

PROPOSAL OF A FORCE GENERATION MODEL FOR THE ARMED FORCES ¹

PROPOSTA DE UM MODELO PARA A GERAÇÃO DE FORÇAS NAS FORÇAS ARMADAS

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Abstract

This study proposes features to optimise the model used by the Portuguese Armed Forces to generate forces for international commitments outside national territory. First, the force generation and planning process currently used to generate national deployable forces is analysed to detect potential gaps and shortcomings in the annual cycle, in order to improve the process. Next, the models used by international organizations and allied countries are compared to identify features that can be adapted to the national model. Based on the gaps and shortcomings identified in the first phase and on the comparison of the models, the features that best fit the national model were selected. The study used an inductive reasoning process, a qualitative research strategy and a multiple case study research design. This study's main contribution to knowledge is a proposal of an optimised model that can be used to organize the annual planning and generation of national deployable forces by combining capabilities and maximising available resources, which in turn will contribute to Portugal's external relations.

Keywords: Armed Forces; International Commitments; Planning; National Deployable Forces; Force Generation; Model.

Resumo

O objetivo da presente investigação é propor contributos para a otimização de um modelo de geração de forças nas Forças Armadas que assegure o cumprimento dos compromissos internacionais, no exterior do território nacional. O estudo iniciou-se com a análise do modelo de planeamento e geração de forças nacionais destacadas, no sentido de detetar eventuais lacunas e disfunções, no respetivo ciclo anual, na perspetiva de obter contributos para a sua otimização. De seguida, compararam-se as características dos modelos das organizações internacionais, bem como de países aliados, que podem contribuir para otimizar para o modelo nacional.

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Com base nas lacunas e disfunções encontradas e na comparação dos modelos referenciados, foi possível selecionar contributos suscetíveis de serem adaptados ao modelo nacional. Na investigação utilizou-se um processo de raciocínio do tipo indutivo e uma estratégia qualitativa, adotando o estudo de casos múltiplos como desenho de pesquisa. Como principal resultado da investigação, apresentam-se contributos ao nível da finalidade, dos processos e dos recursos, numa proposta otimizada de modelo que sistematiza de forma rigorosa, o planeamento anual e geração de forças nacionais destacadas, conjugando as capacidades e maximizando os recursos disponíveis, de forma a contribuir decisivamente para a afirmação da política externa de Portugal.

Palavras-chave: *Forças Armadas; Compromissos Internacionais; Planeamento; Forças Nacionais Destacadas; Geração de Forças; Modelo.*

1. Introduction

“The most important decisions involve what to include and what not to include. When a piece of Mozart’s was criticized for having “too many notes” the composer replied that the piece did not have too many or too few notes but exactly the right number of notes. So too does a model that is “fit for use”. The important thing to consider is whether or not the model serves its intended purpose.”
(Albert & Hayes, 2006, p.18)

In the 21st century, the defence of a country’s territory extends beyond its physical borders, to neighbouring and other countries, through its participation in complex military operations in areas as disparate as, for example, Mali or Afghanistan, the Central African Republic (CAR) or Iraq (Decision No. 4101/2018, p.11678). According to Borges (2016, p.48), threats are becoming more globalised. This has required, and will continue to require increasingly concerted efforts by all actors in the international political system.

As defined in the Constitution, the Portuguese Armed Forces (PO AF) participate in operations outside national territory to meet the State’s international military commitments as a member of the North Atlantic Treaty Organisation (NATO), the European Union (EU), the United Nations Organization (UN) and, where applicable, through bilateral or multilateral agreements, according to level of ambition (Decision No. 8142/2019, p. 24).

From 1991 until late 2020, the PO AF participated with National Deployable Forces (NDF) in 289 peacekeeping, humanitarian, crisis management and cooperative security operations in 53 countries (Armed Forces General Staff [EMGFA], 2021). In 2020 alone, a total of 1889 troops were deployed to 18 operations (Directorate-General for National Defence Policy [DGPDN], 2020, 2021).

Portugal’s participation in these operations requires a rigorous planning process that is carried out annually to generate national forces by combining the existing, available and deployable capabilities in the three branches of the PO AF and maximising the financial resources that have been allocated (Decision No. 7861/2018, p. 22502).

To address this need, this study proposes a *Force Generation Model for the Portuguese Armed Forces* that streamlines the process of generating the forces / capabilities required to meet Portugal’s external commitments by implementing rigorous procedures.

The study will analyse the current Force Generation Model used by the PO AF and

propose features to optimise it. Therefore, in terms of content, this study falls within the area of Military Strategic Planning (MSP) and the subarea of operational strategy, as its purpose is to generate, in a short time, forces that will be deployed to operations outside national territory, under the aegis of the International Organizations (IO) of which Portugal is a member State – NATO, the EU and the UN – and, when applicable, through bilateral and multilateral agreements. Force generation is a process that involves planning how those forces will be used. Therefore, the object of this study cannot be analysed as an isolated entity but in a comprehensive and integrated manner.

In terms of space, the study analyses the national PO AF, the IOs mentioned above, Spain (SPA) and France (FRA) Armed Forces, two allied countries with which Portugal has bilateral agreements and which are members of the same IOs. In terms of time, the study covers the period since the publication of the “Defence 2020” Directive (Council of Ministers Resolution [CMR] No. 26/2013), which was followed by the publication, in 2013 and 2014, of several important documents related to National Defence and the PO AF.

A general objective (GO) and two specific objectives (SO) were defined to guide the investigation (Table 1).

Table 1 – General and Specific Objectives

General Objective
To propose features to optimise the model used by the Portuguese Armed Forces to generate forces for international operations outside national territory.
Specific Objectives
SO1: To examine the force generation model used by the Armed Forces to generate forces for international operations outside national territory.
SO2: To compare the features of the force generation models used by IOs (NATO, EU and UN) and allied countries (Spain and France) and select those that can optimise the national force generation process.

These objectives are operationalised by the following research question (RQ): “Which force generation model should the PO AF use to generate forces for international operations outside national territory?”

2. Theoretical and conceptual framework

History shows that all political units have the same fundamental purposes: 1 - Security and 2 - Prosperity and Welfare. The failure to achieve these goals is usually the reason for their downfall (Couto, 1988, p. 23). For Ribeiro (2006), the reason for Portugal’s inability to combat enemy actions in the past, to which it reacted too late and haphazardly, was the lack of careful strategic planning centred on national objectives. This lack of planning has led to massive losses over the years. According to Yarger (2006, p. 18), the current strategic environment is characterised by “Volatility, Uncertainty, Complexity and Ambiguity”. This poses difficult challenges to strategic planning and is particularly relevant for political decision makers and military leaders.

Today, the defence of the Portuguese territory and citizens extends far beyond our borders: it is integrated in a framework of alliances and participation in IOs linked to security

and defence, that is, in a cooperative security framework in which all members make a firm commitment to defend mutual interests and promote peace and international security (Decision No. 7861/2018, p. 22501). On the other hand, Borges (2016, pp. 31-32) argues that “addressing all current threats is impossible [...]. However, this can be mitigated through rigorous strategic planning”. The aim of the “strategist” is not necessarily to solve or eliminate all problems, but to know them and understand them in order to solve them more efficiently (Handel, 2001, p. 5).

This falls within the scope of military strategy, which Cabral Couto (1988, p. 229) defines as “the science and art of generating and employing military forces to achieve the objectives set by Policy”, but also under the scope of general strategies that define how the available resources and requirements will be managed, which in turn relates to generating and building new capabilities. From this perspective, genetic and structural strategy refer to generating and building new capabilities and their composition and organization. Operational strategy refers to how those capabilities are used, which is the core of the military planning process. “Operational strategy is reflected in operations plans, while genetic and structural strategies are reflected in force plans and programmes (which include force systems)” (Couto, 1988, p. 230).

For Couto (1988, p. 231) and Ribeiro (1998, p. 79), small powers such as Portugal must define their operational strategy according to the available resources and capabilities, or to those that can be made available in the short term.

