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Basic Technologies for Emergency Management

Abstract

In our modern era, emergencies are inevitable. Emergency situations are situations that have arisen in a certain area as a result of military operations, accidents, natural or other disasters that may or have caused human casualties, damage to human health or the environment, significant material losses and disruption of people's living conditions.

In order to manage emergencies and take adequate measures against them, they are classified according to their types, types, scale, severity of consequences, as well as other characteristics. When we look at the development of human society, it becomes clear that emergencies have occurred in all historical periods. Historical facts show that most emergencies have resulted in disruption of life, numerous human deaths, serious changes in the natural world, and great damage to people and the environment. In the early stages of human society, emergencies were mainly natural in nature and were associated with spontaneous disasters.

All types of emergencies go through 4 stages (phases) in their development:

1. The emergence and accumulation of circumstances that differ from the normal situation or state. This situation can last for several days, months, and in some cases - for years and decades.

2. Initiating the situation that is the basis of the emergency.

3. The process of the occurrence of an emergency - this is the process of releasing risk factors (energy or matter) that negatively affect the population, objects, and the environment.

4. The stage of reduction, extinction - the reduction of the impact of residual factors of the emergency that has occurred. This stage covers the period from the prevention (reduction) and localization of the source of danger to the complete elimination of its consequences. The duration of this stage can last for years.

Keywords: *emergencies, human, safety, management, event*

Introduction

The modern period of development of society is characterized by increasing contradictions between man and his natural environment. The technosphere and the method of management created by it have become powerful factors affecting nature. Demographic explosion, industrial production, which is becoming obsolete from year to year, agriculture in a state of deep crisis, urbanization of territories and all this are some of the challenges that man poses to nature and have led to a high degree of aggravation of contradictions between society and natural environment. Natural disasters and catastrophes aggravate them even more. A sharp increase in the population increases anthropogenic pressure and poses a serious threat to environmental safety.

There are many known objective and subjective reasons for the steady trend of an increase in the number of emergencies from year to year and an increase in their severity. In the fight against emergencies, their prediction and prevention, as well as management, should be at the forefront, which is actively carried out by the relevant state-level services (Ministry of Emergency Situations of the Republic of Azerbaijan), but the objective reality is that it is impossible to completely prevent them. It can be said with confidence that emergencies in Azerbaijan are inevitable. Therefore, the elimination of emergency situations that have already occurred is considered one of the most important tasks set in the unified state system for the prevention, management and elimination of the consequences of emergency situations. They are based on the creation of a regulatory legal framework and the implementation of measures to protect the population and territories from

emergency situations during wartime, as well as on the conduct of state expertise and control in the field of protecting the population and territories from natural and man-made impacts (Anas, Wikantika, Ali, Abujayyab, Hashempour, 2024: 1-3).

Emergency situations management is a comprehensive concept that covers all aspects of the management activities of the unified system for the prevention and elimination of the consequences of emergency situations and, above all, the knowledge and skills of their leaders. It is based on a number of principles, the main of which are the following:

- a) centralization of management with the provision of broad initiative to subordinate structures in determining the rules for the implementation of the tasks assigned to them;
- b) firmness and determination in the implementation of decisions and plans;
- c) prompt and flexible response to changes in the situation;
- d) personal responsibility of managers for the decisions made, the use of subordinate forces and the results of the fulfillment of the tasks assigned to them.

All of the above indicates the relevance of the study and indicates the management of emergency situations and, accordingly, the sphere of management of the prevention of emergency situations and the elimination of their consequences.

It is necessary to determine the goals and ways of implementing the management strategy in the field of prevention and elimination of emergency situations, and here the main goal and strategy are determined, which include the prevention of the causes of emergency situations, as well as the prevention of the events themselves and minimizing their consequences.

In order to implement Civil Defense measures in emergencies in a short time and in an organized manner, it is necessary to plan their implementation in advance. The scope, sequence and implementation terms of work to be carried out during emergencies are determined in the civil defense plan. This plan is an action plan for fulfilling the tasks arising during emergencies and is the main document for managing civil defense in such cases. Currently, Civil Defense Plans are being developed in the civil defense system, including in most industrial and social facilities. The civil defense plan determines the procedure for organizing work to be done to protect workers, production, and eliminate the consequences of these events during emergencies (Seyfullayeva, Ələkbərova, Məmmədova, 2006: 43-89).

Research

In the Republic of Azerbaijan, a unified State Emergency System (SESS) operates to provide civil protection, protection of the population and territories from emergencies, as well as prevention and elimination of the consequences of emergencies, and ensures the management of this area. The SESS includes relevant ministries, state committees and companies, as well as state groups equivalent to them.

SESS means the purposeful activity of management bodies at all levels to prepare all forces and means for the prevention and elimination of emergencies and to maintain them in a constant state of readiness for the population, economic facilities and personnel who will lead the elimination of emergencies.

Management is a field of scientific research and practical activity, based on approaches to management problems in terms of management skills. The basis of the mathematical approach is the formal quantification of models and the implementation of algorithms. Management is an intellectual skill based on existing heuristic procedures for decision-making, that is, logical and methodological methods of theoretical research, which are associated with the knowledge, experience, worldview of the management staff, heads of services and other persons participating in the management process. Together, these two approaches constitute a systematic approach to the issue.

