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# **FORECASTING AS A FUNCTION OF SECURITY MANAGEMENT**

### **Abstract:**

The forecasting function in security sector management is a significant sub-phase or derivative of planning and assessing specific security threats, risks and challenges, and for the process of adjusting planning deviations.

The purpose of this paper is to elaborate the correlation between forecasting in security management and efficiency in the planned execution of objectives, both operational and strategic in macro perspective, i.e. in terms of flexibility to include and integrate numerous elements and factors in security planning and subsequently forecasting, in order to overcome the rigidity of the strategic long-term and medium-term directions prescribed in the normative frameworks.

The initial hypothesis of this paper refers to the claim that security forecasting in designated institutions should result from a comprehensive and integrated set of information collected and obtained through internal and inter-organizational channels of real-time information exchange, which provides flexibility and resilience of organizational activities in realization of security goals and minimization of the vulnerability of the security system.

The first variable related to the hypothesis emphasizes the importance of anticipating changes and shifts in trends and tendencies in the field of identifying security risks and threats and their proper resolution.

The second variable in support of the main hypothesis refers to the claim that sufficient forecast increases the ability to counter established security risks and threats.

The methodology applied for this paper includes a qualitative analysis of specific domestic strategic documents and legal provisions that define the forecasting function in the security sector, as well as the relevant institutions responsible for creating the forecasts and their specific standards and procedures; method of comparison with the review of equivalent strategic documents and legal provisions from the immediate environment and display of quantitative data on the correlation of variables.

### **Keywords:**

Security, Security sector, Function, Forecast, Security sector management

**JEL Classification:** D80, C82, F52

## Introduction

Global events are shaping security trends in the field of national security. Their cascading effects change the nature and character of the security function in society and require continuous adjustment through innovation, training and quality of delivery in the security sector. In addition, the nature of contemporary identified risks and threats imposes the need for integrated solutions that will enable proper management in the security sector. Hence, the conclusion that is imposed as an imperative that the functioning of the security sector in dealing with modern risks and threats to security in society inevitably relies on forecasting, which aims to implement an appropriate response.

Primarily, a brief definition of the main concepts that make up this paper - the security sector, its management; forecasting function; the risks and threats to be addressed and their appropriate response.

When it comes to the security sector, it is a notion of recent genesis, primarily in the context of security sector reforms in societies that are going through a political and doctrinal transition. As a term, it refers to the actors involved in the security, management and oversight of security in a country. There are different definitions of the security sector: the narrowest include only state security institutions, while the broader definitions are more comprehensive, including all state and non-state actors that affect the security and rule of law in a country.

Security management presupposes behavior and resource management aimed at achieving security objectives by avoiding adverse situations and minimizing harmful effects. The position of the security management in the security institution is determined according to its function and the tasks to be performed. It is an established administrative branch with multi-level application of different methods of administration of the armed forces, law enforcement agencies, intelligence services and the private security industry (Bakreski, 2011).<sup>1</sup>

The fundamental functions when it comes to security management forecasting in the relevant institutions are taxonomically divided as following:

- assessment of the actual and potential security risks and threats
- undertaking measures for removal of the risks and threats
- establishing an organizational capacity for dealing with the identified sources of threat
- undertaking measures
- control of the undertaken measures and overall functioning of the security system
- information sharing among the hierarchical levels of the institutions and between the security institutions and the political leadership
- creation of security analysis and
- provision of security for the employees.

In the security sector, assessment is made for every designated task that needs to be planned, where planning counterpoises the first cyclic function as part of the security sector functions.<sup>2</sup> From a pragmatic point of view, assessment could be briefly defined as a notion which signifies the designation and the determination of the value of a certain referent object. In an epistemological context, it refers to the evaluation of a certain judgement, or opinion for the features, values and significance of a certain aspect of function or action and drawing conclusions on the object of assessment and the valid information signals regarding the object

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<sup>1</sup> Bakreski, O. (2011) Security management. Filozofski Fakultet Skopje, University Ss. Cyril and Methodius Skopje.

<sup>2</sup> Geneva Centre for the Democratic Control of Armed Forces, "The Security Sector", SSR Backgrounder Series (Geneva: DCAF, 2015).

of assessment at the disposal. In information theory, signals are measured by scoping the surprise relative to a stable medium.

