The Maritime Domain Policy: From Awareness to Reality

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Introduction

The subject of the maritime domain has recently been in the headlines in Israel, primarily due to the discoveries of natural gas in Israel's economic waters and the efforts to exploit them, and due to their potential effect on the environment, on the Israeli economy and on the navy, which is deployed to protect the maritime domain. At the same time, and in contrast to the importance of the maritime domain to the State of Israel, the issue has for years suffered from lack of an overall policy, and only now is a policy emerging.

In order to advance the discourse on policy in the maritime domain in Israel, this chapter borrows a term from the international discourse – Maritime Domain Awareness. The term will be examined and used to study the Israeli case and its degree of Maritime Domain Awareness. In order to do so, the chapter focuses on an analysis of the concept and the potential for its use. To this end, the analysis begins with a definition of the term, the identification of its sources and its development, in view of the growing need for a conceptual framework in the discussion of the maritime domain. From there, the analysis moves on to conceptual and practical challenges in the application of the term and discusses the need to expand the realms in which it is applied. Israel will serve as an interesting and relevant case study, with emphasis on Israel's efforts to formulate a national policy in the maritime domain.

The concept of Maritime Domain Awareness and its sources

The traumatic event of the 9/11 attack on American soil constituted a catalyst for the coining of the term Maritime Domain Awareness.[1] The Bush administration's concern was, among other things, that the next terror attack would originate from the sea. The maritime front was identified as exposed and vulnerable, with limited control and broad freedom to operate for elements hostile to the United States.[2] In December 2004,

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1 Essentially, President Bush coined the term Maritime Domain Awareness in January 2002 in a speech about 4 months after the 9/11 attack.

2 "The Maritime Domain facilitates a unique freedom of movement and flow of goods while allowing people, cargo, and conveyances to transit with anonymity not generally available by movement over land or by air. Individuals and organizations hostile to the United States have demonstrated a continuing desire to exploit such vulnerabilities". **National Security Presidential Directive NSPD-41**. December 21, 2004. https://www.hsdl.org/?abstract&did=776173

President Bush issued a Presidential Directive on the subject in which he broadly defined the maritime domain as follows:[3]

> …all areas and things of, on, under, relating to, adjacent to, or bordering on a sea, ocean, or other navigable waterway, including all maritime-related activities, infrastructure, people, cargo, and vessels and other conveyances. Due to its complex nature and immense size, the Maritime Domain is particularly susceptible to exploitation and disruption by individuals, organizations, and States. The Maritime Domain facilitates a unique freedom of movement and flow of goods while allowing people, cargo, and conveyances to transit with anonymity not generally available by movement over land or by air.

And the term Maritime Domain Awareness as:[4]

> …the effective understanding of anything associated with the global Maritime Domain that could impact the security, safety, economy, or environment of the United States.

In the context of the 9/11 attack, the Presidential Decree emphasized that it is essential for the US to create a basket of tools for the identification of threats to the American maritime domain **as early as possible and as far away as possible**, in order to create a unified picture of the situation that will be available to all entities in the US government.[5]

In this context, the US has been a pioneer in defining the subject and the concept has been accepted and fixed in international discourse. Thus, the International Maritime Organization (IMO), which functions within the framework of the UN, has adopted the definition and works to apply it throughout the world,[6] as the NATO members[7] and other countries as well.[8]

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3   Ibid.

4   Ibid.

5   Ibid.

6   The term appears in the organization's definitions. See, for example: IMO (2010). **Amendments To The International Aeronautical And Maritime Search And Rescue (IAMSAR) Manual**. http://www. imo.org/blast/blastDataHelper.asp?data_id=29093&filename=1367.pdf; The organizations holds international seminars to promote the concept and its application. See, for example: IMO (2017). **Strengthening Maritime Security In West And Central Africa**. http://www.imo.org/en/OurWork/ Security/Guide_to_Maritime_Security/Documents/WEB_version_v1-01.09.17.pdf

7   Andrew Metrick, Kathleen H. Hicks. **Contested Seas: Maritime Domain Awareness in Northern Europe**. Center for Strategic and International Studies. March 2018.

