

Chapter 4

CURRENT SECURITY ENVIRONMENT AND THE STATUS OF NATIONAL RESILIENCE IN UKRAINE

The study of security environment, identification of dangerous trends, factors of influence, and risks and threats to national security allows for a well-grounded choice of an optimal national resilience ensuring model and the appropriate mechanisms for the state in the current conditions. However, a comprehensive analysis of existing capabilities, practices, regulations, and organization of activities in the field of national security, crisis management, and public administration helps to identify vulnerabilities and systemic challenges with regard to ensuring national resilience, as well as formulate the priorities in terms of its further enhancement. Analysis of these issues has a scientific and practical significance in the context of substantiating the expedience of creating a national resilience ensuring system in Ukraine, and identification of its key features, taking into account the identified regularities and essential characteristics of the national resilience concept.

4.1. Key Trends in Ukraine's Security Environment

Ukraine's security environment analysis is expedient to start by identifying the main processes and tendencies describing the *changes in global security environment* and shaping the contours of global development.

Most experts acknowledge that the global security environment is currently characterized by a high level of uncertainty and unpredictability. The US National Intelligence Council (2021) emphasizes that the Covid-19 pandemic reminded the world of its fragility and demonstrated the high interdependence of various risks. According to experts, in the forthcoming years

and decades, the world can face more intense and cascading global challenges of different origins, which will be a test for resilience and adaptability of communities, states, and international system on the whole.

The subject publication highlights the following most probable risks and tendencies of global development:

- increasing political rivalry in the world and a greater risk of conflict, as states and non-state actors, exploit new sources of power and erode the long-standing norms and institutions that supported global stability in the past decades;
- increasing disparities in economic development and competition across global markets;
- unevenly aging populations offering demographic dividend to the developing countries in Latin America, South Asia, North Africa, and the Middle East;
- more intense effects of climate change;
- increasing social stratification in societies, growing distrust of power, forming groups of like-minded people based on an established or newly acquired identity;
- growing political instability in the states and erosion of democracy;
- greater threats from the accelerated development of cutting-edge and break-through technologies (US National Intelligence Council, 2021).

The UK Ministry of Defense (2018) notes that the world is becoming ever more complex and volatile, and “the only certainty about the future is its inherent uncertainty.” According to the experts of the UK Ministry of Defense, the rate of change and level of uncertainty may outpace the good governance and unity of societies. This requires adaptation, prevention, and active response to threats.

The experts identified the trends that will be observed over the next 30 years (until 2050) and will require adaptation:

- increasing human empowerment: development of novel knowledge and technologies, on the one hand, opens new opportunities in education and medicine, while deepening, on the other hand, the social stratification in societies, thus exacerbating political discord;

- power transition and diffusion: growing rivalries between Asian states (primarily China and India) and the USA, and also, competition between other states will require reform of international institutions. Not all states will be able to stand up to merging political and social challenges (UK Ministry of Defense, 2018).

Among the trends requiring prevention or mitigation of effects, the UK Ministry of Defense experts name the following:

- dramatically increasing role of information (centrality of information): people having broader access to information, development of computer technologies, artificial intelligence, digitization of numerous aspects of life, while enhancing human empowerment, these also create new risks associated with the potential polarization in societies due to social media, lower public confidence in existing government institutions, a surge in cyber-attacks and other crimes committed via the Internet and social networks

- accelerating technological advancement: development of advanced technologies in industry (the Fourth Industrial Revolution) has an impact on all sectors of economy and exacerbates the risks of social changes, public discontent, and protests due to job reduction and changes in their quality, and also aggravates working and leisure conditions for people (UK Ministry of Defense, 2018).

The UK's experts also defined trends that will require active response:

- a greater pressure on the environment as a result of climate change and human activities;

- disproportionate changes in the composition of population in different countries that may result in growing migration and increasing pressure on social services system and infrastructure of certain towns, (UK Ministry of Defense, 2018).

According to the UK experts, those events and emergencies that cannot be foreseen are the greatest risks. These include, in particular, significant changes in the establishment of geopolitical alliances, sudden shifts in the social, economic or political paradigms, severe conflicts and natural disasters, financial crises, damage to global infrastructure, collapse of international organizations, (UK Ministry of Defense, 2018).

According to K. Friberg¹, Head of the Swedish Security Service, what is considered an opportunity today may pose a threat in the future, and the most important incidents are the ones that never happen. The expert emphasizes a much more complex character of contemporary threats versus the traditional ones.

The WEF (2021b) lists the following most likely global risks over the next ten years: extreme weather, climate change, human environmental damage, concentration of digital power, digital inequality, and cybersecurity failure. The risks that may have the most severe impacts include, in particular, infectious diseases, climate change and other environmental risks, proliferation of weapons of mass destruction, livelihood crises, debt crises, and IT infrastructure breakdown.

According to Smil (2012), in the next fifty years the greatest threat for humans is the possibility of a new mega-war that will have the greatest fatal consequences. Among other significant risks with comparatively lesser likelihood of occurrence and lesser impacts, the scientist names pandemics (primarily flu), volcanic eruptions, and tsunamis.

¹The Swedish Security Service. *Annual Report 2020*. Retrieved from <https://www.sakerhetspolisen.se/download/18.4ffee9b31787cb4eddc4ec/1624002656682/Swedish%20security%20service%20annual%20report2020.pdf>.

The World Bank (2012) points to the growing conflict potential and the consequences of potential violence outbursts for global security and development. The World Bank's experts provide cost estimates of losses that may be incurred by national economies and the global economy in the case of an armed conflict. D.H. Meadows, Randers and D.L. Meadows (2012) argue that the forecasts of global development need to consider the impact of risks associated with the existence of certain limits to growth, the continuous tendency of the world system toward growth, as well as the time lag between approaching the limit to growth and the society's response thereto.

Considering the enhancement of interconnections and interdependence between states, the scale of influence of global risks on national and international security will be increasing. The effectiveness of measures to prevent and address them will significantly rely upon the ability to identify and assess global risks. However, considering that a significant part of them is difficult to project with a high degree of probability, it is the enhancement of national resilience that appropriate prevention strategies should rely on (Reznikova, 2013a).

Official documents of international organizations and many countries mention the increasing level and scale of current threats. Thus, the Brussels Summit Communique, of 14 June 2021, notes that the Alliance and Member Nations face multifaceted threats, systemic competition from assertive and authoritarian powers, as well as growing security challenges from all strategic directions. The biggest threats to the world include Russia's aggressive actions, China's growing influence, illegal migration and human trafficking, the proliferation of weapons of mass destruction and erosion of the arms control architecture, hybrid, and other asymmetric threats, including cyber threats, disinformation campaigns, the malicious use of ever-more sophisticated emerging and disruptive technologies, (NATO, 2021a).

The Global Strategy of the European Union 2016 “Shared Vision, Common Action: A Stronger Europe” notes that the world lives in times of existential crisis. The document points to growing violence in various regions across the world, disproportionate economic growth, and climate change effects (European Union, 2016).

The United Kingdom’s National Security Strategy and Strategic Defense and Security Review 2015 notes that in a rapidly changing, globalized world, what happens overseas directly affects internal security to a greater extent (UK Government, 2015).

Japan’s National Security Strategy 2013 identifies the following challenges and threats to the global security environment: a shift in the balance of power and rapid progress of technological innovation; the proliferation of weapons of mass destruction and other related materials; international terrorism; risks to global commons (such as the sea, air and outer space, and cyberspace), related to the violation of international law and conflict of interests, challenges to the global human security and development (poverty, inequality, infectious diseases); risks to global economic development (Office of the Prime Minister of Japan, 2013).

The US National Security Strategy 2017 specifies that the world has become an extraordinarily dangerous place filled with a wide range of threats, including the proliferation of nuclear weapons, greater political, economic, and military rivalry between powers across the world, information campaigns to discredit democracy, radical terror groups, drug trafficking, and international crime, (President of the United States of America, 2017).

Analysis of the status of security environment and its development tendencies underpins the preparation of strategic documents in Ukraine. The National Institute for Strategic Studies [NISS] makes an important contribution in this effort by preparing annual analytical reports and other analytical documents for the leadership of the state. Thus, the analytical report of the

National Institute for Strategic Studies to the Annual Address of Ukraine's President to Verkhovna Rada of Ukraine "On internal and external situation in 2020" notes that the world has entered into the times of dynamic changes, the result and behavior of which are hard to predict. Uncertainty and instability are the defining characteristics of today (NISS, 2020).

The National Security Strategy of Ukraine 2020 identifies the current and projected threats to national security and national interests of Ukraine with consideration of geopolitical and domestic circumstances. Among the threats related to global processes the focus is on the following: climate change effects and increasing human-led pressure on the environment; inequality and other fundamental disequilibria of global development; the growing international competition; implications of rapid technological shift; expansion of international terrorism and international crime; intensifying challenges to transatlantic and European unity that may lead to the escalation of existing and the emergence of new conflicts. As mentioned in this document, the on-going armed aggression of Russia against Ukraine, as well as Russia's *hybrid warfare* in the world, are the biggest threats to Ukraine (President of Ukraine, 2020b). Therefore, these threats affect the global security environment by aggravating it, and at the same time, they are sources of long-term destructive impacts on the national security of Ukraine.

Studying the specifics of hybrid warfare, including through the example of Russia, Rácz (2015) distinguishes the following its operational phases: preparation, attack, and stabilization. The scientist also notes that during the first phase the adversary usually puts together a "map" of strategic, political, economic, social, and infrastructure weaknesses and vulnerabilities of a victim-nation and creates the required mechanisms for their capitalization for further use. Such a period might last years and decades. Taking as an example Russia's aggression against Ukraine, Rácz (2015) concludes that during the initial phase it was practically impossible to determine whether Russia's actions, including

those taken within the framework of traditional diplomacy, application of soft-power measures, external influence, were preparations to the hybrid warfare until an active phase (attack) began. This scientist believes that the following operational factors were drivers of effective hybrid aggression of Russia against Ukraine: suddenness, non-recognition of intervention at an official level, and occupiers' disguise as civilians. In addition, this was fostered by the lasting shared history of the two nations, close economic relations, as well as connectivity of political, business, and security sector elites (Rácz, 2015).

The above analysis of official documents and expert opinions regarding the current trends of global security environment development underscores *the difficulty of threat identification and risk assessment nowadays* (Reznikova, 2019b). Thus, the distribution of deceitful information to unroll destructive processes in society may be interpreted by the aggressor as freedom of speech and diversity of opinions. Organization of international conferences or other public discussion forums, where a new historical retrospective of the victim nation is “scientifically justified,” and certain political events are explained to the benefit of the aggressor, may look like the “enhancement of scientific and cultural cooperation” between states. The attempts to have a direct influence on public opinion by spreading the aggressor's propaganda and justifying it are represented under the slogan of the freedom of media. The quite legal mechanisms, which rely upon traditional values, are used for this kind of activity. The “green men,” who initially appeared in the Crimea and later in Donbas, were the subject of discussion in most countries across the world about whether or not this posed a threat to national and regional security and the way it should be responded to.

In the environment of hybrid warfare it is not only difficult to identify certain events or tendencies as a threat but also, to see a general picture behind them that may indicate that the adversary is preparing for more massive actions and is shifting to an active phase. Hybrid warfare involves a set of simultaneous

massive and coordinated measures across various areas, including possible development of cascading effects. In today's world, economic, political, social, and other processes have strong inter-influence. That is why merely military methods often play a secondary role in hybrid warfare, while an aggressor uses destructive influences on economy, energy, information sectors, and society of a victim nation and other non-military tools as weapons. Initial identification of indicators of hybrid warfare requires certain time and coordination of effort between various state authorities.

The hybrid aggression of Russia against Ukraine highlighted the European security crisis. At the same time, as is noted by OSCE (2015), there is neither a shared idea, nor a general analysis of the situation regarding its causes and mistakes that were made in the course of its development, and the views from Moscow, the West and states in-between differ considerably (OSCE, 2015). This proves the conclusion that there is a conflict of interests in the international arena and there is intensifying rivalry between states.

Ukraine has experienced to the full extent the on-going global changes. The hybrid warfare, launched by Russia in 2014, has radically changed Ukraine's security environment. The Russian aggression has practically affected all spheres of activities. This said, the flaws in domestic and foreign policy, ineffective institutions and mechanisms guaranteeing international security have had their effects resulting in the emergence of certain vulnerabilities of the Ukrainian state.

At the start of Russia's hybrid aggression against Ukraine in 2014, the national security system was apparently not prepared to respond to the emerging challenges and threats for various reasons, the senior leadership of the state left the country, security and defense agencies were not sufficiently effective, and the resources were catastrophically lacking (Horbulin, 2017). However, the civil society stood up to defend the national interests of the state, undertaking provisionally the important functions in the area of national security. The

mechanisms of spontaneous self-organization entailing huge resilience potential of the state and society as complex systems were implemented in this manner. However, the adaptive governance mechanisms were underdeveloped at the time. In this regard, the role of civil society in nation-building processes has been downgrading in recent years, thus having a negative impact on the national resilience development.

While building up the joint effort format of countering the current security threats, including the hybrid ones, and reinforcing its own resilience, NATO focuses on the enhancement of cooperation with partner nations. In this regard, as a result of the NATO Summit in Wales in 2014, a decision was taken to provide assistance to Ukraine to support appropriately national security in the face of Russia's aggression (NATO, 2014). Thus, the NATO-Ukraine Commission meeting during the Summit meeting of NATO Heads of State and Government (held on 4 September 2014 in Newport, the United Kingdom) resulted in the NATO Trust Funds establishment to support Ukraine, including in the following areas:

- modernizing command control, communications and computers structures and capabilities;
- reform of logistics and standardization systems of Armed Forces of Ukraine;
- enhancement of Ukraine's cybersecurity capabilities;
- countering improvised explosive devices, explosive ordnance disposal and demining, (President of Ukraine, 2015d).

The decision to establish the NATO-Ukraine Platform for identifying lessons learned from the hybrid war in Ukraine, taken at the NATO Summit in Warsaw (9 July 2016, Poland), became recognition of Ukraine's unique experience of responding to the hybrid aggression of Russia. This was one of forty areas of Ukraine – NATO cooperation within the framework of the

Comprehensive Assistance Package for Ukraine, approved by the NATO Summit in Warsaw (NATO, 2016c).

The leadership of Russia has changed its rhetoric concerning Ukraine. Thus, in the recent national security strategy of this state that was approved on 2 July 2021 (President of the Russian Federation, 2021), Ukraine is mentioned just once, in contrast to the previous version, in the context of a strategic goal of the Russian Federation of “strengthening the fraternal ties between the Russian, Belorussian, and Ukrainian people,” rather than a neighboring state. Considering Russia’s apparent aspiration to take the leading role within the “new architecture of world order with new principles and rules,” which is repeatedly mentioned in this document, one should not count on the cessation of hybrid aggression against Ukraine. Rather, we should expect some changes in the methods of its conduct.

The subject document also emphasizes that nowadays the world goes through transformations, with the number of economic and political development centers going up, and new global and regional leader nations emerging. All of this comes amid the escalating instability in the world, geopolitical tensions, and conflict intensity.

In view of the long-term nature of the Russian threat and global security uncertainty, the *strengthening of national resilience as a strategic goal fully corresponds to the national interests of Ukraine*.

However, Ukraine’s security environment is not just shaped by external threats and global trends. There are also a number of vulnerabilities in the state and society due to certain gaps in the organizational and legal support of processes that are going on in security area, as well as other factors.

For instance, Ukraine’s National Security Strategy 2020 identifies threats from the Russian occupational administrations and armed forces of the Russian Federation across temporarily occupied territories in the Autonomous Republic of Crimea and the City of Sevastopol, and some areas of Donetsk and Luhansk

regions of Ukraine, intelligence and sabotage operations of special services of other countries (primarily Russia) and destructive propaganda and disinformation. The following sources of threats to Ukraine's independence, sovereignty, and democracy have been specified, such as insufficient effectiveness of state authorities, thus challenging the development and implementation of effective state policy; low pace of rearmament of Ukraine's Armed forces and other forces of national security and defense sector on the advanced (upgraded) systems; inconsistent and uncompleted reforms, corruption; insufficient property right protection, extremely high proportion of the state's presence in the economy; insufficient level of competition and domination of monopolies, low energy efficiency; low level well-being of the population, radical moods in communities, rising crime rate; deterioration of critical infrastructure and the living environment; demographic challenges (President of Ukraine, 2020b).

