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**THEORY OF LOGISTICS AND FINANCE SUPPORT OF EMERGENCY RESPONSE
AND MITIGATION MEASURES**

Abstract. The essence of the definitions “logistics of emergency response and mitigation measures” and “finance support of emergency response and mitigation measures” are brought to light in the paper. The organization of logistics and finance support of emergency response and mitigation measures, taking into consideration economic and financial potential of the state is analyzed. Underlying principles of financing of works related to emergency response and mitigation measures are offered and main sources of their financing are determined. The role of the material and financial reserve during emergency response and mitigation measures is characterized.

Keywords: emergency, logistics and finance support of emergency response and mitigation measures, reserve material, emergency fund, physical and financial resources.

Statement of the problem. One of the most important components ensuring emergency duties in natural and man-caused emergency prevention and mitigation and protection of the population from their negative consequences, is a proper management of logistics and finance support of emergency response and mitigation measures.

Among the complex problems of ensuring state policy in the sphere of civil protection, one of the most pressing is the achievement of the appropriate level of logistics and finance support of the State Service of Emergency Situations of Ukraine (SSES of Ukraine). In recent years, there has been a tendency towards increasing expenditures for the protection of the population and territories from the emergencies, their occurrence prevention, mitigation measures, extinguishing fires, and the activities of emergency-rescue services; nevertheless, their amount remains insufficient. Thus,

according to the Law of Ukraine “On the State Budget of Ukraine in 2017”, the SSES of Ukraine was provided, out of the general fund, with expense allowance in the amount of UAH 7,446,300,000, which was 40.7 % of the needs, and 802.1 million hryvnas of expense allowance out of the special fund [1]. In 2018, there were envisaged 11.2 billion hryvnas expenditures (including 10.3 billion hryvnas out of the general fund, and 0.9 billion hryvnas out of the special one), which was almost 37% more than in 2017. The tendency to funding increase has proved to be strong and in 2019, in particular, expenditures are expected to amount to 13.8 billion hryvnas.

Unfortunately, state programs on civil protection are not always supported by sufficient funding, that is why they are not implemented to the full. Therefore, it is extremely important to solve the issue of improving the logistics and finance support of the SSES units of Ukraine because it is extremely important for their vital activity.

The problems of logistics and finance support of the budget sphere were studied by A. Bogomolov, O. Vasylyk, H. Herasymenko, A. Dumikian, I. Diakonov, A. Epiphanov, T. Kanieva, M. Knysh, B. Kuznietsov, M. Lukianov, V. Oparin, V. Ostapenko, Yu. Pasichnyk, N. Pihul', R. Popova, I. Romanenko and others. The problems of logistics and finance support of the SSES units of Ukraine were researched also by domestic scientists - M. Bublyk, Yu. Gorbachenko, A. Kaplia, M. Kutsenko, N. Lega, S. Podobed, O. Trush, V. Chuban, A. Chubenko, etc.

The aim of the article is to research the mechanism of logistics and finance support of emergency response and mitigation measures in Ukraine.

Presentation of basic material of the research. Emergency response management depends on the level of logistics and finance support of emergency response measures.

Logistics is provided for the sake of meeting current material needs of the SSES assets, involved in the liquidation of emergency situations and their consequences.

Logistics is management and implementation of a set of measures aimed at timely and complete maintenance of the needs of units in rescue equipment, technology, fuel, food, kit, clothing, medical, engineering, chemical, and other property and materials to perform their tasks during the liquidation of the emergency situations and their consequences.

Central bodies of executive power, the Council of Ministers of the Autonomous Republic of Crimea, local state administrations, local self-government bodies and economic entities provide subordinate units of civil protection, civil defense forces and other organizations whose activities are aimed at fulfilling tasks and measures of civil protection, with means of civil protection, other property, premises, classrooms, housekeeping areas and store rooms, other facilities and buildings (fire quarters, storage depots for equipment, gyms, sports grounds), warehouse areas in the scope necessary for their activity, they also provide, in accordance with established procedure, land plots for their accommodation [2].

In order to improve logistics of SSES units, in 2018 the agreements were signed which resulted in receiving and transferring to subordinated territorial units of: 75 units of fire truck tankers totaling UAH 375,334,875; 1 mobile command point totaling UAH 33,000,200,000; 1 semi-trailer truck of mobile command point totaling UAH 1,799,990; 400 sets of suits for special protective clothing (fire protective clothing) totaling UAH 7,185,600. Thanks to 2018 local budgets subventions, the structural units of SSES of Ukraine purchased material assets totaling UAH 110,157,5000 [3].

In 2018, a significant material support of the territorial bodies of the SSES of Ukraine was provided thanks to humanitarian and charitable assistance, funds and property for the implementation of targeted measures (195 million hryvnas). Odessa region emergency rescue units received about UAH 17 million. As a charitable support, Ivano-Frankivsk region –7.5 million hryvnas, and Donetsk, Kirovohrad, Kherson regions were contributed more than 6 million hryvnas [4].

Reserve material plays an important role in the finance support of mitigation measures. Reserve material formation is an integral part of the complex of measures to prevent the emergencies, reduce the risks of their occurrence, as well as reduce possible negative consequences.

Reserve material is a pre-arranged reserve of construction supplies and supplies of combustive and lubricating materials, medical products, food, equipment, technical means and other material

values intended to prevent and eliminate consequences of emergencies, provide assistance to the injured, take measures to emergency recovery.

Reserve material allows civil protection forces to timely implement measures aimed at emergency preventing and eliminating, and providing humane relief service.

Depending on the level of emergency, the following types of reserve material can be used to prevent and eliminate consequences of emergencies [5]:

- operational – to prevent and eliminate the consequences of the emergencies on the territory of the state by the decision of the Head of the SSES of Ukraine;
- departmental – to prevent and eliminate the consequences of emergency situations in the facilities of particular industries by the decision of the head of the sphere;
- regional, local and facility – to prevent and eliminate the consequences of emergencies on particular territories and in the facilities by the decision of the heads of local executive bodies, local self-government bodies, and heads of enterprises.

The list and scope of material values that are necessary in case of a particular emergency are determined by the decision of the head of the executive body, the local self-government body, the enterprise that created the reserve.

If the reserve material of a certain level (regional, local and facility) is insufficient to ensure the fulfillment of the tasks for the liquidation of the consequences of emergencies on the territories or facilities involved, or if it has already been used, the higher level of reserve material is involved to the full.

Higher-level reserve material is used at the request of executive authorities, local authorities and managers of enterprises that have used their subordinate reserve.

The formation of reserve material is vital, because it provides material basis for the prompt execution of the first-priority works on the elimination of the consequences of emergencies, ensuring the reduction of material losses and reducing the number of possible socio-economic losses.

Thus, the logistics of the measures of the liquidation of emergencies and their consequences is a complex of organizational-economic, engineering, technical, legal and other measures aimed at

the continuous supply of governing bodies and civil protection forces, as well as the population who suffered in emergencies.

The pressing issues of the SSES units of Ukraine are as follows: tight budget financing in accordance with clearly defined income and expenditure items; funds are distributed in accordance with outdated methods and approaches; constant shortage of funds makes timely units' infrastructure updating impossible; the existing reporting and accounting system does not cope with the traffic in amounts sufficient to ensure more optimal planning and use of funds to say nothing of the excessive bureaucratization of the SSES of Ukraine [6].

Organizational measures funding aimed at the liquidation of the consequences of the man-caused and natural disasters is provided in accordance with the Law of Ukraine "On the State Budget of Ukraine", Regulation of the Cabinet of Ministers of Ukraine dated March 29, 2002 No. 415 "On Approval of the Use of Funds from the Reserve Fund of the Budget", Regulation of the Cabinet of Ministers of Ukraine dated February 4, 1999 No. 140 "On the Procedure for Financing of Works on the Prevention and Elimination of Emergencies and their Consequences", etc.

The measures in the field of civil protection are financed out of the State Budget of Ukraine, local budgets, funds of economic entities, and other sources not prohibited by law [2].

The measures on the liquidation of the consequences of the emergencies in the facilities of all forms of ownership are funded in accordance with their levels [7]:

- facility level – out of capital resources of enterprises, establishments and organizations where the emergency happened;
- local and regional levels – out of equity capital of enterprises, establishments and organizations on where the emergency happened/can happen, and additionally – out of district reserve (local level) and the reserves of the Council of Ministers of the Autonomous Republic of Crimea, regional, Kyiv and Sevastopil municipal state administrations (regional level);
- state level – out of the state budget resources to meet these needs, in particular, partially, out of state budget reserve fund.