In terms of statistical definitions and in accordance with the classical definitions for information theory and entropy and information, information for a certain event and its possible outcomes increases when possible outcomes are added and sorted in conditional probabilities.

This is significant as a useful measure to determine the correlation between events by mutual information of joint probabilities, where  $a_i$  and  $b_j$  are the outcomes and the joint probabilities are  $P(a_i, b_j)$ , (Shannon, 1949).<sup>3</sup>

$$P(a_i) = \sum_j P(a_i, b_j); P(b_j) = \sum_i P(a_i, b_j) \quad (1)$$

According to the classical definitions of the security sector management functions, the forecast function, in some theoretical elaboration as a distinctive function, and in others described as a sub function, is a phase or a derivate of the planning function, presupposes projection of the threats and their analysis in order to counter them by executing appropriate measures. It is incorporated on the organizational strategic level and in the general operative organizational units. It is both an individual intrapersonal process by the decision maker in the relevant organization according to the behavioristic theory, and a collective process of analyzing current information at disposal regarding the rational choice theory when it comes to designating criteria for engagement. Forecasting arising from planning and assessment in the functioning of the security sector indicates the strength and implications of certain elements which affect the structure and the character of the phenomena or occurrence, as well as the foreseeing of possible developments in the future.<sup>4</sup>

In the contemporary scientific thought in the field of security and the specific reaction, management and assessment of security risks, it is of primary importance the accurate detection of security risks (their disclosure) and their prioritization (order of importance). Prioritization of security risks is performed in proportion to the values to which they relate to security measures. Thus, basically, the size of the value determines the size of the security risk, and further the importance of that risk and the treatment it has in relation to the others. The ranking of security risks is important for determining the priorities of the security policy of security risk management in case we have a multitude of security risks that we can face at a given moment. After the prioritization, the analysis follows, (assessment and forecast) and finally the treatment of security risks (Vogan, 2014; Gemović, 2011; Gerasimoski, 2018: 327-338; Keković, Bakreski, Stefanovski, Pavlović, 2016).<sup>5</sup>

## 1. Application of forecasting in security management

Theoretical, methodological and organizational principles of forecasting are generally applied with pre-established development interests and they can be categorized as forecasting at strategic and operational level. In long-term planning and at the strategic level, the intention is

<sup>3</sup> Shannon, C.E. (1949), Communication Theory of Secrecy Systems. Bell System Technical Journal, 28: 656-715. <https://doi.org/10.1002/j.1538-7305.1949.tb00928.x>

<sup>4</sup> Speigel I. (2021) Adopting and improving a new forecasting paradigm, Intelligence and National Security, 36:7, 961-977, DOI: [10.1080/02684527.2021.1946955](https://doi.org/10.1080/02684527.2021.1946955)

<sup>5</sup> Bakreski, O, Keković, Z., Stefanovski, S., Pavlović, S. (2016) Planning and Risk Assessment. In Function of Protection of Persons, Asset and Work. Chamber of the Republic of Macedonia for Private Security, Skopje.

to properly address the socio-economic and security issues that need to be addressed as a result of potential and current changes and alternatives in the security environment.<sup>6</sup>

The definition of forecast is a concept that has evolved over time in different contexts. The general definition of forecasting implies a systematic, participatory process of gathering information and a medium- to long-term vision-building process for decision-making at the present time and a process in which joint activities are mobilized (Competence Centre of Foresight).<sup>7</sup>

Viewed through the prism of changing security paradigm, forecasting is a participatory, systematic process with a future-oriented culture. When it comes to developing security forecasts, it uses knowledge from different policy areas to explain the interrelationships of economics, the social dimension, and regional and territorial aspects of security. This allows stakeholders to work together to define a common medium- to long-term vision for their country or sector, which is the basis for creating coherent policies and evidence-based measures that all stakeholders can accept and implement. According to the European Commission, (strategic) forecasting is necessary to monitor changes and trends in climate change, cyber security, geopolitics, etc.<sup>8</sup>

The Cartesian approach to forecasting and projecting outcomes, in turn, according to traditionalist rationalist and epistemological views, is a mechanism that links the necessary and sufficient amounts of data for response design. It can help detect crises and events in the category of black swan in the latent phase in order to prevent escalation and onset of the cascading effect due to the interconnectedness of the events.<sup>9</sup>

