administered orally. The vaccine induces the synthesis of protective antibodies, of the IgA class in secretions (SIgA).

The exanthemous typhus (1914-1922) has as etiological agent the intracellular bacterium Rickettsia prowazeki, transmitted by body lice, which produced in Eastern Europe and the USA several million victims, and in Romania, 300 000. Rickettsian cells inoculated by lice sting they multiply in the endothelial cells of small blood vessels and produce vasculitis. The cells increase in volume, necrotic and cause an inflammatory process with the formation of thrombi and obstruction of blood circulation. The disease has been eradicated.

Vaccines have also played an important role in combating infectious agents. Vaccines are biological products that contain live bacteria with attenuated virulence, killed bacteria, modified toxins (anatoxins), infectious viruses but with attenuated virulence, respectively inactivated viruses and which, when properly introduced into the human or animal body, stimulate immune reactivity a state of temporary protection against the infectious agent from which they were prepared.

The vaccine preparation must be effective, i.e. induce a protective immune response, the memory of which must be preserved over time and, on the other hand, have a high degree of safety, i.e. not cause adverse side effects. The administration of a vaccine is based on a well-defined strategy. The purpose of vaccination may be to eradicate, eliminate or limit an infectious process.

In the context of the COVID-19 pandemic, taking into account the experience of countries severely affected by the evolution of the virus and measures that have had a positive impact in limiting its spread and aimed at public health actions, while limiting or interrupting non-essential socio-economic activities, but especially restricting the exercise of fundamental rights and freedoms, without which the other actions carried out could not have had the expected effect, by Decree no. 195 / 16.03.2020 (M-Of.212 / 2020) The President of Romania established the state of emergency at national level .

Starting with May 15, 2020, by the Decision of the National Committee for Emergency Situations no. 24 / 14.05.2020, the state of alert was declared at national level, for a period of 30 days.

The alert regime is regulated by GEO 21/2004 on the National Emergency Management System, with reference to "... immediate implementation of action plans and measures for prevention, warning of the population, limitation and removal of the consequences of the emergency situation" in order to create the legislative framework for the prevention and management of emergencies, ensuring and coordinating the human, material, financial and other resources necessary to restore the state of normalcy.

According to the provisions of art. 41 of GEO no. 68/2020 and of art. 2 of Law no. 55/2020, the alert state represents the response to an emergency situation of special magnitude and intensity, determined by one or more types of risk, consisting of a set of temporary measures, proportional to the level of severity manifested or predicted and necessary for the prevention and removal of imminent threats to life, human health, the environment, important material and cultural values or property.

The **following structures** are involved in **the activity of prevention and management of emergency situations** produced by the manifestation of a pandemic on the territory at county level:

- County Committee for Emergency Situations;
- Local Committees for Emergency Situations;
- Professional and voluntary services for emergencies;
- Deconcentrated and / or decentralized public institutions represented in CISU;
- Emergency cells of economic operators at risk or of economic operators whose functioning is vital to the normal development of social activities;
- The sanitary units in the county with all the subordinate structures;
- Sanitary veterinary units in the county with all subordinate structures;
- NGOs with the object of activity providing first aid or support in intervention in emergency situations.

According to WHO1094 / 2005 on the National Influenza Pandemic Response Plan and the establishment of the National Committee and the county pandemic influenza intervention committees, for the operational management of health problems and the implementation of response actions, the structure was approved at national level. plan, and at the level of the county counties, the above-mentioned entities were constituted.

