



ЕВРОПЕЙСКИ СЪЮЗ
ЕВРОПЕЙСКИ ФОНД ЗА РЕГИОНАЛНО РАЗВИТИЕ
ИНВЕСТИРАМЕ ВЪВ ВАШЕТО БЪДЕЩЕ!



БЪЛГАРСКО ПРАВИТЕЛСТВО



MODULAR THEORETICAL AND PRACTICAL PROGRAMME

for

EXTRACURRICULAR TRAINING OF STUDENTS AND TEACHERS

IN CASES OF FLOOD

Montana, 2020

I. GENERAL PRESENTATION OF THE PROGRAMME

This programme has been prepared under the project "Security for our children", Grant Agreement №118737 / 03.09.2019, project System Code: ROBG - 461, funded by the Interreg VA Romania-Bulgaria Program, implemented by the Agency for Regional Development and Business Center 2000", Montana.

It is based on the findings of in-depth studies on the project in the field of prevention and management of risk of disasters, accidents and catastrophes, especially in floods and fires in the districts of Montana, Vidin and Dolj, as well as the results of the International meeting.

Floods are part of nature. They have existed and will continue to exist. Given climate evolution, it must not be overlooked that flood protection is not unconditional and can create a false sense of security. The concept of residual risk, including potential disturbances of hydraulic facilities, must be taken into account. Forecasting and early warning systems are a prerequisite for successfully reducing flood damage. Special training for emergency and security measures must be planned and implemented at all levels by maintaining a flow of basic information and regular training activities and exercises.

The protection of the population in case of floods is related to the acquisition of knowledge, specific practical skills and actions for risk management. The importance of preparing the school community in advance for disaster response is a key factor in minimizing damage and protecting the life and health of human resources.

Training in the program will contribute to the formation of key competencies - a set of knowledge, skills, attitudes and behavior of great practical importance; will develop the individual's ability to respond in a timely and appropriate manner in extreme conditions.

Trainees will be introduced to the European Union's unified approach to reducing the potential adverse effects of floods and good practices in EU countries, to national flood risk management legislation, and to disaster risk reduction planning at national level, district, municipal and institutional level.

Getting acquainted with the nature, potential and preliminary assessment of flood risk in areas with significant potential risk of the country, the possible consequences and opportunities in school for disaster response will help school staff to plan measures, coordinate activities and make adequate decisions for dealing with the crisis.

The application of the programme in preparing students for crisis response will contribute to the acquisition of practical skills for adequate and reasonable action in floods, as well as to develop their personal qualities for resourcefulness, independence and ability to make the right decisions to protect life and health, and to help others.

Students are not only seen as a subject of care, but also as a subject involved in the school and family response to disasters. Students will acquire knowledge about volunteering and the principles of volunteering, the strategic goal, operational goals, objectives and expected results of youth volunteering. They will form skills for strengthening the initiative in the school community for volunteering development among students for participation in creative projects of the school community, for participation in socially useful and socially significant activities.

Through appropriate and timely information and preparation, anyone potentially at risk of flooding could take precautions and significantly reduce damage.

The programme is implemented within 20 lessons, which include training in theory and practical classes, in compliance with the didactic requirement at the beginning of training to acquire knowledge that will serve as a theoretical basis for the acquisition of skills, attitudes and behavior.

The programme (educational content) is developed on a modular basis in 4 modules, which include objectives, a certain minimum number of teaching classes for theoretical and practical training, sample training topics and expected results.

The programme is applicable for training in extracurricular forms and for training of voluntary formations of students.

Thesis of the educational content

Module I: National legislation on flood risk management. Legislative requirements for disaster risk prevention and risk management in schools. A unified EU approach aimed at reducing the potential adverse effects of floods. Good practices in EU countries.

