Framing Climate Change Discourse in Turkish Media

by

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ABSTRACT

The public understanding and policy agendas about the climate change issue have been influenced by the media, one of the most dominant industries in the 21st century. Decades of research have been conducted in media analysis to understand how the media shapes public engagement and policy agendas about the climate change phenomenon. The news media frames create the awareness of issues linked to climate change, and therefore, have a significant influence on the public understanding and engagement for collective actions on adaptation and mitigation policies. This study investigates climate change frames in the Turkish media with applying a quantitative and qualitative content analysis in the years between 2009 and 2015. Based on newspaper content analysis, Benford and Snow's notion of the core framing tasks is used to deeply analyze the Turkish media discourse on climate change issues (Benford & Snow, 2000; Snow & Benford, 1988). I coded 332 articles extracted from three mainstream newspapers in Turkey: *Cumhuriyet, HaberTürk,* and *Hürriyet.* I use a holistic approach to address climate change to identify predominant media core framing tasks and detect the relevant categories in order to extend the concept of these prevailing frames.

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CHAPTER 1   INTRODUCTION

Anthropogenic climate change (CC, hereafter) is seen as a top threat to the world today. According to the Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report, human influence on climate change has been evident since 1950, and the recent amount of the greenhouse gas emissions is the highest in the history. The IPCC reports have observed the warming of the atmosphere and oceans, significant amounts of melting snow and ice, and the rising sea level as "unequivocal." Therefore, the warming effects of CC have had a major impact on human and natural systems alike (IPCC, 2014).

In terms of news reporting for CC, filters or frames offer processes of selection, emphasis, and salience (Entman, 1993), which affect the perceptual contexts in the public agenda. The news media, a primary source of public knowledge, can strongly influence the peoples' understanding of any issue and might encourage them to engage in actions that ultimately influence decision-making processes when reporters employ framing in their articles. The media, thus, has a significant role in raising public awareness to understand and interpret CC, and has an important influence on actions to engage individuals in any decision making process (Arlt, Hoppe, & Wolling, 2011; Carvalho, 2010; Ford & King, 2015; Sampei & Aoyagi-Usui, 2009; Schmidt, Ivanova, & Schäfer, 2013). However, analyses of the representations of CC in news media can be advanced by including new countries, specifically non-English media sources and developing countries, by exploring these discourses in a wider range of national contexts. At this point, there is substantial literature on how the CC issue is framed and presented in the media of developed countries (Chetty, Devadas, & Fleming, 2015; Ford & King, 2015; Nisbet, 2009; O'Neill, Williams, Kurz, Wiersma, & Boykoff, 2015); there is far less attention given to media coverage of CC in developing countries (Agwu & Amu, 2015; Gkiouzepas & Botetzagias, 2015; Takahashi, 2011; Uzelgun & Castro, 2015).

Turkey is an example of a developing country that has received little attention towards media representation of CC discourse. An awareness of environmental issues in the press, specifically CC, starts with the discussion of Turkey's position and role on international climate negotiations because national and regional conflicts have dominated the Turkish media agenda due to the ethnic, economic, and political problems. Although the Turkish government has agreed to adopt

the United Nations Framework Convention on Climate Change (UNFCCC) as an industrializing country in the 21st century, the nation's output of greenhouse gasses continues to increase. The only national commitment the Turkish government has is the Intended Nationally Determined Contribution (INDC), which was submitted to UNFCCC in Paris in 2015. However, there is still not an implemented commitment to adopt climate change policy for the country. The absence of political response makes Turkey the only developing country that appears in the Annex-I list of the UNFCCC by recognizing its "special circumstances" (Apak & Atay, 2013; Telli, Voyvoda, & Yeldan, 2008). Annex-I countries are obligated to take steps to reduce greenhouse gas emissions (GHGs, hereafter), reporting the measures they use for mitigating climate change, and collecting data about GHGs. This list includes two types of countries. The first category is OECD countries as of 1992, and most commonly developed countries. The second includes those countries which try to develop their economies; mostly these countries are called developing countries. Turkey is a member of OECD and the only one that has an economy in transition. Therefore, the phrase, "special circumstances," means that Turkey has a situation different from other Annex-I countries regarding development stage in its economy and other aspects. This phrase also refers to limitation obligations that are still not a subject for the country. Consequently, the country became involved as a party to the Kyoto Protocol in 2009 because of intense pressure from international environmental organizations and the European Union (Erdogdu, 2010).

To explore Turkish CC media discourse, I extend and reconstruct Benford and Snow's core framing tasks that focus on social interactions for collective action problems. In this thesis, I analyze the Turkish media framing of CC discourse ranging over various specific interpretations of different agencies and organizations, as well as individuals and the public sphere.

This thesis examines the framing used in three major Turkish newspapers. In Chapter 2, I review the literature regarding the media framing of CC by providing both framing theory itself and empirical media framing approaches used in several countries. In Chapter 3, I analyze the historical background of Turkish CC discourse to understand Turkey's role in and action on CC for its national and international context. Also, I present data on CC in Turkey along with three research questions. In Chapter 4, I present a methodology to define a strategy for media analysis regarding the representation of CC framing techniques in Turkish newspapers. In the next

chapter, I discuss the results of the media framing of CC discourse. I use an integrated approach to articulate CC issues in the news for the analysis of the Turkish frame-build approach that illustrates the national media's articulation of the causes and the solutions in climate actions. Lastly, in Chapter 6, I discuss and conclude my findings along with reflections on the distinct features of Turkey's politics, economy, and culture as it pertains to the media analysis of CC.

CHAPTER 2   LITERATURE REVIEW

2.1 Framing an Issue in Reality

As borrowed from Goffman (1974, p.21), the term "frame" refers to "schemata of interpretation" that affects indivuduals' attempts "to locate, perceive, identify, and label" occurrences within their life space and the world as a whole (Snow, Rochford, Worden, & Benford, 1986, p. 464). This concept of frames provides different aspects and various perspectives on reality with the understanding of distinct issues, and these frames thus give the meaning and insights to the world about particular issues as these frames organize knowledge into symbolic categories (Nisbet, 2009; Reese, 2001). "Just like windows on houses," frame patterns can alter "what people are able to see and, how they make sense of it" (Bowe, Oshita, Terracina-Hartman, & Chao, 2014, p. 158). In such alterations as Nisbet states, "Framing is an unavoidable reality of the communication process, especially as applied to public affairs and policy. There is no such thing as unframed information, and most successful communicators are adept at framing, whether using frames intentionally or intuitively" (Nisbet, 2009, p. 15).

Framing is a crucial aspect in the public realization of an issue in terms of where people obtain information. Flows of information such as ideas, thoughts, and images are framed to lead to the construction of social realities for the understanding of existing values and norms regarding an issue as that issue becomes complicated (Boenker, 2012) or is already complex to solve. The use of different frames is dependent upon various subjectivities, and this use links to experience-observation loaded in the memory of individuals (Slovic, Finucane, Peters, & MacGregor, 2002). These particular framing approaches can significantly influence how the people portray the problem, who or what the people perceive "as being responsible for the problem, and what they feel should be done to address the problem" (Swain, 2012, p. 165).

Regarding news reporting, framing mainly offers a process of selection and salience (Entman, 1993). Nisbet has the statement of the significance of the media frames to promote to public engagement around CC in interactions with cultural values that build the public perception of complex political debates. A typology of 11 global CC frames designed by Nisbet. There is nine official, and two suggested frames categories in his model. The nine official frames are namely 1) social progress, 2) economic development/ competitiveness, 3) fatalism/ runaway problem 4)

morality/ ethics, 5) Pandora's box/ environmental catastrophe, 6) scientific/ technical (un)certainty, 7) public accountability/ governance, 8) middle way/ alternative path, and 9) strategy/ conflict (Nisbet, 2009).

Other two suggested frames by Nisbet (2009) have been increasingly linked to CC debate in recent years in the US and around the world. The first frame, *national security,* is used to understand global climate change as a threat to public safety. This frame is a key driver to impact public understanding of CC, as well as its significance to framing approaches in the media discourse. Hart et al. (2014) state that "climate change impacts may affect national security by triggering violent conflict in vulnerable regions as a result of competition over scarce resources and population displacement, and that policies addressing global climate change serve a national security function…" (Hart & Feldman, 2014, p. 331). However, a recent study suggests that this approach can be a premature discussion because there are individuals who are already being doubtful about the issue of CC (Myers, Nisbet, Maibach, & Leiserowitz, 2012). The *public health,* the second suggested frame, refers to region-specific environmental influences such as air pollution and asthma, also some global impacts, like property destruction by extreme weather, water shortages, starvation, and agricultural failures (Nisbet, 2009). This approach reflects locally public involvement to the issue of CC. This local-level participation can "help make climate change seem more personally concerning and thereby increase its perceived threat" (Hart & Feldman, 2014, p. 331) in the public sphere. In other words, a specific frame such as threats to public health or national security may lead policymakers to react to any natural disaster as an urgent response regarding providing essential supplies like food and clean water. Also, this tendency may construct a specific position to compel individuals engaging in CC debates for political respond (Swain, 2012).

However, the existing frame typologies "are limited by their inability to link framing processes with movement action" or to mobilize collective action. A potential solution to this limitation would be a demand for collective action or consciousness on CC issues. Therefore, "it is necessary to supplement the social movement focus on resource mobilization to framing processes of collective action" (Alashri, Tsai, Alzahrani, Corman, & Davulcu, 2016, p. 278). For this reason, a methodology derived from Snow and Benford's core framing tasks is applied to

analyze the Turkish CC discourse in the media (Benford & Snow, 2000; Snow & Benford, 1988).

In the theoretical approach, the core framing tasks include four interrelated elements of the framing process to employ a holistic approach to a specific problem: 1) causes, 2) consequences, 3) responsibility, and 4) solutions/actions.

When Snow and Benford (1988) explain their framing categories with respect to problem identification in the case of the peace movement, they attempt to portray the nuclear threat to determine a variety of the factors as "causes" of this threat. They indicate at least four distinctive sets of causal factors as 'the most salient cause of the nuclear threat:" a) technological, b) political, c) economic, and d) moral. They found that the nuclear threat has been seen as primarily a consequence of technological developments that refers nuclear weapons "as representing the culmination of the Enlightenment and the industrial revolution and therefore as manifestations of our species' attempt to understand, harness, and overcome the forces of nature." Also, political factors in this process represent the most salient as like technological factors. For example, the struggles for global hegemony between the United Sates and the Soviet Union has been seen as the main impetus of the nuclear threat (p. 200).

The problem identification for the causal factors of any problem thus focuses on blame or responsibility to find the boundaries between "good" and "bad" for who are responsible for the problem (Benford & Snow, 2000; Lefsrud & Meyer, 2012; Snow & Benford, 1988). In the case of the peace movement, some blame that our present lack of understanding of technology has created a Frankenstein analogy referring a nuclear monster for its creators. Others blame the faith that relates to an overly optimistic approach in the capacity of science to social and political problems (Snow & Benford, 1988, p. 200). Also, this process would work on the identification of identities and roles in the four interrelated elements of the framing process, such as "the victims, villains and heroes, and the advocates who are entitled to speak on behalf of others" (Lefsrud & Meyer, 2012, p. 1480).

Therefore, a variety of general and specific factors in this peace movement represents the single most significant cause of the threat, and these factors have implications to lead to solutions for collective actions (Snow & Benford, 1988). On these perspectives, Snow and Benford (1988)

found that the people who blame technology as the main cause of the nuclear threat refer to technology as their solution. As an extreme view, for example, some propose a rejection of technological advancement and return to nature such as rural communal living. For a political solution, those who see the political factors as the cause of the nuclear threat suggest the proposals of an establishment of "world federalism, strengthening international institutions, challenging the legality of nuclear weapons in the World Court, and so forth" (p. 201).

Lastly, it is significant to employ "the task of convincing particular participants of both the need for and the utility of becoming active in the cause." This process for the solution is based upon "the generation of selective incentives" for participation as these incentives specifically highlight "material, status, solidarity, and moral inducements" for collective consciousness. In the case of the peace movement, the call for action is framed as a moral consideration with providing the causes of the nuclear problem confronting humankind and the proposals for the solutions of the threat. However, the cause and the solution framing to a particular problem may not directly influence the form of the collective action (Snow & Benford, 1988, p. 202).

Although this process creates an intercorrelated approach to seek the ultimate solutions for long-term performance, there are still the framework of strategical contradictions, tensions, and paradoxes that could be asserted for consideration, specifically between the claims of selected tensions which are elements that refer to inconsistent and even absurd when juxtaposed and responses that embrace tensions simultaneously (Smith & Lewis, 2011, p. 382). While proposing two cognitive frames for corporate sustainability, Hahn et al. (2015) discussed a "paradoxical frame" reflecting decision makers' assumptions who could eliminate and resonate these tensions regarding the solutions for corporate sustainability. By using paradoxical thinking which is structurally complex, contently a combination of multiple attributes with different rationales, and implicitly address multiple concerns at organizational and societal levels, they stated, "managers accept tensions and accommodate conflicting yet interrelated economic, environmental, and social concerns, rather than eliminate them" (Hahn, Preuss, Pinkse, & Figge, 2015, pp. 466–467). However, managers accept concerns but rarely push the agenda when they come across more complex and ambitious problems (Hahn et al., 2015). Paradox frames for the Turkish case thus represent a similar approach to material mentioned above. Specifically, the reporters integrate this approach in their articles with posing specific questions to reflect paradoxical

thinking regarding organizational and societal levels. This method is called "paradox frame" that emerged in this study and has not been seen in other countries' media yet.

In sum, the journalist can play a critical role in presenting information on the reporting of any problem. This role of journalists in reporting is the way that the mediated information, implicitly or explicitly, appears to reflect an open discussion, related processes of thoughts, and ideas of the problem (Boykoff & Smith, 2010). From these views, it is notable to state that journalists use frames to craft appealing news reports, and policymakers apply frames to contribute broad solutions to the particular problem while audiences need frames to understand and discuss an issue (Nisbet, 2009, pp. 15–16).

2.2 Framing Climate Change in the News Media

Most people do not read scientific findings such as articles or reports about CC. Rather, they prefer to obtain their knowledge from mass media, including TV, newspapers, internet sources, magazines, or radio channels (Boykoff & Yulsman, 2013; Ford & King, 2015; Sampei & Aoyagi-Usui, 2009). For instance, one US poll that asked "where did you get your news yesterday" found that television (57%) and daily newspapers (40%) are the most important fundamental sources of information (Boykoff & Roberts, 2007). The news media as a primary source of public knowledge and political agenda can thus strongly influence the public understanding of and engagement in a decision-making process for a problem.

A recent study indicates that framing CC has important influences on how people understand that phenomenon for particular subjects (such as the public health, the national security, the environmental risks, and the benefits of mitigation and adaptation actions) and their responses relative to direct and underlying messages (Myers et al., 2012). The media has locally and internationally a significant influence on the public understanding of and engagement in CC actions for the process of mitigation and adaptation policies (Schuldt & Roh, 2014). This influence specifies climate actions due to perceived costs, benefits, and consequences for CC issues such as greenhouse gas emissions. Therefore, journalists can highlight any one or the combination of such frames in their reporting (Hart & Feldman, 2014).

The significance of media frames in an another perspective promotes the public engagement in interactions with cultural values that shape the public perception of complex political debates (Nisbet & Scheufele, 2009, p. 16). For instance, the uncertainty and complexity of the CC science-related subjects have shaped the media framing in the US since the 1980s, and has created a tendency toward the adoption of various terminologies (such as public health or national security) in media framing, particularly in the most carbon-dependent countries (Boykoff & Boykoff, 2004; Nisbet, 2009). This tendency might preclude speculation of certain climate action strategies that can serve as a decelerator, not a solution, but very contentious and more prevalent until building a reasonable agreement.

Various quantitative and qualitative analyses of media coverage of CC issues have been conducted by researchers. Some have focused on the reasons behind the media attention (Brossard, Shanahan, & McComas, 2004) whereas others have demonstrated the rise and fall of media attention (Carvalho & Burgess, 2005; Ungar, 1992, 2014). Some research has investigated journalistic norms and the factors that influence media coverage of climate change (Boykoff & Boykoff, 2004; Boykoff & Roberts, 2007).

Previous studies have looked intensively at how climate change has been framed in the print media of developed countries (Boykoff, 2007, 2008; Boykoff & Boykoff, 2004; Brossard et al., 2004; Carvalho, 2007; Chetty et al., 2015; de Blasio & Sorice, 2013; Ford & King, 2015; Hart & Feldman, 2014; Sampei & Aoyagi-Usui, 2009) whereas there is less attention to media framing of climate change in developing countries (Agwu & Amu, 2015; Gkiouzepas & Botetzagias, 2015; Shanahan, 2009; Takahashi, 2011), including Turkey (Uzelgun & Castro, 2014, 2015).

There are significant differences in newspaper coverage of climate change between countries in these studies. For example, in the US press, the media has framed climate change to emphasize scientific controversy while newspapers in Germany have given a frame of international relations or international politics (Boykoff & Boykoff, 2004; Brossard et al., 2004). As an example of framing climate change in developing countries, the media has mainly portrayed *the scenario* (blame) frame in Southern Nigeria as the relation to factors like blaming the developed countries for CC issues; also action/strategies is the most second prominent frame in this country (Agwu & Amu, 2015). These differences reflect that a particular frame can be varied due to political,

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economic, and cultural contexts of news in these developing and developed countries, and journalistic norms surrounding "objectivity" can play a role in the media framing of CC (Chetty et al., 2015).

All these particular studies reflect the different characteristics of framing processes to conclude what Brossard et al. pointed out in discussing the three conventional approaches to CC:

> First, it is a scientific issue, and science is an international enterprise in which norms and values are often seen as crossing national barriers, yet public attitudes toward science and the environment may be drastically different across countries. Second, global warming is also a political issue, and journalistic practices are likely to vary between countries whose political cultures and agendas also differ. Finally, climate change is an example par excellence of an issue that affects all countries and cultures equally. (Brossard et al., 2004, pp. 360, 361)

The previous study of coverage in Turkish newspapers illustrates that there have largely been two main framing categories (economic/political and ecological/meteorological), as in the UK tabloid press analyzed by Boykoff (2008). Furthermore, the "skeptical" frame, regarding the contentious issue between CC and scientific knowledge, has been almost nonexistent (Uzelgun & Castro, 2014, 2015).

There are some limitations to media analysis of CC discourse in Turkey. Firstly, these studies analyzed by Uzelgun and Castro are almost the only research about the media coverage of CC in Turkish media. Secondly, the study of Uzelgun et al. (2015), for example, was based on a sample drawn from the 13-year coverage between 1997 and 2009. Unfortunately, this research was not primarily only focusing on the framing of the CC issue in this period. Instead, the media attention (issue-attention) and the meaning dimensions (global warming vs. climate change) and the voice of science on CC (Uzelgun & Castro, 2014) were presented more than an analysis of the framing CC. This non-primary focus on the framing approach might be explained in that the public and the media agenda give little attention to CC discourse due to other political, economic and cultural conflicts such as terror events and poverty in Turkey (Şen, 2013). Finally, the findings in the previous studies potentially limited by the fact that news stories produced by journalists and editors in the newspapers analyzed are not wholly comparable regarding framing

categories due to the existence of other newspapers in Turkey, which presents distinct political inclination to the public, as well as different cultural contexts. Although there are some publications based on various political and cultural contexts, this study is limited to investigating only two newspapers, *Zaman* and *Hürriyet*. Moreover, the current understanding of climate change in the Turkish press is constrained by the work that is based on coverage in *Zaman* and *Hürriyet* published before 2009 (the year that the Kyoto Protocol signed by the Turkish government). Finally, it is worthwhile noting that control of *Zaman* newspapers was seized by the government due to a political conflict in Turkey at the time of my research for this thesis. This seizure affected the data about CC news because its access to news prior to 2015 through its online search engine was no longer available, so, I had to pick up another newspaper instead.

