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LOGISTIC SUPPORT FOR SOLVING CRISIS PHENOMENA IN THE SLOVAK REPUBLIC

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The solution of both the military and non-military phenomena requires a massive logistic support. It is impossible to cope successfully with any loss, and to minimise the damages and losses without sufficient material and technical provision of the emergency and security units and the affected citizens as well. The history proves that the preparation for solving the crisis phenomena was neglected and the logistic support of the emergency activities was insufficient.

Key words: Crisis management; crisis phenomenon; crisis planning; logistic support; logistic chain; defence planning; civil emergency planning

1. INTRODUCTION

The crisis phenomena represent an inseparable part of the life of the human society and they are often the cause of slowing down the development process as well as a source of damages and losses. Their rise and development are largely determined by conditions they take place in. The crisis phenomena cause substantial losses and even turnarounds in the development which are affected by objective rules of the natural and social phenomena and processes that people cannot influence in their favour. From this point of view they are inevitable. On the other hand, they represent a significant element of uncertainty and coincidence whose source are people and society, and also the time and space links of the crisis phenomena. The knowledge and understanding of this inevitability and at the same time the acceptance of the coincidence element enables to prepare for negative consequences of the crisis phenomena and to minimise them by effective preventive measures and implementing the general principles of the risk management. The logistic support which plays an important role in the process of preventing and solving the crisis phenomena is its inseparable part.

2. SPECIFICS OF THE CRISIS MANAGEMENT PROCESS

The crisis management processes and also the management of the risks have to be a routine part of the crisis managers' activities, but also of all managing employees who work in an environment where various risks and actual threats occur, and where crisis phenomena of any character can arise. The managing employees of the state administration subjects and the self-government have to know the current threats which can be sources of the crisis phenomena and can disrupt the process of fulfilling the planned goals. They should try to understand the source and causes of developing the crisis phenomena comprehensively and to prepare for their solution.

These facts require assessing the risk and real threats that can disrupt the course of the planned activities continually, and also creating optimal conditions for solving the crisis phenomena. For fulfilling these goals it is inevitable:

• to utilise the risk management tools for a continual risk assessment, for reducing the risks

and monitoring their development,

- to work out scenarios for developing the possible crisis phenomena and to assess the character and size of their possible negative impacts,
- to state the preventive measures for increasing the security level of all processes,
- to prepare (in the framework of the crisis planning) a complex logistic support for solving the crisis phenomena including defining the forces, means, resources and reserves and also procedures for removing negative consequences (Šimák, 2016).

The efficient and effective solution of the crisis phenomena is a significant society-wide interest. If we want to solve any emergency or a more extensive crisis phenomenon by using minimal resources and at the same time to achieve a maximal effect of this activity, i.e. to prevent unnecessary losses of life and material values, this result is not possible without effective preventive measures. We have to solve the crisis phenomena before they develop, before their destructive effects on the concerned society element and surrounding environment start to perform. This is the basic assumption for a successful solution of any crisis phenomenon. When we respect it, this fact will substantially simplify the rescue activities and will increase their efficiency.

The individual phases of the crisis management model contain a whole range of particular activities that determine, complete and also partially overlap each other. The prevention and crisis planning are realised during the preparatory stage in the conditions of relative peace. On the other hand, the reaction requires an immediate usage of inevitable forces and means including a complex logistic support. It is realised through a pressure whose cause is first of all an effort to save human lives which have to be above all other interests. The pressure on the crisis managers but also rescuers in the phase of an immediate reaction is, as a rule, caused by lack of time, forces and means but also material resources. The subsequent recovery can be realised gradually in several stages and there is relatively enough time for it.

The prevention is a dominant crisis management idea which increases the security level of the phenomena, systems as well as the running processes. Its task is to take adequate measures for reducing the risks to an acceptable level. One of its assumptions is a comprehensive assessment

of the risks that threatens the functionality of the phenomena, systems, actions and processes or the fulfilment of the objectives planned. The prevention can reduce the level of both basic components of the risk and the probability of developing crisis phenomena but also the size of the negative consequences. The preventive measures can also reduce the costs for solving the crisis phenomena and can remove their negative consequences. The creation of the monitoring systems and assessing the risk factors and early warnings against developing a crisis phenomenon is also one part of the prevention (Šimák, 2016).

