

CLIMATE NEGOTIATIONS WITHOUT TURKEY?

Effectively tackling climate change requires strong, wide-spread agreement and high-level policy measures on a global scale. In contrast to the former high carbon economy paradigm, the new era is defined by the de-carbonization of economic activities. In this context, however, Turkey still functions within the old paradigm. Although Turkey is now experiencing extreme climate events more than ever, it has continued to promote carbon-intense growth policies. Compounding the detrimental effects of these national policies, Turkey is also not a visible player in international climate negotiations. Turkey's contribution to the new international agreement scheduled to be adopted in Paris in 2015 is critical.

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The excessive use of fossil fuels and the destruction of nature have generated serious problems of climate change for the new millennium. Despite the fact that international talks have been held since 1979, scientific findings show that the progress achieved remains too far from the solution. Since its founding in 1988 under the auspices of the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO), the Intergovernmental Panel on Climate Change (IPCC) has been providing up-to-date studies on the current state of scientific knowledge relevant to climate change.

The First Assessment Report (FAR) of the IPCC was completed in 1990. It served as the basis of the United Nations Framework Convention on Climate Change (UNFCCC), which was adopted in 1992 as a response to the problem of global warming. Five years later, the Kyoto Protocol, which fortified the Convention by setting legally-binding emissions reduction requirements for 37 industrialized countries, was adopted.

Negotiations were conducted by the parties involved based on these two important agreements. Today there is a concrete discussion on a new global agreement, which is expected to be adopted in 2015 at the Paris Climate Conference and implemented starting in 2020. It will take the form of a protocol, another legal instrument, or *an agreed outcome with legal force*, and will be applicable to all parties.

Turkey in the Negotiations

Turkey ratified the Convention in 2004 and the Protocol in 2009, 12 years after each was adopted. Apart from these two agreements, Turkey has been reluctant to act like a stakeholder in global negotiations. In Copenhagen, parties gathered for the Conference of Parties meeting – the COP15 – which resulted in the Copenhagen Accord. According to the COP15 Accord, 140 countries submitted their pledges to the UNFCCC secretariat. Some developed countries provided reduction targets, while some developing countries provided reduction targets with projected increases. Turkey, however, did not provide any response to the Copenhagen Accord.

In short, by not being a visible player in international climate negotiations or sharing the burden of climate change, Turkey sets an example for countries that do not want to take the steps necessary to tackle climate change. Turkey did not assume any of the responsibilities featured on the Annex-I list – namely, the “special circumstances” – which were accepted in the summit in Marrakech and re-referenced at almost every meeting. Without assuming any of these responsibilities, however, Turkey wants to be a beneficiary in fields such as financing and technology. Turkey has been

mentioning its need for access to “current and future technology and finance mechanisms under the Convention” in formal meetings.¹

As an Annex-I country, Turkey has annually submitted its National Inventory Report to the UNFCCC Secretary since 2006. Although the time intervals for submitting progress reports changed according to each agreement, Turkey did not abide by the deadlines of any of

them. While other Annex-I countries began submitting their reports to the Secretariat in 1994-95, Turkey submitted its first National Communication in 2007, four years after becoming a party in 2004. The second National Communication was prepared and submitted as a fifth National Communication in June 2013.

On a national level, Turkey approved the National Climate Change Strategy in 2010 and prepared its Climate Change Action Plan in 2011. However, the plan has performed very poorly in action.²

Turkey has not put effort into either climate agreements or negotiations within UNFCCC. These examples could be elaborated on in detail, but the critical point lies in understanding the Turkish high carbon paradox, as explained later in the article.

The Climate Scoreboard

The National Inventory Report is an important tool in understanding the country’s climate performance. Turkey has been submitting greenhouse inventories since 2006. In addition to the National Inventory Report, countries submit CRF tables, which provide very detailed emissions indicators. Turkey submitted the latest inventory to the Secretariat of the UNFCCC on 15 April 2014, which included emissions data for the period of 1990 to 2012.

Despite the urgent need for reductions of global emission levels, in 2012, Turkey had increased its greenhouse gases by 3.7 percent compared to 2011, and 133.4

“Turkey’s dismal climate scoreboard is best understood by the economy’s heavy dependence on industries with high carbon emissions.”