8   See, for example, the Indian application, as it appears in its 2015 naval strategy document: Indian Navy (2015). **Ensuring Secure Seas: Indian Maritime Security Strategy**, New Delhi. http:// indiannavy.nic.in/sites/default/files/Indian_Maritime_Security_Strategy_Document_25Jan16.pdf

The 2004 Presidential Decree defined six overall goals for the achievement of security in the maritime domain:[9]

1. Preventing terrorist attacks or criminal acts or hostile acts in, or the unlawful exploitation of, the Maritime Domain, and reducing the vulnerability of the Maritime Domain to such acts and exploitation;

2. Enhancing U.S. national security and homeland security by protecting U.S. population centers, critical infrastructure, borders, harbors, ports, and coastal approaches in the Maritime Domain;

3. Expediting recovery and response from attacks within the Maritime Domain;

4. Maximizing awareness of security issues in the Maritime Domain in order to support U.S. forces and improve United States Government actions in response to identified threats;

5. Enhancing international relationships and promoting the integration of U.S. allies and international and private sector partners into an improved global maritime security framework to advance common security interests in the Maritime Domain; and

6. Ensuring seamless, coordinated implementation of authorities and responsibilities relating to the security of the Maritime Domain by and among Federal departments and agencies.

In order to achieve these goals, the Department of Homeland Security, which was created following the 9/11 attack, issued a document on achieving Maritime Domain Awareness, as part of eight documents for the achievement of Maritime Security.[10] This is part of an effort to achieve the "**accurate and timely decision-making ability that will enable effective action to neutralize threats**".[11]

Measures to achieve Maritime Domain Awareness

The American approach, which has also been adopted by other countries, focuses the discussion of maritime awareness on the response to threats in the field, primarily by means of situational awareness. To this end, the US Navy (like other navies which

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9   Ibid.

10 DHS (2005). **US National Plan to Achieve Maritime Domain Awareness**. https://www.dhs.gov/sites/default/files/publications/HSPD_MDAPlan_0.pdf

11 Ibid.

followed in its footsteps) established the ability of sensor fusion,[12] which can form a broad and accurate maritime picture over time,[13] that monitors ships, people, sites and infrastructures, cargo, trade routes and threats (maritime surveillance).

It is possible to summarize and characterize the trend and the solutions that the navies have put in place using the following three characteristics:

1. **Gathering of information from numerous sources simultaneously**, with emphasis on existing and accessible information, including, among others, satellites, maritime, aerial and coastal sensors, as well databases. These include radar, communication with ships, AIS information which ships of more than 300 tons displacement are required to operate, reports from ships and aircraft and information from the Internet, as well as from classified networks.

2. **Increasing use of unmanned systems** that can provide continuous and reliable capability at low cost.[14]

3. **Automation of sensor fusion**, based on artificial intelligence.

The result is an effective, close to real-time tool that multiplies and improves the situational awareness capabilities, by any measure, including greater range of the situational picture, the ability to deal with a wide variety of threats simultaneously and the ability to monitor a large number of events and processes **and in particular the ability to identify anomalies in the maritime domain**. The continuity of the information also enhances retrieval ability in order to find and investigate previously gathered information. These measures provide a deeper and more precise understanding of the theater and as a result it is possible to implement measures more accurately, with greater certainty and in a timely manner.

While In the early days of the concept the main American concern was the attainment of means to deal with maritime terror due to, among other reasons, the fear of nuclear terror,[15] over the years and with the spread of the piracy problem the needs and

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12　Sensor fusion relates to the combining of a number of sources of information of different types and different levels (data, information and knowledge), in a way that creates new information that is hopefully reliable and accurate.