Foresight based on scientific and mathematical methods is fundamentally part of economic and technical studies and sciences, and with the concept of the fourth industrial revolution or the sixth wave of digitalization and information in management and operations is an integral part of the planning process. As an application or tool, forecast-based approaches are necessary in designing the program budget needs and requirements to be proposed by the executive and approved by the legislative.<sup>10</sup>

Forecast is not the end of the assessment itself, it is a mean of achieving the end. Therefore, forecast is necessary for:

- developing integral approach toward decision making and taking action
- contributes toward efficient goal achievement decisions
- maintaining the flexibility of the organization
- promotion of an integrative and proactive approach to organizational issues, overcoming the natural tendency in most organizations to focus on current problems, isolating them from future or potential problems

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<sup>6</sup> Rittel, H.W.J., Webber, M.M. (1973) Dilemmas in a general theory of planning. *Policy Sci* 4, 155–169. <https://doi.org/10.1007/BF01405730>

<sup>7</sup> Cagnin, C., Muench, S., Scapolo, F., Stoermer, E. and Vesnic Alujevic, L., Shaping and securing the EU's Open Strategic Autonomy by 2040 and beyond, EUR 30802 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-41020-1, doi:10.2760/414963, JRC125994

<sup>8</sup> Europska Komisija. (2020) Strateško predviđanje. [https://ec.europa.eu/info/strategy/strategic-planning/strategic-foresight\\_hr](https://ec.europa.eu/info/strategy/strategic-planning/strategic-foresight_hr)

<sup>9</sup> Golubev, S., S. et al. (2021) Using Ontology in Scientific and Technological Forecasting. DOI: <https://doi.org/10.24115/S2446-622020217Extra-B947p.435-445>

<sup>10</sup> Bardjjeva, M., L. (2019) Risk Analysis and Strategic Planning for Managing Urban Security. Security Dialogues, Vol. X, no. 2, 2019, Faculty of Philosophy, Institute for Security, Defense and Peace, Skopje.

- benefits the control and evaluation process of the management towards the realization of the planned goals
- improvement of socio-behavioral results in the organization (Ewing, 1967) <sup>11</sup>

The characteristics of forecasting, which differ from other strategic planning processes, are:

- systematicity: it is a well-thought-out approach based on several phases in which appropriate tools are used
- participation: brings together a wide range of stakeholders and encourages interaction, networking and learning
- information gathering: scopes trends and drivers, their interactions and possible disruptions, ensuring the use of evidence-based policy approaches and improving anticipation of future needs
- vision building: explores alternative scenarios and leads to a shared consensus-based standpoint
- shaping the decision-making process: gives participants the opportunity not only to explore the future but also to shape it through proactive thinking
- mobilization: involves stakeholders in order to support effective policy implementation through joint approaches

Forecast has features that make it a distinctive tool in several respects. Namely, the forecast has a participatory dimension and a networking dimension which includes a number of stakeholders. In addition, it explores long-term future conditions through holistic analysis that goes beyond typical prognosis. Foresight combines qualitative and quantitative approaches and provides a link between brainstorming and action.

Foresight is an open, systematic, participatory process that supports the design and formulation of policies with a medium- or long-term perspective. Foresight provides a methodology and mix of qualitative and quantitative tools tailored to a range of general and specific objectives, including:

- undertaking a general strategic overview of the national, regional or sectoral system
- setting priorities for innovative activities at multiple levels
- building shared visions between stakeholders and stakeholders who may not be accustomed to working together
- making decisions by examining scenarios or gathering more expertise

Forecast moves in two directions, respectively, it shapes and is shaped by the context in which it is applied and can be adapted to the needs, competencies and conditions, and can support the effective implementation of skills-related strategies and provide more consistent, advanced evidence-based approaches.<sup>12</sup> Foresight, seen both as a sub-function and as an additional function of security management, is a systematic and integral process, based on the concept of inclusiveness, including all aspects of security management, which means the use of data from heterogeneous domains. This seemingly well-known and absolute point remains relevant and significant, given that the forecast itself focuses on the long-term and strategic aspects of social, economic and security trends in the immediate geographical and political environment and in

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<sup>11</sup> Ewing, D., W. (1967) Corporate Planning at a Crossroads. Harvard Business Review. July – August 77-84.

