

# CONTEXT SCENARIOS IN LONG-TERM DEFENSE PLANNING

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**Abstract:** Recently, a team of Bulgarian analysts proposed a novel long-term planning methodology that envisions a scenario-based, concept-driven, and capabilities-oriented planning process intended to provide for robustness in an uncertain security and force development environment. The methodology uses two types of scenarios – context scenarios (or “alternative futures”) and situational scenarios. This article presents a process for designing context scenarios and a summary information on the scenarios developed for use in Bulgaria’s long-term planning process. The proposed approach to the development of context scenarios involves five distinct steps – preparation, strategic base analysis, analysis of the characteristics of the future, definition of national security interests’ zones, and development and analysis of context scenarios. A specialized software tool called Intelligent Scenario Computer Interface Program Morphological Analysis/ System Analysis (I-SCIP-MA-SA) was developed to support both the morphological and system analyses within the process.

**Keywords:** Long-term defense planning, planning methodology, scenario-based planning, context scenario, morphological analysis, system analysis, robustness, uncertainty.

In the summer of 2007, in anticipation of the need to update its long-term defense plan, known as “Plan-2015,” Bulgaria’s Ministry of Defense approached an academic team of analysts to provide initial methodological support for the forthcoming review.<sup>1</sup> In an intensive four-month project the team designed an advanced long-term defense planning methodology, scenario-development methodology and defense planning scenarios, as well as a number of approaches for constructing a set of scenarios to be used in the long-term planning process.

The long-term planning methodology was designed by Dr. Todor Tagarev. It envisions a scenario-based, concept-driven, and capabilities-oriented planning process seeking robustness in an uncertain security and force development environment.<sup>2</sup> The methodology envisions the use of two types of scenarios at two levels respectively. The first type of scenarios, called *context scenarios*, describes qualitatively different

futures, or “*alternative futures*” for the development of the armed forces. The term “situational scenario” was used for the second type.<sup>3</sup> Each situational scenario has attributes such as timeframe, in which it may occur, probability of realization, and warning time, while the analysis of the context scenarios allows planners to define these attributes, the dynamics of their realization and, generally, milestones in the evolution of the security environment.

This article presents a process for designing context scenarios and a summary information on the scenarios developed for use in Bulgaria’s long-term planning process.

## **Scenario Development Process**

Each of the context scenarios has clear causal chain in a certain planning horizon. This practically means that an observer would be able to trace each step in the evolution of a scenario, thus allowing planners to deal with uncertainty by utilizing “cause-effect” couples.

Our approach to the development of context scenarios involves five distinct steps. A specialized software tool, called Intelligent Scenario Computer Interface Program Morphological Analysis/ System Analysis (I-SCIP-MA-SA) was developed to support both the morphological and system analyses within the process.

### ***Step I. Preparation***

At this step, definition of the time horizon, experts’ team formation, goals definition, database creation, methodological preparation, scenarios’ security level definition and time schedule are defined.

A database is prepared that includes four global imperatives: “*Earth and Resources*,” “*People and Institutions*,” “*Nations and Relations*,” and “*Technologies and Applications*.”

An example of a context scenario that includes these four imperatives and explains the events of 11 September 2001 could be the following: “*Earth and Resources*” (Global Economy that relies on petrol); “*People and Institutions*” (Radical Islamic Fundamentalism); “*Technologies and Applications*” (Liberal technology access and open global market) → “*Nations and Relations*” (Rich North and Desperate South).

### ***Step II. Strategic Base Analysis***

At this step analysis of the strategic base could be conducted over the whole spectrum of national security (e.g. armed forces development for the next ten years or required capabilities for air-defense of a strategic power plant). In accordance with the scope

of the strategic base a concrete focus for its analysis should be determined (e.g. national sovereignty, terrorism, natural disasters protection, etc.).

### ***Step III. Analysis of the Characteristics of the Future***

At this step, analysis and selection of the most important characteristics, which are significant for decision-making in the future, are performed. This step aims at narrowing the scenario development field in a reasonable way and, at the same time, at producing a scenario explanation of the future projection. Suitable examples for this are the NATO standards and interoperability requirements for the alliance forces.