The crisis planning includes processing detail analyses of the crisis plans, but also realising some preventive measures. Their contents prepare the crisis management bodies for all foreseeable crisis phenomena and works out the probable scenarios of their development and solutions. However, one open and difficult issue remains – how to prepare for solving crisis phenomena being at the given time and conditions unforeseeable. The crisis planning can define the organisational, HR and material requirements as part of a complex logistic support for solving the crisis phenomena, it can summarise the need of forces and means and confront them with the real possibilities of the country, regions or corporate bodies and natural persons (Šimák, 2016). Last but not least, it not only determines the particular forces, means and resources necessary for solving the crisis phenomena in the framework of the logistic support but it also defines their dislocation, emergency principles and also the principles of transferring to the deployment area.

An immediate reaction to the crisis phenomenon assumes the existence of the competent control elements of the crisis management and appropriately prepared and available executive units of the rescue systems. It is linked with gaining the information about developing a crisis phenomenon immediately and with its appropriate evaluation. It assumes the existence of an effective system for receiving and assessing the emergency calls but also a functional system for warning the citizens and informing the rescue units. The immediate reaction to a crisis phenomenon has to have a character of an unambiguous and problem-free process carried out on the basis of a qualified decision. This process requires centralising and coordinating the management process during the crisis at the closest and most suitable organisational level (country, region, municipality, object). The immediate reaction is carried out in the form of rescue activities and various specialised procedures whose goal is first of all to save the human lives and then to save the material values, the environment but also the historical and cultural monuments (Šimák 2016). The reaction requires a comprehensive logistic provision by inevitable forces, means and resources which have to be transported to the place of developing the crisis phenomenon. It is characterised by the personal responsibility, courage and determination of the executive and leading employees of the crisis management.

The recovery after the crisis enables to renew the activities of the disrupted phenomenon, system and process and to create conditions for its return to the pre-crisis condition as quickly as possible or the restoration to a condition enabling the fulfilment of the planned functions again. The objective is to create a functional stabilised condition being the same or as close as possible with the previous one and to remove the damages. The recovery in practice is realised in several stages which enable a gradual introduction of the organisational or technological elements and parts into practice. Firstly, as a rule, we have to make the disrupted objects and processes operational in a limited extent, i.e. with reduced performance efficiency or with reducing other technical parameters. For instance the transport constructions (bridges, railways, roads,...) are renewed only for passing purposes. The further recovery steps can be realised during operation (Šimák 2016). The crisis management participates in the recovery only partially, the operators of the damaged objects are competent for this in a decisive extent. The recovery thus (under certain conditions) enables returning to the conditions before the crisis phenomenon developed, however, new knowledge, new materials, technologies and additional means can cause the acceleration and change the direction of the development.

3. FOREIGN EXPERIENCE FROM THE LOGISTIC SUPPORT OF SOLVING THE CRISIS PHENOMENA – HURRICANE KATRINA

There is currently an apparent paradox – the crises do not avoid the politically, socially and technologically advanced countries and vice versa – their quantity, periodicity or negative consequences

seem to grow. The reason is that together with the advanced character in all areas also their complexity increases proportionally and a lot of friction points and conflicts these countries have to cope with develop. The relations in the sphere of the internal and foreign politics and economics which follow their own interests of the social subjects are far from idyllic.

The political and economic crises, terrorism, armed conflicts but also wars are the result if this situation. The advanced level of technology is linked with an effort to achieve better security, but the complicated technological processes and intensity of the industrial activities connected with the high population density are sources of the risks which overgrow to crisis phenomena. The extensive reshaping and adaptation of the nature to the society's needs, mining and exploiting the natural resources but also intensifying the manufacturing processes and transport and also the air pollution bring a tax in the form of climatic changes, disruption of the natural environment, natural abnormalities and catastrophes.

On 29th August 2005 the tropical cyclone Katrina caused huge damages in the south-east part of the USA. One of the most serious impacts was when the levees near the city of New Orleans broke and almost the whole city was flooded. The hurricane hit the territory of five US states. In the framework of the forced evacuation of the city of New Orleans as well as the self-evacuation from the coastal areas more than 1.3 million people left the territory. The rescuers failed to evacuate 20,000 to 60,000 people from New Orleans and they were concentrated in the sport and fair centre Louisiana Superdome. The rescue activities in this area were complicated, besides the flood, by the power blackout, interruption of water supply but also robberies and attacks against the emergency teams. The statistics at the beginning of September showed estimations of thousands of victims, according to the real statistics there were 1,833 victims, one million people lost their houses and flats and the total damage was estimated at 108 billion US dollars (Iqbal 2007).

