submitted in 2013 showed that Turkey's emissions rose by 124 percent on the basis of 1990 figures. In the period of only one year, from 2010 to 2011, Turkey's emissions rose by 5.1 percent. The figures show that the gap between policy objectives such as GHG emission reductions and actual developments is growing day by day (Algedik 2013: 14).

Considering regional climate actions in Turkey, big cities bear an important share of responsibility for climate change. As 76 percent of the Turkish population lives in cities, cities and provinces are part of the solution in climate action as much as they are a part of the problem. There are 16 big cities in Turkey that are required to tackle climate change through waste management, air pollution reduction and energy efficiency by law. Two of the 16 megacities, Çanakkale and Gaziantep, have already accomplished their climate change action plans and other cities are in the process of preparing these (T.C. Çevre ve Şehircilik Bakanlığı 2013b: 102).

3.2. Laws and Regulations

This section traces the development of environmental law and regulations within the context of the political overview provided in section 3.1.

The term "environment" was for the first time explicitly included in the 3rd constitution of 1982 that is still in effect today. Climate change as a concept has not yet appeared in the Turkish constitution and is accordingly also not present in most of the national laws and regulations. Politics and the legislation are in a mutual relationship in this regard. The relative absence of the topic in the law system also hinders the administration and decision makers to engage actively with regard to climate change (Yalçın 29.04.2013a). In the 1982 constitution, the environment is mentioned in Article 56 on "Health Services and the Protection of the Environment". It is stated that everyone has the right to live in a healthy and stable environment and that it is the task of the state and its citizens to ensure this. Further

responsibilities and liabilities for the state and its citizens in order to protect the environment are listed in this article. Since 2010, the Constitution, which had been in effect since 1982/83, has been in a process of revision. Experts expect that as a consequence of the growing relevance of the topic and international pressure, climate change will be included in the new constitution that will probably come into effect in 2014 (Yalçın 29.04.2013a). Until recently, there have been only two laws and regulations that explicitly refer to climate change: Firstly, the decision to become a party to the UNFCCC and secondly, the decision to become a party to the Kyoto Protocol (Yalçın 29.04.2013a).

There are other laws in the Turkish judicial system that are related to climate change, such as the Environmental Law (no. 2872) that was introduced in 1983. For the first time, the Environmental Law mentioned objections with regard to environmental health and aimed at ensuring economic and social development by protecting human health, ecological balance and cultural, historical and aesthetical values. Despite this, the spirit of the law displays the priorities of the time in which it was constituted: Importance is given to development, although the effects of development on the environment are listed. Amendments to the Environmental law were made in 1986, 1988, 2000, 2001 and 2006. Whereas amendments made after 2000 can be regarded as increasingly environmentally friendly, amendments in former years prioritize development to environment. In the environmental law, the section on environmental pollution was revised in 2006 and since then also makes a reference to combating climate change (*Çevre Kanunu No. 2872, Article 18*). One may regard an increasing environmental consciousness as well as international pressure as the reasons for the inclusion of climate change into the law.

In the course of the EU accession process, and after Turkish climate change policy making gained momentum in 2001, actions have been taken to harmonise Turkish law with the EU emission trading and monitoring mechanism (Çokgezen 2007). Accordingly, in 2007, a law on energy efficiency (Law no: 5627) was published in the official gazette and came into effect (Algedik 2013: 20).

Considering laws that are related to climate change, the Law on Forests (no. 6831), the Reconstruction Law (no. 3194), the Law of the Coast (no. 3621) and the Law on Protection of Cultural and Natural Entities (no. 2863) can be considered. However, these laws are mostly related to environmental protection in the sense of preventing the environment from harmful human activity such as environmental pollution and degradation of land or water resources. The “Law on Feeding Grounds” for example (*Mera Kanunu, Kanun No. 4340*) regulates which grounds may be liberalized for the construction of wind energy sites. One of the few laws that relate to climate change is the “Law on Ground Protection and Land Use” (*Toprak Koruma ve Arazi Kullanımı Kanunu, No.: 5403*) which mentions climate change in Article 15 and assigns responsibility to the Ministry of Food, Agriculture and Livestock (*Türkiye Cumhuriyeti Gıda, Tarım ve Hayvancılık Bakanlığı*) to protect the ground from harmful effects of land use (*Toprak Koruma ve Arazi Kullanımı Kanunu, No.: 5403., Madde 15*). A relatively old law that is associated with climate change and environmental protection is the “Groundwater Law” of 1960 which was amended in 2011 and aims at the protection and regulation of groundwater use (Yalçın 29.04.2013a). While climate change in other countries is part of laws that are linked to environmental risks and disaster management, in Turkey, these laws are primarily related to risks from earthquakes and largely leave out any reference to climate change (Laws No. 6306 and 76909).

Apart from laws that connect to climate change, a number of regulations were issued on questions of trade with climate-damaging substances, such as the “Regulation on the Reduction of Substances that deplete the Ozone Layer” (*Resmi Gazete 2008, No. 27052*), regulations and declarations concerning the protection of the environment from other harmful substances (*Resmi Gazete 2009, No. 27449*) as well as the “Declaration for projects that aim at a reduction of GHG emissions” that has been prepared according to the Environmental Law, the UNFCCC and Law No. 4856 on the objectives of the Ministry of Environment and Forestry.

In the course of Turkey’s alignment with the *Acquis Communautaire* of the EU for the period of 2007 – 2013, the European Environmental Law has been adopted in Turkey. Among the

regulations introduced in the course of the European adaptation process are laws like the “*Law on the conservation of nature and biological Diversity*”, the “*Biosafety Law*” and the “*Law on Environmental Responsibility*”. It is important to note that in Turkey, according to the different areas affected, different ministries are responsible for the implementation of the laws named. The “*Law on the Conservation of Nature and Biological Diversity*”, for example, is being implemented by the Ministry of Environment and Forestry, whereas the law on “*Biosafety*” is part of the responsibility of the Ministry of Agriculture and Rural Affairs. With regard to the Law on Environmental Responsibility, that at the same time introduces the “pay as you pollute” principle, both the Ministry of Environment and Forestry and the Ministry of Justice (*Adalet Bakanlığı*) are responsible for its implementation.

3.3. Scientific Research, Media and Public Awareness

Together with a growing general support for science, the support for climate research is on the rise as well. The number of publications on climate change has been rising since 2010. According to the 5th National Communication on Climate Change, the number of publications of Turkish origin on climate change in international journals has reached 353 (T.C. Çevre ve Şehircilik Bakanlığı 2013b: 230). Scientific research is partly independently conducted by research institutions and at the same time by government institutions. Often, experts that are professionals in climate issues conduct their research at research institutions, universities as well as for the government. Apart from Turkey’s fulfillments and documents that have been published in the course of the UNFCCC process, governmental research and reports on climate change in Turkey include a “*National Afforestation Action Plan*” for the years of 2008 – 2012, the first National Forest Inventory that was conducted already in 1972 and the second National Forest Inventory that followed in 2004. A “*Technical Report on Energy Production*” was prepared by a special commission and a booklet on the “*Strategic Framework for Forests and Climate Change*” as well as the IPCC Manual “*Good Practice Guidance for Land Use Change and Forests*” were provided in Turkish.

Additionally, Turkey presented a *“Criteria and Indicators for Sustainable Forest Management Report”*, the already mentioned *First National GHG Inventory* in 2006 and the study *“Climate Change and Turkey – Effects, Sectoral Analysis and Economic Dimensions”*. In 2008, a special commission report on the *“Kyoto Flexibility trade mechanisms and other international emission trade systems”* was published and a *“Report for the Evaluation of Turkey’s special status in the framework of the UNFCCC”* followed in 2009. In spite of these mostly government financed reports and research projects, experts such as Ünal Asan state that several elements are lacking - the Turkish National Communications are not complete and efficient and in the future, a revision of the climatic regions map and the construction of biomass tables should be included (Asan 2010: 148). Similar statements were made by the first UNFCCC In-Depth Review of Turkey’s National Communication in 2009 (UNFCCC (United Nations Framework Convention on Climate Change) 2009). Furthermore, Algedik (2013) has criticized that in Turkey’s National Climate Change Action Plan, partly actions have been set as objectives that have already been accomplished before in order to inflate the action plan. To reduce the lacks in the documentations in the National Communications at least, a research project was presented to the Scientific and Technological Research Council of Turkey (*Türkiye Teknolojik ve Bilimsel Araştırma Kurumu; TÜBİTAK*) by the Research and Development Department of the Ministry of Environment and Forestry, but could not be implemented due to financial shortcomings (Asan 2010: 148). The Turkish scientific actors in the field of climate change are described in the section on actors (section 5).

Apart from looking at the policy process and the scientific research on climate change, I consider how the issue is presented in the media and how public awareness has been raised. To measure public awareness on climate change, the survey *“Climate Change Monitor”* has been conducted in 2007 in 20 countries, including Turkey. To the question *“How much information do you have on climate change?”* 22 percent of the interviewees responded *“a lot”* and 50 percent responded *“some”* (72 percent in total) (Baykan 2008). GFK Turkey conducted a study on Global Warming and found that Global Warming is becoming an increasingly worrying issue in Turkey, too. One third (34%) of the interviewees stated that global warming is becoming the most worrying issue for the future, followed by wars (29%). According to the study, states (37%)

are on the top of the list that identifies the institutions responsible for taking measures to tackle climate change (Baykan 2008). In Turkey's media landscape, climate change ranks far behind pressing issues such as conflicts in the country's neighborhood, the Kurdish issue, party politics and even earthquakes. Still, both mainstream and alternative media have been paying broader attention to environmental topics during the recent years. Climate change is not tackled regularly, but only occasionally when an influential (international) report or finding is published. Compared to other environmental issues or threats such as earthquakes and the construction of hydroelectric power stations, climate change ranks low on Turkey's media agenda. Nevertheless, specialized channels such as "Green Radios", "Green TV" or "Green Magazines" directly address climate change. To sum up: "We are witnessing an environmental awareness in the society whilst its impact on decision makers is relatively weak" (Baykan 2008) - or, in other words: as Turkish climate and environmental policies show, decision makers for a long time had other priorities such as economic and social development. Climate change in Turkey is an evolving issue and it has to be examined whether it is international pressure that renders climate change an ever more important topic or rather a raising awareness among decision makers and the public in Turkey.