Training objectives under the module:

1. Students shall get acquainted with the unified approach of the European Union, aimed at reducing the potential adverse effects of floods;
2. They shall acquire knowledge of the national legislation for flood risk management, for the planning and reduction of the risk of disasters at national, regional, municipal and institutional level;
3. They shall know the scheme for monitoring, early warning and notification of the population in case of danger of occurrence and flood, as well as the unified rescue system;
4. Acquisition of competencies regarding the legal requirements for disaster risk prevention and risk management in schools;
5. They shall know the good practices in the EU countries for flood risk prevention;
6. Acquisition of competencies - knowledge and skills in evacuation from a building and for self-defense in compliance with the basic rules of conduct in case of flood danger and in case of flood;
7. Route and places for evacuation in case of a specific disaster or accident;
8. Conducting practical training for evacuation according to the evacuation plan of the building.

Thematic (topic) plan

№	Name of the topics	Number of hours	
		theory	practice

<p>1.</p> <p>1.1</p> <p>1.2</p> <p>1.3</p> <p>1.4</p>	<p>National legislation on flood risk management:</p> <p>Water law:</p> <p>a / protection from the harmful impact of the waters; b / preliminary assessment of the risk of floods; c / maps of the areas at threat of floods and maps of the areas at risk of floods; d / flood risk management plans; e / informing the public; f / water management bodies; g / areas for basin water management.</p> <p>Disaster Protection Act:</p> <p>a/ definition of disaster; б/basic principles of disaster protection; в/planning for disaster risk reduction at national, regional and municipal level:</p> <ul style="list-style-type: none"> - a national disaster risk reduction strategy; - a national disaster risk reduction program; - sectoral and regional disaster risk reduction programs; - regional programs for disaster risk reduction; - municipal disaster risk reduction programs. <p>г/ monitoring, early warning and notification; д/ unified rescue system; e/ voluntary formations.</p> <p>Scheme for informing the population in case of danger of occurrence and in case of flood.</p> <p>Legislative requirements for disaster risk prevention and risk management in schools:</p> <p>a/ state educational standard for training for protection in case of disasters and for rendering first pre-medical aid in the system of pre-school and school education; б/ requirements for training in disaster protection in the system of preschool and school education, approved by the Minister of Education and Science after coordination with the Minister of Interior.</p>	<p>1</p>	<p>0</p>
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<p>2.</p> <p>2.1.</p> <p>2.2.</p>	<p>A unified EU approach aimed at reducing the potential adverse effects of floods.</p> <p>Directive 2007/60 / EC on the assessment and management of floods, which has been transposed into national law by the Water Act.</p> <p>Requirements of Directive 2007/60 / EU for Member States to apply a long-term planning approach to flood risk reduction in three stages:</p> <p>a/ preliminary assessment of the risk of floods and determination of Areas with significant potential risk of floods (APsFR);</p> <p>6/ elaboration of maps of the threat and the risk of floods for the determined APsFR;</p> <p>в/ development of a Flood Risk Management Plan, containing measures aimed at reducing the potential adverse effects of floods, which are planned within a 6-year cycle.</p>	<p>1</p>	<p>0</p>
<p>3.</p> <p>3.1</p> <p>3.2</p> <p>3.3</p>	<p>Good practices in the EU countries.</p> <p>Instruments for financial support at European level.</p> <p>Structural Funds: European Regional Development Fund (ERDF). Priorities: European Agricultural Guidance and Guarantee Fund (EAGGF). Priorities: The financial instrument for the environment - LIFE. Priorities: European Union Solidarity Fund (EUSF);</p> <p>A document on "Good practice" prepared by a working group led by the Netherlands and France on flood prevention, protection and mitigation, consisting of three parts: Part I - Basic principles and approaches; Part II - the Interpretation and application of principles and approaches; Part III - Conclusions.</p> <p>European Court of Auditors' Special Report № 25/2018 on the implementation of the 2007 EU Floods Directive and the audit conclusion.</p>	<p>1</p>	<p>0</p>
<p>4.</p> <p>4.1</p> <p>4.2</p> <p>4.3</p>	<p>Practical training for evacuation</p> <p>Training of students - "Security Assistants".</p> <p>What do we need to know about evacuation from a building?</p> <ul style="list-style-type: none"> - Introduction to the evacuation scheme - markings, plan, route scheme, signals, signs, markings for leaving the building. <p>Conducting a practical exercise for flood actions:</p> <ul style="list-style-type: none"> a/ preliminary preparation; 6/ the rules in case of real danger of flood and in case of flood; в/ single European emergency number - content of the call on 112 (in case of disaster). г/ rules for the use of individual remedies. 	<p>0</p>	<p>2</p>

