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**“DEFENSE RESOURCES MANAGEMENT
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**BUILDING RESILIENCE IN THE DEFENSE INDUSTRY: THE
TURKISH CASE**

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Abstract:

Today’s unpredictable security environment, in which complicated and multiplied threats are originated from both state and non-state actors, poses a serious challenge to national security. When rapid technological change and its associated risks are combined with renewed great power competition, the vulnerability of defense systems significantly increases as a result of power, knowledge, and threat asymmetry. Often defined as the ability to resist and recover from the effects of hazards in an efficient and timely manner, the concept of resilience has become highly prominent in the security and defense domain since national security necessitates strengthened civil-military capabilities. In order to maintain operational readiness in case of both national and international crises, conflicts, and emergencies, continuous functionality of these capabilities including the ability to protect critical infrastructure, assist coalition operations, and develop new technology has the utmost significance. Accordingly, this study aims to discuss the significance of building resilience in the defense industry based on the Turkish case.

Key words: Defense, Defense Industry, Resilience, Turkish Defense Industry.

1. Introduction

There has been a major shift in global dynamics ranging from nuclear proliferation to climate change, and the pandemic to the fourth industrial revolution that demands immediate attention. In addition to the current Russia-Ukraine crisis, the rise of China has initiated great power competition while the global balance of power has been distorted[1]. Therefore, the vulnerability of defense systems significantly increases as a result of power, knowledge, and threat asymmetry when rapid technological change and its associated risks are combined with renewed great power competition.

Often referred to as the ability to resist and recover from the effects of hazards in an efficient and timely manner, the concept of resilience has become highly prominent in the defense domain in order to strengthen civil-military capabilities. Resilience in the security and defense domain depends on strengthening capabilities and maintaining operational readiness in case of both national and international crises, conflicts, and emergencies, as well as ensuring continuous functionality of these capabilities including the ability to protect critical infrastructure, assist coalition operations, and develop new technology.

Dwelling on recent developments, this study aims to discuss the significance of building resilience in the defense industry based on the Turkish case.



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2. An Overview of the Basic Terms: Vulnerability and Resilience

In order to understand resilience, the term vulnerability should be revealed. Vulnerability means the possibility of being harmed either emotionally or physically in case of a hazard. Therefore it encompasses governance, attitudes, values, human decisions, and behaviours[2]. Initially defined in 1975, the term resilience mainly refers to available adjustments to mitigate hazards and disaster risk while improving response[3]. Further encapsulated as a term in 1999[4], the significance of resilience has been highlighted since Hyogo Framework in 2005. Accordingly, ensuring disaster risk reduction and building disaster resilience have become priorities at regional, national, and international levels[5].

In the following years, the term community resilience has emerged. Often referred to as the ability to plan, prepare, absorb, and recover from any potential adverse events while enhancing the adaptive capabilities to the next ones, a number of guiding principles are also defined:

1. Leaders who are informed and involved,
2. Monitoring and evaluating the resilience of communities, businesses, and individuals,
3. Involvement from economic institutions to resilience practices [6].

One of the most comprehensive definitions of the term is made by the OECD by stating “*the ability of households, communities, and nations to absorb and recover from shocks, whilst positively adapting and transforming their structures and means for living in the face of long-term stresses, change and uncertainty*”[7]. This definition prescribes a more multi-dimensional, cross-sectoral, and effective programming in which interlinkages of multiple vulnerabilities and risks are examined. The next session further discusses resilience in the security and defense domain.

Resilience in Security and Defense

Addressing the needs of a state’s national security depends on three key components: capability, capacity, and resilience. Balancing capabilities and capacities to enhance resilience necessitates an effective risk mitigation strategy [8]. Therefore, the term resilience holds a wide-ranging expansion of vulnerabilities at multidimensional levels that are interconnected with mitigation strategies including both the spectrum of military and non-military response mechanisms [9]. Being the first line of defense, resilience is closely related to a country’s critical infrastructure as well[10].



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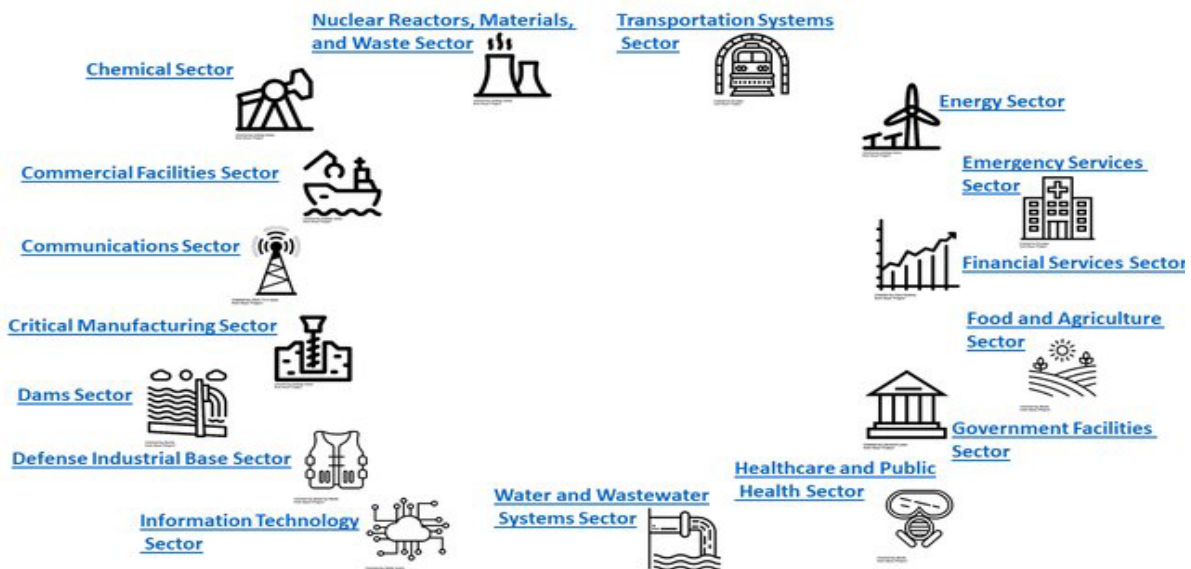