Thus, this article falls within the scope of strategy, more specifically MSP “[...] a process through which decisions are made in a coordinated, integrated and ongoing manner, to build, organize and employ the State’s military capabilities [...] to achieve strategic military objectives” (Ribeiro, 2010, p. 152). Therefore, “a sound strategy requires well defined values and interests and a commitment to defend them by setting legitimate, clear objectives and accomplishing them in an effective manner” (CMR No. 19/2013, p. 1982).

An essential element of MSP, the Military Strategic Concept (MSC) establishes guidelines to create a military instrument that meets the national needs, defines strategic military objectives that reflect the national commitments, and includes the concept of military action, specific guidelines and level of ambition (Council of Chiefs of Staff [CCEM], 2014a).

The military action concept contains guidelines to generate modular and flexible forces capable of executing joint, combined and deployed operations (CCEM, 2014a, p. 40), which include: (i) “Standing Forces Assigned to Defend Areas under National Sovereignty, Jurisdiction or Responsibility and to Protect Citizens”; and (ii) “Forces Assigned to Missions or Operations Abroad” (Decision No. 2536/2020, p. 39). These two types of forces are defined in the operational component of the 2014 Force Structure (FS), a single system for use in peacetime, exceptional / crisis situations and wartime that defines the military capabilities required for the PO AF missions (CCEM, 2014a, p. 38).

It can be inferred from the FS and the Armed Forces Missions (MIFA) (CCEM, 2014b) that NDF are included in the Forces Assigned to Missions or Operations Abroad, which are defined as:

Forces under the operational command of the Chief of the Armed Forces General Staff (CEMGFA) deployed outside national territory and in areas under national sovereignty or jurisdiction to conduct different types of international military missions as part of Portugal foreign policy and international commitments, and to protect the national interests and international peace and security.

NDF planning is integrated in the MSP (a publication issued by the EMGFA/Planning [PEMGFA/PLA] 001, 2020, p. 1-1) and takes place in annual cycles. The entities responsible for committing these forces are clearly defined in the national legislation:

- The National Defence Minister (NDM) is the political official responsible “for committing the Armed Forces and for their capabilities, means and readiness [...] to meet [Portugal’s] international commitments, which may include the participation [...] in military operations outside national territory” (Organic Law No. 5/2014, p. 4551);

- The CEMGFA is responsible for “directing [...] the foreign operations of the Armed Forces, [...] and for submitting to the National Defence Minister the proposal to commit them [...] in international operations, that is, for defining the military response options” (Organic Law No. 6/2014, p. 4606);

- The heads of the PO AF Branches are responsible for “the generation, preparation, readiness and sustainment of the forces and capabilities of their respective branch [...] for reporting on the readiness and commitments of the forces and capabilities of the operational component of the system of forces” (Organic Law No. 6/2014, p. 4608).

Therefore, based on the FS, the branches are responsible for generate the forces / capabilities defined by the CEMGFA to meet the NDF commitments.

The current Force Generation Model is defined in the MSP Manual (PEMGFA/PLA 001, 2020). The Force Generation Process is ongoing throughout the NDF Planning Process, providing a constant assessment of the forces / capabilities required by the operational component of the FS, which depend on factors such as crisis situations, policy guidelines and NATO and EU Force Generation Conferences (FGC).

2.1. Force Generation

One of the initial difficulties when preparing this article was the lack of a definition of “**Force Generation**”. After researching the definitions used by different IOs, the one provided by NATO was selected - an operations planning process that ensures provision of an adequate force package to provide the right forces, at the right place, at the right time and in the right sequence (NATO, 2013, p. 3-72).

Conceptual models are (usually) graphical representations of a way of thinking (conceiving / conceptualising) about something (e.g. organograms), in which concepts are inserted in boxes / blocks or other shapes connected by lines / arrows (Albert & Hayes, 2006, p. 17). Leight (1983, pp. 50-51) defines a model as a process that systematises the steps that must be taken to make a decision. Thus, a Force Generation Model is a systematic process of operations planning that aims to generate the forces required at the right time and place to execute a given operation.

In the broad approach used in this study, a Force Generation Model includes planning and generating NDF. Leight (1983, pp.50-51) notes that the advantage of using such models is that no important steps are left out, which fosters confidence and effective decision making.

2.2. Analysis model

The study's analysis model (Table 2) is based on the concepts of strategy formulation as ends-ways-means developed by Lykke (1986, pp. 3-7), on the concept developed by Hayes (1985), which is widely used in organizational strategy, and on the concept adapted by Yarger (2006, p. 6) to military strategy: to achieve a given "Purpose" (ends), "Processes" (ways) are used which employ the required "Resources" (means). Thus, purposes, processes and resources are the three dimensions defined in the model used in this study.

Table 2 – Analysis model

Concept	Dimensions	Indicators		Decision Criteria	
Force Generation Model	ENDS Purposes	Policy		Suitability Feasibility Acceptability	
		Strategic Military Guidelines			
	WAYS Processes	Planning	Decision		Military Response Options Assessment
	MEANS Resources	Force Generation			
		Financing for operations			

The indicators are based on the NDF Planning Process and collect data that will be used to analyse and compare the features of the selected force generation models. The analysis model includes one concept, three dimensions and eight indicators, which form its main conceptual components (Quivy, Marquet, & Campenhoudt, 2019, pp. 166-167).

The model also includes three decision criteria defined by Yarger (2006, p. 70), which Ribeiro (2009, p. 190) calls "strategy tests": (i) Suitability refers to whether the strategic options that have been taken achieve the desired purpose and "focuses on the objective's principle, that is, it refers to setting and achieving objectives that best serve the national interest", as described by Ribeiro (2009, p. 192); (ii) Feasibility refers to the means by which the purpose is achieved, which "depend on the resources available to execute and sustain the actions that must be taken to achieve or protect the objectives" (Ribeiro, 2009, p. 193); (iii) Acceptability refers to whether the options are acceptable "based on three fundamental and equally relevant requirements: consistency of objectives; attractiveness, in terms of benefits [...]; the type and degree of risk taken in pursuing the objective, according to a risk assessment" (Ribeiro, 2009, p. 194). This analysis model was used to answer both specific questions (SQs).

3. Methodology and method

3.1. Methodology

The study was conducted using an inductive reasoning process that begins with the analysis of specific facts, in this case the force generation models used by NATO, the EU, the UN and two allied countries, Spain and France, and compares them to make generalisations and select features to optimise the model used by the PO AF.

A qualitative research strategy was chosen because the goal of the study – to describe

the force generation model that will be proposed – is inextricable from the subjective way in which the actors / decision makers relate to the phenomenon, which cannot be expressed by a quantitative analysis. As Vilelas (2009, p. 108) argues, the “goal is to obtain a deeper, subjective understanding of the object of study without the constraints of measurements and statistical analyses”.

The research design consists of a multiple case study analysis of the force generation models of IOs and allied countries using a cross-sectional time horizon, which enriches and adds value to studies that aim to investigate a given phenomenon (Yin, 2015, p. 19). This type of design is also called comparative or multi-case design (Santos & Lima, 2019, pp. 37-38). As Bryman (2012, p.72) states, “we can understand social phenomena better when they are compared in relation to two or more meaningfully contrasting cases or situations”.

3.2. Method

3.2.1. Participants and procedure

3.2.1.1. Participants

The study sample consists of PO AF officers who hold the main positions related to force planning. A non-probability purposive sample (Sarmiento, 2013, p. 76) was used to answer SQ1, comprising ten officers who held positions at the Ministry of National Defence, the EMGFA, the Branches, the Military Representation to NATO and the EU (MILREP) and the National Military Representation (NMR) at the Supreme Headquarters Allied Powers in Europe (SHAPE). These officers were deemed the most representative of their universe (they are high-ranking officers who actively participate in the implementation of the different phases of MSP and who are recognised experts on this topic). As the universe is homogeneous and the questions are the same for all participants, the sample size is considered appropriate (Rego, Cunha & Meyer Jr., 2018, pp. 51-53).