**The fundamental objective of the County Emergency Plan** in case of pandemic is to protect the population against an influenza pandemic and aims to fulfill the following intersectoral responsibilities:

- preparing the authorities and the population to provide a rapid and credible response in the event of an influenza pandemic based on the results of scientific research in the field;
- detecting the appearance of influenza virus during the pandemic alert period and stopping its spread in order to limit the number of infected people and ensure optimal conditions for caring for the sick at home or, as the case may be, in hospital or other facilities;
- stopping as much as possible the phenomenon of virus spread during the pandemic, ensuring the optimal means of prevention and adequate care conditions for the population; - establishing the attributions of the county and local public authorities, as well as of the other structures subordinated or in

- their coordination, in order to ensure the coordination and management of the actions, the continuity of the activity and the support functions;
- inventory of forces, means and other categories of resources that will be made available to the authorities involved in risk management, at national and territorial level;
- maintaining the public's trust in the competent public authorities, through a well-coordinated, transparent and continuous communication process;
- capitalizing on the experience resulting from the occurrence of real events and the organization of national or international exercises on this issue;
- maintaining the operative capacity of the structures involved in the management of emergency situations for the fulfillment of the specific missions established in the competence and the intervention in support of the population.

## County pandemic intervention committees usually have the following component:

- deputy director of preventive medicine from DSP;
- head of the epidemiology department of DSP;
- heads of university clinics / sections with a profile of infectious diseases, internal medicine, pediatrics, pneumology;
- a representative of the county college of pharmacists;
- head of the county microbiology laboratory of DSP;
- a representative of the county health insurance house;
- a medical representative of the Ministry of Interior, from the county medical centers, respectively from the municipality of Bucharest, from its own network;
- a medical representative of the Ministry of Interior;
- a representative of the medical structure from SRI;
- a representative of the medical structure from SIE;
- a representative of the county sanitary-veterinary authority;
- the president of the county association of family doctors;
- the director of the county rescue station;
- a media representative.

# Responsibilities for managing pandemic emergencies: County prefect:

- ensures the application and observance at territorial level of the CNSU decisions, as well as of the orders of the Minister of Administration and Interior;
- coordinates, in accordance with the law, the actions and activities of ensuring and / or restoring public order;

- carries out the preparation and intervention measures;
- uses the funds specially allocated from the state budget in order to carry out the intervention activities in crisis situations;
- verifies the measures taken by the mayors and the president of the county council;
- orders the inventory and periodic monitoring of vulnerable persons who risk being isolated at home in case of contact with the disease.

#### **County council:**

- approves the use of the budgetary reserve and of the special funds necessary for the intervention and reconstruction in crisis situations;
- provides the necessary framework for the provision of public services of county interest in the field of public order, emergency situations, as well as in the field of environmental protection and restoration;
- when establishing the state of emergency, keeps records of the goods subject to requisition, owned by individuals, and communicates, at the request of the beneficiaries or the prefect, data on their existence, condition and characteristics;
- provides the Ministry of Interior with data and information on the records of persons in the county. The Neamt Public Health Directorate is the main responsible in the elaboration and implementation of the pandemic response activities.

### Mayors:

- are permanently consulted with the representatives of the prefect's institution and the Health Directorate;
- implement protection measures at local level, based on local resources and volunteers of any kind.

### **Local councils:**

- coordination of public institutions and services of local interest and of commercial companies and autonomous utilities of local interest;
- manages the services provided to the citizens by the community services;
- contributes to ensuring public order;
- coordinates the actions of the voluntary emergency services;
- provides the Ministry of Interior with data and information regarding the records of the persons from the competent territory.

# Establishing the attributions of the public authorities responsible for the management of epidemiological / pandemic risks:

- a) the momentary capacity to provide care for the affected children and adults in the communities as well as of the own personnel;
- b) coverage and flexibility of emergency medical services;

- c) the links between the health care system and the public health departments, including laboratory surveillance and diagnosis;
- d) education and training (including training exercises);
- e) the establishment of Special Committees for health care, as a central point for planning, preparation and coordinated response.

These special committees will include representatives of hospitals, professional organizations of doctors and nurses and care organizations, home care organizations, long-term care facilities, pharmacists, emergency medical staff and health officials.