From these viewpoints, as Alashri et al. stated, existing frame typologies "are limited by their inability to link framing processes with movement interaction" (Alashri et al., 2016, p. 278). The current frame categories thus need to be extended that would lead the individuals, direct or indirectly, raise their voices and\or act on or respond to CC in terms of their understanding and perception of the issue, or vice versa. Journalists have a vital role of framing CC issue in their news articles to extend public knowledge, that might help to increase the individuals' interest to engage.

On the above media material, I constructed frames, explicitly applied and designed to analyze the Turkish CC discourse in the media, with a methodology derived from Snow and Benford's notion of core framing tasks (Benford & Snow, 2000; Snow & Benford, 1988). Diagnostic, prognostic, motivational, and paradox frames were applied to this research of frame types by using the redesigning technique for "interpretive" method. Firstly, diagnostic frames are a core framing method referred to as "interpretive frames" used to answer the question of 'What is going on?' or 'What does that mean?' (Snow, 2008, p. 4). Benford and Snow defined these frames as the identification of the source(s) of causality, blame, and/or culpable agents and the focus on blame or responsibility (Benford & Snow, 2000, p. 616). Thus, this attributional component of diagnostic frames suggests an agreement that CC is identified as the problem; the attributional component then focuses on the source of the problem that human activities or other causes. As a quantitative study found, the diagnostic frames focus on the blame for causes and stress the CC impacts on the planet, as well as on societies (Alashri et al., 2016).

As the second core framing task, the purpose of prognostic frames is to "identify strategies, tactics, and targets" to the problem (Snow & Benford, 1988, p. 201). Prognostic frames refer to the question of what is to be done, addressing "the articulation of a proposed solution to the problem, or at least a plan of attack, and the strategies for carrying out the plan" (Benford & Snow, 2000, p. 616). Therefore, a prognostic frame "prescribes particular solutions" regarding CC (Lefsrud & Meyer, 2012, p. 1484). This frame-type does not have to follow the diagnostic frame to be a proposed solution itself; however, there might be a direct correspondence between them (Snow & Benford, 1988).

The third core framing task, motivational framing, involves presenting a rationale for action and call to arms: "ameliorative collective action, including the construction of appropriate vocabularies of motive," such as "severity, urgency, efficiency, and propriety" (Benford & Snow, 2000, p. 617). Moreover, this motivational frame, which addresses the question of "why climate change issue and corresponding search for solutions are important" (Yun, Ku, Park, & Han, 2012, p. 211), goes beyond diagnostic and prognostic statements in order to state what actions should be employed and "why policy actors and citizens should act upon" CC (Alashri et al., 2016, p. 281). However, the diagnostic and prognostic frames to a particular CC problem may not directly affect and follow the form of collective action (Snow & Benford, 1988).

The last finding is of a climate change frame-type that emerged in Turkish media discourse that has not been present in previous studies of media discourse of CC analyses. We have termed these "paradox frames," which are shown in Chapter 5. They refer to the keywords and phrases like "conflict," "dilemma," "contradiction," "not make sense," or "paradox," and mostly pose a rhetorical question to audiences in the content of the articles. It is important to note that framing the skeptical approach of CC in western countries' news media should not be confused with this frame-type, since this frame-type presents a paradox between the current scientific findings imply, and the political, social, and economic responses to CC provided.

Using the core framing tasks provided the confidence to understand CC problems as a platform for social actions or social movements. My paper examining the Turkish case focused on the extraction of CC frames that thus provide a holistic method rather than a fragmentary map or dichotomous categories.

CHAPTER 3   BACKGROUND AND RESEARCH QUESTIONS

3.1 Background on Turkey's Climate Change Discourse

3.1.1 A Brief Historical Context

In the 1990s, the causes and adverse impacts of climate change were discussed by many scholars, as well as international organizations such as the United Nations. These discussions have been formalized through binding agreements and intergovernmental actions such as UN Conferences on Environment and Development, the inaugural one of which was held in Rio de Janeiro in 1992. This first attempt was to conduct international-level discussions on greenhouse gasses and global warming to formulate the UNFCCC, based on voluntary participation to establish the Earth's climate system (Erdogdu, 2010). The history of Turkey's efforts to regulate CC emerged within this first negotiation, leading Turkey be listed in both Annex I (countries that have to take steps to reduce emissions) and Annex II (countries that have to take measures to provide financial and technical assistance to developing countries) of the UNFCCC (Erdogdu, 2010, p.1114), but without "emissions reduction commitments" (Kaygusuz, 2009, p. 1678). Despite this dual position, Turkey, being a member of OECD (Organization for Economic Co-operation and Development), stipulated the condition for leaving Annex II to be a party to the UNFCCC (Duru, 2001; Turhan, Mazlum, Şahin, Şorman, & Gündoğan, 2016). During the 7th Conference of the Parties held in Marrakech in 2001, Turkey's condition was recognized under "special circumstances" as an Annex I country and granted its omission from Annex II (Telli et al., 2008).

However, Turkey did not ratify the UNFCCC until 2004. Even though Turkey has followed international climate change politics since their beginning, 2004 would be the start date for Turkish climate change policy. Due to "national developmental aspirations," the government also took the defensive position that Turkey has the right to develop by applying the old traditional development methods such as using coal as the cheapest and most prominent domestic energy resource. As a candidate country to European Union (EU), Turkey finally ratified the Kyoto Protocol in 2009. After signing the Kyoto Protocol, the post-Kyoto agenda motivated the country to have a national climate policy. With this motivation, Turkey set and provided a national strategy (Turkish National Strategy for Climate Change 2010-2020) that

described the Turkish climate policy visions and goals in order to prepare the CC action plan. The plan enlists missions, visions, and core values and principles for the goals "of contributing to the global efforts against CC within its own capabilities and in line with the basic principles of the UNFCCC 'common but differentiated responsibilities', and also presents its national mitigation, adaptation technology, finance and capacity building policies" (MOEF, 2010, p. 6) as largely being a visionary and descriptive statement.

In 2012, a strategic follow-up plan was prepared under the name of the National Climate Change Action Plan by the Ministry of Environment and Urbanization, which laid down the Turkey's strategic targets within the scope of basic principles for the implementation of the National Climate Change Strategy. According to the terms used, "Turkey's national vision within the scope of 'climate change' is to become a country fully integrating climate change-related objectives into its development policies, disseminating energy efficiency, increasing the use of clean and renewable energy resources, actively participating in the efforts for tackling climate change within its 'special circumstances', and providing its citizens with a high quality life and welfare with low-carbon intensity" (MOEU, 2012a, p. 9).

The plan had sets of objectives that highlighted the purposes for each sector and was stated in both Annex-A of the Kyoto Protocol and the UNFCCC National Communication and included all targets for CC. These areas included industry, building, transportation, waste, agriculture, forestry, and land use. These objectives and purposes were assigned to each sector in order to "set a limited number of time-bound measurable objectives such as reducing primary energy intensity by 10% from 2008 to 2015 in the energy sector, decreasing energy consumption in the annual energy demand of the new buildings from renewable energy resources by 2017" (Turhan et al., 2016, p. 450) These institutional reporting requirements were significant for Turkey as an OECD member and EU candidate; however, the plan was poor in some directions and for climate action. These weaknesses had to do with the defined targets, which had been illustrated in an indefinite way (Turhan et al., 2016) because an explanatory goal for mitigation and adaptation processes was not placed in the plan for these objectives to be an achieved. Also, all targets that have been illustrated in the plan are non-binding.

Nevertheless, different people and organizations have been active in the decision-making process of CC politics in Turkey. According to Şahin (2014), the actors who may, directly or indirectly, impact the decision-making process in the country consist of three broad categories: a) governmental/state actors, b) non-governmental/state actors, and c) international organizations. For the governmental/state level, he provides public enterprises such as ministries and institutions. There are four ministries which are essential and significant regarding their role and authorization working throughout national and international aspects of CC politics in Turkey: 1) Ministry of Environment and Urbanization, 2) Ministry of Forestry and Water Affairs, 3) Ministry of Development, and 4) Ministry of Foreign Affairs. Firstly, the first ministry is responsible for the coordination of the all and general CC politics appeared in national or international context. The second one is in charge of cohesion policies while the third works on economic policies, development plans, and financial policies to collaborate with CC politics. The last one has the role of the administrative of international CC negotiations. However, regarding the reduction of gas emissions, the first two ministries have a valiant agenda of CC, not defensive but advocates in comparison with others. Secondly, the non-governmental of these actors includes non-governmental organizations (NGOs), the private sector, academia, and media. NGOs are more effective than other non-governmental actors regarding participation in and contribution to the decision-making process and CC politics in Turkey. To increase the public awareness of CC, NGOs are more active in organizing protests/social actions and campaigns. NGOs mostly consist of international and national environmental organizations which have specifically the intellectual scope of green and ecological thoughts such as *Greenpeace Akdeniz* and *Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats (TEMA)*. Thirdly, international organizations which are mostly related to the actors mentioned above, such as United Nations and World Trade Organization (WTO), are significant for adaptation and mitigation processes of CC with considering political, social, cultural, and economic aspects of the country's development stage (p. 64-69).

Turkey has been invested in expanding an energy program based on fossil fuel sources in order to become a developed country. This motivation means that the main source of GHGs is fossil fuels use. GHG emissions in 2013 were 110.4% higher than 1990 levels (Turhan et al., 2016),

and the energy sectors had the highest proportion of GHG emissions in Turkey in 2009 compared to the 1990 level. Emissions from the transportation and manufacturing sectors rose by 80% and 46.8% respectively. "In 2009, electricity generation maintained its overwhelming contribution to GHG emissions. Compared to 2008, the electricity generation rose by 7.08% to reach 44.76 GW [gigawatt]. This value is nearly 2.75-fold of the value in 1990" level (Sözen, Cakir, & Cipil, 2016, p. 907).

By 2012, Turkey had a significant amount of domestic coal reserves, mostly lignite and hard coal reserves (12,152 and 523 million metric tons, respectively) while the recoverable reserves of oil and gas were 310.4 million tons and 7.1 billion cubic meters respectively (Berk & Ediger, 2016, p. 193). According to the Turkish Electricity Transmission Company, coal use for electricity generation in Turkey represented the second place by 29.2% in 2015 (Ozcan, 2016, p. 833), second only to natural gas. The country intends to construct new coal plants by the end of 2019; these plants will annually generate 60 billion kWh of power (MENR, 2015) for social and economic development. Despite ratifying the Kyoto Protocol, Turkey will implement full utilization of domestic coal resources, that will increase the GHG emissions over the next several years. For these reasons, the ambitions in climate politics of Turkey has consistently been decreased until 2014 due to the announcement of new coal plants and the lack of consideration of Turkey's position on EU negotiations (Şahin, 2014).

Consequently, this will present a significant number of challenges to the Turkish government for the next negotiations on CC politics. Efforts towards economic growth will likely preoccupy the Turkish agenda in the future. This new era of developmental aspirations in Turkey translates into a limited focus on mitigation; thus the country has placed its effort in adaptation, capacity building, and finance (Turhan et al., 2016).

3.1.2 Climate Change Impacts in Turkey

Observations indicate that the general effects of CC in Turkey have been increasing because of human-related activities, identified by the recent Assessment Reports of IPCC (Intergovernmental Panel on Climate Change). A significant indication is that Turkey is located in the Mediterranean Basin, which is one of the most sensitive and vulnerable regions to future

climate change effects (IPCC, 2013, 2014). The far-reaching consequences of CC in Turkey over the past 40 years (between 1970 and 2013) are now expressing themselves in the rising temperatures in most parts of Turkey. Recorded summer temperatures during this period have increased more than during the other seasons (Şen, Göktürk, & Bozkurt, 2015). CC projections for Turkey over the next 50 to 70 years are likely to include rising temperatures in the range of 2-5 C° in western Turkey (summer warming will be 3 C° higher than winter warming) and a 24 % decrease in rainfall patterns in southeast Turkey during winter (Önol & Unal, 2014), indicating that Turkey's land might drastically experience drought in some regions in the future. The rates of sea level increase are also expected to rise to between one and three mm/per year (Karaca & Nicholls, 2008).

According to the Ministry of Environment and Urban Planning poll in 2012, there is little interest in taking precautions on climate change, although the level of awareness of Turkish people on climate change is statistically high. While 77% of participants who are Turkish citizens and respondents are aware of CC and its consequences, 32% of these people have adopted no action to restrain their behavior in their daily life. The interesting finding of CC perception is that 39.5% of participants believe that the term CC is about "seasonal variations," followed by the statements of "droughts and weather conditions" by 13.5% and 9.3%, respectively, while 6% of participants believe that climate change is related to the words "global warming." However, the percentage of people who do not have any idea is approximately 13%. Moreover, as another significant finding, the main sources to obtain knowledge about CC for Turkish people are TV programs (46.7%) and TV news (43.9%). Newspapers took fifth place in this survey with approximately 20%. According to this survey, the public knowledge remains low although the public interest in climate change is high (ÇŞB, 2012) but take no action. Another poll conducted in 2012 in Turkey presents that there is a linear relationship between educational level and the awareness of CC. According to this survey, the awareness of CC gets higher level while educational level increases among individuals. The awareness of social and environmental impacts of CC are also higher among the youth, as well as students, and farmers (Yayar, Kaplan, & Şimşek, 2014). As a result of this imbalance between knowledge and interest, the little-localized action is pursued by either businesses or individuals.

The Turkish agenda has been busy by national and regional conflicts due to the ethnic, economic, social, and political problems. Therefore, awareness of environmental issues in Turkey specifically surfaces at the time of international CC negotiations. On this point, Turhan et al. stated that "the ambivalent nature of Turkey's climate policy stemmed mostly from its reactionary character and was shaped in response to international stimuli rather than domestic demands" (Turhan et al., 2016, p. 449). The country became a party to Kyoto Protocol only in 2009 because of intense pressure from international environmental organizations and the European Union (Erdogdu, 2010). The Turkish government is therefore not facing any pressure domestically, except some demonstrations that attract high attention locally because CC actions in civil society which began to show more confidence in 2005. These demonstrations attempt to call public attention to environmental destruction due to the distinct construction zones in some regions. For example, the first movement organized by *Greenpeace Akdeniz* appeared against to *Çan* thermal power plant in 2005. This movement was the first significant attempt to the argument of fossil fuel usage in Turkey. Moreover, the Hurricane Katrina in 2005, the experience of the droughts in Turkish lands between 2006 and 2007, and the ratification of the Kyoto Protocol in 2009 influenced the public attention to the discussion of CC issues in Turkey, as well as the discussion of nuclear power plants. Therefore, the interests in CC regarding national scope have been more vigorous and attractive among NGOs, governmental actors, private sectors, and the media. Specifically, NGOs, industry and governmental actors in Turkey have been divided in the discussions of the Kyoto Protocol. *Union of Chambers and Commodity Exchanges of Turkey* (TOBB) and *Turkish Confederation of Employer Associations* (TİSK), which represent small businesses in the private sector, were against signing the Kyoto Protocol, while the *Turkish Industry and Business Association* (TÜSİAD), which is top business organization and represents significant enterprises in Turkey, advocated to ratify the Protocol. NGOs such as *Greenpeace Akdeniz, 350.org,* and WWF were also the side of the ratification (Şahin, 2014, pp. 62–63).

Turkey's output of greenhouse gasses is steadily increasing, although the Turkish government seems to adopt a climate change policy as an industrializing country in the 21st century. However, both the lack of political response to climate change and national development paradigm in Turkey place the country to appear in the Annex-I list of UNFCCC by recognizing

its "special circumstances" in terms of reducing GHG emissions (Apak & Atay, 2013; Telli et al., 2008; Turhan et al., 2016). This accommodation domestically and internationally lowers the pressures to reduce CC in Turkey with regard to the developmental paradigm of the country.

3.2 Research Questions

This study addresses three major issues to analyze and specify the Turkish media discourse of CC concepts regarding both theoretical and practical concerns:

1. How is climate change represented in the newspaper articles regarding general trends according to the number of the articles in the newspapers, the overall tone of the articles, the geographical scope of each article, and key players who speak for CC?
2. What frames constitute coverage of CC in Turkish media, and how are these frames presented?
3. What issues do the newspapers portray regarding their focus on the significance of CC discourse?

CHAPTER 4   METHOD

4.1 Material and Analysis Period

We conducted a quantitative and qualitative content analysis for this research study. A content analysis of Turkish media was used to contribute to the current knowledge about CC discourse and to determine how the various framing of CC was presented in news reporting in this developing country. Content analysis has been applied as an efficient tool to many previous studies to attain the stipulated research goals. A recent content analysis study of newsprint coverage, for instance, analyzed how the debate around the harms of alcohol consumption to others have been framed. This study illustrated how these frames, which are "known to influence public awareness, attitudes, and behaviors," could increase "public support for policy action on alcohol." This example could be understood "a case study of how the media can play a role in the development of innovative ... policy" (Wood, Patterson, Katikireddi, & Hilton, 2014, p.583).

The purpose of my paper was to investigate how climate change was framed in Turkish mainstream news media between 2009 (when the Kyoto Protocol was ratified) and 2015 (when the first INDC report was submitted for the country). This analysis focused on *Hürriyet* (HR, hereafter), *Cumhuriyet* (CH, hereafter), and *HaberTürk* (HT, hereafter) newspapers due to their political inclination, credibility, and their overall influence on the mainstream readership. *CH* and *HR* are the oldest and respected newspapers among other Turkish newspapers whereas *HT* is one of the newest newspaper and get a notable daily circulation in the short term. These three Turkish daily newspapers were analyzed by considering what kind of content they generate to shape the subject, the trends regarding reports on climate change they include, the actors who speak, the major issues in the contents, and their journalistic stances.

The political inclination of *HR* is viewed as a strong nationalistic, liberal, and secularist newspaper (Media Aid, 2008; Uzelgun & Castro, 2014), while *HT* is a conservative and also nationalist newspaper. Their daily circulations have the largest numbers in general compared with other Turkish newspapers. *HR* has the highest daily circulation while *HT* competes to be first although it has one of the highest daily circulation. The third newspaper is the *CH*, which takes the Kemalist stance, a secular and republican course. With the Kemalist stance, the

newspaper advocates social liberal values and democracy. *CH* which is one of the oldest daily newspapers in Turkey launched in 1924. *CH* has a mission of explaining to its readers the principles of Ataturk (Semetko, 2010, p. 22), and the readers of this newspapers mostly consist of those who tend to advocate *CH*'s mission for the country. Therefore, this newspaper often takes the position of political dissident to the present government, which is the AKP (Justice and Development Party) in Turkey. Conversely, the first two newspapers, *HT* are viewed as the government partisans. *HR* also has a position of political dissident to and a critic of the current administration (Media Aid, 2008). Furthermore, there is a lack of interest in providing an indication of the extent of readership for these three newspapers. Mostly, these three newspapers have been identified with their political inclinations (because it is changeable due to the representation of their political stances of each government) to reflect who would be their readership. This reason generally concluded that the media ownership is characterized by private media groups as typically providing "less diversity in news and information as well as conflicts of interest in displaying a lack of critical reporting on the non-media institutions and organizations owned by media groups" (Semetko, 2010, p. 21).

A keyword search was conducted by using the online search engines of three newspapers' database for "climate change" and "global warming" ("iklim değişikliği" and "küresel ısınma" in Turkish words respectively) between 1 March 2009 and 31 December 2015. Online searchable databases for the content analysis of newspapers started from 1 March – instead of 1 January- due to the fact that *HT* newspaper was established on March 1, 2009 (its first date of publication).

In the selection of the articles, the newspapers' supplements that covered the weekdays and the Saturday and Sunday editions were also included in the analysis of climate change news. The first level of this process obtained 5,780 articles from which approximately a 10% sample was selected for further in-depth analysis by using a random sampling strategy starting with the selection of first article (eighth-article) from *HR* and then selecting every tenth article from each. During the process, I eliminated the articles, not including the words "climate change" or "global warming" in their content (but instead focused on sports or other news blended in the database). This process yielded a data set of 479 articles. Prior to the coding process, the articles in which "climate change" was not the central issue, or which were irrelevant and overlapping articles,

were removed manually as a second selection process. Finally, 332 articles were coded for the period between 2009 and 2015. As engaging with the final data, coding categories were applied and refined using NVivo 11.0 for in-depth frame analysis.