The practical activities of officials in the management bodies of the Ministry of Emergency Situations (MES) at various levels are based on guiding documents. The basis of these documents is the results of research conducted using a systematic approach in the field of management. In order to understand them and use them creatively, all MES specialists must know the features of the civil protection system and the basics of management theory (Moe, 2012: 42-51).

Identification of the main concepts of civil protection management, definition of concepts and stages of the management process, characteristics of the management process in various conditions; understanding of the general theory of decision-making, quality and effectiveness of decisions; the essence of decision-making and types of their support. These concepts are considered basic (basic) concepts for further consideration of the stages of the process of managing the activities of the SESS in various regimes in peace and war conditions and the decision-making process.

The organization of emergency management is a set of interconnected measures and actions of control bodies and forces aimed at ensuring the efficient use of forces and means for various purposes in order to carry out rescue and other urgent work in full, in the shortest possible time, with minimal loss of population. An emergency begins from the moment an emergency occurs and ends after its elimination. is carried out in daily periods, each of which includes the following:

1. collection of information about the situation;
2. analysis and assessment of the situation;
3. preparation of opinions and proposals for making decisions on the conduct of work;
4. making (clarifying) decisions and delivering tasks to executors;
5. organization of interaction;
6. ensuring the movement of forces and means.

Emergency situations are carried out in accordance with the plan of measures for the prevention and elimination of emergency situations, prepared in advance at each level and regulated by the occurrence of a specific emergency situation. On this basis, taking into account the characteristics of the emergency situation, the emergency person makes a decision on the elimination of the emergency situation, rescue and other urgent work. When preparing the decision, planning of emergency rescue and other urgent work is carried out.

The organization of management during emergency situations is carried out as follows:

- locations, composition, protective measures and rules for the operation of operational groups at the point of main, reserve and auxiliary control points;
- rules for equipping control points with communication, warning and information means and using them;
- rules for notifying management personnel and employees about the expectation or occurrence of emergency situations;
- organization of management of civil defense forces and means in the modes of "daily operation", "high readiness" and "emergency";
- organization of communication with civil defense forces, measures for restoring control in case of disruption.

A management stage is a part or time interval of a management process during which an intermediate goal (for example, assessment of the situation, etc.) is fully achieved within a given period of time. Stages in the management process sequentially replace one another, that is, the completion of a previous stage ensures more effective implementation of more important tasks at the next stage, and thus creates conditions for achieving the final goal of the management process. It is possible for stages to overlap in time, therefore, the total duration of the management process is not equal to the sum of the durations of all its stages. However, no previous stage of the management process can be completed later than the stage following it (Kaneberg, 201: 350-374).

The task of management is the desired result of management activities within a given period of time (time interval). The function of management is the total sum of management activities performed to ensure the achievement of the set goal.

A phase of management is the state of the management process over a certain period of time. This means that the concepts of "stage" and "phase" can be used synonymously.

An approximate diagram of the main management stages in the SESS is given in Figure 1.

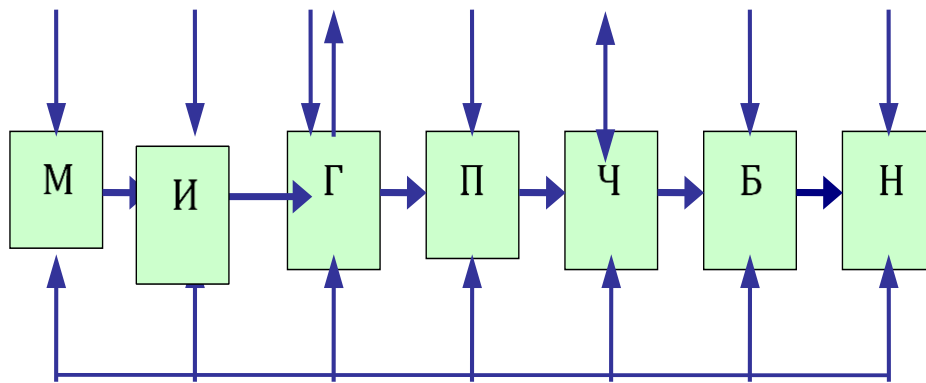


Figure 1. Stages of the management process

The management cycle (full management process) shown in Figure 1 includes the following management stages (phases): 1. clarification of the task (goal) (goal stage - M); 2. collection of information and assessment of the situation (conditions) (information stage - I); 3. stage of making a decision that determines the most effective way to fulfill the task (goal) (decision stage - Q); 4. planning of work (activity) to be done in accordance with the adopted decision (planning stage - P); 5. stage of delivering the adopted decision to subordinate executors, i.e. detachments, military units, lower headquarters, etc. in the form of orders, orders, commands, etc. (delivery stage - Ç); 6. stage of direct management of the implementation of the adopted decision (direct management - B); 7. the stage of control over the implementation of the adopted decision by subordinates (control stage - N).

The content of the management stages largely depends on the operating modes of the objects. However, in the theory of process management there are general rules and principles of their content. These rules include the following:

1. Clarification of the set goal.

At this stage, the management leader (head of the commission, head of the management team, squad commander, etc.) fully clarifies the management task (goal) set by the superior (higher management body) or arising in accordance with the situation arising during the operating mode of the management body (for example, the daily operating mode). At this time, he assesses the capabilities of the forces and means subordinate to him in accordance with the order (order, instruction) of the superior on management, in accordance with the requirements of the official regulatory document determining the operating mode of the management body in the relevant operating mode; clarifies for himself the issues of comprehensive provision of the upcoming activity and interaction with other forces (squads); draws preliminary conclusions about the timely and quality implementation of the task (or planned action); in cases where the implementation of the task is extremely difficult or impossible, he must inform the superior about this, with justification (Ahmad, 2022: 3-19).