It should also be noted that the character of some traditional threats is also changing. For instance, terrorist threat currently reshapes at both global and national levels and can be used as an element of hybrid warfare. It may affect regular functioning of the state and society. In general, armed violence and terrorism have a destructive impact on the development of any nation, hindering its economic growth and destabilizing society (Reznikova, 2017).

In addition, the character of separatist threat changes in current conditions. In Ukraine, for instance, indications of hybrid separatist conflict in Donbas, the underlying cause of which is political separatism, as inspired and actively supported by Russia, can be observed (Reznikova & Driomov, 2016). Thus, as we can see, the issues of internal and external security intersect more frequently.

Therefore, *the current security environment in Ukraine is characterized by a high level of uncertainty, considerable influence of global processes and trends, existence of a number of pending problems faced by public administration and national security system.*

The biggest *external threats* to Ukraine's national security include the ongoing long-term hybrid aggression of Russia, increasing rivalry between states, and proliferation of weapons of mass destruction. The implications of these threats can be very dangerous: from the spread of disinformation, damage to critical infrastructure and essential services to population, to massive human and material losses, violation of the national sovereignty and territorial integrity of Ukraine.

Significant risks of the deployment of emergency and crises in Ukraine can be triggered by climate change effects and accelerated development of novel and cutting-edge technologies, potential spread of epidemics in humans and dangerous diseases in animals, contamination of environment, including water supply sources. Yet certain risks can evolve into threats to the national security of Ukraine or trigger new development opportunities. This primarily concerns the science and technology development potentialities.

The above risks and threats have a dynamic and long-lasting character, and they can cause major negative consequences for society and the state, and, aside from that, they cannot be eliminated fully.

In Ukraine, the *factors of influence and vulnerabilities that might aggravate security situation and affect the response to threats*, also include a number of important reforms that have not been completed (including in the sphere of national security and anti-corruption); a lack of resources (primarily financial) and their ineffective usage; a difficult demographic and social situation; a lack of competence of state and local government representatives; low public awareness regarding the existing and potential threats and hazards; a lack of public trust in state authorities.

Yet, there are a number of *factors strengthening the potential of national resilience* in Ukraine. These primarily include developed legislation and institutions in the sphere of public administration and national security, the specifics of national mentality, such as aspirations for freedom and justice, high

general level of educated population, the availability and accessibility of media and other sources of information.

In view of the character of key risks and threats to national security of Ukraine and concerning the specifics of national resilience concept implementation in the sphere of national security, as identified in Chapters 1 and 2 of this monograph, it may be concluded that *in a changing security environment, the introduction of systemic national resilience ensuring mechanism meets Ukraine's need to establish additional opportunities for ensuring national security in the context of comprehensive response to risks and threats of any nature or origin based on overarching cooperation*. The focused handling of identified problems, and vulnerabilities, reinforcement of existing advantages and buildup of national resilience mechanisms require an appropriate public policy formulation and implementation, including definition of goals and objectives in the subject domain.

4.2. Current Status of Providing Resilience in the Sphere of Ukraine's National Security

The very fact that Ukraine keeps existing and functioning as an independent state in the challenging environment, including armed aggression and crises of various origins, is evidence of a considerable resilience potential embedded both, in existing state institutions and mechanisms, and in society. However, there are a number of existing problems hindering the development of this potential. The key challenge in the sphere of ensuring national resilience is that relevant measures are fragmentary and non-systemic in their nature, and therefore, less effective. The absence of generally accepted terminology and conceptual distinctness with regard to ensuring national resilience, as well as imperfection of appropriate legislation, and a lack of well-tuned cooperation in this area – all of these altogether significantly impede the strengthening of national resilience and defy the key principles of its ensuring (comprehensive

approach, broad cooperation, adaptability, predictability, reliability, awareness, preparedness, mobility, redundancy, continuance, and subsidiarity).

In addition, national resilience ensuring in Ukraine on a systemic basis is hindered by low level theoretical elaboration on the relevant issue. Presently there are too few researches concerning methodology for this process, its mechanisms, links to national security. In turn, this leads to inconsistent understanding of the concept of resilience in the sphere of national security, and difficulties with drafting new legislation.

Analysis of the general status of ensuring resilience in the sphere of national security of Ukraine should be completed in the context of national resilience ensuring cycle following the key phases, as proposed in Chapter 1 of this monograph. The main benefits and gaps of the relevant processes in Ukraine are described below, according to the subject approach.

Assessment of risks and capabilities and identification of threats and vulnerabilities.

In general, measures in the relevant areas are implemented by various ministries, agencies, and scientific institutions. Thus, according to the Law of Ukraine “On National Security of Ukraine,” the National Security Strategy of Ukraine is duly prepared, where the current and projected threats to Ukraine’s national security and national interests of Ukraine are described with reference to geopolitical and domestic conditions, and a comprehensive security and defense sector review is carried out (Law of Ukraine, 2018). While developing strategies in the areas of national security due to the subject Law and the National Security Strategy of Ukraine, the ministries and agencies shall carry out strategic analysis in their areas of responsibility and identify the specific risks and threats.

In addition, according to par. 68, National Security Strategy of Ukraine 2020, the National Institute for Strategic Studies prepares annual reports on the state of national security of Ukraine, based on the Strategy implementation

progress analysis (President of Ukraine, 2020b). The analytical report of the NISS to the Annual Address of the President of Ukraine on internal and external situation of Ukraine to the Verkhovna Rada of Ukraine 2020² provides a detailed description of the current status of society and the state, including in the spheres of foreign policy, social relations. Analysis of these and other documents facilitates the identification of key vulnerabilities in society and the state.

At the same time, Ukraine faces essential problems of methodological and organizational character in the sphere of risks and capabilities assessment and identification of threats and vulnerabilities, and it also lacks an integrated theoretical and methodological framework to assess risks for national security and evaluate appropriate capabilities to prepare, adopt and implement strategic decisions; there is no public authority responsible for coordination in this sphere; there are gaps in information sharing in support of state decision-making processes.

Strategic analysis, prioritization in the area of ensuring national resilience, planning of measures to respond to the broad spectrum of threats, crises, and recovery thereafter. Specific national resilience ensuring objectives have only appeared in strategic documents and policies in recent years. No goals or objectives had been set by the state before. Presently no national resilience assessment indicators exist, and no guidelines regarding the definition of benchmarks, criteria, and mechanisms in this appropriate area have been developed, thus hindering objective identification of national resilience ensuring priorities based on strategic analysis results. There is no systemic approach to the formulation and implementation of national resilience ensuring measures, which affects resource efficiency.

² National Institute of Strategic Studies [NISS]. *Analytical report to the Annual Address of the President of Ukraine*. Retrieved from <https://niss.gov.ua/publikacii/poslannya-prezidenta-ukraini>.

Uncertainty of the institutional model of ensuring national resilience in Ukraine and unresolved issues regarding the distribution of powers create numerous problems in the organization of relevant activities.

The formation of action plans to respond to threats and emergencies identified by law is carried out by various ministries and agencies in the prescribed manner. However, there is a range of problems in the area of joint efforts planning and setting out universal protocols of concerted actions, distribution of responsibility, and coordination of appropriate activities.

Another problem is that not all strategic planning documents accommodate the development alternatives, which reduces the level of adaptability of society and the state.

Ensuring preparedness and response to threats and emergencies identified by law is in the manner prescribed by relevant regulations. The main problems reducing the effectiveness of appropriate measures are as follows:

- lack of cooperation and coordination between various ministries and agencies;
- technical, moral, engineering, and material obsolescence of alternate control centers of public authorities;
- ineffective generation of necessary reserves by the state, including material and personnel;
- insufficient level of preparedness for joint response and collaboration between the state and local authorities and the population in case of threats or crises;
- low effectiveness of reforms in the country, corruption, ineffectiveness of a number of public services;
- inadequate level of public and community awareness regarding the nature of threats and response to crises;

- lack of bilateral channels of communication and poor communication between the state and local authorities and the public;
- low level public-private partnership in security area;
- inadequate level of population and public associations' involvement in the implementation of national security and resilience ensuring measures;
- low level of public trust in state authorities;
- lack of the government's focus on building national cohesion and culture of safety;
- insufficient effectiveness of governance in local communities.

A vivid example of the lack of preparedness to respond to threats was the poor technical condition of shelters and early warning alarm systems when Russia's aggression against Ukraine began in 2014.

The improper mechanisms of organization and coordination of actions in the sphere of crisis management at national, regional, and local levels pose considerable risks to ensuring the vital functions of the state and society under uncertainty and rapidly changing security environment.

The ability to prompt mobilization of efforts and assets during a crisis is still insufficient in Ukraine. This is primarily due to the inertia of the bureaucracy and the need for additional time to stage anti-crisis activities, especially in cases where the procedure was not determined in advance, which was confirmed in response to the spread of COVID-19 and the Russian occupation of Crimea. Information needed for decision-making is not always effectively shared between authorized bodies in crises.

Another problem in present-day Ukraine is an insufficient level of self-governance in society and the lack of self-regulated organizations capable of performing specific functions of public administration in crises in case of disorganization or failure of certain public administration elements (Reznikova, 2013b). For a long time, self-regulating organizations were predominantly

represented in the financial market, i.e. stock market traders' associations, bank associations, associations of insurers. Yet, the role of trade unions in the employment market and social security regulation is still insufficient. Despite the boost in civil society development and the establishment of non-governmental organizations in Ukraine in 2014, when the mechanisms of spontaneous self-organization of society came into action in response to Russia's aggression, no effective mechanisms of directed self-organization have been created in Ukraine yet.

The process of post-crisis recovery of Ukraine and its regions tends to be complex, resource-consuming, and lasting. Thus, at the beginning of Russia's aggression against Ukraine in 2014, there were significant difficulties with accommodation and social support of internally displaced persons (IDP's) from temporarily occupied territories of AR Crimea and parts of Donetsk and Luhansk regions, and no solutions were provided for quite a long time (Kaplan, 2016). Floods in Transcarpathia, which occur almost every year, take lives and destroy infrastructure for billions of hryvnias, despite the fact that the authorized bodies of state power and local self-governments are implementing anti-flood measures.

Complex protracted recovery processes are observed in Ukraine after economic crises. According to Libanova (2020), the poor population benefited the least from the process of recovery of the national economy and suffered the worst from economic hardships. The scientist believes that a positive effect of economic growth in 1999–2019 allowed for a significant reduction of absolute poverty scale in Ukraine, while relative poverty rates remained practically unchanged because the income stratification could not be stopped. The scientist also states that currently Ukraine is one of the poorest European countries with a rather high level of poverty, and employment in Ukraine does not save the family from poverty (Libanova, 2020).

The above situations point out the existing systemic problems with national resilience ensuring in Ukraine, mostly in the area of ensuring continuous governance and provision of critical functions for the society, economic and social resilience.

Lessons learned. There is an established practice in Ukraine concerning learning and applying the sector-specific experience acquired by ministries and agencies through exercising and training (including international training) and other joint events in the area of national security, including with NATO and other international partners. Thus, joint events involving the Armed Forces of Ukraine are determined in Ukraine-NATO Military Committee Work Plan. The results of each of these are analyzed and considered in the planning of forthcoming events and programs. According to the official statement, eight multi-national exercises were scheduled to take place in Ukraine in 2021, with close to twenty-one thousand Ukrainian troops and about eleven thousand international participants to be involved therein (President of Ukraine, 2021m). In addition, previous experience is also analyzed in scientific and research projects related to Ukraine's security and defense sector development. Research institutions have been established and operate under all agencies of the national security and defense sector of Ukraine. In addition, the Ukraine-NATO Platform for identifying lessons learned from the hybrid war in Ukraine has been established to study best practices relating to countering the hybrid warfare in Ukraine.

The lessons learned from past exercises and international cooperation, as well as past events, are used during preparation of strategic and program documents, such as National Security Strategy, Annual National Program under the auspice of the Ukraine-NATO Commission, as well as other planning documents in the spheres of national security and defense.

Important conclusions to determine the national resilience ensuring ways and mechanisms can also be drawn from research into historical experiences. It

should be noted, that a lot of attention was paid to the issues of civil defense and resilient functioning of the national economy during the wartime in the USSR. Many mechanisms of civil defense and preparedness of the state for emergencies and war-time were developed and implemented. Thus, regarding the resilience of the national economy Resolutions of the Central Committee of the Communist Party of Ukraine and Council of Ministers of the SSR of Ukraine, dated May 22, 1979, No 267-0011, and the Central Committee of the Communist Party of the Soviet Union [CC CPSU] and the Council of Ministers of the USSR, dated March 30, 1979, No 312-109, were approved. Analysis of general requirements for the enhancement of national economy resilience during war-time approved by the subject Resolution of the CC CPSU and the Council of Ministers of the USSR gives reason to state that these requirements imply numerous principles and approaches that are relevant at the present time. This includes a comprehensive approach to the civil defense measures development; promotion of necessary knowledge and skills, including moral and psychological training of the public, exercises, and trainings; ensuring preparedness of civil defense forces, centralized and local alert systems, and protective facilities (shelters); establishment of necessary reserves; guaranteed continuity of life-sustaining processes and functions (including supply of food, drinking water, essential life necessities, healthcare, utility, and other services); establishing and maintaining continuous information provision to the public.

In addition, the subject documents of the Soviet period focused significantly on security issues during planning of settlements, preparing plans for the potential evacuation of strategic economic facilities and temporary displacement of population, plans of sustainable operation of industries during the war-time, plans of rapid national economy recovery and back-up sets of technical documentation. The main areas of continuous governance were determined, including transitioning from centralized to decentralized administration, generation of pools of personnel, cooperation between sectoral,

territorial, and military governance bodies, joint use of control centers, ways of information collection, processing, and sharing. They also envisaged general governance paradigms to be developed for industries as an element of ensuring preparedness for war-time conditions. These approved general requirements and objectives were determined according to different levels of governance: national, local, and sectoral.

After the collapse of the USSR, the young independent nations, including Ukraine, faced many complex issues in the sphere of state building and economic development. With the budget deficit and scarce resources in early 1990-s in Ukraine, a significant part of the mechanisms in the USSR's civil defense system was brought to a standstill.

In general, Ukraine presently lacks a national platform that might be joined, in addition to representatives of public authorities, by representatives from scientific institutions, NGOs, and individual experts to share lessons learned and elaborate on joint solutions in the area of national security and resilience.

The above mentioned summary of systemic problems with national resilience ensuring in Ukraine at legislative, institutional, organizational, and methodological levels will be further analyzed in this monograph in detail. However, based on the above, it can be asserted that existing pending problems at all phases of the national resilience ensuring cycle prove that Ukraine has not met either the resilient criteria of state of the state (reliability, redundancy, adaptability, absorption), or the resilient criteria of functioning of the state (preparedness, efficiency, response, recovery).

Another group of problems asserts that Ukraine has not reached the key resilience criteria related to the state and functioning of society. Thus, despite the outburst of public self-organization and active engagement in response to Russia's aggression against Ukraine, the prevailing notable political absenteeism in society that can be observed in the world according to Joseph (2013), applies

to Ukraine as well. However, unlike in developed democracies, the lack of trust in the government and political institutions and disappointment of the public, as well as the low level of political culture in the society, should be referred to as the root causes of this phenomenon in Ukraine.