Expected results:

1. Acquired basic knowledge of regulations for flood risk management in the country and the EU;
2. Acquired knowledge on the European and national organizations for disaster risk prevention, the obligations and responsibilities of the institutions to society;
3. Acquired knowledge on the types of signals for alerting the population in case of disaster, including the signal "flood", as well as other ways to warn the population;
4. Students shall be able to orient themselves according to the signs and the scheme of the route for leaving the building;
5. Students shall act according to the rules for fast and safe evacuation to the safety places;
6. Students shall know and apply verbal and non-verbal communication techniques to overcome stress, panic, tension, fear, etc.;
7. Acquired behavioral models for effective response to risk situations;
8. Students shall undertake independent actions for informing on phone number 112 for rendering assistance in case of emergency;
9. Students shall be able to distinguish between right and wrong actions in flood protection.

Module II: Floods. Classification. Criteria for assessing the scale of floods. Direction of water runoff in the country and division of the country into catchment areas. Potential risk of flooding on the territory of the country by regions.

Training objectives under the module:

1. Students shall get acquainted with the nature and potential of floods;
 2. Acquisition of knowledge about the types of floods according to the manner, causes and nature of manifestation, and depending on the rise of the water column;
 3. They shall know the criteria for assessing the scale of floods according to Directive 2007/60 / EC of the European Parliament;
 4. Acquisition of competencies for the regions of water runoff in the country depending on the respective catchment region - scope, dangers;
 5. Acquisition of competencies regarding the dangers of floods for people and property, for the impact of the tidal wave on buildings;
1. Building skills for safe behavior and response in crisis situations;
 2. Drawing up a family plan;
 3. Completion of a family kit for rapid disaster response;
 4. Skills to navigate to the safest place in the building, the area, the region.

Thematic (topic) plan

№	Name of the topics	Number of hours	
		theory	practice

	<p>Flood</p> <p>1. Essence and potential.</p> <p>1.1 Relationship between urbanization and surface water runoff.</p> <p>1.2 Types of floods according to the causes and nature of the manifestation:</p> <p>1.3 a/ spring melting of snows; б/ spring rains; в/ blockage of the water basins by ice cubes; г/ rainwater falling on water-resistant surfaces; д/ rainwater falling on water-saturated areas; е/ emergency situations on the elements of hydrotechnical facilities /HTS/; ж/ sudden landslides and rock masses in the water basins; з/ large catchment area in one riverbed at the simultaneous discharge of water from several reservoirs.</p> <p>1.4 Types of floods depending on the rise of the water column: а/ floods in which the water column rises gradually. Features. б/ sudden floods. Features.</p> <p>1.5 Types of floods depending on the type of occurrence: а/ natural (80%) - river floods, torrential floods, coastal floods, floods caused by accumulation of ice, mudflows, alluvial soils; б/ floods caused by human activity - anthropogenic (technogenic) floods from accidents in a hydraulic facility, floods caused by intentional activity (terrorism).</p> <p>1.6 Water flow - a major factor in flooding. Parameters: the maximum value of the water column of the flooded section; the maximum water flow through the flooded section; current speed; area of the flooded territory; duration of the flooded areas under water; water temperature during the flood; time of onset of flood; rate of rise of the water column.</p>	<p>1</p>	<p>0</p>
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2.	Criteria for assessing the scale of floods according to Directive 2007/60 / EC of the European Parliament, transposed into Bulgarian legislation through the Water Act:	1	0
2.1	Classification of the flood as "significant" or "insignificant" depending on the parameters - amount and damage caused to the categories "Human Health", "Economic Activity", "Environment" and "Cultural Heritage".		
3.	Regions in the country depending on the direction of water runoff from the respective catchment region - scope, rivers, hydrotechnical facilities, potential hazards.	1	0
4.	Flood hazards:		
4.1	Dangers to humans;		
4.2	Danger to properties;		
4.3	Impact of the tidal wave on buildings;		
5.	Practical lesson:		
5.1	Natural disasters and response in extreme situations Presentation of real dangers that can be caused by the flood/ <i>video, photos/</i>		
5.2	Elaboration of a map for probable natural disasters in the region.		
5.3	Preparation of a risk matrix with a description of: a/ dangers; б/ the probability of danger /0 low- 5 high/; в/ severity of impact /0 low - 5 high/; г/ risk assessment /б x в/;	0	2
5.4	д/ priority. Disaster preparedness - drawing up family flood response plan; water and food storage; family disaster response kit; backpack for disaster.		