3.2.1.2. Procedure

At the beginning of each individual interview, the interviewees were assured of the confidentiality of their answers and their permission was requested to record the interview for later transcription. This transcription was then approved and validated by the interviewees. Pursuant to No. 4 of Article 31 of the General Data Protection Regulation (Law No. 58/2019), the data obtained in the interviews are used exclusively for the purposes of this study.

3.2.2. Data collection instrument

The main data collection instruments used to answer SQ1 were a review of the main documents that address the national model (PEMGFA/PLA 001, 2020) and semi-structured interviews (Santos & Lima, 2019, pp. 94-102).

The Interview Script consisted of open-ended questions on the analysis model indicators, which were divided into four groups: three served to assess the dimensions Purposes, Processes and Resources, and one group assessed the model as a whole. The script was validated by an expert in scientific methodology from the Military University Institute (IUM)

and a pre-test was conducted with two participants. The results were analysed and the final interview script was prepared (Sarmiento, 2013, pp. 30-46).

The main data collection tool used to answer SQ2 was a traditional literature review of the short-term strategic and operational planning and crisis response processes and methodologies used by NATO (2013), the EU (2015) the UN (2017) and two allied countries with which Portugal has recently cooperated closely in military operations, Spain (Directive 03/18 del Jefe de Estado Mayor de la Defensa) and France (Centre interarmées de concepts, de doctrines et d'expérimentations [CICDE], 2020).

3.2.3. Data Processing Techniques

A content analysis of the interviews was carried. According to Bardin (cited in Santos & Lima, 2019, pp. 117-118), this is what enables the research to go “from the descriptive phase to interpretative phase, when meaning is assigned to the features that have been surveyed, enumerated and organized”. The study used an open-ended or exploratory method of content analysis.

After the data for each interviewee was validated and a close reading of the transcripts was carried out, the answers were processed using categorical content analysis to determine: the context units; the thematic recording units (RU); the enumeration units (ENU) using frequency analysis, and; the categories. Next, the tables where the content analysis for each interview question was recorded were elaborated. After preparing these tables for each question, the findings were described, focusing on scores higher than 50% and scores equal or higher than 80%. The findings of the content analysis were based on two key aspects: validity and reliability (Sarmiento, 2013, pp. 48-66).

Based on the data collected by reviewing the force generation models of IOs and allied countries, the main features of these models were selected and compared according to the analysis model, that is, according to the dimensions ends, ways & means, and the features that can optimise the national model were selected.

Finally, the findings obtained for each SQ were systematised into a proposal to optimise the current model, thus answering the research question and achieving the research objective.

4. The National Force Generation Model

The National Force Generation Model is published in a strategic military publication issued by the EMGFA (PEMGFA/PLA 001, 2020) that results from the optimisation of NDF planning and generation processes, which are systematised into ten steps, and lists all the entities involved in the process and their responsibilities, according to an annual cycle.

4.1. Analysis of the national model

The process begins with the Policy Guidelines established by the NDM, who defines, on a yearly basis, the international security framework and policy guidelines that will determine Portugal's foreign policy commitments and priorities for the next two years. As shown in Figure 1, this step is not given a number and is designated in the document as “Step 0”. The

document does not define the decision levels or the entities responsible for establishing the political or military / strategic success criteria.

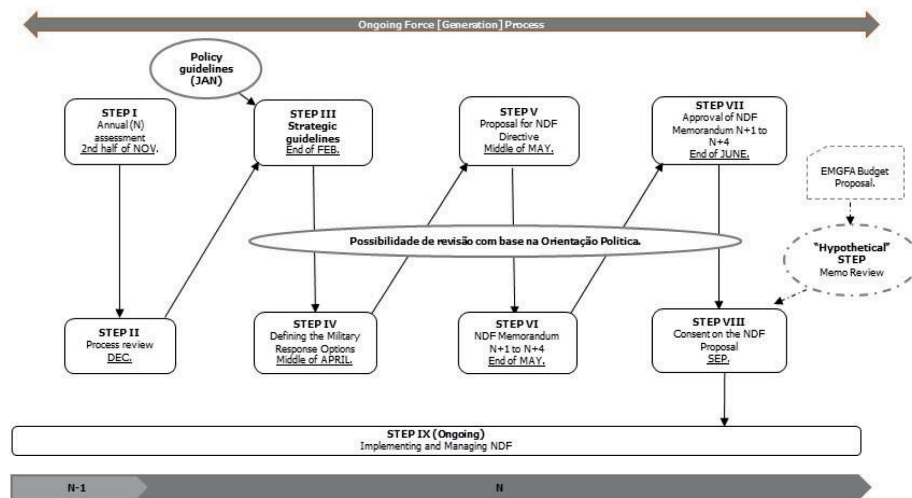


Figure 1 – NDF Planning Process

Source: Adapted from PEMGFA/PLA 001 (2020).

In Step I, a workshop is held to assess the operations of the closing year. This assessment is used to prepare the next year. Step II does not mention how the planning process Review is conducted (PEMGFA/PLA 001, 2020, pp. 4-2 - 4-6).

Step III consists of Strategic Guidelines that translate the policy guidelines into priority areas of effort and propose operations that serve the national priorities. Step IV defines the Military Response Options (MRO), the implementation methods and costs for each mission in coordination with the Branches. The document does not mention which methodology should be used to develop the MROs (on which the NDF proposal will be based) or how to analyse their suitability, feasibility and acceptability in terms of policy priorities and guidelines. Based on this step, a Proposal for NDF is prepared in Step V, which is then submitted to the CCEM for appreciation and to the CEMGFA for approval (PEMGFA/PLA 001, 2020, pp. 4-6 - 4-7).

In Step VI, a NDF Memorandum containing the proposal is presented to the NDM, who decides on its approval in Step VII. In Step VIII, the approved proposal is sent to the National Security Council (CSDN) for appreciation. After the CSDN consent, and depending on the Government’s decision, the NDM informs the Parliament and prepares the Decision on the NDF, which is sent to the EMGFA, accompanied by the allocated budget. This decision is usually issued at the end of the calendar year, and applies to the NDF for the following year. Step X is the Implementation and Management of NDF (PEMGFA/PLA 001, 2020, pp. 4-7 - 4-9). The document does not mention this step.

Force Generation (Figure 2) is a continuous process that underlies the NDF planning process. The document does not mention how this process is developed, nor if FGCs with the Branches are held. It simply defines procedures for ongoing and new operations.

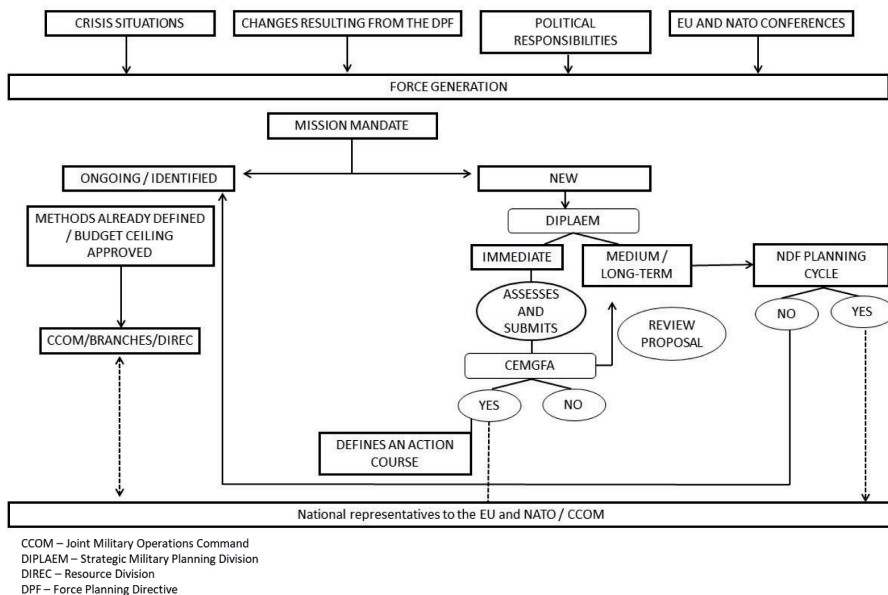


Figure 2 – Force Generation Model
 Source: Adapted from PEMGFA/PLA 001 (2020).