2. Information collection and assessment of conditions.

At this stage of management, the manager, taking into account the time allocated for the implementation of this work, collects all the necessary information to fully achieve the upcoming goal and assesses the conditions (situation) to be implemented in the subsequent stages of management. At this time, he collects and assesses the following information:

- a) the nature of the probable or actual emergency (Emergency Situation); information about his own forces and forces that will interact;
- b) the condition of the equipment and the availability of reserves;
- c) the climatic and geographical characteristics of the regions where the operation will be carried out;
- d) the environmental consequences that may arise when achieving the set goal. The manager also involves the operational and working groups of the relevant management body in studying these issues. After that, the manager summarizes the information obtained, formulates the main

essence (essence) of the upcoming activity, and determines various alternative options and methods for achieving the goal.

The selection of action options during a series of operational emergencies is based on the experience and knowledge of the leader and the employees of the involved management body (MO). This requires the ability to predict the course and results of each option of action in advance. The creation of a “management information” bank helps in this. Such a “bank” is created on the basis of generalizing the experience gained during previously canceled operational emergencies, as well as conducting commander-staff training and exercises. Mathematical modeling of the specified activity during operational emergencies can also be of great importance in this area. Currently, such modeling is called Headquarters Mathematical Modeling (HMM). Such HMM should be implemented in the “operation plan during operational emergencies”. Based on the general goal of the decision developed by all these methods, preliminary orders are given to the forces and management bodies (MO) on preparation for action.

3. Decision-making.

Decision-making is the most complex and responsible stage of the management process. The result of this stage of management is the selection and determination by the management of the most effective method of achieving the set goal. The decision is based on the analysis and study of the initial information obtained about the situation (conditions), proposals received from the heads of subordinate services, from the heads of detachments and sections. The basis for the development and preparation of the decision is the application of decision-making methods, computational technical means, the experience and skills of the management staff, as well as intuition (Albattat, Som, 2019: 7-54).

The content of the decision depends on the type of SE and the situation, as well as the tasks set. In general, the decision may cover the following issues: the main goal of the leader regarding the upcoming activity, the tasks facing the subordinate detachments, units, sections, etc. at this time; the organization of interaction, comprehensive support, direct management and communication. The decision must be agreed upon and approved by the superior.

4. Planning of activities in accordance with the decision.

This stage of management is carried out in accordance with the adopted decision. In the planning process, the tasks of subordinate forces and management bodies are specified, the implementation periods of these tasks are calculated, the sequence of implementation, the rules of interaction between the forces in the grouping, the issues of comprehensive provision of the upcoming activity, the necessary reserves are determined. The decision of the leader and the prepared action plan are usually drawn up in the form of a map, and explanatory notes are added to this map (Schneider, 2002: 141-147).

Depending on the operating mode of the Ministry of Emergency Situations (daily activity, high readiness or FH mode), as well as the scale of the SE, planning can be envisaged for a long and short term. Long-term planning - determines the process of managing the facility for a significant period of time, when the conditions in the environment remain largely unchanged. This type of planning is characteristic of the daily activity period, as well as for the conditions in which regional, national and global SE occur. Short-term planning (sometimes called operational planning) is carried out in conditions of relatively short-term management of the elimination of the consequences of SE.

After detailed planning of the activity, the decision on this becomes the authority of the law of management.

5. Delivery of the decision to the executors.

The decision is usually delivered to subordinates in the form of an order (order, directive, command), in writing or using communication means. The executor who receives the relevant order confirms receipt of the order, and after executing it reports on the results of the execution.

6. Direct management.

It is carried out at the objects of management and directly directs the activities of the management bodies to fulfill the tasks specified in the decision. This stage is carried out by issuing management instructions to the executors once, repeatedly, or continuously. This can be of a

situation-dependent and independent (autonomous) nature. The situation-dependent nature is that while eliminating the consequences of the SE, the situation (conditions) may change dramatically, and in this regard, it may be necessary to make changes to the action plan, often partially adopt new decisions and implement them immediately. The independence of the management stage is due to the fact that in large-scale SE conditions, some detachments and units may operate at considerable distances from the higher management bodies and communication breakdowns are possible. The situation-dependent and independent activity of the direct management stage is more characteristic of SE in peacetime and wartime. Direct management is usually carried out by management bodies located in mobile control points (SCCPs), as well as by detachment and unit leaders (chiefs) in separate areas of the SE zone. Direct management is carried out by making specific decisions, giving specific instructions, personally leading the implementation, and by personal example (Ojagov, 2010: 350-367).

7. Control over the implementation of the decision.

This stage of management is carried out by the chiefs who have made the decision - personally, or by their deputies or a specially appointed commission, based on information from subordinates about the results of the orders received. According to the results of control, measures are taken to improve the effectiveness and quality of the decision implementation.

Adoption and development of decisions in the management process, requirements for their content.

Decision-making is the most complex and responsible stage of the management process and consists in choosing the most effective method to achieve the set goal. Let us interpret the concept of decision-making in a broad and narrow sense (Ojagov, 2011: 192-200).