During the hurricane Katrina a whole range of problems that complicated the crisis management process occurred. The majority of the agency FEMA workers did not have the necessary experience with the crisis management in the territory of several states and they were not able to utilise the personnel and material resources effectively. Even the politicians

were not able to understand the extent of the processes which required categorical and decisive steps. The main causes of the FEMA's ineffective behaviour in the reaction to the situation developed consisted in underestimating the importance of all crisis management phases, from prevention through the crisis planning and preliminary preparations up to an effective response. The basic problems can be as follows:

- the limited resources lack of financial and personnel resources allocated by the United States Department of Homeland Security from the federal budget,
- the lack of staff in spite of the fact FEMA had a crisis plan of reacting to a similar crisis phenomenon, it proved to be unreal in the practice. FEMA did not have a sufficient number of employees who would have been able to respond to the given situation,
- the capability of FEMA to fulfil the tasks the agency did not fulfil its tasks sufficiently not only during the crisis solution but even during the recovery period. According to the agency employees themselves they were trained, organised and equipped sufficiently for solving such a huge catastrophe,
- the emergency plan was not ensured FEMA activated the rescue teams (in compliance with the plans) for coping with the catastrophe, however, they were insufficiently prepared and equipped for such an extent of activities during the hurricane Katrina (lack of financial resources for training and equipment of the rescue teams),
- the complicated documentation the national crisis plan is too complicated and ponderous for implementing in particular conditions (too many details reduce the ability to understand the document),
- the inadequate implementation—the new national crisis plan was not trained and the United States Department of Homeland Security did not have any experience with its implementation,
- the legal problems the competencies and tasks among the federal authorities, state government and FEMA management were not unambiguously defined (the Stafford Act was not a sufficient legal basis),
- the shortages of the plan –the missing particular scenarios and designs of responding to them are

- the main technical disadvantage of the national crisis plan,
- the ineffective system of the contractual provision – the excessive administration and bureaucratic burden for using the federal resources for preventing and solving the crisis phenomena,
- the delayed support by the rescue teams –
 only one day before the hurricane Katrina the
 president released the proclamation of the state
 of emergency for the concerned states (it was
 too late for any direct implementation of some
 rescue teams),
- the solution extent exceeded the possibilities of the territory – FEMA and the local selfgoverning units of the crisis management had no necessary capacities and resources for an effective reaction,
- the contradiction between the state and federal crisis management level – the relation of FEMA and the local voluntary organisations was insufficient,
- the inadequate requirements of the federal units of the crisis management some requirements concerning the general issues of support addressed to the federal offices could have been solved on the state level.
- the incompatible information systems the Louisiana state clerks used different software than the FEMA employees,
- the insufficient provision of the FEMA information system in spite of the fact the logistic operation system is integrated with other information systems, it is not able to share the necessary information with the federal, state and local agencies during the process of solving the crisis phenomena,
- the insufficient preparedness to utilise the information system E-team_ - the software product E-team determined for communicating among the state, local self-government and voluntary organisations was not utilised sufficiently,
- the insufficiently trained professional staff the process of preparing and training the experts of the crisis management was decentralised and did not respect the common principles,
- the insufficient planning of the transport provision a lot of problems connected with

the transport provision of the logistic support occurred during the hurricane Katrina (lack of the lorry drivers),

- the ineffective distribution system besides the lack of the lorry drivers there was also lack of the transportation means,
- the insufficient monitoring and recording of the applications – the applications and orders were doubled and it caused unnecessary wasting of time and money, some parts were not ensured at all,
- the low numbers of the management staff lack of management employees and incorrectly implemented crisis management methods are considered as one of the main causes of the overall failure and delayed intervention of the FEMA agency during the hurricane Katrina,
- the evacuation plans were not realised sufficiently the evacuation plan was not realised and implemented sufficiently (the postponement of its release) and caused losses of lives in New Orleans (Iqbal 2007).

The crisis management system, insufficient communication among the federal government, the institutions of the concerned state and the emergency units and especially the insufficient logistic support were the cause of the system failure during the hurricane Katrina. After the critical analysis the following recommendation were issued:

- to create a functional operational structure from the federal government to the national security agencies,
- to make the collaboration between the United States Department of Homeland Security and the United States Department of Defense in the framework of common planning the crisis management activities more effective,
- to create the national crisis communication strategy and unify the utilisation of the information systems during solving the crises,
- to create a modern, flexible and transparent logistic system ensured by a sufficient amount of resources,
- to ensure comprehensively the mass evacuation plans,
- to work out and ensure comprehensively the crisis communication plan with the citizens,
- to improve the collaboration between the government departments in the process of

- preventing and solving the crisis phenomena,
- to improve the preparedness for solving the crisis phenomena by implementing the principles of the security culture among the citizens,
- to improve the support of the NGOs and volunteers,
- to optimise the deployment of the logistics centres,
- to create conditions for motivating private suppliers,
- to create a conception of one crisis management system in all US states,
- to assess the critical infrastructure in the transport area,
- to utilise GIS for the management processes and in transport effectively,
- to create conditions for an effective collaboration and coordination of the logistic support between the states,
- to ensure the population is informed better(Iqbal 2007).