4.2 Coding Categories

The coding categories contain the articles selected and analyzed. Coding included the descriptive variables, frame types, main actors, and issue categories (see Figure 4.1). Each item was manually coded. When an article was contained or mentioned in more than one frame or issue category in their story, it was then coded to the two most important frame types or more than two frame types based on their content in paragraphs, and also coded to issue category (see Stoddart, Haluza-Delay, & Tindall, 2015).

In the first level of research analysis, frames were specifically applied and redesigned for the climate change problem, with the frames types derived from Snow and Benford's notion of the core framing tasks (Benford & Snow, 2000; Snow & Benford, 1988). Thus, the frame types were classified as diagnostic, prognostic, motivational, and paradox frames.

Diagnostic frames analyze the consequences and causes of CC. These frame types focus specifically on how CC affects human society, industries, health, and the environment and who is responsible or should be blamed for the causes of CC (Alashri et al., 2016). At this level, a "diagnostic frame analyzes climate change at the natural science and social science level" (Yun, Ku, Park, & Han, 2012, p.210). From these perspectives, the diagnostic frame was divided into two subcategories: Threats and Causes. Eleven codes, listed as sub-categories, capture the negative consequences for various explanations of "Threats:" 1. Catastrophic Events, 2. Future Impacts (a. Scenarios and b. Possible impacts), 3. Multiple Impacts (Pandemonium), 4. Social Unrest, 5. Public Health, 6. Economic Consequences, 7. Impacts on Species, 8. Water Scarcity (or Water Waste), 9. Food Security, 10. Agricultural Collapse, and 11. Pollution (see Table 4.1).

In "Causes" subcategory, three codes capture the degrees and types of the blame for causing CC: 1. Blame or Responsibility, 2. Insufficient Response, 3. Human Activity (see Table 4.1).
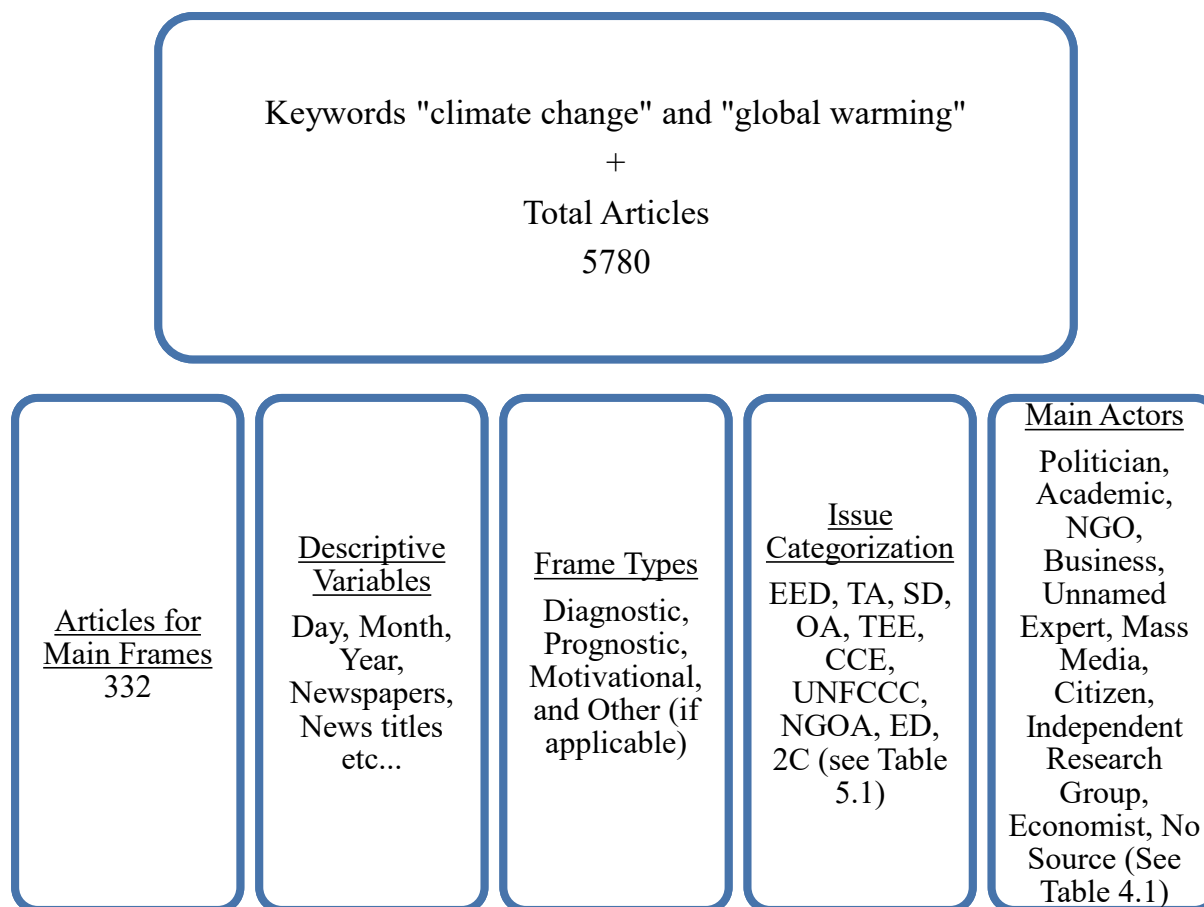
Figure 4.1 Coding Scheme

The prognostic frame "prescribes particular solutions" to CC (Lefsrud & Meyer, 2012), analyzing what must be done or what should be done about issues. Alashri et al., call these frames "solution framing" and state that they focus on "actions taken to prevent further impact of the causes of climate change such as greenhouse gas emissions;" therefore, the prognostic frames emphasize "ongoing measures to deal with existing effects of climate change" (Alashri et al., 2016, p.280). This solution category identifies six codes to be categorized in the Turkish media for responses to both mitigation and adaptation efforts: 1. Educational Frame, 2. Incremental and Small Changes Frame, 3. Technological and Renewable Energy Frame, 4. Creation or Implementation of Policy or Programs Frame, 5. Transformational Frame (a. Cultural, b. Social, c. Economic, d. Political, e. Revolutionary or Radical), 6. Strategical and Technical Solution Frame (a. Investment, b. Infrastructure and Transportation, c. Conservation, d. Targets) (see Table 4.1).

The prognostic frames were also classified as mitigation and adaptation for each article. This coding process focused on methods of corresponding policies for a solution behind both mitigation and adaptation to CC. A scale categorization of the prognostic frames was also applied as "international" or "national" regarding each article representation.

The third core framing task refers to the motivational frames, which chart "why climate change issue and corresponding search for solutions are important" (Yun et al., 2012, p.211). In this regard, these frames refer to a rationale for action (Lefsrud & Meyer, 2012) that goes beyond diagnostic and prognostic statements (Alashri et al., 2016). Thus, the sub-frames are posed to reflect the actions that should be considered in a call for action. Six codes were provided in this framing task: 1. Individual Behavioral Action, 2. Symbolic Action, 3. Governance or Political Action, 4. Structural Action, 5. Clean and Renewable Energy Action, 6. Planning and Control Action (see Table 4.1).

For the final frame type, we chose to add a new framing category that emerged from the data after initial analysis, which we refer to as the "paradox" frame. Paradox frames found in the content of the articles are distinct from the core framing tasks of Benford and Snow. They refer to vocabularies of conflict, paradox or dilemma between ideas and thoughts or between problems or solutions to CC that are then applied by those who want to halt the impacts. In the light of paradox frame, the articles usually lead the author to pose a question about issues for the contradictions occurring in related subject areas (see Table 4.1).

Each article was coded to "issue categories" that illustrate the main subjects to make a meaningful representation of CC problems in Turkish society. Issues that are predominant in each article were separately selected and analyzed into groups, and the ten most frequently issue groups were adapted for rational understanding. Thus, this approach is similar to the method described by Yun et al. (2012) for issue categorization. The ten main issues are as follows: 1. 2° Celsius, 2. Economic Development, 3. NGO's Action or Response, 4. United Nation Climate Change Conferences (UNFCCC), 5. Climate Change as the End, 6. Transition and Efficiency in Energy, 7. Others' Action or Response (a. Developed Countries' Response, b. Industries' Response), 8. Sustainable Development or Sustainability, 9. Turkey's Action or Response, 10. Ecological and Environmental Degradation.

Another illustration for the issue categories was present the cluster analysis by asking a question of how similar or different the coding at "frames" and "issues" categories. We applied matrix coding for the cluster analysis in Nvivo 11 to find the homogenous relationships between "frames" and "issues" codes. With using this exploratory technique, we expect to visualize the patterns in the results of the issue categories and the frame-types. Also, we took an inter-coder reliability step to confirm the trustworthiness of the data. My supervisor and I both reviewed and coded a small sample of articles from the dataset and compared our respective coding schemes for consistency, at the beginning of this research.

Each article was also subcategorized as neutral, negative, and positive to constitute the overall tone of the articles. This category reflected the headlines of each article to depict the coverage regarding how the CC issue should be understood (see Table 4.3).

The key players who speak for CC issues in news articles were classified separately during the coding process. A total of ten main actors were found: 1) politician or government, 2) academic (expert or journal), 3) NGO, 4) business and industry, 5) unnamed expert or groups, 6) mass media, 7) non-expert commentator or citizen, 8) independent research groups, 9) economist, and 10) no source (see Table 4.2).

Another coding process was conducted to provide the geographical scope of the articles. In coding for geographical level, the CC issue was categorized as 'global' and 'Turkish society or national' in the Turkish newspapers.

Table 4.1 Frames in Coding Process

Main Frames	Sub-Frames	Subthemes	Verbatim Examples from Three Turkish Newspapers
DIAGNOSTIC FRAMES	**Causes**	Blame or Responsibility	…developed and developing countries will be more affected due to the failure of the struggles against climate change, because developed countries, particularly the USA, become prominent in greenhouse gas emissions that caused climate change in the world (CH, 2012).
		Human Activity	Global warming is not a natural disaster; on the contrary, it is a disaster created by humans (HR, 2010).
		Insufficient Action	The latest report prepared by United Nations Environment Programme (UNEP) warned that the efforts of the world's countries to mitigate climate change effects are insufficient (CH, 2012).
	Threats	Catastrophic Disasters	According to Hydro Meteorological Center of Russia, the North Pole has shrunk by 600 thousand km^2 (almost as big as Anatolian region) in the last three years (HT, 2010).
		Future Impacts	degrees Celsius which is agreed as climate danger threshold will be exceeded from 2030 onwards (HR, 2014).
		Multiple Impacts	…human activities and fundamentally fossil fuel use…increase the carbon dioxide level in the atmosphere that leads to chaos due to temperature increase and an increase in tornados (CH, 2013).

		Social Unrest	The outbreak of wars over water-sharing-related issues and food [shortages] due to droughts have created the migration crises since the 1940s (CH, 2015).
		Public Health	With climate change, obesity and diabetes have become widespread due to a decrease in fresh food production and an increase in processed food demand (HT, 2013).
		Economic Impacts	...the effects of melting ice on the economic losses of sectors such as global agriculture, real estate, and insurance will reach at minimum 2.4 trillion dollars (CH, 2010).
		Impacts on Species	If all the ice caps melt in Antartic, there would not be the ice in Greenland anymore, and the animals would lose their habitat (HR, 2014).
		Water Scarcity or Waste	Rising temperature due to global climate change increases the evaporation from dams and [hence] water demand in summer seasons (CH, 2014).
		Food Security	Scientists who work for the International Food Policy Research Institute pointed out that climate change means more hungry children... (HR, 2009).
		Agricultural Collapse	Desertification is increasing on our lands, particularly in agricultural areas (HR, 2011).
		Pollution	The level of air pollution in Shanghai which is one of the biggest city in China is rapidly increasing (HT, 2010).

PROGNOSTIC FRAMES	Strategical and Technical Solution Frame	Targets	The long-term target of the agreement [Paris Agreement] is to keep a global temperature rise below 2 degrees Celsius… (CH, 2015).
		Conservation	As a part of national afforestation campaign, the 2.3-million-hectare field will be planted, and damaged forests will be rehabilitated (CH, 2009).
		Infrastructure & Development	We must redesign the infrastructures in cities according to the new rainfall regime caused by global climate change, not the old rainfall regime… (HT, 2011).
		Investment	The highest amount out of total 32.5-billion-dollar investment will go on building insulation (HT, 2014).
	Transformational Frame	Political	A developmental model which based on low carbon and climate resistance must be improved (HR, 2015).
		Economic	A new sustainable production model must be embraced to surpass this severe economic crisis we face (HR, 2015).
		Social	Our definition and criteria of wealth and success should be changed (CH, 2009).
		Cultural	If everybody released the same amount of greenhouse gasses as people in the USA do, greenhouse gas emissions would be increased six-time more (HT, 2009).
		Revolutionary or Radical	The real solution is not the narratives of "green" technologies, but the radical transformation of the production phenomenon… (CH, 2009).

	Creation or Implementation of Policy or Program Frame	N/A	Heads of EU states signed a historical settlement agreement which concluded "at least" 40% reduction of GHGs until 2030 compared to 1990 levels; so, this determination is the most radical climate framework so far among the leading industrialized countries (CH, 2014).
	Technological and Renewable Frame	N/A	The restoration of the existing power plants will be completed…. Local resources, especially since coal, hydro, wind, geothermal, and solar energy will ultimately be utilized (CH, 2010).
	Incremental and Small Changes Frame	N/A	To increase the attention to this, Savaşçıoğlu states that they organize a "bicycle touring against climate change" event in the west of Turkey, and they inform the citizens and encourage them to using a bicycle (CH, 2009).
	Educational Frame	N/A	Educational studies about climate change started under the concept of "Don't let our future melt" campaign by the partnership of TEMA and TURMEPA (CH, 2009).
MOTIVATIONAL FRAMES	Planning and Control Action	N/A	In order to decrease greenhouse gas emissions caused by agricultural activities, [Mr. Bayraktar] emphasize the importance of implementation of sustainable and climate adaptable production techniques, proper feeding methods in animal husbandry, recycle of animal waste and products, and the preservation of agricultural areas... (CH, 2012).
	Clean and Renewable Energy Action	N/A	The humanity must turn towards the clean energy resources such as biomass, geothermal, wind, and solar. The new investment method of many countries on energy production is becoming based on clean energy (CH, 2015).

	Structural Action	N/A	Climate change politics which based on the market economy are not working anymore as seen in international negotiations that have been spun around in years…. It had been seen that the governments had mobilized trillion dollars for saving the banks in no time at all; it means that resource is available (CH, 2010).
	Governance and Political Action	N/A	In order to success on this purpose, we absolutely should have a comprehensive, ambitious, and binding global agreement. There is a hope to achieve such this political attempt for this purpose (CH, 2010).
	Symbolic Action	N/A	A symbolic action named as "Earth Hour" has started since 2007 and become a global movement for global warming, such as including the buildings like the Eiffel Tower, Egyptian Pyramids, and Empire State Building (CH, 2009).
	Individual Behavioral Action	N/A	In fact, big or small electrical appliances must be unplugged while they are disused; plastic bags use must be reduced to a minimum; …battery, paper and glass waste must be thrown in the boxes that set by municipalities make the planet more livable and will make it more livable in an absolute way (CH, 2009).
PARADOX FRAMES	N/A	N/A	Obviously, there is a paradox…. The forgery and hypocrisy of the developed countries can easily be seen in every aspect of daily life…. It is no joke, and should not be ignored: All creatures are in great danger. The reason: "Global warming… (CH, 2015).

Table 4.2 Main Actors in Coding Process

ACTOR	DESCRIPTION
Politician or Government	Government, politicians, political elites, government officials
Academic (Expert or Journal)	Scientists, research groups, academics
NGO	Environmental organizations, non-governmental organizations
Business and Industry	Business and industry groups, lobby groups
Unnamed Expert or Groups	Expert quoted unnamed
Mass Media	Prints, televisions, and radios, etc.
Non-Expert Commentator/Citizen	Citizens, celebrities, non-scientific expertise
Independent Research Groups	Unaffiliated/Independent research groups
Economist	Economists or economic institutions
No Source	No source present

Table 4.3 Tone of the Articles in Coding Progress

Tone of the Articles	Verbatim Examples from Three Turkish Newspapers' Headlines
Negative	Climate Changes Causes Hunger for Penguins (Cumhuriyet, 2011)
Positive	Target of Electricity Generation Increases with Wind Turbines (HaberTürk, 2012)
Neutral	What Changes Will Be with Kyoto? (Hürriyet, 2009)

CHAPTER 5   RESULTS

5.1 Introduction

A sample data set of 332 articles was comprised to analyze the Turkish climate change discourse by using the keywords "climate change" and "global warming" between 2009 and 2015. The final data set in this chapter provides the content analysis of the articles that reported on CC. The data set regarded the number of CC articles and key players, frame types, and issue categorization in the newspapers.

5.2 General Trends

5.2.1 Number of CC Articles

Number of Articles

	2009	2010	2011	2012	2013	2014	2015
Number of Articles	83	52	46	39	23	40	49

(Percentages shown on chart: 2009: 25%, 2010: 15%, 2011: 14%, 2012: 12%, 2013: 7%, 2014: 12%, 2015: 15%)
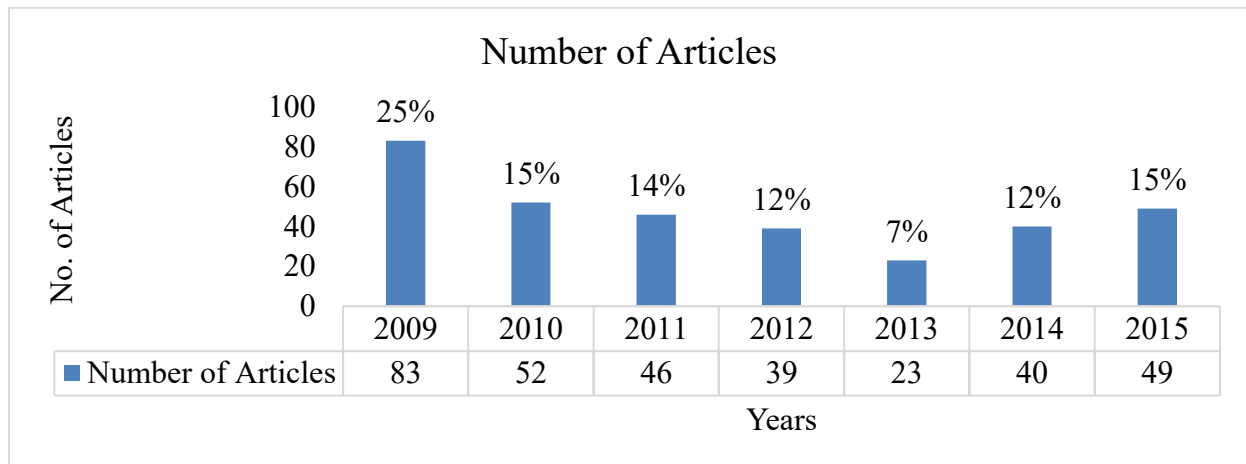
Figure 5.1 Number of the articles published per year

Figure 5.1 illustrates the total number of CC articles per year in Turkish media between 2009 and 2015. Firstly, the greatest number of articles was published in 2009, 25% of the total sample. This surge is probably due to the fact that Turkey finally ratified the Kyoto Protocol in 2009. Also, the Copenhagen Climate Change Conference took place in December 2009. The national media attention to CC can be influenced by major global political events, as well as scientific reports worldwide. During international conferences and meetings, a significant amount of climate change news appeared, such as reports on the 1992 UNFCCC and 1997 Kyoto Protocol. Although developed countries experienced a massive increase in reporting, there were also notable increases in developing countries across the Middle East, Asia, and South Africa

(included 3500 journalists from over 400 media organizations in 160 countries) during the Kyoto Protocol in 1997 (Boykoff & Roberts, 2007, p. 5).