In a broad sense, decision-making is one of the stages of managing any object in the MES system. Decision is the most important concept in management theory and has the following characteristics:

- It is the result of the implementation of one of the stages of the management process and is one of the options for exerting a managerial influence on the managed object in order to achieve the goal or to achieve the upcoming goal;
- Decision is made when the goal (tasks) of management are determined and there are several alternative methods and options for influence that ensure the achievement of the goal;
- When the goal (tasks) of management or the conditions (situation) change significantly during management, the decision is allowed to be clarified accordingly.

In a narrow sense, decision-making is the result of the management activities of a leading person (head of a facility, chairman of a commission, squad commander, etc.), on the basis of which the preparation and readiness of the MES forces to prevent and eliminate the consequences of a MES, bringing these forces to various readiness regimes, drawing up plans, orders, etc. documents for the performance of tasks in peace and wartime, and ensuring their implementation are organized.

Decisions are usually made by chairmen of commissions of various levels, heads of facilities, squad commanders and superiors. Decisions are usually drawn up in the form of a map with an explanatory text. In order to more effectively achieve the set goal, it is necessary to consider the development of a decision in close interaction with the general management process. Thus, individual stages of the management process may coincide with the processes of developing a decision and its implementation (Ojagov, 2005: 200-216).

The structural composition of the management system and the requirements imposed on them.

Management system.

The effectiveness of the management process at all levels and periods of the functioning of the SESS depends on the quality of the management tools and system. They consist of specific and purposeful activities, but all types of activities take place in some "material environment". Such an "environment" for management is created by the management system. Just as the environment and the activities performed there are inseparable from each other, the management system is also inseparable from the management process, forming a single unit. Let us consider the essence of the

concept of "management system". In general management theory, "management" means "the development and implementation of management rules". So, system management is carried out through the formation (determination) of special management (rules). Let us conventionally denote them by $U(t)$. The effect of $U(t)$ is shown by another system, which is not included in the composition of the management system and is considered one of the elements of the "environment". A general idea of the composition of the management system is depicted in Figure 2. The system that forms the control $U(t)$ is called the controlling system. The system that feels the controlling effect is called the controlled system (controlled object). Taking into account their mutual interaction, these two systems together form a new system - the control system.

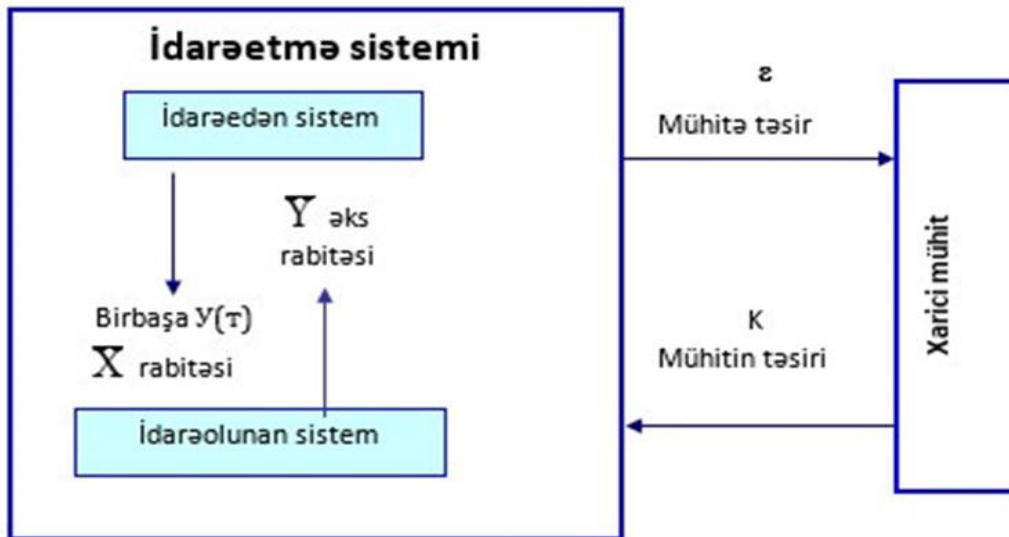


Figure 2. The composition of the control system

The connection between the controlling and controlled systems is carried out in direct (direct connection) and feedback directions.

The main elements of the SESS are: control bodies, control points, communication between them (control system); controlled objects (controlled system); physical-geographical, meteorological parameters of the SESS zone and the environment in which the CD forces are located and operate.

One of the main concepts encountered when studying the control system is the concept of the structure of the control system. In this case, usually the organizational (functional) structure and the system-technical structure are considered.

The organizational (functional) structure is the relationship between the control bodies (the functional tasks they perform).

The system-technical structure, on the other hand, is the relationship between the control points and the communication between them, and the interaction between the control means and control complexes.

Typical system-technical structures are: Linear (sequential), circular, the organizational structure of the management systems of military units, headquarters is single-level or multi-level, but in all cases multi-purpose. Such types of organizational structures are linear, linear-functional, linear-staff, hierarchical, etc. structures.

An example of a linear structure is shown in Figure 3. In such a structural environment, the leader directly manages his subordinates. Such a structure is used in individual cases - in simple management systems with a small flow of information on management, for example, when managing specialized units within the forces of the CD of the object (Ojagov, 2003: 167-189).