As the document refers to ongoing operations, the MROs have already been defined and cannot be changed in terms of budget ceiling, human resources and infrastructure. When a new operation is proposed, the EMGFA analyses the strategic framework and execution timeframe. In the case of immediate or short-term operations, the EMGFA assesses the operation and submits a proposal to the CEMGFA, after which it undergoes the national decision-making process for participation in international operations. Medium / long term operations that are not covered in the planning cycle will have to be included in a new NDF proposal (PEMGFA/PLA 001, 2020, pp. 4-10 - 4-14).

4.2. Analysis of interviews

The next section briefly presents the content analysis of the interviews on the current model. The analysis was based on the model's steps and aimed to detect possible gaps (G) and / or shortcomings (S) in the annual cycle and to propose ways to optimise the process. The results of the content analysis are presented in the tables below (the columns in grey indicate that the interviewee did not answer the question).

As Table 1 shows, with regards to the *ends* dimension, the "Policy Guidelines" should define: (i) the priority areas of strategic interest (100% of interviewees); (ii) the priority assigned to each IO (80% of interviewees); and (iii) the allocated budget, as suggested by 70% of interviewees.

Table 1 – Analysis of Question A1

A1: *The planning of NDF begins with (step 0) – the establishment of "Policy Guidelines" that define, on a yearly basis, the international security framework and policy guidelines that determine Portugal's country's Foreign Policy commitments and priorities. In your opinion, what key aspects should the policy guidelines define in a clear and objective manner?*

Category	UnReg	Interviewee										UnEn	
		1	2	3	4	5	6	7	8	9	10	Sum	%
Assessment of the strategic environment	1.1					x			x			2	20.00%
Priority areas of strategic interest	1.2	x	x	x	x	x	x	x	x	x	x	10	100.00%
International commitments	1.3										x	1	10.00%
Priority IOs	1.4		x	x	x		x	x	x	x		8	80.00%
Type of operation	1.5									x		1	10.00%
Budget	1.6		x	x	x	x			x	x	x	7	70.00%

According to M. Barreto (email interview, 7 February 2020), "it is a process that begins with a Political Vision and Ambition [...] which entails setting Priorities and Guidelines". P. Pereira (face-to-face interview, 5 March 2020) states that "there should be a model, as well as clear foreign policy guidelines" and adds that "the priorities, or even the priority areas of intervention that are defined, should include all possible options that contribute to the State's external relations."

"Strategic Guidelines" (Table 2) should include the criteria to develop the MROs (90% of respondents), as well as the forces / capabilities available in the FS (80% of respondents). M. Serronha (face-to-face interview, 16 March 2020) states that "the strategic guidelines should be aligned with the policy guidelines and should include the criteria used to develop the military response options, a risk analysis, the available military capabilities and the budget limits". According to 60% of the interviewees, the guidelines should also include the planning risks, assumptions and limitations.

Table 2 – Analysis of Question A2

A2: *Step III – Strategic Guidelines -, translates the Policy Guidelines according to the process assessment and review and the priority areas of effort. What key aspects should be included in these guidelines?*

Category	UnReg	Interviewees										UnEn	
		1	2	3	4	5	6	7	8	9	10	Sum	%
MRO criteria	1.1	x	x	x	x	x	x	x		x	x	9	90.00%
Available capabilities and forces	1.2	x	x	x	x		x		x	x	x	8	80.00%
Risks / assumptions / limitations	1.3	x	x	x	x	x				x		6	60.00%
Cost justification	1.4		x		x				x	x		4	40.00%

The fact that these key aspects are not clearly defined in the "Policy Guidelines" and the "Strategic Guidelines" constitutes a shortcoming (S1).

In the planning dimension, most interviewees who answered the question (88.89%) agree that the MROs for each new mission should be submitted to approval of the political decision maker (Table 3). P. Pereira (op. cit.) adds that "the MROs should be analysed from a military

perspective, according to the strategy tests (suitability, feasibility and acceptability) and to their compliance with policy priorities and guidelines”. Thus, no gaps or shortcomings were identified.

Table 3 – Analysis of Question B1

B1: For each operation, should the MROs be prioritised and their acceptability assessed by the political decision maker?														
Category	Subcategories	UnReg	Interviewees										UnEn	
			1	2	3	4	5	6	7	8	9	10	Sum	%
MROs assessed by political decision maker	New mission	1.1		x	x		x	x	x		x	x	7	88.89%
	All missions	1.2				x		x					2	20.00%

All respondents who answered the question agree that a strategic methodology should be used to develop the MROs (Table 4). E. Craveiro (face-to-face interview, 3 March 2020) states that this methodology “should be based on NATO’s operations planning process, adapted to our reality” and G. Garcia (face-to-face interview, 28 January 2020) adds that MROs are currently developed “through an analytical process that does not rely on decision support tools”. The methodology can be drawn from the Comprehensive Operations Planning Directive² (COPD) (55.56%) or from another process (55.56%). The fact that a strategic tool / methodology is not used is considered a shortcoming (S2).

Table 4 – Analysis of Question B2

B2: Step IV – Defining Methods of Action –, defines and proposes suitable, feasible, acceptable and specific MROs to achieve the military strategic objectives that will define the desired end state conditions for each operation. What is the process used to select, develop, analyse, assess and compare these MROs?															
Category	Subcategories	UnReg	Interviewees										UnEn		
			1	2	3	4	5	6	7	8	9	10	Sum	%	
Strategic methodology used to develop the MROs	Yes	1.1	x	x	x	x	x	x			x	x	x	9	100.00%
	Based on the COPD	1.2		x	x	x	x					x		5	55.56%
	Other processes	1.3	x			x		x			x		x	5	55.56%

As shown in Table 5, all respondents who answered the question agree that the model should include a strategic tool / methodology to conduct an annual process assessment and review. P. Pereira (op. cit.) points out that “more than looking for the right tool, it is essential to establish a common ground, to reach compromises that benefit the Armed Forces and to define the planning methodology that best accommodates all perspectives”. A. Pereira (op. cit.) adds that “a joint analysis of the process should be conducted by all stakeholders to assess the proposals to change the steps, the details, and how to develop

² A systematised and sequential tool for planning NATO operations at the strategic and operational level. The methodology and concepts in this tool can be applied to any planning process, particularly at the national level, regardless of operation type (NATO, 2013).

them, in order to improve the process”.

The interviewees’ opinions were divided: 55.56% selected the Multi-Criteria Analysis tool and 55.56% chose the Lessons Learned methodology. The COPD includes a Periodic Mission Review that assesses Effectiveness and Performance (NATO, 2013, pp. 5-1 - 5-19). The fact that a strategic tool / methodology is not used is considered a shortcoming (S3).

Table 5 – Analysis of Questions B3 and B4

B3 and B4: In step I – Annual Assessment – and step II – Process Review –, an assessment and review of the process, missions / operations and theatres of the closing year is conducted and the results are used to prepare the next year. In your opinion, wich strategic tool / methodology would best achieve this and how does this step improve the planning process?														
Category	Subcategories	UnReg	Interviewees										UnEn	
			1	2	3	4	5	6	7	8	9	10	Sum	%
Agree		1.1		x	x	x	x	x	x	x	x	x	9	100.00%
Suggested tool and methodology	Multicriteria analisys	1.2		x	x	x		x		x			5	55.56%
	Lessons learned	1.3			x		x			x	x	x	5	55.56%
	Scenario-building	1.4		x			x						2	22.22%
	Other	1.5		x	x					x		x	4	44.44%

With regard to resources, 57.14% of interviewees agree that the PRONTFOR³ currently in use contains the essential information for the EMGFA to prepare the NDF planning (Table 6). The same percentage selected a different system. The lack of an information system, either PRONTFOR or a different system, that provides the information required by the EMGFA for planning constitutes a gap (G1).

