Arctic Interests and Policy of Turkey: Dilemmas, Approaches and Initiatives

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To date, Turkey has been cautious with its Arctic policy creation and enforcement. In so many ways, this is not surprising in that its regional role is rather low due to being a non-Arctic state. However, in recent years, Turkey's interest in the region has increased. Turkey, following the logic of some other non-Arctic countries, is not positioning itself as a "near-Arctic" state or a "vertical Arctic nation". The main arguments for Turkey's interest in the Arctic may be associated to Turkey's geographic location, culture and history. In addition, Turkey's interest in the Arctic entails five main elements: (1) international cooperation and science diplomacy, (2) climate change and the environment, (3) Arctic Council observer membership, (4) economic opportunities, and (5) security. Turkey's policy towards the Arctic is divided into three periods: (1) from the foundation of the Republic to the end of the Second World War; (2) from the beginning to the end of the Cold War, when Turkey was a member of NATO; and (3) the post-Cold War era. Turkey is interested in the Arctic for scientific, political, and economic reasons. The article aims to examine the reasons for Turkey's Arctic policy and interests. The importance of Turkey's participation in the region is discussed from a historical perspective. During the preparation of the article, comprehensive research was carried out on documents from the Presidency State Archives.

Introduction

Although most of a state's daily activities in the international arena are responses to the actions of other countries, each nation tries to implement consistent, comprehensive, long-term strategies to serve its national interests. While some countries publicly announce their national policies and strategies about a certain area or subject (space, the North and South poles, defense, etc.), many other countries, such as the Republic of Turkey (Turkey) either avoid this as a principle or simply do not do so (Aydın, 2020: 209). However, it is possible to identify the strategies of various countries from the actions and explanations of decision-makers.

It is not easy to locate an Arctic policy in Turkey's general foreign policy, to create a specific framework for it, or to identify a coherent factor of continuity in it. Considering that Turkey is not an Arctic coastal state, at first glance, its participation and interest in the region, as well as its Arctic

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policy, could be seen as surprising. If we focus on scientific studies only, it is possible to limit this within the last 15–20 years. In this case, participation and interest in the region, and Turkey's Arctic policy, could be viewed as a consequence of its efforts to achieve greater political penetration on a global scale. This article examines the complex relationships underlying Turkey's interest in the Arctic region and focuses on its essence rather than on its visible aspects alone. Documents in the state archives, including the minutes of the Grand National Assembly of Turkey (TBMM), historical scientific publications, newspapers, and the explanations of policymakers, reveal a historical overview of Turkey's participation and interest in the Arctic. One key purpose of this article is to posit the following:

- Hypothesis 1: Turkey's geographic features, historical and cultural ties to the region are a driving force behind its interest in the Arctic. However, there is a very limited link.
- Hypothesis 2: Turkey's Arctic policy has varied slightly over time, the unifying feature is that it has difficulty adopting a holistic approach to the region.
- Hypothesis 3: Turkey's reasons and areas of implementation for the Arctic are associated with international business collaboration and science diplomacy, climate change and the environment, Arctic Council observer membership and the Svalbard archipelago, economic opportunities, and security.

This article asserts that in recent years, Turkey's Arctic policy has aimed to diminish the effects of climate change and to contribute to scientific activities in the Arctic rather than to gain a political zone of influence in the region. The study's period of interest begins in 1923, the year that modern-day Turkey was founded, and extends through to the present.

This article utilizes qualitative research methods. In the course of researching this article, a six-month comprehensive study was carried out to identify a body of archival documents to be analyzed, re-evaluated, and brought together. In accordance with the archive's system and its size, a ranking system based on date and place information was preferred. Details concerning issues that appear as a research gap in the content of the article were obtained from the Ministry of Foreign Affairs, the Scientific and Technological Research Council of Turkey (TUBITAK), the Marmara Research Center (MAM), the research assistant Sinan Yirmibeşoğlu from the Circumpolar Research Institute (KARE), the Turkish Shipbuilders Association (GISBIR), and Dr. Heather Exner-Pirot via written communications (e-mail).