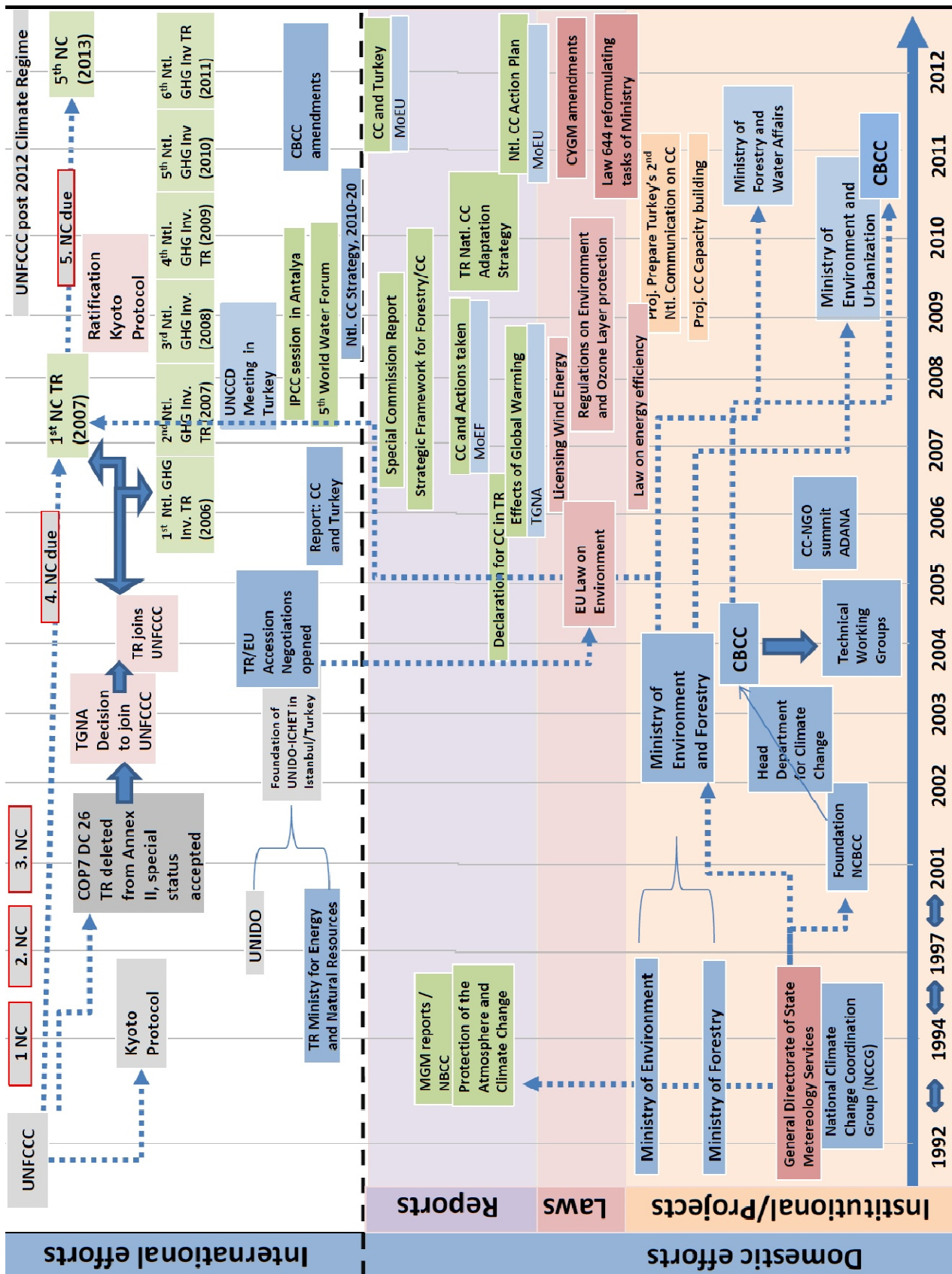


Figure 1: Milestones; Explanation: Blue = Actor founded/Institutional Change; Green = Reports; Red = Laws; Pink: Projects; Grey: Development in or within international Climate Change Regime (Please Note: In Figure 1, the intervals between 1992 and 2001 are wider than the subsequent intervals).

4. International Climate Policies

The most important agreements and institutions that constitute the International Climate Change Regime are the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Intergovernmental Panel on Climate Change (IPCC). Related UN Institutions are the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the World Meteorological Organization (WMO), the World Climate Research Programme (WCRP) and the Global Observing Systems Information Center (GOSIC).

The following section considers Turkey's performance in climate actions and its stance within the International Climate Change Regime, primarily relating to the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. Referring to its relatively weak performance in climate and environmental matters, some experts sum up the typical position of Turkish climate policy as *"Benefit as much, commit as little as possible"* (Üzelgün 2007: 33). While this may not be entirely true, international comparative statistics that relate to climate change, such as the Climate Performance Index, testify a relatively weak performance in climate action. In 2013, Turkey ranked 57th among 61 countries and ranks only better than Saudi Arabia, Iran, Kasachstan and Canada (cf. Bertelsmann Stiftung 2012). In the Environmental Performance Index⁵ (EPI) of the World Economic Forum, Turkey ranked 72nd out of 149 countries (Baykan 2008). In the Climate Performance Index of Germanwatch, an ambiguity that is characteristic for the trade-off between economic development and environmental protection becomes clear: while on the one hand, consciousness, research and representation of the topic in society and the media rises, on the other hand, as priority is given to economic development, GHG emissions increase and the gap between commitment and action grows. Therefore the country's performance declines (cp. Table 1).

⁵ The EPI is conducted by the World Economic Forum, Yale and the Columbia University and comprises the following categories: Environmental Health, Air Pollution, Water Resources, Biodiversity and Habitat, Productive Natural Resources and Climate Change.

Table 1: Turkey's CPI Rankings and Scores 2008-2014		
Year	Rank	Score
2008	21	55.7
2009	36	49.8
2010	39	49.1
2011	50	49.0
2012	58	41.7
2013	57	46.6
2014	54	46.4

Table 1 - Source: Germanwatch Climate Performance Index

**New Ranking since 2009, the first 3 ranks are left free to symbolically show that no country does enough to prevent climate change*

When the UNFCCC was adopted in 1992, Turkey as a founding member of the OECD was regarded as belonging to both the countries of the Convention's Annexes I and II, meaning that it was considered as an economy in transition as well as an industrialized country (Asan 2010: 142). Though officially, Turkey was in support of the Framework Convention, it did not ratify it, as it felt being treated unfairly by this classification and saw itself as a developing country with clear priorities and rights for social and economic development. The diverging positions lead to a long struggle regarding Turkey's actual classification within the UNFCCC. At the 3rd conference of parties (COP-3) in Kyoto in 1997, Turkey together with countries like Pakistan and Azerbaijan aimed at being deleted from both Annexes-I and II of the UNFCCC. This request was not accepted, mainly due to the opposition of European countries. They expected Turkey and other countries to voluntarily accept a reduction of GHG emissions. Turkey's initiatives to be deleted from Annex I and II continued at the COP 4 and 5 conferences 1998 in Buenos Aires and 1999 in Bonn. Still, Turkey's request was delayed to COP-6 in Lahey. There, Turkey claimed that it would accept to be listed as Annex-I country under special conditions after being deleted from Annex II. Turkey's claim was repeatedly supported by other countries such as Pakistan and Kazakhstan, but despite all efforts was not accepted and once again promised to the forthcoming conference of parties (COP-7) in Marrakech, Morocco in 2001. There, Turkey's name was finally removed from the Annex-II. Consequently, Turkey ratified the UNFCCC in 2004 as an Annex-I and Non-Annex-II Party (Türkmenoğlu 2012; Asan 2010: 143). To make the UNFCCC legally binding for the ratifying countries, the "Kyoto Protocol" had been presented

and signed during the Conference of Parties of the UNFCCC in 1997 in Japan, but a similarly lengthy process of negotiations effected that Turkey ratified the Kyoto Protocol only on 26. August 2009 (Türkmenoğlu 2012). Thus, Turkey became one of the last countries to ratify the Kyoto Protocol. As Turkey had not ratified the UNFCCC at the time it signed the Kyoto Protocol, it stayed exempt from any commitments concerning GHG reductions (Ecer 2010). This placed Turkey in an exceptional position in global climate change debates. Turkey had no obligation to commit a mitigation target to the UNFCCC (Asan 2010: 144). Still, from 2006 on, Turkey started to annually submit National GHG Inventory Reports to the UNFCCC (UNFCCC (United Nations Framework Convention on Climate Change) 2013a).

Concerning participations in the conferences of the parties, in 2008, Turkey participated with a high level delegation of 35 delegates from several ministries and business organizations in the COP-14 in Poznan, Poland, under the leadership of the Ministry of Environment and Forestry. Together with the Turkish President who held a speech at the Climate Conference in Copenhagen, the Turkish Ministry of Environment and Forestry sent a delegation of 115 participants to the COP-15 in 2009. Delegates from the relevant ministries, NGO, universities and companies were involved (İklim Ağı 2013). At that time, an interesting debate prevailed in Turkey about the ratification of the Kyoto Protocol. Nationalists, the government, industrialists and even some environmental NGOs argued against Turkey ratifying the Protocol, basing their argument on the prevalence of the “economic development”.

During the Climate Conference in Cancun in 2010, Turkey participated under the patronage of the Ministry of Environment and Forestry. Minister Veysel Eroğlu and delegates from related governmental organizations and NGOs participated (İklim Ağı 2013). After it was officially recognized that Turkey was in a situation that differed from that of other parties included in the Annex-I of the Convention, it was agreed to continue the discussion on modalities for the provision of support for mitigation, adaptation, technology development and transfer, capacity building and finance to Turkey during the Climate Conference in Durban in 2011.