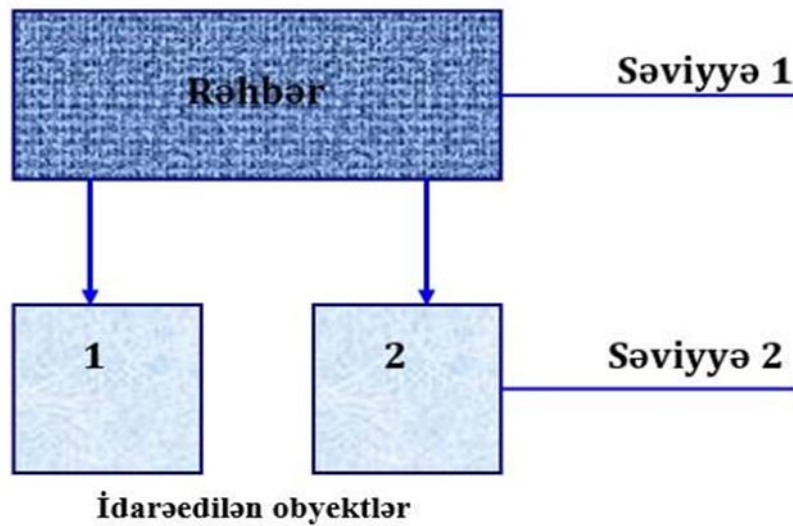


Figure 3. Linear structure

In a linear-functional structure (Figure 4), functional management is carried out by heads of services in various directions, while the head coordinates the activities of the services.

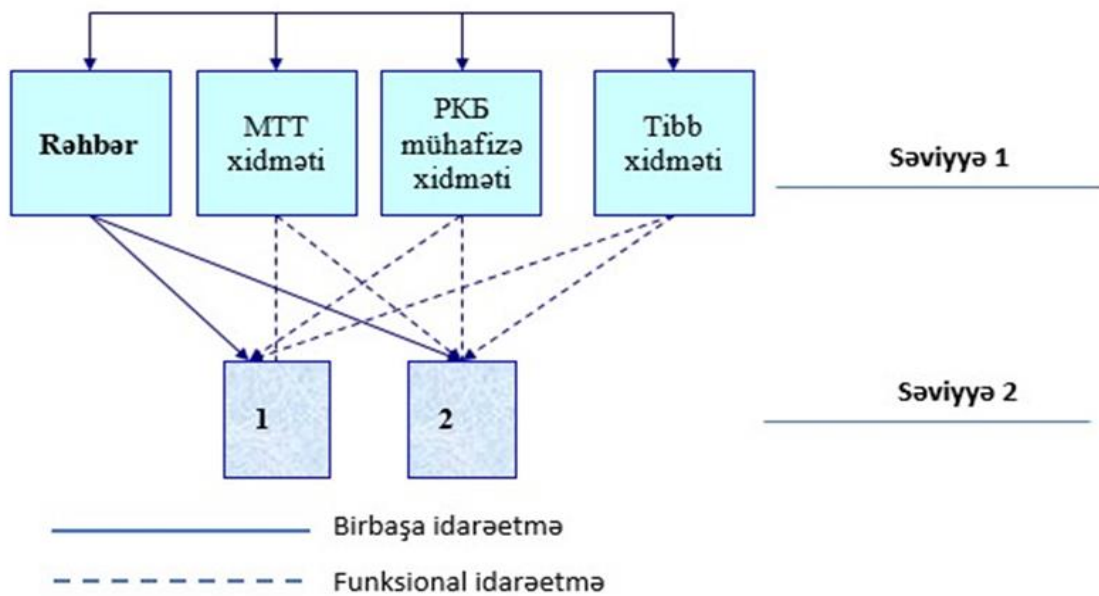


Figure 4. Linear-functional structure

These structures are characteristic of the management systems of the district and facility levels of the CD. The disadvantage of such a structure is that the bulk of the specialized work on the management of service structures (SS) falls on the head. In this case, the responsibility of service structures for the final result of management is reduced.

At the city and higher levels of the CD system, as well as in the CD military units, a linear-staff management system is used (Figure 5.). This structure is characterized by the fact that direct (indirect) management of subordinates is carried out according to a linear scheme. Functional management bodies (services) are engaged in functional management, and the coordination of their activities is carried out by a special coordinating body - the headquarters.