In accordance with the article's scope and purpose, the characteristic features of the Arctic are defined. Next, the triggering elements of power regarding Turkey's interest in the region are explained. Finally, Turkey's Arctic policy is addressed in different periods, and the reasons for Turkey's interest in the Arctic, as well as the areas of implementation, are explored.

Characteristic features of the Arctic

Four prominent aspects of the Arctic are defined here: The Arctic as a region; security and geopolitics; natural resources and Arctic sea routes; and unresolved legal issues and regional and international cooperation. These four sets of factors provide a strong incentive to increase Turkey's relations with Arctic states and the Arctic region.

- Factor 1 – The Arctic region, which is geographically bounded by the northern borders of the Arctic states, has no real political boundary (AMAP, 1998). The region experiences

extreme climatic conditions (cold, wind, permafrost, winter darkness, etc.), and its population is sparse. Around four million people currently live in the region, which has a very sparse population (Bogoyavlensky, 2004: 27; Heleniak and Bogoyavlensky, 2014: 101; Young, 2004: 18).

- Factor 2 – Security and geopolitics: Many potential geopolitical changes hinge on changes in Arctic security (Heininen, 2020: 123–125). The transition from military conflict to international cooperation was accelerated by the end of the Cold War, a unique period in the international political system, and the collapse of the Soviet Union and the Warsaw Pact (Heininen, 2020: 123–124). With the end of the Cold War, the Arctic region was transformed from a military theater to a "zone of cooperation and peace" (Heininen, 2013: 102).

Changes in the security and geopolitical structure of the Arctic, the contemporary need for environmental action and scientific research, and increasing economic optimism about the region have drawn Turkey's attention to the Arctic.

- Factor 3 – Natural resources and Arctic sea routes: The increasing accessibility of the Arctic Ocean due to rapidly shrinking sea ice has led to increased interest in the use of the region's natural resources. These are mainly related to hydrocarbon and mineral resources, Arctic navigation, and fishing.

Turkey depends on the import of oil, gas, and most minerals, and therefore, the resources in the Arctic region are important and may allow Turkey to diversify its import sources. The reduction of Arctic Ocean sea ice and, Turkey's use and experience with Arctic sea routes, offers ample opportunities for the Turkish shipbuilding industry (icebreaker, fisher, private yacht, etc.) and Turkish ships. It also allows the region to develop trusting relationships with the coastal Arctic states and the Indigenous peoples of the North for in order to access its resources.

- Factor 4 – Unresolved legal issues and regional and international cooperation: It is possible to define the Arctic region as a peaceful region with pragmatic/collaborative relations between actors (Padrtova, 2020: 34). Turkey has long had a strong desire to increase its relations with Arctic states and the Arctic region, especially since the 2000s.

Turkey contributes to maintaining political stability in the Arctic and protecting the Arctic environment and takes part in scientific research and international collaborations on climate change.

Turkey's interest in the Arctic

The driving forces behind Turkey's interest in the Arctic can be grouped into two categories. The first of these relates to the geographic features of Turkey, while the second relates to the regions' intertwined cultures and histories.

A striking feature of Turkey is its central geographical location. Turkey occupies a middle ground among Old-World lands, nearly equidistant from the Equator and the North Pole. The Mediterranean, which is a branch of the Atlantic Ocean, penetrates deeply into these lands, and Turkey is surrounded by bodies of water on three sides (the Mediterranean, Aegean, and Black Seas) (Darkot, 1972: 3–4). In terms of landforms (elevation), Turkey can be characterized as a high-altitude country, with an average elevation of 1,130 meters, which is not only 3.5 times higher than