The effective and efficient solution of the crisis phenomena of a great extent and their logistic support require comprehensive planning and collaboration of the whole country, the state and self-government institutions and the rescue segments as well. The shortages when coping with the consequences of the hurricane Katrina requires improving the planning of logistics and coordinating the individual segments of the crisis management (on the federal, state and local level). Except for this, it is important to improve the communication and information system and to utilise the modern technologies, e.g. GIS. This experience and recommendations can be implemented to a certain extent also in the crisis management conditions in Slovakia for ensuring the logistic support of solving the crisis phenomena.

4. LOGISTIC CHAIN IN CRISIS MANAGEMENT

The individual activities and measures carried out in the framework of the preparatory and reaction phase of the crisis management require a comprehensive logistic support. The task of the individual crisis management bodies, critical infrastructure elements in the area of transport, power industry, healthcare and food production but also the entrepreneurial subjects which participate in the economic measures during solving the crisis phenomena is to ensure it optimally. These forces, means and resources create a chain of the logistic chains without which it would be impossible to ensure protecting the persons, property, environment but also the society as a whole against negative consequences of the crisis phenomena.

The term logistic chain belongs to the key logistic terms. It represents a linked sequence of all activities whose realisation is a necessary condition for achieving a comprehensive provision of the running processes. The material side of the logistic chain in the crisis management process consists in maintaining and transferring all material means and specific services that are able to ensure the needs of the intervening emergency or other security units on the one hand and the affected citizens on the other hand. The immaterial side of the chain consists of transferring and maintaining all information necessary for preparing and realising the material flows. The logistic chain provides the intervening units and concerned citizens with the so called passive elements which are transferred by the active elements (Sventeková 2012). The passive elements of the logistic support in the process of solving the crisis phenomena are as follows:

- the foodstuffs, drinking water, fuels and lubricants, chemical substances for extinguishing the fires, the basic and auxiliary material of various types, spare parts, healthcare material, ammunition, as well as a whole range of consumption materials,
- the packaging and transportation means which are a condition for the movement of the delivered products, spare parts or raw materials and also the transport for completing the raw materials and repeated utilisation,
- ensuring the accommodation, catering, the healthcare services,

• the information about ensuring and realising the logistic support,...

The technical means and equipment for handling with material, transportation, storing, packaging and fastening and other auxiliary means through which the support of the emergency units and citizens as well as maintaining the material passive elements belong to the active elements of the logistic support for solving the crisis phenomena. The technical means and equipment serving for ensuring the information and communication processes as well as the means for automatic monitoring and identifying the passive elements, computers, devices for remote transfer of the data, etc. belong to the active elements (Sventeková 2012). They participate in collecting, transferring or maintaining the information without which the operations with the material passive elements could not run. Also the employees who work with the technical means and equipment, who manage and control the logistic support processes can be considered as an important part of the active elements.

5. RESOURCES OF LOGISTIC SUPPORT FOR SOLVING THE CRISIS PHENOMENA

The task of the logistic chain in the crisis management system is the transfer of the required resource at the right time to the right place in the required quantity and quality and for adequate costs. But the practical experience with removing the consequences of the crisis phenomena show that in the case of saving human lives the costs are secondary. Therefore it is necessary to investigate the logistic chain thoroughly, to identify its excessive or ineffective segments and to find solutions which will enable shortening the throughput times, improving the aid for the citizens and services for the rescuers and which will make the whole chain more flexible and economical.

The basic resources out of which the passive elements for the logistic support are taken:

- the operational inventories of the material and technical means for the basic rescue units,
- the operational inventories of the Slovak army,
- the state material reserves created by the subjects of the economic mobilisation,
- the material of the civil defence,

• the humanitarian aid from abroad.

The relation between the theoretical conceptions of the crisis management logistic support and their implementation in the process of solving the crisis phenomena is internally contradictive. At the first sight the simple and easy solutions need not be functional and economically the most advantageous ones. At the same time a substantial part of the crisis phenomena develops in a different way than it is assumed on the basis of analysing the corresponding risks. The principal difference from the point of view of preventing and solving the crisis phenomena lies in the crisis phenomena caused by the natural forces and those caused by people. The wars are the most destructive phenomena which have claimed millions of human lives and have devastated the material values and also the environment. The political, economic and social crisis phenomena, e.g. terrorism, create a special group. But also various accidents and catastrophes, e.g. major industrial accidents, traffic accidents, mining accidents, industrial injuries and a whole range of others cause great damages.