Table 6 – Analysis of Question C1

C1: The System of Forces (2014) is a single system for use in peacetime, exceptional / crisis situations and wartime, which defines the military capabilities required to accomplish the PO AF missions; the Branches are responsible for reporting on the readiness and commitments of the forces and capabilities of the operational component of the force structure. In your opinion, does the current Force Readiness system (PRONTFOR) contain all the information / data the Armed Forces require to plan and generate NDF?															
Category	Subcategories	UnReg	Interviewees										UnEn		
			1	2	3	4	5	6	7	8	9	10	Sum	%	
PRONTFOR system	Provides the required information	1.1						x			x	x	x	4	57.14%
	Does not provide the required information	1.2				x	x							2	28.57%
Other system		1.3			x	x	x				x			4	57.14%

According to 85.71% of respondents who answered the question, the process is continuous and integrated and no FGCs are held with the Branches (Table 7). For A.

³ A database with reports on the readiness and sustainment of the operational component of the FS (EMGFA, 2019).

Pereira (op. cit.), “after assessing the opportunities, possibilities and invitations made during the preparation phase and in the FGCs held by the IO’s, the Branches are consulted in advance with regards to availability as part of the integrated planning process”. No interviewees mentioned a specific step / stage of the planning process for force generation. The fact that FGCs are not held is thus not considered a gap or shortcoming.

Table 7 – Analysis of Question C2

C2: Are Force Generation meetings held with the branches / IOs to determine the forces required for the MROs? During which step / stage of planning are forces generated?														
Category	Subcategories	UnReg	Interviewees										UnEn	
			1	2	3	4	5	6	7	8	9	10	Sum	%
Force Generation meetings with the Branches	Yes	1.1			x								1	14.29%
	No, the process is continuous and integrated	1.2		x		x	x	x				x	x	6

Most interviewees (80%) agree that the Military Defence Planning Cycle (CPDM) should be linked to NDF planning because this would provide more capabilities. On the other hand, NDF can identify capability gaps that can be addressed in the CPDM (50%) (Table 8). M. Serronha (op. cit) points out that “building the capabilities defined in the CPDM will expand and improve the capabilities of the FS, and, consequently, how they are used in NDF. On the other hand, NDF can identify gaps that require new capabilities to be built. The lack of a formal link is considered a gap (G2).

Table 8 – Analysis of Question C3

C3: The current Military Defence Planning Cycle (CPDM) is aligned with NATO's planning cycle and with the EU's four-year capability development process, as this makes it possible to define and build a Force Structure that meets the performance, readiness and effectiveness requirements of the Armed Forces. In your opinion, should it be linked to NDF planning and, if so, how?														
Category	Subcategories	UnReg	Interviewees										UnEn	
			1	2	3	4	5	6	7	8	9	10	Sum	%
Link between CPDM and NDF planning	More capabilities for NDF	1.1		x	x	x	x	x		x	x	x	8	80.00%
	NDF identify gaps / capabilities	1.2		x	x	x			x		x		5	50.00%
	No	1.3	x										1	10.00%

With regards to financing for operations, most interviewees (55.56%) agree that the CEMGFA should be responsible for prioritising the operations submitted to the NDM for approval (Table 9). No gaps or shortcomings were identified in this question.

Table 9 – Analysis of Question C4

C4: In your opinion, if the financial resources that have been allocated do not cover the identified needs, what is the best way to allocate resources according to priority and who should make that decision?													
Category	UnReg	Interviewees										UnEn	
		1	2	3	4	5	6	7	8	9	10	Sum	%
Defence Minister	1.1				x	x			x	x	x	5	55.56%
CEMGFA	1.2			x								1	11.11%
Defence Minister / CEMGFA proposal	1.3		x				x	x				3	33.33%
Other financinf methods	1.4			x						x		2	22.22%

Most interviewees (70%) agree that the model is synchronised and coordinated at all national decision making levels, although there is room for improvement (Table 10). P. Pereira (op. cit.) states that “to fully implement the model, it will be necessary to create an explicit concurrent planning mechanism, which can be either a directive or guidance document that “imposes” this obligation on all stakeholders by creating specific mechanisms”. The lack of such mechanisms constitutes a gap (S3).

Table 10 – Analysis of Question D1

D1: As someone who is responsible for and who actively participates in the implementation of the different phases of military defence planning, and as recognised expert on this topic, do you consider that the current Force Generation Model used by the Armed Forces is synchronised and coordinated at all national decision-making levels (political, strategic and operational)?													
Category	UnReg	Interviewees										UnEn	
		1	2	3	4	5	6	7	8	9	10	Sum	%
It is synchronised and coordinated	1.1										x	1	10.00%
Yes, but there is room for improvement	1.2		x	x	x	x	x	x		x		7	70.00%
It is not synchronised or coordinated	1.3	x							x			2	20.00%

Most respondents (80%) consider that the model contributes to the implementation of Portugal’s foreign policy, with some limitations (Table 11). This contribution should be quantified in terms of visibility. As stated by R. Ferreira (face-to-face interview, 17 February 2020), “visibility comes from strategic benefits such as promoting security in a region or solidarity in a security and defence organization [...], it is not a strategic purpose in itself”. M. Serronha (op. cit.) points out that “in the case of the UN, [...] the Quick Reaction Force deployed to the CAR has produced more international visibility than anything else we have participated in to date”. Gouveia e Melo (face-to-face interview, 11 February 2020) concludes that “for a small sized country, with relatively little power in the international order, we play a relevant role in the process”.

Table 11 – Analysis of Question D2

D2: Does the model contribute to the implementation of Portugal's foreign policy in a transparent manner, enabling the country to meet its international commitments, prioritise geographical areas of strategic interest, address the gaps identified in international missions and operations, assess the national capabilities available and deployable in the branches of the Armed Forces, and maximise available funding?														
Category	UnReg	Interviewees										UnEn		
		1	2	3	4	5	6	7	8	9	10	Sum	%	
Strongly contributes	1.1		x					x					2	20.00%
Yes, with some limitations	1.2	x		x	x	x			x	x	x	x	8	80.00%

The issue of financing NDF is a limitation mentioned by 70% of the interviewees (Table 1), as it is deemed insufficient, which makes planning conditional on funding rather than on international commitments and national interests, and therefore constitutes a shortcoming (S4).

P. Pereira (op. cit.) adds that “another gap is the lack of a concept of Military External Action (MEA), in which the NDF are one of the pillars, [...] that enables joint action by the entities responsible for Portugal’s external relations, using the military instrument”. The lack of an MEA concept constitutes a gap (G4).

The current model enables forces to be assigned a priority according to the national interests rather than to the interests of the Branches (80%) (Table 12).

Table 12 – Analysis of Question D3

D3: Can the model be used to prioritise forces in a credible manner and distribute them proportionally among the Branches=?															
Category	Subcategories	UnReg	Interviewees										UnEn		
			1	2	3	4	5	6	7	8	9	10	Sum	%	
Prioritises forces in a credible manner	According to the national interests	1.1	x	x	x				x	x	x	x	x	8	80.00%
	No	1.2				x	x							2	20.00%

According to P. Pereira (op. cit.), “this prioritisation is based on two distinct and sometimes conflicting sources: the ministry and strategic guidelines issued by the CEMGFA and the Branches’ priorities to accomplish their missions”. Pereira (op. cit.) adds that, while the first are based on political and strategic priorities, organizations, types of operation, and strategic areas of national interest, the second are based on factors such as ensuring that forces and capabilities are operational, the benefits of participating in a given mission, and the motivation and attractiveness of the military profession. Thus, no gaps or shortcomings have been identified in this question.