13　US Navy (2007). **Navy Maritime Domain Awareness Concept**. https://www.navy.mil/navydata/cno/Navy_Maritime_Domain_Awareness_Concept_FINAL_2007.pdf

14　Including unmanned aircraft, vessels and submersibles that can be at sea for long periods and can broadcast in real time to the information center. They are less sensitive to weather conditions than manned systems. In this context, see, for example, Eyal Pinko, "Unmanned Vehicles in the Maritime Domain: Missions, Capabilities, Technologies and Challenges," in the Maritime Strategic Evaluation for Israel 2017, Maritime Policy & Strategy Research Center.

15　DHS (2005). **US National Plan to Achieve Maritime Domain Awareness**. P. 15

applications for Maritime Domain Awareness have expanded. Evidence of this can be found in a variety of companies that offer services and products in this domain, as well as the large number of countries and navies that are investing resources in it.

Conceptual and practical challenges in the implementation of Maritime Domain Awareness

The implementation of Maritime Domain Awareness has managed to gain a foothold, but not without challenges. In this context, three main difficulties are encountered: dealing with the scope of information and the level of technological complexity, information sharing and the challenge of expanding the concept of Maritime Domain Awareness.[16]

The difficulty in dealing with the scope of information and the required level of technological complexity – This problem is intensified to the extent that the relevant area is larger and has greater traffic within it.[17] India, for example, protects a coast that is 7500 km long and along which there are 4 million fisherman operating from about 250 thousand fishing boats, some of which do not have electricity nor the ability to broadcast by radio. In this context, technology is not always the correct solution.[18] Furthermore, the ability of the developing countries to use advanced technological measures is highly limited and therefore it is necessary to also achieve low-tech solutions in this context.[19]

The difficulty in sharing information – A major challenge arose in the United States in view of the multiplicity of agencies, the organizational rivalries between them and the characteristics of the organizational culture that has been embedded in them for so

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16   For an analysis of the challenges to Maritime Domain Awareness from a somewhat different angle, see: Christian Bueger and Amaha Senu "Knowing the Sea: The Prospects and Perils of Maritime Domain Awareness," **PIRACY-STUDIES.ORG**, Cardiff University, July 8, 2016. http://piracy-studies. org/knowing-the-sea-the-prospects-and-perils-of-maritime-domain-awareness/

17   The technological challenges in this context are numerous, with emphasis on sensor fusion and the ability to analyze numerous moving objects. For further details, see: Christophe Claramunt et al. "Maritime Data Integration and Analysis: Recent Progress and Research Challenges," in Proc. 20th International Conference on Extending Database Technology (EDBT), March 21-24, Venice, Italy, 2017 https://www.researchgate.net/profile/Elena_Camossi2/publication/312601728_ Maritime_data_integration_and_analysis_recent_progress_and_research_challenges/ links/58b0453892851cf7ae8ba1f9/Maritime-data-integration-and-analysis-recent-progress-and-research-challenges.pdf

18   Dialog between the Maritime Policy & Strategy Research Center (HMS) and the Indian National Maritime Foundation (NMF), May 14-15, 2018.

19   Christian Bueger (2017), Effective maritime domain awareness in the Western Indian Ocean: Policy Brief, Institute for Security Studies (ISS). https://issafrica.s3.amazonaws.com/site/uploads/policy-brief104.pdf

long. Recall that one of the main conclusions of the investigation of the 9/11 attack was the lack of information sharing between the agencies and between levels in the same agency. This problem also exists between states, particularly when an attempt is made to move from a country perspective to a regional perspective.

Perhaps the greatest challenge to the concept of Maritime Domain Awareness lies in the fact that the official American process to achieve it has focused on security threats, whether traditional or non-traditional, but as a result only part of the story is being told. The next section will examine this point.

The need to expand the concept of Maritime Domain Awareness beyond the security/military domain

The importance of the maritime domain is clear, as is the understanding of the need to possess a clear picture that extends far beyond a country's territorial waters or even its economic waters, in order to protect its borders, it residents and its capabilities. There is also a recognition of the growing importance of the maritime domain from a long-term perspective. In this section, we will identify the need to expand the attention given to Maritime Domain Awareness to beyond the discussion of concrete security/military threats and the implication of this extension for the discourse on the subject.