1 “Statement of Deputy Minister of Environment and Urbanization during the 18th Session of United Nations Convention on Climate Change Conference of Parties,”

<http://www3.unog.ch/dohaclimatechange/sites/default/files/Revize%20edilmis%20Doha-Konusma-Metni-kalk%C4%B1nma.pdf>

2 Önder Algedik, “Climate Change Action Plan Assessment Report,”

<http://www.onderalgedik.com/turkeys-climate-plan-assessment-report/>

“As a result of relying on carbon-based economic development, Turkey has more energy and carbon-intensive housing.”

percent compared to 1990. The 188.43 million tons of emitted greenhouse gases in 1990 therefore had reached 439.87 million tons in 2012. The main driver of this increase is the energy sector. Contributing substantially to the 133 percent increase, the energy sector shares 70 percent of all emissions. The energy industry emitted 307 percent more in 2012 compared to 1990, and has become the second-biggest emissions source. Agriculture-related emissions remained nearly the same, but the waste sector emitted 273 percent more compared to 1990.

Across these three sectors, the increase in the total amount of emissions is extraordinary. Despite technological developments over the past 22 years, Turkey has not taken advantage of efficiency measures in the industry and energy sectors. In other words, we have to ask ourselves: “Why is Turkey becoming more carbon intensive while the technology provides more service with less energy?” Turkey’s dismal climate scoreboard is best understood by the economy’s heavy dependence on industries with high carbon emissions – what this article terms the “high carbon paradox.” Coal and other fossil fuel usage in residential areas is one such example.

The High Carbon Paradox

A high carbon economy is based on fossil fuel usage. A conventional economy has significant effects on climate change. Scientific research and subsequent international negotiations have initiated policies geared at a new low carbon economy, which led to the de-carbonization of economic activities.

Turkey’s economic policies do not accommodate global climate negotiations, decisions, and agreements. Climate change policies are based on scientific facts provided by the IPCC, as well as on other political interests and social dynamics. All these parameters and related sub-parameters create a very complicated base for negotiations.

Turkey’s economic strategy has always revolved around fossil fuel consumption for national development. This is because the old development paradigm, based on the measurement of “pollution rights,” is still applicable. As early as the 1970s, “sustainability” was used to describe an economy “in equilibrium with basic ecological

support systems.”³ In the Turkish context, however, the term “sustainability” covers only the economy. Consequently, neither the German energy transition program of “*Energiewende*” nor the Bangladesh’s green jobs development plan can be viewed in the Turkish context.⁴

The existing high carbon policies accelerate urban transformation, energy investments, and multi-billion-dollar infrastructure investments, such as the third bridge on the Bosphorus and the Northern Marmara Motorway, etc. The common point of all these investments is that they trigger high fossil fuel usage. In the conventional world, a high carbon economy translates into high fossil fuel usage, increasing costs and the risks of exacerbating climate change. Currently, Turkey is considering levying taxes on burned fossil fuel.

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The Golden Age of Coal

During the 1990s, air pollution was a major problem in all urban cities. The quality and quantity of coal usage in houses was one of the serious debates of urban life. It was decided to replace coal with natural gas, and city infrastructures began to be transformed by this new fuel investment. Apartment buildings removed old coal boilers and installed natural gas burners.

These policies were supported with new natural gas agreements that were forged mainly with Russia. Over 10 years, despite the dramatic increase of natural gas usage, emissions from residential coal usage dropped by 50 percent and the total greenhouse gas emissions remained almost the same. After reaching minimum consumption levels by 2001, the trend changed completely and residential coal usage began to increase. In 2006, carbon dioxide (CO₂) emissions doubled compared to 2001 and almost equaled level of emissions in 1994.

In 2005, due to legislative changes, royalty tenders became applicable for coal reserves. Cheap labor, and low health and safety measures of royalty holders,