### ***Step IV. Definition of Zones of National Security Interests***

The definition of the zones of national interests in the security context enables the establishment of a clear geopolitical foundation for the development of context scenarios. Here it should be noted that the membership of a country in different international alliances and organizations directly influences the definition of zones due to the fact that it requires correspondence with the alliance common interests.

### ***Step V. Development and Analysis of Context Scenarios***

The development of context scenarios is a complex task requiring political approval. It takes into consideration the definitions of Step IV and is implemented in thirteen sub-steps:

#### ***A). Selection of Main Dimensions***

The main dimensions (key factors) of a certain context scenario could be found among:

- International affairs and security;
- Geopolitics;
- Strategic resources;
- Strategic objects;
- Technological & military progress;
- Economic and socio-economical issues;
- Demography;
- Ethno-religious relations;
- Crime level;
- Natural and industrial disasters and catastrophes;
- Military affairs.

The definition of the basic dimension is conducted as an iterative process of brainstorming sessions (for rough selection) followed by Delphi method application (for finer filtration).

#### *B). Definition and Selection of Alternatives for Each Scenario Dimension*

After defining the basic dimensions for context scenario development, for each dimension the participants should determine a set of mutually exclusive alternatives. Here they again use brainstorming sessions combined with Delphi method filtration.

#### *C). Linking Alternatives*

Once the alternatives in each dimension are defined, the participants should link them and assign weight to each of these links. The idea is to use a weighting scale of positive and negative numbers, which in result classify a given scenario combination into more controllable (positive, active) or uncontrollable (negative, passive) scenarios. Usually, in the passive group are entered scenarios that concern e.g. terrorism and in the active one – allied missions.

Completion of Step V (A)-(C) creates a cross-consistency matrix for context scenarios' morphological analysis, which directly produces different combinations on the basis of participants' opinion, knowledge and experience gathered and filtered through brainstorming sessions and Delphi method post filtration.

#### *D). Scenario Titles*

Once the different scenario combinations are produced in sub-Step (C), they have to be given names. The titles of the scenarios are usually selected short, recognizable and straight, e.g. *Kosovo-2*, *New Bosnia*, etc. This first level of scenario definition is rather flat and creates only the global cross-consistency matrix for a certain scenario set. So, additional deeper system analysis is utilized in order to not only determine "passive" and/or active scenarios, but also to discover exactly which elements for a given context scenario are important and why.

#### *E). Scenario System Evaluation*

The scenario evaluation in the context of the Generalized Systems Theory is produced by means of the idea of dual influence/dependence (feed-forward/feed-backward) positive numbers evaluation of preliminary defined objects from a certain context scenario. As a result of this operation, a quadratic classification of the scenario objects (e.g. terrorists, infrastructure, people, etc.) into active (upper right), passive (upper left), buffering (bottom left) and critical (bottom right) is produced and generalized into a sensitivity diagram (Figure 1):