Thus, the 2018 State Budget of Ukraine provided 201 million hryvnas of the reserve fund for the maintenance of SSES of Ukraine activity, where 136 million hryvnas were expenses for the prevention and elimination of the consequences of emergencies [4]. Finance support of measures on emergency liquidation and their consequences elimination is a method of a financial mechanism that determines the principles, sources and forms of their funding.

The author considers that financing of measures on emergency liquidation and their consequences elimination should be based on the following principles:

- irrevocability – irrevocable allocation of budget funds to the appropriate spending units within the limits of the voted sums;
- gratuitousness – absence of payment in the form of interest for the allocated budget assignments;
- goal – funds out of the budget are allocated for the set purposes, in our case, for the purpose of liquidation of emergencies and their consequences;
- planning – allocation of budget funds within the limits set by the budget in accordance with the scope of expenditures financially approved of in the spending units' budgets;
- funds efficiency and rationality to achieve maximum effect at minimum expenses;
- control over the use of budget funds, i.e. the use of all types, forms and methods of budget control.

A specific feature of emergency liquidation activities financing is that, along with the expenditures planned for the implementation of the state budget and regional programs, there are also unforeseen expenditures, which are funded directly through the reserve fund of the budget by special decisions of the Cabinet of Ministers of Ukraine and local authorities.

According to the legislation of Ukraine, reserve funds of the Cabinet of Ministers of Ukraine are provided for the liquidation of emergency situations and their consequences, as well as out of the reserve funds of the corresponding budgets, which must exercise the right of citizens of Ukraine in the sphere of protection of the population and territories from the emergency situations.

Draft decisions on the allocation of funds for emergency liquidation out of the reserve budget fund are prepared on the basis of petitions of the competent authority of the executive body, with:

- conclusions of the commissions on technogenic and ecological safety and emergencies;
- acts of the size of the damages incurred;
- generalized cost estimates for priority search-and-rescue and other urgent activities.

In case the required material or financial resources for the localization or liquidation of the emergencies are exceeding in the scope one's own capabilities, the local or facility committee shall seek assistance from the relevant regional commission, which, assuming the decision on the provision of the necessary assistance, takes the responsibility for coordinating the actions, or management of work on the elimination of this situation.

In case of shortage of material and financial resources for the liquidation of the emergencies of the regional or national level, the above mentioned resources may be allocated to them in accordance with the procedure established by the Law out of the state material reserve and the reserve fund of the Cabinet of Ministers of Ukraine and the reserve fund of the State Budget at the request of central executive authorities, the Council of Ministers of the Autonomous Republic of Crimea, regional, Kyiv and Sevastopol municipal state administrations.

Thus, to liquidate emergencies and their consequences the following funds are created:

- at the national level: the Reserve Fund of the Cabinet of Ministers of Ukraine and the Reserve Fund of the State Budget – to finance expenditures related to the liquidation of emergencies of the national level (out of the State Budget of Ukraine); material resources stockage – for priority work on the liquidation of emergencies (out of the state material reserve created by the Cabinet of Ministers of Ukraine);

- at the regional level: out of the regional reserve of financial and material resources;
- at the local level: out of the local reserve of financial and material resources;
- at the facility level: stockage of material and financial resources – out of own funds of state enterprises, institutions and organizations.

The scope of material and financial resources is determined by the body that creates them.

Conclusions. Summarizing the above said, it is possible to state that the finance support of emergency response and mitigation measures belongs to the category of economic factors that influence the liquidation of emergency situations and their consequences. In order to increase the effectiveness of the SSES of Ukraine funding, in our opinion, it is necessary to rationally and efficiently use the budget funds and capital base of the SSES units; it is expedient to abandon the practice of the residual financing method and to finance the SSES of Ukraine taking into account real needs; to organize and carry out objective supervision of compliance with the budget legislation. There is no doubt that it is necessary to continue to increase the expenditures for SSES of Ukraine activities, in particular, to annually allocate funds for upgrading and modernizing the infrastructure of the units, the social programs for rescuers' development, ensure the implementation of state programs on civil protection issues, to update the legislative framework on the formation of uses of material and financial resources.

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**THEORY OF PUBLIC ADMINISTRATION IN THE AREA OF NATIONAL
SECURITY PROTECTION UNDER GLOBALIZATION**

Abstract: The theory of public administration of national security development is studied and analyzed, the essence of such concepts as “security”, “national security system” is revealed; the constituents of national security of Ukraine are determined; key instruments of public administration of national security of the state are characterized; structural-functional analysis of national security system is conducted; the basic principles of the development of the national policy of national security, the role of the state in national security protection under globalization and within the framework of guaranteeing human security are researched.

Keywords: security, national security, public administration, public administration mechanism, national security system, national security protection, national interests, managerial decisions.

Statement of the problem. The problem of security has always been a concern for humanity in the process of development of civilization. After two world wars and the end of the Cold War regime, the hopes that the number of threats to the national and international security will reduce is fading. Nowadays, in the epoch of globalization, each country tries to minimize the impact of threatening factors on national security.

Actual scientific researches and issues analysis. Taking into account the urgency of the research on ensuring national and international security, aggravating global security problems, a number of leading domestic and foreign scientists devoted their papers to solving the complex problem of ensuring national security in an attempt to comprehend the tendencies and consequences of the profound

transformations of the geopolitical and geoeconomic space of the end of the last century. Among them are as follows: M. Abdurakhmanov, O. Bodruk, V. Bogdanovich, V. Vahapov, A. Vozzhenikov, K. Hajiyeu, M. Hareev, O. Honcharenko, V. Horbulin, M. Dzliiev, E. Zolingen, E. Carter, A. Kachynsky, R. Coen, A. Kokoshyn, H. Kostenko, A. Kostrov, E. Lisitsin, V. Manilov, V. Mogilevsky, S. Mosov, V. Muntian, A. Okara, H. Perepelytssa, U. J. Perry, G. Pocheptsov, A. Prochozhaev, S. Proskurin, I. Romanchenko, E. Skakunov, S. Smulsky, J. Snyder, A. Tkachev, A. Utkin, V. Shamray, R. Yanovsky, V. Yarochkin and others.

The aim of the article is to articulate the theoretical foundations of public administration of the national security development under globalization, to outline the components of the national security of Ukraine; to characterize the main indicators of national security; to identify the threats affecting national security; to elaborate guidelines for the intensification of the implemented measures to minimize existing threats.

Presentation of basic material of the research. The diversification of threats and challenges to the individual, state and society has led not only to the aggravating of national security problems, but also to a significant transformation of the content. In spite of foreign policy and military aspects, national security has extended over the sphere of economic, social, environmental, cyber, legal and other relations, and, moreover, it has begun to be determined by the economic opportunity, transparency, decent living conditions of a person and a citizen.

The formation of a complete national security regime involves the selection of priorities and the analysis of the factors of national security at the special Strategy level, the ground of which was primarily broken in the Basic Law. In the Constitution, Ukraine has been proclaimed a sovereign and independent, democratic, social state governed by the rule of law. Basic parameters of competent public authorities affairs in the sphere of national security are established in the Constitution of Ukraine; the legal basis for taking into account possible threats and possible active response are laid; the limits of state interference with its citizens' lives are determined; the initial principles for the current legislation on ensuring national security are set[1].

According to the Article 26 of the Law of Ukraine “On National Security of Ukraine”, the National Security Strategy of Ukraine is the main document of a long-term planning, which determines public policy in the sphere of national security.

The National Security Strategy of Ukraine is developed on behalf of the President of Ukraine within six months after accession to the presidency, thereafter it is approved by the Decision of the National Security and Defense Council of Ukraine and by the decree of the President of Ukraine. The President of Ukraine, if necessary, is entitled to amend the National Security Strategy of Ukraine as prescribed by law [2].

Since the XXI century, globalization accompanied by its objective and legitimate processes – integration, globalization of development, global transformation – has become the main law of the global change. Globalization processes fulfil a role of an exogenous factor which has an ambivalent orientation as to the national security, meaning that, as a positive phenomenon of social progress, globalization is aggravating the problems of national security. Interstate conflicts, terrorist attacks, the threat of nuclear war, anthropogenic and natural disasters remain a great danger.

The list of present and potential threats to the national and international security is far from reduced to the examples above. Under current circumstances, ensuring the national interests of any state of the world suggests an adequate response to the challenges and threats of the present, i.e. the implementation of an effective national security policy.