the average altitude of the European continent (330 meters) but exceeds even the average altitude of Asia (1,050 meters) (Darkot, 1972: 6). Of course, Turkey does not follow the logic of some other non-Arctic states by positioning itself as a "near-Arctic state" like China (Government of China, 2018) or "vertical Arctic nation" like Switzerland (Arctic Council, 2017). The elevation of its territory compared to Europe and Asia makes Turkey a "third pole," much like the Himalayas or the Alps (Arctic Council, 2020; Tonami, 2016: 109–110), but such a definition is not needed. Turkey inevitably focuses on the polar regions of the world to address its climate problems. In addition, being situated in the path of south-north and east-west migration due to its geographical location forces Turkey to engage fully with its near (the Middle East, Mediterranean, etc.) and distant (the Arctic, EU, etc.) neighbors.

The cultural and social structure of the Arctic is dynamic and has changed over time. A common feature for most of the Indigenous communities in the Arctic is that they have already undergone substantial changes due to the introduction of globalized, Western ways of life, state policies, modern transportation, and a mixed economy. Turkey has multifaceted connections and cultures, including Asia, the Middle East, and the West. Turkey shares cultural ties with Arctic Indigenous peoples through those who broke away from Central Asia and Siberia thousands of years ago and crossed to the Americas via the Bering Strait (Grenoble, 2011: 15; Laguna, 1972: 213; Park, 2014: 1004-1005). Similarities in linguistic patterns and traditional lifestyles confirm this. The similarities between some words, the use of fire, many kinds of tools (the sledge, stone tools, the harpoon the simple bow, combs, nets, and basketry), and shamanist beliefs and practices provide several examples (Kaya, 1986: 661). These similarities reveal more of a cultural bond than people's historical movements. The connections between the linguistic families of Turkey and the Arctic are quite strong. Although shamanistic beliefs have become less prominent in Turkey, they continue to exist. Despite these similarities, there are no shared cultural activities between Turkey and the Indigenous peoples of the Arctic today; the subject is almost unheard of in state-level discussions. However, a small number of academics are interested in establishing such cultural connections.

Turkey's Arctic policy and its implementation

Turkey's Arctic policy can be divided into two periods, the period from the foundation of the Republic to the end of the Cold War era (1923–1991) and the post-Cold War era. Each period contained elements (internal and external) that, sometimes positively and sometimes negatively, affected Turkey's Arctic policy.

From the foundation of the Republic until the end of the Cold War era (1923–1991)

It is possible to subdivide this era into two periods, the first of which took place from the foundation of the Republic to the end of the Second World War. During this period, the principles of "full independence and national sovereignty" prevailed in Turkish foreign policy (Oran, 2010: 143–153). These principles dictated noninterference in countries' internal affairs. The steps that Turkey took in its policies toward the Arctic region would strengthen its bond with the Western alliance and were developed in hopes of defining a place for Turkey in the balances of power (England-France, Germany-Italy, and the Soviet Union) that emerged in the international system before and during the Second World War (Oran, 2010: 235). The second half of this era was defined by the Cold War. The security and geopolitical features of the Cold War period affected and limited Turkey's Arctic policy. It can be said that Turkey, which was caught between the blocks, had

difficulty producing a policy toward the Arctic region in this period. Turkey's concern about political isolation, especially after the Second World War, the threat of aggression by the Soviet Union, Turkey's West-friendly foreign policy, and the desire to continue receiving the military and economic aid from the United States (Oran, 2010) led to Turkey becoming a member of the North Atlantic Treaty Organization in 1952. Turkey's Arctic policy became security-oriented due to the combination of NATO's strategic bases in the Arctic and the alliance's perception of a threat. However, since Turkey was a "wing country" bordering the Soviet Union (the enemy), it did not worry about entering a conflict in the Arctic due to its NATO membership. There was no expectation or concern in this direction in the NATO strategies of 1952, 1954, and 1969 (NATO, 1952, 1954, 1969).