The natural accidents cause serious problems to the human society. Extensive earthquakes, volcano activities, landslides, wind storms, hurricanes, floods cannot be controlled by people; they only have to replace their negative consequences, damages and losses. The realisation of the preventive measures, monitoring and assessing the risk factors and maintaining the emergency system on alert requires also a well-prepared logistic support.

Similarly as the individual crisis phenomena differ from each other from the point of view of their essence, the causes of their development, the external signs and negative consequences on the society, they also require various preventive measures, solution procedures and also the comprehensive support of these processes. The Slovak Republic is a member of the EU and also NATO. In the framework of its membership it is obliged to provide the military aid to any member state in the case of disrupting its external security and threats for its sovereignty and similarly all the member states guarantee aid if the Slovakia's security was endangered. The logistic support of the armed forces in Slovakia and abroad is ensured by own forces and means which are part of their organisational structure but also from a broader point of view also resources created in the framework of the economic mobilisation

system and deposited and administered by the Administration of Material Reserves of the Slovak Republic (Novák 2005).

The ability to fulfil the planned combat tasks directly depends on the availability and reliability of the weapon systems and material the armed forces are equipped with. Therefore it is inevitable to update and change the obsolete systems systematically, to improve the maintenance of and treating the arsenal, technique and material, to reduce their failure rate, to eliminate their unserviceability due to the inaccessibility of the basic consumption material, to make the material equipment of the soldiers better, to ensure sufficient material inventories and to improve the material management system. It is connected with improving the availability of the logistic capacities and inventories with an emphasis on water, foodstuffs, healthcare material, electric power sources, spare parts, ammunition and fuels and also with improving the preparedness for accepting persons and material means in the framework of mobilising the armed forces and taking over the deliveries of the goods and services provided in the framework of the state defence. It is also necessary to improve the bilateral structure with an emphasis on the commanding positions, the road and railway network, airports, healthcare premises, accommodation capacities, the spaces of concentration, water sources, the warehousing and repair capacities.

In compliance with the NATO standards the armed forces have material inventories for 30 days for ensuring the combat activities and they are completing a supply system of the armed forces in the Slovak territory and allocated forces outside the Slovak Republic which will be compatible with NATO. This enables achieving higher effectiveness, flexibility, availability and sufficient inventories in compliance with the NATO standards. The logistics of the armed forces must have a complete overview of the arsenal, technique and material in the Ministry of Defence sector and to provide exact logistic information to the commanders at all levels for their decision-making process in the real rime, to utilise the automated systems of the material management together with the automated logistic information and operational systems in transport, maintenance and healthcare and to achieve the ability to provide the integrated logistic support to the armed forces during fulfilling the tasks in the Slovak territory and abroad. The organisation and coordination of the transfers and transport of the armed forces of Slovakia in our territory and abroad and also the NATO forces in the framework of support by the hosting country is an important part of the logistic support.

The objective harmonisation of requirements on ensuring the defence by the financial, material and human resources is realised in the framework of the defence planning. It ensures the availability and effectiveness of utilising the resources which are allocated for ensuring the defence. The improvement of the defence planning system is a priority area of building and increasing the functionality of the defence systems. Its development is affected by the management systems, by the development of the information technologies and continual confrontation with practice. The operational planning and budgeting solve the issues of the consumption logistics in the armed forces and creates conditions for a complex fulfilment of the training and combat tasks. Except for this the civil support of the armed forces and military operations are realised through the civil emergency planning.

The civil emergency planning is preparation and coordination of measures for ensuring the functionality of the public power forces, economy, internal order and security of the state and civil protection of the citizens during a crisis situation. It is a system of a complex provision of resources, forces and means inevitable for coping with non-military phenomena and the civil support of the armed forces and military operations. It supports the preparation and coordination of the measures realised by the bodies of the public power for it to ensure the following items during the crisis situations:

- the internal order in the country,
- the protection of the citizens, state economy and cultural values,
- the continual functionality of the state administration (Novák 2005).

The civil emergency planning is also connected with using the civil resources of the alliance to support operations, it aims at protecting the social system and citizens of the democratic countries against the effects of the crisis situations and their solution and is part of the alliance plans of the systematic and effective utilisation of the civil resources at the national and alliance level. The scope, structure and

tasks of the system of the civil emergency planning in the NATO framework remains in the competence of the individual member states and the civil means utilised for the civil emergency planning are under the national supervision in every situation.