Expected results:

1. Knowledge on the nature, features and potential of floods;
2. Knowledge on the types of floods depending on the causes and nature of the manifestation;
3. Ability to determine the types of dangers for people and property;
4. Knowledge on the criteria for assessing the scale of floods;
5. Knowledge on the regions of water runoff in the country and potential flood hazards in the catchment regions;
6. Ability to make correct and safe independent decisions in the specific risk situation for self-defense and protection of others;
7. Assessment of the mandatory nature of compliance with the instructions of the competent authorities to reduce damage and casualties when a flood can be predicted;
8. Formed mental resilience and concentration of attention to deal with a flood situation;

9. Ability to draw up a sample family flood response plan.

Module III: Available resources and opportunities in a school to respond to floods. Opportunities to create a framework for future volunteering among young people.

Training objectives under the module:

1. Acquaintance with the available resources and opportunities in school for reaction in case of flood;
2. Development of a volunteer culture for the benefit of others and society;
3. Development of volunteering in school or outside it;
4. Promoting a healthy lifestyle and social inclusion.

Thematic (topic) plan

№	Name of the topics	Number of hours	
		theory	practice
1.	Available resources and opportunities in a school to respond to floods:		
1.1	Emergency planning of the school with a description of the procedures and actions before, during and after the flood, including a detailed description of the activities of the school community - officials, students and parents.	1	0
2.	Opportunities to create a framework for future volunteering among young people.		
2.1	Definition of volunteering and the principles of volunteering.		
2.2	Development of youth volunteering set in the National Youth Strategy - strategic goal, operational goals, tasks and expected results.		
2.3	Strengthening the initiative in the school community for the development of volunteering among young people: a/ the volunteering of the students, arranged in the regulations for the activity and part of the planning documents of the school; б/ setting up of clubs /groups/ for extracurricular activities for volunteering among students; в/ identification of topics and causes for volunteering of young people; г/ preparation of students, implementation of initiatives and analysis of the results in order to motivate them to participate in volunteering.	1	0

3	Practical lesson The volunteer club at school		
3.1	Formation of a volunteer club in a school: a/ guiding principles of the volunteer; б/ rights and obligations of the volunteer; в/ when and how the volunteer club works.	0	3
3.2	Activities of the volunteer club: a/ drafting of sample regulations for the activity of the volunteer club; б/ documenting the volunteer work; в/ identification of topics and causes for volunteering.		

Expected results:

1. Observation of the rules for safe behavior in school and out of school in case of flood danger, during flood and after the flood;
2. They have established model of behavior in a crisis situation;
3. Assistance of the rescue team in flood rescue operations;
4. Knowledge on the principles of volunteering;
5. Attracting students to participate in volunteer clubs in the school community;
6. Development of the positive motivation of the students for prevention of social risks and solving of socially significant problems;
7. Expanding the boundaries of the educational process.

Module IV: Practical complex lesson.

Training objectives under the module:

1. Getting acquainted with the behavioral reactions of people in case of flood and with the appropriate actions in case of stress, panic and anxiety among children and students;
2. Getting acquainted with the necessary resources for first aid to the victim;
3. Acquisition of competencies for self-defense and rendering first aid to the victim, according to the condition and the injury.