Organizational and community planning teams need to be familiar with national and local influenza pandemic preparedness and response plans to ensure that critical elements of the plans are appropriate. It is necessary to inventory the forces, means and other categories of resources that will be made available to the authorities involved in risk management.

Community-wide resource management can be facilitated by a real-time tracking system to monitor the impact of the pandemic on community hospitals. During a pandemic, the tracking system that will be established since the interpandemic period will collect and communicate information on:

- a) number of ICU beds available, mechanical ventilation (for adults and children);
- b) number of medical beds available (for adults and children);
- c) the number of beds available in the emergency reception units (monitored and unmonitored);
- d) the average daily number of patients and the waiting time at the emergency unit;
- e) the number of patients waiting to be hospitalized (ER, offices, etc.);
- f) the number of hospitals assigned to an ER;
- g) morgue capacity;
- h) lack of medical supplies or protective equipment;
- i) maintaining the public's trust in the competent public authorities, in a well-coordinated, transparent and continuous communication process predominantly through the media;
- j) capitalizing on the experience resulting from real events on this issue;
- k) early detection and control, preferably by the specialized epidemiological network, of the first cases of human infection, imported or domestic, and their contacts by means of the epidemiological surveillance network;
- l) limiting, as far as possible, travel to affected countries, monitoring the control at border crossing points, limiting travel and implementing measures to prevent pre-pandemic phases;

- m) limiting contacts in places with a high population density, which favors infection (diminishing or temporarily stopping public transport, closing institutions and educational units, postponing cultural-sports or other events);
- n) administration according to priorities, according to the epidemiological characteristics, both to professionals working in environments with a high degree of exposure, and to people with a special predisposition to infection, who are likely to develop complications or severe forms of the disease or to promote the spread epidemic;
- o) the obligation of professionals exposed to the risk environment, as well as of the general population, to respect the protection and hygiene measures in case of respiratory communicable viral disease;
- p) development of the program for the organization and adaptation of the health system in case of pandemic (Guide for hospitals and other bed facilities is intended to support efforts to plan the response to influenza pandemic of health care providers, health care systems, hospitals, chronic care facilities, nursing homes and other groups that will provide medical services as part of the response to an influenza pandemic).

As recommended for local public health authorities drawing up their preparedness and response plans, private organizations should draw up their own plans by setting up special planning teams that may include decision-makers, important groups of stakeholders and those who have specific technical experience.

Those organizations will consider appointing a coordinator to serve as a point of contact for influenza pandemic planning:

- a) adequate organization of triage, in the sense of isolating patients at home or in hospital, in case of increasing the number of sick people, depending on the standards of triage developed (MICs, Permanence Centers, others);
- b) the mobilization of some medical and social care units in order to ensure the coordination of the care services both at the hospital and at home or in specially arranged spaces of the affected persons;
- c) mobilization at maximum capacity of public health institutions and units;
- d) the optimal use of the previously established reserves of medicines;
- e) ensuring adequate supply of medicines, medical materials, protective equipment and the like, at all health units;
- f) increasing the operational capacity of other structures with attributions in ensuring the support functions;
- g) the appointment of an occupational medicine doctor to follow and guide the preventive activity in each public institution (with major implications in the management of emergency situations);

- h) dissemination of an electronic poster through e-mail addresses and through the Internet (posting on the websites of public institutions) to inform on the preventive measures of first necessity, available to the entire population;
- i) ensuring a permanent social consensus of ethics.

A pandemic is an exceptional situation that will require the definition of priorities for access to health services, an effort of solidarity at all levels and a total commitment from professionals whose activity involves direct contact with patients. In such a situation, it is necessary to reach a consensus on common ethical values in order to ensure cohesion in society, such as:

- the duty of the society to protect professionals and all those at risk during the
  exercise of the profession (including their families and occasional public
  servants) and to ensure the future of the families of those who may become
  victims of the epidemic; o acceptance by the population of the principle of
  prioritizing access to limited available resources, including health products
  and bringing them to the public's notice as soon as they have been
  established;
- eliminating the stigma of isolated or quarantined sick people; o preparation of funeral services to deal with the situation if necessary.