According to the nationwide poll conducted by the Ilko Kucheriv Democratic Initiatives Foundation [DIF] jointly with the Razumkov Center sociological service on December 15-19, 2017, only 7 % of respondents note that they engage in public activity, while 87% say they take no part in public activity; over 85 % of respondents have no membership in any public associations; and only about 12 % of respondents engaged in volunteer activities in 2017. In general, according to experts, in 2017 the level of citizen engagement in charity activities was much higher than before the Revolution of Dignity 2014 (DIF, 2018).

According to another nationwide survey, conducted by the Pact organization within the framework of the “Enhance Non-Governmental Actors and Grassroots Engagement” [ENGAGE] activity and funded by the US Agency for International Development [USAID], only 7 % of Ukrainians were actively engaged in their community life, while the other 22 % only occasionally took part in meetings and other events. However, 4 % of citizens actively engaged in civic society organizations, and the other 15 % said they rarely engaged in such activities. The highest level of engagement was observed in residential building, street or neighborhood committees (10%), and involvement in peaceful assemblies (8%) (USAID/ENGAGE, 2018).

The results of another regular round of all-Ukrainian survey concerning civic engagement conducted by the ENGAGE Program in the winter of 2021, showed a still rather low level of Ukraine’s citizen engagement in active civic work: only 6.8 % of respondents noted their involvement in peaceful assemblies, while 8 % took part in the establishment or work of residential building, street or neighborhood committees. Another 8.1 % reported on infrastructure issues in

person, on the phone, or online. Only 4 % of respondents noted their active engagement in non-governmental organizations' efforts during the past year and 13% stated that they engaged in such events occasionally. Ukrainians were readily involved in their community life, as was noted by one-third (33%) of respondents. Only 7.4 % of respondents attend meetings and other public events of their building, street or neighborhood on a regular basis, while two thirds mentioned they either had no time (33.3 %), or were not interested (31.7 %) in such activities (USAID/ENGAGE, 2021).

The survey regarding opinion concerning the situation in the country, trust in civic institutions and in politicians, and citizen voting inclinations, conducted by the Razumkov Center sociological service in March 2021, demonstrated the following results: among state and civic institutions, the distrust most frequently applies to the government apparatus (functionaries) (80 %), courts (judicial system in general) (79 %), the Verkhovna Rada of Ukraine (77.5 %), the Government of Ukraine (76 %), the High Anti-Corruption Court of Ukraine (73 %), political parties (71 %), Prosecutor offices (71 %), commercial banks (70 %), the National Anti-Corruption Bureau of Ukraine [NABU] (70 %), the Supreme Court (69 %), the Constitutional Court of Ukraine (69 %), the Specialized Anti-Corruption Prosecutor Office of Ukraine [SACPO] (68 %), Ukraine's National Agency on Corruption Prevention [NACP] (68 %), local courts (66%), the President of Ukraine (61.5 %), National Bank of Ukraine (60 %). Most frequently expressed is trust in the Armed Forces of Ukraine (70 % of respondents trust them), volunteer civil organizations (65 %), the Church (64 %), State Service for Emergencies (63 %), State Border Guard Service (60 %), National Guard of Ukraine (56 %), respondent's city (town, village) mayor (56 %), volunteer battalions (55 %), the non-governmental organizations (53 %), the respondent's city (town, village) of residence council (51 %) (Razumkov Center, 2021).

A similar survey, conducted by the Razumkov Center sociological service in June 2018 asserted that among state and civic institutions, the most trust was in volunteer civil organizations (trusted by 65.2 % of respondents), the Church (61.1 %), the Armed Forces of Ukraine (57.2 %), volunteer battalions (50 %), the State Service for Emergencies (51.1 %), the State Border Guard Service (50.7 %), the National Guard of Ukraine (48.6 %), non-governmental organizations (43.4 %). At the statistically significant level, the number of respondents having trust in these institutions exceeded those, who had no trust in them. At the same time, 13.8 % of respondents did, and 80.6 % did not trust the President of Ukraine, 13.7 and 80.7%, accordingly, had or had no trust in the Government, 10.3 and 85.6%, accordingly, in the Verkhovna Rada of Ukraine, 14.1 and 76.2%, accordingly, in the National Bank of Ukraine, 10.6 and 75.2%, accordingly, in the Supreme Court. Trust in the government apparatus (functionaries) was expressed by 8.6% of respondents, and distrust by 85.3 % (Razumkov Center, 2018).

The Razumkov Center experts determined the following specifics of Ukrainian citizens' political culture: the types of political culture involving inherent distrust in policy and political institutions and low interest in politics (61%) (Razumkov Center, 2017). In Europe, similar indicators pertain to Latvia, Bulgaria, and Hungary. Only 8% of Ukrainian citizens can be referred to as positively oriented types of political culture. Note that the level of civic culture that is characterized by high interest in politics and trust in political institutions in Ukraine is one of the lowest in Europe (3.9%), and is far behind the rates in developed democracies, such as Denmark (69.2%), Switzerland (54.3%) and the Netherlands (53 %) (Razumkov Center, 2017).

According to Razumkov Center experts, almost half of Ukrainian citizens recognize no political forces, to which power can be entrusted, or political leaders, who could govern effectively. The majority of citizens believe democracy to be the best type of social system for the state. Only one third of

citizens believe their personal involvement is necessary to change the situation in Ukraine for the better. The overwhelming majority of citizens are not involved in active civic processes and have resorted to no forms of communicating their opinions and interests to the state authorities. According to the Razumkov Center expert opinion, political culture in Ukraine can be described as inconsistent, and also, as a combination of aspiration toward personal freedom, demand for leaders that would be accountable to the public, and there is also understanding of the significance of certain institutionalized norms (Razumkov Center, 2017).

It should also be noted, that contemporary Ukraine has no strong traditions of local self-government, although there is a large potential and demand of the population for playing a bigger role in nation building processes. Successful completion of decentralization and public administration reforms is important for building resilience of local communities and regions.

In addition, experts draw attention to an inadequate level of safety culture in Ukraine, both at society level, and the level of organizations and individuals (Hlushak, 2019; Skaletskyi et al., 2012). The lack of appropriate knowledge and behavioral skills regarding action in crises reduces the general level of preparedness of the state and society to respond to threats. In general, the issues of safety culture in Ukraine are known in the context of nuclear energy functionality. However, the notion of a safety culture in society as a specific set of shared values and practices, that can secure the population, enterprises, and organizations, as well as minimize negative effects of threats and crises, is quite common in the world (Center for the Protection of National Infrastructure, 2021; UK National Cyber Security Center, n.d.). A part of such a culture entails active cooperation between the public and law enforcement authorities within the framework of various cooperation programs. As has been noted already, such practices are common in the US, Israel, the UK, and other countries.

In general, the above shows that Ukrainian society has not yet reached the resilience criteria of state (including cohesion and unity, strong ties between

various civic groups, involvement of the population in economic, political, and other civic activity, confidence in the government), or the resilient criteria of functioning (regarding effective community governance, understanding by the population of the nature and character of threats and the procedure to follow in case of their occurrence, preparedness to respond to threats, control over the situation prior to, during, and after the crisis, establishment of joint capabilities to counter threats, crises).

Considering the theoretical conclusions in Chapters 1 and 2 of the monograph regarding the “weaknesses” in ensuring resilience and vulnerabilities, which define the general level of complex systems resilience, it can be assumed that the current level of resilience of the state and society in Ukraine is insufficient.

Thus, systemic national resilience ensuring mechanisms, which should improve adaptability of security policy and management of key functions of the state and society in uncertain and rapidly changing security environment, and root out conditions creating vulnerabilities in the state and society, have not been established in Ukraine up to date. However, there is a vigorous state and society resilience potential that needs to be strengthened and developed.

Based on the above, it can be stated that the *need to create a national resilience ensuring system in Ukraine is fully justified*. In view of limited state resources and existing systems and mechanisms for ensuring national security, public administration, and crisis management, a national resilience ensuring system should be built *taking into account existing linkages through the implementation of resilience principles across various governance areas*. Considering similarities between national security and national resilience ensuring actors and objects, organizationally the relevant system can be established as a sub-system within the national security ensuring system, or as a related to it system. In the future, it would be expedient to think about potential

upgrading and integration of these systems into *a comprehensive national security and resilience ensuring system*.

4.3. Systemic Problems with Providing National Resilience in Ukraine in a Changing and Uncertain Security Environment

4.3.1. The Problems of Setting National Resilience Ensuring Goals and Objectives in Strategic Documents of Ukraine

In the context of determining political vectors, goals, and objectives in the sphere of national security and resilience, it is important to develop, adopt and implement strategic and program documents of the state, in particular the National Security Strategy. Such documents highlight the system of official views on the role and place of the state in the modern world, its national values, interests, and goals, as well as capabilities, tools, and ways to prevent and address external and internal threats. The relevant laws set out principles and rules of organization and functioning of the national resilience ensuring system, and clauses in subject strategic and program documents can specify the directions of its development or reform.

Presently, the main regulatory act, according to which planning in the sphere of national security and defense is carried out, including drafting of appropriate strategic documents, is the Law of Ukraine “On the National Security Strategy of Ukraine” (hereinafter – Law) (Law of Ukraine, 2018).

According to par. 15, Part 1, Article 1 of the Law, planning in the field of national security is a function of public administration to determine priorities, tasks, and measures to ensure the national security of Ukraine, balanced development of components of the security and defense sector based on security situation assessment and taking into account financial and economic capabilities of the state.

The goal of planning in the areas of national security and defense is to ensure the implementation of government policy in these areas through development of strategies, concepts, programs, and plans for security and defense sector components development, resource management, and effective allocation. Planning in the areas of national security and defense shall correspond to the following principles: 1) adherence to the national legislation and international commitments of Ukraine; 2) democratic civil control of the national security and defense sector, free access to information concerning the public policy, strategic documents, goals, priorities, and objectives of planning, transparent and accountable use of resources; 3) holistic, consistent and systemic approaches to planning in national security and defense sector, consideration of priorities and limits, as set forth in the government programs, plans and forecasting documents; 4) timeliness and compliance with decisions concerning protection of national interests of Ukraine – due to the Parts 1 and 2, Article 25 of the Law.

The National Security Strategy of Ukraine is a basis for all other documents with regard to planning in the areas of national security and defense. The implementation of the National Security Strategy of Ukraine is based on the national defense, security, economic and intellectual potential using the mechanisms of public-private partnerships, as well as international counseling, financial and technical assistance (Part Three, Article 26 of the Law).

The Law sets out requirements for the procedure of development, purposefulness, and structure of the National Security Strategy of Ukraine, and subsequent specific strategic planning documents, such as the Military Security Strategy of Ukraine, Cybersecurity Strategy of Ukraine, Civil Security and Civil Protection Strategy of Ukraine, Strategy for the Development of the Defense Industrial Complex of Ukraine, as well as the National Intelligence Program. According to the Law, the National Security Strategy of Ukraine outlines the following:

- 1) the priorities of national interests of Ukraine and ensuring national security, the goals and main areas of public policy in national security;
- 2) the current and projected threats to the national security and national interests of Ukraine with consideration of geopolitical and domestic conditions;
- 3) key areas of geopolitical activities of the state to ensure its national interests and security;
- 4) the directions and objectives of security and defense sector reform and development;
- 5) resources required for implementation of the Strategy.

Before 2018, the legal framework for strategic planning in the sphere of national security of Ukraine was provided by the Law of Ukraine “On the Foundations of the National Security of Ukraine” (Law of Ukraine, 2003b), making the National Security Strategy of Ukraine, Cybersecurity Strategy of Ukraine and Military Doctrine of Ukraine the mandatory documents and the basis for the development of programs in terms of the components of state national security policy. The subject Law did not set out a procedure for the development of such documents, their directions and structure, but in practice, they identified threats to national security, priority areas, and objectives for the security policy of the state. Strategic planning process in the relevant area was regulated by the Law of Ukraine “On the Defense Planning” (Law of Ukraine, 2005).

The first National Security Strategy of Ukraine was adopted in 2007 (President of Ukraine, 2007). The document outlined a rather broad spectrum of threats to national security, many of which remain relevant to date. These concerns, in particular, the failure of the national security sector of Ukraine to meet the needs of society, insufficient national cohesion and consolidation in society, negative external influences on the information environment, terrorism. Meanwhile, the objectives of state policy in national security were defined

largely declaratively, which did not contribute to the achievement of certain goals to overcome or minimize the effects of threats.

The President of Ukraine approved the subsequent National Security Strategy in 2012 (President of Ukraine, 2012). It reflected the changes that had taken place in Ukraine's security environment at the time and set out important objectives in the sphere of protection of interests of an individual, society, and the state. Thus, it set forth the requirement to implement judicial and administrative reform; counter corruption; reform security and defense sector as an integral system, strengthen its functional capability; improve public spending effectiveness; ensure effective control of monopolies; diversify energy sources, improve their effectiveness; address disproportion in social and humanitarian spheres; creating safe living conditions for the population, and other important measures. However, no significant progress in the implementation of this Strategy was made, as the objectives outlined in this document remained unaccomplished for the most part.

Although the overwhelming majority of threats and priorities of national security policy were applicable as of 2014, the situation inside and around Ukraine has changed radically as Russia's large-scale aggression against Ukraine began. The response had to be immediate to protect the national sovereignty and territorial integrity and save the lives of Ukrainian citizens. Since Ukraine has not been and is not currently a member of international military or political alliances, it had to rely solely on its own capacity, and this required a corresponding redistribution of state resources and a review of priorities in the field of national security and defense.

In view of major changes in the security environment, the issue on the agenda was an update of the National Security Strategy of Ukraine. In addition, according to the Strategy 2012, Ukraine had to adhere to a non-block status, and Russia was defined as a strategic partner, which in 2014 corresponded to neither reality nor its national interests.

In 2015, a new version of the National Security Strategy of Ukraine was approved by the President of Ukraine (2015b). This document clearly stated that the greatest threat to Ukraine at the moment was the aggressive actions of Russia, which are carried out to deplete the Ukrainian economy and undermine socio-political stability in order to destroy the Ukrainian state and seize its territory. The key areas of the state policy in the national security of Ukraine were identified as restoration of territorial integrity of Ukraine; establishment of effective security and defense sector; enhancement of defense capacity of the state; reform and development of intelligence, counter-intelligence, and law-enforcement agencies; public administration system reform; ensuring new quality of anti-corruption policy; providing integration with the EU and special partnership with NATO. In addition, a range of essential measures was identified in key areas of national security: foreign policy, economic, energy, information, cyber, environmental, and critical infrastructure protection.

The 2015 National Security Strategy sets out rather clear objectives of public policy in national security versus previous versions of this document. In addition, those objectives correspond to other national policies, such as Coalition Agreement and Sustainable Development Strategy “Ukraine – 2020.” However, none of these three documents was fully implemented.

Specifically, no tangible progress was made with the following objectives of the National Security Strategy of Ukraine 2015 implementation: effective coordination and operation of integrated system of situational centers at authorized agencies and within the security and defense sector; improvement of democratic civil control over security and defense sector, strengthening of parliamentary control in this sphere; development of military patriotic education system, introduction of military training and civil protection curricula at secondary education, vocational/technical schools, and higher education; reform of the Security Service of Ukraine; cleaning state power of corrupt and incompetent personnel, politically motivated decision-making, preventing the

predominance of personal, corporate, regional interests over national ones; public service system reform; overcoming poverty and excessive property stratification in society; ensure deoligarchization and demonopolization of economy, protection of economic competition, taxation simplification and optimization; effective application of special economic and other restrictive measures (sanctions) mechanism; enhancement of national economy resilience against negative external influences, diversification of external markets, trade and financial routes; comprehensive improvement of legal framework on critical infrastructure protection, establishment of a system of its security public management; establishment of effective environment monitoring system; ensuring resource conservation and sustainable use of nature.

The Sustainable Development Strategy “Ukraine-2020,” approved by the President of Ukraine (2015c), set out the implementation of 62 reforms and programs to implement European standards of living in Ukraine and gaining by Ukraine of leading positions in the world. However, only few determined objectives were accomplished (Annex 1).