After becoming a party to the UNFCCC in 2004 and in the course of the ratification of the Kyoto Protocol that was accomplished in 2009, there have been two governmental reports related to

the assessment of climate change in Turkey: The Grand National Assembly Investigation Report on *“The Effect of Global Warming and Sustainable Management of Water Sources”* that was published in 2007 and a Report of the Ministry of Environment and Forestry on *“Climate Change and Actions taken”* of 2008 (Asan 2010: 147). Supported by the UNDP, Turkey published the First National Communication on Climate Change with a GHG inventory in 2007 (Asan 2010: 143). The project for the preparation of the Second National Communication on Climate Change started in 2010 (T.C. Çevre ve Şehircilik Bakanlığı 2013a) and in June 2013, the Ministry of Environment and Urbanization published the National Communication with the title *“Turkey’s 5th National Communication on Climate Change”* (T.C. Çevre ve Şehircilik Bakanlığı 2013b). At the 17th UNFCCC Conference of Parties in Durban, it was decided that developed and developing countries have to report to the UNFCCC once in two years, in addition to the National Communications that were due every four years. In this respect, it is planned to submit Turkey’s first biennial report on 1st January 2014 to the UNFCCC. Biennial reports include information on emissions and emission reduction targets as well as information on financial and technical support. Additionally, second-level communication continues during the preparation of the National Communications (Asan 2010: 147). Generally speaking, countries are encouraged to use their own figures in reports. Considering the National Communications on Climate Change, experts remark that all National Communications before 2009 and the communications of 2012 should be considered as voluntary, as Turkey had no obligation to commit a mitigation target to the UNFCCC (Asan 2010: 145).

Linking climate change debates and policy in Turkey with the EU accession process, one can say that the EU, as mentioned before, together with international organizations and NGOs strongly influenced the development of Turkish climate change policies and actions. As outlined before, action plans and programs in Turkey have been implemented in the light of different international principles and environmental policies. In particular, measures to meet the conditions of the EU environmental programme have been established in Turkey. Considering the development of the environmental politics field in the country, technical and financial measures have become more important over time. These measures were again partly taken

and financed within the accession process to the European Union, as the EU defined many climate regulations which were to be implemented (Çokgezen 2007). For example, Turkey participated in actions on climate change within the Regional Environmental Network for Accession of EU. Also, actions have been taken to harmonise Turkish law with the EU emission trading monitoring mechanism. Stakeholders in Turkey have taken steps to increase collaboration for emission trading in Turkey, including raising awareness of EU's Emission Trading System. Motivated by this, the Monitoring of Greenhouse Gas Emissions was ordered by law and published in the Official Gazette dated 25.04.2012 and no 28274. By this legislation, only the "monitoring, reporting and verification of the GHG emissions that result from the industry sector" part of the Emission Trading Directive (No.2003/87/EC) was harmonized. Regarding consumer information, the EU Directive 2003/73/EC related to consumer information on fuel consumption and CO2 emissions has been harmonised and is being implemented and the EU Directive 2009/31/EC on carbon capture and storage has not been harmonised yet. However, several related projects and research have been implemented or are ongoing (Çokgezen 2007).

Apart from the EU, the UNDP provides support to Turkey's *National Coordination Board on Climate Change* in realizing projects on climate action. The UNDP does this by helping the country to further develop its capacities to effectively participate in international climate change negotiations and to join the flexible mechanisms of the Kyoto Protocol through the formation of a solid institutional infrastructure and knowledge transfer (Asan 2010: 143). Apart from that, the *Global Environmental Fund* (GEF) and UNEP have also provided financial and technical support to certain developing-country-projects that potentially bring global environmental benefits, not only in the area of climate change, but also within areas such as biodiversity. Also, some projects on climate action in Turkey are conducted with support of the Food and Agricultural Organization (FAO), including the "*Project for enhancing Turkey's capacity to adapt to climate change*", the "*Project for capacity building for Climate Change Management in Turkey*" and the Project for "*Developing Turkey's National Climate Change Action Plan*". Projects related to forestry and climate change supported by the GEF comprise

“Capacity building for monitoring GHG emissions”, “Capacity building in sustainable Forest management planning and Forest Fire Management” and “Enhancing coverage and management effectiveness of the subsystem of forest protected areas in Turkey’s national system of protected areas” (Asan 2010: 144). The projects are implemented by the Turkish government, but financed through the international framework.

Since Turkey has signed the conventions on climate change, on biodiversity and on combating desertification, which is sometimes called the “Rio Trio”, all documents concerning these conventions should be considered in an integrated system for responsible climate policies (Asan 2010: 145). Experts state that Turkey has significant GHG emissions reduction potential, but despite of its fast development, the country still displays one of the lowest rates of GHG emissions per capita among the UNFCCC Annex I and OECD countries. Turkey is consequently arguing that it has the lowest measured historical responsibility (T.C. Çevre ve Şehircilik Bakanlığı 2013b) and that it has been actively taking part in negotiations on further commitments within the first commitment period of the Kyoto Protocol although it had no obligation to commit a mitigation target to the UNFCCC (Asan 2010: 145).

As a candidate country to the EU, Turkey is striving to conform to EU climate change policy, as climate change has the highest priority in the environmental agenda of the EU. The formulation of a country position in post-Kyoto negotiations is a priority task for Turkey (Asan 2010: 145).

As the validity period of the Kyoto protocol (2008-2012) ended in 2012, negotiations for the period after 2012 are still ongoing, Turkey’s stance towards the Copenhagen Agreement and former declarations can be considered as reserved. In its Copenhagen and former declarations, Turkey constantly stated that it has not participated in and had not joined the first validity period of the protocol (2008 – 2012) and that it will consequently not agree to take a place in the Annex B/II List during a new liability period of the protocol. Today, Turkey still does not feel to be financially responsible for having a share in a post-Kyoto climate change regime. However, the country has declared that it will conduct the actions announced in its “Nationally

Apropriate Mitigation Action” (NAMA) (Ecer 2010). To sum up, for the post-2012 period, Turkey will have to develop at least a sound strategy for mitigation and a sound management of forest and water resources (Asan 2010: 142).

5. Actors in the climate field

As climate change is a challenge that requires interdisciplinary knowledge and affects a variety of sectors, many actors are involved. The governmental structure and actors are outlined first, since they are important for the policy making process and Turkey’s stance in international climate negotiations. In a second step, the most important non-governmental actors, including non-profit organizations, scientific actors and business organizations that influence governmental actors and decision makers are identified.

5.1. Government Actors

The Turkish Ministry of Environment (*Türkiye Çevre Bakanlığı*) was founded in 1991 by the government decree no 443. In May 2003, it was united with the Orman Bakanlığı /Ministry of Forestry to the Çevre ve Orman Bakanlığı/Ministry of Environment and Forestry (*ÇOB*), which until recently was the administrative authority that supervised and coordinated all state activities considering climate actions, analysis and protection in Turkey. On 4th July 2011, the ministerial structure was revised and the Ministry of Environment and Forestry was divided into the Ministry of Forestry and Water Affairs (*Orman ve Su İşleri Bakanlığı, Ormansu*) through decree law No. 645 and the Ministry of Environment and Urbanization (*Çevre ve Şehircilik Bakanlığı*) (T.C. Orman ve Su Bakanligi 2012). After this reorganization, the Ministry of Environment and Urbanization, together with its subordinated units, constitutes the main governmental actor for climate action in Turkey. The Ministry of Forestry and Water Affairs remains closely related with climate action, as is outlined in the following. Other important governmental institutions that are involved in climate action are the Ministry of Energy and

Natural Resources (*Enerji ve Tabii Kaynaklar Bakanlığı*), the Ministry for Transport, Maritime Affairs and Communication (*Ulaştırma, Denizcilik ve Haberleşme Bakanlığı*), the State Planning Institution (*Devlet Planlama Teşkilatı; DPT*) and the General Directorate for Meteorology.

5.1.1. Ministry of Environment and Urbanization (*Çevre ve Şehircilik Bakanlığı, ÇSB*)

The national focal point for climate action is the Ministry of Environment and Urbanization together with its subordinated Coordination Board on Climate Change (*İklim Değişikliği Koordinasyon Kurulu; IDKK*) since the administrative structure has been changed recently. The General Directorate of Climate Change (*İklim Değişikliği Genel Müdürlüğü; IDGM*) was reintegrated into the General Directorate for Environmental Management (*Çevre Yönetimi Genel Müdürlüğü*) on 1st February 2013. The Bureau for the Adaptation to Climate Change (*İklim Değişikliği Uyum Şube Müdürlüğü'nün*) was closed in this process. By making these changes, Turkey returned to the administrative structures prior to 2010 (Yeşilgazete 2013). The Ministry of Environment and Urbanization is the chair of Turkey's "Coordination Board on Climate Change" that coordinates all activities of the country in relation to climate change. Several other ministries are involved in the IDKK. From Figure 3 below, the organizational structure of ÇSB becomes clear:

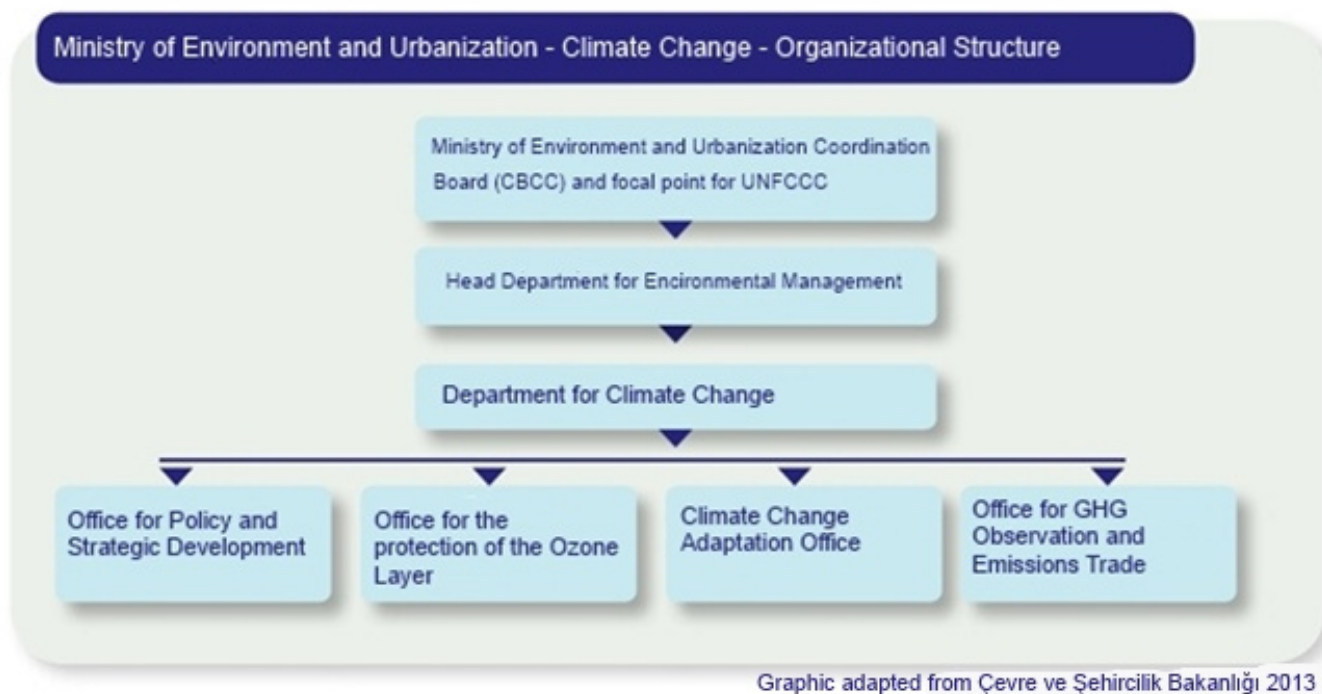


Figure 2: Ministry of Environment and Urbanization (CŞB) – Organizational Structure

Other ministries in Turkey are involved in climate action with regard to their special areas of expertise. They are coordinated by the Coordination Board on Climate Change (CBCC) that, in the framework of the Ministry for Environment and Urbanization, is the focal point of climate change activities in Turkey, and will be explained in the following.