On the other hand, a steady decrease occurred in all three newspapers between 2009 and 2013. Ironically, one might have expected Turkish media attention would increase as a consequence of the ratification of the Kyoto Protocol in that time-period. Meanwhile, in addition to this expectation, Turkey has been under pressure to mitigate GHG emissions in the preparation of its national climate policy that was set and provided the Turkish National Strategy for Climate Change and the National Climate Change Action Plan, which were formulated by Turkish government between 2009 and 2013.

In 2014 and 2015 the number of CC articles increased. The 21st Conference of Parties (COP21) took place in Paris in December 2015. In this summit, Turkey was expected to provide its national climate policy to indicate its Intended Nationally Determined Contribution (INDC) which stipulates that "countries have agreed to publicly outline what post-2020 climate actions they intended to take under new international agreement" (Qi & Weng, 2016, p. 886). This initial level of analysis suggests that the coverage of CC articles in Turkish media may be strongly influenced by international events, rather than domestic impulses.

5.2.2 Overall Tone of the Articles

Figure 5.2 indicates the overall tone of all the climate change articles as "positive," "negative," and "neutral" based on the articles' headlines. Almost half of the articles (47%) presented negative tones (such as Towards the Terrifying Reality, from *CH*), while 36% illustrated positive tones (such as "Green School" from Greenpeace, from CH). However, 17% of the articles' headlines were captured as having neutral tones (such as Nuclear vs. Renewable Energy, from *HR*).

There were no significant differences in the proportions of positive and the negative headlines across the three newspapers. However, *HR* portrayed more positive headlines of climate change-related articles than negative ones by 55 articles compared to 46 articles. In this newspaper particularly, positively-toned articles placed a larger emphasis on the adaptation and mitigation efforts of climate change for the industries that aimed to maximize their revenue as much as

reducing their GHGs. Conversely, both *CH* and *HT* had more negative than positive article headlines.

Also, during the time scale of this study, there were no significant differences for each headlines' tones represented in the articles. Positive tones for CC headlines had only the largest proportion (44%) in 2011 although they followed the negative tones as placed second in the rest of the time-period. The negative tones in the articles thus were dominant in all the period.
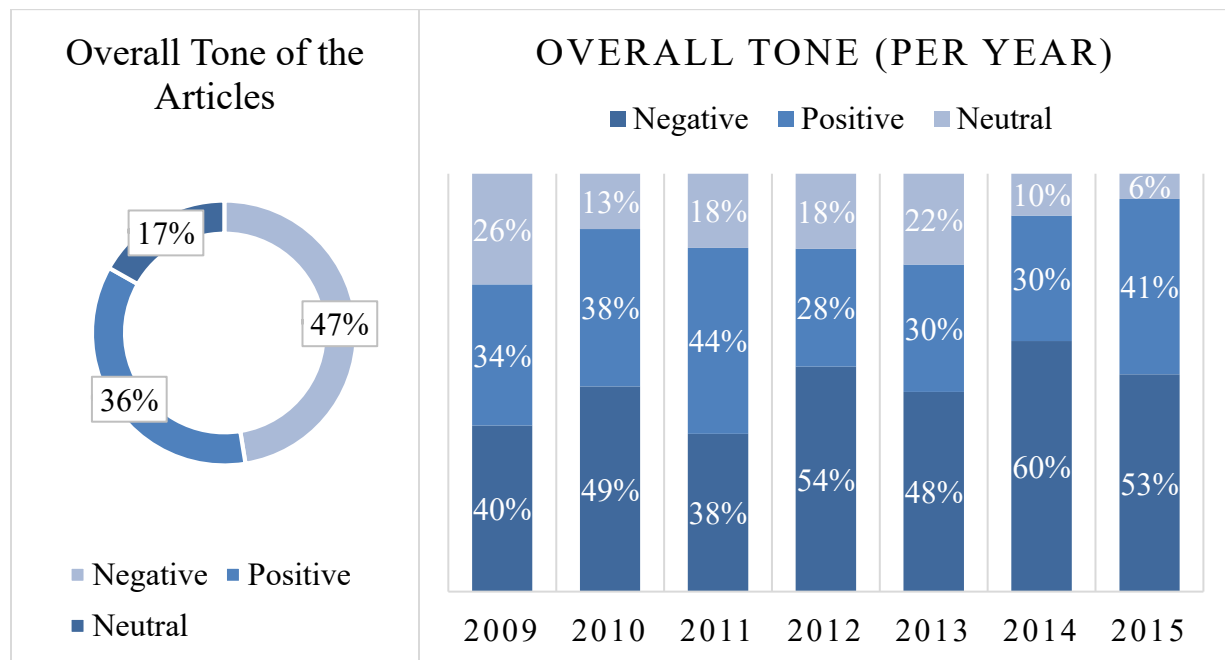
Figure 5.2 Overall tone in all the articles' headlines

5.2.3 Geographical Scale of the Articles

As shown in Figure 5.3, 59% of the articles depicted the "global context/level," whereas the "Turkish society/national level" was indicated in 41% of the articles. The global scale/level was dominant in all three newspapers between 2009 and 2015 regarding the distribution. The highest global level of the articles was seen in 2009 and saw a steady decrease until 2014.

With respect to the motivational impacts of intergovernmental actions (specifically the preparation for COP 21 Summit in Paris in 2015 for the world), the coverage of Turkish newspapers on global scale representation of CC increased in 2014, although a similar increase was seen on Turkish society/national scale in the same year. However, the third highest

proportion at the national level was in the year 2015 with the announcement that the INDC report for Turkey was expected in response to CC in Paris. These changes in the reporting imply that climate change had become an agenda item for Turkish national policy. Therefore, it is notable that the Turkish media had a significant amount of national agenda-setting power on climate change, as well as international in 2009 (the ratification of Kyoto Protocol) and 2015 (COP 21 Conference in Paris and the submission of Turkish INDC report to UNFCCC for CC policy).

Geographical Scale/Level (in all the articles)

- Global
- Turkish Society/National

Geographical Scale/Level (Per Year)

	2009	2010	2011	2012	2013	2014	2015
Global	49	30	21	23	15	30	28
Turkish Society/National	34	23	24	16	8	10	21
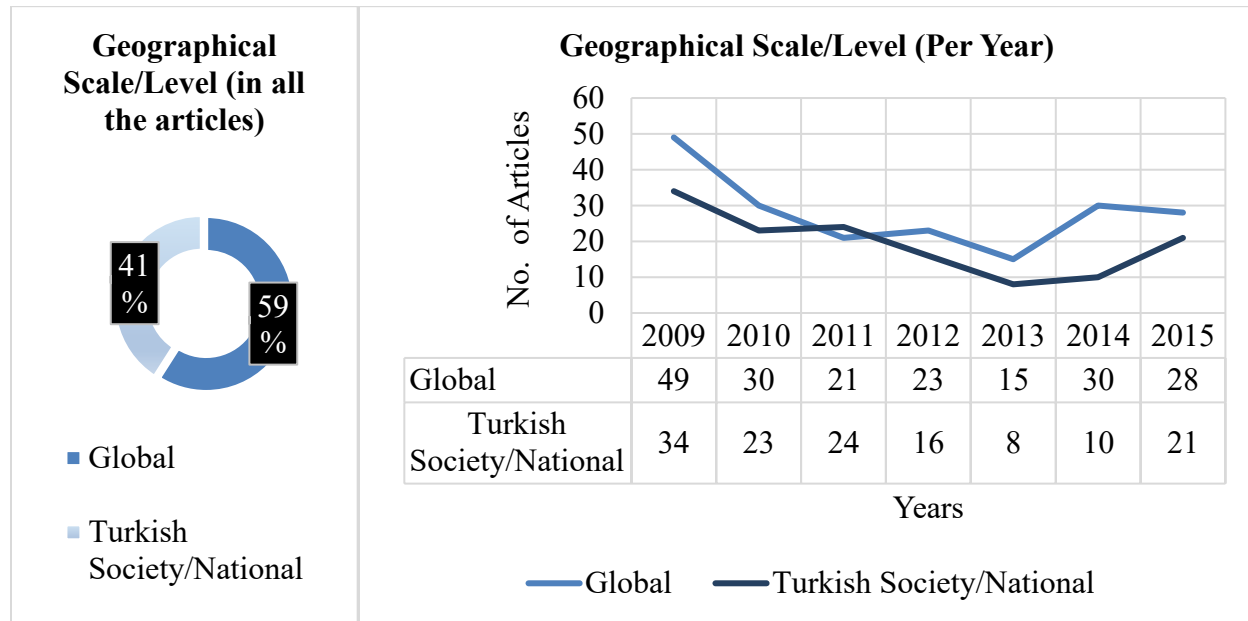
Figure 5.3 The geographical scale/level of the CC articles

5.2.4 Main Actors

A total number of 827 actors appeared in coded articles for the three newspapers. In this categorization, the actors who speak for CC in Turkish media illustrate that "politician or government" (25%) was represented most frequently, followed by "academic", "NGO(s)", and "business and industry" appearing in 19%, 16%, and 10% of articles, respectively (Figure 5.4). Very few articles were noted as having "no source" (approximately 1%), whereby no speaker appeared in the articles. The domination of political actors is similar to findings from other studies (Carvalho & Burgess, 2005; Uzelgun & Castro, 2015). A general representation of "politician or government" was likely due to international events that focused on the CC policy-making process.

An interesting finding on the main actors is that *HR* was more vocal than the other two newspapers in the categorization of the 'business and industry' by 41% (compared to *CH* with 35% and *HT* with 24% in total*)*. This difference in coverage is probably due to the newspaper's political inclination that represents the nationalist and liberal approach to economic development on industry and businesses.
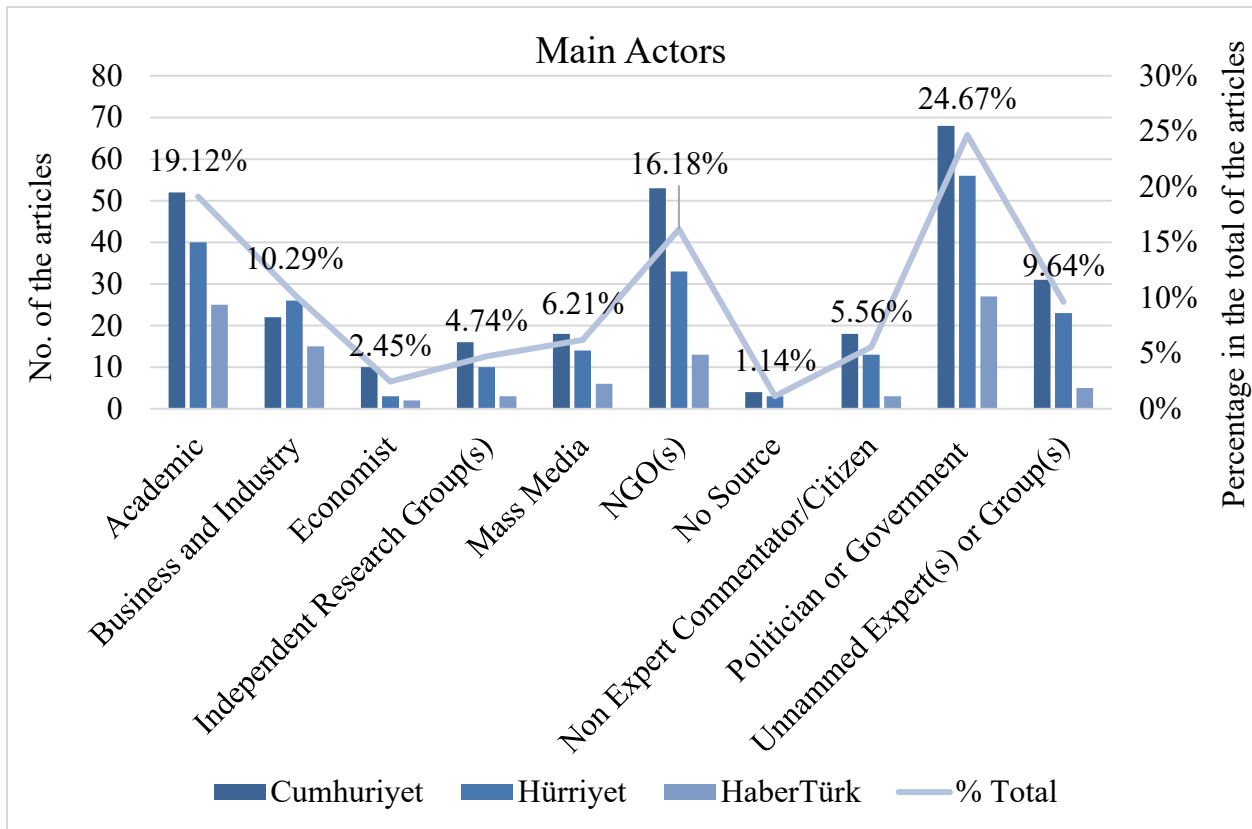
Figure 5.4 Main actors' frequency by Turkish media

5.3 Framing Climate Change

The articles were then coded for the frame-types analysis in the Turkish media according to "diagnostic," "prognostic," "motivational," and "paradox" frames (Figure 5.5). The most prevalent primary frame-type was coded as "motivational" by 35% (266 articles) of the articles between 2009 and 2015. The other prevalent frames represented 29% as for both "diagnostic" (223 articles), and "prognostic" (219 articles) frames extracted from the total of 332 articles in the same time-period. Paradox frames were infrequently covered, in 7% (58 articles) in the newspapers.

Figure 5.5 Frame-types in Turkish media

	2009	2010	2011	2012	2013	2014	2015
Diagnostic Frames	25%	31%	29%	32%	34%	36%	25%
Prognostic Frames	31%	31%	30%	24%	24%	24%	29%
Motivational Frames	36%	32%	34%	34%	36%	37%	35%
Paradox Frames	8%	6%	7%	10%	6%	3%	11%

YEARS

Figure 5.6 The proportion of the total articles per year

In the distribution of the frames regarding the percentage of the total articles per year, Figure 5.6 presents a fluctuated result for the four frames. This result illustrated these frames as a proportion of coverage for each single year. For the representation of each year regarding these four main

frames, between 2009 and 2015, the motivational frames were the most dominant type of frames used in reporting across three newspapers. This domination consistently presents an invitation of actions on CC for diagnostic and prognostic frames. This tendency is probably more about the lack of the discourse of national CC policy and the public attention, which create a sense of the need for an urgent response to the problems.

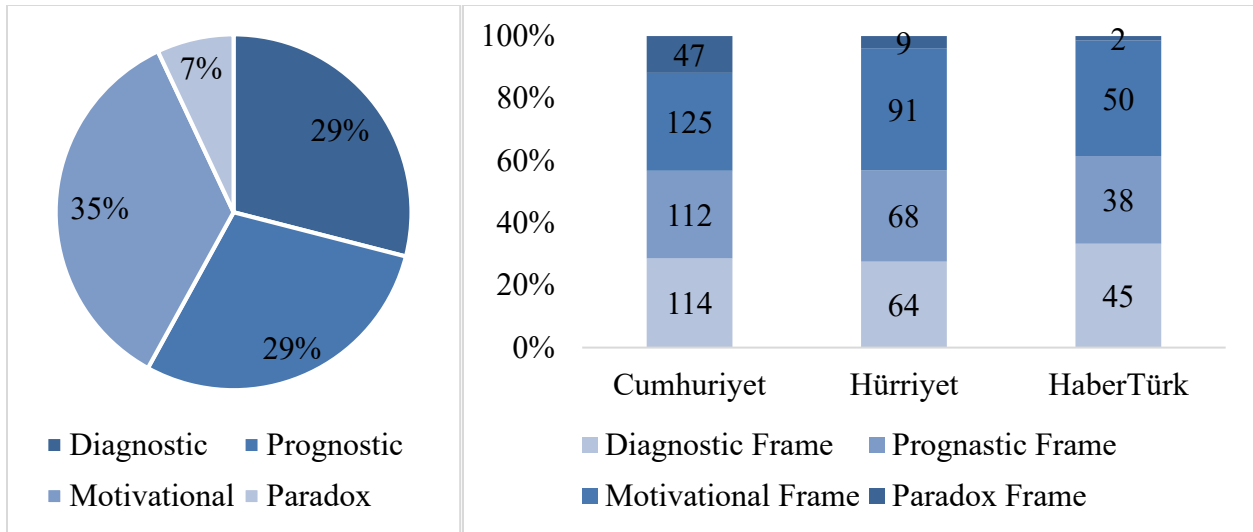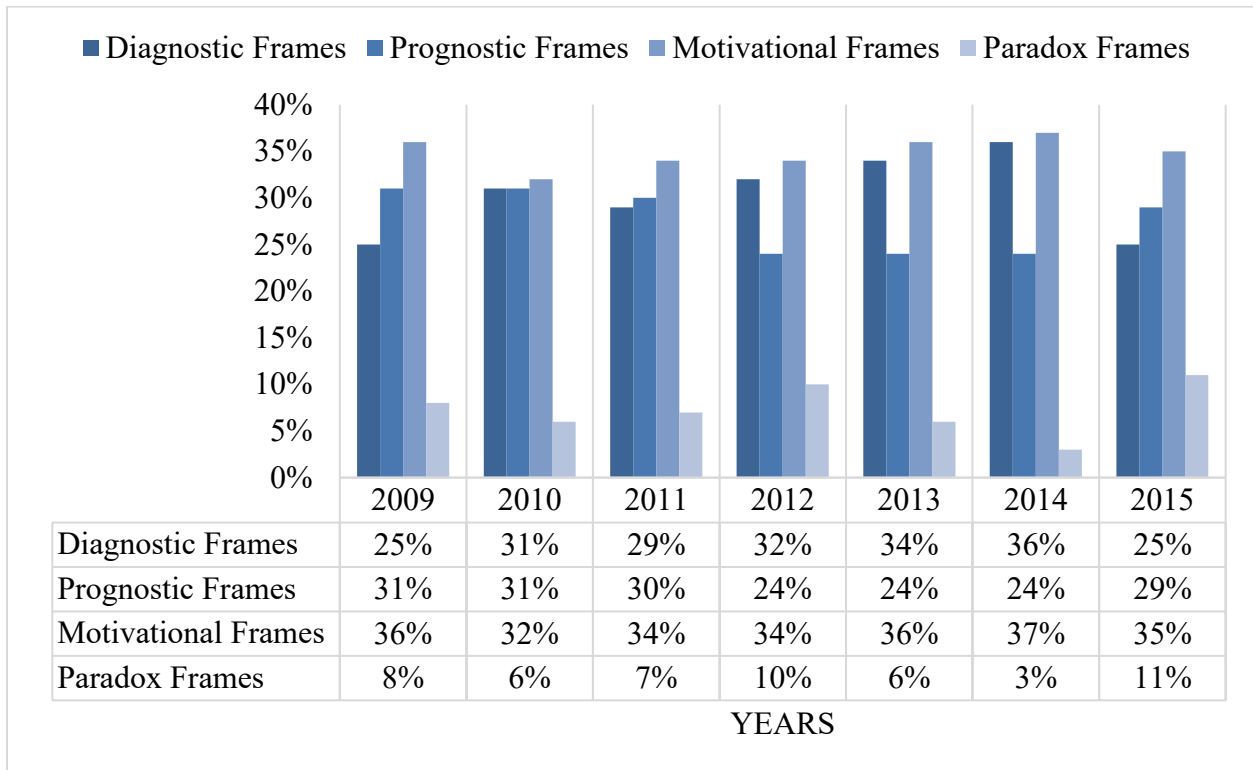Firstly, the proportions are close to each other for core framing tasks because most articles do not focus on a specific issue or topic (such as carbon tax or renewable energy for solution) in reporting of CC. Rather, most articles discuss several topics in their contents to illustrate what is known and has been done so far about CC problems, and then they make some points to motivate the public that there is still more that can be known and done for Turkey or the world. In applying this method, the reporter designs appropriate image-development strategies and details on CC, apparently in an effort to provide readers with cognitive guidance favoring particular routes of personal action, often expanding or elaborating on new information. Motivational frames were the dominant in the articles due to this tendency (see 5.3.3 Motivational Frame).