3 Robert Stivers, *The Sustainable Society: Ethics and Economic Growth* (Philadelphia: Westminster Press, 1976).

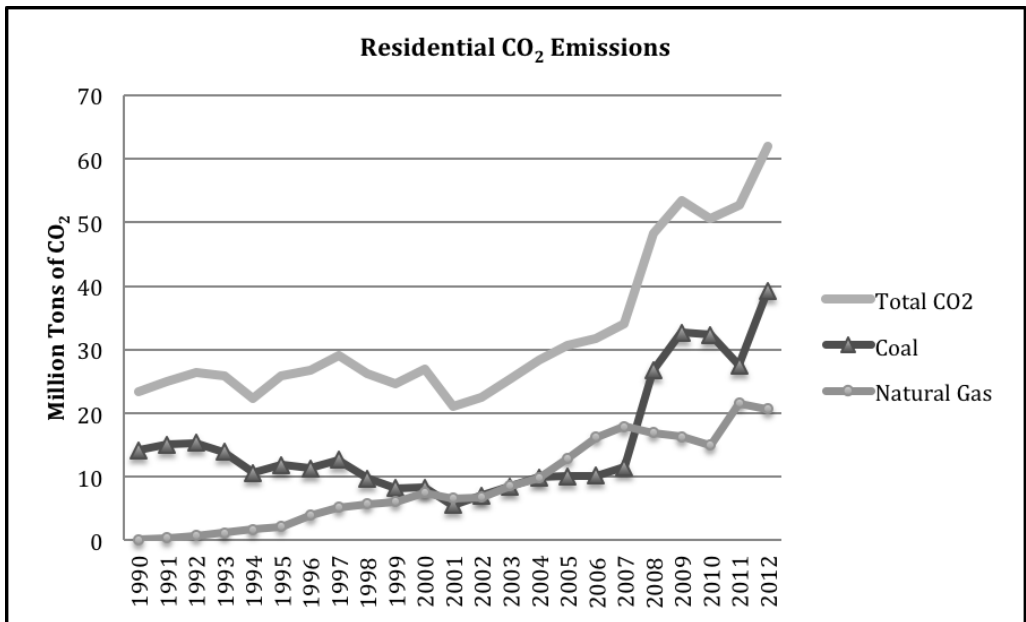
4 “Why Green Jobs Are Booming in Bangladesh,” *The Atlantic*, 12 May 2014,

<http://www.theatlantic.com/technology/archive/2014/05/why-a-green-jobs-boom-is-under-way-in-bangladesh/362087/>

allowed for high volumes of coal to be produced at low costs, which stimulated coal consumption. On the other hand, the natural gas unit price for end users rocketed from 0.39 Turkish lira in 2005 to 1.02 Turkish lira in 2009.⁵ During this period, people started to replace their new gas burners with their old coal stoves. Apart from these economic drivers, secondary regulations were amended. The amendment of the Condominium Law on 2 May 2005 provided the opportunity to easily replace existing central heating systems for inefficient ones in homes. Therefore, the cheap coal market, coupled with increasing natural gas prices and inefficient heating systems, resulted in higher coal consumption in the residential sector. CO₂ emissions from burning coal in the residential sector reached 39.1 million tons by 2012, a figure much higher than the 14.1 million tons produced in 1990 and the 5.5 million tons in 2001.

These factors only partly explain the sharp increase in residential greenhouse emissions after 2001. Other policies also changed after 2001, which contributed to the increase in total emissions.

Figure 1: Residential fossil fuel usage-related carbon dioxide emissions (excluding petroleum) between 1990 and 2012



Source: data taken from the submitted inventory of Turkey

⁵ Taner Yıldız, *Ministry Of Energy and Natural Resources*, 9 May 2012, <http://www2.tbmm.gov.tr/d24/7/7-6098c.pdf>

The Construction Boom

Residential sector emissions increased linearly between 2001 and 2006. This trend steepened after 2007. A new wave of urbanization, including the construction of high-end residential complexes, stimulated higher energy consumption. Existing old houses were demolished and large “residences” and commercial buildings were constructed. The common point of these new buildings is that they all offer luxury with high energy bills, in accordance with the high carbon development paradox.

Between 1990 and 2001, coal usage was substituted with natural gas and while coal consumption decreased, natural gas consumption increased. During that period, the total residential CO₂ emissions remained close to average for the same period. After 2001, natural gas consumption continued to increase, while coal usage increased in parallel with the total residential energy usage. In addition to the fuel switch, a new market standard for buildings impacted the total energy bill, as well as CO₂ emissions. Consequently, residential CO₂ emissions reached 62 million tons, an almost three-fold increase from the 1990-2001 average.

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As a result of relying on carbon-based economic development, Turkey has more energy and carbon-intensive housing. This might be a very strong economic tool for development considering the taxes collected. On the other hand, climate change is important for our daily life and cannot be ignored.