Post-Cold War era

In the early 1990s and 2000s, Turkey's participation in the Arctic region was quite limited. This situation is both compatible and contradictory with the change in security and geopolitical structure of the Arctic region. The most important reason for its compatibility is NATO's decreasing interests in the region. The other reason is Turkey's focus on its close environment (Middle East, Caucasus, etc.) (Bağcı & Bal, 2004). The most important factor for its incompatibility is Turkey's neglected regional and international cooperation initiatives in the Arctic in the course of this period. Regarding this, for Turkey, the Arctic region after the post-Cold War era was seen as a non-prioritized foreign policy area for an extended period. This situation is similarly described in academic writings as well. With the effect of decreasing interest in the Arctic, the structure of the international system and increasing interest for environmental concerns seem to have turned attention to Antarctica, where Turkey can have the most trouble-free activities in terms of both scientific and political accessibility (Algan, 2013: 1).

Turkey acceded to the Antarctic Treaty in 1995 (BCA, 1995). However, Turkey did not attend any meetings of the Consultation of Antarctic Treaty until 2013 (Ministry of Industry and Technology, 2018; Öztürk, 2015). Turkey signed the Madrid Protocol in 2017 (signed on October 4, 1991 and entered into force in 1998), known as Antarctic Treaty Environment Protection Protocol (Official Newspaper, 2017). At this point, initiatives that were commenced by Turkey between 1995-2017 specific to Antarctica can be seen as obviously disconnected. This is influenced by the indifference of policy makers due to Turkey's failure to establish an institutional structure in or outside of any ministry (as in the case of South Korea, Japan, and Switzerland), especially in Antarctica (Algan, 2013: 1).[1] This situation has been changing rapidly in recent years with the contributions of scientific and academic studies, Turkey's interest in the Arctic has increased and it has become an institutional structure. Three stages of this institutionalization process can be mentioned as follows (Yavaşoglu, 2021: 14):

- The Polar Research Center (PolReC) within Istanbul Technical University (ITU) was established in 2014.
- Starting in 2017, PolRec was started running its polar programs under the responsibility of the Ministry of Industry and Technology.
- In 2019, TUBITAK Marmara Research Center (MAM) Polar Research Institute (KARE) was established, and the polar coordination task was transferred from ITU PolReC to KARE.

The institutionalization process shows subjective and functional rationality in terms of human values and objectives. *The National Polar Science Program (2018-2022)*, which was published in 2018, is important in that it is the first official document published by Turkey directly about the poles from the Republic to the present day (Ministry of Industry and Technology, 2018). From this document, which can be defined as a vision document rather than a strategy document (or as a program, as it describes itself), it is clear that Turkey's primary interest is Antarctica. However, it is crucial to use the concept of polarity in the document and determine its main objectives, strategies, and priorities for the Arctic region. In the Arctic, the following goals are given (Ministry of Industry and Technology, 2018: 10):

- "Turkey has a say in the future of Antarctica and the Arctic and the protection of the poles."
- "Establishing a roadmap for Turkey's accession to the Arctic Council."
- "Increasing the effectiveness of our country in this field by providing membership of our country to international organizations related to polar regions."
- "Raising awareness of global climate change issues."

This document is valuable in that it is a program that has been published for the first time. However, a number of shortcomings and uncertainties are clearly visible. First of all, it is not clear how Turkey will have a say in the future of Antarctica and the Arctic. It is also unclear how to raise awareness of climate change issues and whether new initiatives or mechanisms will be established with local and international communities. In this context, Turkey's interest in the Arctic is more straightforward than the reasons for its interest.

Today, the essence of Turkey's Arctic policy can be defined as "it would be related to a good global citizen in the effort to mitigate climate changes, and its participation in Arctic science" (personal communication, Exner-Pirot, 23 April 2019). In this context, Turkey's interest, causes, and application areas for the Arctic region, based on the historical experience of the National Polar Science Program and Turkish foreign policy and apart from the elements of driving forces (geographical, historical, and cultural dimension) that enable it to deal with the Arctic, can be gathered in five headings: international cooperation and science diplomacy; climate change and the environment; Arctic Council observer membership and Svalbard archipelago; and economic opportunities and security.