### **MODULE 2**

# I. Interventions in cases of people / animals trapped by water /floods

### **Rescue 3 International. Description. Qualitative training standards**

Rescue 3 International is the largest accreditation body for technical rescue programs in the world. Rescue 3 International develops curriculum and accredits training programs in various technical rescue disciplines, including water, technical rope and rigging, ice, boat, enclosure and medical.

The California and Western Regional Training Center for Rescue 3 International has more than 25 years of aquatic rescue training experience, and the training and learning courses hosted are in compliance with the US National Fire Protection Association (NFPA).

The National Fire Protection Association (NFPA) is an American organization that develops and publishes standards for both equipment and operations. Unlike most European standards, they are not mandatory. An organization can decide if it wants to meet the standard. In NFPA terminology, the organization wishing to meet the standard is called the Jurisdictional Authority or AHJ. The NFPA does not audit against standards. It is the responsibility of the AHJ to show that they have met the requirements of the published standard.

In 1998, NFPA published NFPA 1670 - a rescue standard that addresses water rescue as one of its components. In 2000, NFPA 1006 was launched, which sets minimum standards for emergency response personnel performing technical rescue operations, including water and flood rescue.

### **General principles. Priorities**

For a team to be successful in its actions, it must first take a training course to gain basic training. To become more competent, they should continue to practice these skills and techniques, thus gaining experience. This may include practice at certain sites that have proven historically problematic and may be integrated into the preliminary plan for the site or area.

As the team becomes more experienced and trained, it will develop good and solid judgment when dealing with a variety of situations. This judgment is vital when

teams face rescue situations in difficult conditions. Their judgment will be based on making the right decisions about how (or not) to proceed with the rescue.

After gaining experience on what works, what problems, what are the advantages and disadvantages of different systems and what are the solutions, the team will be judged to be able to choose the best solution for any situation without wasting time.

Only when both the rescuer and the team have secured their work environment can they begin to perform rescues or operate in an aquatic environment.

Rescue 3 has identified good practice guides to help learners develop an understanding of the basics of water rescue principles.

- **1. Don't get complicated** Many rescues fail because rescue teams try to implement complicated solutions that take too long to set up or are above the capacity of team members.
- **2. Always be proactive** As the saying goes, prevention is better than cure. Through effective education and risk reduction, we can greatly reduce the potential for people to become victims of water and floods, and thus reduce the need for rescue. On-site proactivity should be encouraged, ensuring that there is an isolation plan for the rescue site. This means ensuring that there are upstream locators and safety / isolation downstream at the rescue site, before any rescuer engages in the water. The responsible person should be proactive in thinking about alternative action plans if the current plan fails. Each team member must observe the environment and think ahead.
- **3.** Always operate within the limits of your abilities and level of training Rescuers should understand their mission and role. They should understand their own skills, the skills of their team, the equipment they have at their disposal and the training they have received. They should be evaluated together with the environment in which they intend to operate.

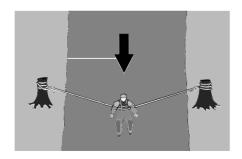
There may be a lot of pressure on rescue teams to try a rescue, from family and loved ones and the rescue team itself. There will be times when the rescue team is not equipped or trained to perform a rescue operation, and recognizing when a task exceeds the team's capacity is very important to ensure that team members and the victim are not subject to additional danger.

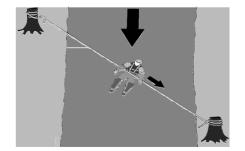
**4.** The correct order: You - The team - The victim! "The most important person in any rescue is you." Once you have personal safety control, then the next level of concern is for your rescue colleagues. Only then can we begin to consider ourselves

the victim. To outsiders, this may seem like an egocentric and unfair approach. After all, isn't the victim in need of rescue?