Also, the most significant explanatory tool of this distribution is the way that the reporters selectively choose the contents to include in their articles, including examples of actions, works, or decisions regarding CC issues that have been done or practiced by nations, industries, and individuals around the world. This tool functions as a comparative method between the actions and solutions proposed by those who want to reduce or stop CC impacts on their society and environment; the comparative method elaborates new information and increases the public knowledge with new input about CC for collective consciousness. Mostly, this is "more oriented toward stirring the emotions than to appeals to politics" by giving "an example of the rhetoric of irreparability" (Uzelgun & Castro, 2014, p. 340) and "recoverability" regarding the problem. The Turkish journalists thus tend to use the motivational based framing in reporting on CC issues in their articles.

These results indicate that Turkish media discourse devoted substantial attention to "why the climate change problem and corresponding search for solutions are important" (Yun et al., 2012, p. 211) (motivational), in terms of a call for action rather than emphasis on the implications for particular solutions (prognostic) and the consequences and causes of climate change (diagnostic).

Therefore, in Turkish newspapers, in general, climate change is indicated as a threat that requires collective consciousness to define the problem and to find a remedy.

In the distribution of frame-types regarding the three newspapers, the proportion of diagnostic articles in *CH* and *HR* were 34 percent and 19 percent, respectively, a frequency higher than *HT* newspaper (14%), in the total of 332 articles. *CH* had the same proportion (34%) for prognostic frames by comparison with diagnostic frames whereas *HR* represented a higher percentage (20%). With 27% of the articles, *HR* expressed the largest proportion of its efforts in reporting motivational frame articles. There was no significant distinction between the newspapers in reporting of motivational frames for CC, although all had the highest number of these frame types in their reporting in comparison to the other frame types. A significant difference regarding the paradox frame appeared in *CH,* with 14% appearing in the coverage as compared with *HR* (3%), while the representation of this frame-type was almost nonexistent in *HT* (2 articles).

5.3.1 Diagnostic Frame

Diagnostic frames are a core framing method referred to as "interpretive frames" used to answer the question of 'What is going on?' or 'What does that mean?' (Snow, 2008, p. 4). Snow and Benford state that they involve "identification of a problem and the attribution of blame or responsibility" (Snow & Benford, 1988, p. 200). Thus, this attributional component of diagnostic frames suggests an agreement that CC is identified as the problem; the attributional component then focuses on the source of the problem that human activities or other causes. In another word, Diagnostic framing involves the blame or responsibility for causes and stress the CC impacts on the planet, as well as on societies (Alashri et al., 2016).

On this level, I divided diagnostic frames into two subcategories while the coding process was conducted. The "causes" framing represented 32 percent of all the diagnostic articles whereas the rest was found in the "threats" framing (Figure 5.7).

5.3.1.1 Causes Framing

These frames usually put stress on who should be blamed or who is responsible for CC. Specifically, carbon dioxide and greenhouse gas emissions were indicated as highly significant

contributors for causing the global climate change phenomenon in industrialized countries by anthropogenic activities. From the articles, I captured three subcategories for cause framing:

Causes (32%)	Threats (68%)
Blame or Responsibility (placed on particular sources)	Agricultural Collapse
	Economic Consequences
Human Activity (in general)	Food Security
	Future Impacts
	Impacts on Species
Insufficient Response (by government or society worsening the problem)	Multiple Impacts
	Catastrophic Disasters
	Pollution
	Public Health
	Social Unrest
	Water Scarcity or Waste

Figure 5.7 Diagnostic frame by two subcategories

   Blame or Responsibility – A majority (44 articles) of the newspaper articles portrayed climate change as a story of people responsible for CC in the "blame or responsibility" sub-frame. By referencing these frames, the journalists pointed the finger at a specific climate subject or more than one climate subject caused by human activity to illustrate the impacts. For instance, the developed countries such as the USA and the European countries, and industries such as oil producing companies, shared the responsibility of fossil fuel use or human-made greenhouse gas emissions. Locally, the newspapers, specifically, blamed the government due to its developmental aspirations in the liberal economy, regarding new construction of coal-fired power plants or hydroelectric power stations. Differences among the newspapers were not significant, but it is fair to say that *CH* elaborated on specific aspects of the capitalist economy far more than the others, criticizing overproduction and overconsumption caused by developed

countries including individuals, whereas others focused on the adaptation and mitigation process more. An article presented a common description of this frame as follows:

> …developed and developing countries will be more affected due to the failure of the struggles against climate change, because developed countries, particularly the USA, become prominent in greenhouse gas emissions that caused climate change in the world. Therefore, greenhouse gas emissions should primarily be under control by developed countries, and they should provide financial and technological support to developing countries. (Cumhuriyet, 2012)

Human Activity – The "human activity framing" was used in 32 of the articles analyzed. These frames focused on human-made greenhouse gas emissions, human-induced pollution, and especially fossil fuel utilization in the industrial and capitalist era. With phrases, such as "human activity," "by humans," and "made" or "created by humans," the newspapers constructed climate change as a non-sceptical manner to illustrate the adverse effects of global climate change caused by people. In other words, the reporters did not articulate any skeptical views on the scientific facts such as IPCC report or individuals such as politicians and citizens, and thus did not raise questions regarding whether climate change is factually happening.

Turkish newspapers provide to the public agreement that global climate change is happening and present human beings as the cause. Comparing this argument in other industrializing countries, "the scientific knowledge about CC was presented as unproblematic, and the issue as already having gained the status of fact" (Uzelgun & Castro, 2015, p. 19). The following passages from articles appearing in two of the newspapers are typical of these frames:

> The cycle of phosphorus and nitrogen of the planet has been changed in radical ways by humans due to mass consumption, and industrial and agricultural activities. (Cumhuriyet, 2013)

> Global warming is not a natural disaster; on the contrary, it is a disaster created by humans. The main reason is the gasses we release into the atmosphere, which cause the greenhouse effect. Carbon dioxide is the leading gas to this effect. (Hürriyet, 2011)

Insufficient Response – These frames were present in 31 articles in all the diagnostic articles analyzed. With the "insufficient response" frame, the articles imply that nations must complete their mission to mitigate and adapt to climate change effects; otherwise, the different actions pose a danger to the world. Internationally or nationally, business or government sectors, and other areas, such as the agricultural sector, have made ineffective or insufficient actions to reduce the negative consequences in terms of their promises on the determinations, using key phrases like "insufficient action", "poor efforts to reduce", "fail to complete", and "no precautions". The frames consistently characterize the reliance on nations and industries as a weak response, as well as their intervention and action toward CC, is inadequate. The news produced in this category was mostly to limit CC to 2 °C. The following passages demonstrate this frame category:

> The latest report prepared by United Nations Environment Programme (UNEP) warned that the efforts of the world's countries to mitigate climate change effects are insufficient. In the report, the gasses such as carbon dioxide which captures the heat increased by 20 percent between 2000 to now. (Cumhuriyet, 2012)

5.3.1.2 Threats Framing

Media texts tended to highlight the threats caused by the adverse impacts of climate change on the environment and societies. This threat framing was consistently indicated by devastating environmental impacts such as floods, desertification, prolonged drought in different regions (especially in Turkish lands), sea level rise, ice melt, loss of landmass and soil, hurricanes or storms, heat waves, water scarcity, food shortage, and more. Consequently, economic conditions, health conditions, food insecurity, weakening of infrastructure, the frequency of catastrophic events, and more were influenced in societies and nature by climate change problems (Alashri et al., 2016). The Turkish media had a strong circulation of negative disaster news that affected the societies and environment (68% of the articles pointed out the problem-threat framing) to convince the public sphere so that these threats of climate change exist. Therefore, I constructed eleven subcategories for these frame types:

Catastrophic Events – The "catastrophic events" frames have had an enormous scale of representation in 61 articles analyzed in Turkish newspapers. These frames focused on the events

that happened or occurred in Turkey as well as other regions in the world. The mostly negative tone of articles represented as an alarmist approach where the reality of the threats was "scientifically uncontested fact" to depict "a hegemonic representation" of climate change discourse to the Turkish public (Uzelgun & Castro, 2015, p. 22). The events associated with these frames included weather changes such as the hottest month or year, ice melting in both ice caps, floods specifically as a result of torrential rains in cities such as Istanbul and Ankara in Turkey, tornados in Turkish regions, hurricanes in the US and other parts of the world, sea level rise in-coast, and also droughts due to the heatwaves. These articles mostly reported CC to illustrate how Turkish lands or areas and its agricultural production is in danger. The following article segments demonstrate the catastrophic disasters that have happened:

> We have witnessed tornados in Istanbul. Disasters such as floods have gradually increased across Turkey. We have experienced this event recently in Artvin. Lakes have dried. Akgöl which was seen as an ultramarine in the maps has dried entirely. The lake which was 407 decare [about 100 hectares] was hosting the birds such as flamingo, crane, and ruddy shelduck [endemic animal in the region]. (Cumhuriyet, 2015)

> According to Hydro Meteorological Center of Russia, the North Pole has shrunk by 600 thousand km^2 (almost as big as Anatolian region) in the last three years. Scientists stated that the melting had been very quick. (HaberTürk, 2010)

To illustrate how Turkish media works with such these frames in different perspectives, another study pointed out that one of the reasons that the media brought attention to CC in 2007 was "the dramatic experience of a country-wide drought," as well as global events and "local weather extremes." (Uzelgun & Castro, 2015, p. 21).

Future Impacts – The second largest threat framing was the "future impacts," present in 51 articles. All these articles reported the futuristic implications of the adverse impacts of CC. However, the futuristic design of these frames portrayed two different modes in the articles. On the one hand, the newspapers depicted the articles in "scenario" mode in which the climate news was covered throughout the entire article. This mode was present in 24 articles. With respect to scientific studies about CC, the reporters used these frame types to create a scenario in the articles for future symptoms of the CC impacts in the world as well as in Turkey, specifically for

the near future, around 2017, 2020, or 2030 and the far distant future like 2050 or 2100. Moreover, the titles of the articles mostly used the futuristic voice to portray the scenario frame. The following passages indicate the scenario mode framing:

New Orleans, Saigon, Venice, and Mumbai will submerge while the crocodiles prowl around England. 90% of the human race will be wiped out. This is not a movie scenario, but it is most likely possible that this kind of scenario would take place in this century we live in if the planet warmed by 4 degrees Celsius. (Cumhuriyet, 2009, from "How do we survive in a warmer world?")

Rainforests will decrease by 52% until 2050. Even if we turn off the switches, all creatures, from soil to water and from food to the biodiversity, will be adversely affected by rising temperature and sea level rise caused by melting ice. (Hürriyet, 2015)

On the other hand, the newspapers mentioned the predictions projected from the scientific findings, while the precise figures had the facts of CC problems to validate the disasters in the past or happening in that moment. In other words, the article speculated on the future events of any disaster that could occur, while it endorsed and cited scientific findings of the CC problem regarding the events that appeared in that time-period (28 articles). With this combination for CC news, reporters made a clear statement that the disasters are happening now and will continue, even worse, in the future if people do not change their behaviors. An example of this frame is the following:

Greenhouse gas emissions were 2.2% increase annually between 2000 and 2010. In fact, this increase was calculated as 0.4% before 2000. At this rate, 2 degrees Celsius which is agreed as climate danger threshold will be exceeded from 2030 onwards. This is easy to reach due to high consumption, barbaric developmental aspirations, and urbanization. (Hürriyet, 2014)

Multiple Impacts (Pandemonium) – "Multiple impacts" frames were discussed in 31 articles and referred to the alarmistic approach as the catastrophic frames had. Moreover, this frame represented each coded article as a comprehensive approach that provided all the adverse consequences of CC in the news reporting. Therefore, this multiple impacts frame determines the

news to be a well-defined subject to understand what climate change will bring along with itself, or, in other words, to create a perception of climate change as a mass destruction of the planet at any time or in the future. I also call this frame "Pandemonium," which is defined as chaos, noise, and confusion. This word is used to indicate that in certain articles the multiple impacts frame determines CC effects as the spread of chaos and fear in civilization between people and within the environment:

> The major of meteorological disasters that are expected to increase by climate change in Turkey are those: 1) Drought (famine, forest fires, heat waves, agricultural pests…), 2) Flash Floods (windstorms with torrential rains and lightning), and 3) Sea Level Rise…. These three significant problems will be felt ever more in the future. (HaberTürk, 2011)

> According to US National Climate Assessment report, human activities and fundamentally fossil fuel use (coal, oil gas, and natural gas) increase the carbon dioxide level in the atmosphere that leads to chaos due to temperature increase and an increase in tornados…. It also increases air pollution, forest fires, insect-spread diseases, and the conflicts due to water rights. (Cumhuriyet, 2013)

Social Unrest, Public Health, and Economic Consequences – The "social unrest," the "public health" and the "economic consequences" frames were reported in 26 articles with the same number of representation for each. Firstly, although climate change has resulted in some presumably political perils, the analyzed newspapers used discourse on the impacts of long-term climate change to explain social unrest such as migration crises and population collapse in some regions currently and in the future. A quantitative study published in 2007 stated that long-term climate change in a recent century has predominantly affected a cyclical process of "worldwide and synchronistic war-peace, population, and price" in the social structure of the world. The study also implied that "social mechanisms that might mitigate the impact of climate change were not significantly effective" in this critical result (Zhang, Brecke, Lee, He, & Zhang, 2007, p. 19214). For example, Syria experiences the war in their land due to climate change impacts on natural resources such as water shortages as well as a decrease in agricultural production affected by droughts (Femia & Werrell, 2012). The most prominent way that Turkish newspapers evoke

the social unrest frame was with reference to the migration crises happening all around the world:

> The outbreak of wars over water-sharing-related issues and food [shortages] due to droughts have created the migration crises since the 1940s. (Cumhuriyet, 2015)

On the other side, the "public health" implications of CC have also been a popular issue-specific frame recently. I used this frame similarly to how Nisbet in his study uses frame typology. As he described, with CC, the "public health" frame indicated the issue of health problems such as "the incidence of infectious diseases, asthma, allergies, heat strokes, and other salient health problems, especially among the most vulnerable populations" (Nisbet, 2009, p. 22). The following passage illustrates the public health frames:

> With climate change, obesity and diabetes have become widespread due to a decrease in fresh food production and an increase in processed food demand. (HaberTürk, 2013)

Lastly, the "economic consequences" frame is mostly used to determine the issues of economic risks that will be caused or have been caused by climate change in various sectors or industries, as well as the impacts on economies of developed and developing countries. In this regard, the frames focused on the developmental stages linked to companies such as insurance, energy, and transportation (or technology), and to the economic indicators for nations such as gross domestic product (GDP) or emergency expenses for CC:

> According to the report, the effects of melting ice on the economic losses of sectors such as global agriculture, real estate, and insurance will reach at minimum 2.4 trillion dollars. Eban Goodstein, who prepared the report, stated that the North Pole is the air conditioner for the world. The melting ice will raise sea level and cause floods and extreme heatwaves. According to the report, the annual costs of these events to the world are 61-371 billion dollars at present. (Cumhuriyet, 2010)

Impacts on Species – This frame-type was portrayed in 25 articles as a matter of scientific fact to illustrating that climate change already took place. The species mentioned in the articles indicate the CC threats in "real life" as Uzelgun and Castro stated. In another perspective, the Turkish newspapers referred to "presenting changes or disturbances" of species

that belonged "to the category of nature" such as fish, whales, birds, butterflies, and others specifically in danger of extinction (Uzelgun & Castro, 2014, p. 337). Mostly coded as having a negative tone, these frames constructed a sense of havoc that the threats on non-human species reflected the local and global destruction of nature, including human beings:

> If all the ice caps melt in Antartic, there would not be the ice in Greenland anymore, and the animals would lose their habitat. For example, polar bears, whales, seals, and penguins are in danger. The melting ice will not just affect the animals, but also affect the humans. (Hürriyet, 2014)

Water Scarcity (or Water Waste) – "Water scarcity" frames were discussed in 17 articles. In the face of CC, countries especially in the developing world have to cope with extreme rising temperature, droughts, change patterns in precipitation, growing flood risks and the loss of reliable water supplies for survival as well as agricultural production and ecosystems. In most Turkish cases, the newspapers focused on specifically clean water, usability, and decreases in drinkable water in metropolitan areas such as Istanbul and Ankara. However, this argument echoed the water waste driven by production in industrialized countries:

> Rainfall in Istanbul is likely already becoming more severe, and more frequent showers, due to climate change. These effects cause the quick surface runoff which hinders rainwater to be collected in underground and river basin at the desired level.... Rising temperature due to global climate change increases the evaporation from dams and [hence] water demand in summer seasons. (Cumhuriyet, 2014)

Food Security and Agricultural Collapse – "Food security" was discussed in 16 articles including the topics of food availability access, malnutrition, and hunger based on declining agricultural production and increasing population across the world. The following passage demonstrates the food security frame-type:

> Scientists who work for the International Food Policy Research Institute pointed out that climate change means more hungry children, in the report they published today. What they worry about is that climate change will cause 25 million hungry children for the next

40 years; also, CC will adversely affect farmers, particularly in Africa and Asia. (Hürriyet, 2009)

Only six articles used "agricultural collapse" frames. Although the agricultural collapse frames seemed to be related to the food security frames, the articles using the "agricultural collapse" frames depicted some areas of the world as well as Turkish lands in danger of turning into desert. Specifically, the phrases used included "unproductive" and "becoming a desert" or "unfavorable conditions for agriculture":

…and in fact, we feel the adverse effects of climate change in our country. Desertification is increasing on our lands, particularly in agricultural areas. (Hürriyet, 2011)

Pollution – The "pollution" frames were expected to be in more articles in the newspapers, based on the news that the air pollution limit which was exceeded in 41 out of 81 provinces in Turkey, according to the Clean Air Right Platform (Temiz Hava Hakkı Platformu) (Aslan, 2016). However, only five articles contained these frames. One of the news articles utilizing a pollution frame discussed Shanghai, where the result of air pollution measurement was increasing so alarmingly there was a need for government intervention in 2010. The others portrayed the pollution frames to illustrate GHGs which were highly released into the atmosphere due to fossil fuel usage through transportation or an increasing number of individual cars in the world, and therefore by human activities.

5.3.2 Prognostic Frame

As the second core framing task, the purpose of prognostic frames is to "identify strategies, tactics, and targets" to the problem (Snow & Benford, 1988, p. 201). Prognostic frames, which were expressed in 29% of the articles, refer to the question of what is to be done, addressing "the articulation of a proposed solution to the problem, or at least a plan of attack, and the strategies for carrying out the plan" (Benford & Snow, 2000, p. 616).

Regarding CC, a prognostic frame "prescribes particular solutions" (Lefsrud & Meyer, 2012, p. 1484). Alashri et al. state that these frames determine actions taken to halt or mitigate CC impacts, often including *sustainable* strategies for the amelioration of CC. The findings of this

study are similar to their work in which *sustainability* is predominantly portrayed as a significant tool for adaptation and the mitigation of CC by providing the components of social, economic, cultural, and environmental goals to achieve sustainable development in the media discourse (Alashri et al., 2016, p. 282).

As shown in Figure 5.7, I divided the prognostic frames into six subcategories regarding the representation of CC solutions in the Turkish newspapers, described further below. "Strategical and technical solution frames" (STS) accounted for the biggest part (28%) followed by "transformational frames" (19%), "creation or implementation of policy or programs frames" (18%), and "technological and renewable energy frames" (16%). In contrast, "incremental and small changes frames" and "educational frames" had the smallest proportions in the representation of the prognostic frames: 10% and 9% respectively. It is worth noting that although STS frames are mentioned most frequently, and transformational frames as the second, the sets of the articles for both are mutually exclusive, except five articles that discuss both solution types for CC in their content.

Another coding category of prognostic frames in Turkish case involves reporter attention to understanding how adaptation and mitigation processes are applied for sustainable strategies. Mostly, reporters attempt to provide a better understanding of adaptation and mitigation processes by focusing on specific solutions, such as solar power.