The measures of the civil emergency planning have to ensure:

- the protection of the citizens and their property and ensuring their basic human needs,
- the protection of the internal security and public order.
- the basic functions of the state,
- the recovery of the objects and premises important for security of the state during the war and for life of the inhabitants during the war,
- the functionality and protection of the state and self-governing bodies and protection of the constitutional authorities,
- the protection of the state economy,
- the resources for ensuring the emergency unit activities,
- the civil resources for supporting the armed forces,
- the international cooperation and co-action during solving the crisis situations (Novák 2005).

The economic mobilisation is the most important element of the civil emergency planning. It represents a summary of economic, organisational and other measures prepared during peace and realised during individual crisis situations in the area of production, trade, services, financing, social and healthcare provision and in selected areas outside the economic social superstructure. It creates assumptions for ensuring the needs inevitable for:

- the survival of the citizens,
- ensuring the activities of the armed forces, armed security units and other bodies of the state during the crisis situation.

The area of solving the crisis phenomena as well as the preparation for effective and efficient removal of the negative consequences of the crisis phenomena requires a complex logistic support which starts by planning the resources in the economic mobilisation system. This represents the planning activities of:

- the material resources,
- the manufacturing resources,

- the production and distribution of energy,
- the material means,
- the human resources,
- the financial resources (Novák 2005).

During recent years the economic side of ensuring the security system has been orienting especially on creating assumptions for solving the crisis situations of the non-military character or eliminating the adverse impacts. Also the measures of the economic mobilisation gradually orient on solving the crisis situations of the non-military character. The basic tasks of the economic mobilisation from this point of view are as follows:

- transforming the economy (production and services) to the crisis conditions and preparing measures for its return to the common operational conditions,
- supporting the armed forces and armed security units during the crisis situation including the state of war and war (especially by delivering products from the domestic resources),
- supplying the inhabitants during the state of crisis,
- creating conditions for planning and ensuring the requirements of the armed forces, armed security units, emergency units and citizens during the state of crisis,
- harmonising the content and transmission of data between the selected subjects in the scope of individual ministries and other bodies of the state administration. The completion of the high-quality information basis for the decisionmaking process of the state administration bodies during the state of crisis is closely connected with this task,
- supporting the emergency units during the state of crisis (Novák 2005).

The system of the economic mobilisation fulfils a whole range of measures that are in the competence of individual central state administration bodies and other institutions. The measures of the economic mobilisation ensure fulfilling the basic functions of the state during the state of crisis. The state ensures their financing from the state budget.

The measures of the economic mobilisation can be divided to the general and specific ones. All economic mobilisation subjects fulfil the general measures. The specific measures are fulfilled only by those subjects whose position in the crisis management system or tasks determined by a decision of the competent body requires it. The following items of the economic mobilisation belong to the general measures:

- the crisis planning the procedures and activities
 of the economic mobilisation subjects which
 determine the method of realising the assigned
 measures including the working out of the crisis
 plan and information to the unified information
 system of the economic mobilisation,
- the financial coverage a set of measures for creating the principles of the financial relations, acquiring the financial means and working with it during prevention and crisis solutions,
- record keeping of the HR keeping record of the HR in the economic mobilisation subject or at the district office for the purpose of assigning the working duty,
- record keeping of material means keeping record of material means in the economic mobilisation subjects and at the district offices which can be used for solving the crises,
- the payment in kind a set of measures connected with assigning duties for the legal entities and natural person doing business and to provide the natural person with material means for solving the crisis (tangible and intangible assets including technologies, energy, water and documentation),
- the working obligation a set of measures for implementing the legal duty of a natural person with the permanent address in Slovakia to participate in fulfilling the task in the framework of solving the crisis,
- the protection of the vitally important sources a set of measures for preventing, avoiding or mitigating the risk factors on the vitally important source whose lack can cause a threat or disruption of the political and economic operation of the state or a threat for life and health of the citizens (the source of drinking water, the source for producing energy, the inventories of the fuels and crude oil, etc.) (Zákon č. 179/2011 Z. z.).

The specific measures utilised in the economic mobilisation system for the logistic support of solving the crisis phenomena are as follows:

 organising production and services – a set of measures for ensuring the production and

