

Fighting and Adapting to Climate Change in a Developing Country: Turkish Case

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Abstract. This study aims to present the history of fighting and adapting to climate change of Turkey, as a developing country. It is obvious that climate change is a problem to be solved only with global participation. However, implementation of global policies is associated closely with national, regional and local policy processes. Therefore, climate policies acquire their shapes as the result of a multi – level process leading from international to local level and the matter cannot be evaluated in a global abstraction.

In order to achieve the aim determined in the present study, its emphasis should be on the policies and actions have been taken to fight and adapt climate change in Turkish case. Additionally, institutional changes will be focused parallel to changes in the actions and policies. Therefore, within the context of the present study after a short introduction about climate change, first contextual settings of Turkey will be presented. Second, policies and actions against climate change will be presented from a historical perspective in two parts before and after being part of United Nations Framework Convention on Climate Change (UNFCCC) in 2004. And parallel to that institutional restructuring related to climate change also discussed. Through this way, the effects of institutional changes at a national level to climate policies and actions will also be discussed. To reach its aim the study is conducted document analysis by using secondary sources such as the related literature, national climate change reports, climate change strategy and action plans that have been produced by the related ministries.

Keywords: climate change, policies, Turkish context.

1. Introduction

A scientific consensus is said to have been reached related to causes and results of climate change following the First World Climate Conference in 1979 when climate change took place for the first time on the world agenda. From 1992, when United Nations (UN) Conference on Environment and Development and UN Framework Convention on Climate Change (UNFCCC) has been conducted [1], onwards, it was accepted globally at the political level that the matter turned out to be a crisis which should immediately be solved. In other words, climate change policy emerged in the 1990s [2], [3]. As stated by Gupta (2010), organizing World Meteorological Organization (WMO) Second World Climate Conference, publishing Intergovernmental Panel on Climate Change (IPCC) First Assessment Report, establishment of Intergovernmental Negotiations Committee (INC) that was given role to prepare UNFCCC by UN General Assembly, meant that the science of climate change prepared ground for political negotiation and transition to next step has been realized. Today, it is commonly accepted in the world that climate change is a problem to be solved only with global participation and implementation of global policies is associated closely with national, regional and local policy processes. In other words, climate change is not a matter that can be evaluated in a global abstraction. For this reason, climate change policies take their shapes as the result of a multi – level process leading from international to a local level.

UNFCCC, as an international convention that assigned by nearly all countries of the world, determined the activities should be performed in accordance with the aim of the convention. UNFCCC, that also known as a multilateral environmental agreement, was opened for signature at the Earth Summit held in Rio de

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Janeiro in 1992 and came into force in 1994 [5]. The main objective of UNFCCC is defined as “*stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system* [6, p.4].” In UNFCCC, all parties were given common obligations in order to the reduction of anthropogenic greenhouse gas (GHG) emissions, prevention of climate change and reduction of its effects etc., by considering their common but differentiated responsibilities, national and regional development priorities, their goals and specific conditions. According to UNFCCC, decreasing the anthropogenic GHG emissions to 1990 level until 2000 was defined as the obligation of the countries listed in Annex-I (OECD and former socialist countries of Eastern Europe countries), and providing technological and financial support to the developing countries and meeting their specific needs etc. were defined as the obligation of the countries listed in Annex-II (only OECD countries) [1].

The activity fields determined in UNFCCC, which are collected under four main headings as reduction, adaptation, finance and technology, give shapes of the contents of not only international policy but also nation – wide climatic policies [7]. On the other hand, the sovereign right of states is mentioned and confirmed in the introductory part of UNFCCC as a principle; “*States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction* [6, p.1]”. Such a principle makes the determination of global climate policy dependent on countries own national policies even if the global policies aim overall to stop climate change. This statement reveals how important the activities at national level are in struggling with global climate change. Departing from this fact, the present study focuses on the history of fighting and adapting to climate change at a national level in the case of Turkey. Through this way, in addition to presenting the Turkish history, the study aims to emphasize the importance of the climate policies at national level especially in the developing and under-developed countries.