4.3. Brief overview

The analysis of the current model for planning and generating NDF detected four gaps and four shortcomings (Table 13). This answers SQ1 and accomplishes SO1.

Table 13 – Gaps and shortcomings in the current model

Gaps	
1	The lack of an information system that provides the force readiness and availability data required by the EMGFA for planning.
2	Although the interviewees consider it important, NDF planning is not linked to the CPDM.
3	The lack of an explicit concurrent planning mechanism, which can be either a directive or guidance document, to enhance synchronisation and coordination at all national decision-making levels.
4	The lack of an MEA concept.
Shortcomings	
1	The key aspects that should be included in the policy and strategic guidelines are not clearly defined.
2	The MROs are not developed according to a strategic methodology.
3	No strategic tool or methodology is used to conduct the annual assessment and review process.
4	NDF are planned and generated according to budget constraints, rather than to Portugal's international commitments and national interests.

5. Other Force Generation Models

This section will present the most relevant aspects of the review of the strategic and operational planning processes and methodologies used by NATO (2013), the EU (2015), the UN (2017), and by two allied countries with which Portugal has recently cooperated closely in military operations, Spain (Directive 03/18 del Jefe de Estado Mayor de la Defensa) and France (Centre interarmées de concepts, de doctrines et d'expérimentations [CICDE], 2020).

5.1. NATO, EU and UN

The models used by these IOs are generally intended to respond to emerging crises or used for advance planning, and their processes include policy guidelines that define the objectives of each operation and the desired end state, as well as military and strategic planning guidelines based on the approved MROs.

In addition to each specific decision process, these IOs have specific operations planning processes (strategic and operational) that support the political decision-makers in determining the MROs.

All IOs assess the progress of operations in terms of strategic objectives and determine how to achieve the desired end state, and can thus adapt the forces / capabilities as needed.

All planning processes include force generation. The main difference is that the EU and NATO hold FGCs and the UN does not. Both the EU and NATO hold FGCs with the members (and partners) interested in participating in a new operation. At the beginning of planning, they hold informal talks / meetings (Force Sensing) to get a sense of what forces / capabilities are available. While this data is not binding, it can make Member States (MS) feel more pressure to contribute and lead to more realistic planning. At the very least, these contacts serve to determine, as early as possible, how difficult it will be to generate a given force or capability. Every year, global FGCs are held to ensure integrated force generation in the short / medium term, during which each country's General-Staff commits to the operations of the current year, and, when possible, of the following year.

The UN force generation process is based on the Peacekeeping Capability Readiness

System (PCRS), an electronic platform where nations register their contributions to UN operations and the resources they can provide.

In the case of NATO and the EU, force generation is based on two principles: first, meeting operational needs; and second, ensuring the continuity and stability of members' contributions to operations. This is done through flexible military planning, which involves working with contributing nations to identify the most suitable capabilities.

These forces / capabilities are provided by the participating nations. Both these IOs use a force generation tool / database with information on the readiness and capabilities of the forces provided by each nation.

The financial burden of participating in these operations is shared between the IO and the participating nation, based on an annual budget. Unlike the UN, NATO and the EU do not reimburse these costs.

5.2. Spain and France

The models used by these countries are intended to respond to emerging crises, both autonomously or as part of an IO or coalition. SPA requires congressional approval for participation in international operations, while FRA requires the approval of the President of the Republic, who is the Supreme Commander of the Armed Forces, at the National Defence and Security Council.

All decision-making processes are based on a strategic assessment and on the MROs, which include the objectives to be achieved, as well as any political, financial or legal constraints and impositions that may condition the use of the military instrument and all coordination actions that will be required. The decision is then issued in the form of a strategic and military directive that initiates the operations planning process.

Both countries models' are based on NATO doctrine and their operations planning processes are based on the COPD. In the case of FRA, planning for an operation within the framework of a multinational alliance or coalition includes the country's involvement in the planning process. This information is used to elaborate a national support plan that defines methods and specific conditions for their use. The MROs are defined in a participation proposal (*mémoire de proposition*).

Operations assessments are an integral part of planning. They allow an organization to measure the results and progress of an operation, draw conclusions and make recommendations to support decision making. FRA uses an assessment system with two indicators: effectiveness and performance, which assess success criteria determined by the strategic, operational and tactical levels in the planning phase. As in the system used by NATO, these indicators are directly linked to the desired effects.

In both countries, force generation is a continuous, cyclical and interactive process conducted by the Defence Staffs and the Branches during the planning phase, which consists of determining the forces / capabilities required for the operation and who can provide them. SPA holds at least one meeting with the Branches and other stakeholders, and branch representatives are involved in the planning process. FRA sees force generation as a complex process, that is, a general model to achieve an end in a methodical way rather

than a rigid system.

SPA finances its participation in international operations through the Contingency Fund and the Defence Budget. Since the 1960s, FRA has funded its Defence Forces through a multi-annual Military Procurement Law (MPL). This comprehensive instrument (covering personnel, infrastructure, operations, investment, etc.) enables the Defence Forces to plan their operations without the constraints of an annual budget.

The forces / capabilities are provided by the respective FS. In FRA, the Branches issue periodical availability and readiness reports.

5.3. Model Features

The NATO, EU, UN, Spanish and French models were compared according to the dimensions and indicators of the analysis model, which were used to build generalisations. Next, the features that could optimise the national force generation model were selected (Table 14). This answers SQ2 and achieves SO2.

Table 14 – Main Features of the Models used by IOs, SPA and FRA

Purposes	Intended to respond to crisis situations in a multilateral framework or as part of a coalition.	
	The policy directive includes the objectives and desired end state of the operation.	
	The strategic directive establishes the guidelines for planning operations.	
Process	The political decision is based on the MROs proposed by the military / strategic level, which are developed according to the Operations Plan (either developed by the country / IO or similar to / adapted from NATO's).	
	During the Execution Phase of planning, operations are assessed periodically using strategic tools / methodologies.	
Resources	A database with data on the availability and readiness level of Forces / capabilities is used for planning.	
	Force generation is a phase of planning that:	includes FGCs (NATO and EU);
		is ongoing, no FGCs are held (SPA and FRA);
		is based on the PCRS (UN).
	The forces / capabilities are provided by the member nations or the national systems of forces.	
The financial burden of operations is shared by IOs and participating countries based on annual (NATO, EU, UN and SPA) and multi-annual (FRA) budgets.		

6. Proposal of a Force Generation Model for the Armed Forces

The proposed Force Generation Model is based on the above analysis and on the current NDF planning model, which has been optimised according to the study findings, thus answering the RQ defined at the beginning of the study and achieving the GO (Figure 3).

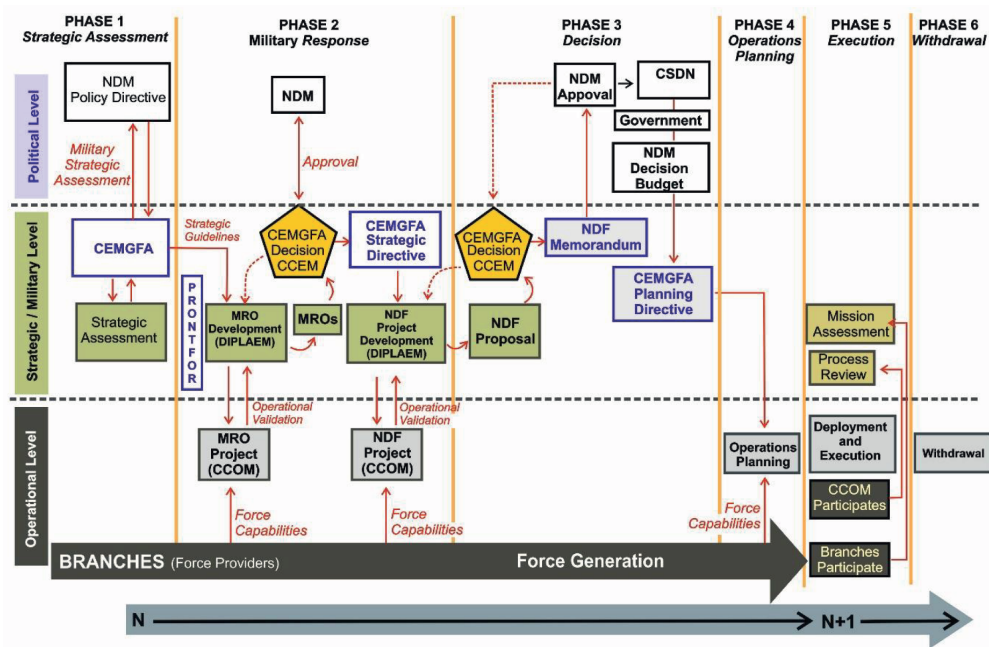


Figure 3 – Proposal of a Force Generation Model for the Armed Forces

This optimised model can be used to guide the annual planning and generation of NDF at the request of an IO or coalition, based on the operations planning process and doctrine.