- services for the citizens and for the activities of the armed forces, armed security units and emergency units during the crisis situation,
- regulating the distribution and consumption
 of electricity and heat and regulating the
 distribution and consumption of the natural gas

 a set of measures for ensuring supplies and
 regulation of the energy media for the inhabitants
 and selected entrepreneurial subjects during the
 crisis situation,
- maintaining the manufacturing capability a set
 of measures for the permanent maintenance of
 the production and other inevitable equipment
 and capacities, which are not used in peace,
 in operable conditions. This is important for
 ensuring production and for the replacement of
 the consumption and losses of the armed forces'
 material, the material of the armed security units
 and other units during the crisis situations,
- organising deliveries of the vitally important products or goods and their sale utilising the emergency regulation measures a set of measures which can realise the distribution and regulation of the sale of vitally important products or goods during the state of crisis (e.g. the price stability of the products and goods, selling only a limited quantity of the goods for vouchers or food ration coupons),
- establishing issuing offices for the vouchers or food ration coupons – a set of measures carried out by the municipality for issuing and accounting the vouchers or food ration coupons according to the registration list of citizens,
- organising the healthcare a set of measures for ensuring the healthcare of the citizens, members of the armed forces, armed security units and other units during the preparation for solving the crisis situations and during the time we solve them (providing a larger number of beds, taking hygienic and anti-epidemic measures for ensuring the healthcare during a crisis situation),
- organising the transport and traffic a set of measures of the public administration for an optimal utilisation of the transport capacities for transferring people and freights during the preparation for the crisis situations and during the time we solve them (including the maintenance and renewal of the transport infrastructure),
- organising the building and reconstruction

- activities a set of measures for ensuring the construction elements and renewal of energy and distribution grids or other objects,
- organising the veterinary care a set of measures for protecting the animals during the preparation for the crisis situations and during the time we solve them,
- organising the welfare system a set of measures for providing the social welfare for the citizens dependent on the social care during the time the crisis situations are solved.
- creating the state material reserves and how to use them a set of measures for creating the state material reserves, their completion and using them economically (warehousing, protection, maintenance, purchase and sale) in compliance with the need of Slovakia and requirements resulting from the international obligations,
- the utilisation of the state material reserves a set of measures connected with utilising the state material reserves for protecting the economy and for solving the crisis phenomena, the state of emergency in the area of energy, state of shortage of crude oil, the security of the state from the point of view of crude oil supplies, the security of the state from the point of view of the food supplies for the needs of the armed forces and requirements resulting from the obligations of the Slovak Republic,
- solving the state of emergency of the crude oil supplies a set of measures taken by the Slovak government for solving the disproportion between the import of the crude oil, production and supply with the oil products,
- the reduced educational process a set of measures for reducing the extent or for changing the regime of education at the basic and secondary schools and at universities,
- providing the air time necessary for informing the public about the crisis situation and measures necessary for solving the crisis situation,
- protecting the cultural heritage a set of measures for protecting the national cultural monuments, collections, historical archive documents, historical library documents and historical bookstock,
- protecting the objects of special importance and other important objects – a set of measures for protecting selected objects of the critical

infrastructure stated by the Slovak government whose damage or devastation would restrict the activities of the armed forces or the operation of the state economy or it would imminently endanger the lives and health of people, the property and environment and which belong to the sphere of protection and defence methods approved by the Slovak government,

- providing the bank services connected with the financial provision – a set of measures for ensuring the services connected with financing the state budget during the crisis situation and the payment relations and bookkeeping of the state budget,
- organising the post services a set of measures for ensuring the utilisation of the public post network for the needs of the public administration, the citizens and the executive segments of the crisis management,
- organising the work of the electronic communication networks and services a set of measures for ensuring the performance and providing the electronic communication networks and public electronic communication services for the needs of the armed forces, armed security units, emergency units, bodies of the public administration and citizens during the crisis situation.
- organising the deliveries of fuels a set of measures for ensuring the deliveries of fuels to the selected pumps for the needs of the armed forces, armed security units and emergency units, bodies of the public administration, subjects of the economic mobilisation and inhabitants during the crisis situation as well as ensuring the substitute sources of electricity at the selected emergency pump stations (Zákon č. 179/2011 Z. z.).

The system of the material, technical and financial provision of the civil defence is part of the comprehensive logistic support for solving the crisis phenomena. The material of the civil defence is procured and administered by the Ministry of Interior of the Slovak Republic through the district offices. The material is used during the crisis situations for protecting life, health and property of people. The material of the civil defence consists of the means of individual protection of people, of the material for fulfilling the tasks of the civil defence units (dosimeters, devices for chemical checks,

equipment and material for decontamination, the means for providing the first aid, telecommunication means, material for ensuring the functionality of the protection constructions, means for ensuring emergency camps), the equipment and means for ensuring the early warning system and information service and the spare parts. The means of individual protection is issued free to all Slovak citizens, as a rule, only during the state of war and war.