Moreover, they are one of the factors that has led to the formation of a new concept of the national security, according to which, the latter is, firstly, an integral part of the higher level system (regional, international, global security), which is the result of the integration of the global society in an attempt to overcome mutual threats and challenges. And, secondly, national security problems have become widely understood due to the internationalization of political and legal systems of different countries – the fact that relates them to the non-military aspects of national security, in particular human development issues.

Scientific concepts result from the cognitive process. Nevertheless, they are the cornerstone of the in-depth and comprehensive study of the topic. Modern legal science, law-making are characterized by the focus on the development of framework of categories and concepts. In the process of concept formulation, the essence of the corresponding legal phenomenon is concentrated at, the regularities of its formation and development are revealed, the place of one or another object in the system of phenomena of legal reality is determined.

The concept of “security” is multifaceted, but, mainly, it means the development trends and standard of living of society, which ensures the preservation of their qualitative and structural clearness and free, natural functioning. Therefore, the decision on the safety of the social system can be taken on the basis of the analysis of its development and functioning dynamics with certain specific indicators, which can destroy the system if they push the limit. In view of this, it is necessary to influence the parameters that determine the security of the system, while, in its turn, the need to ensure the safety of an individual and society should determine the policy and content of the public administration, the key objects of their management efforts. At the same time, the level of security depends on the available opportunities (potential) that are at the disposal of the state and their utilization efficiency by the bodies of state administration in the sphere of national security.

Security strategy in the general sense can be defined as the activity of the subjects of political relationship for ensuring national and international security. The national security strategy, from the point of view of the state policy, has internal and external orientations. The nature of the state security strategy, its orientation and methods of implementation depend largely on the understanding of the essence of national security by the executive decision-making subjects.

The influence of globalization has also transformed the nature and content of state activities. States are increasingly engaged in global problems: crime, climate change, “ozone holes”, the formation of deserts, carbon dioxide emission, the epidemic, poverty [3, p. 89–90].

In Ukraine, the concept of "national security" has become very important in the last few years. Though, the understanding of this concept varies in different strata of the people. National security for the majority of population of the state is associated only with the activities of national

security environment, identified with the defense of the state, etc. Indeed, in today's world, the guarantees of national security are still provided by the force or threat of the use of such force, and military power is one of the factors of the state power. However, it should be taken into account that economic, political, moral and ethical and other, not heavy-handed aspects of ensuring national security are gaining in importance.

Today, there is a large variety of definitions of the concept “national security”, and their authors have their own thoughts and approaches regarding the interpretation of this concept, in the narrower or, on the contrary, broader sense of this combinations of words. Therefore, to my mind, to understand the overall scope of the concept, it is necessary to study at least a few of them.

In accordance with clause 9 of Art. 1 of the Law of Ukraine “On National Security of Ukraine”, the national security of Ukraine is the protection of state sovereignty, territorial integrity, democratic constitutional system and other national interests of Ukraine from real and potential threats [2].

According to another definition, national security is a complex of formally approved views on the goals and state strategy in ensuring the security of an individual, society and state from external and internal threats of political, economic, social, military, technological, environmental, informational and other nature, taking into account available resources and opportunities [4, p. 5].

According to N. Kosolapov, national security is a stability which can be sustained for a long time, a state of sufficiently reasonable dynamic protection against the most significant of the real threats and dangers, as well as the ability to recognize such challenges and take timely measures to neutralize them [5, p. 67].

Thus, the formation of the scientific concept of “national security” is a complex and polemical problem, since its crudity and the lack of unanimous understanding reflect the diversity of views on its provision. The definition of this concept offered in the Law of Ukraine “On National Security of Ukraine” does not sufficiently take the point further, which causes the need for the scientific research in this area of public relations. From a theoretical perspective, this is an important issue, since the definition

of the “national security” should reflect the essence of this phenomenon and single out the components of security, so that they can be secured in legislation.

As for the structure of the security and defense sector, according to article 12 of the Law of Ukraine “On National Security of Ukraine”, it consists of four interrelated components: the security forces; defense forces; defence industry complex; citizens and public associations that voluntarily participate in ensuring national security. Functions and powers of the components of the security and defense sector are determined by the legislation of Ukraine [2].

Thus, the basis of the system of ensuring the national security of Ukraine is the bodies, forces and means of ensuring national security, which use the system of theoretical and methodological, regulatory, informational and analytical, organizational and managerial, intelligence, counterintelligence, intelligence-gathering, personnel, scientific and technical, resource and other measures aimed at ensuring the process of managing threats and risks, where state and non-state institutions guarantee progressive development of Ukrainians national interests, sources of spiritual wealth and welfare of the people of Ukraine, effective functioning of the system of the national security of Ukraine.

Under political and legal system organization, the security system acquires a specific form, but at the same time it does not change in essence. The state, its institutions and bodies remain the most effective repellent to internal and external threats of social, natural and man-made nature. Constant changes in the internal and external environment have made the state and society try to form effective means of protection against the corresponding threats. This problem has become particularly pressing under the global general civilizational changes.

The absence of this system will make it impossible to secure the protection of the foundations, the basis of national security. The main purpose of this system is to achieve the goals of national security, and therefore the main function of this system is to ensure the balanced existence of the interests of the individual, society and the state through monitoring, diagnosis, identification, prevention and termination, minimization and neutralization of the actions of internal and external threats and dangers. The response to the threats should correspond not only to their nature and extent, but also to the level of desirable and possible state of national security.

At the present stage of development of security science the following basic elements of the structure of national security are distinguished:

- state security – a concept that characterizes the security level of state sovereignty, territorial integrity and democratic constitutional order and other vital national interests from the real and potential threats of non-military character;

- public security – a concept manifested in the security level of vital for a society and person interests, human and civil rights and freedoms, ensuring of which is a priority task of the security forces, other state bodies, bodies of local self-government, their officials and the public who make concerted efforts for the implementation and protection of national interests from the threat;

- military security – the security of state sovereignty, territorial integrity and democratic constitutional order and other vital national interests from military threats;

- technogenic safety – the level of protection against threats of anthropogenic nature;

- environmental safety and protection against natural disasters;

- economic security;

- energy security;

- cybersecurity;

- bodily security;

- etc.

Having understood the concept of “national security” and its internal structure, it is possible to classify its threats more thoroughly, to formulate the concept of a mechanism for ensuring national security, to determine the place and role of bodies of state administration in ensuring national security and to analyze their main tasks and functions for the purpose of improvement of their practical activity related to the actualization and protection of Ukraine's national interests.

Global changes in the modern world, along with positive phenomena, cause new threats and aggravate effects of the old ones. There are also changes in the nature and the extent of the danger. Under these conditions, a state becomes the main subject of security, a special role is assigned to the state means for counteracting threats of various nature and extent of danger.

In this regard, the Strategy of National Security of Ukraine states that, under the globalization of processes of the global change, international political and economic relations forming new threats and risks for the development of an individual, society and state, Ukraine as a guarantor of a successful national development changes over to a new state policy in the sphere of national security [6]. The transition to a qualitatively new state policy requires appropriate changes in the legal form. That is why today the legal aspect of improving the state mechanism of ensuring national security has not only theoretical but also essential applied significance in the context of the general question of the legal reform of the national security system of Ukraine.

The social nature of the state-legal mechanism for ensuring national security is due to objective historical processes of co-operation and organization of social activities. Survival, normal human life, development and safety of each person are provided by the unification of people into a single organized system.

The real values for the state, society, personality are spiritual and material wealth, without which it is impossible to satisfy vital needs. It is these values and wealth that they are usually interested in, and these values determine the content of the category of “national interests” [7, p. 21].

Conclusions. Thus, an adequate level of security is achieved through the implementation of the unified state policy backed up by a system of concerted efforts corresponding to internal and external threats. Without such a policy, it is impossible to force the mechanism of national security management in Ukraine, to create effective mechanisms for the protection of the population.

At the current stage of statehood development it is efficient that a real and effective policy in the national security sphere should be based on a clear account of the significant factors affecting it, knowledge of their main characteristics, priorities and limits. Each of these factors influences the current condition of national security in its own way, that requires their systematic and integrated consideration in the process of development of our state and the immediate elimination of the problems and gaps in ensuring national security under the conditions of the global change and globalization as such.

