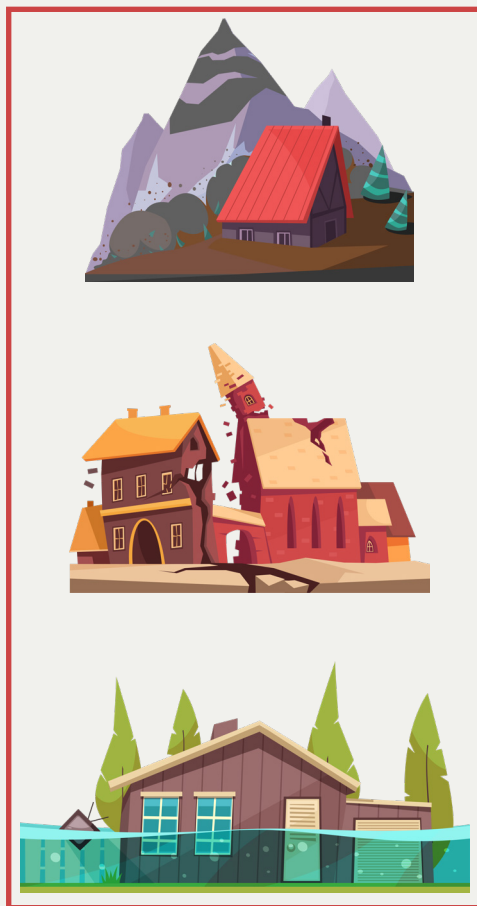


MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS – FLOODS, LANDSLIDES, EARTHQUAKES



Interreg - IPA CBC



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J-CROSS

CENTER FOR DEVELOPMENT
OF PELAGONIA REGION



NATURAL AND MAN MADE DISASTERS PROTECTION AND PREVENTION GUIDE



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“The views expressed in this publication do not necessarily reflect the views of the European Union, the participating countries and the Managing Authority”.

CONTENTS

Introduction	8
Republic of North Macedonia	10
Functioning of the system for protection and rescuing	11
Greece	16
Analysis of the possible natural disasters and rescue and protection plans and programs	22
The level of awareness and readiness of the population to act in case of natural disasters	27
Functioning of all struck sides in states of emergency	30
Types of natural disasters	40
Rain and flood	41
Landslide	44
Earthquake	50
Before natural disaster	54
Programme of functioning in indoor conditions	54

Plan ahead what to do in a state of crisis	54
The importance of natural disasters practice and preparedness	56
During natural disaster – reactions and functioning	60
Heavy rains and floods	62
Earthquakes	63
Procedures after natural disaster	70
Repairing	77
Evacuation	78
Survival kit	80
Survival set in car	82
First aid	83
Neighbouring and resources	84
Measures taken by the State institutions in the damage caused by natural disasters	86
Publications on natural disasters in Republic of North Macedonia and Greece	90
Useful links	95

ABSTRACT

This guide is part of the project “Joint Cross Border Cooperation for Securing Societies against Natural and Man-Made Disasters (J-CROSS)” funded by Interreg IPA Cross-border Cooperation Programme “Greece – Republic of North Macedonia 2014–2020”.

J-CROSS project is the result of long-standing cooperation between the Region of Western Macedonia, Greece and the Pelagonija Region, Republic of North Macedonia. Both regions are fully aware of the need to secure development initiatives and opportunities, against risks from natural and human-made disasters and therefore acknowledged the importance of civil protection in securing big infrastructure projects and investments. Climate change increases the risk from natural hazards, while big infrastructure projects increase the risks of human-made human-induced disasters. Therefore, J-CROSS tackles the challenge to minimize increasing –by climate change– frequency and severity of risks in both regions by jointly planned, developed and implemented practical actions.

The overall J-CROSS objective is to minimize the risks from natural and human-made disasters for the Pelagonija region in North Macedonia and Region of Western Macedonia in Greece in a long term basis and in a way that can be replicated in other cross border areas, while the purpose of this guide is to raise awareness of the population in both countries about natural disasters and how to react in the case of natural disaster.

INTRODUCTION

This guide is prepared aiming to raise the awareness and increase the preparedness of the population in case of state of emergencies, as well as after them.

We ask you to take time and read the contents in front of your family and the closest neighbors. Plan ahead how would you react in case of emergencies. Help your surrounding by being ready.

Disasters can happen at any time and place. Those are moments that can be around us at any time. The most important at those moments is to react and be ready to save human lives.

There are many ways that you can react and that is mainly the reason why this guide **MUNUTE KNOWLEDGE FOR LIFE** is prepared for. You may dial (192,193,194 or 195 in Republic of North Macedonia) and (100,199,166 or the SOS number in Greece) to receive help from the police, fire prevention services, emergency medical services as well as the phones of the Crisis Management Center.

However, in meantime, what should you do when the storms, as floods, earthquakes and landslides affect the surroundings where you live?