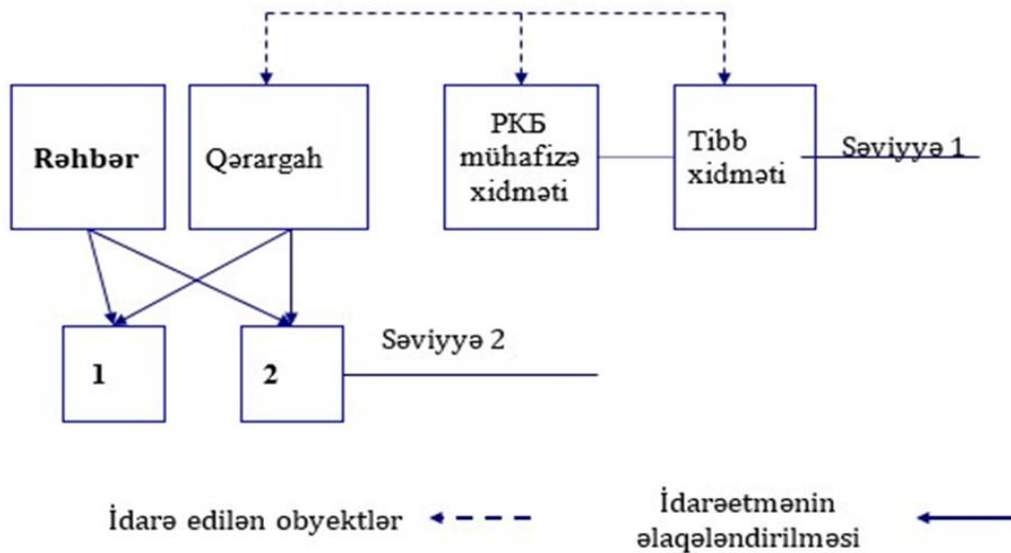


Figure 5. Line-staff management structure

A characteristic feature of this bottom-up subordinate structure is that the management process (decision-making) here is distributed not only according to a linear scheme (vertical division of labor), but also according to a functional scheme (horizontal division of labor). It should be noted that a multi-level organizational structure is not always hierarchical.

In the management system of the Ministry of Emergency Situations: structures at the facility, regional and republican levels are considered hierarchical systems. The scheme of such a management system is shown in Figure 6.

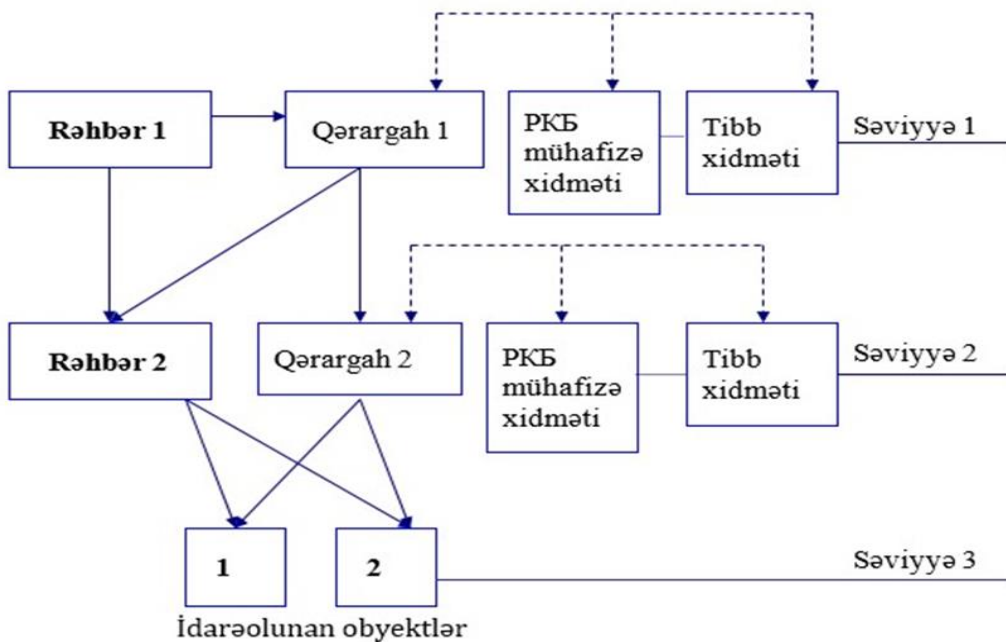


Figure 6. Hierarchical structure

The main drawback of the above-considered organizational structures of management systems is that they implement only the functional division of labor (resource management). In this case, the main efforts of the management staff are directed to improving the quality of management, which occurs due to the strengthening of the specialization of management bodies. This leads to a decrease in the responsibility of the functional management body.

To eliminate this drawback, it is necessary to create organizational structures that ensure efficient management of resources.

In addition to linear (reserve) subordination, such a structure also provides for the implementation of temporary functions (duty, reconnaissance, etc.). Such a system, called matrix management, is organized on the basis of the commander's order in the military units of the Ministry of Emergency Situations that perform only special tasks.

Requirements for the management system.

It should be noted that at present the requirements for the management systems of the Ministry of Emergency Situations have not been sufficiently developed. However, it is possible to make some general comments about these management systems.

These requirements can be divided into four groups.

1. Operational-tactical requirements

Requirements of this group can be attributed to the forces of the MM. These requirements may include the following: the ability to conduct emergency rescue and other urgent work (ERW) in peacetime and wartime, mobility, protection from enemy intelligence, etc. The capabilities of the control system determine the purpose for which it is intended. In this case, the features and main characteristics of the objects it will control in peacetime and wartime should be indicated. The intelligence protection capability of the control system is determined by the intelligence protection capability of its elements and, first of all, the communication system used by this system. The mobility (flexibility) of the control system is usually attributed to the conditions in which rescue work is carried out.

2. Functional requirements for the control system

These requirements are important in cases where the system is multipurpose. These requirements should list all functional control modes in which the system is implemented.

3. Technical requirements for control systems

This group includes the system's launch and rapid response capabilities, as well as the features of its operation. This also includes requirements for its overall stability and operability, even in the event of a malfunction in the system. The throughput of a MM control system is determined not by the provision of information, but by its reception, processing and use. However, currently, such requirements are not taken into account in the MM control system, usually the general capabilities of the system are taken as a basis.