5.1.2. Coordination Board on Climate Change (CBCC)

With regard to the obligations of the UNFCCC and the need for coordination of the climate actions of the country, the Coordination Board on Climate Change was founded in 2001 by the Prime Ministry. It was revised in 2004 and reorganized in 2010 and 2012. Through the reorganization on ministerial level in 2011, the CBCC together with the Climate Change Department moved from the Ministry of Environment and Forestry to the Ministry of Environment and Urbanization. The board has the overall responsibility for the coordination of climate change policies in Turkey (Asan 2010: 143).

Members of the Board comprise several ministries and organizations (see. Figure 3 below) (T.C. Çevre ve Şehircilik Bakanlığı 2013b: 96). Twelve other mainly governmental organizations support the board and form technical working groups (Türkmenoğlu 2012). Apart from governmental institutions, private sector and professional organizations, academic and research institutions and civil society organizations take part in the working groups (T.C. Çevre ve Orman Bakanlığı 2010a). The ministries involved in climate change working groups are the Ministry of Development (*Kalkınma Bakanlığı*), the Ministry of Energy and Natural Resources (*Enerji ve Tabii Kaynaklar Bakanlığı*), the Ministry of Science, Technology and Commerce (*Bilim, Sanayi ve Teknoloji Bakanlığı*), the Ministry of Transport, Maritime Affairs and Communication (*Türkiye Cumhuriyeti Ulaştırma, Denizcilik ve Haberleşme Bakanlığı*), the Ministry of Forestry and Water Affairs and the Ministry of Foreign Affairs (*Türkiye Cumhuriyeti Dışişleri Bakanlığı*), as well as the Ministry of Finance (*Türkiye Cumhuriyeti Maliye Bakanlığı*) and the Ministry of Health and Food, Agriculture and Livestock (*Türkiye Cumhuriyeti Gıda, Tarım ve Hayvancılık Bakanlığı*). Additionally, representatives from the Undersecretary of Treasury, the Union of Chambers and Commodity Exchanges of Turkey (*Türkiye Odalar ve Borsalar Birliği; TOBB*) and the Turkish Industry and Businessmen Association (*Türk Sanayicileri ve İşadamları Derneği; TÜSİAD*) are members of the board (Türkmenoğlu 2012; İklim Ağı 2013). Working groups comprise tasks such as the research of the impact of climate change, reporting GHG emissions and reduction of GHG emissions (UNFCCC (United Nations Framework Convention on Climate Change) 2009; T.C. Çevre ve Orman Bakanlığı 2009). The division of working groups and ministries tasks is illustrated in the graphic below.

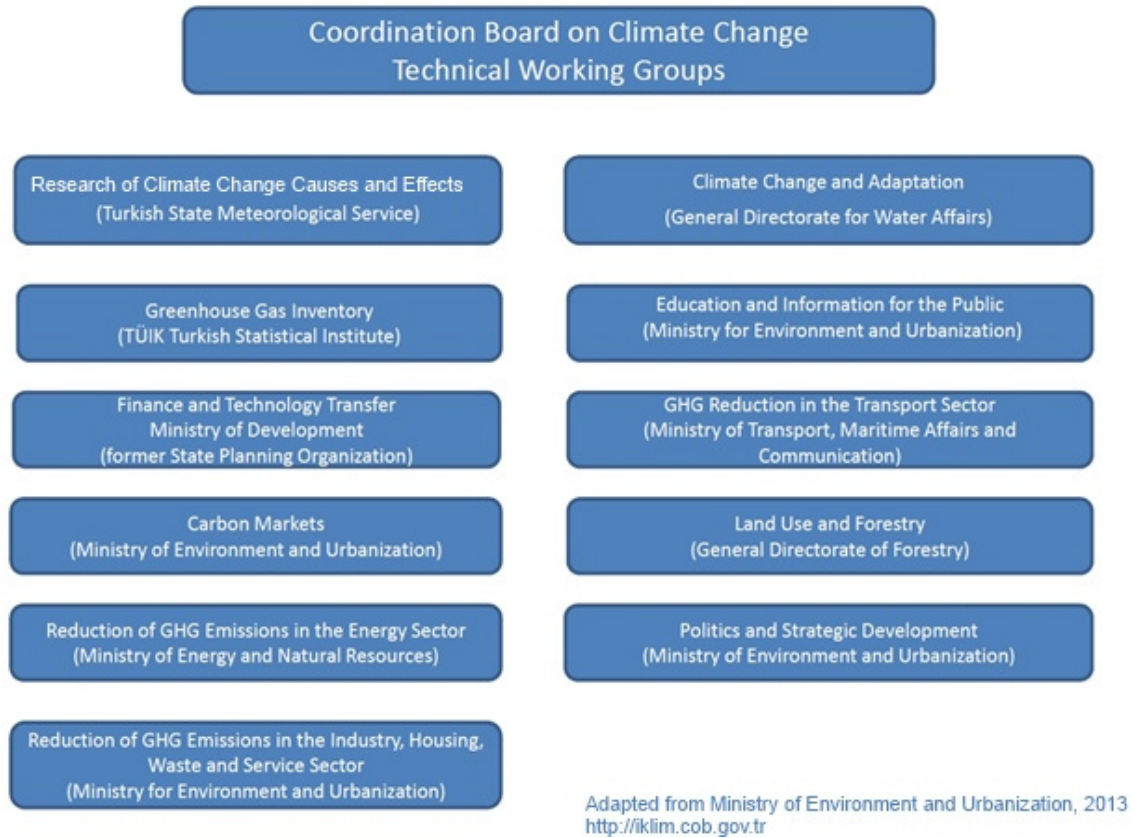


Figure 3: Coordination Board on Climate Change

The Coordination Board on Climate Change coordinates several projects with and without the support of international institutions such as the UNDP, FAO and GEF in relation to climate change (cf. Section 3, domestic policies).

The Department for Climate Change (*İklim Değişikliği Daire Başkanlığı*) is located in the Ministry of Environment and Urbanization and subordinated to the IDKK and the General Directorate for Environmental Management (*Çevre Yönetimi Dairesi Başkanlığı*). Projects and tasks of the Department for Climate Change comprise the preparation of the National Declarations for Climate Change, the enhancement of the capacity of Turkey to adapt to climate change, the project to evaluate Turkey's capacity to adapt to climate change, the development of Turkey's Climate Change Action Plan and the enhancement of Turkey's capacity to combat climate change (T.C. Çevre ve Şehircilik Bakanlığı 2013b: 25).

5.1.3. Ministry of Forestry and Water Affairs (*Orman ve Su İşleri Bakanlığı, Ormansu*)

Until 2011, the Ministry of Environment and Forestry was responsible for climate policy in Turkey. It was then changed into the Ministry of Forestry and Water Affairs. Though the main duties of climate action now belong to the Ministry of Environment and Urbanization, the units of the Ministry of Forestry and Water Affairs are closely related to matters of climate change and environmental protection. Some of them have explicit tasks on climate action, such as the General Directorate on Meteorology, the General Directorate on Water Management (*Su Yönetimi Genel Müdürlüğü*) and the General Directorate of Forestry (*Orman Genel Müdürlüğü*) (Ormansu 2012). Firstly, as a main service unit of the ministry, the General Directorate of Water Management (*Su Yönetimi Genel Müdürlüğü*) has to determine the effects of climate change scenarios at basin levels. As a subordinated unit to the General Directorate of Water Management, the Office for the Adaptation to Climate Change (*İklim Değişikliği Uyum Sübe Müdürlüğü*) is mainly responsible for the related climate actions within the ministry.

The General Directorate of Meteorology which is an affiliated organization of the Ministry of Forestry and Water Affairs provides education, information and reports on the climate of the country and climate change, such as “the effects of climate change on health” (Meteoroloji Genel Müdürlüğü 2013)). It collects data on whether phenomena in Turkey and has published reports on climate change in recent years that show how much Turkey has been affected by climate change so far (Algedik 2013: 12).

The Eastern Mediterranean Climate Center (*Bölelel İklim Merkezi*) as a research institution tackles climate change and is a subunit of the MGM. The climate center conducts monitoring, prediction, impact assessment and model verification of climatic phenomena and provides scientific climatic data on the Eastern Mediterranean Region, including Turkey, Cyprus, Egypt, Greece and Israel ((EMCC 2013). Thirdly, as an affiliated institution of the Ministry, the subordinated General Directorate of Forestry has the duty to manage forests, flora and fauna also with regard to climate change (Ormansu 2012).

The Agency of Water Resources (*Devlet Su İşleri; DSİ*) supports the Turkish Conference on Climate Change (TIKDEK) and several other conferences relating to climate issues and is subordinated to the Ministry of Forestry and Water. It is active in the fields of climate change and adaptation. Several publications and reports are provided by the agency.

Further subordinated units of the Ministry of Forestry and Water Affairs that can act in relation to climate change are the General Directorate of Environmental Protection and National Parks (*Doğa Koruma ve Milli Parklar Genel Müdürlüğü; DKMP*), the General Directorate against Desertification and Erosion (*Cölleşme ve Erozyonla Mücadele Genel Müdürlüğü*) and the Turkey Water Institute (*Su Enstitüsü*).