The growing importance of the maritime domain, from the long-term perspective, is manifested in a number of important trends:

1. The maritime domain has become increasingly important in global and domestic trade – Since the 1970s, total maritime trade has grown by an average annual rate of about 3 percent. According to the forecasts, this trend will continue in coming years.[20] It is believed that by 2030, the scope of maritime trade will be double its 2010 level.[21]

2. The share of the blue economy[22] has grown as a result of, among other things, the shortage of land and the problem of sustainability, alongside technological developments that facilitate the production of food and energy at competitive

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20 http://unctad.org/en/PublicationsLibrary/rmt2017_en.pdf

21 http://www.futurenautics.com/wp-content/uploads/2013/10/GlobalMarineTrends2030Report.pdf

22 European Commission (2012). **Blue Growth Opportunities for Marine and Maritime Sustainable Growth**. http://publications.europa.eu/resource/cellar/c9cb968d-9e9e-4426-b9ca-3728c6ff49ba.0003.02/DOC_1

prices. This includes shipping, fishing, desalination, aquaculture and tourism, and additional spheres of influence that create a long value chain also on dry land.[23]

3. The growing importance of the maritime domain as a source of energy – The involves the growing use of non-renewable energy (oil and gas) and renewable energy (wind).

4. The maritime domain is taking on an increasing role in socially detrimental phenomena, such as illegal trade in people and goods, illegal immigration and piracy.

5. It is becoming increasingly important to deal with ecological issues in the maritime domain – The ecosystem is affected by the aforementioned processes, as well as other horizontal processes that increase the pressure on the maritime environment. As a result of this trend, the response to environmental challenges in the maritime domain is becoming even more critical and is vital in order to ensure long-term sustainability.

The conclusion is therefore that a transition is needed from a discourse exclusively focused on national security in the maritime domain to a broader discourse that gives expression to three additional dimensions: society, the economy and the environment. Maritime Domain Awareness is necessary in order to provide a solution to the built-in tension between uses, as well as between users, and the tension between the desire for economic development in the maritime domain and the desire to preserve the environment (fisheries, wildlife and beaches) and historic sites. In other words, **an integrative approach is needed that does not separate between the security, economic, social and environmental dimensions**. The result will be a conceptual framework with greater meaning that requires the resolution of inherent conflicts between the various components and therefore calls for the formulation of a comprehensive and integrative policy based on a broad and long-term systemic perspective.

In order to develop and expand the discussion, the concept of "securitization", which was developed by Waever and others, will be useful. As part of the Copenhagen

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23 From the building of means and capabilities for surface and below-the-surface projects and the development and production of available technologies to the provision of services to the emerging maritime economy.

school,[24] which was active in expanding the securitization concept during the 1990s, in recent years this approach has also entered the discussion of *expanding the concept of maritime securitization*.[25] As can be seen in Figure 1,[26] the concept of maritime security is broader than just its military dimension and includes economic, social and environment components. In the context of the discussion in this chapter, this approach underlies the desire to expand the discussion of Maritime Domain Awareness to issues that are not exclusively related to national security. The rest of the chapter will examine the expansion of Maritime Domain Awareness in the Israeli case.
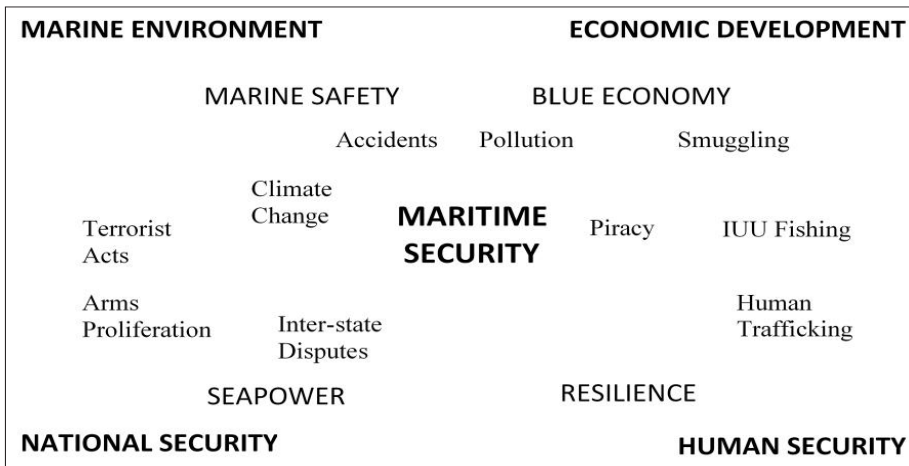

