

PREPARING THE TERRITORY FOR DEFENCE – BETWEEN THEORETICAL CONCEPTUAL MODELS AND PRACTICAL TECHNICAL-MANAGERIAL REALITIES

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Abstract: *The war in Ukraine has brought back to the spotlight the importance of preparing the economy and territory for defence, especially for states in the proximity of the conflict, such as Romania. This paper, based on exploratory research method, emphasizes the essential role of security culture in the efficiency of preparing the national economy and territory for defence, as well as the need for coherent and integrated legislative mechanisms. Special attention is paid to the defence infrastructure, civil protection infrastructure, represented by emergency shelters, whose current capacities, at the national level, are insufficient. The analysis is extended by comparisons with other European states, highlighting both good practices and deficiencies. The conclusions emphasize the need for decision-making, strategic investments and legislative reforms to ensure national resilience in the face of risks to national security.*

Keywords: shelters, security culture, resilience, national security

1. Introduction

The war in Ukraine, triggered by the Russian Federation’s invasion in February 2022, has produced major changes in the regional, European and global security architecture. Romania, as a NATO and EU member state, is faced with the need to urgently adapt its national defence and security policies, in the context of a persistent threat to regional security and stability. The proximity of our country to the conflict zone requires a deep, strategic reassessment, not only from a doctrinal perspective but also from the perspective of how the national economy and territory are prepared for possible crisis/war situations. In this context, the construction of a resilient state is mainly based on the development of a resilient economy, capable of supporting the nation’s defence

efforts in situations of crisis, mobilization or war. This is in addition to the need to revitalize and modernize the national defence industry, diversify energy sources, increase strategic stocks, and strengthen critical infrastructure. It is also necessary to create efficient mechanisms for mobilizing all types of resources in support of the forces of the national defence system (FSNA), to support the economy as well as the population in case of conflict.

In light of the latest events in Ukraine, where Russian missile and drone attacks no longer distinguish between combat and non-combat forces, between military and civilian targets, protecting the civilian population becomes a fundamental priority. This requires the development of a coherent civil defence system: shelters, evacuation plans, alert networks, and training citizens

on how to behave in emergency situations. Thus, collaboration between central and local authorities, as well as cooperation with other institutions with responsibilities in this direction, is vital to ensure a rapid and effective response to any threat.

In conclusion, the current geopolitical situation obliges Romania and states on NATO's eastern flank to treat with utmost seriousness the preparation of the economy and territory for defence, investing in solid national capabilities and in the protection of the civilian population, as essential elements of national security and resilience, in conjunction with the dedicated action mechanisms existing at NATO and EU level.

2. Preparing the National Economy and Territory for Defence – Pillar of Security Culture

The central subject of the article, the preparation of the territory for defence, is informed from two approach perspectives in order to delineate one's own research within multiple existing interdisciplinary and multidisciplinary perspectives. On the one hand, the first approach considers (as a necessity and presumptive framework for

implementation) the theoretical conceptual models specific to each state, starting from one's own vision of security and defence, within a framework of the hybridization of threats that can determine a state to locate itself outside the comfort zone. Obviously, this function has multiple given variables, among which we can highlight a state's membership in international organizations, the volatility of the regional security environment, national economic indicators, the functionality of the national defence system, etc. On the other hand, the concrete operational reality is underlined by the current ways of implementing the theoretical conceptual framework. In fact, both specialized managerial components (institutions, interagency cooperation mechanisms) and the data from the technical area specific to security and defence (quantitative dimensions, execution technologies of infrastructures, technical-tactical norms, etc.) intertwine [1]. The central element for initiating the processes of preparing the territory for defence is the national security culture (Figure 1).