<sup>12</sup> Kovačević, N. V., Domjančić, S., Kovač, P. M. (2018) Strategijski Menadžment u Vojnoorganizacionim Sistemima. Vojno delo 3/2018 DOI: 10.5937/vojdela1803252K

wider global contexts. Due to these facts and predispositions, forecasting as a derivative of planning and evaluation is prone to expected deviations.<sup>13</sup>

Forecasting can take many forms depending on the ambition, sectoral focus, available resources, time frame and so on. Regarding the distinction by type, forecast can be characterized according to the nature, scope, end result, activity and function.

**Table 1: Types of prediction**

Type of forecast:		
Nature	Exploratory (bottom to top)	Normative (top to bottom)
Scope	Multiple program-based phases	Single project-based initiative
End result	Process	Product
Activity	Capacity building	Policy formulation and implementation
Function	Current, constant	Separate, single

Source: Frame: *Skills for the Future*. European Training Foundation, 2014.

Hence, forecast has three main functions identified:

- provides policy makers, stakeholders and those responsible for forecast with an overview of the role of predictability in security policy development and implementation;
- serves as an instrument for forecasting teams (national experts, state decision makers etc.) responsible for carrying out forecasting activities;
- promotes greater awareness of the approaches, processes and results of forecasting to key players involved in the security sector in the form of coordination and information sharing.

In this regard, one of the biggest identified issues is related to the legal gap in terms of coordination between institutions, services and bodies dealing with security assessments and forecasting for the country and it is clear that the weakness is the lack of continuous and consistent channels of communication and cooperation among key actors in the security sector. Another significant problem that is being addressed is the lack of a unified model or platform for storing information (databases) and data/information sharing.<sup>14</sup>

In this regard, mutual information (Barnett, 2009) in accordance with entropy and information theory, is a useful measure for correlation between two events (or multiple in the same manner) and can be defined based on conditional entropy, where  $X$  is the identified risk or threat, or an expected uncertainty,  $A$  is the probability of the event (risk or threat), and  $B$  is a event occurrence (risk or threat) in terms of its dependence by  $A$  due to the information transmission, while  $A|B$  counterpoise a probability of an event  $A$  if event  $B$  occurred, and  $A, B$  counterpoise the variations of possible forecasted outcomes which can be compared as implication from the event.

$$X(A|B) = X(A) + X(B) - X(A, B) \quad (2)$$

## 2. Need for forecasting in the security sector of the Republic of North Macedonia

According to the Strategy for building resilience and dealing with hybrid threats from the Government of the Republic of Northern Macedonia from 2021, in regards of forecasting, it is a

<sup>13</sup> Slaveski, S. (2009) Security system. European University, Skopje.

<sup>14</sup> Бакрески, О. (2012) Концептот за реформи на безбедносниот сектор во Република Македонија. Годишен зборник, Филозофски факултет, Скопје.

necessary activity that is a unifying tool in terms of adequate deterrence of threats once detected and the appropriate response from by the relevant institutions or inter-ministerial bodies that are formed in order to integrate the activities aimed at minimizing the effects of the envisaged points in the context of the development and tendencies of the threats and risks.<sup>15</sup>

When it comes to defining risks and threats within the national security policy, the Republic of Northern Macedonia makes efforts to ensure security and protection of citizens, both from external and internal influences and threats of different nature: security, economic, political, ecological, cultural, etc.<sup>16</sup>

The main security threats assessed by national security policy are the tensions and antagonisms arising from interethnic conflicts, extreme nationalism, erroneous reforms and economic inefficiencies, the frequency and enormous dimensions of natural and / or technological disasters that have a major impact on society. In addition to the above, the weak economy, political, social and ethnic conditions in the country, which are defined as new types of risks: international terrorism, organized crime (human trafficking, weapons, drugs, money laundering, illegal migration), militant nationalism, fundamentalism, etc., and their latent or acute phases are revised and predicted at various intervals.<sup>17</sup>

The forecasting function defines and monitors the capabilities, which is a necessary element for evaluation of the implemented measures. This is an important moment for the overall function of the security sector in terms of normative and operational reforms in this domain.