Even the share of developing countries in the global emissions of GHG relatively low, their development tendency should be considered. In the UNFCCC, the situation is explained as following “*...the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs* [6, p.1].” Departing from this point of view, the right to development has been considered within the context of UNFCCC in 1992 by emphasizing that the role of economic development on addressing climate change and economic differences of the each party. Right to development is handled as principle under the article 3 of UNFCCC as follows: “*The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change* [6, p.5]”. Even it is a relatively new concept in human rights law, reaching consensus on its meaning and implementation has been highly politicized in the intergovernmental arena [8]. According to Orellana (2010: 5) right to development aims to address “*the economic imbalances between the industrialized and the developing worlds, and integrates human rights and economic development*”.

As a good example of developing country according to its economic condition [7], Turkey is selected as the case of the study. Turkey, located in Western Asia became a party to the UNFCCC in 2004 and to the Kyoto Protocol in 2009. Within the scope of the UNFCCC, Turkey participates in global negotiations and simultaneously carries on with the membership negotiations to the European Union (EU). The process involving the development of Turkey’s climate policies started with its participation at the 2nd World Climate Conference in 1990 when climate change first took place on the Country’s Agenda. On the other hand, the process dealt with multilateral climate policies started in 2004, when the Country announced to be a party of UNFCCC and the negotiation for its accession to EU was guaranteed to start. However, even if it was in a relatively narrow frame in Turkey, climate policies started to be developed in the 1990s. Therefore, climate policies of Turkey could be evaluated in two periods as before and after 2004.

Within the context of the present study, to reach its aim, the emphasis should be on the policies and actions have been taken to fight and adapt climate change in Turkey. Moreover, because of their direct relation to policies and policy changes, institutional changes should also be presented. Therefore, in the following parts, after introducing the Turkish context with its social, economic and geographical properties, fighting and adapting to climate change history of Turkey including policies, actions and institutional structures related to climate change, is presented in two headings as before and after being part of UNFCCC in 2004.

2. Contextual Settings of Turkey

Turkey situated at the crossroads of Asia, Europe, and Africa (Figure 1). Due to its geographical location in an environmentally sensitive region of the world, Turkey must play a dynamic role in a broad range of environmental activities, particularly in the Mediterranean, the Black Sea, the Caucasus and Central Asia [9], [10]. As a developing and industrializing country, high rate of economic growth of the Country has been experienced since the 1990s. Economic growth and booming industrial production of Turkey, as other industrializing countries, led to increasing levels of natural resources and energy consumption, and environmental problems [9]. Turkey is a good example of a developing country in terms of its economic situation [7], [9], [10]. The Country has been categorized in upper-middle income countries according to the economies by per capita GNI in 2011 [6]. On the other hand, the Country is a member of the OECD and G20 [10]. Turkey wanted to be a full member of the EU since April 1987 and has been a candidate for EU membership since December 1999. For this reason, economic, political and environmental preferences of the Country are tried to make accordingly [12].



Fig. 1: Geographic location of Turkey is highlighted [11].

Turkey is a party to the UNFCCC and to the Kyoto Protocol. As a party to UNFCCC, the Country has a responsibility to develop policies to fight climate change and implement them and declare the current GHG emissions and the data about the emissions to UNFCCC. However, it does not have any quantified emission limitation or reduction commitment within the context of Kyoto Protocol since it is not listed in Annex-II of UNFCCC. Moreover, as a country on the path to European Union (EU) membership, Turkey is required to introduce a series of fundamental reforms. Although it is known that one of the most significant problems faced by candidate countries is in their adaptation to the EU's environmental regulations [13], which put pressure on countries to increase standards of environmental quality [9]. Especially after EU put the first Environment Action Plan into practice in 1973, environmental sustainability goal became widespread among the member countries. This means that development goals need sound sustainable environmental policies in Turkey. In short, the geographical, economical and environmental properties with its international relations need to take environmental considerations into account in the Country.