Figure 1: Maritime Security Matrix of Christian Bueger

The Israeli case – toward Maritime Domain Awareness

Notwithstanding the centrality of the maritime domain for Israel, the national approach has been characterized—starting already from the period of illegal immigration and until recently—by a *lack of awareness*, and therefore the lack of a national policy for the

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24 Barry Buzan, Ole Waever and Jaap de Wilde (1998). **Security: A New Framework of Analysis**. Boulder: Lynne Rynner; Ole Waever (1995). "Securitization and Desecuritization," in Ronnie D. Lipschutz, ed. **On Security**. New York: Columbia University Press, pp. 46-86. This school emphasizes that the success in defining a particular subject as a security issue means that it will receive greater public and government attention and also greater allocation of resources. Defining an issue as security-related gives it greater power and therefore the very definition as such changes the perspective on the issue and its implications for other issues.

25 Christian Bueger (2015), "What is Maritime Security?" **Maritime Policy** 53: 159-164. https://ac.els-cdn.com/S0308597X14003327/1-s2.0-S0308597X14003327-main.pdf?_tid=921823c7-16ac-4576-99fc-5030cc60dacf&acdnat=1543665220_0a0529119de700c72ba6e69f8375238e

26 Ibid., p. 161.

maritime domain.[27] During the past two decades, the gap and the contrast between the crucial importance of the marine domain to the State of Israel and the lack of an overall national maritime policy have become more acute. Based on the analysis up to this point, this section will briefly describe the change and the developments in Maritime Domain Awareness and the latest trends in Israel – from a lack of awareness to steps toward Maritime Domain Awareness.

The sea and its routes were central in the Israeli experience already from the days of the Mandate, when the sea was the main channel for illegal immigration. Furthermore, the Arab pressure and the fear of an embargo were among the motives for the creation of a merchant navy under an Israeli flag, including passenger ships, which reached its peak in the 1970s. Since then and as a result of global processes, Israel has come to depend on international shipping for its trade, and there has been a decline in Israeli shipping.[28]

Israel's maritime domain has changed dramatically in recent decades, due both the changes in its characteristics and the change in national awareness of it. The characteristics of Israel's maritime domain reflect to a large extent the characteristics of the maritime domains of other Mediterranean countries, namely the tension between the desire to economically develop the maritime domain and the effect of this development on the environment and the growing ecological threats that are liable to transform the domain into a "marine desert" (pollution, warming of the sea, excess salinity, change in the acidity of the sea, the destruction of fisheries and overfishing).

In the Israeli case, the issue is particularly acute in view of the importance of the maritime domain from a security/military viewpoint. The Israeli navy has—within its limited resources—developed an ability to maintain "situational awareness" in the maritime domain; however, from a national perspective, there was still no full solution to the issue. The State of Israel did not have a national policy for the maritime domain,

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27 The gap between the importance of the maritime domain and the lack of a maritime policy raises a fundamental question that is beyond the scope of this chapter, namely: Why didn't Israel develop Maritime Domain Awareness and a national maritime policy?