5.1.4. Other Governmental Organizations

A third important governmental actor on ministerial level is the Ministry of Energy and Natural Resources that supports activities of the IDKK and coordinates the activities of three working groups which are related to climate change (cp. Figure 3). The General Directorate of Renewable Energies (*Yenilenebilir Enerji Genel Müdürlüğü*) which is subordinated to the Ministry should also be mentioned. It is an institution acting in close relation to climate change mitigation and adaptation and active in coordinating emissions trade and supporting the development of renewable energies (Yenilenebilir Enerji Genel Müdürlüğü 2013).

Further governmental organizations that relate to climate change and cooperate with the corresponding governmental bodies that implement the actions on climate change are the Department for Disaster Management (*Afet ve Acil Durum Yönetimi Başkanlığı; AFAD*) and the General Directorate for Disasters (*Afet İşleri Genel Müdürlüğü; AİGM*) as well as the High Council for Science and Technology (*Bilim ve Teknoloji Yüksek Kurulu; BTYK*), the State Planning Organization (*Devlet Planlama Teşkilatı; DPT*) and the Council for Forest Management (*Orman Yönetim Konseyi; FSC*).

Even at the level of the *Directorate for the Development and Support of Small and Medium Sized Enterprises* (T.C. Küçük ve Orta Ölçekli işletmeleri Gelistirme ve Destekleme Idaresi Başkanlığı, KOSGEB), the state shows the willingness to inform business organizations on climate change and furthermore develop measures in cooperation that support climate friendly economic development and businesses (KOSGEB 2014).

5.2. Civil society actors (NGOs, Think Tanks)

In the following section, I outline civil society activities in the field of climate change. Generally speaking, civil society in Turkey is not on the same level of differentiation as civil society in Germany or the US concerning climate change and related environmental issues. Still, a number of organizations are concerned with issues of climate change and they have gradually grown over the past years. Most non-governmental organizations in Turkey are not specialized on climate change as an issue but include climate actions or related fields such as biodiversity protection and combating desertification into their areas of action. Only a few organizations, mostly branches of international NGOs, focus solely on climate action. Accordingly, among the most popular and active international NGOs in Turkey are the WWF Turkey and Greenpeace. They have also published most of the reports and information on climate change in Turkey (WWF: more than ten; Greenpeace: three) (İklim Ağı 2013). Only a few NGOs such as TÜBİTAK, WWF Turkey, TEMA, REC Turkey, the Water Foundation and Greenpeace are involved in nation wide governmentally coordinated actions on climate change. Their activities focus mainly on raising awareness on climate change in the public (T.C. Çevre ve Şehircilik Bakanlığı 2013b: 257).

5.2.1. International NGOs

Branches of International NGOs that are active in Turkey are Greenpeace (Greenpeace Akdeniz), WWF Turkey and REC Turkey.

Regional Environmental Centers (REC) and *Regional Climate Centers (RCC)* can be regarded as influential and specialized on climate action in Turkey. They have been founded in Turkey in the framework of the International Climate Change Regime and the accession process to the EU in 2004. The centers are active in areas like EU accession and environment and climate change, conducting projects for public awareness, enhancing Turkey's capacities and coordinating international cooperations. The Regional Environmental Center (REC) Turkey was founded by the USA, the European Commission and Hungary as an independent international organization. REC is working on sustainable development in relation to issues such as biodiversity, renewable energies and climate change. RECs organize, coordinate and support the cooperation of official bodies with civil society organizations and businesses and to raise awareness on environmental issues. The centers are supported financially by the European Commission but still count as NGOs. The actual task of RECs is to support Turkey's adaptation process to the EU (Arıkan 2006).

The story of WWF Turkey (*Doğal Hayati Koruma Vakfı; DHKV*) starts with the foundation of the Association for the Protection of Natural Life in Turkey (*Doğal Hayati Koruma Derneği; DHKD*) in 1975 in Istanbul. Coordination and cooperation of the DHKD with the WWF started as early as 1986, when the association started conducting a project with the help and in the name of WWF. Still, the association officially earned the status as an environmental NGO only 15 years after its foundation, in 1990. In 1989, the DHKD won the "Global 500" environmental prize of the UNEP and became the official purveyor of WWF in Turkey in 1994. WWF Turkey conducts projects for the reduction of ecological footprints in the energy, agricultural and hydrogen sectors and runs campaigns for the protection of species and supports regional organizations and endeavors in the implementation of projects (WWF Turkey 2013).

Greenpeace Akdeniz is the regional branch of Greenpeace International in Turkey. Greenpeace intensively focuses on campaigns on Climate Change, Global Warming, Energy and the Protection of the Mediterranean Sea (Greenpeace Turkey 2013a) and is one of the organizations with the most publications on climate change, partly adapted from international

publications and partly with regional topics such as “The effects of the power central in Gerze” (Greenpeace Turkey 2013b) or “Turkey’s Climate Certificate” (Greenpeace Turkey 2013c).

5.2.2. UNFCCC registered NGOs

Acknowledging the status as an observer organization to the UNFCCC as a criterion for the importance and extent of action of an NGO in the field of climate action, the nine registered observer organizations are outlined in the following. Turkish NGOs were accredited to the UNFCCC and attended the UN Climate Conference for the first time at the COP13/CMP3 in Bali in 2007. In 2009, six organizations were admitted as observer NGOs to the UNFCCC. Since then the number of accredited organizations has grown gradually. UNFCCC registered organizations include the “Turkish Industrialist and Businessmen Association” (TÜSIAD), the “*Turkish Confederation of Employer Associations*” (TISK) and the “*Foundation for Economic Development*” (IKV) as business-oriented international NGOs (BINGO). In preparation of the COP-16 in Mexico, TÜSIAD, together with TISK organized a symposium to bring the public and business sector together and inform them on climate change, the UNFCCC process and the conference (TÜSIAD 2013). While TÜSIAD runs an environmental working group and emphasizes the need to build a low carbon economy and the need for the development of techniques for environmental protection (TÜSIAD 2013), the “*Foundation for Economic Development*” (IKV) publishes news, evaluations and reports on the processes of international climate negotiations, such as the Doha Conference (Kivilcim 2012). Since its foundation in 1965, the IKV has the mission to accompany and assist in the EU accession process and support the economic and social development in Turkey. Climate change as to that is regarded as an important topic (İktisadî Kalkınma Vakfı 2013).

Other registered observers at the UNFCCC are the *Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats* (TEMA), the *Consumer Associations Federation* (TÜDEF), the *Research Institute for International Relations at Marmara University* (MURCIR), the *Technological Development Foundation of Turkey* (TTGV) and the

Turkish Association for Energy Economics (TRAEE) (UNFCCC 2013d). Some of these organizations focus on environmental matters and climate change such as the TEMA foundation, while others are not directly related to environmental issues. Business organizations, syndicates and consumer oriented organizations such as TÜSIAD, TISK, TÜDEF and IKV may influence decision makers in case they bring the topic of climate change on their agenda despite of the fact that this issue may not be their first concern. Non-profit environmental NGOs may not have the same effect even if they are specialized on matters such as environmental protection and climate change. TÜDEF, founded 2003 in Ankara, for example focuses on the protection of consumer rights. Climate change as a potential threat to a healthy environment is included in its areas of interest, but is not a priority. Nevertheless, TÜDEF functions as an organization with consultative status to the Ministry of Environment and Urbanization and can therefore be considered as influential (TÜDEF 2013).

On the other hand, the *TEMA Foundation* that was founded in 1992, is an example of active and influential organizations in environmental matters in Turkey. Its mission is to raise awareness on environmental problems. TEMA specifically focuses on soil erosion, deforestation, desertification, climate change and biodiversity loss and is one of the few environmental NGOs in Turkey that is not a suborganization of an international NGO. At the same time, it is the first and until recently only Turkish member of the global Climate Action Network (CAN) and has the strength to raise awareness on climate change in the media and public. The TEMA Foundation has a branch in Germany that is concerned with communicating environmental and climate matters to the large Turkish minority abroad (TEMA 2013).

5.2.3. NGOs without UNFCCC observer status

An organization that is not registered to the UNFCCC but is influential and powerful in Turkey is the Foundation for the Protection and Promotion of the Environment and Cultural Heritage (*Çevre ve Kültür Değerlerini Koruma ve Tanıtma Vakfı, ÇEKÜL*) which is one of the leading heritage foundations in Turkey. Its aim is to raise nation-wide awareness on matters of urban,

rural and natural environment. It was founded in 1990 by a group of academics and intellectuals. Activities of the foundation include sustainable development, biodiversity conservation and afforestation. Climate change is one of the topics that the organization tackles through symposia and other activities.

The Water Foundation (*Su Vakfı*) was founded in 1996 by the then mayor of Istanbul and the present prime minister of Turkey Recep Tayyip Erdoğan. The initial aim of the foundation was the systematic recovery and identification of all old fountains in the city. Today, as it is also supported by the government, the foundation is the organizer of the Turkish Conference on Climate Change that is held every three years since 2007. It also organizes other panels and conferences, among them conferences on the World Water Day (22. March) that gained much attention. Contrary to most other NGOs, the water foundation gives special weight to scientific research on climate change and its effects. It cooperates with the Ministry of Education in matters of education on water and also acts as an advisory body and research institution to the government. Several research centers are subordinated to the water foundation such as the “Water Engineering Research and Development Center” (Werdec), the Renewable Energy Research and Development Center (Rerdec) and the “Climate Research and Development Center” (Clerdec). These centers regularly organize international workshops in their specialized fields of work.

The Nature Conservation Centre (*Doğa Derneği, Doğa Koruma Merkezi; DKM*) since 2013 is a member of the Climate Action Network (CAN). The Nature Conservation Centre aims at protecting biodiversity and promoting sustainability. There are four project lines that are pursued by the Nature Conservation Centre. Climate Change is one of the programme lines, apart from Forests, Biodiversity and Systematic Protection Planning (DKM 2013).

The Turkish Foundation for the Environment and Education (*Türkiye Çevre Eğitim Vakfı; TÜÇEV*) was founded in 1993 by the Ministry of Tourism to promote the “Blue Flag” project for save

beaches and swimming in Turkey. The foundation conducts education programs and is a state-financed non-profit organization.