On the other hand, before the 1980s environmental problems were not taken enough attention in Turkey. In this period, “*the state had almost no planning, investment, and training policy to protect the environment* [9, p.78].” In this context, an important development, as a starting point, realized in 1983, when the Environment Law (law no: 2873; date: 09.08.1983) [14] came into force in Turkey. Establishment of the

Ministry of Environment in 1991 is another important earlier step that has been taken in terms of environmental issues. After the establishment of ministry, in order to provide a sustainable environment and fight with environmental problems, several measures were stated. While some improvements accomplished, some remained as good intentions. On the other hand, climate change, as the focus of the present study, also entered the agenda of Turkey at the beginning of the 1990s.

3. Turkish History of Struggling with Climate Change

In Turkey, with the beginning of a process including multi-partial climate change policies in 2004, an alteration was witnessed in the general frame where climate change in the Country was placed. In the process between 1990, when climate change first took place on the Country's Agenda, climate change as a topic was evaluated in a narrower frame by a few people and institutions. In 2004, Turkey became a party to UNFCCC signed in 1992. Therefore, climate policies of Turkey that are determined by the effects of exterior dynamics, as well as interior dynamics, can be evaluated in two periods as before and after 2004.

3.1. The Period before 2004

The process involving the development of Turkey's climate policies started with its participation at the 2nd World Climate Conference in 1990, the first international meeting related to climate the country was represented, and then at the INC. In 1991, Climate Change and Variability Unit was founded in the body of Weather Forecast Department of Turkish Prime Ministry General Directorate of Meteorological Service. In the same year, Turkish Ministry of Environment was also founded. Therefore, the early 1990s is accepted as the years witnessed significant developments in environmental protection in Turkey. In the following period, National Climate Coordination Group was founded with the participation of representatives from relevant ministries and public institutions and under the secretariat of Turkish State Meteorological Service. First national report on Turkey related to climate change, called as Climate Change and Atmosphere Protection working group report was prepared by National Climate Coordination Group. The report emphasized that Turkey should be part of UNFCCC by considering its conditions, especially its development level, development goals, consumption model; and obligations of countries should be determined their development levels, emission levels, and their responsibilities; and according to current energy policy the national resources especially indigenous lignite are being used and compared to developed countries energy consumption is inadequate in terms of contemporary life stage; and also need to oriented to the less carbon-dioxide emitting sources and more efficient combustion technologies, increasing energy efficiency and given place to research and development work [1],[15].

At the international level, in the early 1990s, meetings were held INC in the aim of the preparation of UNFCCC on one hand while on the other hand, intergovernmental negotiations were carried out for Environment and Development Conference to be held in Rio de Janeiro [1]. In the mentioned process, before Rio Conference, in the last two INC meetings held in New York, Turkey was added as an OECD member in Annex-I, which listed the countries to reduce emission and Annex-II listing the countries to aid financially to developing countries [16]. On the other hand, in the period, Turkey defined itself originally as a developing country and emphasized the right to development, which subsequently constitutes the basis of the country's climate policy at international level. However, due to the idea that Turkey should be part of UNFCCC depend on its OECD membership and given importance to act together with western countries and EU; this unfavorable status was accepted in the meeting [15]. However, in 1992, it was decided at the meetings held after UNFCCC was adopted in Rio that it was not possible for Turkey to be a party to the Convention by being listed in the Annexes. As a result, because of the obligations coming from listing in Annexes, Turkey did not become a party to UNFCCC [16]. Moreover, a research commission established in Turkish Grand National Assembly (in Turkish TBMM) related to environmental matters in 1994 concluded that listing of Turkey in Annexes I and II would block fossil fuel investments and therefore economic development [17].

