



Development of Theory and Practice of Program Resource Management

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Abstract. One of the issues that are often in the focus of discussions at various circles experts are related to the field of security and innovation. According to some authors the development is security and no security without development. Experts in innovation, in turn, try to classify the phenomenon in which are willing to accept the existence of evolutionary, radical and systemic innovation. Discussion on both topics can be carried in the field of resource management and this will not be a mistake because of two facts. Firstly the limited amount of resources is always a reason to think about the efficiency of their management. At stake efficiency means degree of suitability for implementation of certain tasks and achieving certain goals. Secondly, issues of innovative development of approaches to resource management are extremely important and never lose relevance. All of the above should convince the readers of the correctness of the choice of theme or object of study.

Common experience

The United States Department of Defense is the originator of the attempts for applying a system for program resource management. It initiated the process of undertaking the study and implementation of such a system in the middle of the last century. The idea of developing a new system for finance management is a result of studies and researches carried out for years and that is based on the analysis of current issues and the possible approaches to their solutions. These

facts prove conclusively that adopting the program resource management in the field of defense can not be considered as an end in itself, but as an outcome of a systematic and scientifically grounded study, focused on the elaboration of the decision making model in the sphere of defense.

The revolution in military technologies, started in the middle of the last century, makes the centralized planning of the defense management programs indispensable. The choice of optimal armament becomes an issue of a strategic importance due to the constantly increasing elaboration and complexity of weapon systems, the longer time necessary for their manufacturing, their extreme battle power, and the enormous expenses for their purchase and utilization. It demands decisions made at highest authority levels with taking national goals under consideration. The development of the weapon systems blurred the clear distinction between the services of the army regarding the tasks they carry out. The implementation of most of the military missions requires the participation of all army services and this unavoidably reflects upon their programs for development.

The traditionally applied method for planning and budgeting of defense spending has a number of disadvantages but the most essential one is the huge gap between military planning (planning of the necessary defense capabilities) and budgeting the defense spending. It is demonstrated throughout the following facts:

- the two activities are accomplished by different groups of people: the military planning by military specialists, and the budgeting by civilian experts;
- the control of the budget execution is under the authority of the Minister of Defense, whereas the control of the military plans execution remains under the authority of the different services of the Armed Forces;
- the planning horizon gradually expands up to five years, whereas the budget horizon remains a one-year entity;
- the planning of the capabilities is based on the missions, Armed Forces structures, weapon systems, whereas the budgeting is based on the different

types of defense spending on personnel, training, and operational expenses, investments, etc. However, mechanisms for transforming these indexes into others do not exist;

- budgeting is constrained by the fiscal actualities, whereas planning is kept remote and this makes it unavailing for the decision makers;

- in planning military requirements take only the obtained results under consideration without rendering an account of budget capabilities and making any attempts to find the balance between defense spending and the obtained outcome for the taxpayers.

The above mentioned weaknesses of the traditional system for defense finance management impose the need to undertake a research into adopting of a new system that will allow the plans and budget to be developed in appropriate forms in which the identical expenses are presented in exactly the same way. This will provide essential information to managers at all levels that they will further use in fulfilling their duties and for making the corresponding management decisions¹.

The main reason for the existence of such an instrument is the alteration in the approach to defining the amount of the needed resources for defense. The approach of priority financing is being changed by the approach of the budget ceiling. The application of the new approach includes the following several steps. First, the President of the United States of America, taking into consideration the available information about the financing capacity for all budget spheres, defines the level of defense spending. Next, the Minister of Defense decides how to apportion out the financial resources among the services of the Armed Forces. Third, each of the services allocates the granted financial resources in accordance with their own programs and projects. In case of a shortage of finances they prepare a generalized request to the defense budget asking that additional funds to be provided for the not financed projects and activities. This is to be approved by the Minister of Defense and submitted to the President.