Thematic (topic) plan

№	Name of the topics	Number of hours	
		theory	practice

	<p>First psychological aid and support in case of floods</p> <p>1. Behavioral reactions in case of flood and first aid in case of floods;</p> <p>1.1 floods;</p> <p>1.2 Appropriate actions for stress, panic and anxiety among children and students.</p> <p>Behavior for self-defense and first aid in case of flood:</p> <p>2. Algorithm of actions, personal safety and security of the incident area</p> <p>2.1 Assessment of vital signs and the condition of the victims</p> <p>2.2 Providing self-help and mutual assistance in case of flooding (at home, in a public place):</p> <p>2.3 a/ actions in rescuing from drowning - ways of extraction; retrieving the victim, placing the victim in a laterally stable position; Practical tasks - retrieving the victim, placing the victim in a laterally stable position б/ first aid in case of shock; в/ first aid for an unconscious victim; г/ clinical death and cardiopulmonary resuscitation; д/ drowning.</p> <p>2.4 Types of bleeding and techniques for applying a temporary hemostatic dressing. Massive external bleeding. The most common injuries. Practical task for hemostatic dressing.</p> <p>2.5 Providing pre-medical assistance, self-help and mutual assistance in case of broken limbs, injuries to the head, spinal cord, chest and abdomen. Practical tasks - immobilization of limbs, head and spine.</p> <p>2.6 Self-help and first aid for hypothermia and frostbite.</p> <p>2.7 Action in case of poisoning.</p> <p>2.8 Types of carrying and transportation of the victim.</p>	0	5
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Expected results:

1. The acquired knowledge, the formed skills and competencies in the training are the necessary basis for survival during the flood disaster;
2. Acquisition of theoretical and practical knowledge and skills, enabling adequate response to disasters and crises;
3. Acquired skills and competencies to take the right actions to save from drowning;

4. Providing of first psychological help and support to people in case of flood danger and in case of flood;
5. Knowledge on the methods of retrieval in rescuing from drowning and the actions for personal safety in retrieving a victim;
6. Acquired skills for providing first aid to a victim in shock, unconsciousness, and for cardio-pulmonary resuscitation;
7. Knowledge on the types of bleeding and the techniques for applying a temporary hemostatic bandage;
8. Knowledge on the techniques for immobilization in case of broken limbs, injuries of the head, spinal cord, chest and abdomen;
9. Providing on first aid for hypothermia and frostbite;
10. Taking the right action in case of poisoning;
11. Knowing the correct carrying and transportation of the victim.

Use of training methods and techniques:

- story; explanation; demonstration of action; visualization; observation; comparison; discourse (conversation); associations; group work; role games.

Visual aids and didactic materials:

- Presentations, photos; backgammon; models; sound signals, family disaster response plan.

Cross-curricular links:

- **Biology and health education** - learns hygiene rules and skills how to take care of the health; develops cognitive, communicative and practical skills such as recognizing, comparing, using different sources of information, teamwork skills, promoting communication.
- **Home life and technique** - the share of independent work and "learning by discovery" has increased the student researches, proposes and discusses ideas, tests models, and patterns.
- **Bulgarian language and literature** - reads and transmits popular science text; presents information from own research through various forms - text, schematic.
- **Man and nature** - knows the transitions between the aggregate states of water and connects some disasters with these - e.g. intense snowmelt is the cause of floods; follow instructions; collects information from various sources - textbooks, encyclopedias, movies and the Internet; organizes and participates in group work; shares personal experiences; compares and selects appropriate patterns of behavior.

Equipment requirements:

- Theory training is carried out in a classroom. The furniture includes: a workplace for each student /desk and chair/ and for the teacher, white or black blackboard, appropriate furniture, presentation equipment, auxiliary materials, drawings, diagrams, maps and other visual aids.
- The practical classes are held in suitable premises, basic sites or outdoors. The premises must be equipped with furniture and materials - diagrams, models, sanitary bag / first aid kit, personal safety equipment - disposable gloves, triangular towels and

bandages for exercises for making bandages, blankets /mats for demonstration and placing the mannequin to reclining, mannequins for demonstration of cardio-pulmonary resuscitation, training pad for cardio-pulmonary resuscitation.

References and sources:

Water Act; Disaster Protection Act; Directive 2007/60 / EU on the assessment and management of floods; Report № 25/2018 of the European Court of Auditors on the implementation of the EU Directive; Rules for conduct and action in case of flood of the General Directorate of Fire Safety and Protection of the Population of the Ministry of Interior; Internet based sources.

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