4. General technical requirements for the control system

With regard to the control system, the resistance of its technical means to failures and errors (inaccuracies) in the information process should be taken into account. Let's consider the concept of failure resistance of a control system. A control system may be subject to technical failures in operation as a result of various influences. The causes of the failure may be internal physicochemical processes or the human factor. Malfunctions arising during internal processes are assessed by the intensity of their occurrence during operation and are denoted by the letter \square . Let us consider the concept of error (inaccuracy) resistance of a control system. The basis of errors in information flows in a control system can be technical means and humans. The assessment of error resistance resulting from the failure (breakdown) of technical means or electromagnetic incompatibility is called damage (harmfulness) in a control system. If errors in the information process occurred as a result of the human factor, it can be assessed in two ways: an error resulting from an unintentional (involuntary) action of a person can be assessed as damage, as in the case of technical reasons. If human activity is deliberately aimed at weakening the system's error resistance, such a situation is assessed as resistance to obstacles (obstacles). These two situations (damage and resistance to obstacles) are used together as an expression of the functional stability of the system.

Analysis of alternative options in making a management decision.

The preparation and adoption of a decision consists in transforming information on the situation into information on management. In this case, it is mainly a creative process, but also includes certain elements that can be formed. The sum of these elements constitutes the formed part of the process of changing information in content.

It is known that decisions can be conditionally divided into two categories (groups):

1. Decisions related to the prospects of the city, region, facility and military unit, related to fundamental issues of life and activity in them (for example, decisions on the reconstruction of a

military camp or the creation of a new camp, on transferring to a new power supply system). Such decisions are episodic in nature, non-standard and are aimed at solving certain problematic situations; for example, decisions that characterize the non-compliance of the existing situation in important areas of the military unit's activities with the required state and are aimed at eliminating it.

2. Monotonous, repetitive decisions related to the daily activities of the city, district, facility and military unit. Such decisions are made by the unit commander in order to fulfill the tasks set by the superior or unexpectedly arising.

Before making decisions related to the first group, it is required to identify (clarify) the problem, and before making those related to the second group, it is required to define the goal.

Identifying the problem is the task of the senior management and the unit commander, but all management bodies can participate in this work. Sources of information for making such a decision can be: inspections, results of the unit's activities during the training period, conclusions drawn from the implementation of individual tasks, assessments and opinions about the unit's activities given by the superior bodies and services that provide and equip it, and organizers of mutual activities (Chernov, 2022: 62-66).

Since the decision covers the volume and terms of the work performed, the forces and means involved, and other issues, it cannot be evaluated by a single indicator. A system is needed that divides indicators into three groups and reflects the following:

- estimated costs;
- expected results (effectiveness);
- time required to achieve results.

When justifying decisions, it is pointless to calculate all of the numerous indicators, since this in a certain sense complicates or makes the issue impossible.

Let us consider the rules for formulating criteria and using criteria for selecting effective decisions:

1. One of the indicators (for example, the time of work completion) has a clear advantage over the others. Such an indicator is accepted as a criterion (such a criterion is called a simple criterion);

2. The criterion is formed from two or more indicators by comparison (verification) in its composition.

An example of such a criterion is the pace of work, which is the ratio of the volume of work (Q) to the time of their execution (T):

$$V=Q/T.$$

Composition and duties of control points.

In peacetime, when a fire occurs, commissions for the prevention and elimination of emergency incidents and ensuring fire safety operate in the fire department, the working bodies of which are the operational headquarters and the operational group for the elimination of fire (Lobanov, Chernov, Dzutsev, 2021: 36-48).

These commissions usually manage the activities of their subordinates from daily control points; however, when a problem (condition) arises related to the possibility of poisoning the area where the daily control points are located, these commissions may move to reserve control points.

Military forces and equipment are controlled by the control point staff from the reserve (auxiliary) fire department. The composition of the management staff in the reserve fire department and the auxiliary fire department varies.

To manage emergency incidents from the reserve fire department, fire department staffs are created in advance - in peacetime from the composition of the relevant management bodies of cities of the rank, districts of these cities, as well as from the composition of the management bodies of the MM and fire department.

Fire department staffs occupy their workplaces and posts during a special period, that is, when a dangerous period is declared and during wartime. The composition of these teams is determined by the relevant heads (chiefs) of the MM management body in wartime, taking into account the

number of employees of the MM management body, the organizational and staff structure of the body, the scope of its duties, as well as the issues of ensuring uninterrupted work there.

The composition of the IM teams may mainly consist of:

- control center;
- situation generalization and proposal preparation group;
- guidance group;
- information group;
- transfer-transport group;
- calculation-analysis group;
- communications group.

The general structure of management in the emergency regime in peacetime.

The FH regime begins from the moment the chairman of the commission (KS) or the head (chief) of the MM declares this regime. This regime can be declared when an accident, natural disaster occurs or after clarifying the situation. In terms of the characteristics of the management process, it is advisable to consider the emergency regime period in two stages:

the first stage is the initial stage, during which urgent measures are taken to protect the population, the real situation is determined and rescue forces take up their positions; The second stage is the main stage; at this time, the emergency and its consequences are eliminated (Evdokimov, Rybnikov, Chernov, 2019: 114-117).

Typical periods (cycles) of management in an emergency regime are:

- the period of management during the arrival of the chairman of the commission to the emergency management point of the Ministry of Emergency Situations (mobile emergency management center, or other emergency management center);
- the period of management during preparation for the activities to be carried out the next day.

According to their direction, that is, the objects of management, the mentioned periods of management can be divided into two types:

- the period of general management of all groups and management bodies in the emergency zone;
- the period of management of the activities of paramilitary and civilian rescue teams located in separate areas or facilities in the emergency zone.

The first period is usually carried out in a general, predetermined structure and content. The second period of management is usually considered management by the situation (by situation) among the population.