¹ Hitch Charles J. Decision-making in the Department of Defence. University of California, 1965

The results from applying into practice the described above method for defense resource management make its effectiveness questionable for a number of reasons. First appears the matter concerning the systematic and integrated definition of program priorities in sharing out the allotted defense resources. The individual, within the framework of the separate services of the Armed Forces, prioritizing of the defense spending is found to be non-effective. While defining uncoordinated and often contradictory program goals and priorities for the different services of the Armed Forces, the tendency to obtain a greater portion from the defense budget arises as a consequence. The Air Force programs for the development of strategic aviation and missile forces at aviation in support of Land Forces operations expenses could be given as an example for contradictions of that kind. A similar trend is observed in the Navy programs for the development of strategic nuclear forces concerning ballistic missiles launched from aircraft carriers at those launched from submarines and support battleships expenses. There is an explanation for these discrepancies in programming of the defense resources. Due to the short time for planning, the army services try to get an entry to the budget with a small sum of money and do not reveal the full amount of spending required for the set up and maintenance of the desired new weapon systems. This is known as the “step through the door” approach.

The identified problems of the applied approach and defense resources planning system raise an important issue. There must be an opportunity for coordination between the program goals and priorities of the services of the Armed Forces and the common goals and priorities of the state defense policy, and it is worth searching for it. A new theory for defense resource management has been promoted. According to Prof. Ivanov it opposes the traditional, passive, adjudged style, characterized by the wait-and-see policy when problems have been detected to the proposals of the better, active, leadership style that incorporates the individual approach to problems, goals, alternatives and courses

of action, decision making and leading the organization forward along the chosen route².

The new requirements to the defense financial management are attained through integration of a new stage, called programming, in the process of defense resource management. Since the planning and budgeting stages have already been proven, the role of programming is to connect them in a sufficiently rational way. With including the programming function in the process of defense resource management the gap between planning and budgeting has been filled. The process becomes a three-component one, namely; planning, programming, and budgeting.

The first phase of the process, military planning and requirements definition includes the participation of all appropriate structures at the Department of Defense and the services of the armed forces in their corresponding areas of responsibility. At this phase, it is essential not only to set requirements in the traditional way of thinking, but also to carry out a military economic study. This is done by comparing alternative approaches to the accomplishment of national goals in the sphere of defense and security, as well as clarification of that alternative, which turns out to be the most effective one in implementing the goals within the limits of the granted resources, or, is the most cost-efficient one.

The expectations at the beginning of applying the three-component process were that after the middle-term plan had been developed, the effort would have been focused on reviewing and adapting only some specific components in it. The experience proves the necessity of another type of a review of the developed plan. It includes annual revisions to render an account of the changes in the security environment, the new achievements in the military technologies, etc.

After the strategic plan for achieving the goals has been developed, it is submitted to the Minister of Defense. This way, the Minister is annually provided with the current information about the structure of the forces and main programs, which to the greatest extent supports the goals in the successive middle-term

² Ivanov T. Security and Defence Economics. Sofia, 2002

period. This plan is used by the Minister to ground the approved recommendations for the development of the defense programs.

The second phase of the process, programming of defense resources, faced a number of considerable problems at the beginning. One of them is the need to redefine all activities and projects in the field of defense and security and group them in programs that are integrated combinations, comprising human resources, armament, equipment, facilities, and infrastructure related to the goals of the national security. These programs are used as a base not only for building up the program structure, but also in defining the levels for the decision making that concerns the process of programming the defense resources. The following can be indicated as examples of program components:

- Air Force – including: human resources + bombers + armament + support subunits;
- Navy – including: human resources + aircraft carriers + sea-based missiles + aircraft + support ships.

Next problem relates to integration of program components in programs of a higher level, so that to accomplish defense goals and missions. The main principles applied in joining the program components are the joint support of the built by them defense capabilities, the opportunity to replace a component with another one within the framework of a higher-level program, one and the same defense mission to be supported by all program components of a higher-level program, etc. In the US, as a result of the integration of the program components, a program structure of the armed forces with nine main programs is achieved – Strategic Forces, Continental Defense Forces, General Purpose Forces, Air And Sea Transport, Reserve Defense Forces, General Maintenance, Research And Development, Compensation After The Military, Military Assistance³.