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ORGANIZATION OF PATRIOTIC EDUCATION OF THE PERSONNEL OF THE CIVIL PROTECTION SERVICE UNITS

Abstract. The importance and the role of the patriotic education of the personnel of the Civil Protection Service units as a part of the system of securing national safety in Ukraine are brought to light in the paper. The process of the patriotic education of the personnel, taking into account economical, socio-political, demographic situation, formation of moral, ethic, national and historical bases for their activity is analyzed in the paper. The system of principles of organization of patriotic education of the personnel, main tracks of patriotic education of the employees as the citizens of Ukraine, on the one hand, and specialists of the Civil Protection Service, on the other hand, as well as factors that influence the formation of personnel's patriotism are determined on the basis of the conducted analysis.

Keywords: patriotism, patriotic education, civil protection, patriotic education tracks, principles of organization of patriotic education, personnel, social and humanitarian work.

Statement of the problem. The Revolution of Dignity, the feat of the heroes of the Heavenly Hundred, the war in the East of Ukraine have demonstrated the readiness of the citizens to defend national values of the Ukrainians and statehood. Nowadays, national patriotic education should become one of the main components of the national security of our state. Patriotism should give a new impetus to the spiritual improvement of the people, the formation of a civil society in Ukraine, which involves the transformation of the civic consciousness, moral and legal culture of people, the prime of national consciousness and recognition of the priority of human rights.

Without understanding and respect for our history, culture and law, there is no such thing as respect for the present and future of Ukraine. In recent days, the role of patriotic education of the

personnel of Civil Protection units has grown. It is obvious that the activities of the units of the State Service of Emergency Situations of Ukraine (SSES of Ukraine) affect directly the interests and security of all Ukrainian society. And these are only the patriots of Ukraine with national dignity and sense of national identity who can perfectly fulfill duty assignments ensuring the implementation of the state policy in the field of civil protection, helping victims, protecting the population, territories, the environment and property from emergency situations and responding to them.

Nowadays, there are certain requirements to the professional training of the personnel in the units of Civil Protection to fulfill the tasks of awareness-raising work. There is an objective need for the organized process of personal development of the employees, taking into account the economic, socio-political, demographic situation, the formation of moral and ethical, national-historical foundations of their activities. Procedure of professional training management of privates and junior commanders of the units of the Civil Protection Service shows that one of the tasks of professional training, in particular humanitarian, is its national-patriotic orientation, namely, forming a sense of patriotism, love for Ukraine and its people, culture, traditions and spiritual values, dignity, honor, sense of national identity, loyalty to the Oath [1].

Patriotism as a valuable positive attitude towards homeland, its people, family, is a significant motivating factor that would spur the personnel of the Civil Protection Service to achieve success in their service, demonstrate heroism while preventing from and eliminating emergency situations.

In our opinion, a clear arrangement of the patriotic education of employees of the Civil Protection would contribute towards the moral, ethical and national interests of the state.

The number of research papers on the patriotic education witnesses to their multidimensional nature. Just to name a few, T. Shevchenko, H. Skovoroda, I. Franko, Lesia Ukrainka, K. Ushynsky, B. Hrinchenko, M. Hrushevsky, M. Drahomanov, A. Dukhnovych, S. Yefremov, I. Ohijenko, S. Rusova, Ya. Chepiha, D. Chyzhevsky researched the essential features of Ukrainian patriotism and found out that patriotic education is a fruit of ethnic. L. Vygotsky, I. Halchynsky, H. Kostyuk, M.

Leontiev and others devoted the studies to the research of the mechanisms of the personality formation and development, which lay bases for military-patriotic education.

It should be noted that the problem of the organization of patriotic education of the personnel of Civil Protection units is still under-researched.

The purpose of the paper is to justify the content, principles and methods of patriotic education of the personnel of Civil Protection units.

Presentation of basic material of the research. The concept of “patriotic education” is connected with the understanding of the essence of “patriotism”. Etymologically, the word “patriotism” comes from the Latin word “pater” – "father", later "generation", "genus", "tribe", "family", and is generally translated as “homeland”. The most convincing, in our opinion, is I. Bekh’s interpretation of the concept of “patriotism who regards it as a categoric and meaningful sense-value, which characterizes the attitude of the individual to people, homeland, state and to himself [2].

Having analyzed philosophical, psychological and pedagogical literature, the author has come to the conclusion that the essence of patriotism can be interpreted as a moral quality, manifested in the ability to identify themselves with his native people, in love and devoted to their homeland, with the need for constant spiritual and intellectual growth for the sake of the greatness and glory of their homeland and, under any conditions, being ready to defend state democratic values and national interests of its people, strengthen the power and sovereignty of the state.

In fact, it is not the nationality that makes one a patriot. A patriot is a person with a proactive approach to life, whose deeds and actions help to improve life in general so that the state becomes an advanced country. To form this level of national consciousness, an integrated system of circumspect systematic influence, that is, a system of patriotic upbringing, must be successfully implemented.

K. Ushynsky believed that patriotic education is the inoculation of the sense of duty, responsibility to the homeland, and high dignity. In particular, he wrote: “As there is no person without self-love, there is no one without love for the native land, and this love gives the upbringing

the right key to the human heart and a powerful resistance to struggle with his/her bad ...inclinations” [3].

H. Vashchenko, highlighting that patriotism is reflected in the national educational ideal, interpreted the concept of patriotic education as a process of purposeful involvement of young people in deep faith in God, in the national and universal values, in restoring the independence of Ukraine and raising national spiritual culture, education, science and art to a high level [4].

According to A. Makarenko, who looked at the concept in question as a part of the general educational system of the state, patriotic education is the formation in a young person of such personality traits as will, courage, purposefulness, self-esteem, pride for his people, honor, etc. [5].

In the SSES of Ukraine, patriotic upbringing of the personnel of its units is understood as an organized, systematic and purposeful process of acquiring by young people of the national values and cultural practices with the aim of forming of national consciousness and civic awareness, patriotic convictions and behavior, awareness of their actions for the benefit of the people and the state, homeland defense readiness.

The dominant idea of the patriotic education of the personnel of the SSES units of Ukraine is the formation of a values-based attitude to the world and oneself, a pro-active attitude to life [6].

The main goal of the patriotic education of the personnel of the Civil Protection units is the formation of a patriot-citizen of Ukraine, ready to ensure national security, promote the unification of the Ukrainians, peace and reconciliation in society, form patriotic consciousness, and pride and respect for the state symbols of Ukraine.

The cornerstone of the system of patriotic upbringing of the personnel of the SSES unit of Ukraine is the idea of developing Ukrainian statehood as a consolidating factor for the development of society. The forms and methods of education have rooted themselves in the Ukrainian folk traditions, the best achievements of national and world pedagogy and religion.

The key to the effectiveness of the educational process is the organic combination of a system of principles of patriotic education into a coherent system that ensures the achievement of relevant results – firmly and organically assimilated universal and Ukrainian national values.

The basic principles of patriotic education of the personnel of Civil Protection units are the principle of the national-based education, cultural conformity, humanization of the educational process, integrity, creative activity and tolerance [6].

In our opinion, it is necessary to add the following principles to the aforementioned principles of patriotic education of the personnel:

- sensitivity, i.e. taking into account peculiarities of personality development and the most favorable periods for the perception of a certain educational material, information traffic;
- the acmeological principle, i.e. commitment of the educational process to higher moral and spiritual achievements and the potential of the individual, providing a background for success, the development of individual abilities;
- ethnization of the educational environment, i.e. forming of an infrastructure of the SSES of Ukraine, which ensures the development of patriotic feelings, relations and behavior of the personnel;
- the principle of spiritual and moral action - to honour the memory of Chernobyl victims, late colleagues, fallen soldiers of Kyiv's anti-terrorist operation.

The implementation of the goal and principles of patriotic education is carried out in the following priority areas:

- formation of national consciousness and responsibility for the fate of Ukraine;
- cultivation of love for the native land, its history, preservation of historical memory;
- cultivation of the best features of Ukrainian mentality (being free, industrious, connected to nature);
- cultivation of caring attitude to the national wealth of the country, its language, culture, traditions.

The implementation of the system of patriotic education of the personnel of the Civil Protection units provides for the application of all of the methods of education. Taking this into consideration, patriotic training of personnel can be classified in the following way:

- the first group – methods of awareness of patriotic values;

- the second group –methods of forming of the experience of patriotic behavior;
- the third group –methods of stimulating patriotic activity and behavior.