After the adoption of UNFCCC, Conference of Parties period was started in the international climate negotiations. However, for Turkey participating in COPs from Rio Conference to Marrakesh Conference in 2001 (COP 7), the only aim was to negotiate on remaining out of the lists in Annexes and convicting the parties about the specific situation of the Country [18]. Until becoming a party to the Convention in 2004,

Turkey kept its observer country status at the summits (Berlin, 1995; Geneva, 1996; Kyoto, 1997; Buenos Aires, 1998; Bonn, 1999; Hague, 2000). In this period, Turkey was also represented in Kyoto Climate Summit (COP 3) in 1997, when the Kyoto Protocol was signed. However, since the country was not yet a party of UNFCCC, it was not also a party to the negotiations for Kyoto Protocol [18]. In 2000, as part of the Eight National Development Plan (2001-2005), that is accepted as the basis of policies of Turkey related to climate change [19], Climate Change Special Commission Report has been published. Within the context of the plan, it was emphasized that works are going to conduct to be a party to UNFCCC and regulations are going to make for energy efficiency to GHG emission reduction [19].

In the same period, Turkey has carried out an institutional structuring for the climate policy innovation. In this context, an important nationwide step was achieved and in the scope of a Prime Ministry Circular 1, Coordination Board on Climate Change (CBCC) was established on January 2001. In 2001, CBCC started to work with the participation of the Minister of Environment as chair, and representatives from relevant ministries and public institutions under the secretariat of Environment Ministry. The establishment aims of CBCC was “...*coordination of future works and take all the national attempts related to climate change into account from a more strategic point of view* [20, p.1]”. The establishment of CBCC is one of the most important attempts before the country became a party to the UNFCCC.

At international plain, in accordance with the decision adopted at Hague Conference, Turkey’s demand for removal from Annex-II and being a party to UNFCCC as an Annex-I country was also adopted at 2001 Marrakesh Summit (COP 7). In line with the Decision, parties were invited to recognize that Turkey has a special position in comparison to that of other countries listed in the Annex-I and it was decided to exclude Turkey from the list of countries in the Annex-II. This late but positive development made Turkey a member of international society challenging for the protection of global climate [15], [18]. After Turkey approved UNFCCC in October 2003, it became a party to the UNFCCC on 24th May 2004.

3.2. The Period after 2004

Turkey started multi-party and more active climate policies after being a party to UNFCCC. After 2004, several studies and projects were conducted. Inventories of GHG, national declarations, strategy and action plans were prepared and more inclusive and extensive delegations from Turkey began to participate in climate summits [15]. In this scope, Coordination Board of Climate Change (CBCC) was re-structured in 2004 through the Circular declared by TR Prime Ministry. Definition of the establishment aim of CBCC was enlarged in the Circular 2004 compared to 2001 as “*to take required measures to prevent harmful effects of climate change, to achieve more productive works by providing coordination and responsibility distribution between relevant institutions and establishments determine suitable domestic and foreign policy by considering the conditions of Country* [21, p.1]”. With the new regulation, the Board started again to work under the secretariat of MoEF² and the chair of the same minister.

On the other hand, after Turkey’s becoming a party to UNFCCC, it was noticed that Turkey was among the countries not a party to Kyoto Protocol. Therefore, after 2004, discussions on Kyoto Protocol were on the agenda of Turkey related to climate change. In UN World Climate Summit (2007), Turkey declared that the country will be signed the protocol under some conditions in New York. As a result, Turkey became a part of Kyoto Protocol in August 2009 [22]. However, Turkey was not listed in Annex-II of the Protocol. Therefore, it does not have any quantified emission limitation or reduction commitment. At this point, it should be mentioned that in the being party to Kyoto Protocol, concerns about the image of the country at international level and the membership negotiations with the EU were effective [15]. After Turkey signed Kyoto Protocol, it began to work on capacity building and increasing activities and prepared strategies and action plans. In 2009, the Climate Change Department within the Ministry of Environment and Forestry (MoEF) was established under the General Directorate of Environmental Management. The department tackles all issues concerning climate change [22]. National Climate Strategy Document has been completed and published in

¹ In this respect, it must be born in mind that every changing circular abandoned the previous one.