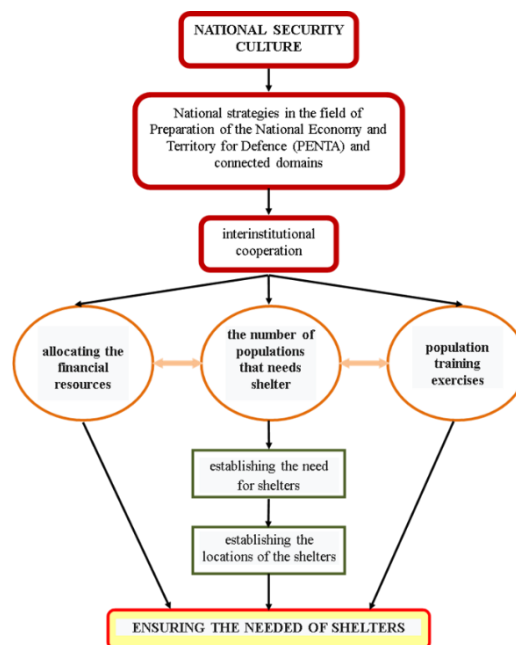


Figure 1: The interdependence between national security culture and the processes specific to the preparation of the territory for defence

Source: Authors' interpretation

At first glance, with all the existing measurement difficulties, the relationship is the following: the higher the level (both in terms of perception of the positive role but also in terms of effects in situations of peace, crisis, war), the more consistent the premises to perceive the need for national strategies for the Preparation of the National Economy and Territory for Defence (PENTA), well-articulated in the contemporary security spectrum. Subsequently, the difficulty in operationalising PENTA strategies is an indicator of the existing limitations at the level of the national security culture. We emphasize that the ideal situation that needs to exist would be an integrative legislative package, and not only in a quantitative and especially qualitative sense, by ensuring interoperability (of the structures involved and the coherence of the specific decision-making mechanisms) at the level of the defence system, public order and national security. In conjunction with the complexity of the interdependencies manifested in the field of security and defence, a limitation of the undertaken study is that the data regarding certain information necessary in the area of good practices existing at international level is classified.

3. The Civil Protection Capacity of the Population in Romania: between Reality and Necessity

The developments in the European security environment over the last five years have brought back into question the need to urgently reassess the territorial preparation plans for defence. Given the multitude of activities resulting from the territorial preparation objectives, this is not an easy task. Thus, they include:

- *“objectives for meeting the operational and strategic needs of the forces of the national defence system;*
- *objectives for the protection of the population;*

– objectives for the protection of material assets, including those included in the national heritage”[2].

If in terms of the finality of the objectives for meeting the operational and strategic needs of the forces of the national defence system, things are almost impossible to analyze due to their classified nature, in terms of the finality of the objectives for the protection of the population and the protection of material assets, these can be approached through the prism of two laws – *Law No. 481 of 08.11.2004 on civil protection* and *Law 477/2003 on the preparation of the national economy and territory for defence*, related laws, an integral part of national security.

Following the central objective of our approach, we wish to focus on this component of population protection and to bring to attention arguments that will answer the following questions:

- does Romania have sufficient spaces (shelters) for the protection of the population in the event of an air attack or industrial accidents?
- are these shelters functional?
- how do we compare to other European states in this regard?
- what are the possible dysfunctions and what measures should be taken in this area?

In March of this year, the Romanian Court of Audit conducted a performance audit on “CIVIL PROTECTION SHELTERS BETWEEN REALITY AND NECESSITY” [3]. It was discovered that *“the lack of conditions necessary to protect the population in situations of armed conflict indicates the need to redesign the national shelter system”* [3].

The analysis of the audit report revealed that *“the population’s shelter capacity in the event of an air attack is 3.21% (611,922 people) in specially built shelters, respectively 5.19% (989,507 people), if we also take into account other identified shelter spaces (metro spaces, parking lots, underground passages and galleries, tunnels, etc.), compared to the total*

resident population (19,053,815 people). Of the total of 5,072 civil protection shelters, public and private, 2,543 are non-operational (50.14%)” [3].

If we refer strictly to the operational shelters, a total of 2529, they can provide shelter for only 318,502 people, which represents only 1.67% of the Romanian population [3].

Analyzing the data in Annex 5, *Shelter capacity of the population in Romania as of 31.12.2023* of the audit report, we will

notice that of the total population of the country, 30.67% is grouped in the county centre municipalities and the municipality of Bucharest and also, approximately 80% of the 5072 shelters existing at national level are found in these municipalities.