The annual planning and generation of NDF includes a “Policy Directive” issued by the NDM, which defines priority areas of strategic interest, the priority assigned to each IO, and the allocated budget. The CEMGFA will issue a “Strategic Guideline” listing the criteria for developing the MROs, the available forces / capabilities, risk guidelines, assumptions and limitations.

The EMGFA develops the MROs using a strategic methodology, preferably based on established doctrine. The MROs are assessed regarding their military suitability (this includes a risk analysis and an exit strategy) and feasibility in terms of the national forces or capabilities to be committed and the costs involved in generating, preparing, readying and sustaining them. The EMGFA should use an information system with data on force readiness and availability to support planning, either based on PRONTFOR or on a different platform.

After the MROs are approved by the CEMGFA, they are assessed regarding their political acceptability. After the CSDN consent, the operational phase of NDF planning begins. This phase includes the preparation of a national support plan, intelligence gathering, and the definition of a chain of command.

In this model, force generation is a continuous and cyclical step that occurs throughout the planning process until all force / capability needs are met, requiring constant contact with the Branches that generate the forces.

If the Armed Forces receive a mandate for a new military operation during this process, a

strategic assessment can be prepared and submitted to the political level for approval. Based on this decision and on the response time and timeframe for the operation, the planning phase is initiated.

This NDF planning and generation model should be published in a Ministry Directive similar to the CPDM, as this will enhance synchronisation and coordination at all national decision-making levels.

The execution phase includes a process review and an annual assessment to ensure that the success criteria for each operation in which Portugal participates are achieved. This will help determine if the national forces should remain in the TO. Both should be carried out using a strategic tool / methodology.

It would be particularly useful to establish a mechanism to link the process to the CPDM, as this will make it possible to include the capability gaps that have been identified in the FS during the operational phase in the national capability development cycle.

A multi-annual budget should be defined, which should be based on priorities determined by Portugal's international commitments and national interests. If this budget is not sufficient to fund all objectives, the CEMGFA should order them according to priority and submit them to the NDM, who will then issue a decision.

7. Conclusions

Today, national defence extends to distant and remote areas such as the CAR or Afghanistan and is integrated in a cooperative security framework that aims to promote global peace and security. Every year, the PO AF contribute NDF for external operations under the aegis of the IOs of which Portugal is a member, and, when applicable, within the framework of bilateral or multilateral agreements.

This *Proposal for a Force Generation Model for the Armed Forces* aims to provide a rigorous tool for planning and generating NDF on a yearly basis, by combining the capabilities of the operational component of the SF that are available for deployment in the three Branches of the Armed Forces, thus maximising the available budget and making a positive contribution to Portugal's foreign relations.

The GO of the study was "To propose features to optimise the model used by the Portuguese Armed Forces to generate forces for international operations outside national territory." Generating forces entails planning how they will be used. Therefore, the object of this study was analysed in a comprehensive manner that integrated both processes. The study attempted to answer the research question, which served as both a starting point and a guideline, "Which force generation model should the PO AF use to generate forces for international operations outside national territory?"

To narrow the scope of the issue, and as the model serves to generate, in the short term, forces for operations outside the national territory, the study was delimited to the area of MSP and the subarea of operational strategy. The study analysed the current model for planning and generating NDF using an inductive reasoning process, a qualitative research strategy and a multiple case study research design.

This analysis detected four gaps and four shortcomings, which provided an answer to

SQ1 and achieved SO1.

The main features of the models used by NATO, the EU, the UN, and by two allied countries, Spain and France, were compared and selected. This answered SQ2 and achieved SO2.

This study used a scientific methodology to analyse the topic with objectivity and neutrality. Based on this analysis, a Force Generation Model was prepared, which the Armed Forces can use to plan NDF and which has been optimised according to the study findings (Figure 3), thus answering the RQ defined at the beginning of the study and achieving the GO.

This optimised model can guide the annual planning and generation of NDFs based on the operations planning process and established doctrine.

The suitable MROs for each new mission are developed using a strategic tool / methodology. These MROs are then assessed through strategy tests regarding their military suitability (this includes a risk analysis and an exit strategy) and feasibility (in terms of the national forces or capabilities to be committed and the costs involved in generating, preparing, readying and sustaining them). Finally, the CEMGFA submits then to the NDM, who will approve them based on their acceptability.

This approval by the political level marks the beginning of the operational phase of NDF planning, which includes the preparation of a national support plan, intelligence gathering, and the definition of a chain of command.

The model integrates force generation as a continuous and cyclical step that occurs throughout the planning process until all force / capability needs are met, requiring constant contact with the branches responsible for generating the forces.

This NDF planning and generation model should be defined in a Ministry Directive to increase synchronisation and coordination at all national decision-making levels.

During the execution phase, in addition to a review of the planning process, an annual assessment should be carried out using a strategic tool / methodology to analyse, at any given moment, if the success criteria of each operation are being achieved, in order to determine if the national forces should remain in the TO.

A mechanism to link the model to the CPDM should be created, as this will make it possible to fill any capability gaps in the FS that are identified during operations. The funding for NDF should preferably be attributed on multiannual basis, and should be based on priorities determined by Portugal's international commitments and national interests.

This study contributes to knowledge by providing a timely and innovative analysis of the model used by the Armed Forces to plan and generate NDF, identifying gaps and shortcomings and suggesting ways to overcome them based on the models used by the IOs of which Portugal is a member and on the models of two allied countries with which Portugal cooperates closely in international operations.

The main limitation of the study is that few studies or documents address the concepts examined here. Both the publication and the current model are recent and the information provided by the IOs and allied nations analysed is limited or incomplete.

Possible topics for future studies may include:

- An MEA concept that embodies the national vision and strategy of using the military instrument to improve Portugal's external relations and that integrates three main aspects

- NDF, Military Diplomacy and Defence Cooperation –, to enable joint action by the entities responsible for Portugal’s external relations;
 - Strategic tools / methodologies that may be used to plan and generate NDF, particularly those used to develop the MROs and conduct the mission assessment and process review;
 - An analysis of how the force generation process can be aligned with the definition and approval of the international commitments undertaken within the framework of the NATO and EU rapid response mechanisms.

The study’s recommendation is that this proposal for an optimised model for planning and generating NDF be analysed by EMGFA and the Branches and submitted for consideration in the upcoming process review.