Figure 1. Critical infrastructure systems [11]

In addition to great powers’ geoeconomic competition, climate change, cyberattacks, and health crises pose serious challenges to the defense domain. Since today’s unpredictable security environment consists of both conventional and unconventional conflicts, as well as hybrid threats, the ability to adapt and respond to these threats necessitates a well-balanced comprehensive risk mitigation approach. Accordingly, resilience in the security and defense domain unites military capacity and civil preparedness. Therefore, NATO prescribes seven baseline requirements for its members: continuity of government, resilient energy supplies, dealing with the uncontrolled movement of people, dealing with disruptive health crises and mass casualties, resilient water and food resources, resilient civil communication systems, and resilient transport systems[12].

Several conventional and hybrid threats have been experienced in the case of Türkiye as well. Accordingly, the Turkish defense industry has gone through five distinct development periods which have further strengthened its resilience to different types of threats. Upon the Cyprus crisis in 1974, Directorate of Defense Research and Development (SAGEB) was established to enable Türkiye to enhance its self-sufficient industrial base in 1985. Accordingly, there has been a shift from the foreign procurement-reliant model to a self-reliant period since the early 2000s[13].

The transformation of the military and defense strategy of Türkiye can be seen in detail in Table 1.



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Table 1. The Transformation of Turkish Military and Defense Strategy[14]

<i>Grand Strategy and Objective</i>	<i>Strategy</i>	<i>Pillars</i>	<i>Operational Art (Military Excellence)</i>	<i>Tactics</i>	<i>Defense Procurement</i>
<ul style="list-style-type: none"> - Protect territorial integrity of the nation - Protect long-term maritime interests - Advance country's international status and gaining leverage - Achieve strategic autonomy 	<ul style="list-style-type: none"> - Balancing act between great powers - Build strong national defense industry - Deter, and compel potential adversaries - Gain and maintain intelligence superiority - Gain and maintain operation initiative 	<ul style="list-style-type: none"> - Military Readiness <ul style="list-style-type: none"> o Operational/combat readiness o Structural readiness - Pre-emptive status <ul style="list-style-type: none"> o Preemptive intervention against Terrorist Organizations o Preventive military mission to prevent diplomatic loss - Deterrence 	<p><i>Land</i></p> <ul style="list-style-type: none"> - Implement joint combined warfare - Build and enhance partner capabilities <p><i>Air</i></p> <ul style="list-style-type: none"> - Enhance overseas operation capabilities - Gain and maintain air superiority <p><i>Navy</i></p> <ul style="list-style-type: none"> - Enhance overseas operation capabilities - Deny access/area to adversaries 	<ul style="list-style-type: none"> - Deploy special forces and commando brigades - Utilize drone power innovatively - Air & Land Battle - Utilize airlift capabilities - Utilize sealift capabilities 	<ul style="list-style-type: none"> - Invest greatly in national defense infrastructure - Increase the sustainability of the defense industry - Strike a balance between force quality and quantity - Detect critical capabilities to prioritize - Seek foreign partners for transitory solutions in national difficulties - Build and enhance influence via defense trade

Currently, in addition to the unprecedented threats posed by the YPG/PYD to create an autonomous governance mechanism near the Syria border, both the Libya and Karabakh conflicts, and the recent Russia-Ukraine crisis pose further challenges to security. Therefore, in addition to previous mega projects, Türkiye heavily invests in unmanned and autonomous systems to strengthen its defense resilience.

3. Conclusion

Enhancing resilience in the security and defense domain requires the utilization of new concepts while the international system has been through major significant transformations in today's unprecedented security environment. While the main resilience strategy remains as maintaining alliances such as NATO, different states apply different strategies to enhance their defense resilience as well.

When the Turkish case is examined from a closer perspective, it is concluded that Türkiye adopts a similar approach. On the one hand, surrounded by complex emergencies and protracted crises, Türkiye maintains its strategy to build an active and robust defense industrial base with its national resources while also investing heavily on to develop a strengthened product portfolio. On the other hand, as an active member of NATO, continues its support of peace operations as well as collective disaster preparedness activities.



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