Thus, former versions of the National Security Strategy of Ukraine, approved in 2007, 2012, and 2015, included description of relevant at the time external and internal threats and global security environment development trends, and state policy priorities in national security. However, the level of fulfillment of these documents remained rather low, while some objectives (specifically concerning fight against corruption, reform of the security and defense sector and public administration system) were repeated practically in each of them.

In addition to lack of political will for changes, the lack of clear plans for Strategy implementation across different national security areas (except defense area and later the cybersecurity area) contributed to the situation significantly. Control of strategic documents fulfillment was a formality, no reporting

procedures or outcomes evaluation indicators or criteria were established, or their adherence to the goals analyzed.

The Law of Ukraine “On National Security of Ukraine” (Law of Ukraine, 2018), adopted in 2018, created a legal framework for building a new quality national security ensuring system to meet the up-to-date requirements. Skilled Ukrainian and international experts, government and civil society representatives were involved in drafting of the subject law. It is important that NATO and EU principles and standards in ensuring national security were considered in the draft law.

This basic law determines the legal framework of the relevant sphere of social relations, and its provisions were detailed and refined in other laws and by-laws. Even though the “national resilience” definition is not mentioned in the Law, it allows for the incorporation of appropriate principles into new versions of the National Security Strategy of Ukraine.

The current National Security Strategy of Ukraine “Security of an individual – security of the country” (hereinafter – the Strategy) was developed taking into account the up-to-date tendencies in the development of guidelines for strategic planning and management in the field of security, and also, lessons learned by Ukraine from countering hybrid aggression. In this document versus the previous versions, a much bigger focus is placed on human rights and interests protection (President of Ukraine, 2020b).

The key principles underpinning the Strategy include deterrence, resilience and cooperation. The appropriate definitions are provided in paragraph 4 of the document:

deterrence is the development of defense and security capabilities to prevent armed aggression against Ukraine;

resilience is the ability of society and the state to adapt rapidly to the changing security environment and maintain sustainable functioning, including by minimizing external and internal vulnerabilities;

cooperation is the development of strategic relations with key foreign partners, primarily with the European Union and NATO and their Member Nations, the United States of America, and pragmatic cooperation with other states and international organizations based on the national interests of Ukraine (President of Ukraine, 2020b).

In the former versions of the National Security Strategy of Ukraine, resilience was mentioned only once in the 2015 document with regard to improving the national economy resilience against negative external impacts. This notion was previously used in legal documents of Ukraine primarily in economic spheres (within the context of resilient economic development, resilience of banks, banking system, and insurers), medicine, and biosecurity.

Par. 47 of the current Strategy for the first time ever sets out the necessity to build up a national resilience ensuring system and the requirements thereto. However, the insufficient and inconsistent regulations with regard to ensuring national resilience, including the lack of legislative definition of the term “national resilience,” the organizational model, principles, and mechanisms, powers, tasks, and responsibilities of state and local authorities, enterprises and organizations, and civil society actors’ rights and obligations – all of these implied the risks of failing the Strategy objective and required definition of the *conceptual framework of national resilience ensuring in Ukraine*.

These problems were partially addressed by the National Security and Defense Council of Ukraine’s Decision, enacted by the President of Ukraine (2021g), which approved the Concept of Support of the National Resilience System. At the same time, the efforts concerning Ukrainian legislation improvement to accomplish the tasks, as set out in the subject Concept, and to address other problem areas in the sphere of ensuring national resilience, continue.

Currently, a number of Ukrainian ministries and agencies implement specific sectoral measures to enhance resilience in their areas of responsibility.

Thus, the National Police of Ukraine has implemented a situational management model, while police divisions and units plan security measures based on the single “threat model” document, which is developed for each police body taking into account local conditions; the Approximate action algorithm has been developed; operational plans are developed to improve resilience of police bodies under special conditions. The State Emergency Service of Ukraine has improved the processes of fire, man-made emergency, and natural disaster risk management, their monitoring and forecasting, and information sharing with other states has been streamlined. To promote the necessary knowledge and skills, the Ministry of Interior of Ukraine jointly with the State Emergency Service, National Police of Ukraine, State Border Guard Administration of Ukraine, and National Guard of Ukraine elaborated on the Draft Concept of the national educational system in the sphere of critical infrastructure protection. The National Police of Ukraine has improved the response system, including the “102” integrated contact centers receiving information concerning emergencies, and a dispatch operator service providing centralized control of police patrols at region level; a new mobile application operating all over Ukraine has been implemented. To raise public awareness concerning emergency management, location of shelters and healthcare facilities, the State Emergency Service established a provisional approach to informing the public via existing network of the “101” dispatch services and counseling centers at territorial branches of the Service, and the mobile application testing is going on.

However, it does not seem possible to evaluate the effectiveness of scattered sectoral resilience strengthening measures due to the lack of uniform conceptual approaches and appropriate criteria.

In Quarter IV, 2020, Ukraine launched a major process of strategic planning documents development in the spheres of national security based on provisions of the National Security Strategy of Ukraine (Reznikova, 2020e). These concern the Human Development Strategy, Military Security Strategy of

Ukraine, Civil Security and Civil Protection Strategy of Ukraine, Strategy for the Development of the Defense Industrial Complex of Ukraine, Economic Security Strategy, Energy Security Strategy, Environmental Security and Adaptation to Climate Change Strategy, Biosafety and Biosecurity Strategy, Information Security Strategy, Cybersecurity Strategy, Foreign Policy Strategy of Ukraine, Strategy for Security of the State, Integrated Border Management Strategy, Food Security Strategy, and National Intelligence Strategy.

Sectoral security strategies are level two planning documents. They are integrated decision systems focusing on the achievement of clearly outlined socially significant goals and outcomes in the future (for the period of five plus years). They should take into account, but not be limited to, the current and projected threats, trends in security environment, and national interest priorities, as set out in the National Security Strategy (level one document). Sectoral strategies are detailed in action plans for their implementation.

However, at the time of strategic planning documents development in the areas of national security, the conceptual framework of national security and resilience ensuring system in Ukraine was incoherent, thus allowing for no clear formulation of appropriate integrated objectives in the sectoral security strategies. No coherence has been observed between the government documents setting out objectives in the sphere of ensuring national resilience and sustainable development in Ukraine (Reznikova, 2019a). Strategic planning process in the field of national security is made more difficult by the lack of consolidated requirements to methodology for preparation of certain documents and organization of the process, including inter-agency cooperation.

The organization and maintenance of document preparation in the areas of national security have uncovered a range of problems of methodological and organizational nature. Thus, some ministries and agencies, as developers of planning documents, paid inadequate attention to analysis of security situation in relevant areas, risk assessment and projections, identification of threats and

detection of vulnerabilities. The focus of some state authorities on addressing current problems is not helpful in creating a vision for the future.

Inefficient control of accomplishment of objectives, as set out in the National Security Strategy, increases the risk of failing to implement this document in full. Thus, of fifteen documents regarding planning in the areas of national security and defense, which should have been developed and approved within six months (before 14 March 2021) due to the National Security of Ukraine Strategy 2020,³ only the 2021–2025 National Intelligence Program was approved and the Strategy for Integrated Border Management until 2025 was amended on time, and only six documents were approved before September 1, 2021: Military Security Strategy of Ukraine, Human Development Strategy, Economic Security Strategy until 2025, Strategy for the Development of the Defense Industrial Complex of Ukraine, Cybersecurity Strategy of Ukraine, and Foreign Policy Strategy of Ukraine⁴ (Cabinet of Ministers of Ukraine, 2019b; President of Ukraine, 2020b, 2021b, 2021c, 2021d, 2021f, 2021i, 2021j).

The issue of full and effective implementation of the National Security Strategy of Ukraine is still relevant. To achieve the ambitious goals, as set out in the current document, so that the appropriate objectives do not remain yet another declaration.

Based on the results of the analysis, it can be concluded that organizational, institutional, and legal ambiguity considerably hurdles the processes of building national resilience in Ukraine. In addition, inadequate Ukrainian legislation in the sphere of strategic planning contains the risks of inconsistency and failure to fulfill the relevant documents to the full extent in the context of implementing measures on strengthening national resilience.

³ According to President of Ukraine (2020b).

⁴ As of 31 December 2021, in total 12 of 15 documents regarding planning in the areas of national security and defense that were required to be developed by the National Security Strategy of Ukraine, were duly approved.

4.3.2. Terminological Inconsistency in the Sphere of National Resilience in Ukraine

A number of strategic and program documents of the state (including the National Security Strategy of Ukraine 2020, the Annual National Program under the auspices of the Ukraine-NATO Commission for 2020 (hereinafter – ANP-2020), the Annual National Program under the auspice of Ukraine-NATO Commission for 2021 (hereinafter – ANP-2021), the State Regional Development Strategy during 2021–2027) set out national resilience system building priorities (President of Ukraine, 2020a, 2020b, 2021a; Cabinet of Ministers of Ukraine, 2020a). However, considering the lack of legislation in the field of national resilience in Ukraine, there is a range of problems concerning the use of key terms in the relevant sphere, which complicates the accomplishment of objectives that have been set.

The key definitions in the field of national resilience were provided only recently in the Concept of Support of the National Resilience System, approved the by President of Ukraine (2021g). However, changes to the legislation in order to streamline the use of terminology in the relevant field have not yet been introduced.

Systemic analysis of Ukraine’s legislation, including the laws of Ukraine “On National Security of Ukraine,” “On Defense of Ukraine,” “On Armed Forces of Ukraine,” “On Combating Terrorism,” “On Security Service of Ukraine,” and also National Security Strategy of Ukraine 2020, ANP-2020, ANP-2021, State Regional Development Strategy 2021–2027, allowed for several conclusions to be made (Reznikova & Voytovskyi, 2021).

Firstly, prior to the adoption of the Concept of Support of the National Resilience System, the Ukrainian legislation included no commonly used language in the sphere of national security definitions, such as of “national resilience,” “national resilience system,” “capability,” “preparedness,” or

“vulnerability,” thus causing inconsistencies in the setting and accomplishment of appropriate objectives.

Secondly, a number of regulatory acts of Ukraine mention or provide certain definitions associated with resilience, though specific in nature as they refer to different areas (branches), thus requiring detailing on their specific applicability.

In particular, the terms relating to resilience in specific areas are used in the following legislative and regulatory acts of Ukraine: Concepts of establishing critical infrastructure protection systems (Cabinet of Ministers of Ukraine, 2017a) (“critical infrastructure resilience,” “resilience of communities”); Decree of the President of Ukraine “On the Sustained Development Goals of Ukraine until 2030” (President of Ukraine, 2019e) (“ecological resilience of towns”); ANP-2020 (“financial resilience,” “social resilience,” “resilience of infrastructure,” “interference resilience,” “resilient network,” “resilient community,” “resilient communications,” “resilient management”); ANP-2021 (“social resilience,” “financial resilience,” “national resilience system,” “critical infrastructure resilience”); State Regional Development Strategy 2021–2027 (“resilience to disasters,” “resilient growth of standards of living,” “resilience to water temperature changes”).

Thirdly, a systems approach to building national resilience has been used only in a few regulatory acts of Ukraine, such as the National Security Strategy of Ukraine 2020, ANP-2020, and ANP-2021.

It should be noted, that the word combination “national resilience system” is used in this and other regulatory acts of Ukraine in the meaning of “national resilience ensuring system,” which is an organizational and regulatory mechanism streamlining activities of the system’s actors in line with the specified model and national interests.

Fourthly, in several regulatory acts of Ukraine such terms as “survivability” and “reliability” are present; their meanings are close to the term

“resilience.” They usually define certain features of technical systems and their ability to stand up to specific threats.

For instance, the notion of “survivability” is used in the Legislation of Ukraine (2003, 2004, 2017b, 2018a). In the laws of Ukraine “On Defense of Ukraine,” “On Combating Terrorism” (Law of Ukraine, 1992, 2003a), the National Security Strategy of Ukraine 2020, ANP-2020, ANP-2021, this term is used in other word combinations along with the term “reliability.”

Fifthly, in various regulatory documents of Ukraine the non-systemic use of other terms associated with national resilience, including such definitions as “capabilities,” “vulnerabilities,” and “preparedness” can be observed.

Specific definitions of “capability” that are used in certain areas may appear, for instance, in the documents by the Cabinet of Ministers of Ukraine (2018, 2019c), President of Ukraine (2019b), Legislation of Ukraine (2018b). All definitions in those and other documents have certain semantic differences. In addition, in the laws of Ukraine “On National Security of Ukraine,” “On the Armed Forces of Ukraine” (The Law of Ukraine, 1991, 2018), National Security Service of Ukraine 2020, ANP-2020, ANP-2021, State Regional Development 2021–2027, the term “capability” appears in word combinations that have no clear explanation.

Specific definitions of the term “vulnerability” (including in word combinations) appear, for instance, in the documents by the President of Ukraine (2019a), Legislation of Ukraine (2017a, 2020a). These definitions also have semantic differences in line with specifics of a relevant area. In addition, in the National Security Strategy of Ukraine 2020, ANP-2020, and ANP-2021, the term “vulnerability” is used in word combinations with no proper explanation provided.

Specific definitions of “preparedness” term (including word combinations) are provided for example, in the Legislation of Ukraine (2004, 2011, 2015). In addition, the laws of Ukraine “On Defense of Ukraine,” “On

National Security of Ukraine,” “On the Armed Forces of Ukraine,” and also the National Security Strategy of Ukraine 2020, ANP-2020, ANP-2021, and the State Regional Development Strategy during 2021-2027 use the term “preparedness” with no proper explanation provided.

The above mentioned shows that the variety and inconsistency of terms related to ensuring resilience and used in Ukrainian legislation and professional literature do not contribute to a common understanding of the objectives, set by the leadership of the state, and their effective implementation. This raises the issue of harmonizing the terms used in various legal acts with their content, defined in the Concept of Support of the National Resilience System.

4.3.3. Problems in the Sphere of National Resilience Providing Organizational Support

The world experience proves that effective national resilience ensuring systems are rather decentralized, and decisions regarding response are taken at the lowest possible level. At the same time, coordination of efforts, establishment of consistent and clear for all actors rules, standards, and procedures at all phases of the national resilience ensuring cycle are important. This generally takes place at the highest possible levels that each country determines on its own. In the parliamentary democracy this function is usually performed by the government. Many countries introduce universal mechanisms of coordination and cooperation between central and local authorities, which should be approximated to the maximum possible extent both during peacetime and wartime. In addition, one of the key areas in building national resilience is effective cooperation between governmental and non-governmental actors in different areas prior to, during and after the crisis. Thus, appropriate organizational and legal support for such activities in the state is crucial.

An existing distribution of constitutional powers between different branches of power in Ukraine (primarily between the President of Ukraine, the National Security and Defense Council of Ukraine, and the Cabinet of Ministers of Ukraine) is a critical problem in terms of coordination and control in the field of national security and resilience, considering that this complicates the development of consolidated and functional national security and resilience ensuring system managed from a single center. As stated above, the functioning of a few centers at the same level of coordination in parallel increases inconsistencies and the risk of disruption and disequilibrium of the system (Bogdanov, 2003). In addition, the lessons learned from countering the hybrid aggression and the COVID-19 epidemic have revealed gaps in the mechanisms of coordination between various actors in crises, such as central and local authorities, non-governmental institutions, and the public.

According to Ukraine's Constitution, the powers in the sphere of national security and crisis management are distributed between the President of Ukraine, the National Security and Defense Council of Ukraine, and the Cabinet of Ministers of Ukraine (Law of Ukraine, 1996). According to pars. 1, 17, Part 1, Article 106 of the Constitution, the President of Ukraine ensures national security and provides leadership in the spheres of national security and defense of the state. According to the Law of Ukraine "On National Security of Ukraine" (Article 13), the spheres of national security and defense are managed through the realization by the President of Ukraine of the totality of his constitutional powers (Law of Ukraine, 2018).