The third main issue results from the great dynamics of the defense programs and the need to update and upgrade them continually. For the sake of these needs, a system for control of the development and implementation of the programs is

³ Greenwood D. Defence Resource Apportion and Management: Western Model. Sofia, 1997.

created. The basic principles of this system are subordination of proposals for changes in the programs, complete and systematic review of the impact of the proposed programs for meeting the goals, decision making for every single change in the programs, assigning a particular executor in charge of the approved changes in the defense programs.

Table 1-1 presents the differences between the traditional military and budget planning and the new system for planning, programming, and budgeting.

Table 1-1

PARAMETERS	MILITARY PLANNING	PPB SYSTEM	BUDGET PLANNING
Main function	Planning	Programming	Budgeting
Focus	Military threat	Shortage of resources	Budget limitations
Perspective	Long term plan	Middle term program	Yearly budget
Point of view	Military	Analytical	Civil

The third phase of the process, budgeting, relates to the development of a budget for the first year of the planning period, or, for programming. This phase characterizes with a high degree of concretization of the planned for implementing activities and a precise quantitative assessment of the necessary financial resources.

The decision for the integration of the program function in the process of defense resource planning is a result of a natural evolution and is not a completely new entity concerning theory and practice. The three-component approach in management, and namely the integration of planning, programming and budgeting, can be found in works by a number of politicians and researchers. According to President Truman strategy, program and budget are all aspects of a basic decision.

A matter of interest is the way in which the ideas for adopting the program management for defense resources were accepted. The opinions range from optimistic and enthusiastic to definitively skeptic and pessimistic. Although for a short time, programming had been put into practice at a national level in the US, but later its use was limited within the authority of the Department of Defense only. At the same time, it is also applied in some European countries at a national or institutional level. The opponents' arguments against program management are mainly that it is too much centralized, complicated and pragmatic, and because of that, when changes in the security environment and the priorities of the national defense policy occur, a possibility to promptly react to the new situation do not exist.

Crucial reasons for adopting the system for planning, programming, and budgeting of the defense resources are the possibilities for applying analytical methods, civil control, and various alternatives for management of defense resources. Consequently, the defense budget becomes an economic stabilizer. Rowan Gater presents further reasons to put the program approach into practice. According to him the political, as well as the physical survival of a country, considerably depends on how quickly and successfully the technical achievements will be utilized in armaments and weapon systems. He defines the new type of war as a war, in which the economic and political factors become of a great importance and, in fact, can be crucial. In this respect, the author determines the use of intellectual, scientific, and economic resources. Actually, we should not only have the resources at our disposal, but also have the capabilities to manage

and utilize them. In a conclusion, we have to find organizational means to allow the involvement of our resources for solving the task to survive.

Bulgarian experience

In the Republic of Bulgaria the program approach to defense resources management and the system for its application are approved as main instruments to plan the defense resources in the Ministry of Defense and the armed forces. The Integrated Defense Resource Management System (IDRMS) was known until 2003 as Planning, Programming, and Budgeting System. In the development of the system were used the main characteristics of the American system for planning, programming, and budgeting. The specific conditions of the internal and external environment from regional and national aspects were taken into consideration. Program management is put into practice to provide transparency and high effectiveness in the defense resource management, to increase the importance of the civil control over sharing out, planning, spending, and accounting for the granted resources of interest to defense and security, to create an anticorruption environment for defense resource management.

Building up IDRMS as a national system for applying the program approach in defense resource management relates to a great extent to what Francis Fukuyama says in *State Building*. According to him the most general notion about the foreign administrative practices must be combined with deep understanding of the local limitations, capabilities, habits, norms and circumstances. This means, local administrators who are to manage the local institutions must not only contribute to the accomplishment of the administrative and institutional decisions or receive them from outside, but be their creators⁴.