The district office, based on the territorial analysis results from the point of view of possibilities of developing crisis phenomena, can hand over the material (except for the devices for monitoring the radiation situation and equipment and means for ensuring the early warning system and information service) to a legal entity – including the municipality - or a natural person as a loan. Preferentially, it hands it over to a legal entity or a natural person who establish the civil protection units for the needs of the territory. Recently principal changes consisting in restructuring the allocated volume of the financial means have been carried out for the Ministry of Interior of the Slovak Republic to ensure the main decisive tasks in the area of protecting the inhabitants and property. The Ministry of Interior purchased the material for the inspection chemical labs of the civil defence to update the modules created for realising the chemical and radiation inspection and lab checks during emergencies in Slovakia and abroad. The material gear for the system of monitoring, notifying and warning the inhabitants was continually completed.

For the time being we have not succeeded in gearing the civil defence units with the material and technique in the required extent and quality. The process of gearing or completing the civil defence units with material and technique was realised by utilising the material from the cancelled civil defence units, e.g. the cancelled teams of the medical aid. The shortage of the financial means did not allow procuring any new, technically advanced and more modern material and it also affected the provision of the basic care consisting in ensuring the regular service, maintenance and revisions. The outfit of the civil defence units by the table material did not improve and remained at the same level compared with the situation at the end of the 20th century. Their material situation was not affected by the gradual elimination of the non-functional material and it happened in spite of an extensive reduction of the professional units. The reduction of their number enables a real evaluation of the needs of the district offices for creating assumptions for solving the crisis phenomena in compliance with the risk analyses of the district and regional territories.

In compliance with the Slovak government resolution No. 727 from 1996 the civil defence started to fulfil the tasks of a coordinator in the area of receiving and providing the humanitarian aid. We established a state-wide management and coordination centre for providing and receiving the international humanitarian aid fulfilling the function of the national notifying warning centre, the national contact point for receiving and handing over the warning messages which is on duty 24 hours a day. At the same time we established a contact point for receiving the information messages and messages containing requests for help from the national contact points of the EU member states and contracting countries, the International Atomic Energy Agency, the UN Office for the Coordination of Humanitarian Affairs, the EEC, the Euro-Atlantic Disaster Response Coordination Centre and the EU Monitoring and Information Centre.

The system of providing the humanitarian aid has been in operation for several years. It is sufficiently flexible and provides the humanitarian aid especially during the natural disasters (floods, earthquakes). The healthcare material, clothes and footwear and also the emergency accommodation are provided most frequently. The concrete examples of providing the humanitarian aid – e.g. Kosovo, Turkey – the Izmir region (1999), India, Ukraine (2001), Iran, the Russian Federation – North Ossetia, Sudan, Greece, Sri Lanka (2004), Indonesia, Bulgaria, Rumania, USA, Pakistan (2005), Indonesia – Java (2006), Kirgizia (2007), Syria (2017) and a whole range of others.

In the framework of the EU Common Emergency Communication and Information System (CECIS) the Ministry of Interior of the Slovak Republic created a connection of the national contact point to this system through the computer networks. The adoption of the law No. 387/2002 Coll., about managing the state during crisis situations outside the time of war and the state of war, as amended, created a legal framework for the crisis management area on the government, departmental and regional level as well as receiving, providing and realising the humanitarian aid and civil emergency planning.

CONCLUSION

Then crisis phenomena of the non-military character include a whole range of the types of crises which are caused by the natural disasters, technical and technological accidents and by the performance of the social forces without using any military force. They affect the area of the international and domestic politics, the macroeconomic and microeconomic areas, and the power engineering industry, healthcare, trade but also the social area and the educational system. The crisis phenomena of the military character are specific by the fact that they develop due to the threat of using the military force or directly to the development of a military conflict.

To ensure the legal character of the activities of the public administration bodies and crisis management subjects the legal conditions of a specific legal environment enabling to take effective and efficient measures including restrictions of the basic rights and personal freedom of the citizens during solving the crisis phenomenon were adopted. The solutions of the crisis phenomena of both the military and non-military character require a comprehensive provision including the logistic support. This support is structured in a complicated way in Slovakia and its management belongs to the competence of various institutions and is legally embodied in various laws. In the framework of transforming the security system of the state it will be necessary to subject this system to a critical analysis and to optimise it step by step. Flexibility is the strategically most required property of the logistic chains. To achieve high flexibility it is necessary to remove excessive segments and operations from the chain and then to harmonise the activities of all active elements with the passive ones. The condition for achieving high flexibility is the corresponding technical equipment and perfectly mastered management of the production, storing and especially circulation processes in the crisis management system. In spite of this requirement on the optimisation we can say that also nowadays the system of the logistic support of solving the crisis phenomena is functional and is able to ensure all justified requirements of the public administration bodies, the armed forces, security and emergency units and also the citizens.

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