According to Article 107 of Ukraine's Constitution, the National Security and Defense Council of Ukraine coordinates and controls activities of executive authorities in the sphere of national security and defense (Law of Ukraine, 1996). As such, according to Part 1, Article 14 of the Law of Ukraine "On National Security of Ukraine," the NSDC of Ukraine carries out coordination in the spheres of national security and defense. Thus, Part 2, Article 14 of the Law,

provides that in martial law or emergency, and if crises occur, the NSDC of Ukraine shall coordinate activities of executive authorities and review proposals concerning special economic and other restrictions to be applied. During martial law, according to Part 3, Article 14 of the Law, a high strategic panel can be established to take charge of the military leadership for the state's defense. However, coordination of state authorities' activities was not clearly outlined for the NSDC of Ukraine at the phase of threat prevention and ensuring preparedness or post-crisis recovery of full-fledged functionality (Law of Ukraine, 2018).

According to Article 116, Constitution of Ukraine, the Cabinet of Ministers specifically directs and coordinates the work of ministries and other executive authorities and takes measures to ensure defense capacity and national security of Ukraine, public order, and the fight against crime. Article 6, Code of Civil Protection of Ukraine, sets forth that coordination of activities of executive authorities in the sphere of civil protection has to be provided by the National Security and Defense Council of Ukraine and the Cabinet of Ministers of Ukraine within the scope of their powers. To coordinate activities of central and local authorities, enterprises, institutions, and organizations in the areas of ecological safety with regard to natural and technogenic emergencies, protection of population and territories, prevention and response to emergencies, the inter-agency commissions shall be established at different levels. Thus, the Cabinet of Ministers of Ukraine has to establish a State Commission on Technogenic and Environmental Safety and Emergencies. That said, civil protection is defined as the function of the state related to the protection of population, territories, the environment, and property by preventing emergencies of this kind, eliminating their consequences and assisting victims during peacetime and martial law (Law of Ukraine, 2013a).

Therefore, the role of coordination of activities of different state authorities in the areas of national security and civil protection of the population

is distributed between the Cabinet of Ministers of Ukraine and the NSDC of Ukraine depending on the situation. No potential involvement of non-governmental agents and the population or coordination of such activities has been clearly defined by Ukrainian legislation (Reznikova, 2020a).

By Decree of the President of Ukraine (2019d), the Commission for Euro-Atlantic Integration of Ukraine was established. Also, this document designated the national coordinators for various issues regarding cooperation between Ukraine and NATO, and the NSDC Ukraine Secretary's first deputy or one of the deputies was designated as national coordinator in the sphere of building national resilience. However, such an approach seems to be too narrow, as it standardizes just one aspect of coordination with regard to building national resilience at the level of the state, such as international cooperation. Meanwhile, the main problem issues in the sphere of coordination of such activities remain unregulated.

One telling example is the establishment of the National Cybersecurity Coordination Center as a working body of the NSDC of Ukraine, and its mission included coordination and control of security and defense sector actors responsible for ensuring cybersecurity (President of Ukraine, 2016a). An appropriate regulatory document identified a range of objectives in the sphere of cybersecurity and cyber-resilience of critical infrastructure facilities, including analysis of cybersecurity ensuring entities' preparedness to accomplish their mission of countering cyber threats and implementing preventive measures in combating cybercrime, development of the conceptual framework and proposals regarding improvement of the effectiveness of measures to identify and address the factors that generate potential and actual risks in the sphere of cybersecurity, drafting appropriate programs and plans concerning their prevention and mitigation.

The existing situation significantly slows the implementation of such an important principle of national resilience, as a comprehensive approach to the

response to all types of threats and hazards, and inclusivity and broad cooperation requiring an integrated system to be established to coordinate efforts of various actors at all phases of the evolving crisis or threat.

As was noted, the effective national security policy formulation and implementation are hurdled significantly by the lack of clearly articulated structure, goals, and objectives of the national security ensuring system, and clear procedure of cooperation between its actors during peacetime and during crises (Reznikova et al., 2015). This and a number of other reasons made it obvious in early 2014 that the security and defense sector of Ukraine, being the most crucial element of the national security ensuring system, had not yet been completed and was not prepared to act as a functional assembly governed by an integrated center.

A number of challenging issues in the organization of the national security ensuring system, crisis management, and public administration in Ukraine hinders the implementation of systemic national resilience ensuring mechanisms. In addition to the lack of clearly distributed responsibilities for different aspects of ensuring national security and crisis management between various branches of government, there are other problems, such as:

- the lack of government authorities responsible for coordination of cooperation between governmental and non-governmental entities in terms of ensuring national resilience at the national and other levels, including in the areas of risk assessment and management, and building appropriate capabilities, generation of necessary reserves, risk analysis, and threat identification, maintenance of national threat register:

- a lack of effective whole-of-government cooperation mechanisms and formats (entities) in the area of ensuring resilience at the national, regional and local levels on a permanent basis;

- a lack of appropriate units or shortage of qualified personnel at existing divisions of government authorities, responsible for ensuring national resilience in different areas;
- underdeveloped public-private partnership in the field of ensuring national security and resilience.

Due to the lack of legislation in Ukraine that would define the mission, roles, and responsibilities of state and local authorities, and other actors in the sphere of national resilience, the response to threats and emergencies, their prevention, ensuring preparedness of the state and society, post-emergency recovery efforts are managed within the framework of basic legislation in the areas of national security and civil protection and subject-matter regulatory acts.

Certain types of threats are responded to within the framework of existing national systems, such as the Unified State Civil Protection System (Cabinet of Ministers of Ukraine, 2014); Integrated state system for the prevention, response, and cessation of terrorist attacks and minimization of their effects (National Counter-Terrorism System) (Cabinet of Ministers of Ukraine, 2016); Emergency Medical Services System (Law of Ukraine, 2013b); National Cybersecurity System of Ukraine (Law of Ukraine, 2017); Defense Capability Ensuring System of Ukraine (Law of Ukraine, 1992), and other (Annex 2). In addition, the legislation envisages the establishment of the state critical infrastructure protection system (Cabinet of Ministers of Ukraine, 2017a). The organizational and regulatory mechanisms of subject systems encompass the whole territory of the country, while some of these national systems comprise functional and territorial subsystems. Each of them is based on the principles of legitimacy, centralized governance, unity of command, subordination, coordination, maximum possible risk mitigation, and broad cooperation, including with local authorities.

In summary, the key objectives of these systems are to protect:

a) the population from natural, man-induced, environmental, biological, chemical, radiological, social, terrorist, military, and other threats and emergencies;

b) the life-sustaining systems of the state and society, including local communities, related to supplies of energy resources, food, drinking water, and also to ensure healthcare and emergency medical services, policing, tele- and radio communications, cybersecurity, transport communications, housing and utility infrastructure:

c) the high-risk facilities located in regions and in the territory of local communities.

A number of challenging issues can be identified based on the analysis of operation and cooperation between the essential national systems providing protection of the state and society from identified threats and emergencies (Reznikova et al., 2021).

The existing *national systems of response to certain threats and emergencies*, (Unified State Civil Protection System; Emergency Medical Services System; National Counter-Terrorism System; National Cybersecurity System of Ukraine; Defense Capability Ensuring System of Ukraine), that are functioning at national, regional, and local levels, include certain partially overlapping inter-agency cooperation formats. Meanwhile, *legislation has no clear definition of a mechanism to coordinate the functioning of subject systems and links between existing inter-agency cooperation formats in the field of threat, crisis, and emergency prevention and response, and further recovery efforts. Numerous existing coordinating authorities and inter-agency groups operate in a narrow field of disparate areas of responsibility.* Fig. 4.1 presents the linkages between different national systems due to the Ukrainian legislation. However, as can be seen in the diagram, direct linkages (marked in continuous lines) only exist between a few systems, while merely informal (logical) linkages (marked in dash lines) exist between others.

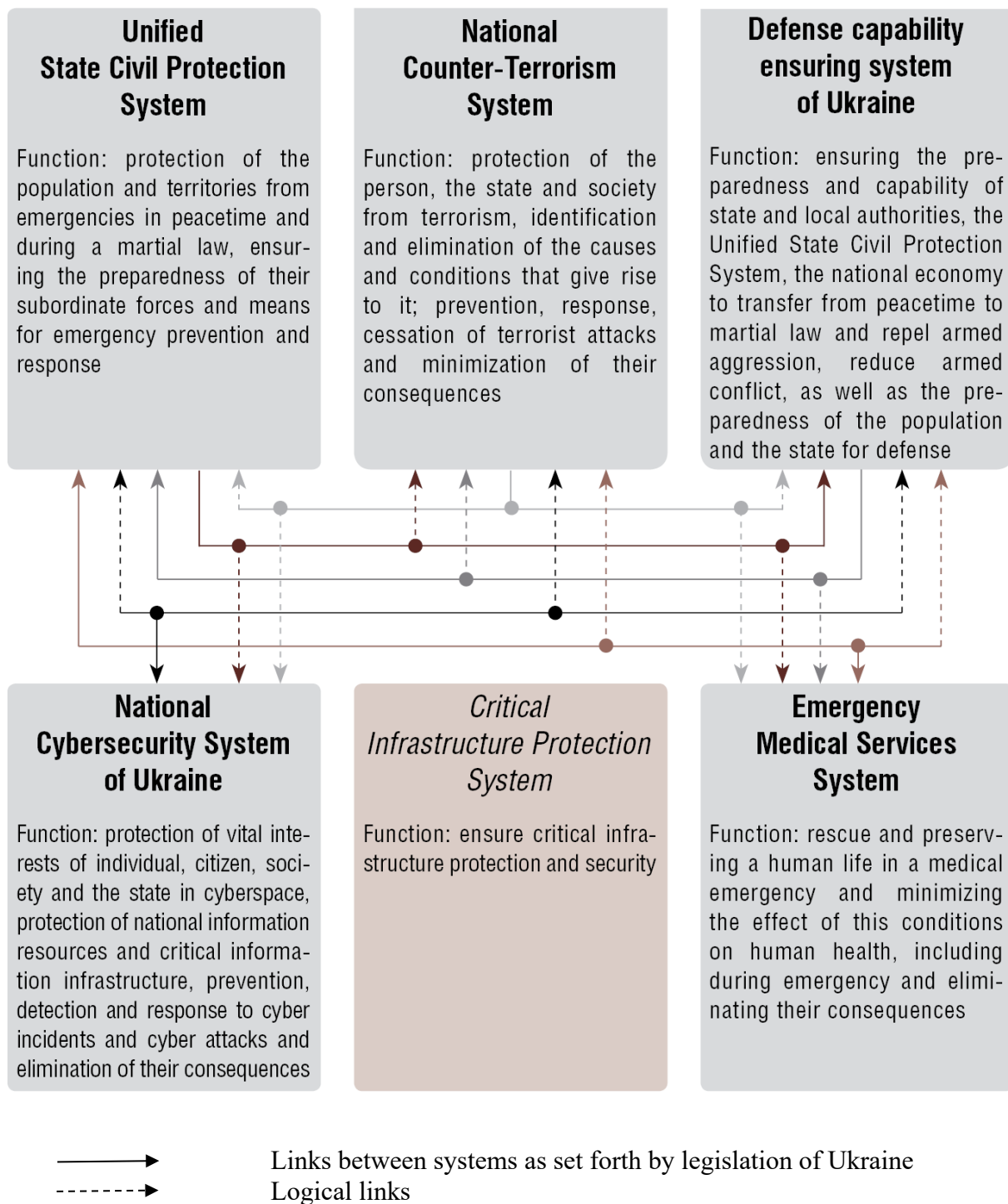


Fig. 4.1. Linkages between national systems in the sphere of threat and emergency response in Ukraine

Source: Reznikova et al., 2021.

Taking into account systemic analysis of paragraphs 24, 25, Article 2, Civil Protection Code of Ukraine (Law of Ukraine, 2013a) and sub-paragraphs 2, 3, Article 2, Law of Ukraine “On Combating Terrorism” (Law of Ukraine,

2003a), it can be assumed that an emergency may be caused, inter alia, by a terrorist attack. The role of ensuring preparedness and response to such a situation is assigned to the Unified State Civil Protection System and the National Counter-Terrorism System, and the appropriate powers are vested in regional and local commissions on technogenic and environmental safety and emergencies, and the Anti-Terrorist Center coordination groups at regional offices of the Security Service of Ukraine. In addition, an emergency caused by a terrorist attack poses a serious threat to human lives or health. Therefore, the actors of the Emergency Medical Services System will also be involved in the relevant relief measures. At the same time, the procedures for interaction in complex crises with cascading effects as well as the term “crisis” have not been provided by the legislation of Ukraine.

A comprehensive information-sharing process regarding all potential threats and emergencies has not been established. The relevant processes are in place in certain areas (cybersecurity, counter-terrorism), but they have no system character. Situation and crisis centers at different ministries and agencies are not currently integrated into a single network. This hinders generation of data catalogs and databases required for analysis, projections, and planning in the field of national security.

The lack of effective and consistent inter-agency cooperation in the sphere of national security and resilience hinders the implementation of a comprehensive approach to ensuring preparedness to respond to threats of different origins and major crises.

The legal regulation of preparedness and response to certain threats and emergencies ensuring processes has been scattered all over different legislative and regulatory acts of Ukraine. The definitions, organizational mechanisms, and methodological approaches found in these documents are often not harmonized.

The threat and emergency response during peacetime (without introduction of a legal regime of emergency state, including in a certain

territory) mechanisms and protocols are specified in different regulatory acts depending on the area of activity. Such a narrow departmental or sectoral approach creates difficulties due to inconsistency of some legal norms and rules, particularly where prevention or response to threats with cascading effects or of hybrid type are concerned. This, in particular, was proven, when a set of the counter-COVID-19 measures was generated and implemented at regional and local levels, and their implementation was to be ensured by different actors (Kovalivska, 2020).

In addition, there are discrepancies in Ukrainian laws with regard to determining the powers of certain state authorities, the functioning of particular national systems. Thus, the Law of Ukraine “On Combating Terrorism” (Law of Ukraine, 2003a) mentions the national combating terrorist activities system (sub-paragraph 2, Part Three, Article 4), while the Resolution of the Cabinet of Ministers of Ukraine, dated 18 February 2016, approved Regulation on integrated state system for prevention and cessation of terrorist attacks and minimization of consequences thereof (Cabinet of Ministers of Ukraine, 2016). Concurrently, the Law of Ukraine “On National Security of Ukraine” (Law of Ukraine, 2018) requires a review of the national combating terrorism system (par. 5, Article 27), and the President of Ukraine (2019b) approved the national combating terrorism system review procedure.⁵

Functions of the State Service of Special Communication and Information Protection of Ukraine in the sphere of cybersecurity were extended by the Law of Ukraine “On the Foundations of the Cybersecurity of Ukraine” (Law of Ukraine, 2017), while the subject-matter Law of Ukraine “On the State Service of Special Communication and Information Protection of Ukraine” (Law of Ukraine, 2006) sets out the functions and tasks of this state authority solely in the sphere of cyber protection. These legal conflicts must be resolved.

⁵ The collision is to use different names of the same system in different regulatory acts.

The system of strategic planning in Ukraine does not currently provide clear mechanisms for coordinating all processes of preparation of strategic and program documents at the national, regional, and local levels within a single cycle. A similar situation exists in the sphere of emergency response planning. The lack of systems approach to risk management and ensuring preparedness significantly hinders prioritization in the areas of development of the state and strengthening national resilience.

Ukraine, like most nations across, faced many challenges with regard to the spread of COVID-19, such as:

- the inability of early detection, evaluation, and prevention of new and hybrid threats;
- the lack of capabilities, reserves, and alternative strategies in case of emergency;
- absent or irrelevant comprehensive threat response plans, uniform standards, and protocols of concerted actions (in particular, regarding the introduction of restrictive measures in quarantine) at the national, regional, and local levels;
- inadequate level of medical and law enforcement personnel preparedness to act in emergency and quarantine restrictions;
- unpreparedness of state authorities, most enterprises, and the population to work under quarantine restrictions, including remotely;
- slow response by the authorized state and local bodies of anti-crisis management, low efficiency of coordination of efforts at various levels, including due to shortcomings in the legislation;
- inefficient strategic planning and analysis system in the state, incl. comprehensive assessment impact of threat and response measures on different areas of national security, monitoring of response effectiveness. (Reznikova, 2020b).