However, the victim can only be rescued by rescuers who have control (and do not need to save themselves) and have the extra energy and ability to take care of someone else as well as themselves. If a rescuer does not keep his own safety, he is no longer a savior and becomes another victim. A team of rescuers who maintain the safety of the individual and the team will be a greater advantage in rescuing the victim than an individual rescuer.

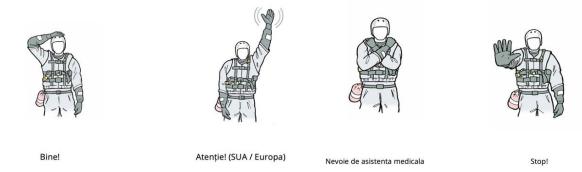
- **5. Always use proper technical and team equipment** Water rescue equipment has come a long way in the last thirty years. There is no excuse for endangering rescuers and victims by using inadequate, unsafe or improvised equipment if better alternatives are available. The equipment must be suitable for the purpose, comply with all applicable standards, be monitored and tested. Most importantly, rescuers need to be familiar with the equipment they are using.
- **6. Always have a backup plan** The incident manager should always look at the big picture, thinking "what if?" and "what's next?" While team members implement Plan A, others need to implement backup plans. This may require the request for additional resources and staff, which must be identified through a prior planning process. The possibility of safety / isolation downstream is an important part of a backup plan, but it should not be the only backup plan.
- **7. Never tie a rope around a rescuer** Rescuers died as a result of being tied without a rope release system and then trapped underwater, unable to free themselves. If a rescuer is to enter the water attached to a rope it must be attached to a specialized quick-release harness on a rescue PFD.



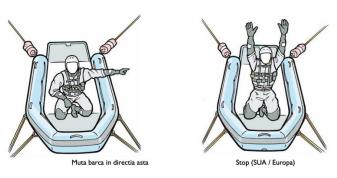


### **Manual signals**

The diagrams below show commonly accepted manual signals.



### Manual signals - moving a boat



### International river classification scale

The International River Classification Scale is a standardized scale for measuring the technical difficulty of a particular section of the river and the level of qualification required to navigate successfully.

	Fast moving water with waves and small waves. Few
Class	obstacles, all obvious and easily missed with training. The risk
1	for swimmers is low; self-rescue is easy.
	Simple rapids with wide, clear channels that are obvious
Class	without research. Occasional maneuvering may be required,
II	but medium-sized rocks and waves are easily missed by
	trained paddlers.

Fast with moderate, irregular waves, which can be difficult to avoid and which can flood an open canoe. Complex fastcurrent maneuvers and good boat control in tight passages or around curbs are often required; large or slippery waves Class may be present, but they are easy to avoid. Strong vortices Ш and strong current effects can be found, especially on high volume rivers. Research is recommended for inexperienced parties. Injuries while swimming are rare; Self-rescue is usually easy, but group assistance may be needed to avoid long swims. Intense, powerful, but predictable rapids that require precise handling of the boat in turbulent water. Depending on the nature of the river, it can have large, inevitable waves Class and holes or restricted passages that require quick IV maneuvers under pressure. Rapid waters may require "mandatory" movements over dangerous hazards. Research may be required for the first time. The risk of injuring swimmers is moderate to high, and water conditions can make self-rescue difficult. Group rescue assistance is often essential, but requires practiced skills. Extremely long, obstructed or very violent rapids that expose a paddler to additional risk. The drops can contain large, inevitable waves and holes or steep, crowded gutters with Clasa complex and demanding routes. Rapids can continue long distances between pools, requiring a high level of fitness. What swirls there may be small, turbulent or hard to reach. At the high end of the scale, several of these factors can be combined. Research is recommended, but can be difficult. Swimming is dangerous, and rescue is often difficult even for experts. These runs have almost never been tried and often exemplify the extreme difficulty, unpredictability and Clasa danger. The consequences of errors are very serious and VΙ rescue can be impossible. Only for teams of experts, at favorable water levels, after a careful personal inspection and taking all precautions.