Turkey's Arctic interests and applications

International cooperation and science diplomacy

In today's rapidly changing world, problems on a global scale, such as environmental issues, safety and energy, epidemics, and poverty, need solutions that require a global perspective. Therefore, the methods of making policy decisions in international and global dimensions has had to diversify, and new tools such as science diplomacy have been included.[2]

Countries are in constant communication with each other in polar research, where international cooperation is important in scientific studies. Turkey first participated in international scientific cooperative efforts in the Arctic during the Second International Polar Year (IPY-2, in 1932–1933) (Krupnik, 2011: 13). However, 17 years later, in 1950, a bibliography of approximately 2,000 IPY-2 publications was published (Laursen, 1951). There is no information on which activities Turkey participated in IPY-2. Of all IPY initiatives, the third IPY in 1957–1958 (known as the International

Geophysical Year due to its global geographical coverage) has the best-documented chronology (Krupnik, 2011: 14). The General Directorate of State Meteorology Affairs of Turkey participated in IGY studies with data from 18 high weather synoptic meteorology stations, five of which were equipped with electronic devices, and 14 synoptic ground stations (TBMM, 1958: 986). First of all, IPY-2 and IGY enabled Turkey to develop its informational and technological capacities in the polar regions and contributed to its international visibility. It may be said that Turkey's later participation in the 2007–2008 IPY also revealed the elements of international cooperation and scientific research in its Arctic policy (Calder & Krupnik, 2011: 555).

Countries are in constant communication with each other in polar research, where international cooperation is important in scientific studies. Turkey continues to deliver its own scientific studies to the poles under the roof of KARE and within the scope of the National Polar Science Program and in cooperation with other countries (Ministry of Industry and Technology, 2018; Yirmibeşoğlu et. al, 2019; https://kare.mam.tubitak.gov.tr/tr). Within the scope of international cooperation, it aims to take part in the activities of scientists in foreign polar bases/expeditions, to organize joint activities with foreign countries**,** and to create membership and exchange/internship programs for international organizations and associations (Ministry of Industry and Technology, 2018: 16). In 2016, the Turkish Antarctic Research Expedition, organized in cooperation with the Ukrainian National Antarctic Science Center and led by PolReC, was Turkey's first international (Ukrainian-Turkish cooperation) Antarctic science expedition (Ministry of Industry and Technology, 2018: 8). From 2017 to the first quarter of 2021, five expeditions (Turkish Antarctic/Arctic Scientific Expedition-TASE) were carried out within the scope of the National Polar Science Program, four times in the Antarctic and once in the Arctic (Özsoy, 2021: 3), and a total of 62 international scientific publications have been prepared since 2017 with the work carried out during these expeditions involving more than 90 researchers (https://kare.mam.tubitak.gov.tr/tr).

Turkey's first Arctic expedition on July 11-26, 2019, carried out 15 projects by more than 40 researchers. The expedition, which began in the Svalbard archipelago, also included studies in the Arctic Ocean (PolRec, 2019). During the expedition, Turkish scientists visited science bases in Norway, Poland, Russia, India, and South Korea, and Turkey made initiatives on the ground to develop bilateral cooperation with each individual country (Yirmibeşoğlu et al., 2019; PolRec, 2019). In addition, in KARE coordination, bilateral agreements and memorandums of understanding continue with countries with significant investments in the poles. For example, "Memorandum of Understanding-MoU" agreements are carried out in the polar areas with countries such as Bulgaria, South Korea, Ukraine, Czech Republic, and Belarus, while consultations are underway with many other countries such as Japan, Chile, and Spain to reach an agreement (personal communication, Yirmibeşoğlu, 28 May 2021). Turkey's polar project calls are funded by KARE, enabling scientists to carry out both national and bilateral cooperation at the poles. Delegations consisting of KARE and related Ministries representing Turkey in international meetings and scientific organizations meet with representatives of countries developing critical scientific studies at the poles and take the necessary steps to increase and develop bilateral cooperation https://kare.mam.tubitak.gov.tr/tr).