The problems, identified during the spread of COVID-19, were proof of the Ukrainian crisis management system's inefficiency, and also existing considerable vulnerabilities across various spheres (primarily healthcare, biosafety, economy). This highlights the increasing importance of taking measures to strengthen the national resilience on a system basis to generate the ability of society and the state to counter threats of various origins, adapt rapidly to the changing security environment, maintain sustainable operation, and also prompt recovery after the crisis toward an optimal equilibrium under defined conditions.

There are other problems that were revealed during the spread of the COVID-19 crisis and the aggression of Russia against Ukraine that began in 2014, and which need to be addressed by building up the national resilience ensuring system, such as:

- insufficient level of ensuring preparedness for response and cooperation between state authorities and civil society in crises and of maintaining an appropriate level of security of vital functions of the state;
- the lack of universal procedures and protocols of concerted actions with regard to the anticipation, prevention, and response to risks and crises at various phases of their evolution (particularly taking into account inter-sectoral interdependencies and potential cascading effects), and also recovery plans for sustainable functioning;
- the lack of uniform methodological principles to assess national security risks and the status of relevant capabilities to set substantiated priorities of the public policy in national security and in the sphere of drafting, adoption, and implementation of strategic decisions;
- inefficient mechanisms of organization and coordination of efforts in crisis management at the national level;

- the technical, moral, engineering, and material obsolescence of public administration system, primarily with regard to the ensuring of civil protection;
- inadequate level of public awareness and awareness of personnel of state and other entities with regard to specific manifestations and impacts of various risks and threats, or how their prevention and response mechanisms work;
- insufficient level of public trust in state authorities and the resulting insufficient level of engagement of population and civil society institutions in the implementation of national security and resilience ensuring measures;
- lack of bilateral channels of communication and lack of communication between central and local authorities and the population.

In general, the implementation of systems mechanisms of ensuring national resilience in Ukraine will require, first of all, legislative regulation of organizational framework to support the functioning of the relevant system, including specification of the powers, tasks, and responsibilities of national resilience ensuring actors, including central and local authorities, enterprises and organizations, as well as responsibilities of civil society entities, and procedures for various actors during peacetime, in emergencies and during martial law.

4.3.4. Gaps in the System of Risk and Capability Assessment in Ukraine

The current *Ukrainian legislation does not determine full planning cycle in the sphere of national security*, which should entail regular analysis and assessment of risks, evaluation of security capabilities, identification of threats and vulnerabilities, planning of measures to ensure resilience of the state, branches and areas, regions and local communities, as well as of society, and drafting of strategic and policy documents of the state. Most of these processes are not harmonized, while some have not been regulated as such (Reznikova et al., 2020).

Presently Ukraine's ministries and agencies assess risks and threats in their areas of responsibility using different methods, criteria, and approaches. The main problem is that it is difficult or sometimes impossible to compare the outcomes of such assessment obtained in this manner. This makes it impossible to objectively rank threats, assess their interactions, identify possible cascading effects, does not contribute to the unbiased setting of goals and objectives of state policy in national security.

The lessons of the 2020-2021 development of the strategies in the areas of national security of Ukraine showed that not all state authorities of Ukraine paid sufficient attention to the analysis of security environment and risk assessment, and focused on the issues relating to their daily routine. It should be noted, that it is common practice in the world to have this important work fulfilled by research institutions at the request of national or local authorities. What complicates the situation even further is that the state body responsible for organizing and coordinating actions in the relevant field has not been identified yet.

Up-to-date methods and techniques of risk and threat assessment, simulation of crises, forecasting, generation of multi-criteria matrices of threats, data catalogs, geospatial data analysis, and "smart" city technologies have not been promoted yet. The existing methodology gaps in the past event-based risk assessment produce less accurate forecasts, as they fail to reflect new challenges that have not been observed before. This was proven in the case of the COVID-19 spread and hybrid threats effects. The use of methods in projections relying mostly on expert opinions reduces the objectivity of such projections and hinders adaptation of national systems and processes in the area of ensuring national security to functioning in uncertainty.

The process of comprehensive review of the national security and defense sector and its components is also deficient. According to par. 1, Article 1, Law of Ukraine "On National Security of Ukraine," a comprehensive review of the

national security and defense sector is a procedure of evaluation of the status and preparedness of national security and defense sector actors to accomplish their assigned tasks. Based on the results of such evaluation, the conceptual documents related to national security and defense sector components development, and measures supporting the attainment of their required capabilities to accomplish specified tasks in the current and projected security environment have to be drafted and refined (Law of Ukraine, 2018). Article 27 of this Law sets out a general procedure of comprehensive national security and defense sector and its components reviews. The comprehensive review methodology has not been specified, thus allowing for potential inconsistencies in methodology during a review of specific sub-systems of Ukraine's national security and defense sector (defense, public security and civil protection, defense industrial complex, intelligence agencies of Ukraine, National Counter-Terrorism System, cybersecurity of government information resources, and critical information infrastructure), and when comparing their results. Inter-agency cooperation in this sphere and consideration of research results are insufficient. The lack of definitions and methodology makes it difficult to understand how fully such reviews evaluate capabilities needed to ensure national resilience, including those in certain areas and branches.

As of August 1, 2021, the following reviews in the areas of national security of Ukraine were completed:

- defense review - the report on this review was approved by the President of Ukraine (2020c);

- review the intelligence agencies of Ukraine - the report on this review was approved by the President of Ukraine (2021h);

- review of national counter-terrorism system - the report on this review was approved by the President of Ukraine (2021k);

- defense industrial complex review - the report on this review was approved by the President of Ukraine (2021e).

The following requirements of the Law of Ukraine “On National Security of Ukraine” were not met timely:

- the public security and civil protection review: the President of Ukraine (2020d) recognized that the efforts of competent authorities were insufficient, and Ukraine’s Ministry of Interior was assigned to complete the review within three months (before 29 March 2021) and duly refer a report for the review to the NSDC of Ukraine;

- review of the cybersecurity status for critical information infrastructure, government information resources, and information that is required to be protected by the legislation: although the review procedure was approved by the Cabinet of Ministers of Ukraine (2020c), the review has not been completed in time, and Decision of the NSDC of Ukraine, enacted by the President of Ukraine (2019c), is still pending. However, the Cybersecurity Strategy of Ukraine ordered the development and approval of annual national cybersecurity system status review procedure (President of Ukraine, 2016b).

Therefore, it can be stated that the objectives of the National Security Strategy of Ukraine (2020) regarding generation of planning documents in the areas of national security, based on the findings of comprehensive review of the security and defense sector, sectoral and other reviews in accordance with the defense and security reform towards NATO norms, principles, and standards (par. 58 of Strategy) have not been accomplished in full scope. The lack of expected outcomes in the areas of public security and civil protection, and cybersecurity of critical information infrastructure, government information resources, and information that is required to be secure by law, impedes the security reform. In addition, the fact that some review reports were approved later or almost simultaneously with the adoption of documents regarding planning in relevant national security areas raises concerns. This may signify that the review findings were not fully considered in strategic planning.

Organizational and analytical elements of the integrated network of situational centers, including those engaged in risk assessment, early threat detection and prevention, and identification of vulnerabilities, need to be developed.

The NSDC of Ukraine's Decision, enacted by the President of Ukraine (2015a), established the Main Situational Center of Ukraine as a software and hardware complex for information collection, storage, and processing to support decision-making processes in the sphere of national security and defense. The functioning of the Main Situational Center of Ukraine is supported by the NSDC Staff. According to the adopted decision, the Main Situational Center of Ukraine shall obtain information (including in the remote mode) from the Ministry of Defense of Ukraine, Ministry of Interior of Ukraine, Ministry of Foreign Affairs of Ukraine, State Fiscal Service of Ukraine, State Emergency Service of Ukraine, Administration of the State Border Guard Service of Ukraine, other central executive authorities, Security Service of Ukraine and intelligence agencies of Ukraine.

Certain problems emerged at the stage of establishing the Main Situational Center of Ukraine with regard to determining the information assessment criteria, methods of analytical processing thereof, and building up analysis models. Domarev (2017) particularly pointed this out. To a large extent, this situation resulted from an incorrect legal definition of the Main Situational Center of Ukraine as a "software and hardware complex." In this regard, the Main Situational Center of Ukraine was not covering such important functions as analysis, information sharing, projection and simulation of crises, early warning, and other roles that are commonly performed by the relevant entities in developed countries, thus needing a comprehensive reform. The problems of methodological, organizational, and regulatory character, inter alia, significantly hindered the processes of development and implementation of universal threat

and crisis response protocols to effectively respond to a broad spectrum of threats.

In June 2021 Decision of the National Security and Defense Council of Ukraine⁶ set out a range of measures concerning the development of the situational centers' network, improvement of reliability, incorporation of up-to-date digital technologies, establishment of reserve capabilities, information sharing alignment, strengthening of cybersecurity, and information protection. According to this NSDC's Decision, this extended network of situational centers shall consist of the Main Situational Center of Ukraine, the Government Situational Center, situational centers of security and defense sector entities, situational centers of central executive authorities, the Cabinet of Ministers of the Autonomous Republic of Crimea, the regions, Kyiv and Sevastopol cities administrations, and also a back-up and mobile situational centers.

Analysis of measures, as specified in the subject document, allows for the conclusion that they target the strengthening of resilience of both, the network itself and the national resilience in general, particularly in the area of ensuring the reliable and continuous functioning of public administration system, including during martial law, emergency and crisis, which jeopardize the national security of Ukraine. Meanwhile, some issues regarding the organizational and analytical support of the network of situational centers in Ukraine remain unregulated. It should be noted, that collection and analysis of the necessary input information and the results of their processing using special software packages in the network of situational centers requires the involvement of specialists with high levels of training and experience in analytical work in the field of national security. This raises the issue of improving the educational

⁶President of Ukraine. *Pro rishennia Rady natsionalnoi bezpeky i oborony Ukrainy vid 4 chervnia 2021 roku «Shchodo udoskonalennia merezhi sytuatsiinykh tsentriv ta tsyfrovoyi transformatsii sfery natsionalnoi bezpeky i oborony»* [On the decision of the National Security and Defense Council of Ukraine of 4 June 2021 “On improvement of the network of situational centers and digital transformation of the sphere of national security and defense”]. Decree of the President of Ukraine of 18 June 2021 No 260/2021. Retrieved from <https://www.rnbo.gov.ua/ua/Ukazy/4916.html>.

programs for personnel of Ukraine's security and defense sector, as well as creating the right motivation to attract high-quality professionals to work in state authorities and public institutions.

As for the planning system for the response to certain threats and emergencies in Ukraine, it is quite advanced. Different types of plans are developed, such as emergency response plans and civil protection plans at different levels, plans of cooperation between government actors and civil protection forces (Cabinet of Ministers of Ukraine, 2017b), mobilization plans, and plans for a martial law. The planning takes place throughout Ukraine, branches, regions, cities, districts, amalgamated local communities, and businesses. Meanwhile, the *Ukrainian legislation makes no provisions for planning for crises that go beyond emergencies and traditional threats and require cooperation between numerous national and local authorities*. This is mostly caused by the lack of regulatory framework supporting the prevention and response to crises, including preparedness ensuring action plans.

In particular, the definition of "crisis" is only provided in the footnote to the Law of Ukraine "On the National Defense and Security Council of Ukraine" in Article 4 (Competence of the National Security and Defense Council of Ukraine). It is noted in the Law of Ukraine (1998) that in case of crises jeopardizing the national security of Ukraine, the National Security and Defense Council of Ukraine has to coordinate activities of executive authorities, review proposals concerning the applicability of special economic and other restrictive measures (Part 2, Article 14); the Public Security and Civil Protection Strategy of Ukraine is the basis for the development of operational plans and plans for the use of forces and capabilities in crises (Part 3, Article 29).

Thus, the functions and objectives for components and actors of the security and defense sector and other state authorities in the sphere of ensuring preparedness and response to crises are not defined, as well as the coordinating body that would provide unity of approaches to the crisis planning and response,

coherence of plans to ensure preparedness of different state authorities, including within the framework of the functioning of national systems.

Based on the analysis of Ukrainian legislation and existing practices in the sphere of risk and capability assessment, as important areas of ensuring national security and resilience, it can be concluded that the subject sphere faces the following key challenges:

- the holistic strategic planning system establishment in the state has not been completed;
- a lack of uniform methodology and techniques of comprehensive assessment of national security risks, evaluation of capabilities, identification of threats and vulnerabilities to determine the priorities of the public policy in national security and resilience, as well as substantiated strategic decision-making;
- a lack of a government authority responsible for organization and coordination of efforts in the sphere of national security threat and appropriate capability evaluation;
- inadequate legal regulation of the issues related to the planning and analysis in the sphere of national security within a uniform cycle, that includes, inter alia, national security risk assessment and evaluation of existing capabilities, as well as crisis response planning;
- insufficient inter-agency cooperation in this sphere and low level consideration of scientific research results;
- the lack of qualified personnel in the relevant area;
- limit of the resources.

The above challenges hinder the formulation of a balanced state policy in national security and resilience that is based on the results of comprehensive assessment of risks and capabilities, and identification of threats and vulnerabilities.

4.3.5. Problems of Ensuring Security and Resilience of Regions and Local Communities in Ukraine

The specifics of organization of activities and the practice of inter-agency cooperation and coordination in security area at regional and local levels, including response to and prevention of threats and emergencies, providing preparedness of the state and society, and post-emergency recovery efforts were studied in detail in Reznikova et al. (2021). In general, such activities in Ukraine rely upon basic legislation in the spheres of national security and civil protection, the subject-matter regulatory acts, and within the framework of the existing administrative territorial system. The Ukrainian legislation regulates the specifics of coordination and cooperation in the spheres of national security at national and territorial levels.

Presently the main responsibilities in prevention and response to threats and ensuring preparedness at regional and local levels are assigned to the region and district state administrations, self-government authorities of amalgamated local communities (ALC), territorial subdivisions of security and defense forces, and emergency medical services within existing national systems.

According to Ukrainian legislation, the main organizational formats of inter-agency cooperation in the field of prevention and response to certain threats and emergencies are established on a permanent or temporary basis at the regional and local levels, such as regional and local commissions on technogenic and environmental safety and emergencies; special commissions for emergency response at enterprises, institutions, and organizations; special post-emergency recovery commissions; Anti-Terrorist Center coordination groups at regional offices of the SSU; citizen safety centers. The following authorities will coordinate activities of the above inter-agency entities at the national level, as appropriate: the National Security and Defense Council of Ukraine, the Cabinet of Ministers of Ukraine, the State Commission on Technogenic and

Environmental Safety and Emergencies, the Inter-agency coordination commission of the Anti-Terrorist Center under the Security Service of Ukraine, and others.