The articles were interestingly more about adaptation in 52%, while mitigation was discussed in 48% articles (219 articles in total), as Figure 5.8 illustrates. The increasing focus on adaptation might be due to the emphasis of the Turkish government. In accordance with the Turkish government's response, MOEU (Ministry of Environment and Urbanization) states that climate change adaptation is an issue of sustainable development that depends on the conservation of the ecosystem, the availability of the necessary resources, the needs of adapting rational policies for
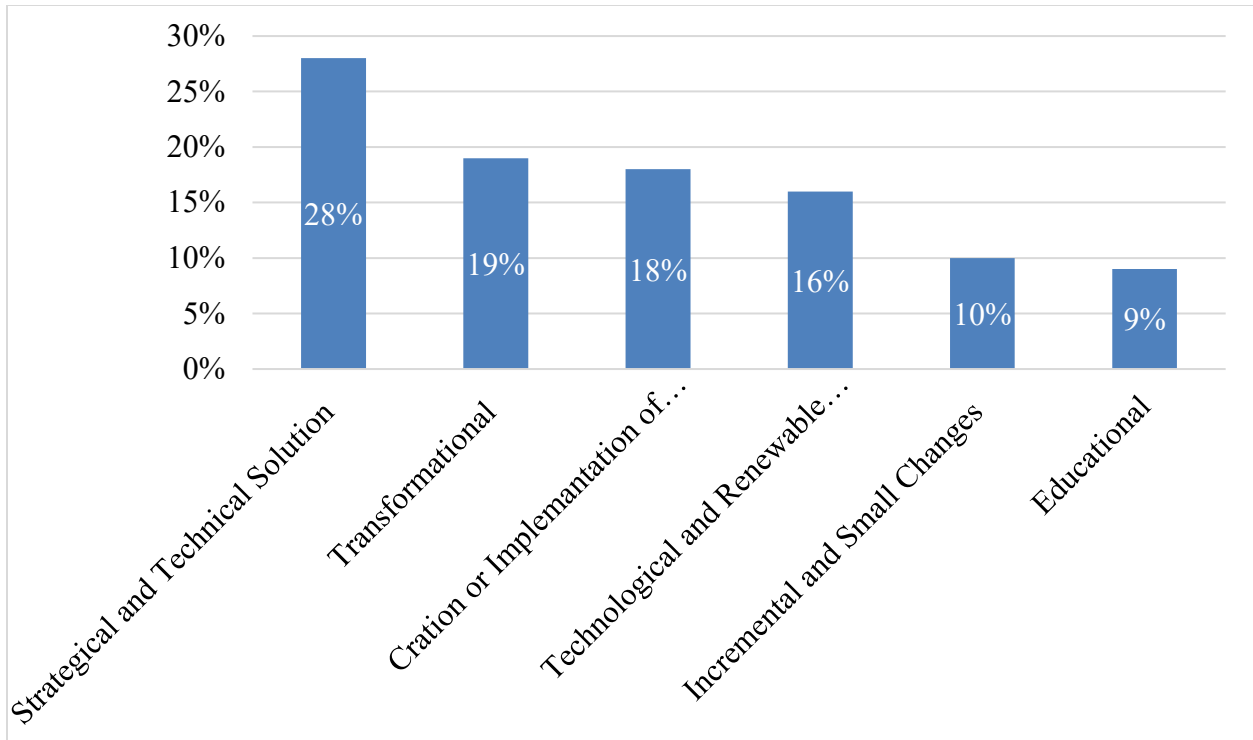
Figure 5.8 The prognostic frame by subcategories
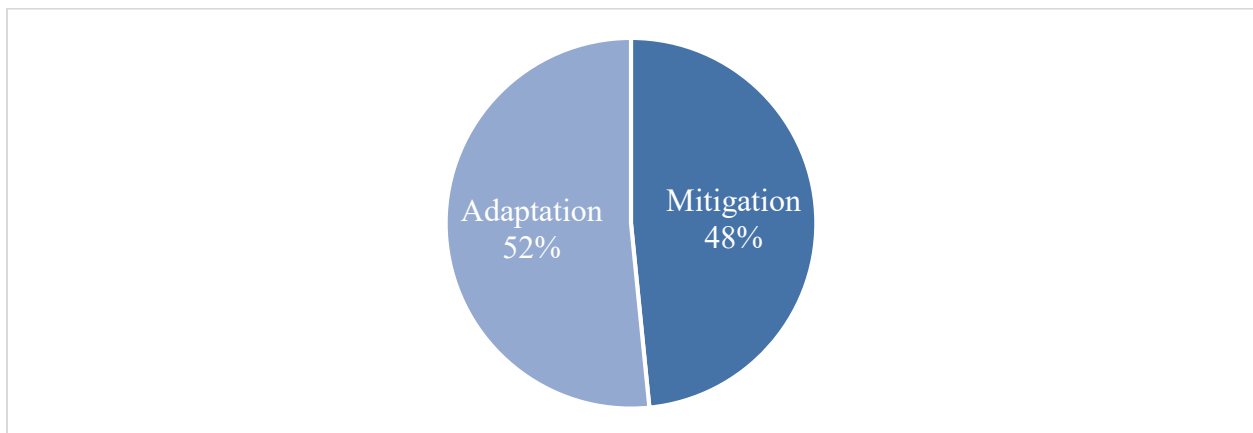
Figure 5.9 Adaptation and mitigation articles in the prognostic frames

strategies, and most significantly, the impossibility of completely preventing warming due to the course of the climate (MOEU, 2012b). Besides, the pressures from the EU and international organizations on Turkey as being an unsafe place due to CC have co-existed with the growth of capitalist inputs and outputs associated with the country's political, social, and economic development.

5.3.2.1 Strategical and Technical Solution Frame

The "strategical and technical solution" (STS) frames were mentioned in 106 articles, representing the largest proportion of prognostic frames in CC articles in the Turkish media. As noted, prognostic frames that identify targets, tactics, and strategies to address the problem. The STS solution frames consisted of specific projects, strategies, and plans applied by governments or industries to halt or mitigate CC effects in society and environment. The STS frames included specific models that emphasized applications in key areas of society, such as infrastructure, waste management, conservation, innovations, transportation, urban sustainability, or sustainable development for the country. These models were classified to indicate the contents of the articles that engaged the public attention in investments, targets, or the models applied to mitigate CC impacts. However, the word "*sustainability*," directly or indirectly, referred to the STS in the content.

I found four models of these frame types in the Turkish media discourse:

Targets – This model was the most prominent STS frame-type and discussed in 42 articles. Climate negotiations covered the most important part to indicate the world's target, particularly targets committed to by nations. For example, considerable newspaper attention was spent reporting the targets for reducing greenhouse gas emissions regulated by binding agreements or national policies. This attention represented how the nations associated their goals with carbon dioxide emissions to mitigate the adverse effects of CC or to achieve their reduction target for GHGs, often with sustainable development embedded in national and international policies. The determinations stated by the countries to limit climate change to 2 °C was the most impressive news writing style in all the three newspapers of the "targets" frames. However, these goals were classified as voluntary basis regarding the propounding agreements:

> The long-term target of the agreement [Paris Agreement] is to keep a global temperature rise below 2 degrees Celsius and to limit the temperature increase even further to 1.5 degrees Celsius. Today, the temperature has risen to 1 degrees Celsius above pre-industrial levels. (Cumhuriyet, 2015)

In the recent years, we have felt climate change in the firmer and frequent way. So many countries stated their plans and targets for reducing greenhouse gas emissions by 2020, and they have already launched these initiatives…. While Maldives set its carbon-neutral project by 2020, Ethiopia put tens of projects into practice. These steps which countries set are even inadequate to reduce the climate change impacts; however, Turkey is not taking actions behind the justification of its specific circumstances being a developing country. (Hürriyet, 2011)

Conservation – In some cases, climate change is portrayed as an environmental threat requiring conservation planning and practice toward wildlife, forests, water resources, agricultural lands, islands, and coasts in order to reduce CC impacts and ensure sustainability. Conservation frames, raised in 33 articles, all prescribed ways to integrate sustainable development with ecological preservation. Reporting news of the status of protected areas, afforestation projects, water resources management, protecting habitats and species in danger, and agricultural protection zoning, the articles provided the strategical and technical analyses of conservation planning processes, most specifically in Turkey:

As a part of national afforestation campaign, the 2.3-million-hectare field will be planted, and damaged forests will be rehabilitated. Thus, a total of 181.4-million-tons of carbon will be captured until 2020. In order to the multi-purpose use and conservation of water resources in Turkey, Basin Master Plans and River Basin Administration Plans will be completed for 25 basins. Cereals which are drought resistant will be locally confirmed and produced. (Cumhuriyet, 2009)

Infrastructure and Transportation – Cities or urban areas damaged by CC impacts were mentioned in 26 articles. Also, some sectors such as transportation and construction were discussed, including the need for new projects and plans to build infrastructure that is resilient to further impacts of CC. These frames also raised issues regarding transportation emissions such as GHGs, or the need to renew transportation infrastructures such as roads and rail lines, as well as urban systems and their infrastructures such as buildings, bridges, and industrial or other facilities. Infrastructure projects including transportation management were promoted for

comfortable places regarding transforming an urban area into a "sustainable city" or a "green city" as the passages determined:

> Sustainable cities with green buildings, renewable energy, and green public transport vehicles provide an alternative against climate change disasters that the world faces. (Cumhuriyet, 2011)

> ...Kadıoğlu stated those: "The precipitation falls in a more extreme way in a shorter period due to global climate change. Thus, the infrastructures in cities cannot hold up to the floods. The floods in cities are increasing all around the world, and these incidents will be increased more. We must redesign the infrastructures in cities according to the new rainfall regime caused by global climate change, not the old rainfall regime…" (HaberTürk, 2011)

> *Investment* – Only 18 articles were related to these frame types that provided the costs of determined financial tools on renewable energy resources, energy efficiency, or innovative business activities, delivering economic estimates for the mitigation of GHGs in industries, or other aspects of "sustainable development" process. In the Turkish newspapers, the responses of businesses and governments were often included, stating that allocating funds to promote investments in this manner could have social and environmental benefits.

> In order to deal with climate change impacts, the costs of the required investment for Turkey were estimated as 32.5 billion dollars in total. The highest amount out of total 32.5-billion-dollar investment will go on building insulation. (HaberTürk, 2014)

5.3.2.2 Transformational Frame

The second most common prognostic frame used in climate change news (71 articles) discussed the need for radical solutions that involve "transformational" changes to societies and environments. Regarding the necessity of the social, cultural, economic, and politic changes in response to the risks posed by CC, the prominence of the transformational frames constitute "an essential part of society's adaptive and mitigative response to climate change," involving re-evaluating the current "existing structures, institutions, habits, and priorities" (Rickards, 2013, p. 690). These frames included sophisticated mechanisms to create a new world system by

transforming the current society into a new one for a future generation. In the Turkish case, CC was indicated as the most dangerous threat to generations to come; therefore, nations had responsibilities to promote a healthy and safe environment as a matter of concern.

Five main transformational frames emerged in the articles analyzed:

Social, Cultural, Political, and Economic Transformation – The transformational frames in political discourse (20 articles) presented an obligatory language or binding norms necessary in international or national policies prepared by governments in the light of increasing GHGs, especially in developing countries, while developed countries tried to stop that increase. Due to developing a policy regarding the necessary transformations in politics, the Turkish newspapers also covered the supra-state orders that provided the intergovernmental agreements to compel the countries to sustain the changes for CC impacts bindingly:

> Turkey must overhaul its intended nationally determined contribution (INDC) working with serious scientific research until 2018. Investments based on coal production must be suspended…. Fossil fuel subsidies must be ended. A developmental model which based on low carbon and climate resistance must be improved. (Hürriyet, 2015)

The second highest transformational frame was economic transformation (20 articles). In these articles, the main argument was that the high level of output and consumption in the current system we are in is incompatible with CC reduction. These frames provided financial solutions that are discussed in the present international climate dialogue, including some complex and inconstant indicators proposed by governments. Mostly, these indicators were related to business or industry complexity, which highlighted their ambitions of maximum revenues in the production process. These articles discussed how economic success could be achieved by engaging sustainable development tools in the end, specifically with using the phrases and words like "productivity," "green economy," or "sustainable production." Another meaningful discussion focused on how the economic transformation would be attained by creating more jobs and reducing poverty if renewable resources or energy can be the ultimate goal for sustainable production.

[TÜSİAD states] that: "… a new sustainable production model must be embraced to surpass this severe economic crisis we face. In that respect, innovation and clean technologies are significant for the reduction of gas emissions." (Cumhuriyet, 2009)

In our country, free solar and wind energy technologies that can compete with other technologies are becoming cheaper and getting abundant. Also, these technologies are estimated to create higher employment rate in investment and energy entities. (Cumhuriyet, 2015)

Social transformation, raised in 17 articles, was similar to economic and cultural transformation. However, this frame focused on social moralities, such as justice between poor and rich, at least using the words "social justice." Social transformation frames pointed out that a society could transform entirely into a new prioritization of social development indicators:

In real terms, we should improve the sustainable development projects. For this, everybody should have access to clean energy, food, and land resources. GNP ranks which show the economic and social development of the countries fail to reveal the existing state. Our definition and criteria of wealth and success should be changed. (Cumhuriyet, 2010)

The cultural transformation of people's values, individual behaviors and attitudes were mentioned in 10 articles. The values embraced in the current system, it was argued, created cultural habits such as overconsumption. This individual behavior and attitude caused high-level GHG emissions or other CC impacts.

If everybody released the same amount of greenhouse gasses as people in the USA do, greenhouse gas emissions would be increased six times more. Nobody wants the poor to remain miserable, but the planet cannot resist these lifestyles which destroy the planet. (HaberTürk, 2009)

Revolutionary or Radical Transformation – 16 articles included content falling into this category, expressing unyielding claims to build a radical change in social structures. Significant indicators for these frame types in the newspapers were the use of the words "revolution," "energy revolution," or "radical" and "radical transformation," to illustrate a need for collective

or mass transformation in society. Critiques of capitalism as being incapable of sustainability in non-human nature were presented; therefore, this frame raised a question of whether capitalism can solve the environmental problems and the climate crisis (Parenti, 2013). This implication was seen only in *CH;* although articles in other two papers did raise the specter of a radical change in global energy use:

> The reality is that the main reason of GHGs, which causes the impacts of CC, is the consumption economy, which rapidly extinguishes the natural resources. The real solution is not the narratives of "green" technologies, but the radical transformation of the production phenomenon that focuses on the profit motive and tyrannically exploits the natural resources of our world. (Cumhuriyet, 2009)

5.3.2.3 Creation or Implementation of Policy or Programs Frame

As Alashri et al. found, this frame-type of the prognostic function from the Niger Delta region (Alashri et al., 2016) appeared in a total of 66 CC articles, discussing policies and programs proposed by countries or intergovernmental attempts to create a global sustainable relation between nature and human beings. In most cases, this frame included statements that the planet needs to be saved, and only a global unity based on voluntary participation can save the planet. Furthermore, these assumptions lead, thus, to a national and a global policy or program announced by the countries as a matter of legal ramifications regarding the need to mitigate CC. In an another research article based on a survey method using the prognostic response "Comply with Kyoto", Lefsrud et al. (Lefsrud & Meyer, 2012, p. 1492) stated that people who completed the questionnaire tended "to fear that risks are greater in extent (i.e. global and regional)", and they believed that "the Kyoto Protocol and additional regulations" are the solution.

However, whereas the only solution seemed a global unity, reporters also provided an additional program and policy that would be created or implemented by a single country, at least for the sake of its society. Concerning the Turkish media discourse of CC in these frames, the articles reflected the need for countries to have a binding force with the creation or implementation of a national or international policy. This passage from *CH* portrays this frame-type:

Heads of EU states signed a historical settlement agreement which concluded "at least" 40% reduction of GHGs until 2030 compared to 1990 levels; so, this determination is the most radical climate framework so far among the leading industrialized countries. The decision is unprecedented in terms of the claim because the regulation shall be binding, and this includes the entire EU region. (Cumhuriyet, 2014)

5.3.2.4 Technological and Renewable Energy Frame

Prospects of renewable energy (RE) and related technologies to offer positive responses to CC have emerged in recent years. This interest has created the distinct possibility to the political, social, and especially economical aspects of this kind of energy and technology as becoming eco-friendly, demonstrated through adaptive methods to marginalize fossil fuel use and mitigate the CC impacts. According to the IPCC report, interests in RE have been rising rapidly, and many factors regarding this increase, such as government policy and a decline in the cost of many RE technologies, have been attributed to growing in the use of this type of energy and technology. One report stated that RE capacity has increased, including wind power, hydropower, grid-connected photovoltaics, geothermal power, and solar hot water/heating by 32%, 3%, 53%, 4%, and 21% respectively in 2009, regardless of economic challenges (Moomaw et al., 2011, pp. 172, 173).

The promotion of RE and its utilization are significantly related to sustainable development and the mitigation of environmental pollution in Turkey, since GHG emissions mostly come from the electricity sector, industrial gas, lignite, hard coal, oil, and natural gas (Erdogdu, 2010; Simsek & Simsek, 2013). The potential of RE and its technological availability represented significant news reporting for Turkish newspapers in discussions of CC. These frames did not appear as most prominent, but a notable number nonetheless (59 articles). As the main reasons mentioned above, the articles portrayed these frame types promoted two main topics: renewable resources and nuclear energy plants. This promotion, specifically for nuclear power, was due to the construction of two nuclear power stations in Sinop and Mersin; also mentioned was the extraordinary potential of RE capacity in Turkey, as indicated by recent findings and scientific facts. Moreover, while nuclear power plants were discussed as a clean energy source, the articles also raised the question of their security. The following paragraphs indicate these frames:

Low and zero emission technologies, especially as renewable and nuclear energy, will be fostered.... The restoration of the existing power plants will be completed.... Local resources, especially since coal, hydro, wind, geothermal, and solar energy will ultimately be utilized [according to Turkish National Strategy for Climate Change report]. (Cumhuriyet, 2010)

We live a geographically wealthy country. It is possible to produce our energy demand from solar, wind, wave, and geothermal methods as protecting the planet. (Hürriyet, 2015)

Nuclear technology which provides energy with "zero" carbon dioxide emissions has become prominent. The number of entire nuclear plants will be expected to increase four times in the next 20-year.... Nuclear energy will be seen to be a requirement for all countries in view of climate change phobia that gradually increases. (HaberTürk, 2009)

5.3.2.5 Incremental and Small Changes Frame

Turkish media discourse also included 36 articles that argued that a great approach to sustainability and CC reduction was through individually or publicly integrated efforts for that amounted to "incremental and small changes." This frame more specifically focused on incremental adjustments to address CC in communities. The phenomenon of CC in these frame-types addresses the vulnerability to CC to illustrate the differences between incremental and transformational adaptation (Godfrey-Wood & Otto Naess, 2016). Whereas the transformational frame implied a systemic response, incremental change frame focused on the individuals and groups who tried to contribute to their community through community resilience projects such as the struggles to have bike roads or parks or green areas. These efforts also included participating in events to support small changes to mitigate CC effects in the region. Besides, the industries and business sectors were mentioned as the contributors in incremental changes. These articles showed how a sustainable community could exist by supporting sustainable production and the projects they provided to local regions. The following passage shows this frame-type:

The citizen Mehmet Savaşçıoğlu highlights that climate change is the biggest environmental event. To increase the attention to this, Savaşçıoğlu states that they

organize a "bicycle touring against climate change" event in the west of Turkey, and they inform the citizens and encourage them to using a bicycle. (Cumhuriyet, 2009)

5.3.2.6 Educational Frame

The main goal of the "educational frame" in Turkish newspapers (33 articles) is to convey an increasing urgency for educating people about global climate change, from international societal actions to smart decisions in energy use, and consumption at the individual level (*Climate Change Education*, 2011). Increasing knowledge was presented as an essential part of the strategy to cope with CC problems.