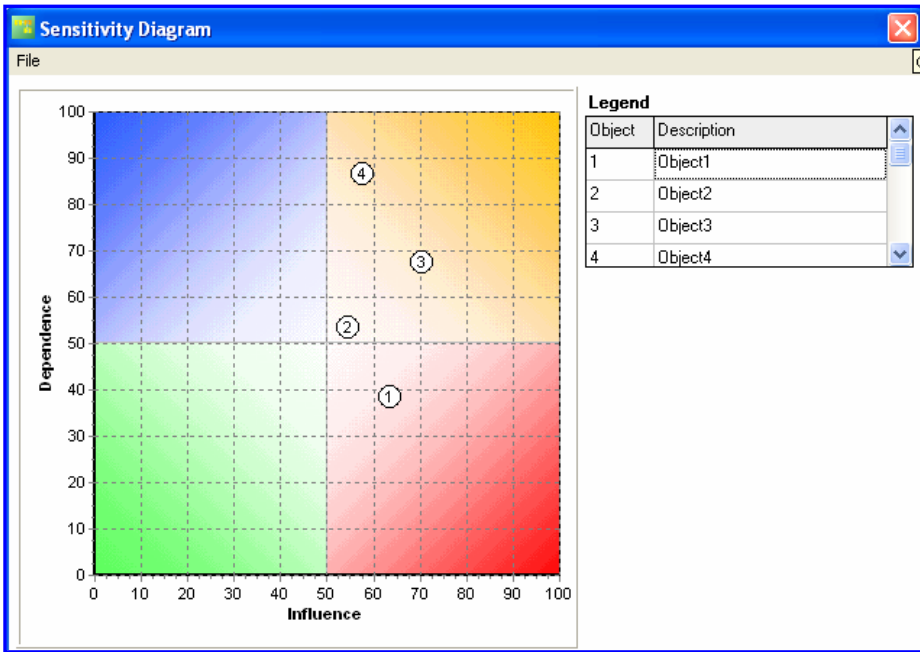


Figure 1: A Screenshot from Sensitivity Diagram of I-SCIP-SA.

#### F). Scenario Logic Selection

Scenario logic selection is a process for description of links between different scenario objects and the key object. The scenario logic shows the tendencies in the scenario, e.g. “Winners – loser,” “Crises & crisis response,” “Evolutionary development,” “Permanent transformation,” “Shock therapy,” etc.

#### G). Scenario Wild-Cards Analysis

The scenario wild-cards are events that differ from the scenarios in their counteraction which should be planned, i.e. in some sense wild-cards are the emergencies in a given scenario. Good examples for scenarios wild-cards are events which remove a given plot in the scenario (all Balkan countries joining NATO), developments with global impact and scale (www), and system cataclysms (global terrorism).

#### H). Scenario Text Elaboration

The elaboration of the text of a given scenario is good to be organized along five basic elements: common status, theatre (in the broad security context), actors, conflict character, scenario progress indicators, and other supporting information. As a result of this step a readable text that concerns the scenario’s basic elements and context is produced.

### *I). Development of Scenario Portfolio*

Developing the scenario portfolio is a difficult task because it virtually refers to the definition of sufficient scenarios for a given problem, which is quite ambiguous and confusing in practice.

As a general recommendation, the following three steps could be accomplished:

- Definition of the whole spectrum of scenarios resulting from the morphological analysis cross-consistency matrix;
- Selection of these scenarios from the cross-consistency of the scenarios that cover most of the alternatives;
- Selection of the number of scenarios in accordance to the scenarios' goals.

### *J). Scenario Validation*

The process of scenario validation should check precision, realism, relations between different scenarios and other processes of strategic planning and programming and goals.

### *K). Scenario Approval*

This stage jointly with sub-Step (J) is performed in the responsible organizations from the security sector similarly to Steps II-III on experts' level and then the result is sent for final political approval. In this process the following tasks have to be accomplished: national security political vision conformation, exemplifying of the level of political and military consensus, personal and organizational response utilization, coincidence check with Step III, appearance of further control in strategic planning on the basis of lessons learned from the scenario planning procedure.

### *L). Scenario Presentation*

The process of scenario presentation is related to Step I and especially to the scenario's security level. Usually it is performed at two levels: internal (among a small group of experts from the responsible organizations from the security sector) and public (among a broader audience of experts and observers on national and international level).

### *M). Implementation of the Context Scenarios*

In general, the implementation of the context scenarios is a question of political and strategic goals definition of a given country. Usually, this question could benefit from the allied goals for international and regional stability and security, e.g. Western-Balkans, Black Sea Area, Europe, etc. Finally, context scenario development could be even used for long-term planning for perspective future international strategic partnerships and for shaping of the security environment.

Table 1: Environmental Factors (Variables) with Strongest Long-Term Impact on Bulgaria's Armed Forces and their Distinct Values.