In 2000 the procedures in the Bulgarian planning, programming, and budgeting system of the defense resources were regulated by the approved Concept for planning, programming, and budgeting in the Ministry of Defense and Armed Forces and Methodology for program development in the Ministry of

⁴ Fucuama F. *State Building*. Sofia, 2004.

Defense and Armed Forces. The Minister of Defense, through an administrative act, approved the adoption and implementation of the program approach for defense resource management and the system for its execution.

Several main features in the development of the program approach to defense resource management applied in Bulgaria could be mentioned. At the beginning the program structure in use consisted of twenty-one main programs. They covered all activities and projects of the MoD and the Bulgarian army. In 2000, for the first time, a budget based on a program principle was elaborated. The US Department of Defense initiated a project for consulting assistance for improvement of the Bulgarian system for planning, programming, and budgeting with the participation of the US Institute for Defense Analysis. The project was carried out until September 2005 and contributed for the elaboration of the defense resource program management.

Some conclusions could be made after one-year application of the program approach to defense resource management. Based on the analysis of the used program structure, a decision was made to reduce the number of the main programs up to thirteen. This enhances the effectiveness of their management. A mixed approach is applied in the development of the new program structure. It combines the structural and functional models of the forces. In other words, the program components are defined according to the structure of the armed forces and the functions they fulfill. The elaborations of the products of the program management are evident – Programming Guidelines by the Minister of Defense for a six-year period of time, Program Memorandums for the main programs and a Program Decisions Memorandum.

The development of the program approach in defense resource management relates to the achieved improvement in the quantitative definition of the program goals for the main programs. It is seen in the Programming Guidelines and the introduced financial limitations in the development of the main programs in the form of financial quotas related to the limited financial resources in the defense budget. Guidelines for the development of reports on the implementation of the

defense programs are also established. As for the personnel working in the field of program management, expanding the program teams and improvement in the quality of their training are observed. The progress in the effectiveness of the undertaken program reviews has to be mentioned, since they are one powerful instrument for applying the program management.

Two parallel processes characterize the next phases in the development of the defense resource program management: acquiring steadiness (to maintain the achieved results), and refinement (to introduce new methods improving the effectiveness of IDRMS). The development of the program approach in defense resource management is represented in the following:

- integration in the main programs for the undertaken by the Republic of Bulgaria engagements with NATO or EU allies. It is done through the Force Goals and the formations declared to participate in the full spectrum of operations of the two unions;

- integration in the main project programs, financed under the US Foreign Military Funds (FMF);

- development and approval of two of the core documents of IDRMS. The first of the documents is Methodology for the development of norms and limits for defense spending. It regulates a common classification of defense spending and ways for their valuation for all programs. The latter is Collection of norms and limits for spending defense resources on personnel, armament and equipment. It contains the quantitative estimation of the single measurements for the various types of defense spending. These two documents are introduced and they unify the concepts about the valuation of defense spending and the initial database. This facilitates the opportunities for a systematic analysis of defense programs while carrying out the program review.

- association to the defense programs and projects for modernization of the Armed Forces with underlying their relation with the engagements in accordance with the Force Goals, i.e. there is a trend to synchronize the program and project management of defense resources.

- development of an Information System for planning the defense resources in programs. It is expected that with its implementation the effectiveness of the process for program management of defense resources and the system for putting it into practice will improve.

At the end of the first decade of the new century programming approach to defense resource management lost some of its effectiveness due to the fact that he was overlooked as a tool of strategic management. One reason for this attitude is related to the fact that transparency in resource management with its help is not always in the interest of those who make managerial decisions.

Even stranger looks the attitude to the program resource management today. According to some managers resource management is as simple as a piece of cake which does not require tools such as programming approach.

Conclusion

In conclusion we can say that in the analysis of issues related to security and innovation in the management of resources should be applied more widely understanding. Such an understanding allows to conclude that the program approach to resource management is a systematic innovation that creates security. It should also be added that lessons learned is true only in cases where the human factor is aware of the importance of the approach and have knowledge and willingness to implement in practice.

References

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