As a result of its scientific work in cooperation nationally and internationally, Turkey became a member of the Scientific Committee on Antarctic Research (SCAR) (Ministry of Industry and Technology, 2018: 8) in 2017 and the European Polar Board (EPB) in 2020 (EPB, 2020). Turkey demonstrates that it has the vision of contributing to the sustainability of the world in the context

of the "continuum of urgencies" that stood out during the Vienna Dialogues (2017) and is committed to carrying out activities in this direction (Caymaz, 2021: 46).

Climate change and the environments of Turkey and the Arctic

The environmental, economic and social effects of a changing Arctic climate are being felt in Turkey and across the globe. Climate change is expected to displace millions of people worldwide in the coming decades. Approximately 150 to 300 million people will be displaced due to climate change by 2050 (Challe, 2018). Although there has been little systematic research on the potential displacement of Arctic peoples, scientists have long estimated that one of the biggest effects of global warming will be human displacement (Ferris, 2013). As in the first Arctic expedition, Turkey is continuing to conduct research to understand climate change and its effects on the environment of the Arctic. Turkey is expected to be greatly affected by climate change due to generally increasing air temperatures and decreasing precipitation levels. Although Turkey does not yet have a policy in place on this subject (apart from the document entitled "Scientific Basis of Climate Change and Impacts on Turkey" issued by the Ministry of Environment and Urbanisation), it is understood that, except for the Mediterranean coastal zone and the Taurus Mountains, today's climatic conditions will become hotter and drier in the future. The probability of future droughts is high for the southern and mid-southern regions, which already experience low precipitation, very hot and dry summers (with drought conditions effectively prevailing from late spring to mid-autumn), and seasonal and inter-year precipitation variability. Climate change threatens to cost the Turkish economy millions of dollars a year by 2100 (McKinsey Global Institute, 2020). In addition to the general decrease in crop yields that is expected (Bozoglu et al., 2019; Dudu et al., 2009), thousands of people will face drought, flooding, and migration (McKinsey Global Institute, 2020; Ministry of Environment and Urbanisation, 2011). Turkey has launched various initiatives to mitigate the impacts of climate change, but it is also necessary to analyze and understand the mechanisms of how environmental changes will affect its work. The responses Turkey crafts to these challenges should be shared with the international community.

The Arctic Council and the Svalbard Treaty

The increasing global interest in the Arctic region has also increased interest in the Arctic Council, which has become a natural discussion forum and has drawn a number of applications for observer membership status. Since the foundation of the Arctic Council, because all of the member countries of the Arctic Council have agreed that the Council needs reinforcement, there have been no restrictions or obstacles to membership other than the requirement for unanimous decisions about which countries will be accepted as observer members (Arctic Council, 2016).

In 2015 Turkey applied for observer membership of the Arctic Council for the first time. This application not only did not enjoy much support from Turkish public opinion (almost none) but was also not accepted (Knecht, 2015; İnam et al., 2018: 41-43).[3] There is no document explaining why the Arctic Council rejected Turkey's application. However, two fundamental problem areas should be mentioned here concerning the acceptance of observer membership status. The first is the political disagreements between the states which applied for observer membership status of the Arctic Council. Second, the prospective observers made their applications for observer membership without improving or developing their concrete interests (scientific, economic, etc.) in the Arctic region. Even when a state or organization applying for observer membership status in the Arctic Council meets the criteria for membership, the application may be refused (Arctic

Council, 2016; Arctic Council, 2021). At this point, it should be observed it is not clear whether Turkey is currently qualified to demonstrate its "Arctic interests and specializations relating to Arctic studies" (Knecht, 2015).