The Foundation for the Protection of and Research on the Environment (*Çevre Koruma ve Araştırma Vakfı; ÇEVKOR*) was founded in 1991 by scholars of the universities “Ege” and “Dokuz Eylül” in Izmir. The objectives of the foundation are the protection, development and support of natural, historical and cultural life, raising awareness on these matters and conducting educational activities (CEVKOR 2013).

The Society for the protection of Natural Life in Turkey and TÜRÇEK, the Turkish Institution for Environmental Protection, are both older NGOs that have for a long time been active in the field of environmental protection but conducted climate action only recently. The Association for the Protection of Natural Life in Turkey was founded in 1975. It gained the official status as a public beneficiary organization only 15 years after its foundation. Now, the organization consists of about 3500 members and aims at contributing to the preservation of nature and natural resources through research projects, fieldwork and education. A priority of DHKD is the preservation of biodiversity. DHKD concentrates on the protection and conservation of ecosystems such as wetlands and coastal zones ((Global 500 2013). TÜRÇEK (*Türkiye Çevre Koruma ve Yesillendirme Kurumu*) was also founded in 1975 and has over 13 representatives in all regions of Turkey today. Apart from numerous volunteers, five employees are working as professionals for the organization. TÜRÇEK aims at supporting environmental policies and the preservation of the nature and environment in Turkey and was the only Turkish NGO that participated in the Rio Earth Summit in 1992. TÜRÇEK has also been a member of the Technical Working Groups of the Ministry of Environment and Forestry (TÜRÇEK 2013).

There are other foundations such as the Turkish Foundation for Environmental problems (*Türkiye Çevre Sorunları Vakfı*), the Environment Foundation of Turkey (*Türkiye Çevre Vakfı*), the Foundation for Clean Energy (*Temiz Enerji Vakfı; TEMEV*), the Turkish foundation for Marine Research (*Türk Deniz Araştırmaları Vakfı; TÜDEV*), the Foundation for Environmental Protection and Recycling (*Çevre Koruma ve Ambalaj Atıkları Değerlendirme Vakfı*), the International

Foundation for Education on the Environment (*Uluslararası Çevre Eğitim Vakfı; FEE*), and the Foundation for Environmental Protection and the Evaluation of Waste (*Çevre Koruma ve Ambalaj Atıkları Değerlendirme Vakfı; ÇEVKO*) which are related to climate action in Turkey.

5.2.4. Umbrella Organizations

As umbrella organization, the climate network (İklim Ağı) on www.iklimdegisikligi.org is an online network formed to gather all organizations working on climate matters in Turkey. The climate network platform provides information on climate change policies, judicial background, media appearance, publications and civil society action on climate change in Turkey. The climate network is an initiative of Turkish NGOs and despite of the coordination of activities aims at raising international and national awareness in the field (İklim Ağı 2013).

Another key platform that provides information on climate change and action in Turkey is “iklim.org” (Climate Institute 2013). The platform provides a list of NGOs working on climate change in Turkey. The list comprises organizations such as the chambers of forest engineering (*TMMOB Orman Mühendisleri Odası*), environmental engineering (*TMMOB Çevre Mühendisleri Odası*), agricultural engineering (*TMMOB Ziraat Mühendisleri Odası*) and the Turkish Union of Engineers and Architects Chambers (*TMMOB Türk Mühendis ve Mimarlar Odaları Birliği*). The inclusion of these professionalized engineering organizations can be explained by the fact that there is no professionalized education on climate change or climate/environmental engineering in Turkey yet, so that these professions partly adopt the tasks that environmental or climate engineers would have to fulfill.

5.2.5. Smaller NGOs

Smaller organizations are the Association for Green Environmental Buildings (*Çevre Dostu Yeşil Binalar Derneği; ÇEDBİK*), the Nature Conservation Centre, the Association for the support of Ecologic Life (*Bugday*), the Nature Conservation Center and several others.

The Association on Green Environmental Buildings is active in environmental matters of climate change. It has conducted workshops on climate change and Green Buildings at Istanbul Technical University (*İTÜ*).

The Nature Conservation Centre aims at protecting biodiversity and promoting sustainable energy consumption by taking scientific findings and data as a basis for its actions. The center conducts projects in the field of climate protection, such as afforestation projects, that are sponsored by international and national governmental bodies such as the OGM and UNDP (DKM 2013).

Buğday, the Association for the support of Ecologic Life (*Buğday Ekolojik Yaşamı Destekleme Derneği*) emerged from a grassroots movement that begun in 1990 and was transformed into an association in 2002. The important objective of the association is to raise awareness on matters of ecological life. The association publishes guidebooks on ecological life as well as ecological calendars, magazines, e-bulletins and newspapers. Climate Change is one of the issues tackled by Buğday, but it is not in the focus of its activities (Buğday 2013).

Eurosolar Turkey was founded in 2002 as the Turkish associate of Eurosolar and takes part in the Clean Energy Platform (*TEP*). Eurosolar is a European association for renewable energy and supports research and action on renewable energy use, energy efficiency as well as Turkey's activities for adaptation in the EU accession process (Eurosolar 2013).

350 Ankara is an NGO that is essentially active in the field of climate action Turkey and is located in Ankara. 350 Ankara is the Turkish branch of the international 350 grassroots movement on climate action and supports international and organizes national climate action.

In 2012, the organization conducted the foundation of a “Climate Forest” in Ankara and since 2008 organizes a film festival on sustainable life. The name commemorates the fact that the concentration of carbonmonoxide in the athmosphere should be 350 particles in a million, while the current amount is about 396 particles in a million. Recently, the Antalya branch “350 Antalya” has been opened (350Ankara 2013).

ENIVA, the Energy and Climate Foundation, was founded in Ankara in 2010 mainly by bureaucrats and experts on energy with the main objective to improve productivity and efficiency in energy processes as well as the protection of the environment and the prevention of climate change during these processes (Enviva 2013).

5. 3. Scientific actors

Institutions that conduct scientific research on climate change are often subordinated to state institutions such as the before mentioned Eastern Mediterranean Climate Center, which is subordinated to the General Directorate of Meteorology, or the Draught Test Center in Konya that is subordinated to the Ministry of Agriculture. Several scientific actors are naturally also located at universities.

Perhaps one of the oldest non-state and non-university research centers, the TÜBİTAK Marmara Research Center was founded in 1973. It includes Energy Institute and an Environmental Institute.

Already mentioned as one of the few organizations that is accredited at the UNFCCC, the MURCIR (Research Center for International Relations) at Marmara University conducts conferences, seminars and workshops on international relations. It published various documents and reports on international relations and at the same timehouses a working group for climate change research. National and international meetings on climate change are organized in this framework. (MURCIR 2013).

Another leading scientific institution regarding the research on climate change is the Istanbul Technical University (ITÜ). There are several research institutes subordinated to ITÜ. Two institutes deal with energy and climate issues on a scientific basis: The Eurasia Institute of Earth Sciences –conducts research as “Interdisciplinary Earth System Science”, including regional climate research and regional pollutant transport and tectonics. The Climate Research Group of the Eurasia Institute of Earth Sciences conducts analyses of past indicators and future effects relating to climate change as well as aims at the identification of natural climate variabilities and diminishing uncertainties. To increase the number of educated personell in the field of climate change policies in Turkey, the Department of Earth System Sciences at the Graduate School of Nature and Applied Sciences at Middle East Technical University (*METU*) in Ankara offers a certificate programme on climate change that provides education on the effects of climate change, Turkish climate change policies and mitigation and adaptation possibilities (Center for Earth Systems Sciences 2013).

The “Energy Institute” at ITÜ is working in the fields of renewable and new energy technologies and energy efficiency. (Şahin 2009). Several projects, funded by important organizations such as the Scientific and Technological Research Council of Europe, the State Planning Organization of Turkey, UNDP and NASA are implemented by the centers at ITÜ (Eurasia Institute of Earth Sciences, Climate Research Group 2013).

Additionally, ITÜ has hosted the Turkish Conference on Climate Change, TIKDEK, in 2007, 2010 and 2013. TIKDEK is so far the only regular conference especially focusing on climate change in Turkey and trying to tackle it from a broad perspective of several topics. Still, the focus lies on a more technical perspective and social scientific views, especially from a securitization perspective, are underrepresented or completely absend (Wellmann 2013).

Boğazici University is another leading and internationally known university in Turkey and hosts an “Institute of Environmental Sciences”. The institute is the first environmental research organization established by law in Turkey (Turkish Oficial Gazette, No: 18124, 3rd August 1983). It was founded in 1982 as a consequence of an extension and restructuration of the

“Environmental Research Group” that was established in the School of Engineering during the late 1970s at Boğaziçi University. The Institute has 16 personel working full time as academic staff, 18 research assistants and five technical experts. Research and education on climate change as well as related topics such as environmental pollution and clean technologies are conducted at the institute (Institute of Environmental Sciences 2013).

Boğaziçi University hosts another research institution related to climate change: The “Center for Sustainable Development and Clean Production” (*Sürdürülebilir Kalkınma ve Temiz Üretim Merkezi*) that was founded in 2007 in Istanbul. The center aims for interdisciplinary research in fields related to sustainable development, emissions control and clean production. Though climate change is not explicitly addressed in the actions of the center, projects such as the calculation of carbon footprints and calculating mitigation measures have been conducted in recent years (*Sürdürülebilir Kalkınma ve Temiz Üretim Uygulama ve Araştırma Merkezi* 2012).

There are several research institutes that tackle issues like renewable and solar energy, such as the Research Institute for Solar Energy at Middle East Technical University. Another related reaearch centre is the Petroleum Research Centre (METU-PRC) at the Middle East Technical University. Together with the Turkish Petroleum Cooperation (TPC), the Ministry of Energy and Natural Resources and the Scientific and Technological Research Council (TÜBİTAK), a project on the CO₂ storage possibilities in Turkey was conducted. The METU-PRC is a member of the “Pan-European Coordination Action on CO₂ Geological Storage” since 2010 (CGS Europe 2014).