ALWAYS HELP WHEN YOU BELIEVE THAT YOU ARE NOT ENDANGERED

TEXTING ABBREVIATIONS

CMC ————— **CRISIS MANAGEMENT CENTER**

CP ————— **CIVIL PROTECTION**

FF ————— **FIREFIGHTING**

GSCP ————— **GENERAL SECRETARIATE FOR CIVIL PROTECTION**

NDOC ————— **NATURAL DISASTERS AND OTHER CALAMITIES**

PRD ————— **PROTECTION AND RESCUE DIRECTORATE**

**REPUBLIC OF
NORTH MACEDONIA**

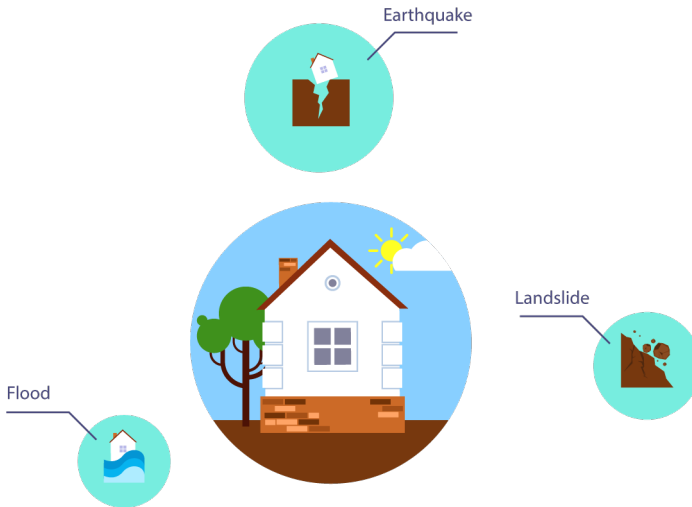


FUNCTIONING OF THE SYSTEM FOR PROTECTION AND RESCUING

Republic of North Macedonia is exposed to various threats, dangers and risks as sources of endangering peoples' safety. For effective and efficient handling of them, Republic of North Macedonia carries out evaluation of threats from natural disasters and other predicaments.

- General features
- Evaluation of threats from natural disasters and other predicaments
- Protection and rescue measurements

THE EVALUATION OF THREATS FROM NATURAL DISASTERS AND OTHER PREDICAMENTS CONSISTS OF THE FOLLOWING ELEMENTS:



► The evaluation of threats from natural disasters and other predicaments is based on the Law of protection and rescuing (article 11). It is carried out by the Protection and Rescue Directorate.

► In the part of threats from natural disasters and other predicaments in the Republic of North Macedonia, there is an elaboration of the following sources of threats, that are subject in the elaborating given in the guide:

MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS - FLOODS, LANDSLIDES, EARTHQUAKES



- THREATS FROM FLOODS AND DAM CRASHES



- THREAT FROM EARTHQUAKES, RUINS AND OTHER HAZARDS



- THREATS FROM LANDSLIDES

OPERATING IN CASE OF PREDICAMENT:

ACTION IN CASE OF
ACCIDENT:

- ▶ Police
- ▶ Firefighting unit
- ▶ Ambulance



LOCAL AUTHORITIES

State authorities of PRD
– Protection and Rescue
Directorate and CMC – Crisis
Management Center



PRD LOGO



CMC LOGO



POLICE.....	192
FIRE SERVICE.....	193
EMERGENCY MEDICAL SERVICES.....	194
CRISIS MANAGEMENT CENTER.....	195

ACCORDING TO THE EUROPEAN REFORMS IT IS EXPECTED TO ESTABLISH A UNIQUE SOS NUMBER

GREECE



RESPONSIBLE BODIES IN THE AREA OF CIVIL PROTECTION

According to the directions and the research, Greece is amenable to many natural disasters and other predicaments. Among the most distinctive are the earthquakes and furthermore the floods and the landslides.

There is a coordinative body that coordinates the government's actions in the main predicaments. For effective and efficient functioning of this body, each ministry prepares individual plan as part of the general plan for states of emergencies. According to that, it is notable that each ministry has responsibility for certain natural disaster and other predicament.

The Greek bodies responsible for the implementation of civil protection measures are: The General Secretariat for Civil Protection (GSCP) The Inter-Ministerial Committee for National Planning (ICNP) The Central Coordination Body for Civil Protection (CCB).

THE FOLLOWING MINISTRIES RESPONSIBLE FOR THE STATE OF EMERGENCIES ELABORATED THE TOPICS IN THIS GUIDE:

▶ Ministry of national Defense: earthquakes, floods and landslides

▶ Hellenic Ministry for the Environment, Physical Planning and Public Works: floods and landslides, seismic prevention and protection. (Until now, there isn't this kind of Ministry in Greek Government. From 4th August 2018, Ministry of Civil Protection has taken this competence).

▶ General Secretariat for Civil Protection takes care of prevention, managing and aid in the state of emergencies. It works as part of the Ministry of Internal affairs, public administration and decentralization. The General Secretariat mainly is responsible for the prevention, operating and implementing of the measures for protection of the population in risks.

▶ The General Secretariat has administrative offices in every region through which are administered and carry out tasks typical for the adequate region.



LOGO OF THE GENERAL SECRETARIAT OF CIVIL PROTECTION

► In Greece the protection and rescue plan is prepared as a Regional protection and rescue plan by the coordinated regional secretariats. The authorized prefectures carry out a responsibility for it.

► Prefectures in the system are representatives of the local authorities that organize and offer help in disasters. Along with the prefectures, there is a coordinative body created in which are the responsible individuals of the prefectures as: the chief of police, the director of the technical services, the commander of the fire prevention services etc.

► Also, there are coordinative bodies for organization and coordination of the activities on local level that are in direct responsibility of the mayor of the municipality.