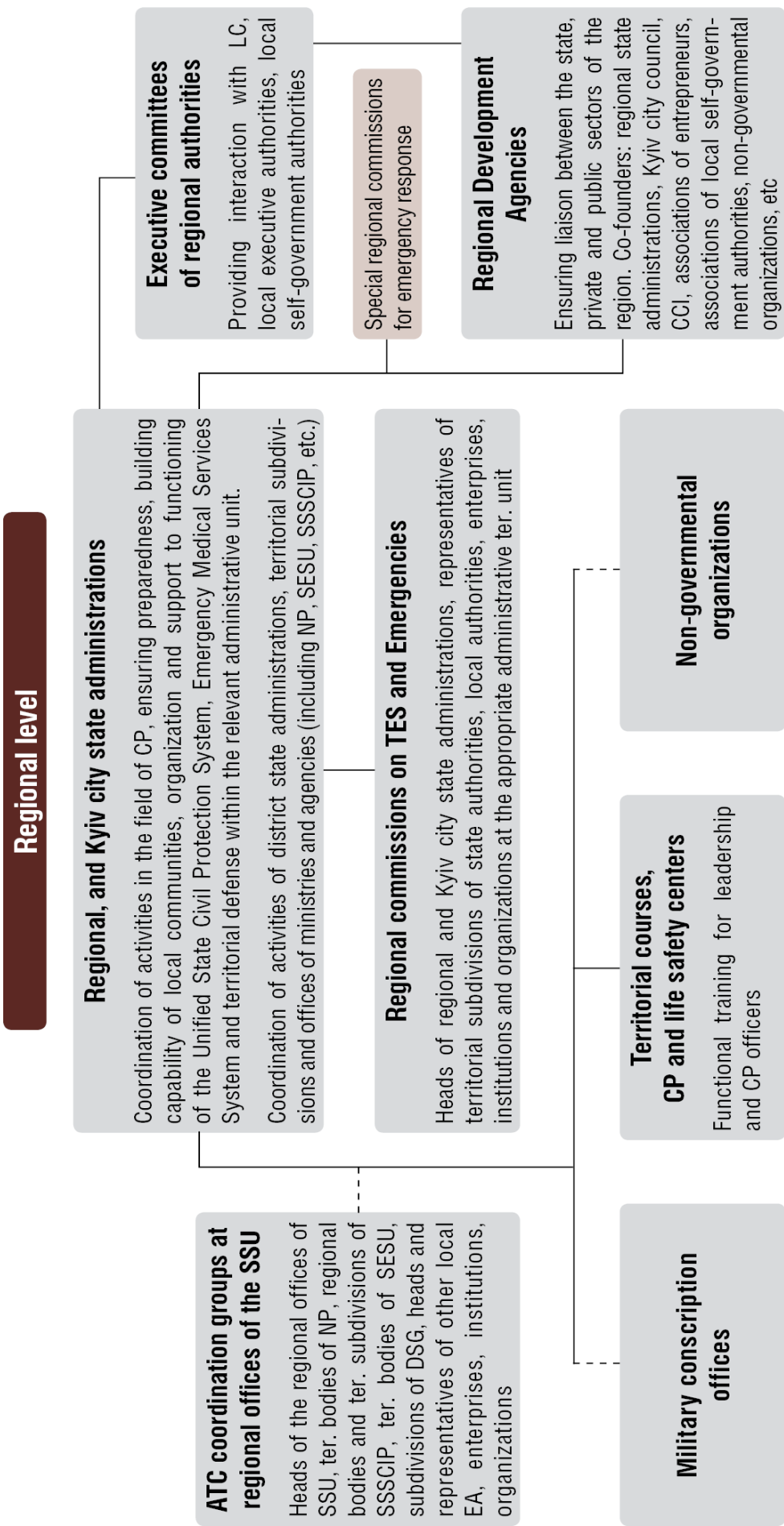
The local state administrations and local self-government authorities play an important role, within their competence, in coordination of activities in the sphere of civil protection, ensuring preparedness, building appropriate capabilities in local communities and territories, and in managing the functioning of national systems and territorial defense at the local level. The appropriate functions of these bodies are provided for by Ukrainian laws.

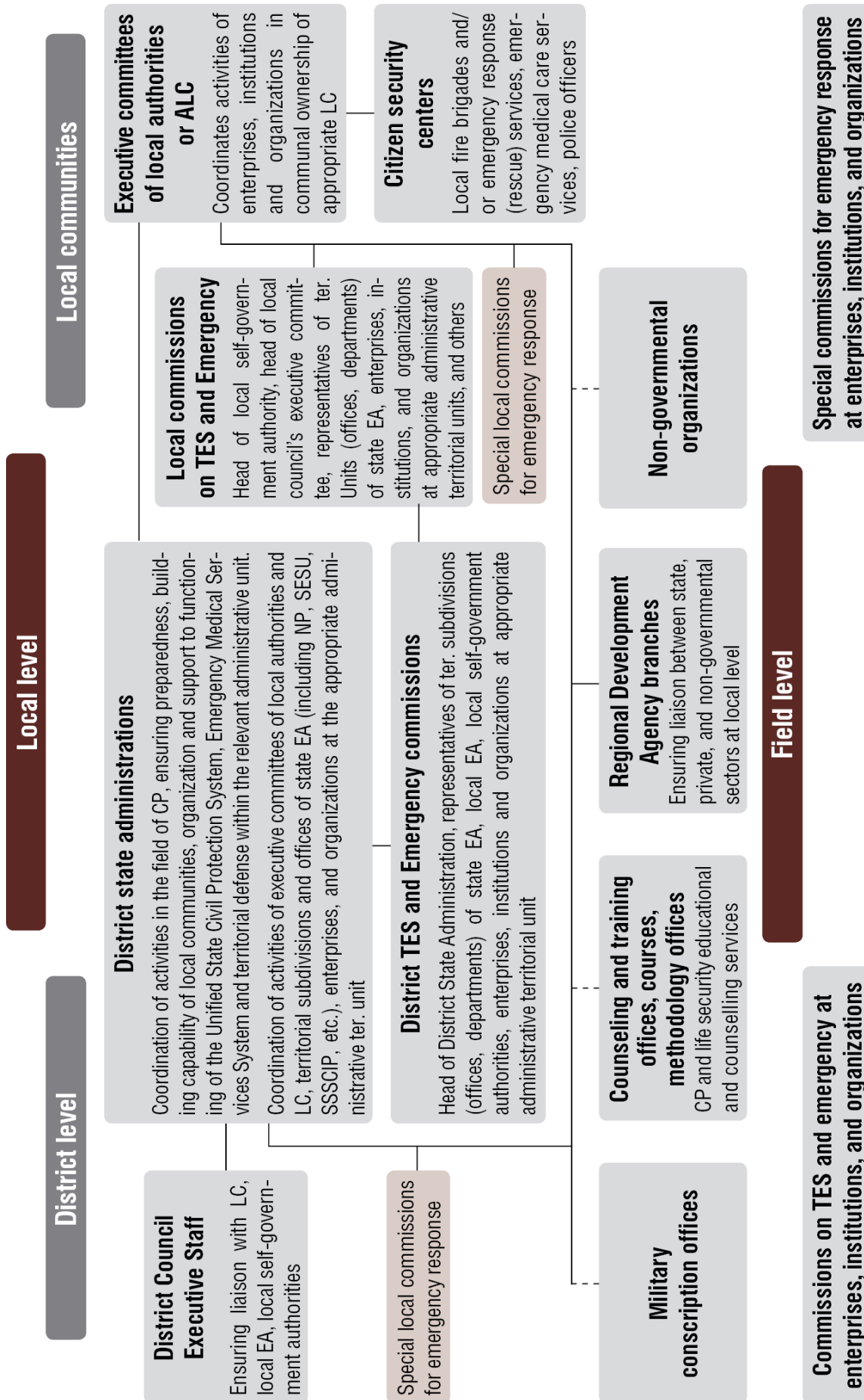
The national legislation regulates the organizational and legal mechanisms of cooperation between two or more amalgamated local communities (Law of Ukraine, 2014), public-private partnership (Law of Ukraine, 2010), and the engagement of volunteers and their organizations in addressing socially important issues (Law of Ukraine, 2011), including the ones in security area.

The citizen safety centers play an important role in ensuring preparedness and response to emergencies in local communities. They were established due to the changes occurring in Ukraine in connection with decentralization reform, reform of the State Emergency Service system, and transfer of specific emergency response powers from state to local authorities. Such centers combine the functions of protection from fires and other emergencies, public security, and emergency medical services supported by integrated communication and dispatch offices to coordinate the efforts. The establishment and effective operation of such infrastructure facilities in the security field requires coherent inter-agency cooperation in the sphere of emergency planning, risk analysis, and crisis management at the local level. In addition to providing rapid response to emergencies, citizen safety centers are to facilitate the improvement of safety culture in society, including through outreach programs.

Fig. 4.2. provides a general diagram of coordination and inter-agency cooperation in the sphere of national security at regional, local, and field levels.

This diagram is based on direct and indirect linkages, as determined by Ukrainian legislation, between organizational formats (entities) of inter-agency cooperation existing in the subject area at different levels.





Note: NP - National Police of Ukraine, SESU - State Emergency Service of Ukraine, SSSCIP - State Service of Special Communications and Information Protection of Ukraine, SSU - Security Service of Ukraine, DSG - Department of the State Guard of Ukraine, CCI - Chamber of Commerce and Industry, EA - executive authorities, LC - local community, ALC - amalgamated local community; CP - civil protection, TES - technogenic and environmental safety.

Fig. 4.2. Diagram of coordination and inter-agency cooperation (at the level of existing organizational inter-agency cooperation formats) in the sphere of threat and emergency response at regional and local levels in Ukraine

Source: Reznikova et al., 2021.

Analysis of existing inter-agency cooperation and coordination practice in security area at regional and local levels is a way to identify some challenges and hindrances in the course of building regional resilience and resilience of local communities.

The measures associated with ensuring resilience of regions and local communities in Ukraine are fragmentary and unaligned.

Conceptual and institutional ambiguity in the sphere of national resilience resulted in the inconsistent formulation of goals and objectives in ensuring resilience of regions and local communities. The Cabinet of Ministers of Ukraine (2020a) determined, in particular, the National Resilience System building at the regional level among its key objectives in the area of security infrastructure development within its operational goal 4, strategic goal 1 (Annex 2 to the State Regional Development Strategy during 2021-2027). However, no framework for the establishment of such a system was outlined in the Strategy. Moreover, the Concept of Support of the National Resilience System was approved in Ukraine next year after the adoption of the State Regional Development Strategy during 2021-2027. However, the State Strategy determined, inter alia, a number of measures facilitating the strengthening of regional resilience and resilience of local communities, including development

of their security capabilities (citizen security centers, territorial defense forces, policing and crime prevention), generation of necessary reserves, critical infrastructure protection, establishment of the system of warning the population of threats or emergencies.

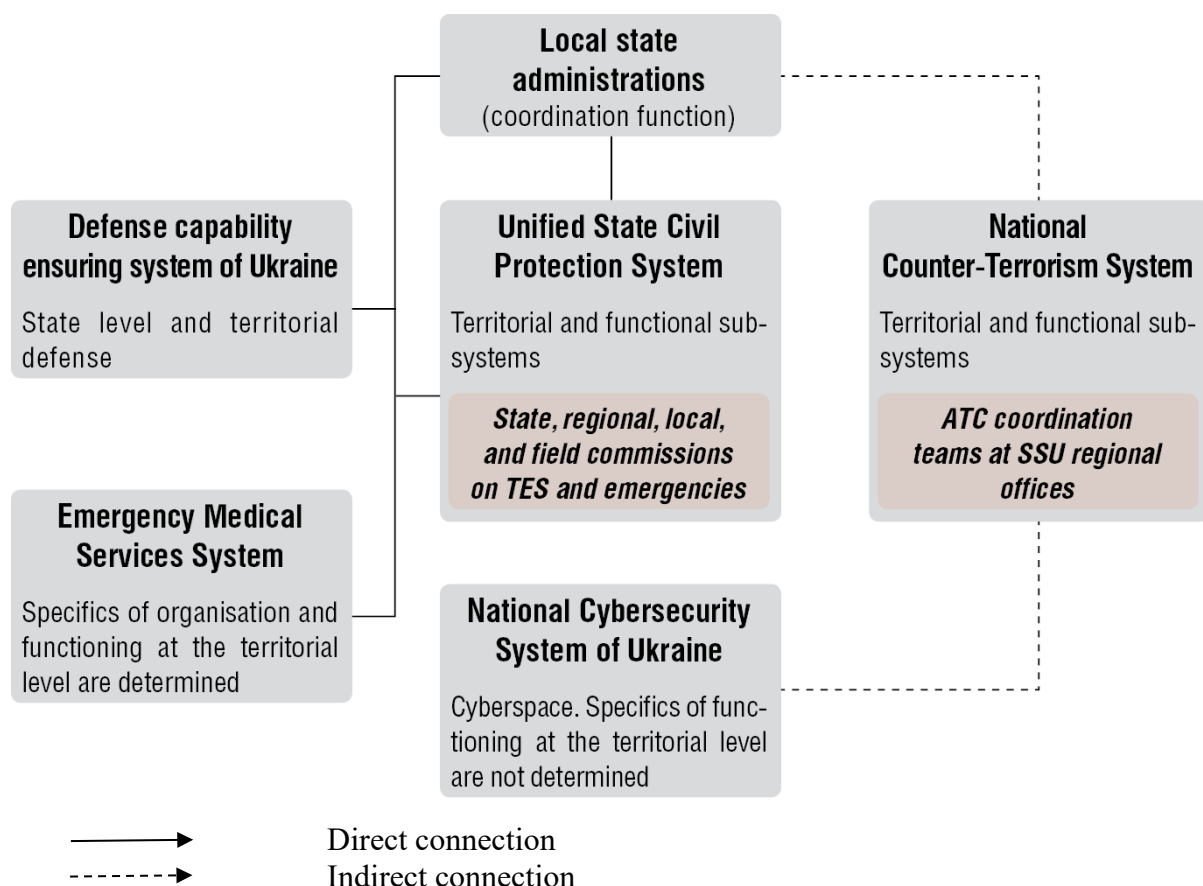
The legislative and organizational support for the security and resilience of regions and local communities is inadequate. This is related to the mechanisms of inter-agency cooperation and coordination of such efforts at different levels, clear vertical and horizontal linkages, public-private partnerships in security area, establishment of sustainable communication with the population.

At the level of local communities and regions, as well as in the state as a whole, there is no single comprehensive mechanism for coordinating activities within the full cycle of ensuring national resilience (situation monitoring, risk assessment, identification of vulnerability, ensuring preparedness, planning, response, post-crisis recovery). The organizational formats of inter-agency cooperation, existing in Ukraine, focus primarily on ensuring preparedness and response by competent authorities to certain types of threats (primarily terrorist and military ones) and emergencies. Vertical linkages between the center and regions have clear departmental (functional) orientation. This does not implement a comprehensive approach to countering threats of any origin at all stages and does not take into account the possible cascading effects of threats.

The organizational formats (entities) of inter-agency cooperation, established within the national systems for responding to certain types of threats and emergencies, functioning at the regional and local levels, partially intersect, and the mechanism for coordinating their activities is not defined. In particular, the regional and local commissions on technogenic and environmental safety and emergencies, and Anti-Terrorist Center coordination groups at regional offices of the SSU can be composed of representatives of approximately the same territorial state authorities and local self-government authorities according

to the Civil Protection Code of Ukraine and the Law of Ukraine “On Combating Terrorism,” (Law of Ukraine, 2003a, 2013a). However, the legislation does not establish required coordination of efforts or linkages between the existing national level systems and formats for inter-agency cooperation.

A general diagram of organizational linkages in the inter-agency cooperation framework in the field of response to threats and emergencies at the local level in Ukraine is presented in *Fig. 4.3*. As can be seen in the diagram, the key linkages between the national systems, which function at the regional level, are mainly facilitated by local state administrations having the function of control over most of the described above national systems at territorial levels. The National Cybersecurity System of Ukraine is an exception, given that its key domain is cyberspace, where the accent on territorial levels is no matter in principle. Meanwhile, cooperation between central and local authorities is also in place within the framework of this system.



Note: SSU – Security Service of Ukraine, ATC – Anti-Terrorist Center, TES – technogenic and environmental safety.

Fig.4.3. Organizational links between main formats of inter-agency cooperation in the sphere of threat and emergency response at a local level in Ukraine

Source: Reznikova et al., 2021.

The problem of inadequate inter-agency cooperation and coordination of efforts at different levels became apparent in Ukraine in countering the spread of COVID-19, a major emergency with cascading effects (Reznikova, 2020b). According to Zhalilo et al. (2020), the ineffective inter-agency cooperation, including between the center and regions, as well as between neighboring regions and local communities, besides reducing the threat response effectiveness, also complicates development of resilience against epidemics/pandemics, which is primarily formed at the level of regions and communities. Another problem in this sphere is a lack of systemic sharing of information concerning all potential threats and emergencies, including at territorial and local levels established in Ukraine.