More frequently, faculties and issues related to climate change, such as water shortage, are relatively present in Turkey and its research landscape. For example, the “Department for Urbanization and Environmental Affairs” at the Faculty of Economics at Atatürk University or the “Research Center for Environmental Issues” that was founded already in 1978, though of course with another focus than climate change (Atatürk Üniversitesi 2014). Other environmental research centers can for example be found at Ege University in Izmir (*Ege*

Üniversitesi Çevre Sorunları Uygulama ve Araştırma Merkezi) (Eurosolar 2013) and at the Mediterranean University in Antalya (*Akdeniz Üniversitesi Çevre Sorunları Uygulama ve Araştırma Merkezi*) (*Akdeniz Üniversitesi 2014*). Other universities and Research organizations, such as Düzce University, organize panels and workshops in on global warming and climate change, often in cooperation with other institutions such as the Ministry for Forestry and Water Affairs (Düzce Üniversitesi 2014). There are signs of a rising number of research interests and organizations for environmental issues and climate change, such as the “Pan-Turkish Symposium on Environmental Issues” that was conducted in Eskisehir in November 2013 and a joint organization of the Anatolian University, the Ministry of Environment and Urbanization and the Governor of Eskisehir (HABER3 2013).

5.4. Other Actors

In Turkey, business organizations, especially insurances, have had an effect at least on the media in putting climate change and its risks on the agenda (24 TV Haber 2012). Axa Insurance has for example conducted a report on the risks that climate change globally poses and published information on this report in Turkey (AXA SIGORTA 2012). Not only media but even financial organizations and banks such as the Turkish “Halkbank” have reported on this (Halkbank 2012). Especially Agricultural Insurance Organizations such as the Association of Agricultural Insurances in Turkey, TARSIM, also pointed to the risks that climate change could pose to the sector (Sigorta Şikayeti 2013). Newly formed organizations such as “ENIVA”, the already mentioned “Foundation for Climate Change and Clean Energy”, are actually organizations that can be labelled at least semi-business organizations, as for example Eniva is a joint initiative by several Turkish and international stakeholders, especially from the sector of (renewable) energy, such as Shell, “Soyak Enerji Yatırım A.Ş.” and “Genel Enerji A.Ş.” (Eniva 2014).

6. Conclusion

Turkey's climate policy is, in comparison to Germany, the US and Mexico, at a relatively early stage. Still, from the ratification of the UNFCCC onwards, Turkey has made decisive steps to build the necessary institutional and judicial framework for the implementation of climate policies as well as conducted a number of important projects and supported publications that inform about climate change and climate action in the country. These steps of course were to a big part motivated and also financially supported by the International Climate Change Regime and in particular by the EU as well as organizations such as the GEF, UNDP and FAO.

Awareness on climate change and the need for action in Turkey did not develop in the same way and as early as it did for example in Germany or the US. To sum up, one can state that economic and industrial development are still prioritized over climate action and that there is a strong belief and conviction that climate friendly policies are developed in line with economic policies and should not be an obstacle for development. Adding to this attitude is the fact that Turkey does not regard itself to be historically responsible for climate change and therefore acts according to the principle that others that have been first should also be the first in climate actions.

Recent developments with regard to climate change in Turkey, such as the reorganization of governmental institutions and the ministerial responsibility for climate action in 2011 show that the structure for climate action is still very new and perhaps even after these changes not yet entirely settled.

What is most striking about the Turkish government structure is the fact that there is a variety of ministries and other state institutions that are formally assigned to tackle climate issues and implement action plans and policies. Still, these act more in the form of managers for the inclusion of environmental- and climate friendly aspects into development and economic and social policies. As one villager dramatically stated in the case of the construction of a hydroelectric power station in the Black Sea region, the "Turkish Ministry for Environment is not a Ministry *for* Environment but *for* the exploitation of the Environment" (Anadoluyu

Vermejecegiz 2013). The fact that the former Minister for Environment and Forestry was for example a dam-constructor himself and was known in the media as the “King of the Dams” caricatures this statement (Islar 2009: 9).

A look at the publications and online representations of state institutions in Turkey responsible for climate action, such as the General Directorate for Environmental Management or the Coordination Board on Climate Change generally leaves the impression that the good-sounding commitments such as climate action plans, reports and analysis are only “half-baked”. Communications on Climate Change and Climate Change Strategies also seem to be good-looking advertisements of Turkey’s efforts within the climate change regime that do not live up to their promises, whereas the institutional, judicial and financial economic structure behind these plans and the awareness of climate change as a serious environmental problem and political task is relatively weak.

Regarding NGOs and research institutions in Turkey, compared to Germany and the US, there is only an almost vanishing small number of ten NGOs that are registered at the UNFCCC as observer organizations, which confirms the impression that there are only very few organizations that define climate change and action as one of their major tasks and missions.

International NGOs such as Greenpeace and WWF are, due to their professional infrastructure and funding, the most influential organizations not only concerning the media echo and activities and participation in state-financed mitigation and adaptation measure projects, but also when it comes to the number of publications on climate change. Only one national NGO, the TEMA foundation, can be regarded as similarly active and influential, as it also carries out government projects and actions on climate change in cooperation with international organizations. Surprisingly, organizations registered at the UNFCCC or members to the Climate Action Network (CAN) are not primarily non-profit organizations such as foundations or associations, but also business associations such as TÜBITAK and research institutes such as MURCIR that are subordinated to universities such as Marmara University.

Generally speaking and in comparison to other countries, the number of NGOs that tackle climate change is very low (about 30). For a comparison: in Germany these are more than 200, while more than 100 are registered at the UNFCCC.

In Turkey, research on climate change most often addresses technical issues; scholars from the social sciences seldom devote themselves to this subject matter. For example, the panels and discussions of the most important Turkish Conference on Climate Change (*TIKDEK*) most often analyse the effects of climate change on the country from a biological and meteorological perspective.

Adding to this technological view, the rather neoliberal economic system in Turkey encourages competition and the drive for new technologies or methods, which is accompanied by an entrepreneurial form of thinking in Turkey. As a result, there exists a “fetish belief that there is a technological fix for each and every problem”, even climate change (Islar 2009: 9).

Concerning environmental consciousness and awareness of climate change as an environmental problem, the perceived need for action among civil society evolved in Turkey only after 1980. It gained momentum, also on the political level, after the ratification of the UNFCCC in 2000, but only recently, environmental organizations and NGOs started to form coalitions and organize themselves for climate action, for example in online-platforms.

If, in the future civil society organizations and science in Turkey would be strengthened and public opinion and media would understand that climate change is an important task and issue of the future, priorities and policies even in Turkey along the nexus of economic development and sustainability could shift. Today, Turkey tries to combine economic and technical development with measures to combat climate change, but not to such an extent as countries like the US, Germany or Mexico. Climate change remains to be an emerging issue in Turkey.

The case of Turkey generates further interesting questions within the overall framework of the ClimaSec project that will have to be tackled in the future, such as:

- What explains the laggard status of Turkey, especially compared to Mexico, which is in a similar economic situation?
- Why has the National Coordination Board on Climate Change in Turkey nevertheless been founded before Mexico?
- To what extent can one say that the climate policy process or even a securitization of climate change is externally driven?
- Is the securitization process structured differently in Turkey?
- How do securitizing actors link energy and development with the securitization of climate change?
- To what extent is Turkey a case of failed climate change securitization?

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8. Annex

8.1. Climate Policy Progress in Turkey and International Milestones

Date		Relevance	Event
1960	LAW	med.	Groundwater Law
	INST. /POL.	low	1st Five Year Development Plan
1968	INST. /POL.	low	2nd Five Year Development Plan (1968 - 1973)
1971	INT. REGIME	low	GATT Environmental Actions and International Trade Group
1972	INT. REGIME	high	UN Conference on Human Environment
1972	DOCUMENT	med.	National Forest Inventory
1973	INST. /POL.	low	3rd Five Year Development Plan (1973 -1977)
1978	INSTITUTION	high	Foundation of an "Undersecretariat of the Environment" at Prime Mnistry
1979	INT. REGIME	high	WMO 1. World Climate Conference
1980s			
1979 - 1983	INST. /POL.	low	4th Five Year development Plan
1982	LAW	high	Inclusion of Article 56 on the environment in the constitution (achieved by TÜÇEV)
1983	LAW	high	Environmental Law
1984	INSTITUTION	high	Closure of the "Undersecretariat of the Environment" and Foundation of the "General Directorate of the Environment" at the Prime Ministry
1985	INT. REGIME	low	Montreal Agreement (Ozone Layer) / Brundtland Report
1987	INT. REGIME	high	World Commission on Environment and Development (WCED) Brundtland Report
1983 - 1987	INST. /POL.	low	5th Five Year Development Plan
1987 - 1992	INST. /POL.	low	6th Five Year Development Plan
1988	INT. REGIME	high	IPCC is founded by WMO and UNEP
1990s			
1990	INT. REGIME	high	WMO 2. World Climate Change Conference
1990	INT. REGIME	high	IPCC first assessment report
1992	DOCUMENT	high	NCBCC and MGM Reports: "Protection of the Atmosphere and Climate Change" and "Energy and Technology"
1992	INT. REGIME	high	Rio Earth Summit
1992	INT. REGIME	high	UN Conference on Environment and Development

1993	INT. REGIME	med.	Maastricht Treaty; Protection of the Environment as an objective of the EU
1994	INT. REGIME	high	UNFCCC
1995	INT. REGIME	high	IPCC Second Assesment Report
1996 - 2000	INST. /POL.	low	7th Five Year Development Plan
1997	INT. REGIME	high	Kyoto Protocol
2001			
2001 - 2005	INST. /POL.	low	8th Five Year Development Plan - suggestion to establish a special commission on climate change and a national climate change action plan
	INT. REGIME	high	COP 6 - Den Haag / Bonn
	INT. REGIME	high	COP 7 - Marrakesh
	INT. REGIME	high	IPCC Third Assessment Report
	LAW	high	Decision 26./CP 7 - Turkeys deleted from Annex II; special circumstances recognized at COP 7 in Marrakesh.
	INSTITUTION	high	Foundation of the CBCC/IDKK
2002			
	INT. REGIME	high	UN Conference on Sustainable Development
2003			
	INSTITUTION	high	Ministry of Forstry' and 'Ministry of the Environment' united
	INSTITUTION	high	UNIDO-ICHET founded in Istanbul
	INT. REGIME	high	Law/Decision (TBMM) to become a party to the UNFCCC
2004			
	INT. REGIME		Stockholm Agreement
	DOCUMENT		National Forest Inventory (II)
	INT. REGIME	high	Turkey becomes a party to the UNFCCC
	INSTITUTION	high	Establishment of the National Coordination Board on Climate Change
	INSTITUTION	med.	Foundation of REC Turkey
2005			
2005 - 2007	INT. REGIME	high	First Phase of EU-ETS
2005 - 2006	PROJECT	high	Enabling Activities for the Preparation of Turkey's Initial National Communication to the UNFCCC
2006			
	DOCUMENT	low	Criteria and Indicators for sustainable Forest Management Report