**PROTECTION AND RESCUE FORCES
ARE:**

FF UNITS

CP FORCES

ARMY FORCES

POLICE FORCES

AVIATION

HEALTH INSTITUTIONS

SPECIFIC SERVICES
AND MINISTRIES



NATIONAL NUMBERS ARE:

POLICE	100
FIRE BRIGADE.....	199
EMERGENCY MEDICAL SERVICE.....	166



ANALYSIS OF THE POSSIBLE NATURAL DISASTERS AND RESCUE AND PROTECTION PLANS AND PROGRAMS

▶ According to the legal regulations, as plans for prevention and the need of preparing protection and rescue plans in which are predicted the risks, it could be concluded that in the last couple of years are conducted trainings and activities where institutions and companies are included in the implementation. In the implementation of the trainings and the activities are included the institutions that prepare and the other institutions that are authorized of the control and implementation of them. A special accent is put on the evacuation and the training in case of earthquake and fire, especially in the public institutions in the area of education, in which are included all the institutions that should legally act.



- ▶ The territory of the Republic of North Macedonia is divided into couple of seismic areas. According to the expected earthquakes they are classified into categories of first, second and third region areas.



- ▶ The activities are conducted by the Training Center which is part of the Protection and Rescue Directorate i.e. the General Secretariat for Civil Protection. They do it through preparing an elaborate and plan for conducting of the training, while active factors are: the police, the fire prevention services, the emergency, PRD, GSCP and also the Red Cross.



- ▶ The area of Pelagonia region is considered in third category, as an area in which earthquakes of magnitude 4,5–5,5 occur and are expected.



- ▶ According to the seismic research, when we talk about the northern part of Greece, it could be said that the predicted earthquakes are in the magnitude of 4,5 -5,5 degrees.
- ▶ Considering the epicenters of the earthquakes, it could be said that the larger part of them are in the Prespa Region, respectively the Prespa basin divided between the two countries. The rest of the quakes are in the areas with epicenters in the Adriatic Sea and the Mediterranean Sea. The other quakes were in the epicenters of the Adriatic and Mediterranean Seas.
- ▶ The risk of floods is present in Pelagonia-Prespa region, as well as in the northern part of Greece.

MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS – FLOODS, LANDSLIDES, EARTHQUAKES



- ▶ The floods in the regions happen as a result of specifics of the: relief, topographic, orographic, geomorphological and climate conditions in the regions of both countries. Floods are caused by river overflows, hydro accumulations, etc.
- ▶ According to the analysis of the rivers from the region, it could be considered that they have flash flood character. The most common floods that happen in the winter and spring period as a result of the melting of the snow, are in the valley of Crna River and in Pelagonia Region. Floods in the summer period, as a result of intensive rains almost never happen in the Pelagonia Region, which is not a case in the northern part of neighboring Greece.



LANDSLIDES AND SLIDING OF THE LAND HAPPEN AS A COSEQUENCE OF:

▶ Natural conditions: geological composition, tectonic, hydro-logic, morphological etc. A characteristic of the soil, subterranean and above-ground waters.

▶ The human factor – intensive construction, uncontrolled deforestation, burdening of the ground with various materials etc.

THE LEVEL OF AWARENESS AND READINESS OF THE POPULATION TO ACT IN CASE OF NATURAL DISASTERS

In the eternal struggle of man with natural disasters, many secrets and laws of natural phenomena are revealed. Lately, with the scientific achievements and the modern engineering, the battle of the man with the natural elements is becoming more successful.

However, from scientific point of view, the solution to the problem with the natural disasters represents one of the hardest tasks in the science. The place and the space affected by the natural disasters can be of a local character, up to catastrophic proportions.

The factors that affect the natural disasters are numerous and complicated. The natural disasters can appear under influence of one or more elements, in which in the second case, the consequences from the catastrophes are bigger.

Today, with the development of material resources, the potential damage from natural disasters is constantly growing. Therefore, the modern society needs to dedicate special attention to the organization of the people for successful protection from the natural elements.

Following the natural disasters and other predicaments of larger extent that affected the region in the past, they were mainly the result of the action of natural forces.

Informing the citizens about the reasons for the occurrence of natural disasters and readiness to act, is made possible through campaigns and evacuation exercises, which are conducted by the competent services and authorities.

The growing rise in digitalization and the use of the Internet provides information on how to deal with disasters. In this sense, many of the EU's project programs and other foundations are focused on natural disasters and the environment, in order to prevent natural disasters by protecting the environment.

ACTING OF ALL STAKEHOLDERS IN AN EMERGENCY SITUATION

MANAGING EMERGENCIES

THE MANAGEMENT IN EMERGENCIES IS BASED ON THE FOLLOWING MAIN PRINCIPLES:

The individual should know how to behave in emergencies to protect herself/himself and her/his family. If the challenge is too big for the individual, then the state acts through its institutions.

According to the legal regulations and regulations of the institutions of the system, teams of police, firefighting units and ambulance always come to the scene.

If the disaster is of a bigger proportion, respectively, the local authorized services are not able to respond with their human, material and technical resources, the mechanism of civil protection is activated and all of the institutions are on disposal of the Protection and Rescue Directorate.

MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS - FLOODS, LANDSLIDES, EARTHQUAKES



Municipalities, in accordance with the plans for risk assessment of natural disasters and protection and rescue programs, need to be involved with their own space, resources and equipment that is on disposal of public enterprises.



WHICH ARE THE NATURAL DISASTERS?

Disasters are events that affect a large amount of people and exceed the capacities of the institutions that are in competence of the police, fire prevention services and the emergency services.

We all know about dangerous storms, frozen rain, hail. We also know about the heavy rains that cause floods and earthquakes. We have been informed about railway accidents, enormous spillage of petroleum and explosions in chemical plants.

In any of these situations, a proper action needs to be taken no matter if it is about an individual, family or a group. These measures also include shelter or evacuation in the area affected by the catastrophe.