Methods of awareness of patriotic values are a group of patriotic education methods that form a system of patriotic values such as: Motherland (Homeland), peace, the Earth, a human being, culture, language, knowledge, family, labor, etc. The peculiarity of the methods of this group is their verbal nature. The purpose of this group of methods is personnel's awareness and evaluation of their own patriotic experience, motivation of their actions. To my mind, the most important methods of awareness of patriotic values are the following: story-telling, explanation, conversation, discussion, and example.

Methods of forming of patriotic behavior experience include methods of training, habit acquiring, pedagogical requirement, etc. All of them are based on the practical work training of the personnel.

Methods of patriotic activity and behavior stimulating are a group of methods such as awards, admonition (punishment).

SSES personnel's on-duty education is organized on regular base to form patriotic consciousness, sense of love for Ukraine, respect for prominent national historians, and readiness to perform their duties. One of its main tasks is the cultivation of patriotism, high moral qualities, sense of team work, mutual help and support, responsibility for the tasks entrusted and the result of work.

Humanitarian training is a part of on-duty education designed to form a sense of patriotism, love for Ukraine and its people, culture, traditions and spiritual values, dignity, honor, national consciousness, loyalty to the Oath, personal responsibility for the security of the Ukrainian state and its people [1].

Social and humanitarian work is an integral part of the cultivation of patriotism in SSES personnel. It is a continuous process that includes a complex of organizational, sociological, pedagogical, psychological, outreach, legal, cultural and educational, social and individual educational measures, aimed at personnel's awareness of the political goal of the activity of the SSES of Ukraine, the system of values they protect, the development of the necessary in their

profession psychological qualities, promotion of state-mandated socio-economic and legal guarantees to ensure high availability of forces, normal drill and personnel's cohesion to perform assigned tasks [7]. The main areas of social and humanitarian work with the personnel are social work, humanitarian training, outreach supporting, individual educational work and prevention of offenses, cultural work, sporting and mass participation events, and assistance in the activities of SSES veterans' organizations.

The units of the SSES of Ukraine pay sufficient attention to the patriotic upbringing of the personnel, using different forms of patriotic education: during training, awareness-raising activities on domestic and foreign policy of Ukraine, the Laws of Ukraine to instill respect for statutory provisions; while studying the history and prominent personalities of Ukraine and native heath; researching great personalities of the SSES of Ukraine, etc.

We are convinced that an effective form of patriotic upbringing of personnel is the organization of meetings with veterans, honored employee of the SSES of Ukraine, the Ministry of Internal Affairs, liquidators of the Chernobyl disaster, famous public figures, volunteers, heroes-defenders of Ukraine, who can affect the patriotic feelings of co-workers. During the meetings, historical phenomena and current events are judged on the basis of principles of historical authenticity, scientificity, humanity, charity, as well as through the generational bridge prism.

Conclusions. To sum it up, patriotic upbringing of the personnel of the SSES of Ukraine is a process of systematic, complex and comprehensive managerial impact of state authorities and commanders on the consciousness, subconsciousness and behavior of the personnel to form a high moral, civil, professional, socio-psychological qualities necessary for successful job task execution under any conditions. To optimize the process of patriotic education of the personnel of the SSES of Ukraine, it is needed to select and combine various methods and forms of patriotic education, to avoid formalism and monotony, to saturate them with patriotic emotions and experiences, to actively use examples of courage from the historical past and present, such as Kyiv's anti-terrorist operation heroes, who are defending our state from Russian invaders. It is important that the SSES personnel, regardless of their nationality and the region they were born and raised in, feel they belong to

Ukraine, want to live in this country, understand the necessity of keeping up to constitutional and legal norms, have a command of the state language, perceive regional history as part of the history of Ukraine, feel engaged in the future fate of their region as an integral part of a single country.

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**ANALYSIS OF ORGANIZATION OF PERSONNEL PROFESSIONAL TRAINING IN
THE UNITS OF EMERGENCY-RESCUE SERVICE OF CIVIL PROTECTION IN
UKRAINE**

Abstract. The data as to the number of potentially hazardous facilities and extra high hazard facilities functioning in Ukraine are given in the paper, the conditions of professional activity of personnel in the units of Emergency-Rescue Service of Civil Protection in Ukraine are researched, the organization of personnel training for the mentioned units and the structure of the State Service of Emergency Situations in Ukraine are described. Main tasks of the units of Emergency-Rescue Service of Civil Protection in Ukraine are characterized. Basic professional training, degree professionals training, top-qualification research and academic staff training are constituents of professional training. The need for the improvement of the quality of professional training of personnel in the units of Emergency-Rescue Service of Civil Protection in Ukraine to ensure the fulfillment of professional tasks is justified.

Keywords: Emergency-Rescue Service of Civil Protection in Ukraine, professional training, firefighting, emergency mitigation.

Statement of the problem. The topicality of the problem of providing natural and technogenic safety is conditioned by the increase in the number of threats to the life and health of people, damages and loss to areas caused by dangerous natural phenomena, industrial accidents and catastrophes. The risks of natural and man-caused emergencies are constantly increasing.

The area, population and agriculture of Ukraine are negatively affected by the set of interrelated factors that cause the occurrence of natural and man-caused emergencies, deterioration of the environment, loss of life and economic damage.

A huge regional overloading of the territory of Ukraine with powerful industrial and energy facilities (according to the State Service of Ukraine on Labor, there are 23,334 hazardous facilities and 6,035 extra high hazard facilities (460 of which are of chemical hazard) increases the risk of accidents, which can cause the losses compared to the size of the national budget of an average country [1]. Moreover, vast areas with adverse natural impact and a tendency to dangerous natural phenomena arising exacerbate the problem of providing technogenic and natural safety.

During the last decade, there has been a tendency to the increase in the annual number of fires and emergencies on the territory of Ukraine, which proves the exceptional importance of operational actions of the personnel of rescue services, and their readiness to perform their assigned tasks.

The researches in the field of training emergency operation specialists remain an urgent challenge due to the complexity of regularities searching in these situations, as well as taking into account the difficulties of systematization of actions under the conditions of uncertainty, unpredictability, unexpectedness and short duration.

Pedagogical aspects of the problem of professional training of specialists are covered in the papers by N. Abashkina, R. Hurevych, I. Ziaziuna, V. Kremin', A. Kuz'minskyi, A. Lihots'ky, L. Lukianova, N. Nychkalo, L. Romanyshyna, M. Sysoieva, S. Smetans'kyi, V. Yahupov and other scientists.

The process of professional training to perform professional activities under emergency operation is researched by O. Aleksandrov, V. Ashmarin, A. Bol'shakova, L. Hontarenko, O. Didenko, M. Diachenko, I. Zhdanov, L. Kandybovych, M. Koziar, O. Kokun, M. Korol'chuk, D. Liebiediev, V. Lefterov, S. Myronets', O. Okhremenko, V. Plisko, S. Poltorak, V. Sadkovyi, O. Sklen', O. Sobchenko, S. Yavorskyi and other scientists.

The importance of professional training of employees in the system of the Ministry of Internal Affairs has been emphasized in the papers by O. Bandurka, Ya. Kondratiev, H. Yavors'ka, O. Yarmysh, whose researches were aimed at increasing workforce capacity of the police.

V. Arkhipenko, A. Bykova, V. But, V. Buz'ko, V. Varenik, N. Vovchasta, V. Hora, L. Didukh, A. Demchenko, O. Diachkova, A. Ivashchenko, L. Ishychkina, M. Koval, I. Koval, M. Koziar, M. Kryshchal', M. Kusiy, L. Mohnar, Yu. Nen'ko, O. Parubok, K. Pasynchuk, O. Povstyn, V. Rotar, V. Solntsev, M. Severin, T. Tkachenko, O. Uzun, M. Shkarabura and other scientists have greatly contributed to improving the professional training of specialists of the Emergency-Rescue Service of Civil Protection.

Presentation of basic material of the research. The main tasks of the Emergency-Rescue Service of Civil Protection are to perform service and take measures to prevent emergency situations, protect the population and territories from emergency situations, perform emergency-rescue works, extinguish fires, and eliminate the consequences of emergencies [4].

The personnel of the structural units of the Emergency-Rescue Service of Civil Protection perform their duties under the tense, extreme conditions. Therefore, their activities are characterized by the following features:

- shortage of time for decision making and its realization;
- the impact of the strongest stimuli – work in high or low temperature areas; concentrated smoke; where there are chemically hazardous and potentially toxic substances in the air; the possibility of an explosion; possibility of collapse of building constructions; work in a closed space; work at heights (negative heights); work under various climatic and weather conditions; work in the individual protective gear to protect respiratory organs, eyes and skin; where there are people in danger zones who need help etc. [5], [6].