**Personal equipment** - Rescue teams carry a wide range of equipment depending on their areas and levels of operation.

- **Lights** When staff work at night, they need adequate lighting. This can be ensured by portable generators or vehicles.
- **Swimming fins** Swimming fins can greatly increase the speed of a lifeguard when swimming in water.
- **Technical and team equipment** Rescue teams carry a wide range of equipment, depending on their areas of action and levels of operation. The correct use of the correct technical equipment is an integral part of many water rescue situations.
- **Ropes / Ropes and knots** Ropes are used for a variety of applications in water rescue. It is essential to use the correct type of rope for each application. The characteristics and properties of a rope will depend on the materials used in manufacturing. Careful! The tensile strength of a rope will decrease by about 30% when a knot is tied to it. This is because not all of the fibers in the rope are loaded equally, and indeed some are redundant because of the twists and loops.
- **Pulley** A pulley is a simple mechanism consisting of a grooved wheel along the periphery, which serves to change the direction of a force and transmit it through a cable or chain, which runs on its periphery.



- **Air-filled fire hoses** - The capacity and inflation of a compressed air fire hose provides a number of water-saving options. The hose can be used as a rescue tool in flat or slow-moving water.



- **Boats** - Boats come in many shapes and sizes and have a multitude of uses. There is no boat that meets all the needs of water and flood rescue.

**Inflatable lifeboats -** these tend to be smaller boats with a cork-like construction. They can be rolled for transport and launched very easily.



**Rigid boats** - Can be made of a wide variety of durable materials, such as aluminum, wood or plastic.



Rigid inflatable boats - These are a combination of the two



### **RESCUE TECHNIQUES**

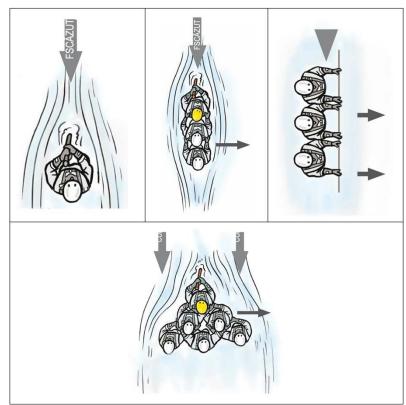
#### A. For shallow but fast waters

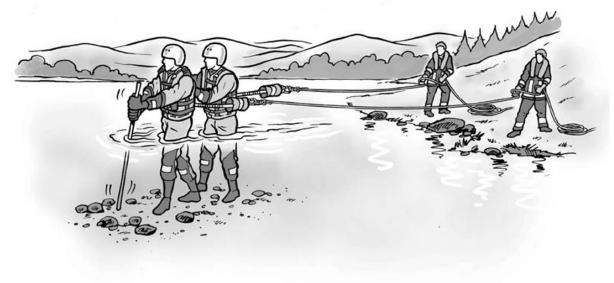
Rescuers should consider the distance during water crossings, as they may require step-by-step planning to avoid existing whirlpools or other problems, to rest and / or to prepare for the next sequence of movements. Long distances on shallow

water can be exhausting for rescuers, as they can be exposed to the hostile environment for long periods of time.

# The technique to be used will depend on the number of trained staff available!

Before starting the action, staff should consider all identified risks and hazards. Example:





# II. Intervention and actions for the creation of artificial dams to direct the flow of water

### The phenomena that can occur during high waters are:

- infiltrations, soaking and landslides of dams;
- leaks through the body of dams;
- overtaking the canopy;
- infiltrations near and through works of art (underpasses, footbridges, etc.) and their collapse;
- defects in the body of the dams: breaches, saddles;
- piles or ice bridges in the area of bridges or riverbeds.