TYPES OF NATURAL DISASTERS



HEAVY RAINS AND FLOODS

The risk of floods appears in settlements near rivers, lakes and ports. In terms of the size of the damage they leave behind, floods come first. Torrents can cause earthquakes and severe storms.

Beside the downpours, the floods can happen because of the inappropriate maintenance of the drains and valleys, where due to the human carelessness are thrown large number of dunghills and building dump, which mainly decrease or completely puts a stop to the strait of the water.

WARNING SIGNS:

Sudden melting of the snow or heavy rain, when the soil is heavily soaked or still frozen.

DANGER:

- ▶ Flooded roads and the roads below, torrential rivers or streams, flooding in areas with low altitude above sea level, termination of the electricity, flooding of basements, system of sewage, possible pollution of the water supply system.

PREVENTIVE MEASURES:

- ▶ Follow the drain system close to your home be careful where water leaks (or spills).

TIPS:

- ▶ Familiarize with the Plan for quick response and evacuation.
- ▶ Develop your own emergency plan.
- ▶ Decrease the damage in your place of living: plant plants in the downhill and suggest building of abutments.

**IN CASE OF A FLOOD
WHERE SHOULD YOU GO?**

**CLIMB ON THE
HIGHEST POINT**



**CLIMB ON A
ROOF**



**LEAVE YOUR
VEHICLE**



**DO NOT DRIVE IN
FLOODED AREAS**



LANDSLIDE



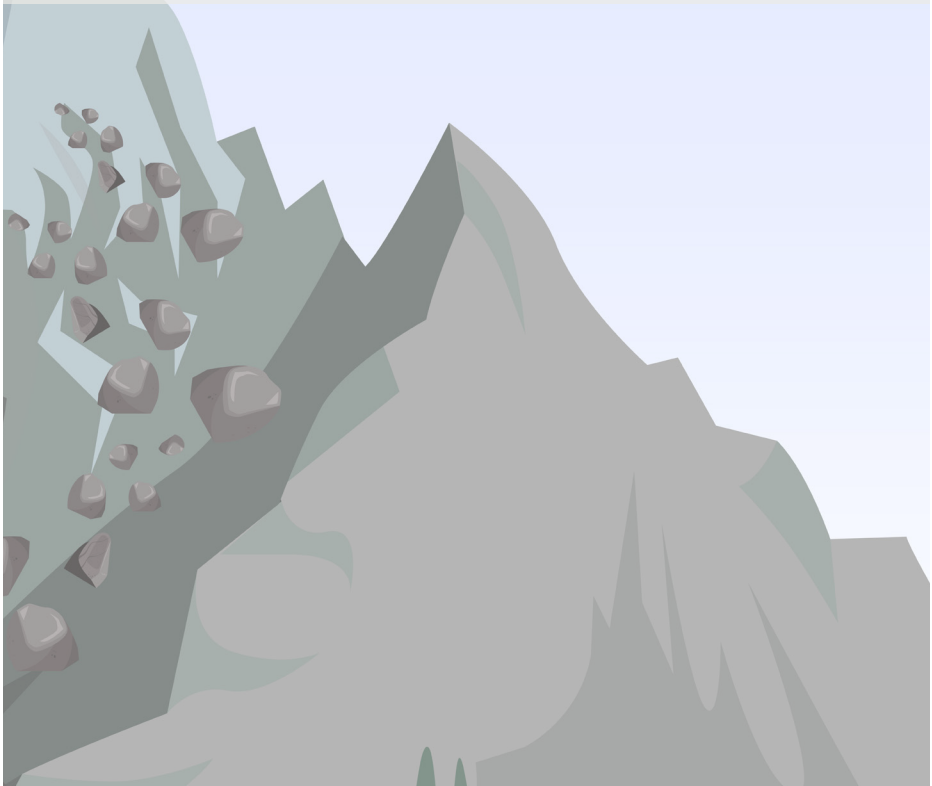
MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS - FLOODS, LANDSLIDES, EARTHQUAKES

For the aim of the guide, the notion landslide will be used aiming to describe the movement and the descending of the soil, rocks, the organic materials and the earthly form resulting of that movement under the effect of gravitation.

The various classifications of the landslides are related to a specific flow mechanics of the slope, the qualifications and characteristics of the types of flows. These are going to be considered in this guide.

Usually, various notions are used for all the types and sizes of the landslides. No matter what is the proper definition used or the type of the landslide discussed, the understanding of the basic parts of the typical landslide is useful.



BASIC TYPES OF LANDSLIDES

The landslides are movements or descending of rocks or soil, or both, which happen on the surface of a rupture. A rupture is a large part of a material that often moves as coherent or semi – coherent mass with small inner deformity.

It should be noted that in certain cases, the landslides could include and other types of movements. Those movements appear at the beginning or later, if the qualifications change when the material is moving downhill. The landslides could be classified into different types, based on the type of the movement and the type of the material.

In brief, the material in the landslide is rock or soil (or both); the second is described as soil even though is mainly composed of sand with finer particles and remains if is composed of coarse fragments.

The type of the movement describes the real inner mechanic, as the sliding mass is moving: fall, pulverizing, slide, expanding or flow. Therefore, the landslide is described by usage of two notions that are referred to the material and the movement (as rock, flow of remains etc.)

The landslides can be formed by so called “complex success” which covers more than one type of a movement (flow of rocks – flow of remains). For the aim of this guide, we treat the “type of the movement” as a synonym for “landslide”.



FALLING DOWN

The falling down begins by division of the soil or rocks, or both, from the steep slope along the surface, where small or none shifting happened. Successively, the material is descending by falling down, pouncing or rolling over.