² In 2003, Ministry of Environment and Ministry of Forestry were combined with each other and a new ministry was structured with the name Ministry of Environment and Forestry.

2010. Moreover, the Board has reformed again but its aim was the same with that in previous one in 2010 [23].

In 2011, publishing the National Climate Change Action Plan and then strategy and action plan for adaptation, and starting the preparation for the Second National Communication refers to Turkey has taken important steps in terms of obligations based on international agreements. However, after the general election in June 2011, government policies, ministries, and public institutions underwent a restructuring process. The bureaucracy responsible for the activities and policies related to climate change also changed thoroughly. With the new arrangements, as the main responsible unit for climate change MoEF [24] was divided into two parts and the part Environment was combined with another ministry, The Ministry of Public Works and Settlement by being renamed as the Ministry of Environment and Urbanisation (MoEU), in the structure of which urbanisation side is dominant. After this organizational revision, Climate Change Department is still in the body of the MoEU, but the largest part of the related bureaucracy with climate change was taken over the Ministry of Forest and Water Affairs. Rest of the staff remaining in the MoEU was appointed to other duties in their institution and so the structure established until that time in the public side of climate change topic was impacted deeply [15]. After the restructuring process, the Climate Change Department was re-established within the MoEU under General Directorate of Environmental Management in 2011. Since the MoEU is the National Focal Point of the UNFCCC, the Ministry, after its foundation, has become the institution that conducts a role as national coordinator of all activities for adaptation to climate change at first hand [24]. Works planned related to climate change are counted among the duties of newly founded ministry in its establishment law. According to this law, MoEU was given responsibility *“to establish a coordination between institutions and establishments to determine a plan, policy and strategies for taking actions against global climate change and ozone layer depletion [25, p.1158-2]”*. This duty was given to the General Administration of Environmental Management working in the body of the Ministry. As part of the organizational restructuring process, while the chairmanship of the CBCC was MoEF, it became the MoEU. After the reconstruction, a circular was declared concerning CBCC in 2012 [26]. The aim of the Board was redefined as *“taking required actions to prevent harmful effects of climate change, determination of compatible policies with the conditions of the Country and constructing coordination and cooperation between public and private institutions and establishments [26, p.1]”*.

On the other hand, at international plain, Turkey not signing Copenhagen Accord (COP 15) in 2009, ignored 2010 Cancun (COP 16) Agreements concerning countries' declaration of a reduction target after 2012. The developments at international level such as fail of the Copenhagen Accord; the emergence that post-Kyoto agreement could be implemented at earliest in the 2020's; the ineffectiveness of the second commitment period of the Kyoto that was opened for signature in 2012 in Doha but signed by only a small number of countries; coupled with Turkey's EU negotiation process that has been losing altitude gradually. With the effects of the developments, efforts of Turkey related to climate policy reduce more and more. In addition, after the election in 2011, the government declared to give more emphasis than before on high emission and rapid development policies such as settlement and road construction and energy production, therefore; climate policies conflicting obviously such a trend fell into disfavor. After the announcement of 2012 to be *“coal year”* by the Ministry of Energy and Natural Resources, the number and sizes of thermal power plant projects using coal as fuel increased. In institutional side, in 2013, climate management was combined with air management and the department was turned into a branch directory status. All these developments showed that climate policies in Turkey weakened day by day. In this process, in the summits of Durban 2011 (COP 17), Doha 2012 (COP 18) and 2013 Warsaw (COP 19) Turkey got the prize of the *“fossil of the day”*. Several people from climate bureaucracy tie weakening in this period with the low possibility of achieving an obligatory agreement in the international plain. However, in this term, a decrease of efforts in national climate policies may be triggered by slowing down the process of Turkey's negotiation process with EU [15].