14.04.2006	INT. REG/ DOCUMENT	high	Turkey's first National GHG Inventory submitted
04.12.2006	NGO	high	Climate Change NGO Meeting Adana
2007			
	DOCUMENT	high	İklim Değişikliği ve Türkiye' (<i>Climate Change and Turkey - Effects, Sectoral Analysis and Economic Dimensions</i>) (UNDP/TOBB)
	INT. REGIME	high	IPCC Fourth Assessment Report
	INT. REG/ DOCUMENT	high	1. National Communication on Climate Change
01.11.2007	LAW	high	A licencing process that started investments in wind energy started
2008			
2008 - 2012	INT. REGIME	high	Kyoto Protocol First Commitment Period
2008 - 2011	PROJECT	high	Project to Enhance the Capacity of Turkey to adapt to Climate Change (COB/UNDP)
2008 - 2010	PROJECT	med.	Evaluation of the National Capacity in the face of Global Environmental Agreements
	DOCUMENT	high	"The Effect of Global Warming and Sustainable Management of Water Sources" (TGNA Investigation Commission Report)
	DOCUMENT	high	Special Comission Report "Kyoto Flexibility Mechanisms and other ETS"
	DOCUMENT	high	Strategic Framework for Forestry and Climate Change' (Turkish translation of FAO 2008)
	DOCUMENT	med.	National Aforestation Action Plan (2008 - 2012) (ÇOB)
	DOCUMENT	high	Report of the Parliamentary Research Comission on "The Effects of Global Warming and sustainable management of water resources" (500 pages)
	DOCUMENT	high	National GHG Inventory Report 2007 (1990 - 2008)' to UNFCCC (<i>Turkey submitted the GHG Report of 2007 later than all other participating countries</i>)
	DOCUMENT	high	"Climate Change and Actions taken" (ÇOB)
	DOCUMENT		Waste Action Plan (2008 - 2012)
	INT. REG/ DOCUMENT	high	Turkey submitted the National GHG Inventory 2008 in August 2008 to the UNFCCC
	INT. REGIME	high	An UNCCD (United Nations Convention to Combat Desertification) meeting was hosted by Turkey (Istanbul)
2009			
2009 - 2011	PROJECT	high	Project for the Development of Turkey's National Climate Change Adaptation Strategy and Action Plan
2009 -	PROJECT	low	Project for the development of corporate capacity

2011			
	INT. REGIME	high	Turkey hosted the 5th World Water Forum
	INT. REGIME	high	The 30th session of the IPCC was hosted by Turkey in Antalya, this was a summit for the preparation of COP 15
	DOCUMENT	High	Turkey's Climate Change Strategy 2010 – 2020 published
	INT. REG/ DOCUMENT	high	National GHG Inventory 2009 submitted to UNFCCC
	DOCUMENT	low	Report for the Evaluation of Turkey's special status in the framework of the UNFCCC
	INT. REGIME	med.	Negotiations on Environment Chapter of the EU Aquis started
	INT. REGIME	high	Kyoto Ratification
	INSTITUTION	low	Foundation of AFAD
	LAW	high	EU Lissbon Treaty: Article 174 is on "Combating Climate Change"
2010	INT. REGIME	med.	Hottest year ever in Turkey
2010	DOCUMENT	high	National Activities of Turkey on Climate Change (ÇOB/ÇSB)
2010	DOCUMENT	med.	National GHG Inventory Report 2010 submitted to UNFCCC (1990 - 2008)
2010	DOCUMENT	high	National Climate Change Strategy Paper 2010 - 2020
2010 - 2012	PROJECT	high	Project for the preparation of Turkey's Second National Communication on Climate Change
2010	INSTITUTION	high	Rearrangement: Foundation of the "Ministry of Environment and Urbanization" (ÇSB); former "Ministry on Environment and Forestry" turns to "Ministry for Forestry and Water Affairs" ÇSB objectives: balancing development, environment and urbanization.
2010	DOCUMENT	low	FRA-2010 Report based on the guidelines set out in the FAO Working Paper 143
2010	DOCUMENT	high	Turkey's National Climate Change Adaptation Strategy and Action Plan
2010	INSTITUTION	med.	Foundation of the General Directorate on Environmental Management (in the Ministry of Environment and Urbanization)
2010	INSTITUTION	low	Foundation of the General Directorate for Space Planning
2010	INSTITUTION	med.	Names of the organizations that participate in the CBCC are made publicly; the CBCC meets once in every 6 months
2010	DOCUMENT	high	CBCC tasks amendments
2010	INT. REGIME	high	UNFCCC COP 16 Mexico
2011			
2011	LAW	med.	Amendment of the 1960s Groundwater Law
2011	INSTITUTION	low	Name of the Ministry of Industry and Trade changed to "Ministry of Science, Industry and Technology" - representing a shift of priorities
2011	INSTITUTION	med.	Foundation of the General Directorate of Renewable Energy

2011	DOCUMENT	high	National GHG Inventory 2011 submitted to UNFCCC
2011	DOCUMENT	med.	Final Draft of NCCAP
2011	INSTITUTION	high	Foundation of the Ministry of Forestry and Water Affairs
2011	INSTITUTION	high	The former "Ministry of Public Works and Settlement" (founded 1983 by a unification of two older ministries) was changed into the "Ministry of Environment and Urbanization" (ÇSB). Tasks reformulated by law 644.
2011	INSTITUTION	high	Amendments to tasks of General Directorate of Environmental Management
2011 - 2013	PROJECT	med.	EU Twinning Project TR08IBEN02 on "Improving Emissions Control"
2012			
3rd hottest year ever in Turkey			
2012	DOCUMENT	high	National Climate Change Action Plan (2011 - 2023) by the Ministry of Environment and Urbanization
2012	INSTITUTION	high	Air Emissions Department founded within General Directorate for Environmental Management
2012	DOCUMENT	med.	National GHG Inventory Report submitted to UNFCCC (by OGM)
2012	DOCUMENT	med.	Report on the State of the Environment' (by ÇSB)
2012	DOCUMENT	high	Climate Change and Turkey' (by ÇSB)
2012	DOCUMENT	high	İklim değişikliği Risk Yönetimi (UNDP/CSB/gef)
26.09.2012			Conference on Climate Change and Risk
2012	INT. REGIME	high	UNFCCC post-2012 new climate regime start
2013			
2013	DOCUMENT	high	5th' National Communication on Climate Change
2013	INSTITUTION	medium	26th Meeting of the Council of Science and Technology on renewable Energies (including high level politicians)
2014			
2014	DOCUMENT	med.	10th development plan 2014 - 2021
	DOCUMENT	med.	Vision 2013 (as a process that also affects CC Policy Development in Turkey)

Explanation: Green = Important Document or Publication; Blue = Actor founded or institutional development or policy; Red = Law passed; Grey = Important Development in or within the International Climate Change Regime; pink= Project

8.2. Main relevant actors with regard to the securitization of climate change

Name	Actor info	Actor Classification
Ministry of Forestry and Water Affairs	Founded in 2011 (after dividing the Ministry of Environment and Forestry), the Ministry of Forestry and Water Affairs is closely related with climate action.	State Institution
Ministry of Environment and Urbanization	Founded in 2011 (after dividing the Ministry of Environment and Forestry), the Ministry of Environment and Urbanization is the main governmental actor for climate action in Turkey and includes the Coordinatin Board on Climate Change.	State Institution
Ministry of Energy and Natural Resources	It supports activities of the IDKK and coordinates the activities of three working groups within the Coordination Board on Climate Change.	State Institution
General Directorate for Meteorology (MGM)	As one of six General Directorates that act in relation to climate change (on Meteorology, Water Management, of Forestry, Enviromental Protection and National Parks, against Desertification and Erosion and the Turkey Water Institute) it belongs to the Ministry of Forestry and Water Affairs. It provides ecucation, information and reports. Its subunit is the Eastern Mediterranean Climate Center.	State Institution
General Directorate of Renewable Energies	It is subordinated to the Ministry of Energy and Natrual Resources and is active in coordinating emissions trade and supporting the development of renewable energies.	State Institution
Regional Environmental Center (REC) / Regional Climate Center (RCC) Turkey	The RCC was founded in 2004, the REC was founded by the USA, The European Commission and Hungary and supports Turkey's adaption process to the EU. Both, REC and RCC, are spezialized on climate action in Turkey.	Independent International NGO
Greenpeace (Greenpeace Akdeniz)	Greenpeace international is present in over 40 countries worldwide and was founded in Canada in 1971. Climate Change and Global Warming are one of its focuses. It has publications with regional topics such as "The effects of the power central in Gerze".	Independent International NGO

WWF (Friends of the Earth/DHKV) Turkey	Founded in 1975, the Association for the Protection of Natural Life in Turkey (DHKD) started cooperating with the WWF in 1986. In 1990 it officially earned the status as an environmental NGO.	Independent International NGO
Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats (TEMA)	Founded in 1992, the TEMA focuses on environmental matters and climate change and is one of the few environmental NGOs in Turkey that is not a suborganization of an international NGO. Also, it is the only Turkish member of the global Climate Action Network (CAN).	Independent National NGO
Turkish Water Foundation (TWF, Su Vakfi)	Founded in 1995, the TWF based in Istanbul educates Turkish people to care for and about the role that water plays.	National NGO
Scientific and technological research council of Turkey (TÜBİTAK)	Established in 1963, the TÜBİTAK based in Ankara is the leading agency for management, funding and conduct of research in Turkey.	NGO
Turkish Industrialist and Businessmen Association (TÜSİAD)	The TÜSİAD is a business organization, which runs an environmental working group and may influence the decision makers.	NGO
Turkish Confederation of Employer Associations (TİSK)	The TİSK is a business organization and may influence the decision makers.	NGO
Foundation for Economic Development (IKV)	Founded in 1965, the IKV publishes news, evaluations and reports on the processes of international climate negotiations. Climate change can be seen as an important topic for the IKV.	NGO
Consumer Associations Federation (TÜDEF)	Founded in 2003 in Ankara, the TÜDEF is a business organization and may influence the decision makers. It focuses on the protection of consumer rights, so it sees climate change as threat, not as a priority of its work. The MURCIR has a consultative status to the Ministry of Environment and Urbanization.	NGO