ROCK FALL

The falls are sudden, down the hill movements of rocks or soil, or both, that are separating from the steep slopes or rocks. The material that is falling, usually hits the slope below, under angles less than the falling angle, causing pouncing. The mass falling down could happen by a hit, could start rolling down from the steep slopes and continue until it is not becoming tiny on the ground.

APPEARANCE AND RELATIVE SIZE

It appears on steep or vertical slopes and also at the coastal areas and the rocky shores of rivers and streams. The size of the material in autumn could vary significantly, from individual rocks to clumps to massive blocks in the size of thousand square meters.

LANDSLIDE SPEED

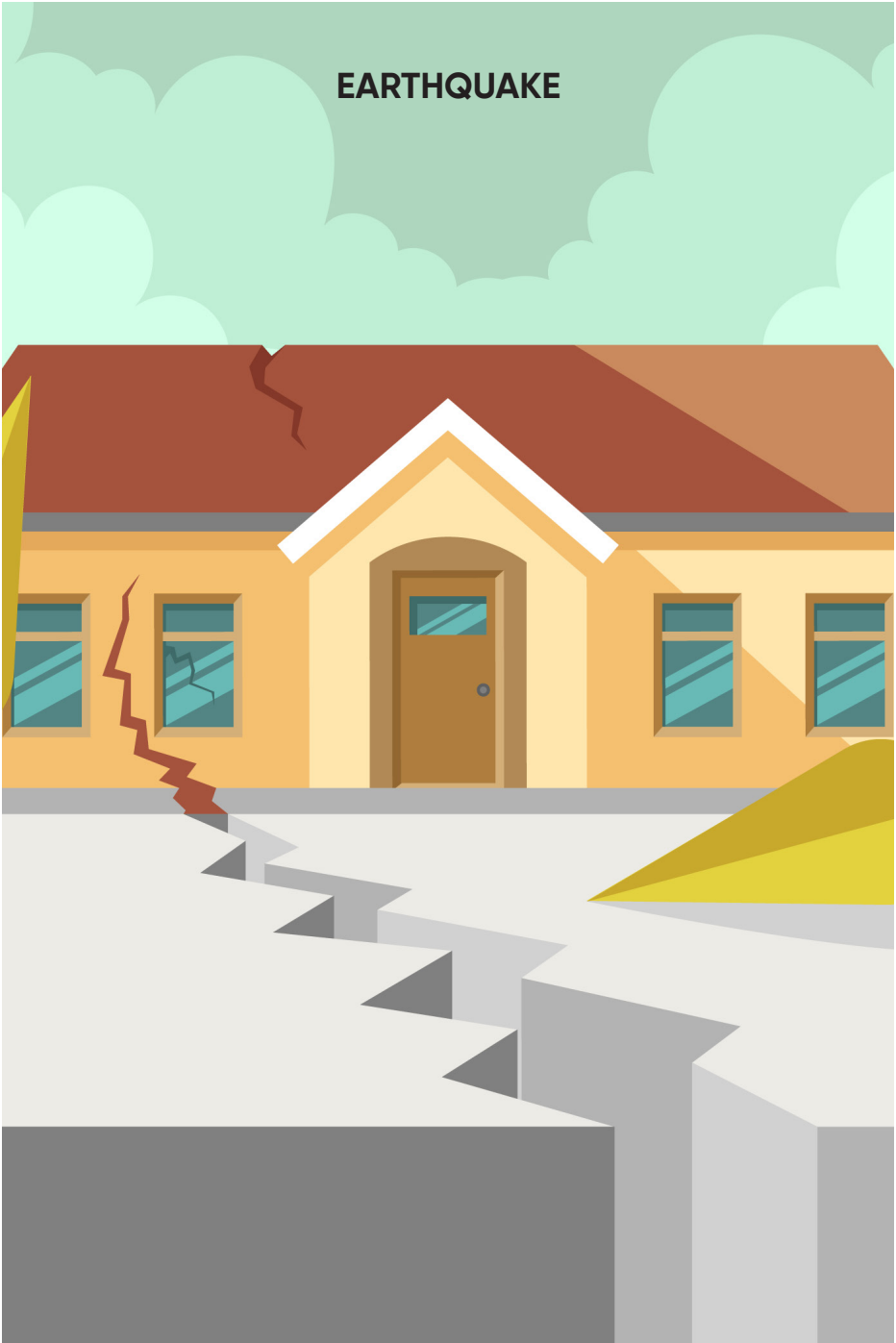
Very fast to extremely fast, free pounce; pouncing and rolling of separated soil, rocks and stones. The speed of rolling depends on the steepness of the slope.



ACTIVATION MECHANISM

Propulsion after natural processes, as the streams and rivers or differential atmosphere (as it is the cycle of freezing/ warming), human activities as excavation during roads constructions and (or) maintenance, oscillating after earthquakes or other intensive vibrations.

EARTHQUAKE



From all the natural disasters, the earthquakes are the most dangerous. Even though in the North of Macedonia and in the border region with neighboring Greece there are not catastrophic earthquakes, some earthquakes can reach the intensity of VII degrees.

The earthquakes cannot be avoided or predicted. Institute of Earthquake Engineering and Engineering Seismology has correct and confirmed information delivered to the Centers of civil protection as a part of PRD.



DANGERS:

Structural damaging and ruining buildings, destroying pylons, destroying gas pipe works, destroying or ruining the infrastructure, as the roads, bridges etc.