Starting from the premise that large cities concentrate a significant proportion of the country’s population, in the following we propose a brief analysis of the situation of the first 10 localities in the country by population size (see Table 1).

Table 1: Central situation with data on shelter capacity in the main cities
Source: Authors’ interpretation using [3]

No.	City	Population	No. shelters	Shelter capacity	% Total capacity	Operational capacity	% Operational capacity
1	BUCUREȘTI	1.716.961	1337	227.218	13,23	98.861	5,76
2	CLUJ-NAPOCA	286.598	167	18.634	6,5	15.751	5,5
3	IAȘI	271.692	170	17.819	6,56	8.577	3,16
4	CONSTANȚA	263.688	82	10.108	3,83	9.003	3,41
5	TIMIȘOARA	250.849	110	16.395	6,54	1.690	0,67
6	BRAȘOV	237.589	151	15.768	6,64	8.266	3,48
7	CRAIOVA	234.140	227	28.030	11,97	25.601	10,93
8	GALAȚI	217.851	184	20.291	9,31	14.194	6,52
9	ORADEA	183.105	71	8.398	4,59	8.198	4,48
10	PLOIEȘTI	180.540	85	8.098	4,49	7.948	4,4
	TOTAL	3.843.013	2584	370.759	9,65%	198.089	5,15%
	TOTAL CITIES	6.386.807	4010	502.542	7,86%	251.348	3,94%
	TOTAL ROMÂNIA	19.053.815	5072	611.922	3,21%	318.502	1,67%

We consider this to be relevant to our investigative approach because:

- the largest cities concentrate a significant proportion of the national population;
- large cities are often potential targets in conflict or crisis situations;
- key state institutions and a significant part of critical infrastructure are concentrated in urban areas.

From the centralized data regarding the major cities of Romania, it appears that their population represents 20.16% of the total population and 60.17% of the total urban population. Regarding the number of shelters in urban areas, they represent almost 80% of the total number of shelters at national level and those in major cities represent almost 65% of the number of existing shelters in urban areas. Also, regarding the operational

capacity reported to the local population, it appears that none of these major cities has the capacity to shelter even 20% of its population. For example, Bucharest has the possibility to shelter only 13.23% of the population, but operational shelters provide protection for only 5.76 of the population. There are also significant discrepancies between shelter capacity and their degree of functionality: in Timișoara only 10% of the total capacity is functional, Iași and Constanța have under 50% functionality, while in Craiova and Cluj-Napoca over 80% of shelters are functional.

At the national level, there are also cities where all shelters are operational. This is the case of the towns of Sfântu Gheorghe, Deva, Slobozia, Baia Mare, Alexandria and sectors 1 and 2 of the capital, which have absolutely all the shelters operational.

However, even in their case, the shelter capacity is below 10%.

What emerges from the brief analysis of these data? The fact that the level of protection of the population is insufficient both at the local and national level. Moreover, we have identified very large differences between the total capacity and the functional capacity, which indicate serious maintenance deficiencies.

4. The Situation at European Level

The war in Ukraine has brought to the attention of all European states the need for shelters for the population in case of conflicts. Some states have always had this aspect in mind and have constantly invested in the maintenance of existing shelters or in

the construction of new ones. The most illustrative example in this regard is that of Switzerland, which has over 365,000 civilian shelters that can shelter almost 9 million people, given that the population of Switzerland is around 8.6 million people, thus ensuring a degree of protection of 114% [4].

In the following, we will try to identify data on how different European states have understood how to prepare their territory and protect their population in the event of an attack or in the event of major industrial accidents. Public information regarding these aspects is difficult to obtain, so the data we will use in the following is obtained from the media.