It is considered a mainstream view that the task of forecasting is a product of intelligence. It is necessary for the decision-making process, for prioritizing activities and allocating resources accordingly. The accuracy of the forecast varies depending on the capacities of the institutions, expertise and experience, the level of communication and coordination, the methodology and interpretation of the data and their use. In the Republic of North Macedonia, the directorates of the Intelligence agency create forecasting and predictive analysis in order to identify external threats from:

- geopolitical rivalry
- development of hybrid strategies and threats
- regional security - strategic phenomena and processes
- internal and international conflicts with the potential to affect national security
- WMD
- political, ethnic and religious terrorism and violent extremism
- transnational organized crime and other forms of asymmetric threats
- Illegal migration
- cyber threats
- energy security
- conducting joint operations with partner agencies and other activities related to international cooperation
- pandemics and other potential threats and risks with the potential to destabilize and affect national security

<sup>15</sup> Стратегија за градење отпорност и справување со хибридни закани. Влада на Република Северна Македонија. Април, 2021. <https://www.mod.gov.mk/storage/2021/12/Nacionalna-Strategija-za-gradene-otpornost-i-spravuvane-so-hibridni-zakani-april-2021.pdf>

<sup>16</sup> Ѓуровски, М. *et al.* (2020) Безбедносни ризици и закани – третман, феноменологија и мапирање. Фондација Конрад Аденауер во Република Северна Македонија Факултет за безбедност - Скопје, Универзитет „Св. Климент Охридски“ – Битола.

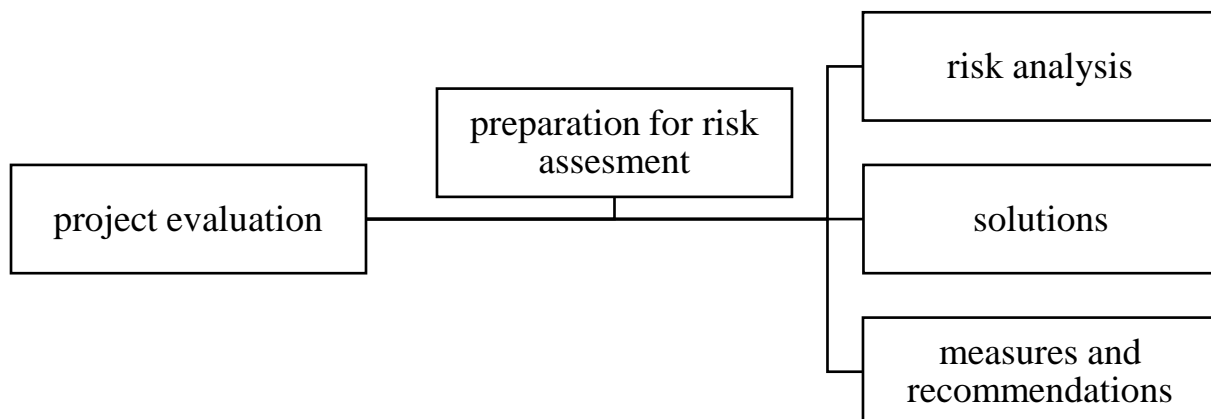
<sup>17</sup> Cvetkovski, S., Kenkov V. (2017). New Perspectives of Protection Against Possible Use of Biological Weapons. Security Dialogues /Безбедносни дијалози. 1-2. 427-447. 10.47054/SD171-20427c

The Agency's forecasting creates strategic goals by establishing and developing appropriate effective mechanisms for identification, prevention, forecasting, early warning and information sharing. The goals are of great importance in the decision-making process and in the policy-making of the President of the Republic, and as prescribed in Article 86 of the Constitution, the President and the Security Council, which considers issues related to security and defense and submits proposals to the Assembly. and the Government for the protection of vital and lasting national interests and its interests abroad.<sup>18</sup>

In this regard, the plan 3-6-9, regarding the security-intelligence reform, envisaged and implemented the operationalization of the National Coordination Center for Fighting Organized Crime, where the center acts as a bridge for exchange of information and data they have. and bring together institutions to be more quickly accessible to the needs of all institutions involved and as a result together with the support of the international exchange of information in the field of international police cooperation, which is an important segment in the fight against organized and transnational crime.<sup>19</sup>

As an illustrative example, the Directorate for Security of classified information in the Republic of North Macedonia follows a risk assessment methodology after which the forecast can be projected based on the assessment analysis.