Interaction between state authorities and the non-governmental sector, civil society, and the population to ensure security and resilience, including at the level of regions and local communities, takes place in a very limited format, and the relevant strategic communications are not sustainable.

The capacity of existing inter-agency entities as platforms of vertical and horizontal inter-agency cooperation, and communication of businesses and non-governmental organizations with local authorities in developing effective regional policy and ensuring security and resilience of regions and territorial communities, is not used effectively. This particularly concerns the Inter-agency Coordination Commission for Regional Development, regional development agencies. The Communities and Territories Development Council's performance was found insufficiently effective. It was dissolved in early 2021, and the

Congress of Local and Regional Authorities was established under the President of Ukraine with broader functions and powers (President of Ukraine, 2021).

A lack of systems approach to risk management and ensuring preparedness substantially complicates comprehensive analysis of current and potential risks and threats and identification of vulnerabilities at the level of local communities and regions, decreases objectivity of planning and prioritization of their organizational and security capabilities development and strengthening resilience.

Currently, there is no practice of risks and capabilities assessment and identification of specific threats and vulnerabilities at the level of regions in Ukraine. Most documents concerning regional development do not provide goals and objectives regarding strengthening regional security and resilience. A lack of strategic vision of security environment development at regional and local levels and existing problems in the sphere of inter-agency cooperation and coordination complicate generation of joint capabilities and ensuring preparedness of local communities for cross-sector or hybrid threats, the consequences of which may have multi-vector cascading effects in different spheres. The weak mechanisms of crisis management and risk management at local levels reduce the effectiveness of initial response to threats and emergencies, which should be provided directly at the source of emergency.

A range of problems exists in the organization and functioning of some national systems related to providing security and resilience at regional level.

Firstly, there is a number of gaps in the organization and functioning of territorial sub-systems of the Unified State Civil Protection System and its elements, such as regional and local commissions on technogenic and environmental safety and emergencies. Thus, according to sub-par. 4, par. 5, Standard Regulation, approved by Resolution of the Cabinet of Ministers of

Ukraine⁷, the subject commissions may involve representatives of territorial subdivisions of state authorities, local executive and self-government authorities, enterprises, institutions, and organizations, located in appropriate administrative territorial units (as agreed upon with their leadership). According to sub-par. 3, par. 6 of the mentioned document, the commission's composition shall be approved by the founding body, as proposed by subdivisions of state authorities, local executive and self-government authorities, enterprises, institutions, and organizations, located in appropriate administrative territorial units.

Therefore, engagement of representatives of the Security Service of Ukraine, Armed Forces of Ukraine, and other military agencies' territorial subdivisions is not provided by the legislation. However, this possibility is appropriate given the need for constant forecasting of the possible spread of the emergency and the scale of its consequences, ensuring preparedness to act in an emergency, continuous monitoring of the development of the emergency and the situation at affected facilities and adjacent territories.

The main tasks of the commissions at relevant administrative territorial units, as specified in par. 3 of the subject Standard Regulation, should encompass a number of important areas in terms of ensuring preparedness to respond to emergencies and establishing effective inter-agency cooperation, including the following:

- comprehensive assessment of risks of emergencies, forecasting of potential cascading effects;
- shared situational awareness across appropriate administrative territorial units;
- availability of joint concerted action plans for emergency response;
- facilitation of inter-agency exercises and training;

⁷ Cabinet of Ministers of Ukraine. *Pro zatverdzhennia Typovoho polozhennia pro rehionalnu ta mistsevu komisiuu z pytan tekhnohenno-ekolohichnoi bezpeky i nadzvychainykh sytuatsii* [On approval of Standard Regulation on technology-related/ecological safety and emergencies commission]. Resolution of the Cabinet of Ministers of Ukraine of 17.06.2015, No 409. Retrieved from <https://zakon.rada.gov.ua/laws/show/409-2015-%D0%BF#Text>

- control of preparedness status.

Correspondingly, among the powers of commissions, as specified in par. 4 of Standard Regulation, some important areas are missing, such as:

in daily activities:

- facilitate a continuous comprehensive analysis of emergency risks in administrative territorial units and disseminate the results of such analysis among members of commissions;

- coordinate development of universal plans and protocols of concerted actions in an emergency by territorial subdivisions of state authorities and local self-government authorities;

- acquaintance with the dynamic of reserves generation and its state, and additional capabilities needed in case of emergencies, as well as emergency response plans, as reported by representatives of territorial subdivisions of state authorities and local executive and local self-government authorities, and enterprises providing critical services to the population;

- acquaintance with the security, safety, and resilience measures in place, as reported by critical infrastructure facility owners/operators; initiate inspections of such infrastructure operational status to ensure its smooth functioning on high alert, and in case of emergency;

- foster inter-agency emergency response exercises and training sessions;

on high alert and in case of emergency:

- ensure cooperation with appropriate Anti-Terrorist Center coordination groups at regional offices of the SSU;

- engage, if necessary, representatives of other territorial subdivisions of state authorities, enterprises, and organizations that were not members of the commission previously.

Secondly, there are several number of gaps in organization of territorial sub-system of the National Counter-Terrorism System, hindering inter-agency cooperation and coordination of appropriate activities at territorial level. Thus, regulatory acts in the sphere of combating terrorism do not clearly identify authorities, institutions, organizations, as appropriate territorial sub-system actors. At the same time, it is defined that the organization of activities to prevent, respond to, stop of terrorist acts and minimize their consequences is carried out by the territorial sub-system actors. However, the Law of Ukraine (2003a) clearly sets out and designates state authorities as actors, directly combating terrorism under their mandate, and those, which can be involved in the prevention, detection, and cessation of terrorist activities, if necessary. Yet, this designation only concerns central authorities, and having no such designation of territorial bodies can complicate organization of these activities at regional and local levels.

In addition, there may be a problem with engaging representatives of the National Guard of Ukraine [NGU] and the Armed Forces of Ukraine [AFU] in Anti-Terrorist Center [ATC] coordination groups at regional offices of the Security Service of Ukraine [SSU]. Ukraine's legislation (primarily the Laws of Ukraine "On National Guard of Ukraine" and "On Armed Forces of Ukraine") specifies the responsibilities of AFU and NGU's in countering terrorism. However, Article 4, Law of Ukraine (2003a) does not directly refer to AFU and NGU as terrorism combating actors, as opposed to the Ministry of Defense of Ukraine and the Ministry of Interior of Ukraine. In addition, Article 7 of the Law does not provide for NGU and AFU representation in ATC coordination groups at regional offices of the SSU.

The lack of legislative regulation on NGU and AFU representatives' engagement in ATC coordination groups at regional offices of the SSU assumes that such involvement is possible, but will require coordination with the Ministry of Interior of Ukraine and the Ministry of Defense of Ukraine. Yet, this

ambiguity can hinder the process of terrorist threat prevention or response at local level. Thus, if it is necessary to involve representatives of the NGU or the AFU in an urgent meeting of the ATC coordination groups at regional offices of the SSU, a situation may occur when representatives of the NGU or the AFU will not be able to participate in such a meeting. This may negatively affect assessment of the security situation (including terrorist threat to AFU facilities, AFU and NGU forces and resources that may potentially be involved in counter terrorism operations in the region, or minimization and elimination of consequences of terrorist attacks, including the ones of man-made character), and also hinder immediate and adequate counter-threat efforts.

It should be noted, that ATC coordination groups at regional offices of the SSU are only established at the regional and the Kyiv city level. Upon that, the liaison between these teams and district state administrations, local self-government, local communities, and amalgamated local communities, as well as local commissions on technogenic and environmental safety and emergencies has not been clearly specified.

Thirdly, in view of existing problems with the Emergency Medical Services System functioning, a Concept of this system development (Cabinet of Ministers of Ukraine, 2019a), and an Action plan to implement the subject Concept (Cabinet of Ministers of Ukraine, 2020b) were developed and adopted. According to the Concept of Emergency Medical Services System Development, the main problems in the sphere of emergency response include the following: low capacity of this system to ensure timely provision of adequate medical care in case of emergencies or during emergency relief efforts; inefficient emergency response algorithms (including national and regional response plans, and medical facility response plans); the lack of an effective system of reservation of medicines, medical devices; inefficient inter-agency coordination and cooperation mechanism of responding to mass cases, including at the pre-hospital care phase. Also, the subject document recognizes that existing response

plans fail to monitor and take into account actual information concerning the ability of healthcare facilities to rapidly increase the number of hospital beds and the number of patients receiving emergency medical care at the hospital care phase. Such ability involves both, available capabilities to accommodate patients and the required technical support to provide emergency medical aid to significant numbers of people. A number of technical problems have also been identified, which reduce the speed of arrival of emergency (ambulance) crews to the scene (including delayed processing of calls for emergency medical aid), and efficiency of liaison between emergency medical services actors and other rescue services (including the lack of autonomous radio communications, absence of clear models of coordination between the system's actors) (Cabinet of Ministers of Ukraine, 2019a).

Among other directions of emergency response improvement, the Concept of Emergency Medical Services System Development outlines the following:

- development and implementation of new emergency medical care organization methodology and medical triage of victims of mass cases at the pre-hospital stage (including the algorithm of cooperation between rescue services);
- establishment of permanent emergency response staffs at emergency medical care and disaster medicine operations control centers;
- development of the methods to estimate requirements in medications, medical supplies, vehicles for transportation, hospital beds, personnel, and volunteers;
- development of the methods to conduct joint training involving rescue services, state and local authorities, utility services, and volunteers (Cabinet of Ministers of Ukraine, 2019a).

Major effort in this area should have been taken during Phase 1 in 2019-2020, as specified in the Concept, including establishment and upgrade of operations control centers, telecommunication and information systems for

operations control centers; autonomization of emergency medical care and disaster medicine centers; implementation of emergency medical services provision and medical triage of victims of a mass case at the stage of pre-hospital care methodology; improved inter-agency cooperation between the Ministry of Interior, the State Emergency Service and the Ministry of Health through medical training of their employees. The emergency caused by COVID-19 spreading has proven insufficiency of measures that were taken.

The implementation of the joint algorithms of emergency medical services, fire rescue, and police in medical emergency response efforts is scheduled for 2021–2023, while such time lag is unjustified considering the changing and uncertain security environment.

Therefore, improving the organization of national systems that operate in the field of national security at the regional level, taking into account the above proposals, will help not only increase the efficiency of their performance, but also the formation of systems links in the field of national resilience.

The problem of inter-agency cooperation in security area at regional and local levels can be a challenge for decision-making within existing organizational formats (including regional commissions on technogenic and environmental safety and emergencies, special emergency relief commissions, ATC coordination groups at regional offices of the SSU) due to the rigid chain of command, as set out by departmental regulatory acts and military regulations. The need to seek approval of higher authority at the ministry or agency in certain cases may lead to decision-making delays where a certain threat or emergency requires an immediate response.

Another problem of inter-agency cooperation may be the prevailing departmental approach to dealing with complex issues concerning ensuring security, resilience, and development of local communities and regions.

A solution to the subject problems can be development and implementation of universal protocols of concerted actions in response to threats and crises at different phases of their deployment.

The public-private partnership in the sphere of ensuring security and resilience of local communities and regions is currently underdeveloped.

The causes of this situation in Ukraine can include private sector's skeptical attitude to the potentialities of effective cooperation with local authorities, the low-level trust of citizens in national and local authorities, a lack of public awareness and outreach concerning the benefits and risks in the use of partnership mechanisms of this kind, weak security culture in local communities, which is based on voluntary involvement, self-organization, cooperation and joint responsibility principles.

The capacity of regional development agencies to stimulate public-private partnerships, employers' organizations and their associations, as well as volunteer organizations is used inefficiently.

The system of resilient bilateral strategic communication with the population at the level of local communities and regions has not been established.

Thus, public involvement in the drafting of regulatory acts, strategies, development plans, and plans for ensuring preparedness for emergencies and crises, which are significant for local communities and regions, has not become common practice. The population self-organization mechanisms, particularly in rural areas, are weak.

The system of technical communications is not developed. For instance, the functioning of the 112 emergency telephone number system to provide emergency assistance to people, although stipulated by the Law of Ukraine (2012), has not been set up.

The staffing of local executive and self-government authorities with qualified personnel, having experience in inter-agency cooperation in the sphere

of national security and enhancement of preparedness of local communities for emergencies and crises, as well as in the establishment of public-private partnerships, needs to be improved.

The pending government decentralization reform creates risks for appropriate delivery of public services and complicates the processes of generation of the managerial and functional capability of local communities, including in the sphere of ensuring their security and resilience. According to Kovalivska, Barynova and Nesterenko (2020), this happens, inter alia, due to certain problems in the field of distribution of powers and responsibilities, areas of responsibility, and resources at local level. On the other hand, the COVID-19 crisis challenges the completion of decentralization processes and complicates the communications required for complex decision-making in this area (Zhalilo et al., 2020).

All of the above asserts that the mechanisms supporting integration of capabilities of adjacent amalgamated local communities into joint capabilities to ensure their security and resilience, established by law, have not yet been advanced sufficiently in Ukraine.

Conclusions to Chapter 4

Analysis of the current global security environment status and tendencies in its development gives the reason to describe it as highly volatile and uncertain. Hybrid threats of covert nature with non-linear effects have become common. Changes in the world result in the disruption of many existing connections and increase the number of vulnerabilities faced by most public relations actors. From the long-term perspective, the security environment in Ukraine will be considerably influenced by global development trends. One of the biggest long-term threats for Ukraine is the continued aggression of Russia that affects all spheres of activity.

Considering that current and potential risks and threats to Ukraine are dynamic and long-lasting in their character with probably major negative impacts on society and the state, making it unfeasible to overcome them completely, and also in view of existing vulnerabilities in the state and society and drivers of influence that can aggravate the situation (incomplete reforms, limited resources, difficult demographic, and social situation), building the national resilience ensuring system meets Ukraine's needs in the context of creating additional opportunities for ensuring national security.

Analysis of practices in the sphere of ensuring national security, crisis management, and public administration in Ukraine affirms that measures to ensure national resilience are fragmentary and non-systemic, and therefore, not effective enough. Inadequate subject-matter legislation and a lack of established institutional mechanisms and tools for ensuring national resilience significantly constrain the relevant processes, resulting in violation of key principles of national resilience ensuring. In addition, systemic process of national resilience ensuring in Ukraine is deterred due to low-level theoretical elaboration on the relevant problem.

Ukraine currently faces a range of problems with public policy development and implementation and setting of national resilience ensuring objectives, including in the fields of strategic planning, crisis management, and the planning of concerted efforts of comprehensive inter-agency nature to respond to crises.

Based on the findings of the analysis, it can be stated that inadequate legal regulation and lack of existing vertical and horizontal linkages complicate introduction of the uniform coordination mechanism within the framework of full national resilience ensuring cycle and the implementation of a comprehensive approach to counter a broad spectrum of threats and hazards, including those having potentially cascading effects, at all phases of crisis cycle. In addition, measures to ensure resilience of regions and local communities in

Ukraine have fragmentary and unaligned character, the post-crisis recovery process is predominantly challenging, resource intensive, and lasting, low-level public-private partnership development in security area is observed, both at national and local levels, and resilient bilateral communications with the population have not been established.

Identified in this study systemic problems relating to ensuring national resilience in Ukraine, point to existing vulnerabilities of the state and society, and also, to the fact that these systems elements have not fully met most resilience criteria of state and resilience criteria of functioning.

It can be stated that, despite the substantial resilience potential of the state and society, systemic national resilience ensuring mechanisms have not been yet established to support adaptability of the state policy in national security and the management of key areas in providing essential services for the state and society in an uncertain and rapidly changing security environment, and roots evoking vulnerabilities in the state and society have not been eliminated completely. Dealing with the subject systemic problems in the sphere of ensuring the national resilience of Ukraine requires comprehensive settlement based on the systems approach and determinate conceptual framework rather than stand-alone measures in different areas.