These can be avoided by breaking heavy ice and directing the ice to strangled areas.

All these destructive actions of the water, if not fought in time, can cause the breakage of the dams.

In order to prevent the occurrence of degradations in the defense works or to stop the progressive development of the water destruction process, it is necessary to carry out **intervention works**.

### 1. Intervention works for defense against infiltrations

The pressure of large waters on dams causes changes inside them that can become dangerous.

The water that crosses the body of the dam and bursts on the inner slope is also called stream. Leakage is not dangerous as long as the water is clear, but it becomes dangerous when cloudy, proving that it has begun to cause erosion in the dam's body.

Stopping infiltrations is done by performing intervention works during high waters:

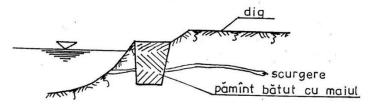
- filling the dams with clay soil;
- chipboard wall, wooden or metal boards;
- plank wall with piles.

### 2. Works for protection against dams slip are executed:

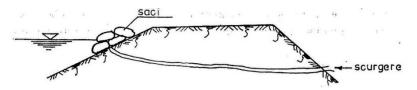
- a) from water:
  - wall of earthen bags;
  - wall of piles;
- b) on the land side:
  - filters for collecting infiltration water through the dam
  - burdening the inner slope with bags filled with earth

### 3. Intervention works against leaks

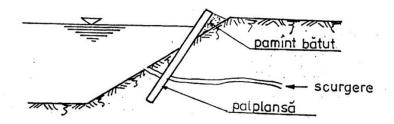
• slope thickening - is done when the inlet hole is close to the water surface:



• clogging the entrance with earth bags. It is used when the inlet mouths are 0.5-1.0m below the water level



wall of sheet piles



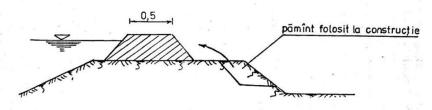
### 4. Defense works against the danger of exceeding the dam canopy

Regardless of the principle underlying the establishment of the level of the dams, it is possible that floods will come whose quotas will exceed those of the existing dams.

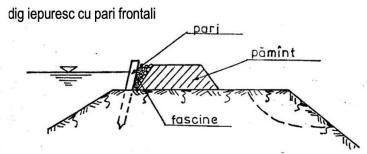
Water spilling for a longer time over the canopy of the dam can cause it to erode and even break.

Overcoming the dams and therefore breaking them can generally occur with simple works, because the water pressure on the temporary elevation works depends on the height of the water column and the power of the waves acting on the auxiliary dam.

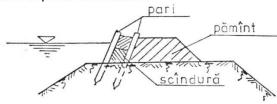
Types of intervention works are: dig iepuresc din pamant:



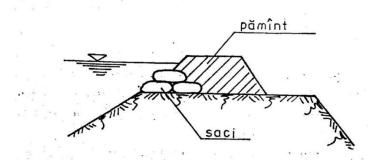
The soil is taken from a distance of 10m from the foot of the dam, and if the clay layer on the surface is thin it is taken from at least 100m from the base of the slope or if there is not enough time, the soil can be from the appliance side.



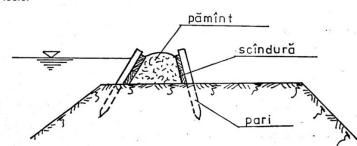
dig iepuresc cu perete din scandura:



dig iepuresc din saci de pamant:



dig iesle:



### 5. Works for closing the ruptures in the dams

Although during the high waters all guard and surveillance measures are taken, as well as possible intervention in some cases, the breakage of the dams can occur.

If the rupture has not advanced much in height, the front pole fence method can be used. Pairs or piles are beaten slightly inclined towards the body of the dam at a distance of 30-40 cm, fascinations are placed behind them and then the dam is

filled with straw. At the base of the hair are placed bags with earth or cylinders filled with stone.