**Figure 1: Process of risk analysis diagram:**



Source Directorate for protection of classified information, 2021.  
[https://www.dbki.gov.mk/files/pdf\\_files/metodologija/Dodatok\\_5.pdf](https://www.dbki.gov.mk/files/pdf_files/metodologija/Dodatok_5.pdf)

The project evaluation consists of several steps which are defined in these steps:

- budget
- goals
- tasks
- limitations
- control

The risk assessment preparation is comprised by the following steps:

<sup>18</sup> Cvetkovski, S. (2020) Comprehensive model of protection and rescue in preventive urban security. Faculty of philosophy Skopje, Annual Collection.  
[http://periodica.fzf.ukim.edu.mk/godzb/GZ73\(2020\)/GZ73.34%20Cvetkovski%20eng.pdf](http://periodica.fzf.ukim.edu.mk/godzb/GZ73(2020)/GZ73.34%20Cvetkovski%20eng.pdf)

<sup>19</sup> Презентација на работата на Националниот координативен центар за сузбивање на организиран и сериозен криминал. 12.03.2019 <https://mvr.gov.mk/vest/8722>



- team selection and acquaintance
- obtaining a working permit
- defining the time interval for preparation
- identification of the most significant systems
- determining expected controls

The risks analysis step presupposes undertaking the following steps:

- risks detection
- risk calculation
- creation of risk evaluation document

The selection of alternative solutions is the following step in the process of risk assessment and consists of:

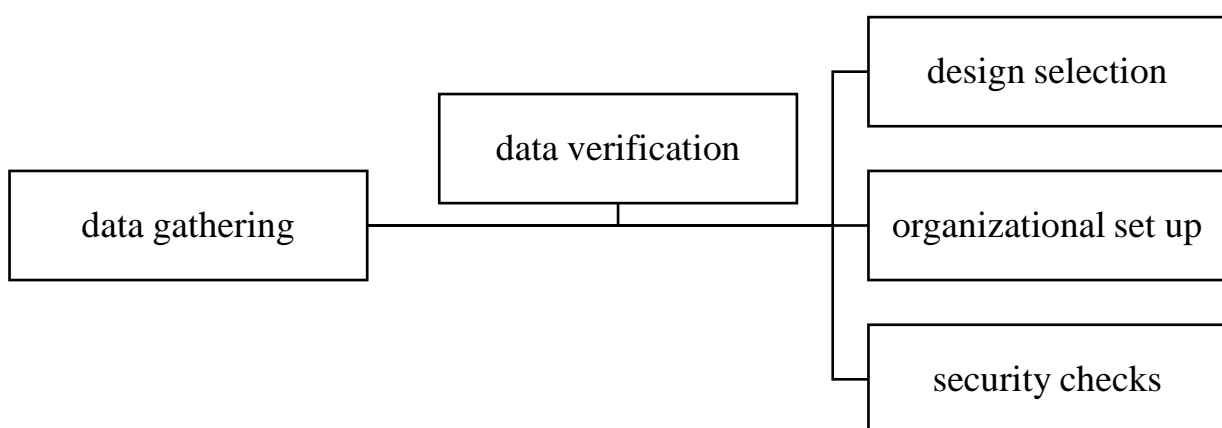
- processing threat and vulnerability
- financial calculations
- solution enforcing

The measures and recommendations stem from the previous steps in the risk assessment process and include the following activities:

- risk acceptance
- solution adoption
- designating tasks
- documenting, summarizing, presentation
- creation of report-analysis

The displayed steps which depict the risk and vulnerability assessment counterpoise a fundament for the forecast function of security management, which designates the points for planning of financial resources.

**Figure 1: Review of the forecast process.**



Source: Directorate for Security of Classified Information. <https://www.dbki.gov.mk/?q=node/636>