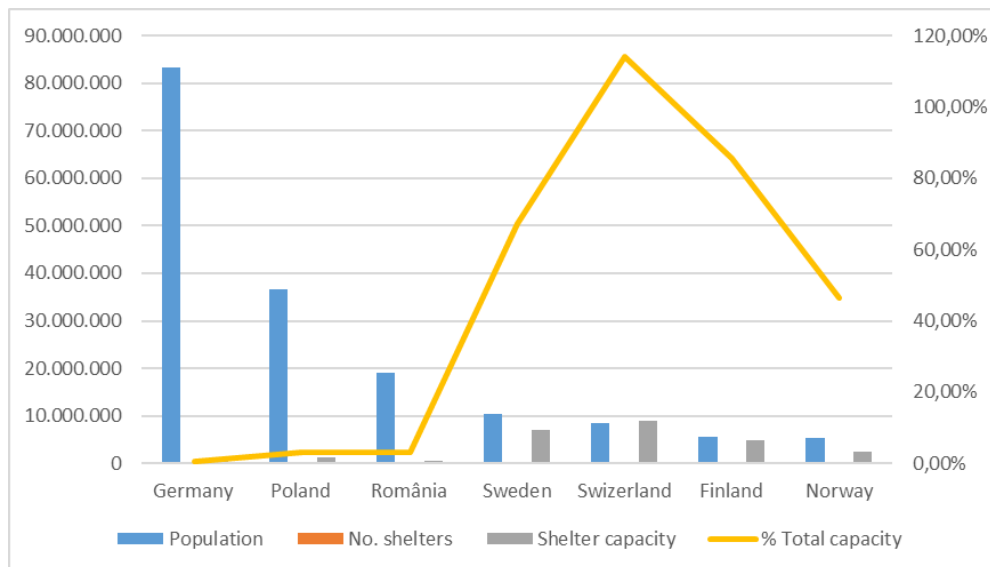


Figure 2: The situation of shelters in several European countries

Source: Authors' interpretation using [2, 4-7, 9, 10].

As illustrated, states with a large population have the biggest problems in terms of the possibilities of sheltering the population in the event of an attack or industrial accident that requires sheltering the population. Germany, a country with a population of over 83 million inhabitants, also has the smallest number of shelters among the analysed states, 579, managing to provide protection for only 0.58% of the total population. At the opposite end is Switzerland, with a population approximately 10 times smaller than

Germany's, but which has the largest number of shelters (365,000), having the possibility of sheltering no less than 9,000,000 people, approximately 400,000 people more than the population of the state.

In terms of the total percentage of shelter capacity, Finland (with 85.45%), Sweden (with 67.30%) and Norway (with 46.29%) are next. It is recognized that the countries of northern Europe have a rich tradition in terms of preparing the population, not necessarily for cases of armed conflict but

for disasters in general, with state authorities constantly investing in the maintenance of shelters and training the population on how they should act in different situational contexts [5], [6].

Having the same reference point for analysis, the total percentage of shelter capacity, we must also show the fact that Romania and Poland have approximately the same percentage, 3.21% in the case of our country and 3% in the case of Poland. We must emphasize, however, that the population of Poland is almost double that of our country and is taking concrete measures in terms of investments in new shelters and other security measures amounting to over 25 million Euros [7].

5. Discussions

In the context of increasing risks and threats to national and international security, the importance of preparing the territory for defence has returned to the forefront of strategic analyses. This involves not only military measures, but also a set of administrative, economic and social actions, aimed at strengthening the reaction capacity of society in the face of destabilizing events. In essence, preparing the territory for defence contributes to the creation of defence capabilities, through the integrated use of available resources, previously prepared from a managerial point of view. In this context, Ilona Urych emphasizes that *“Defence capability is the preparedness of society, of the armed forces, of administrative and economic bodies to defend the country in a situation of a military or non-military threat. In other words, defence aims to counteract all kinds of dangers to which a country may be exposed”* [8]. This approach supports the idea of a multilateral defence, in which

society plays a central role in the entire security ecosystem.

Starting from this broad concept of defence, the comparative analysis of international models highlights significant differences in the management of defence infrastructure, especially in the field of civil protection infrastructure, such as that intended for sheltering the population. The analysed data highlight major discrepancies between European states. For example, countries such as Switzerland and the 3 Nordic countries, Norway, Sweden and Finland, have consistently maintained a high level of preparedness, with shelters sufficient for a significant proportion of the population (or even surplus, as is the case of Switzerland). Other states – especially those with large populations or that have other strategic priorities – face a clear deficit or total lack, as is the case of France [3].