References

- Albert, D. S. & Hayes, R. E. (2006). *The Future of Command and Control: Understanding Command and Control*. Washington, D.C.: CCRP publication Series.
- Bardin, L. (1977). *Análise de Conteúdo*. Lisbon: Edições 70.
- Borges, J. V. (2016). Ameaças e Riscos Transnacionais: Perspectivas Institucionais. Em J. V. Borges, *Ameaças e Riscos Transnacionais no novo Mundo Global*. Porto: Fronteira do Caos Editores, Lda.
- Bryman, A. (2012). *Social Research Methods (4th Ed.)* Oxford: Oxford University Press.
- Centre interarmées de concepts, de doctrines et d’expérimentations (CICDE). (9 janvier 2020). *Doctrine interarmées, DIA-5(C)_A&PS(2019): Anticipation et planification stratégiques* (Vol. N° 8/ARM/CICDE/NP). Paris: Ministère de la Défense.
- Council of Chiefs of Staff. (2014a). *Conceito Estratégico Militar (CEM)*. [Military Strategic Concept] Approved by the NDM on 22 July 2014. Confirmed by the CSDN of 30 July 2014, Lisbon: Armed Forces General Staff.
- Council of Chiefs of Staff. (2014b). *Missão das Forças Armadas (MIFA)*. [Armed Forces Mission] Approved by the NDM on 22 July 2014. Confirmed by the CSDN of 30 July 2014, Lisbon: Armed Forces General Staff.
- Couto, A. C. (1988). *Elementos de Estratégia: Apontamentos para um curso Vol I*. Lisbon: Instituto de Altos Estudos Militares [Institute of Advanced Military Studies].
- Decision No. 2536/2020. (2020, 6 February). *Military Defence Planning Ministry Directive – 2019-2022*, Journal of the Republic, 2nd Series, 38, Part C, 36-41. Lisbon: Ministry of National Defence.
- Decision No. 4101/2018. (2018, 12 April). *Guidelines for a review of the National Defence Law on External Action*, Journal of the Republic, 2nd Series, 79, 11677-11679. Lisbon: Ministry of National Defence.
- Decision No. 7861/2018. (2018, 1 August). *Policy Directive for Planning National Deployable Forces for the 2019 calendar year*, Journal of the Republic, 2nd Series, 157, 22501-22502. Lisbon: Ministry of Defence.
- Decision No. 8142/2019. (2019, 2 August). *Policy Directive for Planning National Deployable Forces for the 2020 calendar year*, Journal of the Republic, 2nd Series, 177, 23-25. Lisbon: Ministry of Defence.

- Directorate-General of National Defence Policy (2020, 7 September). *Report on the Engagements of Portuguese Military Forces Deployed Abroad - 1st semester* Lisbon: Ministry of National Defence.
- Directorate-General of National Defence Policy. (2021, 1 March). *Report on the Engagements of Portuguese Military Forces Deployed Abroad - 2nd semester* Lisbon: Ministry of National Defence.
- Directiva 03/18 del Jefe de Estado Mayor de la Defensa. (2018, March). *Sistema de Planeamiento Operativo*. Madrid: Estado Mayor de la Defensa.
- Armed Forces General Staff. (2019, 18 June). PRONTFOR – Readiness and sustainment system for the Operational Component of the Force System (Directive No. 036/CEMGFA/19). Lisbon: Chief of the Armed Forces General Staff.
- Armed Forces General Staff. (2021, 04 March). *Missões antigas em números* [Online]. Available from: <https://www.emgfa.pt/miss%C3%B5es/miss%C3%B5es-antigas-em-n%C3%BAmeros>.
- Handel, M. I. (2001). *Masters Of War: Classical Strategic Thought* (Third revised and expanded ed.). London: Frank Cass Publishers.
- Hayes, R. H. (1985, November). *Strategic Planning - Forward in Reverse?* *Harvard Business Review* [Online]. Available from: <https://hbr.org/1985/11/strategic-planning-forward-in-reverse>.
- Law No. 58/2019. (2019, 8 August). *Ensures the implementation in the national legal order of Regulation (EU) 2016/679 of the European Parliament and Council of 27 April 2016 on the protection of individual persons regarding the processing of personal data and the free flow of such data*, Journal of the Republic, 1st Series, 151, 3-40. Lisbon: Assembly of the Republic.
- Organic Law No. 5/2014. (2014, 29 August). *First amendment to the Law on National Defence, approved by Organic Law No. 1-B/2009 of 7 July*, Journal of the Republic, 1st Series, 166, 4545-4557. Lisbon: Assembly of the Republic.
- Organic Law No. 6/2014. (2014, 01 September). *First amendment to the Basic Law on the Organization of the Armed Forces, approved by Organic Law No. 1-A/2009 of 7 July*, Journal of the Republic, 1st Series, 167, 4597-4611. Lisbon: Assembly of the Republic.
- Leight, A. (1983). *Decisions, Decisions!: A Practical Management Guide to Problems Solving and Decision Making*. Hampshire: Crower.
- Lykke, A. F. (1986). *Toward An Understanding of Military Strategy*. Em J. R. Cerami, & J. F. Holcomb (Eds.), *Military Strategy: Theory and Application* (pp. 3-7). Carlisle, PA: Strategic Studies Institute, US Army War College.
- United Nations Organization. (2017). *United Nations Manual for Generation and Deployment of Military and Police Units to Peacekeeping Operations*. New York: Department of Peacekeeping Operations.
- North Atlantic Treaty Organization. (2013). *Comprehensive Operations Planning Directive, COPD, Interim V2.0*. Mons: SHAPE, Allied Command Operations.
- PEMGFA/PLA 001. (2020). *Manual para o Planeamento Estratégico Militar do Estado-Maior-General das Forças Armadas*. [Strategic Planning Manual of the Armed Forces General Staff] Lisbon: Armed Forces General Staff.
- Quivy, R., Marquet, J. & Campenhoudt, L. V. (2019). *Manual de Investigação em Ciências Sociais*. Lisbon: Gradiva.

- Rego, A., Cunha, M. P. & Meyer, Jr. V. (2018). Quantos participantes são necessários para um estudo qualitativo? Linhas práticas de orientação. *Revista de gestão dos Países de Língua Portuguesa vol.17 (2)*, p.43-57. Lisbon: INDEG-IUL - ISCTE Executive Education.
- Council of Ministers Resolution No. 19. (2013, 21 March). *Conceito Estratégico de Defesa Nacional* [Strategic Concept of National Defence], Journal of the Republic, 1st Series, 67, 1981-1995. Lisbon: Presidency of the Council of Ministers.
- Council of Ministers Resolution No. 26. (2013, 19 April). *Reforma «Defesa 2020»* [«Defence 2020» reforms], Journal of the Republic, 1st Series, 77, 2285-2289. Lisbon: Presidency of the Council of Ministers.
- Ribeiro, A. S. (1998). *Planeamento da Acção Estratégica Aplicado ao Estado*. Lisbon: Minerva.
- Ribeiro, A. S. (2006). *Planeamento Estratégico e de Forças [Online]*. Available from: <https://www.revistamilitar.pt/artigo/136>
- Ribeiro, A. S. (2009). *Teoria Geral da Estratégia: O essencial ao processo estratégico*. Coimbra: Almedina.
- Ribeiro, A. S. (2010). *Política de Defesa Nacional e Estratégia Militar. Modelo de Elaboração*. Lisbon: Diário de Bordo.
- Santos, L. A. B., & Lima, J. M. M. (Coords.). (2019). *Orientações metodológicas para a elaboração de trabalhos de investigação* (2nd Ed., revised and updated). IUM Notebooks, 8. Lisbon: Military University Institute.
- Sarmiento, M. (2013). *Metodologia científica para a elaboração, escrita e apresentação de teses*. Lisbon: Universidade Lusíada Editora.
- European Union. (2015). *EU Concept for Force Generation, EEAS, 1237 REV 6*. Brussels: EUMC.
- Vilelas, J. (2009). *Investigação: o Processo de Construção do Conhecimento*. Lisbon: Edições Sílabo.
- Yarger, H. R. (2006). *Strategic Theory for the 21st Century: The Little Book on Big Strategy*. Carlisle: Strategic Studies Institute, US Army War College.
- Yin, R. K. (2015). *Estudo de Caso: Planeamento e Métodos* (5th Ed.) Porto Alegre: Bookman.