World Order	EU security interests	NATO	Russia	Balkans	Terrorism	Criminality	Society	State Governance
US leadership	Strategic interest – Energy	Strong and transformed	Authoritarian and aggressive	Weak and Calm	Strengthened networks	Limited by EU	Liberal development	Strategic
US leadership with EU as a partner	Border security	Article 5 focus	Authoritarian and cooperative	Weak and hostile	Dissipating networks	Corruption in politics	Shrinking democracy	Inefficient management
Antagonistic US-EU relations	Fortress Europe	Political Forum	Cooperative and weak	Black hole	Possession of WMD	Damaging impact on international relations	Protectionism	Weak because of corruption

## Context Scenarios for Bulgaria's Long-Term Defense Planning

The environmental factors, or variables, with the strongest impact on the long-term development of Bulgaria's armed forces and their distinct values are presented in Table 1.

Choosing compatible values of these variables, we designed a number of context scenarios. Five of these scenarios were proposed for consideration in long-term planning.<sup>4</sup> They were named as follows.

### *Balkans Forever*

This is a pessimistic yet not catastrophic scenario for the development of the situation in the region of Bulgaria's most immediate national interests and security. The scenario's logic is similar to a "zero-sum game." The scenario illustrates how the dominance of national ideology and ambitions for dominance, superiority and power above political and individual values may set up a construction of "winners" and "losers." Each "victory" and each "defeat" in this context would be a source for new conflicts within the spiral of violence.

The scenario offers a plausible example for developments of major parameters of the security situation in the region if nationalistic, chauvinistic and openly aggressive ideas and goals would take the upper hand in the region. The discouragement of the international community as a result of long years of futile efforts to stimulate regional stability and progress has been a result of the lack of vision and will in local populist leaders who put their nationalistic policies over European, democratic and universal humanistic values.

### ***Balkan Concert***

This is an optimistic scenario for the development of the situation in the zone of immediate national interests and security. The logic of the scenario is of the “evolutionary development” type. It illustrates how the historically accumulated intolerance among people in the region corrodes under the impact of developing positive will of already conscious majorities and their new elites and how this impulse sustained by the efforts and resources of the international community leads to finding the solutions for the most acute problems.

### ***The New East***

This is a scenario of simultaneous manifestation of three tendencies and factors—globalization, regionalism and nationalism—in the Europe-Asia geopolitical space. Bulgaria will have opportunities for positive development as a NATO and EU member, but facing at the same time considerable challenges, limitations, risks and threats coming from neighboring regions in which other powers have already accomplished their integration projects.

### ***Challenging the Hegemon***

In a unipolar world the US may be challenged by governments of comparatively poor nations managing to accumulate budget surpluses and use them to purchase nuclear technologies on the global market or to pay a terrorist network to strike one or a series of attacks. Under this scenario, Bulgaria may turn up in a complicated situation when it needs to make a choice, yet even the “correct” strategy might cost dearly to the people.

### ***Democratic Peace***

This is an idealistic scenario for the future within the context of national interests. Its logic is “permanent transformation” as a combination of the elements of “evolutionary development” and “unlimited opportunities.” The paradigm of this scenario is that liberal democracy and open markets find their way both among states within the zone of Bulgaria’s national interests, as well as among global forces interested in this zone. The expansion of democracy thus leads to democratic peace, because truly democratic states compete, but military hostilities are not an option. Then the efforts of these states in the field of security focus on other regions using minimum military force and conducting operations mainly for peace-keeping and humanitarian purposes.

The fifth context scenario is most favorable for the realization of Bulgaria’s national interests, and the first one – least favorable. Taken together, the context scenarios