Work to strengthen the bottom can be done if the width of the rupture is not too large.

The best method is to ballast a 30-50cm thick mattress with stone or earthen bags tied together and anchored on the dike.

### Materials, tools and means for defense

The materials, tools and means procured for defense must be of good quality, of appropriate dimensions and in sufficient quantities. These are stored in warehouses and material warehouses.

As materials for interventions in case of defense are used:

- earth, which is used in almost every work, put directly into the work or in combination with other materials;
- raw stone, used especially for consolidating slopes or for ballasting works from twigs;
- twigs, from which fascine mattresses, sausages or fascine cylinders are made;
- · defenders and piles;
- beams;
- cabinets and planks;
- palpation;
- fascine wire;
- defense bags.

## The means of defense, depending on the purpose for which they are used, can be:

- for lighting: lanterns, torches, lamps, flashlights;
- for beating hair, piles and sheet piles: mayors, rams, sonnets, etc.
- for earthworks and fascinations: shovels, hoes, pickaxes, wheelbarrows, etc;
- equipment for digging, transporting, spreading and compacting.

During high waters, the timely provision of materials, tools and means for intervention, in terms of assortment, quantity and quality, is one of the most important factors that contribute to the success of defense actions.

Timely insurance is achieved either by creating minimum stocks, dispersed in intermediate deposits - defense warehouses - or, during high waters, from the nearest deposits from the administration of other units, with the approval and as a result of the provisions given by the commissions defense.

The stock of twigs for fascines is largely replaced every year with the twigs harvested by the agencies on the watercourses in the administration.

Some of the materials in the defense stock and especially the perishable ones, periodically can be used in the maintenance works, but only after the same quantities have been brought into stock.

# III. Increasing the efficiency of communication in crisis situations

### Organizing the information system

The meteorological and hydrological information system consists in observing, measuring, recording and processing meteorological and hydrological data, developing forecasts, warnings and alarms, as well as transmitting them to the factors involved in managing emergencies generated by specific risks, according to the information flow scheme defined in the plans. defense, in order to make the necessary decisions and measures.

In the areas equipped with hydrotechnical works, the information system also includes data and measures regarding the exploitation maneuvers that have as effect the modification of the natural drainage regime.

Any maneuvers on the hydromechanical equipment of the hydrotechnical works with flood protection role, belonging to other owners than the National Administration "Romanian Waters", will be performed only after obtaining the approval and under the coordination of the basin dispatchers of the Water Basin Administrations.

The transmission of this information is an obligation of the bodies for the operation of hydrotechnical works, regardless of the owner, and is carried out in accordance with the information flow scheme, approved by the respective defense plans.

The content and significance of meteorological and hydrological warning messages in case of dangerous meteorological and hydrological phenomena on a national or regional scale are established by the Order of the Minister of Administration and Interior and of the Minister of Environment and Water Management no. 823/1427/2006 for the approval of the codification procedure for meteorological warnings and warnings and for hydrological warnings and alerts.

The owners of hydrotechnical constructions have the obligation to ensure the installation and operation of meteorological, hydrological or hydrometric devices, with the approval of the Water Basin Administrations, necessary to know and follow the characteristic local defense sizes and ensure their correlation with the zonal ones.

In order to ensure the transmission of information, forecasts and warnings from meteorological and hydrological units to the Ministerial, County and Local Committees and to the institutions nominated by normative acts or by operational

defense plans, the means of telecommunications to be used for this purpose are established.

In the counties, the permanence will be ensured by the Operational Centers within the Bucharest County Inspectorates for Emergency Situations and the Operative Centers within the Water Management Systems, in the municipalities, cities and communes through the care of the mayor, and at the social and economic objectives endangered by the care of their leaders.

In order to ensure the operative decisional information flow between the county and local Committees, the telecommunication means of the police stations, military units and other available telecommunication means can also be used.

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