28 In this context, it is worth mentioning the emergence of the container as the main means of maritime trade, which is based on transshipment ports and feeder routes which have taken the punch out of the Arab embargo on ships visiting Israeli ports and has reduced the need to rely on ships under an Israeli flag, along with the globalization of many systems in the national markets and the collapse of the Communist (and pro-Arab) bloc.

nor a grand maritime strategy.[29] The perspective was primarily coastal, as were the legal jurisdiction and the planning tools.[30]

The discoveries of natural gas and the development of the fields in Israel's Exclusive Economic Zone (EEZ) have intensified the need for a spatial planning policy, especially the need for a national policy, and they have acted as a catalyst for activity. Starting from 2012 and picking up momentum in 2014, the Planning Authority (today part of the Ministry of Finance) initiated a national process in cooperation with the EU to formulate Israel's policy in the maritime domain. As part of the process, a draft policy paper was published in October 2017[31] for public review and public seminars were held to present the program and in order to get the public involved.[32] As of December 2018, the program is still awaiting the approval of the Planning Authority.[33]

One of the most important achievements of the process so far is the ability to bring together all of the stakeholders in the maritime domain – the government ministries (Energy, Defense, Agriculture, Transportation, Environmental Protection, Science, Communication, Industry, the Foreign Ministry, Health, Justice, Education and Tourism), as well as national authorities, local authorities, companies, NGOs and academics – for an integrative discussion of the needs, conflicts and regulation of the maritime domain, including recommendations for the definition of powers and responsibility, planning tools and necessary steps for implementation.

29   Oded Gur-Lavi (2017). "A Grand Maritime Strategy for Israel," **The Maritime Strategic Evaluation for Israel**, the Maritime Policy & Strategy Research Center. https://poli.hevra.haifa.ac.il/~hms/images/publications/Report_2016/4.pdf; And also the Technion (2015), **The Israel Marine Plan**. http://msp-israel.net.technion.ac.il/files/2015/11/Israel-Marine-Plan-.pdf

30   **The proposed "Maritime Zones" legislation** has been on the table of the Knesset since July 2014. It is meant to anchor the rights and powers of the State of Israel in the coastal waters, the internal waters, the contiguous waters and the Exclusive Economic Zone. As of the time of writing, the proposed law had passed First Reading and was awaiting approval in Second and Third Reading. http://fs.knesset.gov.il//20/law/20_ls1_392707.pdf

31   The Planning Authority (2017). **Policy paper for Israel's Maritime Domain – Stage II of the Maritime Domain Policy Repot – First Draft for Comments**. http://www.iplan.gov.il/Documents/Report_4.pdf [Hebrew]

32   As part of the public process, the Maritime Policy & Strategy Research Center prepared a response to the draft report and submitted it the Planning Authority [Hebrew]. http://hms.haifa.ac.il/index.php/he/component/content/article/14-publications-heb/98-2018-10-18-11-45-53?Itemid=108

33   Leor Guttmann, "For the first time: The State establishes an authority that will regulate the development of the Maritime Domain", **Calcalist**, April 24, 2018 [Hebrew]. https://www.calcalist.co.il/local/articles/0,7340,L-3736598,00.htm

The document defined the vision for the maritime domain (in Stage I) as "the management and planning of Israel's maritime domain as a dynamic and balanced environment, in a way that will ensure effective coordination of the various uses and the exploitation of the socioeconomic potential in the domain, alongside the preservation of nature, landscape and heritage".[34] The document also emphasizes that "the main principle underlying the proposed policy is the creation of spatial balance and a correct balance of interests between the various uses of the sea in a way that will facilitate optimal functioning along with the preservation of ecological values in the marine environment. To this end, the policy should be based on interdisciplinary planning that combines various fields of knowledge, along with the identification of the connections between them".[35]

The policy paper suggests—for the first time—an integrative approach that includes a maritime strategy for Israel (combined with appropriate legislation), a framework for the management, the preservation and planning of all uses and activities in the maritime domain, and a policy tool for the management and regulation of the maritime domain in a manner that will create an infrastructure for the development of a blue economy, which will relate to all of the considerations, including but not restricted to security factors.

In this context, the document emphasizes that "shipping, maritime security and hydrocarbons (oil and gas) are components that are highly important to man in relation to the sea and constitute a dominant component of the maritime domain policy". Similarly, the document emphasizes that "from a geopolitical perspective, Israel is an island nation," and therefore "Israel's dependence on shipping as its only gateway for the import and export of goods and fuels, together with the dependence on natural gas as a primary source of energy emphasize the importance of security and maritime protection".[36]

Accordingly, the document defines the following overall goals for the maritime domain policy:

- Encouragement of sustainable economic development in the maritime domain.