On the other hand, 2013 Warsaw Summit (COP 19) is accepted to the breakthrough, where Turkey's position in new term became clear. Turkey declared that when it reached critical mass, it would be a part of the agreement in the new term, however, it would not accept any target out of that it determined and wanted it to be flexible, i.e. it was not in favor of a tying target [15]. In 2013, CBCC was combined with

Coordination Board of Air Emissions (CBAE) structured in 2012 and a new board was established with the name of CBCCAM. The reason behind such a decision was declared to be in the circular that “*struggle with climate change and air emission management are topics related to each other and should be taken into consideration in a complementary way and at national level relevant establishments and institutions should be a partner* [27, p.1]”. In this way, bureaucracy is targeted to be simplified and a waste of time is planned to prevent. The aim of the Board explained as “*to improve the inventories of national air emissions and greenhouse gas emissions by containing data of the Country, collect detailed data related to activity fields contributing to the formation of sectoral emission, determine national emission factors, take required measures to prevent harmful effects of climate change, determine suitable domestic and foreign policy by considering the conditions of Country and provide coordination and collaboration between relevant institutions and establishments to determine strategies for the reduction of emission* [27, p.1]”.

Developments experienced in Turkey in 2014 are accepted to be the indicators of improvement in climate policies going back in the last years. In 2014, the country became prepared to have active participation in the new international regime; however; did not have a serious reduction target; nevertheless; started works on the establishment of carbon markets and meanwhile developed its technical capacity related mainly to GHG emission inventories; did not succeed combining economy and development policies and climate policies, however, abandoned the view that climate change is not a threat alone anymore and increased the importance it gives accession policies and now it proceeds its way [15]. Moreover, climate change was restructured at the department level, CBCC was reformed with the name CBCCAM, ministries participated in 2014 Lima Conference (COP 20) and 2015 Paris Forum (COP 21), the President attended 2015 New York Climate Change Leaders’ Summit and Six National Communication has been published in 2016. Moreover, as a rapidly developing economy, Turkey aims to reduce GHG emissions increase up to 21 percent in 2030 [19]. These positive developments are accepted to be the indicators of the change from low profile political attitude beginning after 2011 [24].

4. Conclusion

This study is focused on Turkish history in terms of fighting with climate change. In the respect of climate change policies, present situation of Turkey, as stated by Şahin (2014), is as that it is squeezed between the requirements of its foreign policy and economic targets. Since the matter of environmental protection is seen to be an important indicator of modern states has turned out to be impossible for Turkey’s foreign policy approach to remain out of international environmental policies. However; the economic conditions Turkey faces resulting from the fact that it is a developing country cause the country to develop resistance to international measures. As a conclusion, as it was seen in the process of being a party to UNFCCC between 1992 and 2004, Turkey’s international climate policy process became composed of an inter-location situation and speaking only about “*special conditions*”, as stated by Mazlum (2009). Turkey’s climate policies varied beginning in 1990 to date depending on national and international factors, especially EU negotiation process. However, due to the exhausted hope of being an EU member in a near future, the government could feel free and independent towards climate policies.

On the other hand, there is a continuous discussion about the world climate change policies, it should be accepted that international climate policies are more obvious in EU countries than Turkey due to the effects of settled mechanisms in EU. However, as it is stated in UNFCCC each country has its own dynamics and barriers for the climate change policies. Each country has its own internal and external drivers depend on the contextual characteristics such as being developed, developing or underdeveloped countries. On the other hand, development of multifaceted negotiation opportunities at international level is of critical importance since climate change is a global problem that requires global solutions. And the global solution for climate change could only be reached through an effective mode of climate policies at both national and international level by including not only developed but also developing countries.

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6. References

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