At this level, education is portrayed as a means to make climate change more understandable and visible. The goal of education is to create changes in individual attitudes and behavior and to develop and understanding of the relationship between CC effects and solutions. Formal or non-formal education projects and programs in local areas or school curriculum, or other places, are mentioned. Throughout these projects and programs, climate change education is seen as fostering public understanding and awareness to achieve climate-resilient development in the country. This passage indicates these frames:

> Educational studies about climate change started under the concept of "Don't let our future melt" campaign by the partnership of TEMA and TURMEPA…. Volunteer teams in the mobile vehicles perform work which educates individual and helps to increase awareness of things to do about climate change. (Cumhuriyet, 2009)

5.3.3 Motivational Frame

The third core framing task, motivational framing, involves presenting a rationale for action and call to arms: "ameliorative collective action, including the construction of appropriate vocabularies of motive," such as "severity, urgency, efficacy, and propriety" (Benford & Snow, 2000, p. 617). Moreover, this motivational frame, which addresses the question of "why climate change issue and corresponding search for solutions are important" (Yun et al., 2012, p. 211), goes beyond diagnostic and prognostic statements to pose the "ground motifs" that refer to what actions should be employed and "why policy actors and citizens should act upon" CC (Alashri et al., 2016, p. 281).

Diagnostic and prognostic frames provide the ground motifs of action, which encourage the public, institutions, or industry to make a contribution to a particular problem of CC. In other words, I found the implicit arguments in diagnostic and prognostic frames provided the basis for the proposed actions applied to CC, but not all articles with diagnostic or prognostic frames necessarily offer a motivational frame unless they mention the urgent need for action or other means of encouraging response. Therefore, in Turkish newspapers, the reporter provided some possible actions, such as a need for individual behavior change, by making specific suggestions from their own ideas of examples of other's action on or response to CC (Figure 5.9). I coded an article as containing a motivational frame if the article went beyond the articulation of a prognostic frame to mention social, cultural, political, or economic benefits of specific actions or responses by countries, industries or individuals. This process would work for diagnostic frames as well. For instance, there is now widespread fear of the increasing levels of carbon dioxide as how such harmful emissions impact health. The reporters in Turkish case used such examples in their articles to conclude a need for action on or response to CC impacts for adaptation or mitigation processes. When doing so for reporting, they used an "interpretive method" to give their examples more of a deductive stance in order to motivate those readers who already are and will be affected by, or felt the impacts of, CC. In other words, they put their efforts on the examples that they explicated to process the motivational frame in their article. Mostly, these examples were from outside of Turkey, such as from the EU countries or the US. Also, the reporters used actors as informants in their articles who make comments on CC problems, to influence their audiences. The focus on examples for both positive and adverse effects of CC is prominent in motivational frames. From these perspectives, the reduction of CC impacts would be based on these examples or what the reporters implied with these examples for motivational frames in the articles if these examples referred to a necessity of action to trigger industries, government institutions, and individuals for their benefits. However, the diagnostic or the prognostic frame to a particular CC problem may not directly influence the form of collective action (Snow & Benford, 1988).

Surprisingly, motivational frames were expressed in a huge number of articles. More than two-thirds of the articles (266 articles) mentioned some form of motivation for action. Some cases directly referred to motivational frames without going beyond the prognostic and diagnostic frames in the articles. Besides, as mentioned above, the diagnostic and the prognostic frames

mostly became "ground motifs," with which the reporters focused on actions that are already known and have been implemented elsewhere, to increase knowledge for how to reduce CC impacts, in order to articulate an urgent need for action (see Figure 5.9). This tendency was "oriented toward stirring the emotions [rather] than to appeals to politics" by giving "an example of the rhetoric of irreparability" (Uzelgun & Castro, 2014, p. 340) or discourse of "recoverability" to motivate the audiences who might realize the possibility to act. Consequently, the reporters used effective selection mechanisms for interpretation of the problem in their framing of what and how action to reduce CC in Turkey compares with what and how others accomplished responses to CC.

With this tendency, the Turkish climate change media discourse used a vital language not seen widely in media in developed countries. This attention emphasized the importance of and criticized the lack of governmental actions rather than localized strategies that people can afford (Alashri et al., 2016). Also, as Turkey tries to become a developed country regarding still using the old fashioned western developmental aspirations, such as constructing more coal plants for energy demand in the future, the articles mentioned the motivational frames in Turkish case refers to the need to change this trend, invoking the concept of *sustainability*. Many articles were strongly critical of aspirations for conventional fossil-fuel-based western development, and tried to encourage the government and the public to change behavior to the green demands of sustainable development, offering examples of green initiatives in developed countries such as the US or Germany or the EU nations, as well as other nations that want to reach a future sustainable production method.

As shown in Figure 5.10, I provided six subcategories of motivational frames representing the urgent need for CC action. "Planning and control action" represented the highest proportion at 23%, followed by "clean and renewable action," "structural action," and "governance or political action" by 19%, 18%, and 16% respectively."Symbolic action" and "individual behavioral change action" both represented 12% of the motivational frames.
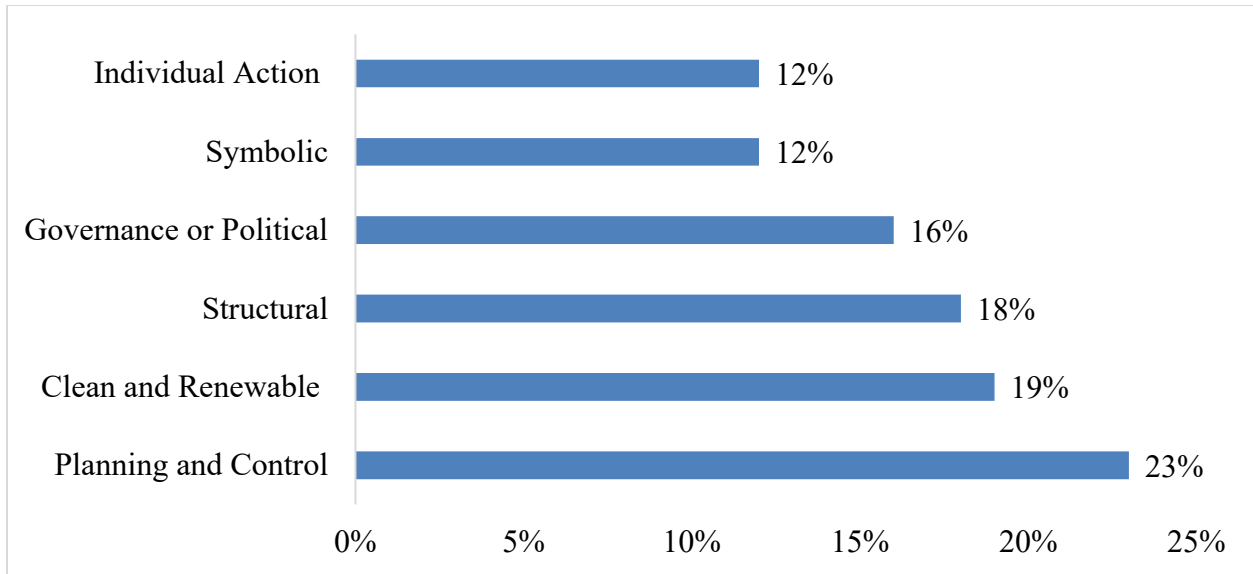
Figure 5.10 Motivational Frames by subcategories

5.3.3.1 Planning and Control Action

The "planning and control action" frame had a significant representation and the biggest number of CC articles (110 articles). How to take control of CC impacts and formulate a plan for this control frame determined the findings of these frame types in the Turkish newspapers. However, most articles presented life-sustaining implications and suggestions to the public and government. Moreover, this presentation was the way the reporters increased awareness to illustrate that there has been an urgent situation of CC impacts and there have been other different applications (mostly examples like the debate on nuclear or renewable energy use from other countries such as the EU countries) to respond to that "alarmistic call." Furthermore, the reporters would bring up some critical effects of this impassiveness to determine the "ground motifs" in order to mobilize and sustain the civic engagement which might "push for policy changes at any level of government" (Moser, 2009, p. 283) if the suggestions for a specific solution have not been articulated yet in the news reports.

The call for action to the public, industry and business groups, and the government are justified with knowledge and information about the problem, the resulting awareness of which is presumed to motivate the action. Actors who are speaking for CC have a significant role in this triggering process. Turkish newspapers provided these actors opportunities to make suggestions. This method let the reporters or columnists teach or portray the knowledge and information for

the "planning" and "control" actions that go beyond the diagnostic and the prognostic indicators. These passages from the newspapers' articles indicate the planning and control (monitoring) action frames:

> In 2010, the proportion of renewable energy as the wind, solar, biomass, and waste except hydroelectric was almost 14% in Germany. This percentage is not even close to 2% in Turkey. Today, Germany aims to reduce its emissions by 80% in 2050 by increasing the share of renewable energy by 50% and cutting energy use in half beside a renunciation of nuclear power. However, Turkey has a dream to return to build the 12000mw nuclear plant and make a threefold increase in the power stations which operated by fossil fuels until 2030. Due to these policies, without a greenhouse gas emissions target, Turkey does not even respond to Copenhagen Agreement.

> Turkey's lack of response to climate change will result in being left out in a new energy model in the future. Other than the publicly known carbon taxes, recent agenda of carbon tax rate and the low carbon emission economy are significant threats. The processes we come across today in Turkey, such as disregarding climate change and accepting high carbon economy but ignoring politic responsibilities, manifest an energy revolution which will be created by social pressures as the only solution. (Cumhuriyet, 2011)

> In order to decrease greenhouse gas emissions caused by agricultural activities, [Mr. Bayraktar] emphasize the importance of implementation of sustainable and climate adaptable production techniques, proper feeding methods in animal husbandry, recycle of animal waste and products, and the preservation of agricultural areas, [also] states: "It is necessary to see raising awareness to the climate change adaptation, briefing the farmers, developing early warning systems and the related plans as a whole. Water quality decreases due to the climate change effects on water resources is a known fact.... Our country is not water rich. With considering the adverse effects of the improper use of water because of the increasing population and farming, it is impossible to ignore the importance of protecting clean water resources for the next generations." (Cumhuriyet, 2012)

Environmental experts, the President of USA, Obama, and the European Union are agreed that carbon dioxide level should be reduced by 80% until 2050 in industrialized countries. Only in 40 years, technology will and should be more invested for low-carbon levels.... Turkey has a strong economy. Turkey should use its power to produce valuable products for both the benefits of the country and the earth. (Hürriyet, 2010)

5.3.3.2 Clean and Renewable Energy Action

The "clean and renewable energy action" frames (92 articles) are similar to the "technological and renewable energy" frames found in the prognostic frames. However, this frame-type made a critical analysis of why the public should be aware of clean and renewable energy and why everybody should engage in this particular awareness at a household level, support a regulatory approach, with changes in traditional attitudes to respond to CC effects on the societies.

Mostly, the articles provided strategies for clean energy use that can be attained at the societal level. Articles covered these frame types (behind referencing to diagnostic or prognostic frames or before remarking about them) by providing encouragement to the public, industry and business, governments, and individuals to use more clean and renewable energy. At the national level, this framing called for transferring information and resources among the countries, particularly between developed and developing countries, to increase the capacity of clean energy use in the world. In other cases, there were calls for fostering habits to reduce energy consumption in households and among individual. Use of these methods also pointed to significant reasons why Turkey had challenges to motivate changes in industries, institutions, and the public. The reporters, thus, used the "ground motifs" to create an outlook on why clean and renewable energy consumption is necessary for societies.

Fossil fuel use increased the average of the planet temperature to the highest level in the last millennium. The humanity must turn towards the clean energy resources such as biomass, geothermal, wind, and solar. The new investment method of many countries on energy production is becoming based on clean energy. This [method] means that clean energy such as the wind and solar, which has a great potential but not used most, has been supported. Small steps for this change are under consideration. (Cumhuriyet, 2015)

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While the USA is still encouraging to use the vehicles, which have efficient energy consumption, CNNMoney magazine provides the ten most environmentalist cars for 2010. (Hürriyet, 2010)

Olafur Grimsson mentioned the firms which have been active in this [geothermal] sector in the last 30 years in Iceland and stated: "We have a well-established engineering and technology basis for geothermal energy. We can transfer this technology to Turkey. Our companies design projects in China, Central and Eastern Europe, India, and the Philippines." (Cumhuriyet, 2011)

5.3.3.3 Structural Action

The "structural action" frames were expressed in 89 articles. They referred to a need for reconstruction of the current economic, social, and political systems in response to CC. In the Turkish case, the rebuilding process of the present system was seen as a necessary approach to sustaining the planet and societies. Mostly, the current arguments, as well as solution proposals in the articles implied an inadequate response due to social, economic, and political deficits in the existing system. Actors had significant viewpoints of these deficits by applying some suggestions to point out the call for structural changes. For example, some articles argued that the neo-liberal approach to solving the CC impacts be deficient regarding investing money in reducing GHG emissions because CC problems need the immediate response for society's or the planet's future. For this reason, this frame includes arguments that a new system approach for structural change should be instantly implemented to stop CC impacts. Such frames were most prominent in the reporting of *CH* newspapers. This style of the reporting probably was due to its political inclination because the coverage was like an attack on the existing systems.

For both *HR* and *HT*, the reporting regarding the structural action had suggestions which mostly identified the question of how and what CC management should be rather than who should be doing the management, or where this management should take place. According to these suggestions, the trigger of the core action is only about the re-establishing the balance between societies and their environment, not only restructuring the system itself. Therefore, these newspapers make a call for a new and modern approach to the current regime in the developmental stage. The following passages provided these frames:

The speech of the head of WWF (World Wildlife Fund) Akın Öngör in Green Facilities
Conference stated that if the balance between ecologic and economic development is not
be constructed, a sustainable lifestyle would not be possible. Öngör emphasized that
climate change is a crucial topic for Turkey, and stated: "Our carbon dioxide release
increased by 119%. It is free to release carbon emission today. Carbon pricing needs to
be adjusted." (Hürriyet, 2009)

Climate change politics which based on the market economy are not working anymore as
seen in international negotiations that have been spun around in years. In order to
decrease greenhouse gas emissions, which cause climate change, there is the need of
enormous investments, while the enormous costs are discussed. It had been seen that the
governments had mobilized trillion dollars for saving the banks in no time at all; it means
that resource is available. (Cumhuriyet, 2014)

5.3.3.4 Governance and Political Action

CC imposes significant experience for international and national commitments among the
countries. The "governance and political action" frames were discussed in 79 articles that
discussed the national and international policies proposed by nations around the world. With
these propositions, the newspapers ensured that there has so far been such work on an adequate
CC understanding in what can be a response to a global governance level as well as national
level since the beginning of the global meetings. However, the critical determination of these
frames provided a significant collective action issue regarding a call to arms for nations
considering that the global response to date has been weak. Nevertheless, these frames covered
the positive sides of these comprehensive and national attempts.

Specifically, the negative tones of the articles reflected these ground motifs making the claim
that CC governance was a political commitment issue, yet acknowledging that the commitments
require countries or their "political leaders to adhere to a particular course of action that is
potentially unpopular" (Held & Hervey, 2011, p. 8). Turkish media discourse made some
sufficient suggestions to address this problem while calling for a political commitment from
nations in international and domestic (also local basis) level preparations on CC. For example, a
post-Kyoto international agreement shaped by UNFCCC that commits its parties to setting

targets to reduce the CC impacts was frequently discussed. By implying this argument in the newspapers, the reporters also tried to make clear the commitments of the countries and their promises, in comparison to national level preparation. This passage provided these frame types:

> …because the year 2015 is our last chance for the climate change action that the temperature needs to be kept under 2 Celsius. According to scientists, this step has a vital importance to prevent the possible impacts of massive droughts, floods, and severe food shortages caused by climate change. In order to success on this purpose, we absolutely should have a comprehensive, ambitious, and binding global agreement. There is a hope to achieve such this political attempt for this purpose…. Germany and EU are ready to what they can contribute for this. (Cumhuriyet, 2014)

> The globalized world means such that; today, we all pay the price for the climate change disasters caused by industrialized countries who started it two-hundred years ago. The increase in the importance of G20 is the proof of such this globalized world. The decisions made by G8 are insufficient; therefore, the decisions made by industrializing countries including Turkey should be embraced for common steps. (Hürriyet, 2009)

5.3.3.5 Symbolic Action

The "symbolic action" frame might be the most valuable indicator of the motivational frames due to the contents coded in the articles. These frame types were found in 62 articles which portrayed a collective action framework for the CC movement around the planet. Such coverage in the newspapers is performed to illustrate the efforts of many organizers such as WWF and Greenpeace, or those of regular participants to internalize the global or local campaigns. With these frames, the newspapers also provided a dialectical tension and critical messages related to CC solutions, especially political solutions, to the public. Another way to influence people was through coverage of the movies, documentaries, and exhibitions, and formal or informal demonstrations regarding CC impacts. Although symbolic actions were a prominent frame in the motivational frames in terms of ground motifs, this type of action referred to a "call to arms." Therefore, the symbolic actions are portrayed as necessary for social movement mobilization.

By contrast, many critics have noted that symbolic actions which were undertaken by states and businesses provide the impression that action is being taken when it is not. The symbolic action of governments and industries discussed in the articles were mostly related to symbolic politics, which "are undertaken not in an attempt to communicate more effectively with the target audience but rather to deceive that audience and lead it to believe that actions are being undertaken to address a concern when in fact the symbolic actions will not have the stated or implied effect in practice" (Cass, 2008, p. 469). In other words, the regulatory approach remained symbolic politics rather than an action. This paragraph is a case of these frame types in the Turkish media discourse:

> A symbolic action named as "Earth Hour" has started since 2007 and become a global movement for global warmings such as including the buildings like the Eiffel Tower, Egyptian Pyramids, and Empire State building. This year, one billion people from more than 100 countries will attend this event to illustrate that a symbolic and basic movement can make a difference as conveying a message. (Cumhuriyet, 2010)

5.3.3.6 Individual Action (Behavioral Change)

"Individual action" frames, discussed in 56 articles, referred to behavioral challenges and public support for acting to address CC. This frame represents efforts in Turkish media to influence the public or individual attitudes to create a shift in thinking and action for CC preparedness activities to engage them in the mitigation and adaptation process. Another way the newspaper utilized an effective climate mechanism was to support a new policy or push the government for policy-making process.

Another representation of this frame is when the reporters make some suggestions in the articles to process and trigger the necessity of behavioral changes in people's daily life. For example, the human health problems due to hot weather, the human safety issues in an Icelandic region due to sea level rise were described to create awareness with given suggestions to change individual behaviors. Also, almost all the articles in the "behavioral action" frames propounded these proposals to change individual behaviors and attitudes, putting responsibilities on the household, local, and global level. Here is the example of this frame type:

If the human activities are seen as the causes of climate change, then individual efforts should not be underestimated. In fact, big or small electrical appliances must be unplugged while they are disused; plastic bags use must be reduced to a minimum; …battery, paper and glass waste must be thrown in the boxes set by municipalities make the planet more livable and will make it more livable in an absolute way. (Cumhuriyet, 2010)

5.3.4 Paradox Frame

The last finding is of a climate change frame-type that emerged in Turkish media discourse that has not been present in previous studies of media discourse analyses of CC. I have termed these "paradox frames," expressed in 58 articles (7% of the articles). The paradox frames emerged in two important arguments in the Turkish media. On the one hand, the first argument was based on the developmental stages of countries; the importance placed on national growth, reflecting a "development first" paradigm in all the dimensions of the capitalist system; for example, the Turkish government is excited to construct new fossil fuels-based power plants. The articles which employ the paradox frame state that this desire for rapid development of the country is known to destroy the environment, impair air quality, and damage the economy and the society in the future. The coverage of this paradigm was mostly seen in the *CH*, often taking the critical position that the capitalist system has not been willing to change, leaving us stuck to find a global solution to save the planet.