In 2018 it was decided that it would be appropriate to coordinate the process by which the benefits provided by being a party to the Svalbard Treaty would be revealed in the membership application of Turkey to the Arctic Council, in which the Ministry of Foreign Affairs presented the studies carried out by the Ministry of Industry and Technology (İnam et al., 2018: 41-43). However, the fundamental mistake here is to associate the membership application process and the Svalbard Treaty with each other, and to ignore the opportunities of being a party to the Svalbard Treaty. In addition, there is no direct correlation between being a party to the Svalbard Treaty and the observer membership status of the Arctic Council, or with the observer membership criteria specified by the Arctic Council (Arctic Council, 2016; Arctic Council, 2021). In the long run, Turkey's participation in international scientific cooperation has been more important than its role in the Svalbard Treaty in terms of Turkey's Arctic policy.

Economic opportunities

The growth rate in the entire Arctic region between the years 2012 and 2018 was 0.8%, compared to a growth rate of 2.2% in the non-Arctic regions of Arctic states during that timeframe. Exports of minerals, oil, and fish drove this growth. All of these indicators show that the slow growth rate pioneered by Arctic governments will remain the preference of the region in general (Glomsrød & Wei, 2021: 41-46) because state-centered investments are still dominant in the Arctic. The increased accessibility of the Arctic region due to the recession of sea ice caused by global climate change has created increasing interest in the use of the Arctic's natural resources, mostly hydrocarbon, mineral resources, Arctic navigation, and fishing.

This situation has created economic opportunities that Turkey is willing to exploit, namely the production of the "ice-class" or "polar-class" vessels that are used in the region and the use of sea routes, dependent upon an examination of their feasibility. In addition, these opportunities could be conducted so as to create sustainable economic activity in the Arctic region while respecting the lives of the Indigenous people.

The Turkish shipbuilding industry is the seventh largest builder of new ships and the third largest builder of yachts in the world (personal communication, GISBIR, 4 June 2021). There is no economic policy and specific Governmental support or incentive for ice class vessels. Today, there are 84 active shipyards in Turkey. The Turkish shipbuilding industry has the ability to build various types of "ice class/polar class" ships, including research vessels for the Arctic and Antarctic Regions. Turkish Shipyards have already delivered many ships that have "ice class" notation in compliance with the requirements of clients and classification societies. The shipbuilding and delivery of "innovative and environment-friendly" ships for the Nordic countries, Russia and the EU continue (personal communication, GISBIR, 4 June 2021).[4] Some of these projects are the "world's-first projects".[5] When compared to competitor countries, the Turkish shipbuilding industry has many advantages: infrastructure and technology, delivery period and production capacity, active shipyards (both for new building and repair and maintenance capacities), a wide range of products, qualified personnel, iron-steel industry support, a convenient geographical position (52 nations within a three-hour flying distance), and the Turkish shipbuilding recycling industries (personal communication, GISBIR, 4 June 2021).

An examination of the feasibility of Arctic sea routes is of considerable importance for Turkey. However, given the importance of diversified communication and these sea routes' positive or negative influence on the use of other strategic waterways, the private sector and policy-makers in Turkey will have to collaborate in evaluating the future potential of these routes. According to data from TUIK (Turkish Statistical Institute), nearly 88% of the volume of Turkey's foreign commerce is maritime (TUIK, 2020). As maritime opportunities develop, increasingly active discussions are being carried out on the subjects of ensuring navigation security and shipping's influence on the maritime environment. It is therefore important that Turkey use its specializations in science and technology to develop effective new technologies that will ensure navigation security in the Arctic Ocean.