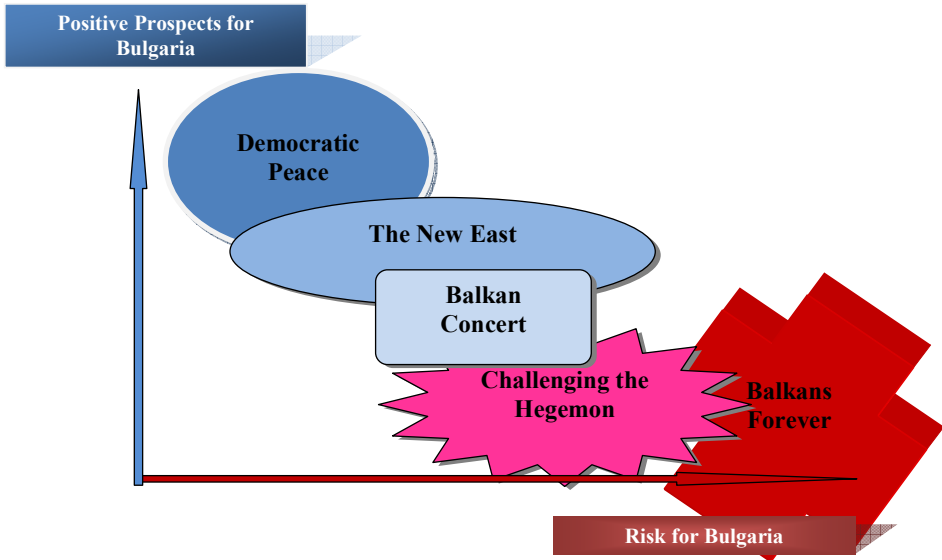


Figure 2: Continuum of Context Scenarios.

form a continuum (Figure 2) and allow policy makers and planners to review and adapt force development plans in case there are clear indicators for transition of one future, or context, to another.

## Conclusion

The strategic community is convinced that Bulgaria is on the threshold of a period of low-intensity though large-scale challenges – including opportunities as well as risks and threats.

From the perspective of 2025, Bulgaria will continue to be in the periphery of NATO and EU, and of the entire democratic community and Christian civilization. Under these conditions, the term “defense” in the military sense remains valid but has changed its content to mean an instrument for collective deterrence and rapid reaction and a system for the organization of allied efforts.

There are no indications that the roles and tasks of military forces will be reduced or depreciated. They would rather change and transform. From the perspective of 2015-2025, it is highly plausible to claim that armed forces will continue to be a unique instrument in the spectrum of defense and national interest support resources, irrespective of the fact that the threat of traditional military aggression will continue to fall down. For that reason, Bulgaria will have to proceed with the establishment of the military forces as an integral structure of sufficient capacities within the framework of

national aspirations, flexible when used and adaptable to the uncertainties of the future. However, this will happen only if their transformation will be accurately planned and decisively implemented.

The proposed context scenarios are yet to be considered by Bulgaria's defense planners. Their inclusion in the defense planning process will certainly increase the workload, but at the same time will provide for better understanding of cause and effect relationships, focus on information collection and analysis efforts, and adaptive force development. In addition, the consideration of the approach, and the scenarios designed, may contribute substantially to the development of the new Security Strategy of Bulgaria.

The development and the selection of context scenarios as an instrument of long-term national security and defense planning is a continuous process. The occurrence or not of one or another event in time will probably introduce changes in the major alternative scenarios. This is why the approach and ideas presented briefly here should be seen more as a foundation for systematic and knowledgeable discussion, rather than an end-product.

### **Disclaimer**

The views expressed in this paper are of the author in his personal capacity and cannot be attributed to any governmental organization.

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**Notes:**

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- <sup>1</sup> The nucleus of the team was already well established with support from the NATO Science for Peace program. For details see Klaus Niemeyer, Velizar Shalamanov, and Todor Tagarev, “Institutionalizing Operations Analysis for Security and Defense in Bulgaria,” *Connections: The Quarterly Journal* 7, no. 2 (Summer 2008): 45–53.
- <sup>2</sup> For details refer to Todor Tagarev, “Methodology for Defense and Force Planning,” in *Methodology and Scenarios for Defense Planning* (Sofia, Military Publishing House, 2007), pp. 179–207. – in Bulgarian.
- <sup>3</sup> Corresponding to a “planning situation” in the NATO defense planning methodology. Only this type of scenarios is used in the allied defense planning process.
- <sup>4</sup> Full description of the context scenarios, in Bulgarian, is available in Valeri Ratchev, “Context Scenarios,” in *Methodology and Scenarios for Defense Planning* (Sofia: Military Publishing House, 2007), pp. 104–140.

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