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34 Planning Authority (2018). **Policy Paper for Israel's Maritime Domain** – a slide presentation for the expanded editors committee on April 23, 2018. The difference with the aforementioned document is basically the addition of the word "landscape" as part of the preservation of values. For comparison, see **Policy Paper for Israel's Maritime Domain – Stage II**, p. 10.

35 Ibid., p. 21.

36 Ibid., p. 19.

- Mediation of conflicts between the various uses of the domain (in the present and the future).
- Creation of mechanisms for the management of the domain under conditions of certainty and a changing environment.
- The definition of interfaces between the various uses.
- Viewing the sea and the land from an overall planning and managerial perspective.
- Ensuring that the maritime system remains healthy and functional.
- Preserving Israel's internal and external security interests.
- Closer international relations and collaborations in the maritime domain in order to ensure regional stability and the promotion of shared regional interests.

In order to implement the policy, the document recommends the "**creation of a new statutory authority – the Maritime Authority**" as a government body that will promote management and coordination in the sea and will be committed to a balanced long-term viewpoint.[37] The responsibility for security, maritime trade and hydrocarbons, the preservation of nature and the maritime environment will remain with the existing bodies.

The proposed "Maritime Zones" law, which relates to the outcomes of the process, mandates that "the government will approve, according to the proposal of the Ministry of Finance and within two years of the application of this law, a long-term policy document for the regulation of all activities and uses in the maritime zones".[38]

Summary of the insights and directions for the future

The maritime domain is highly important to the State of Israel and is expected to become even more so in view of the economic trends described here. Similarly and against the background of the process in Israel, which is gradually and for the first time making progress toward a national policy for the maritime domain, the concept of Maritime Domain Awareness has been identified as making a potential contribution to the discourse.

The conclusion from the analysis is that the term Maritime Domain Awareness is relevant to the discourse in Israel. Furthermore, its meaning should be expanded and its development should continue to receive attention. In a situation where there is tension between needs and uses—between economic development, the environment, security and social welfare—as in the Israeli maritime domain, the discussion of the

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37 Ibid., p. 29.

38 The proposed "Maritime Zones" law, paragraph 16(a).

concept of Maritime Domain Awareness, which is currently focused exclusively on concreate military elements, should be expanded to become an integrative concept based on a tetrad structure: maritime security, environmental protection, social welfare and economic development. In this sense, the chapter has focused on the "expansion" of awareness of the maritime domain.

However and as in the case of other countries which have implemented the concept of maritime awareness, the process is not free of problems. Israel is also expected to face problems in achieving inter-agency cooperation and sharing of information between the various authorities that are likely to be involved in the process. This is particularly true in view of the expected difficulties in the implementation of policy in the maritime domain, once it is approved.

The potential contribution of the concept is the ability to translate it into an effective policy tool, as in the case of the concept's original use, which will be accomplished by creating an up-to-date picture for decision makers, based on fusion of information from a multiplicity of sources and the identification of trends and outliers. These steps will create a wise national decision-making ability that weights all of the factors—which often compete and even conflict—using a long-term perspective that ensures a sustainable environment.

Therefore, development of the concept of Maritime Domain Awareness should continue in two main directions – conceptual and practical.

1. **From the conceptual viewpoint**, the concept should continue to be developed and refined, by means of, among other things, a comparative study of implementation in other countries, which will include the identification of differences and similarities between them and an analysis of the factors explaining them. In addition, the regional implications of developing the concept should continue to be examined.

2. **From the practical viewpoint**, the degree to which the idea can be used as a decision-making tool should be examined, for example, in the context of the Maritime Authority, if it is created. Similarly, in view of the nature of the maritime domain, the process calls for regional cooperation and is likely to be appropriate for the promotion of cooperation in the Eastern Mediterranean.