PREVENTIVE MEASURES:

- ▶ Explain to the family members, if there is a need after an earthquake how to turn off the water, gas and electricity.
- ▶ Indicate a good shelter – under heavy furniture, or door with massive opening and prepare a test exercise.
- ▶ It is very important the small children to know that.
- ▶ Decrease the damage.
- ▶ Check if there is a need of mending, roof, and chimney.
- ▶ Keep the inflammable materials away from any sources of heat.
- ▶ The beds should be further from the chimneys and the windows.
- ▶ Do not hang heavy objects as paintings, shelves or similar above the bed.
- ▶ If driving, do not pull over on a bridge, overpass or near a building.
- ▶ Stay in the car.

MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS - FLOODS, LANDSLIDES, EARTHQUAKES

IN CASE OF AN EARTHQUAKE WHERE SHOULD YOU GO?



BETWEEN AN ALLEY

DISTANT YOURSELF FROM
ROCKS AND STEEP BANKS
WHERE REMAINS CAN FALL
OR A LANDSLIDE



AVOID BRIDGES AND
OVERPASSES

AFTER AN EARTHQUAKE, AVOID THE RIVER
BANKS THAT COULD BRING REMAINS OF
WATER OR MUD



IF YOU ARE DRIVING, PULL OVER THE
VEHICLE FURTHER FROM BUILDINGS,
BRIDGES OR COMMUNAL LINES.
STAY IN THE VEHICLE UNTILL THE
SHAKING
STOPS



PARKING GARAGES ARE
ESPECIALLY VULNERABLE
IN TIMES OF AERTHQUAKE



IN CLOSED SPACE

KNEEL UNDER A TABLE, DESK
OR COUNTER AND COVER
YOUR HEAD AND NECK TO
AVOID INJURIES FROM
GLASS AND REMAINS. HOLD
YOURSELF TO A FURNITURE
TRESTLE AND MOVE WITH
IT IF SHAKING IS SERIOUS.
DO NOT GO OUTSIDE AND
USE ELEVATORS UNTIL THE
SHAKING IS OVER



MOVE
OVER TO
A OPEN
TERRITORY,
FURTHER
FROM
BUILDINGS,
STREET
LIGHTS
AND WIRES

IN MOVEMENT

IF YOU ARE BETWEEN TALL BUILDINGS
THE FALLING DOWN OF BRICKS,
REMAINS AND GLASS REPRESENT
MAJOR RISKS



COAST

IF YOU ARE CLOSE TO WATER, IMMEDIATELY CROSS TO A HIGHER POINT TO AVOID POTENTIAL TSUNAMI
IF THE EPICENTER IS NEAR, YOU COULD ONLY HAVE COUPLE OF MINUTES BEFORE THE FIRST WAVE HITS



BEFORE A NATURAL DISASTER

PROGRAMME FOR RESPONDING IN HOME CONDITIONS

Natural disasters happen suddenly and quickly. You could be trapped in your house and in a need to evacuate yourself from the area in a state of crisis.

While you are planning what to do, you should pay attention to eventual stoppage of electricity, water, heating, telephone connection and transport.

Therefore, you should plan the supplies of food, water and other important products to overcome the crisis.

A general rule is to provide materials for three to four days of crisis caused by the weather conditions. Are you prepared for a state of emergency?

PLAN AHEAD WHAT TO DO IN TIMES OF CRISIS

Have a conversation within the family for the need of preparation in crisis. Everyone should have their own duty. Introduce the children with the possible dangers.

Tell them what to do in a situation like that and when an evacuation is needed. Find safe places in your home for every form of catastrophe. Determine the best route from home to a safety place.

Decide which the two safe places are, where people should head in case all members of the family are together (for example to meet in front of the house) and when you are not together and cannot return home (for example, in the house of a relative).

Choose a place that every member of the family knows and also where can easily shelters.



Plan how to take care of your pets. You should have everything you need for transporting your pets, if there is a need for evacuation. Remember to take enough food and water for you and your pet.

Have a reminder of everything you need to provide in crisis – choose a safe place, pack your bag with every supply, do everything that needs to be done to decrease the risk and choose the place where you should be or get there.

As you are considering the options and agree what your family needs in case of crisis, enter all the details in a plan with which you manage later when you organize exercises for readiness in case of crisis in your home.

This plan should also be very useful in situation of crisis. An example for an evacuation plan can be found at the end of this guide. You may adjust and modify it according your own situation and uses. It will help you to think of an idea how to come up with your own plan.

ORGANIZE PROMPTNESS EXERCISES FOR EMERGENCIES

Exercise ways of evacuation in the house. The aim of the exercises is to introduce the members of the family with a practical example of training and promptness to respond in emergencies.

Test the extinguisher according the instructions of the manufacturer.

Replace the water and food that you prepared for the crises for all the six months.

Every six months, revise together with the children, in case if they forgot something.

Test the work of the smoke detector (if any), replace the batteries once a year.

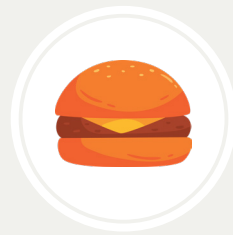
Archive all important documents, as the birth certificates, marriage certificates, testaments, contracts, tax entries, insurance policies, shares and certificates of loan stocks. Keep the originals in a safe place or you could leave copies everywhere.

Do not forget to consult your doctor or a pharmacist how to keep the medications that you take. Make a list of needed medications.



WATER

- ▶ Plan one liter water per person daily.
- ▶ Buy bottled water or keep regular tapped water into plastic containers.
- ▶ Avoid fragile packing, as glass bottles.
- ▶ The water should be left in a cold and dark place. The packing should have dates.