Regarding Romania, the low performance of the authorities, both at central and local levels, is evident in terms of maintenance, modernization, and expansion of the shelter network in the context of underfunding of this area and lack of decision-making transparency.

The efforts to operationalise models of territorial preparation for defence, starting from the basic understanding of the notion (facilitated by the representation of a system, phenomenon or process), are specific to each state. These are influenced both by the spectrum of threats to which a state is exposed, and by the strategic vision assumed through official documents. For this reason, making direct comparisons between states can be difficult. However, the real efficiency of a system can only be assessed by its capacity to determine concrete effects in the event of threats – at which point the pre-existing level of preparation is validated or refuted.

A possible way to integrate the actions specific to PENTA is provided by the

framework presented in the Figure 3.

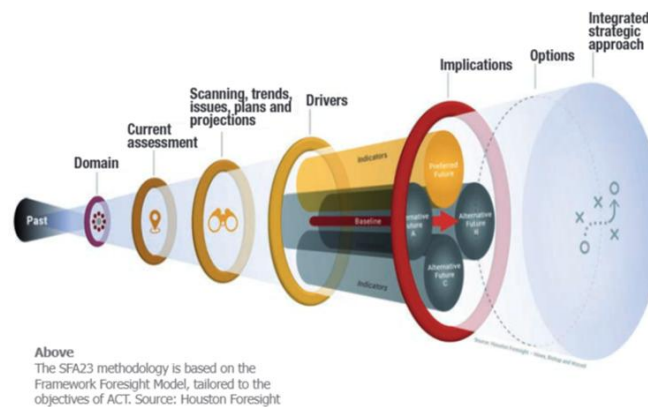


Figure 3: A model (Strategic Foresight Analysis 2023 - SFA23) in the field of PENTA [11].

Finally, there is a clear trend of convergence between the two concepts – territorial preparedness and territorial defence, especially by integrating concerns related to hazard management, and other emerging risks. This convergence will depend largely on the capacity of each state to internalize the lessons learned and to adapt its defence policies and infrastructure in a coherent and collaborative manner.

6. Conclusions

We believe that the analysis we conducted highlights the syncope manifested between the conceptual imperatives of preparing the territory for defence and the existing managerial realities.

First, the analyzed data demonstrate a deficient capacity of Romania in terms of protecting the population in case of conflict. With a national operational capacity of less than 2%, the current civil protection system is not prepared to face a large-scale attack. Although there is visible progress in certain localities, the level of general functionality is low, and the maintenance of the infrastructure is managed unevenly and inefficiently. This state of affairs expresses inadvertences regarding inter-institutional coordination and long-term vision.

Secondly, compared to other European states, Romania is far below countries such as Switzerland, Finland or Sweden, which demonstrate careful planning, coupled with

a solid security culture and constant investments in infrastructure and civic education, the finality of which materialized in a robust and efficient civil protection system.

At the same time, the security culture of the population is insufficiently developed. Citizens are not sufficiently informed, prepared or involved in simulation exercises, and emergency manuals adapted to the current security context are a real necessity. This inadequacy of the security culture generates vulnerability in a context in which hybrid, cyber and conventional threats are increasingly intertwined. In order to adequately respond to these challenges, a profound reform of the legislative and institutional framework is essential. It is vital to build a national strategy for PENTA, based on interoperability between all categories of institutions with responsibilities in this field. Preparing the territory for defence, as a component of PENTA, must be treated as a fundamental pillar of national security. Political leadership, managerial capacity, strategic investments and, last but not least, the formation of a national security culture are essential prerequisites. By integrating specific PENTA actions at the level of national collaborative platforms, „by effectively managing their supply chain and integrating sustainability into strategy” [12] Romania can truly become a resilient state,

capable of effectively protecting both the present and future threats.
national territory and its citizens against

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