Other articles highlighted the conflict or dilemma between what the scientific arguments imply, and the political, social, and economic responses to CC provided. These articles included reporters or actors who use keywords and phrases like "conflict," "dilemma," "contradiction," "not make sense," or "paradox," and also often pose rhetorical questions to readers at the end or beginning of the paragraph. Considering the newspapers' coverage of the paradox frame, the *HT* placed the smallest number of paradox frame articles (2 articles), while the *CH* had the largest number of the articles due to its political inclination (47 articles); the *HR* had nine articles:

Obviously, there is a paradox…. The forgery and hypocrisy of the developed countries can easily be seen in every aspect of daily life…. It is no joke, and should not be ignored: All creatures are in great danger. The reason: "Global warming…" (Cumhuriyet, 2015)

The general director of WWF (World Wildlife Fund), Dr. Filiz Demirayak, said: "Today, there is a contradictory situation that Conservation of Zoning Plan in Polenezköy allows the way for construction although green spaces which are around the megacities are so precious due to both the struggle of climate change and the protection of great divides." (HaberTürk, 2011)

5.4 Issue Categorization

A total of 316 articles were coded for issue categorization. In the seven-year period marking the scope of the analysis, I focused on the ten most frequent issues that the newspapers portrayed. The issues were stated by applying the main subject or major issue mentioned in the articles. Interestingly, an article did not discuss only one main topic about CC. Rather, it focused on indirect arguments reported with other aspects of the CC issue. In other words, in most cases, either the reporter or the columnist tended to provide multiple ideas. Nevertheless, in many articles, it was possible to identify the main idea.

As shown and described in their abbreviations in Table 5.1, the top ten issues represent various CC topics about countries as well as individuals and national or international corporations, and regarding the causes, threats, solutions, and responses or actions. The most prevalent issue mentioned was "EED," followed by "TA" and "SD," by 24%, 20%, and 11% respectively. The lowest issue emphasis went to "2C" (5%), while "ED" and "NGOA" were each expressed in 5.5% of articles.

This range of issues reflected the significant challenges as the Turkish media discourse navigated around the multiple topics rather than focus only on a specific topic. The multiple topics mentioned in an article might be because of Turkey's emphasis on adaptation and mitigation processes in the global world economy and the lack of CC politics in the country.

Table 5.1 Top ten CC issues in the Turkish media discourse

ISSUE	DESCRIPTION	PERCENT
Ecological and Environmental Degradation (EED)	A matter of urgency; a catastrophic signal for environment and nature; also, the loss of the ecological balance.	**24.48%**
Turkey's Action or Response (TA)	Turkey's response to CC regarding the solutions and actions frameworks.	**19.53%**
Sustainable Development or Sustainability (SD)	A means of solving problems of CC; an alternative path to transform the system into a sustainable way to reduce the impacts.	**11.46%**
Others' Action or Response (OA)	A response to CC by developed countries and national and international industries to indicate their solutions and actions framework they take or imply.	**8.07%**
Transition and Efficiency in Energy (TEE)	A change in energy use as applying methods for energy efficiency; a transition in energy such as using renewable energy rather than coal, oil, and gas.	**7.55%**
Climate Change as the End (CCE)	If the humans do not take precautions or actions for CC, there may be possible disasters; or the planet would come to an end.	**7.03%**
United Nation Climate Change Conferences (UNCCC)	It is mostly about the conferences placed in almost every year by United Nations for CC to constitute international and national political commitments for nations who attend.	**5.99%**
NGOs' Action or Response (NGOA)	NGOs' response to CC to illustrate their action or response frameworks they take or imply.	**5.47%**
Economic Development (ED)	It is about how CC affects the world economy as well as a single country's economy regarding an opportunity for creating new jobs or the risks for the global and national market.	**5.47%**
2° Celsius (2C)	2 °C is the limit to not to be exceeded for CC; otherwise, we cannot survive on a warmer planet.	**4.95%**

5.4.1 Issues vs. Frames

	EED	TA	SD	OA	TEE	CCE	UNCCC	NGOA	ED	2C
■ Diagnostic	49%	11%	1%	2%	6%	11%	2%	1%	12%	5%
■ Prognostic	5%	29%	21%	13%	11%	1%	7%	8%	3%	2%
■ Motivational	10%	23%	17%	12%	11%	4%	5%	11%	5%	2%
■ Paradox	3%	45%	0	21%	8%	11%	5%	0	7%	0

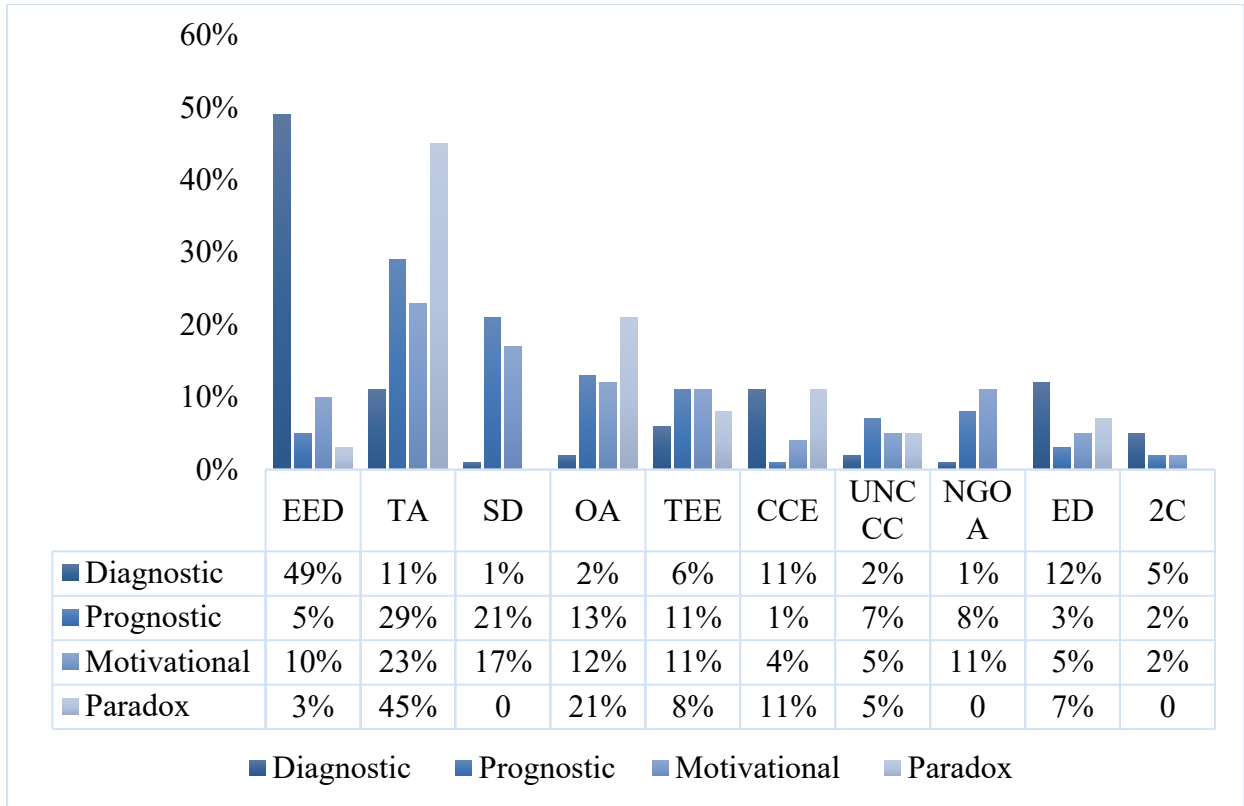■ Diagnostic ■ Prognostic ■ Motivational ■ Paradox

Figure 5.11 The cluster analysis of the "main frames" and the ten "issues"

The EED issue was mostly related to the causes and threats sub-frames of diagnostic framing (49%), while the articles discussing TA was more likely to represent the prognostic (29%) and the paradox framing (45%). The articles mentioning SD were associated with the prognostic (21%) and the motivational (17%) framing. The issues, TEE and UNCCC, referenced the prognostic framing, whereas NGOA represented the motivational framing more in-depth. Interestingly, the paradox framing was more seen in TA (45%), OA (21%), and CCE (11%). This representation would be that Turkey's and other countries' actions of CC did not make sense and lead the reporter to illustrate the paradoxical arguments which were present a critical analysis of the political, social, and economic conflicts of the causes and the responses in CC adaptation and mitigation actions.

Also, ED and 2C were mostly related to the threats subcategories of the diagnostic framing. Overall, the table shows that the motivational framing had the highest proportion of the total representation of the issues (see Figure 5.12).

Table 5.2 The cluster analysis of "diagnostic frames" and "issues"

Issues vs. Diagnostic Frames	EED	TA	SD	OA	TEE	CCE	UNCCC	NGOA	ED	2C
Blame or Responsibility	9%	13%	3%	7%	23%	1%	17%	4%	15%	8%
Human Activity	49%	27%	-	-	2%	9%	-	-	13%	-
Insufficient Response	16%	-	-	17%	8%	8%	-	4%	-	47%
Agricultural Collapse	100%	-	-	-	-	-	-	-	-	-
Economic Consequences	11%	7%	-	-	-	-	-	-	82%	-
Food Security	56%	15%	-	-	-	-	-	-	29%	-
Future Impacts	33%	8%	-	-	4%	31%	-	-	20%	4%
Impacts on Species	83%	2%	-	-	-	14%	-	1%	-	-
Multiple Impacts	22%	7%	-	-	3%	43%	-	4%	17%	4%
Catastrophic Disasters	89%	6%	-	-	-	1%	-	-	1%	3%
Pollution	80%	10%	10%	-	-	-	-	-	-	-
Public Health	53%	24%	-	-	3%	-	-	-	12%	8%
Social Unrest	40%	17%	3%	-	16%	23%	-	-	-	-
Water Scarcity	-	100%	-	-	-	-	-	-	-	-

On the one hand, Table 5.2 illustrates the cluster analysis of each single subcategories of the diagnostic framing. As the table shows, all the subcategories specifically and mostly represent the diagnostic framing, except water scarcity. "Water scarcity or Waste" subcategory had the 100% representation of the TA issue. While discussing the consequences of Turkish actions for

Table 5.3 The cluster analysis of "prognostic frames" and "issues"

Issues vs. Prognostic Frames	EED	TA	SD	OA	TEE	CCE	UNCCC	NGOA	ED	2C
Targets	5%	33%	9%	39%	-	-	-	-	-	14%
Conservation	50%	37%	13%	-	-	-		-	-	-
Infrastructure and Development	8%	17%	18%	-	17%	-	-	32%	8%	-
Investment	-	42%	15%	20%	11%	-	-	-	12%	-
Social Transformation	-	53%	47%	-	-	-	-	-	-	-
Cultural Transformation	-	-	-	-	100%	-	-	-	-	-
Political Transformation	-	34%	-	17%	31%	-	18%	-	-	-
Economic Transformation	-	-	92%	-	-	-	-	-	8%	-
Revolutionary or Radical Transformation	-	16%	12%	31%	10%	-	-	-	22%	9%
Creation or Implementation of Policy or Pr.	-	25%	-	21%	5%	-	40%	6%	-	3%
Technological and Renewable Energy	-	14%	45%	11%	30%	-	-	-	-	-
Incremental and Small Changes	-	55%	12%	10%	-	7%	-	16%	-	-
Educational	-	49%	14%	-	-	-	-	37%	-	-

Table 5.4 The cluster analysis of "motivational frames" and "issues"

Issues vs. Motivational Frames	EED	TA	SD	OA	TEE	CCE	UNCCC	NGOA	ED	2C
Planning and Control Action	25%	31%	14%	14%	5%	-	-	2%	6%	3%
Clean and Renewable Energy Action	-	22%	41%	15%	18%	-	-	4%	-	-
Structural Action	8%	18%	22%	4%	15%	9%	1%	-	21%	2%
Governance and Political Action	1%	35%	2%	11%	18%	2%	23%	2%	-	6%
Symbolic Action	12%	17%	-	11%	1%	13%	1%	45%	-	-
Individual Action	4%	9%	31%	15%	4%	-	2%	31%	3%	-

CC, the reporters tended to give full attention to the threats of the water scarcity in Turkey. On the other hand, the prognostic framing mostly used TA and SD issues to depict and discuss the solutions and the strategies (see Table 5.3). The view of the strategical and technical solutions for "Investment" subcategory presented TA with 42% while economic transformational frames were relevant to sustainability by 92%. To educate individuals for CC awareness, NGOA and TA shared the interests for educational purposes in the solution category with 37% and 49% respectively. TEE issue surprisingly had all articles of "cultural transformational" solutions with 100% representation. Also, due to the intergovernmental response of CC, UNCCC issue reported mostly in the articles of "Creation or Implementation of Policy or Program" framing by 40%.

Finally, the motivational framing had higher proportions in five subcategories; TA, SD, OA, TEE, and NGOA (see Table 5.4). On this result, it can be discussed that NGOs in Turkey had more interest in individual behavioral change and increasing the public attention and awareness of CC with using symbolic messages. Moreover, national and international attempts for the

policy-making process were mostly applied by the governmental and intergovernmental actions. Sustainable development was also a topic for action strategy with framing SD in "Clean and Renewable Energy Action."

CHAPTER 6   DISCUSSION AND CONCLUSION

Turkey is a coal-rich country. CC policy of Turkey is thus mostly related and assigned to the politics of "special circumstances." An instance of this politics was seen in COP21 in Paris in 2015. A strategy for mitigation purpose has been to set Turkey's target for the reduction of gas emissions, which has been determined as "the reduction from the increase" while it has been highlighted that the target must be non-binding, dynamic, and flexible. With this objective, Turkey somewhat implements "an adjustment policy" for CC rather than "a reduction policy" (Şahin, 2014). This situation leads the country to work towards an international framework for CC actions (Erdogdu, 2010) rather than national implications with claiming that developmental aspirations for the country are of the top priority. Due to this developmental stage, Turkey's approach to national CC policy is dependent on its economic growth which is the growth in energy production in the country. This energy-economy nexus is thus based on fossil-fuel-use that causes a constant increase in emissions (Şahin, 2016). Although the country's ambition for economic growth is a priority challenge, Turkey still will not pledge its reduction policy until 2020.

Based on the above material, due to the recent national political circumstances, specifically the military coup attempt occurred in July 2016, the refugee crisis because of the war in Syria, and also terror attacks in some regions, Turkey has given its political attention mostly to national security debates and political conflicts that have occurred between the current government and terror-related actors. These political events might manipulate and affect the CC debates for the country's national implementation of reduction and adaptation policies. Thus, CC has most likely remained in international diplomacy and economics of policymaking for the future projects of constructing national CC-related policies (Uzelgun & Şahin, 2016). Also, lack of transparency in the country's INDC report and participation in international CC debates could be due to "one of the primary reasons for insufficient research-based policy making in the climate change policy field in Turkey and not a lack of scientific expertise or technology" (Şahin, 2016, p. 126).

The articles in all three newspapers in Turkey demonstrate a general agreement regarding the science of CC and its anthropogenic sources, with many identifying anthropogenic climate change as the top threat to the planet. Nisbet and Scheufele, in reference to Western media, state

that CC "has historically been framed in ways that reinforces partisan divisions while undermining widespread public concern," including climate-sceptic messages (Nisbet & Scheufele, 2009, p. 1771). However, as compared to, for instance, the US and the UK on the coverage of CC news, this study found that skeptical messages regarding CC are nonexistent in the content of all three newspapers in Turkey, even across newspapers with highly distinct political inclinations, from conservative to progressive, nationalist, and secular or republican (See Uzelgun and Castro, 2015). This similarity is due to the fact that CC is a fact and emphasized as a threat in the reporting between 2009 and 2015 in Turkish media.

In the time-period of this study, the general trend in the increase of article numbers is likely attributed to international events and Turkey's candidacy for inclusion in the EU, which induces an urgency to promote a national climate policy in Turkey. Also, a large portion of articles uses negative tone headlines, 47%, although *HR* uses positive tone more than the other newspapers. Furthermore, as another recent study found, Turkish newspapers still depicted CC as a global level issue. Therefore, the most prominent actors quoted or referred to in the articles included government or political sources, similar to other studies (Carvalho & Burgess, 2005; Uzelgun & Castro, 2015). This similarity might be a demand for a collective response to CC problems because these political actors who speak for CC might have the power in terms of pushing the agenda to have bindingly a legal application and thus promoting a global response. Another reason might be that the media attention of intergovernmental conferences and summits have gained more popularity recently and affected the reporting of the key players to increase public attention.

Regarding framing, firstly, due to applying "the generation of selective incentives," Turkish media devoted substantial attention to motivational frames (calls for action) rather than to prognostic and diagnostic frames. These selective incentives construct "the task of convincing particular participants of both the need for and the utility of becoming active in the cause" (Snow & Benford, 1988, p. 202). This process is like an integration of intercorrelated triangular which the motivational frame is in the center (Figure 6.1). These incentives specifically highlight a strong reporting of devastating environmental impacts, which influences our environment and societies all around the planet. With a presence of 68%, "threats framing" is thus the dominant diagnostic frame-type in the articles. When reported in these frame types, the events in Turkey

are associated with the rise in weather changes, floods, tornados, droughts, and desertification. These events create an "alarmist approach" employed to convince readers that the threats of CC need an urgent response. Secondly, due to Turkish development aspirations, the concept of *sustainable development or sustainability* is predominantly reported in conjunction with discussing adaptation and mitigation of CC, including appropriate strategies, tactics, and targets as significant tools in prognostic frames. In most studies, researchers have found that the media texts tend to promote mitigation policies to reduce GHG emissions (Alashri et al., 2016; Davidsen & Graham, 2014; Yun et al., 2012). On the contrary, in Turkish media, many articles focus on adaptation processes. The promotion of adaptation responses is also prominent in motivational frames, representing a huge number of the articles that use a vital language that has not been seen in the media of developed countries. This attention is referred to as the "ground motifs" embedded in diagnostic and prognostic frames, leading directly to motivational frames. Finally, this study produced a novel finding, the paradox frame in Turkish articles. This frame was not present in a large proportion of articles, but prevalent enough to be remarked upon. Articles employing this frame contribute a significant new line of discourse in Turkish media, commenting on the paradoxical implications of facing a severe crisis while continuing to support practices that only serve to exacerbate that crisis. This frame serves as a source of justification for transformational changes in the dominant political, social, and economic system.

For issue categorization, the dominant frame of "EED" led to expressions of urgency and catastrophe, related particularly to a loss of the ecological balance. Nonetheless, regardless of the degree of crisis presented, reporters continued to draw reader's attention to solutions (in other words it is not hopeless).

Based on the findings, I try to answer three major questions to analyze and specify Turkish media discourse of CC in terms of both theoretical and practical concerns: How is climate change represented in the articles regarding general trends as finding the number of the articles in the newspapers, overall tone of the articles, geographical scope for each article, and key players to determine who speaks for CC? What frames constitute coverage of CC in Turkish media, and how are these frames presented? What are climate change issues covered in the newspapers regarding their focus on the significance of CC discourse?
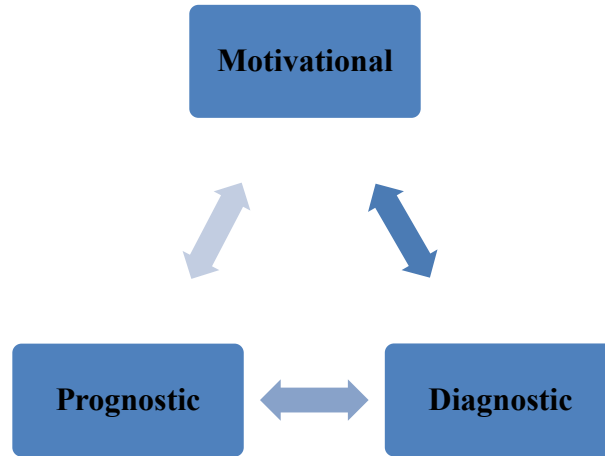
Figure 6.1 The integration of the core framing tasks in Turkish media

In sum, this paper presents a holistic approach to addressing CC, based on the adoption of a framework including the core framing tasks, in order to identify dominant media frames and detect the relevant categories to extend the concept of these predominant frames.

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