When one has to work in the dark and limited space, there arise uncertainty and even frustration. Poor spatialization is accompanied by the reduction in the response time and precision in movement [7].

Training of a specialist who is ready to act at risk requires a high level of theoretical, practical, psychological training, and a number of appropriate volitional, moral and psychological qualities, as far as rescuers must be able to think quickly, make the right decision, correct steps on the spot [7], [2].

In recent days, there has arisen the need to train specialists of a new generation, people of keen intellect; this can only be ensured by a well-formed system of learning based on the principles of unity, continuation and continuity. The organization of the educational process at various levels (stages) of professional training help combine elements of the necessity and sufficiency of knowledge, system analysis and computer science, modeling and optimization, and use the achievements of theory and practice [8].

One of the main indicators of activation of the human factor is the level of professional training.

The pedagogical process in the system of professional training is defined as a purposeful, deliberately organized, developmental interaction of pedagogues-teachers, instructors, methodologists, during which there goes the formation of the necessary qualities, professional becoming. The directing role of a teacher ensures students' acquisition of knowledge, skills and abilities, development of their mental abilities, appropriate behavior, and their preparedness to act under dangerous conditions [8].

Professional training of the personnel of the Emergency-Rescue Service of Civil Protection is an organized and purposeful process of mastering knowledge and professional skills necessary for performing professional tasks and duty assignments [3].

Professional training of the personnel of the Emergency-Rescue Service of Civil Protection comprises primary vocational training, training of degree professionals and training of top-qualification scientific and academic staff [3].

Professional training is received through the system of departmental education, which includes higher educational establishments, vocational schools, educational and training centers, and

an education management body within the central unit of the State Service of Emergency Situations in Ukraine (SSES of Ukraine).

Primary vocational training of privates and junior commanders of the units of the emergency-rescue service of civil protection is carried out in vocational schools, educational and training centers, structural units of higher educational establishments of the SSES of Ukraine.

Training of degree professional to fill the vacancies of senior officers in the bodies and units of the Emergency-Rescue Service of Civil Protection and the vacancies of top-qualification scientific and academic staff is undergone in the higher educational institutions of the SSES of Ukraine, as well as in the educational institutions of other central government bodies, which train degree professional in the corresponding fields of study, in specialties (specializations) of non-core for the SSES of Ukraine fields of study (in terms of the system of state order).

Primary vocational training is the acquisition of vocational education by privates and junior commanders of the units of the Emergency-Rescue Service of Civil Protection, who do not have vocational profession, or a specialty of some other educational degree ensuring the appropriate level of professional qualification necessary for professional activity.

The terms and contents of training are determined in accordance with the state standards of vocational education for vocational professions. Planning, organization, recording of the job training process, the procedure for controlling the level of knowledge, skills and abilities of cadets and students, their qualification certification is carried out in accordance with the Regulations on the organization of educational process in vocational schools and the Provision on the organization of vocational education in the network of training centers of civil protection and life safety.

Those engaged in service in the organs and units of the Emergency-Rescue Service of Civil Protection to take posts of privates and junior commanders, regardless of their previously received educational degree, specialty and specialization, except for people who have vocational professions in the non-core fields of study and are taken to fill positions related to the received professional qualifications, which does not provide for vocational education in the field of civil protection, are placed for basic training.

By the time privates and junior commanders and cadets of the educational institutions of the SSES of Ukraine have completed their basic training, it is prohibited to involve them in professional activities and service, as, due to the lack of training, their service or non-professional actions can pose their lives and health a risk.

Privates and junior commanders and cadets of the educational institutions of the SSES of Ukraine who have completed their basic training get a diploma (certificate) of a state-recognized degree ensuring the completion of basic training and obtaining vocational profession and the station assignment order.

Training of degree professionals to provide the needs of the organs and units of the Emergency-Rescue Service of Civil Protection goes in the higher educational institutions of the SSES of Ukraine.

Training privates and junior commanders of bodies and units of Civil Protection to become top-qualification scientific and academic staff takes place in postgraduate military courses and centers for doctoral training at higher educational establishments of the SSES of Ukraine.

Personnel can be trained in terms of postgraduate training programs, postgraduate military courses, in the centers for doctoral training at higher educational establishments of central government bodies with specialization for vocational purposes.

Conclusions. Taking into account domestic and foreign experience of professional training of rescuers, the analysis of documents and literature references, we have found a contradiction between the increased level of rescuers' readiness requirements under current conditions and the traditional system of their professional training, which does not take into account changes in the scope and complication of professional tasks. It is possible to eliminate this controversy by conceptual justification and development of the system of training of personnel for the units of Emergency-Rescue Service of Civil Protection to act effectively under the new complex conditions of emergency operational situations.

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Some features of state regulation of scientific activity in Ukraine

Abstract. It has been established that in Ukraine during the transformational period the state performs three main tasks in the field of state regulation of science: preservation of the scientific potential and elements of the organization of science, the formation of new scientific organizations, and the restructuring of elements of the scientific complex. The organization of the system of state regulation of science in Ukraine has signs of a departmental nature, mechanisms for coordination and consultation with all interested subjects of scientific and scientific-technical activity are little developed. Science is not yet considered as an essential element of the national innovation system, but based on the above information, the conclusion about the revitalization and continuous development of science in the state, as an independent and important component in a difficult period, should be directed to the development and formation of new scientific directions.

Keywords: state regulation, scientific activity, transformational period, educational systems.

The essential characteristics of science in the national innovation system are largely determined by the basic properties of the economic and political systems in which it is formed. This explains the difference between the Soviet model of science in the command-administrative system and science in the market national innovation system.

In the administrative-command economy, science was characterized by: complete nationalization; closeness, low level of inclusion in the world scientific community, self-reliance; mobilization type of development; strong focus on solving tasks of ensuring defense capability; ideology imposing.

The goal of the development of science was set by political attitudes and was not based on the concepts of economic expediency. They consisted in supporting the military-industrial complex of

the country, space exploration programs, as well as achieving self-sufficient technological support. The development of science for these areas was a priority, so funding was carried out on a large scale, it was quite costly for the country's economy. Science as a whole was considered to be "an immediate productive force" and "an engine of scientific and technological progress." In the conditions of the closed economy of the country, science was the source of its own technologies, since access to foreign high technologies was as limited as possible.

Under the conditions of complete nationalization and closeness of the scientific complex, communications with other economic spheres - the education system, the real sector - were weak, and there are practically no incentives for the commercialization of scientific results. In addition, there were no legitimate (officially included in the innovation process) small forms of innovation activity (small innovative enterprises).

Science was represented mainly by large and powerful research and development organizations, experimental and experimental production, subordinated to the relevant ministry or department. New knowledge gained as a result of basic research at research institutes was transferred in a planned manner to applied institutes, to factories, and then only to organizing the production of new products. Innovations were introduced into the economy that the central authorities considered effective for some reason or another. At the same time, economic entities constantly resisted such innovations. Due to the lack of private ownership of an intellectual product created by individual inventors, effective motivational levers associated with the desire of innovation owners to obtain significant economic advantages and development prospects were not used in the innovation process. That is why the problem of introducing innovations was fundamentally insoluble.

At the same time, the model described above had a number of unique advantages:

- 1) the possibility of concentrating vast intellectual and material resources to solve large-scale scientific and technical tasks necessary for the state;
- 2) favorable, from the point of view of the scientific community itself, economic and social conditions for the development of basic and exploratory research;
- 3) the ability to solve individual challenges at the expense of low cost resources.

In the late 1980s - early 1990s immanently inherent command-and-control model deficiencies began to emerge. Chief among them were:

- over-centralized management, lack of mobility and system flexibility, low efficiency of resource use;
- the lack of a real connection between public needs and the priorities of science and technology policy due to the closed and non-transparent system;
- the absence of important elements of the national innovation system concerning the commercialization of research and development results.

The state had no economic interest in effective science policy. Relations between the state and science were built on a hierarchical principle, and the state completely led the science.

The number of cadres of science declined not as fast as the amount of funding, testified not only about the inertia of this sphere, but also was an indicator of the economic crisis in the country and the inability of the economy to “absorb” the excess of people employed in science.