The autonomy of the management cycle means that when a situation arises that is not provided for in the decision of the superior, a decision is immediately made and implemented accordingly. The situation should be understood as a change in the situation (circumstances), the emergence of new problems and the implementation of work not specified in the plan. The following case may be an example of a situation requiring an autonomous management cycle: in the region where work is being carried out to localize and eliminate an emergency, an explosion occurred in a nearby fuel and lubricants warehouse as a result of an accident at a fire-hazardous facility. As a result, the resulting fire is rapidly approaching a nearby residential area at a dangerous distance due to the surface wind. The person in charge of the work in this area must make an immediate decision and organize the prevention of the spread of the fire with their own forces until outside help arrives. Such situations can practically occur during an emergency (Chernov, Evdokimov, 2018: 85-86).

Conclusion

1. The theoretical and practical aspects of the legal provision of forecasting, management, prevention and elimination of the consequences of natural and man-made emergencies have been studied. Specific proposals have been developed to improve the existing domestic legislation in the field of emergency management.

2. Emergency situations are the most important element of the national security systems of most countries of the world, its social purpose is to create the opportunity to eliminate certain conflict situations within the framework of the system of legal norms.

3. When conducting scientific research on the activities of the state legal mechanism for ensuring security in emergencies, it is advisable to use the results and proposals reflected in the work. The scientific results of the article work can be used. practical activities are:

- fire-rescue and other units;
- the Ministry of Emergency Situations of the Republic of Azerbaijan, authorized bodies and officials involved in the elimination of the consequences of emergencies.

4. The legal essence of the regime of natural and man-made emergencies is characterized by the efficiency and simplification of the procedure for taking the necessary organizational, economic, environmental and social measures aimed at preventing an emergency, as a mitigation of the emergency situation, and a system of measures has been developed to minimize the consequences of emergencies, including the restoration of environmentally unfavorable territories.

References

1. Anas, M., Wikantika, K., Ali, H., Abujayyab, S., Hashempour, J. (2024). Optimization of new fire department location using an improved GIS algorithm for firefighters travel time estimation. *International Journal of Emergency Services*, pp 1-3.
2. Moe, L. (2012). Aiming for resilience and adaptation in managing environment: An emerging environmental and emergency leadership in the twenty-first century. *International Journal of Disaster Resilience in the Built Environment*, Vol. 3 No. 1, pp. 42-51. <https://doi.org/10.1108/17595901211201123>.
3. Kaneberg, E. (2017). Managing military involvement in emergency preparedness in developed countries. *Journal of Humanitarian Logistics and Supply Chain Management*. Vol. 7 No. 3, pp. 350-374. <https://doi.org/10.1108/JHLSCM-04-2017-0014>.
4. Ahmad, A. (2022). Planning for Disaster and Emergency Preparedness in Hotels. Valeri, M. (Ed.) *Tourism Risk*, Emerald Publishing Limited, Leeds, pp. 3-19. <https://doi.org/10.1108/978-1-80117-708-520221001>.
5. Albattat, A., Som, M. (2019). Disaster and Emergency Planning and Preparedness in Hotels. *Disaster Planning and Preparedness in the Hotel Industry*, Emerald Publishing Limited, Leeds, pp. 7-54. <https://doi.org/10.1108/978-1-78769-937-320191002>.
6. Schneider, R. (2002). Hazard reduction and sustainable community development. *Disaster Prevention and Management*, Vol. 11 No. 2, pp. 141-147. <https://doi.org/10.1108/09653560210426821>.
7. Ojagov, H. (2010). Safety of life in emergencies. *Textbook for higher education institutions*. pp 350-367.
8. Ojagov, H. Emergency management. (2011). *Textbook for higher education institutions*. pp. 192-200.
9. Ojagov, H. (2005). Monitoring and forecasting of emergencies. *Textbook for higher education institutions*. pp 200-216.
10. Ojagov, H. (2003). Characteristics of factors that disrupt stability and their consequences. *Textbook for higher education institutions*. pp. 167-189.
11. Chernov, A. (2022). Substantive analysis of the global flow of scientific articles on emergency medicine. *Collection of works of section No. 1 of the XXXII International scientific-practical conference*, Khimki, March 01, 2022. Khimki: Academy of Civil Defense of the Ministry of Emergency Situations of Russia, 119 p. Pp. 62-66.
12. Lobanov, I., Chernov, A., Dzutsev, A. (2021). Integration of medical civil defense forces and the unified state system for preventing and eliminating emergency situations as a tool for strengthening the national security of the Russian Federation. *Scientific and educational problems of civil defense*. No. 3 (50). Pp. 36-48.
13. Evdokimov, I., Rybnikov, Y., A. Chernov, A. (2019). On the passport of scientific specialty 05.26.02 "Safety in emergency situations". *Multidisciplinary clinic of the XXI century. Innovations in Medicine - 2019: Proceedings of the International Scientific Congress / edited by prof. Aleksanin S.S. Asterion*, pp. 114-117.

14. Chernov, A., Evdokimov, I. (2018). Information support for scientific research in the field of disaster medicine. Functioning of the automated information and telecommunication system for the purpose of readiness of the Disaster Medicine Service of the Ministry of Health of Russia to respond to actions in emergency situations. *Proceedings of the All-Russian scientific-practical conf.* M.: VTsMK "Zashchita". Pp. 85-86.

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