Climate Anomalies

Global climate change poses significant risks to Turkey at the local level, similar to elsewhere in the world. In particular, existing levels of climatic variability and irregularity continue to be a top concern. Sudden rain and flood disasters, extreme heat waves, and increases in the frequency of other extreme weather conditions have become commonplace. The temperatures presented in the “Evaluation of Climatic Data” reports prepared by the General Directorate of Meteorology in 2010, 2012, and 2013 give a series of indications that Turkey has been impacted by this ongoing problem. The report suggests that 2010 was 2.38°C warmer than the average temperature between 1970 and 2000, which was 12.81°C. The report indicates that

the years 2010, 2012, and 2013 have been among the hottest years. In 2010, long-term extreme maximum temperatures were observed in six stations, new extreme maximum temperatures were observed in 14 stations, and an extreme minimum temperature was recorded at one station.⁶ During 2012, 31 stations broke their own maximum temperature records. Furthermore, during 2012, 66 centers experienced a total of 166 heat waves and five or more days when the average daily temperatures were 5°C more than the average maximum temperatures.⁷

Figure 2: Hottest 5 years in Turkey and temperature differences from the 1970-2000 average, 12.81°C

Rank	Year	Avg. Temperature	Difference
1	2010	15.20°C	2.39°C
2	2001	14.22°C	1.41°C
3	2012	14.20°C	1.39°C
4	2013	14.10°C	1.29°C
5	1999	14.10°C	1.29°C

Apart from extreme temperatures, Turkey is facing the hazards of floods and droughts. Turkey has been suffering from a drought since late last year, which has not only impacted water reservoirs, but has also resulted in major losses for agricultural producers nationwide, drastically driving up the costs of a variety of agricultural products. Despite such a severe drought, periods of heavy rain and sudden, rain-induced floods hit cities in Summer 2014, affecting major infrastructures including roadways; intersections, for example, were submerged under water.

Climate Negotiations Without Turkey

As 2010 was the hottest year recorded for Turkey, global surface temperatures in 2010 tied 2005 as the warmest on record, according to an analysis by researchers at NASA's Goddard Institute for Space Studies.⁸ Climate change is not limited to global temperature increases. Extreme weather and climate events threaten lives as well as economic sectors. Concentrations of one of the main greenhouse gases, CO₂, reached the safe limit of 350 parts per million by 1988 and is now at 401.14 as of June 2014.⁹ It is scientifically clear that greenhouse gases emitted into

6 "Evaluation of Climate Data - 2010," *General Directorate of Meteorology*, January 2011, p. 7.

7 "Evaluation of Climate Data - 2012," *General Directorate of Meteorology*, February 2013, p. 1.

8 "NASA Research Finds 2010 Tied for Warmest Year on Record," *NASA*, 1 November 2011,

<http://www.nasa.gov/topics/earth/features/2010-warmest-year.html>

9 "Trends in Atmospheric Carbon Dioxide," *Earth System Research Laboratory*, <http://www.esrl.noaa.gov/gmd/ccgg/trends/>

the atmosphere should be reduced, and zero-carbon economies should be established to conform to 2050 projections. Such global action requires ambitious and legally-binding actions towards reductions, which are supposed to be formulated by the Conference of Parties in 2015 in Paris. Success of the new agreement will accelerate competition in low-carbon economies, which will lead to the de-carbonization of economic activity.

The Turkish high carbon paradox is one of the many obstacles in tackling climate change. First, with its remarkable economic size, Turkey will carry on its carbon-based economic measures that will de-motivate other carbon-intense economies in negotiations. Second, Turkey is proud of its economic development and has been spreading it as a success story. Third, current global policies need good examples, measures, and success stories.

There is ongoing tension between low carbon policies and scientifically advised actions. The global negotiations table consists of governments, scientific bodies, civil society organizations, businesses, and municipalities. Time is running out as we are approaching the Paris Summit and the dangerous 450 part per million CO₂ concentrations. Turkey cannot think of the world economy without its own involvement in it, but is comfortable with climate policies being formed without its full participation. The cost of having a carbon-intense economy is very concrete. For this reason, Turkey needs to adopt low carbon policies, and the world needs Turkey's participation for the success of the ambitious and legally binding global climate agreement.