**Figure 2: Vulnerability review. Annex 3. Risk Assessment methodology for CIS security.**

Type	Vulnerability	Threat examples
Hardware	<ul style="list-style-type: none"> <li>- Insufficient maintenance</li> <li>- Lack of periodical replacement plans</li> <li>- Exposure to temperature variations</li> </ul>	<ul style="list-style-type: none"> <li>- Disruption of the IT system</li> <li>- Equipment and medium decay and destruction</li> <li>- Meteorological phenomena</li> </ul>
Software	<ul style="list-style-type: none"> <li>- Insufficient software testing</li> <li>- Insufficient control traces</li> <li>- Uncontrolled software utilization</li> <li>- Lack of physical protection</li> </ul>	<ul style="list-style-type: none"> <li>- Abuse of rights and authorizations</li> <li>- Illegal data processing</li> <li>- Software intrusion</li> <li>- Theft of mediums and documents</li> </ul>
Network	<ul style="list-style-type: none"> <li>- Unprotected communication lines</li> <li>- Unsafe network architecture</li> <li>- Inappropriate usage procedures</li> </ul>	<ul style="list-style-type: none"> <li>- Wiretapping</li> <li>- Remote spying</li> <li>- Equipment and medium damage</li> </ul>
Personnel	<ul style="list-style-type: none"> <li>- Insufficient control mechanisms</li> <li>- Insufficient security training</li> <li>- Lack of policies for oversight</li> </ul>	<ul style="list-style-type: none"> <li>- Illegal use of data</li> <li>- Error in use</li> <li>- Unauthorized equipment utilization</li> </ul>
Location	<ul style="list-style-type: none"> <li>- Unstable electric grid</li> <li>- Inappropriate control of physical access to objects and premises</li> <li>- Location prone to disasters</li> </ul>	<ul style="list-style-type: none"> <li>- Loss of power</li> <li>- Damage of equipment and mediums</li> <li>- Floods, fires</li> </ul>
Organization	<ul style="list-style-type: none"> <li>- Lack of procedures for identification and assessment</li> <li>- Lack of formal procedure for document control</li> </ul>	<ul style="list-style-type: none"> <li>- Abuse of rights and authorizations</li> <li>- Data and equipment theft</li> </ul>

Source: Directorate for Security of Classified Information, 2017.  
[https://www.dbki.gov.mk/files/pdf\\_files/metodologija/Dodatok\\_3.pdf](https://www.dbki.gov.mk/files/pdf_files/metodologija/Dodatok_3.pdf)

In accordance with the identified risks and threats and their assessment, the forecasting function of the security management in the specific institution makes projections in the public acquisitions annual plan with allocating (approximately) sufficient amount of resources in accordance with the Law on organization and work of the state administration bodies.<sup>20</sup>

As an empiric example of forecasting efforts in the legal provisions and strategic documents, as noted in the Strategic defense review of the Ministry of defense of the Republic of North Macedonia from 2018, the experiences so far indicate that the intermediate hybrid threats with various levels of intensity are unfortunately likely to occur. For example, the Strategic defense review of the Ministry of Defense in the Republic of North Macedonia describes that the dynamic, unpredictable, rapid and vague activities of the non state actors have the potential to escalate from a local to a regional level. Non-state actors are defined and include criminal

<sup>20</sup> Закон за организација и работа на органите на државната управа. Сл. Весник на РМ бр. 58/00, 44/02, 82/08, 167/10, 51/11 и Сл. Весник на РСМ бр. 96/19 и 110/19.  
[https://www.mioa.gov.mk/sites/default/files/pbl\\_files/documents/legislation/zorodu\\_konsolidiran.pdf](https://www.mioa.gov.mk/sites/default/files/pbl_files/documents/legislation/zorodu_konsolidiran.pdf)

groups, foreign-funded extremists, foreign fighters, returnees and terrorists, originating from this region, pose the most serious threat and most likely destabilizing factor. Among the numerous risks and threats for the peace and security are enumerated the vulnerability of the cyber security, the non-resistance of natural disasters, the internal political, economic or social turmoil and the reduced, but never fully eliminated threat from an external aggression.

**Table 2: Forecasting intensity of security threats and their intensity and probability in the Ministry of Defense in NMK.**

Threats	Intensity		
	Short term (up to 1 year)	Medium term (up to 5 years)	Long term (up to 10 years)
Direct threat on sovereignty and territorial integrity/armed aggression	Low	Low	Low
Terrorism	Low	Medium	Medium
Violent extremism and radicalism	Medium	Medium	High
Organized crime	High	High	Medium
Migration	Medium	Medium	Medium
Cyber attacks	Medium	High	High
Foreign intelligence services	High	High	Medium
Economic-political conditions	Medium	Medium	Medium
Natural disasters, technical accidents, epidemics, climate change	Medium	Medium	High

Degradation and destruction of the environment	Medium	Medium	Medium
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Source: *Strategic Defense Review 2018*. <https://www.mod.gov.mk/storage/2021/06/SDR-Paper-dated-05-July-2018.pdf>