There were positive changes, laid the foundation for the future recovery of science. Gradually, new sectors of science began to appear - non-state and small innovative entrepreneurship. The ideological barriers disappeared, the openness and degree of inclusion of domestic science in the world has increased. Thus, a scientific innovation sphere of a transitional type began to form, combining elements of the old, administrative-command, and new, market-based economic systems.

The changes have set new tasks for the government to regulate science. The state has ceased to be the only consumer of the results of science, so it became necessary to stimulate demand for research results from other economic agents, develop links between science and the real economy, restructure the public sector of science proper, the size and composition of which no longer corresponded to the new economic realities. In addition, the state, as a participant in market relations, is interested in its own efficiency, and therefore it has become necessary to revise the methods and mechanisms of state financing of science. Thus, during the transition period, the state’s functions of regulating the teachings were not reduced (despite the processes of denationalization and liberalization), but increased and complicated.

In connection with the economic crisis, I also touched the scientific complex; the state, along with the formation of market-based regulatory mechanisms and the creation of new institutional structures, had two more tasks:

- preservation of viable and strategically important elements of the scientific complex;
- restructuring (modification) of the elements of the national innovation system that have been developed to adapt to the changed;

Reducing the time out of the crisis, to promote economic development can be achieved through the adaptation of successful international experience. Ukraine has made repeated attempts to adapt foreign experience, especially in the area of creating conditions for the commercialization of scientific results. At the same time, there was a problem of its effective borrowing, as well as ensuring a balance between borrowing and the creation of its own structures, the formation of institutions.

The natural development of institutions assumes that one institution acts as the heir of another, an environment adequate to a particular institution is formed, and in it are generally accepted practices. When adding (transferring without adaptation) institutions, the environment, as a rule, does not accept it, changes it, and only then adapts it to its needs. Given this, it is inappropriate to isolated transfer of institutions without taking into account the links that exist between this institution and the environment where it is transferred from. Therefore, when borrowing foreign experience, not only the economic situation in countries where a particular instrument has successfully established itself is important, but also the size of the country, the scale of its scientific potential and even its national traditions (through the latter factor, the experience of Japan and China is difficult to borrow).

In Ukraine, there are three main tasks of the state in relation to science - preserving the best, reforming, building a new one - were solved differently during the period of economic reforms. The evolution of directions and methods of government regulation can be traced by analyzing changes in the regulatory framework and comparing them with plans (reflected in government conceptual documents) for the development of science and the formation of an innovation system.

In accordance with the main tasks of the state in relation to science, legal documents can be divided into three categories. The first group combines regulatory legal acts aimed at solving the problem of preserving the scientific potential of Ukraine (including wage increases for certain categories of workers, preferential taxation of scientific organizations), forms of organization of science, and its budget financing. The second group includes documents whose purpose is to create a new institutional environment, new mechanisms and organizations for science and innovation. Examples are the decrees of the President of Ukraine on the creation of state scientific foundations, on extrabudgetary funds of scientific research. The third group includes documents defining the procedure and directions for restructuring, reforming the existing elements of the national innovation system (privatization of objects of the scientific and technical sphere, changing the charters of scientific foundations, and abolishing the accreditation of scientific organizations).

Based on what goals and approaches prevailed at one time or another, which the state had financial resources and to what extent the policy was consistent, we can suggest the following periodization of the state science and technology policy in Ukraine.

The main stage of the transformation of science in general began in 2002 and continues to this day. It is characterized as a period of active preparation of conceptual documents designed to determine strategic, long-term scientific and innovative policies and integrate them into other economic initiatives of the state, including industrial policy. During this period, the notion of a national innovation system expanded somewhat, although the importance of building the system itself is still seen in a narrow sense - as a system that ensures the practical realization of the results of scientific activity.

The current stage is characterized by the beginning of the system restructuring of the scientific and technological complex. The budget of science has been increased with a smaller number due to a reduction in the number of people employed in the scientific complex of the country and has allowed the launch of a number of long-term and resource-intensive projects (large innovative projects, free economic zones). The state began to promote the formation of links between the

subjects of the innovation system by creating various elements of infrastructure, as well as supporting small science-intensive firms.

In previous periods, resource support for legislative initiatives was insufficient, and initiatives laid down in regulatory documents were not always fully implemented. In addition, there were constant reviews or cancellations of previously adopted legislative acts and decisions.

A characteristic feature of the third period was that the government began to consider science comprehensively, given the importance of the connection between science and education, namely: 1) as a sphere of production of new knowledge; 2) as a factor of economic growth, contributes to the development of the innovation system. To support science as a sphere of knowledge production, decisions were taken to assist the state in basic research, improve the budget process, and optimize the organizational structure of the public sector of science. In order to increase the economic return from scientific activities, measures were developed aimed at creating favorable conditions for the commercialization of scientific results and the development of links between science and organizations of the private sector (industry).

There have been changes in the strategic objectives of the state science policy. The intentions of the government to transform and develop the scientific and technological complex were particularly large-scale, systemic and deeper than the practical steps taken. An analysis of the evolutionary development of the concepts of reforming science, given below, indicates the gradual introduction of a systematic approach to the implementation of science and technology policy and attempts to link it with the general economic policy of the state.

Conceptual documents in which the main directions of future changes are formulated and the mechanisms for their implementation, as a rule, are drawn up as concepts, strategies or bases. In a historical retrospective, conceptual documents are an important source of concentrated information on the dynamics of changes occurring in Russian science.

At present, the scientific and technical sphere has gradually become regarded as part of the overall economic system of the country, and the fact of the appearance in the conceptual documents

of the task of increasing the competitiveness of products and enrolling it in a number of priority indicators.

There are a number of functions that have been drawn at the state level relatively recently. Thus, the need to monitor the implementation of state initiatives was announced back in 2005. At the same time, the need to monitor the activities being implemented was emphasized.

On the peculiarities of the organization of state regulation of science in Ukraine. The organizational structure of the regulation of science and innovation at the state level can be attributed to a centralized, traditionally departmental type with a low level of coordination of interagency interactions. Such an organization of management is inherited from the Soviet system. Only relatively recently, changes have begun to ensure its flexibility, to form structures that allow including in the process of developing a strategic vision not only representatives of executive bodies, but also other participants of the national innovation system (first of all - representatives of business structures).

The central executive body in this area is the Ministry of Education and Science of Ukraine. The Ministry of Education and Science of Ukraine submits to the Cabinet of Ministers of Ukraine.

In accordance with the tasks entrusted to him, the central executive authority in the field of science is developing the foundations of the scientific and technical development of Ukraine; ensures the development of scientific and technological potential of Ukraine; organizes and coordinates innovation activities; ensures the development of the national system of scientific and technical information, coordinates the activities of the executive authorities in the development of national scientific and technical programs, and monitors their implementation; manages the system of scientific and technical expertise: ensures the integration of domestic science into the world scientific space while preserving and protecting national priorities.

Other central executive bodies manage scientific and innovative activities in the relevant industry; determine the direction of its development; direct and control the activities of scientific organizations subordinate to them; organize the production of modern competitive products; responsible for the level of scientific and technological development of relevant industries. For

example, the Ministry of Internal Affairs of Ukraine is the governing body of the State Research Institute. This institute was established by the Ministry of Internal Affairs of Ukraine and is subject to it.

Local executive authorities and local governments in accordance with their competence ensure the implementation of state scientific and research programs; develop and organize the implementation of regional (territorial) programs.

In accordance with Art. 22 of the Law of Ukraine "On Local State Administrations", local state administration:

1) implements the state policy in the field of science, education, health care, culture, physical education and sports, motherhood and childhood, family and youth;

2) contributes to the development of science and technology, the implementation of regional scientific and technical programs, the introduction of new environmentally friendly technologies, the improvement of the technical level of production and product quality, the solution of scientific and technical problems of paramount importance for increasing its efficiency and competitiveness; ensures the protection of the rights of inventors and rationalizers, the creation of territorial innovation centers and tech parks.

A specific place in the system of bodies functioning in the field of science, belongs to the Higher Attestation Commission of Ukraine, which is the central executive body, the status of which is equal to the state committee of Ukraine. The Higher Attestation Commission of Ukraine implements the state policy in the field of certification of scientific and scientific-technical personnel of higher qualification, awarding scientific degrees and awarding the academic title of senior research assistant, supervises the activities of specialized academic councils and the quality of certification of scientific and scientific-pedagogical personnel of higher qualification.