Security dimension

Arctic security is a multidimensional issue. Five of the eight Arctic states are NATO members, and Finland and Sweden are enhanced opportunity partners of NATO (NATO, 2021a, 2021b). Russia is considered an aggressive state by NATO and, in particular, by the USA (NATO, 2019; Sengupta, 2019). It may be said that Russia views the situation in reverse (CRS, 2020: 2; Konyshev & Sergunin, 2014: 83). Turkey's position can be described as follows: taking into consideration the fact that the nuclear systems owned by the USA and Russia retain important contact points in the Arctic region, the continuing simulations of nuclear emergencies present a constantly volatile situation under the guise of military security. Other military security issues take much more theoretical forms in comparison with the changes taking place in the Arctic Ocean due to the influence of climate change (melting ice, the opening of new sea routes and resources, etc.) (Wæver, 2017: 122). Considering that developments in the Arctic region will affect the international security environment not only for the Arctic region but also for a far-ranging community of states, including Turkey, and that coordination is limited on strategic issues affecting the interests of NATO member states (defense expenditures, Syria, Libya, climate change, etc.), the tasks and responsibilities that NATO, led by the USA, may have to undertake in the future against Russia and China in the Arctic region could create a complicated and challenging situation for Turkey.

Conclusion

Although Turkey's Arctic policy has changed periodically, its common thread is that it has difficulty in adopting a holistic approach to the region. Turkey has been cautious about establishing and enacting an Arctic strategy or policy to-date. It is not easy to locate Turkey's Arctic policy within its general foreign policy or to find an element of continuity in it. This may be one reason why the Arctic Council rejected Turkey's application for observer member status.

Turkey's historical ties to the region are a driving force behind its interest in the Arctic. The reasons for this interest and its areas of implementation are compatible with the characteristics of the region. However, there is a very limited link. Especially today, no cultural activities take place between the Indigenous peoples of Turkey and the Arctic. It is almost impossible to discuss a state-level interest in this direction. Given this context, Turkey tends to take a nuanced and measured approach to Arctic policy, one that is institutionalized, that takes into account security and geopolitical trends in the Arctic, and that attaches importance to scientific cooperation. However, deficiencies and uncertainties remain in this approach.

Turkey lacks clear policies on how to mitigate the effects of climate change locally and nationally, increase scientific cooperation, create sustainable economic activity, and promote international cooperation. Turkey lacks clear policies on how to mitigate the effects of climate change, increase scientific cooperation, create sustainable economic activity, and promote international cooperation in the Arctic.

Notes

1. Five ministers changed in the Ministry of Environment between 1995 and 1998 and three between 1999 and 2003, the Ministry of Environment became the Ministry of Environment and Forestry in 2003 and the Ministry of Environment and Urbanization and the Ministry of Forestry and Water Affairs in 2011 (Algan, 2013:4).
2. Generally considered, science diplomacy is the use of science and international scientific cooperation to improve the foreign policies and international relations of countries and solve common global problems (Ruffini, 2017:13).
3. The EU, Switzerland, Mongolia and Greece are the other countries/organizations which made observer membership applications to the Arctic Council but were refused in the same year (Knecht, 2015).
4. Ice-class tugboat built by Turkish Shipyard delivered to Romania which is an European Union country, and also an icebreaker, built by Turkish Shipyard, delivered to Norway could be an example. Ice-class tugboat built by Turkish Shipyard also delivered to Finland. In addition, there are icebreaker ships that the Turkish Shipyards are currently building and will be delivered to Russia (personal communication, GISBIR, 4 June, 2021).
5. Summary of ship types: fishing vessels (the world's first battery-LNG-fueled purse seiner trawler and the world's largest live fish carrier), ferries (zero-emission battery powered, hybrid, LNG-fueled ferries), tugboats (the world's first all-electric harbor tug, the world's first remotely-operated commercial vessel and LNG-fueled escort tug), naval ships and coast guard boats (approx. 100 naval ships/boats, with experience in complex ship design and construction), energy ships (innovative floating supply of energy from ship to shore for non-developed countries), offshore supply vessels, research vessels, mega yachts and yachts (third in yacht building), oil tankers and asphalt tankers, chemical tankers (first in small-tonnage chemical tankers 2002–2012), bulk carriers and containers, heavy-lifting ships, and multipurpose vessels (personal communication, GISBIR, 4 June, 2021).

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