These types of threats can have a direct or indirect impact on the country's national security. They undermine the democratic and economic foundations of society by weakening state institutions and losing confidence in the rule of law.<sup>21</sup>

As a discrepancy in the table, and illustratively described, the global migrant crisis with its peak in 2015, which unfortunately had a direct impact on the security, economic and political system of the Republic of North Macedonia, geographically positioned on the Western Balkans route, which is a direct forecast indicator of the great possibility of a threat to internal stability, was envisaged as a threat of medium intensity. The culmination of the migrant crisis, when it became acute, caused a declaration of a state of crisis by the Government of North Macedonia and was extended several times in order to enable the Army and the Ministry of Interior to participate in securing the state border of Macedonia and the external border of the European Union where there was a serious influx of migrants. Along with the entire security burden of the crisis, the migrant crisis was labeled a high-risk security threat. This situation disturbed the security system in the country, and special emphasis was placed on the borders and the border zone. The case of the migrant crisis is taken as a subject of analysis due to the fact that the Republic of North Macedonia since the beginning of its independence has dealt with similar problems several times, respectively, successfully dealt with five refugee crises, starting with the events in 1991 in the Republic of Albania, the migrant crisis as a result of the military operations in Bosnia and Herzegovina in 1992, the crisis in Kosovo in 1999, the internal conflict on its own territory in 2001 and the last mass refugee wave that flowed in the country and the entire European continent.<sup>22</sup>

In terms of decision-making and conduct in the security sector, the forecasting approach as a concept is not a novelty in security assessment and in the stages of the planning process and is integrated in the activities of the executive of the Republic of Northern Macedonia in accordance with the conceptual and normative framework. For example, the Long-Term Defense Capability Plan envisages completing the process of modernization and transformation of the armed forces by anticipating certain priorities and procurement dynamics. The forecasts for the entire process of modernization and equipping will be achieved by executing the defense budget which by 2024 should reach 2% of GDP of the Republic of North Macedonia and by gaining assistance with strategic partners through various programs tailored to priorities and needs. The process is expected to take place in three phases: the first period 2019-2024, the second period 2025-2028 and the third period after 2028.<sup>23</sup>

According to the projections in the Strategic Defense Review of 2018, the percentage of GDP to be allocated to the defense budget will increase by 0.2 percentage points per year, in order

<sup>21</sup> Бакрески, О. (2006) Координација на безбедносниот сектор: искуства и практики. Филозофски факултет, Скопје.

<sup>22</sup> Bakreski, O, Milošević, M. (2010) Contemporary Security Systems: Comparative Analysis of the Southeast Europe Countries. Faculty of Philosophy, Skopje.

<sup>23</sup> ДОЛГОРОЧЕН ПЛАН ЗА РАЗВОЈ НА ОДБРАНБЕНИТЕ СПОСОБНОСТИ 2019 –2028, Министерство за одбрана на Република Северна Македонија. <https://www.mod.gov.mk/inc/uploads/2021/06/%D0%94%D0%9F%D0%A0%D0%9E%D0%A1-2019-2028-finalna-verzija-1.pdf>

to meet the obligation to allocate 2% of GDP for defense by 2024 in response to the needs of the Ministry of Defense for the development of defense capabilities.

## Conclusion

Viewed through the prism of the security paradigm, forecast is a component or product of planning and risk assessment, respectively, the analysis of dynamic processes indicates to the conclusion that security threats should be properly perceived in their entirety.

This implies the necessity for application of analytical processes and methods that should assist in the decision-making process, since in the decision-making process, forecasting can be described as "complete thinking in advance" (Bakreski, et al. 2016).

The starting point highlighted the key assumptions and interests of planning, followed by the assessment of risks and threats (their probability, likelihood, intensity, duration, etc.) in the authorized institutions responsible for provision of national security in the Republic of North Macedonia. In this regard, It also must be highlighted that forecast is not completely accurate and precise, mostly due to lack of resources and lack of institutional capacity, along with organizational consistency.

Finally, it is necessary to emphasize and conclude the importance of appropriate and functional institutions that will be able to implement the necessary measures, which include anticipation and (ideally) elimination of hazards or (optimally) mitigation of their impacts and consequences. Another point worth underling is the continuous appeal for a comprehensive and unified model and manner of forecast, which will not be prone to alternations and abandonment for political purposes in the concrete example of the Republic of North Macedonia, which will hopefully be materialized empirically.

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