The Higher Attestation Commission of Ukraine creates specialized dissertation defense councils, approves their personal composition and the list of specialties for which these councils are granted the right to defend dissertations, conducts their periodic certification; develops and approves the requirements for dissertations and persons applying for the degree and title of a senior researcher;

approves decisions of specialized scientific councils on awarding a scientific degree of a doctor of science; decides on the issuance of a diploma of the candidate of sciences on the basis of the decision of the dissertation council on awarding a scientific degree, on issuing a certificate of senior research fellow on the basis of the decision of the academic council on awarding the academic title of research scientist.

The Higher Attestation Commission of Ukraine is authorized to annul decisions of specialized councils and academic councils on awarding academic degrees and awarding the academic title; deprive them of the right of admission to the defense of the dissertation; deprive scientific and scientific-pedagogical staff members of scientific degrees and the academic title of senior research assistant. On issues of certification of scientific and scientific-pedagogical personnel of higher qualification, the Higher Attestation Commission of Ukraine publishes an information bulletin.

In order to promote the formation of the state policy of science development, determine the priority scientific and technical directions, work out a strategy for technological development, improve the structure of science management and the system of training and certification of scientific personnel under the President of Ukraine on the implementation of a consultative and advisory body - the Council for Science and Scientific and Technical Policy. The main tasks of this body are the development of state policy on the development of science and technology, the legal and organizational support for their implementation; forecasting the development of science and technology; consideration and evaluation of projects of national and state-scientific programs, identification of priority areas for the development of science and technology, etc.

Scientific research in universities - university science - is organized in order to: use the scientific and technical potential of higher education to determine the priority areas of basic research, strengthening the influence of science on the solution of educational and educational tasks; research and development of theoretical and methodological foundations of the development of science. The executors of the research work are the faculty, students, doctoral students, graduate students, interns, scientists.

One of the forms of organization of science are national scientific centers. The status of a national scientific center can be granted to a scientific institution, a university of IV level of accreditation (association of scientific institutions or higher educational institutions of IV level of accreditation), which conduct comprehensive scientific research of national importance and have world-wide recognition of their activities. The status is granted by the Decree of the President of Ukraine at the proposal of the Cabinet of Ministers of Ukraine. National scientific centers carry out their activities in accordance with the Regulations on the National Scientific Center, which is approved by the Cabinet of Ministers of Ukraine.

In order to ensure the scientific substantiation of the structure and content of the priority directions of development of science and technology, scientific, scientific and technical, socio-economic, environmental programs and projects, determining the directions of scientific and technical activities, analysis and evaluation of the effectiveness of the use of scientific and technical potential, the research results are provided conducting scientific and technical expertise. Legal, organizational and financial bases of expert activity in the scientific and technical sphere are defined by the Law of Ukraine “On Scientific and Scientific and Technical Expertise”.

For the modern system of science management bodies, we need, in our opinion, the creation of a certain coordinating body that would coordinate the state policy in the field of science is carried out by the central executive authorities.

In this regard, we propose the creation of an interdepartmental commission for science and innovation policy under the Cabinet of Ministers of Ukraine. The Commission should become a coordinating body that would ensure the interaction of interested executive bodies in order to develop and implement state policy in the field of scientific, scientific, technical and innovation activities, development of science and high technology centers, and public research institutions.

This Commission will be headed by the Minister of Education and Science, and its members should include representatives of the National Academy of Sciences of Ukraine, branch academies of sciences, executive authorities, research institutions, and leading institutions of higher education. The Commission should deal mainly with the issues of science policy and the related areas of

innovative development (the formation of the infrastructure for commercializing the results of scientific and technical activities).

So in 2016, the Cabinet of Ministers of Ukraine adopted a decree approving the procedure for preparing applicants for higher education to the degree of Ph.D. and Doctor of Science in higher education institutions (scientific institutions). According to this decree, the mechanism for preparing candidates for higher education at the third (educational and scientific) and scientific levels of higher education is determined in order to obtain a higher education degree of a Ph.D. and Doctor of Science, respectively. The forms of preparation of the PhD have not changed fundamentally; it is carried out in postgraduate studies, both full-time and part-time, as well as outside postgraduate studies, if only the applicant professionally implements scientific activities at the place of work. Only the terms for teaching, writing and protection of scientific work have increased, the term is four years allocated for the implementation of the curriculum and the protection of scientific work. At the same time, an experiment has been conducted in Ukraine since 2019 to award PhDs to applicants. The government approved the procedure for conducting an experiment to award the degree of Ph.D., the mechanism of which is significantly different from the previous one. From now on, it is stipulated that a specialized academic council is formed by the Ministry of Education and Science consisting of a chairman and four council members - two of whom are reviewers and two more are opponents, with the right to take on a person's dissertation and receive a Ph.D. her specified degree. Such an experiment will last until December 31, 2020. It will be possible to speak about its effectiveness after its testing in practice. This greatly simplifies the work of the academic council, and at the same time the work is complicated by the constant formation of scientific councils, the creation of which requires the fulfillment of additional conditions. Which complicate the process of defending a thesis by the applicant, and put forward additional conditions that are not mandatory according to the previously valid right defenses. Thus, the experimental project on the one hand simplifies the acquisition of a scientific degree, and on the other complicates considerably. The final conclusions can be made after the expiration of the experimental period for the protection of applicants in practice.

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The impact of cyberattacks on the security of Central and Eastern Europe

In the modern world, information technologies and telecommunication systems cover all spheres of human and state life. But along with the positive features of this development, negative ones arise. So information flows can be used not only for constructive, but also for destructive purposes. Today, victims of hackers can become not only people, but also entire states. The terms “cyber warfare” and “cyber terrorism” are new types of threats to national and international security. Therefore, cybersecurity is one of the main problems that causes concern among governments and society around the world and encourages various measures to protect the personal data of Internet resources.

Recently, the terms with the prefix “cyber” are increasingly found in various texts, discussions and are reflected in the strategic doctrines of not only states, but also international organizations, including NATO. The term “cyber war” has firmly entered the vocabulary of the military, information security experts and politicians. From here, “cyber war” can be described as a type of military operation using computer technology and the Internet, it is aimed primarily at the most important systems of functioning and life support of the state: power plants, energy networks, transport routes, water supply and sanitation systems, data destruction or blocking the operation of infrastructure, financial losses in the banking sector, the abduction of the latest technological developments and the like.

By the effectiveness and consequences of applying the latest information technologies, cyber weapons can be equated with weapons of mass destruction, therefore the concept of “cyber defense” is becoming necessary at the international level. “Cyber defense” - a set of organizational, regulatory, military, operational, technical and other measures aimed at ensuring cyber security.

“Cybersecurity” is a state of protection of the vital interests of a person and a citizen, society and the state in cyberspace [4].

Today, “cyber war” is not a distant future, but a reality, and it can cover the whole world, because a variety of computer technology is located anywhere in the world.

For example, consider some of the “cyber attacks” that went down in history: during the aggravation of Russian-Estonian relations, a coordinated attack took place on April 27, 2007, which disabled the sites of the Estonian parliament, ministries, banking institutions, and the media for some time [3]; On June 27, 2017, a large-scale cyber attack was carried out on corporate and state networks using the Petya virus [5]; On December 23, 2015, a “cyberattack” occurred on Prikarpatyeoblenergo: about 30 substations were turned off, about 230,000 residents remained without electricity for one to six hours. The attack occurred using the BlackEnergy Trojan [6].

The development of “cyber defense” should prevail the development of “cyber attacks” to prevent such situations. So, in many countries, such as the USA, Israel, France, Germany, Russia, India, Iran, Pakistan, South and North Korea - structures in the armed forces that are responsible for conducting "cyber warfare" have long appeared. In these states, large sums of money are put into the budget for the development of the cybernetic component of the armed forces, and programs to ensure national security and protect critical infrastructure from cyber attacks are constantly being implemented. Since no one can safely say that his networks are fully protected and can withstand multi-vector cyber attacks, cyber security has become a priority for the development of the modern army.

The conclusion we must make for ourselves is to increase our investment in cybersecurity in order to prevent attacks on large state and private companies and to resist the intentions to destabilize society.

In addition, every society needs rules, standards, norms, regulations, instructions and other documents in order to feel protected in cyberspace at least in a legal sense. Nowadays, industry regulatory documents related to cyber crisis are appearing, and legislative authorities are growing interest in this area. Many countries are developing safety standards for critical infrastructure. More

and more calls are being made for more active interaction and exchange of information, as well as for the provision of mandatory reporting of cyber attacks in order to jointly counter and minimize the consequences of such attacks.

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