FOOD

- ▶ Prepare food that should not be kept in a fridge, should not be cooked, and do not contain water or is present in small quantity.
- ▶ The products should be enduring. Soups, stews, pasta, beans, meat, vegetables, fish, fruit, juice and preserved milk can be a good choice as well as dry products as snacks and biscuits, honey, peanut butter, salt, sugar, cookies, cereal and mixture of dry fruits and walnuts. Products as wheat, milk powder, corn etc. could be stored for longer periods.

FIRST AID KIT

- ▶ Every home should have first aid kit. This aid can help in many critical situations. At the end of the guide, you can find a list of everything the kid should have. Keep the kit in your car. Also, you should think about attending a first aid course.



CLOTHES AND BEDDING

- ▶ Pack clothes for two changes per person, having in consideration the different seasons. Remember to separate the clothes for seasons of rains, winter, add hats and gloves, warm underwear, and for the summer sunglasses and sunscreen.
- ▶ Working boots are the best choice when it comes to safety and endurance.
- ▶ The blankets or the sleeping bags are useful the most in crisis, because you can easily warm yourself up, cover and transport.

SPECIFIC NEEDS

- ▶ Your family could have specific needs. For instance, you may need baby food, powder milk, bottles, diapers and kids medications. The people with disabilities need also equipment that may use to keep them alive.



TOOLS AND MATERIALS

- ▶ Not even one survival kit is complete without the “basic ingredients” if we can understand it that way. It is the best to think about what could be needed while facing the problems and make a plan.
- ▶ The needed tools and materials should be added in the survival kit. Find a list with basic elements at the last pages of this guide. You may change it and add everything you think to adjust it to your own needs. Check the list at least once a year and make all the needed changes.

DURING A NATURAL DISASTER REACTIONS AND RESPONDING

RESPONSE IN EMERGENCIES

▶ No matter what kind of natural disaster is taking place, from all of the services and institutions of the system, first are responding the fire prevention services, the emergency as well as the police. After the investigation from all of the above mentioned services and communication according to the legal regulations and instructions with the local authorities, it is announced for the level of endangerment, the state on the place, and the further functioning expected in the following instructions.

▶ In case of natural disasters of larger scale, the municipality may ask for help from other authorized bodies with their authorities, especially in cases then catastrophes appear tending to expand and cover larger territory.

MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS – FLOODS, LANDSLIDES, EARTHQUAKES

- ▶ The only exceptions to this trend of authority are nuclear disasters and radioactive materials.

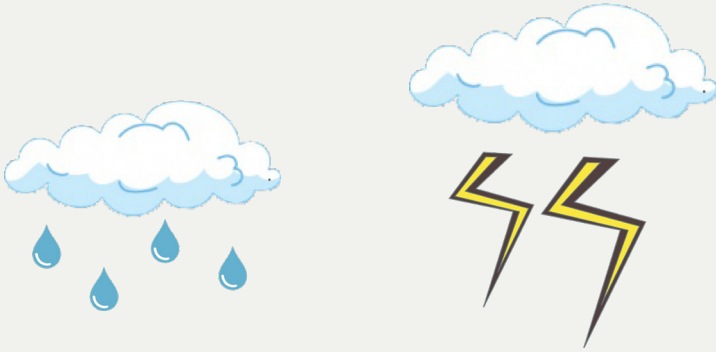


- ▶ Also, the Protection and Rescue Directorate gives ordinance and regulations for disasters as well as an Action plan for disasters. The plan is to restore intervention measures for protection of the population and the environment from the harmful effect of the ionization and radiation, way of informing the public as well as operating program for conducting the plan.



- ▶ However, no matter how many people and services are included in the system of protection and rescuing people and goods from the consequences from the natural disasters and other catastrophes, each one of us could take couple of steps to make the consequences, injuries and damages minimal.

HEAVY RAINS AND FLOODS



Turn off the Gas or Electricity Cooking System.

Listen to the radio to know which areas are flooded; Which roads are safe, where to go and what to do.

Do not drive on flooded roads. The water may be deeper than you think. You should not cross the bridges when the level of the water is high and there is a fast flow.

EARTHQUAKES

Land under a heavy table and bend down. If that is not a possibility, curve yourself or stand on the side of the inner wall. If you use a wheelchair, stiff the wheels. Protect your head and the neck.



Stay further from windows, entrances, glass (including the ceiling lamps) and heavy furniture as enormous wardrobes.

If you are outside, find an open air further from the buildings and the conduits.



If you find yourself in a car, stay in it, do not go on the bridges and do not pass next to buildings.

WHAT SHOULD YOU KNOW WHILE YOU ARE IN A SHELTER

- ▶ Every time you receive an announcement to stay at home due to (potential) crisis, you are actually sheltered.
- ▶ Except the necessary measures of caution stated before (closing windows, doors, etc.) there is something more you can do to help in handling the situation.

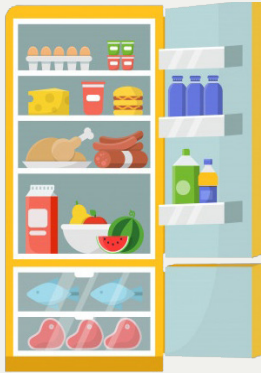
YOU SHOULD PAY ATTENTION TO:

REFRIGERATORS AND FREEZERS:

- ▶ When the electricity is off, the refrigerator could be maintained well if the door is not opened for couple of days. In winter you could keep part of your food outside in adequate containers and the frozen water placed in the fridge could be used for cooling. First eat the food that goes bad faster.

MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS - FLOODS, LANDSLIDES, EARTHQUAKES



▶ Any food can be re-frosted as long as there are ice crystals on it or the temperature have not reached 5 degrees Celsius. It is not recommended to freeze sea food again, poultry, ice cream, sauces, or anything easily spoiled (even the food that has small possibility to spoil).

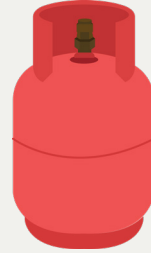
LIGHTS AND BULBS:

▶ Lights and lanterns should be used for lighting in the house. Candles and oil lamps are not recommended due to the danger of fire.



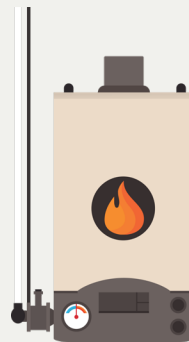
GAS APPLIANCES

▶ Some gas appliances can stop working when the electricity is off, because the electricity is needed for some work operations of the gas appliances as valve and power gas tools.



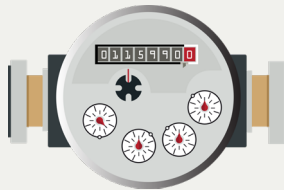
WATER HEATER/BOILER:

▶ When you are left without electricity, especially in winter for a longer period, you should empty the boiler to avoid freezing. If you do not do it, it could break down when the electricity comes. Do not switch on the boiler, if previously was not fulfilled with water.



WATER SUPPLY

- ▶ The pipes, as the water heaters/boilers can break down in the winter period if there is not a supply of electricity. It is advisable to release the water from the system and pipes, until is not stabilized to dry sewerage, pipes, sinks, dishwashers and washing machines. To avoid a heavy flood in the home with the increasing of temperature, switch off the main water source (turn the valve that is outside the building).

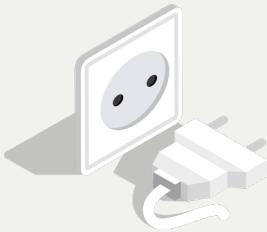
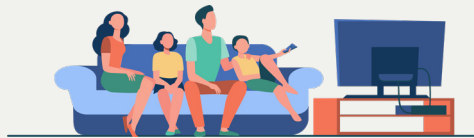


LIFE SUPPORT EQUIPMENT

- ▶ Provide alternative source of energy for a survival for every member of your family (as the respirators), supplying the body with air, ventilators and other equipment for supporting with oxygen or plan to take the members to other places where they can use the needed appliances.

When there is a crisis in the area where you live and work, you would benefit a notice of the ongoing activities. When you receive an announcement of danger, you should take the following measures:

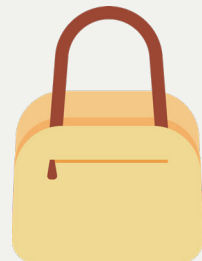
Follow the media instructions or other sources.



If you are being told to switch off the water, gas or electricity, listen to the instructions.

Bring a survival kit with you.

The clothes and shoes should be appropriate to the weather conditions.



SECURE YOUR HOME

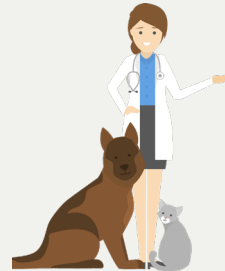
Leave the place as soon as you can.

Follow the route given by the authorized services. Do not look for shortcuts. The short roads can lead you to a dangerous ground.



Based on the evacuation plan, agree how to protect the pets. When there is not a way to leave them, bring them with you (plan to bring food, water, toys etc.)

If you have enough time, leave a handwritten message about the time you left the house and the place where you went. If the whole family was not at the same place at the time of evacuation, with the message they will be informed.



Ensure yourself that you are registered in the evacuation centers, so your family can find you and you reunite.



AFTER A DISASTER

WHAT TO DO IMMEDIATELY AFTER A CRISIS

- ▶ Follow the instructions given by the local media. You will get information what to do and what kind of caution measures to take and implement.
- ▶ Do not use the phone, except when necessary, including the mobile phones. The phone lines are needed for the emergency staff and they can easily overload.



- ▶ Do not use the vehicle if not necessary. Be aware of the danger you may face on the road and always clear the road for emergencies and other intervention vehicles.

MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS – FLOODS, LANDSLIDES, EARTHQUAKES



▶ Do not go to places affected by natural disasters. Inspecting the ground and intervening with the emergency and rescue services can be dangerous.

▶ Do not get close to damaged electric lines, because it could be very dangerous. Register for any kind of damage to the local authorities.



▶ Help the injured or the trapped. Help them if you have completed a first aid course (do not forget the first aid kit packed with your survival kit) or find somebody that is willing and can help.

AFTER A NATURAL DISASTER

Inform your relatives when the emergency is finished. This way you would ensure the authorities in the search for you and save them time in the process. Check where your neighbors are, especially if they are old or disabled. Keep your pets quiet and provide them food and water for couple of days.

Also if you feel flow of gas or petrol or suspect any damage – turn off the major valve (if you did not do it sooner) and leave the building fast. Turn off the damaged appliances. Inform the services for fire, damaged pipes or transmission lines.

Check for any damages in the house. Be certain that you are safe from fire or other dangers that may appear in the building. If something in the home or the building is not corresponding, do not turn on the electricity.

Dry off the basement into phases (eliminate one third of the water per day) to avoid structural damage of the building you live in. The different types of buildings can collapse due to the high external pressure of the water.

When the circumstances allow, take everything that is valuable. Consult with the insurance company how to get funds for the building in case of emergencies, how would affect the payment of the damaged object due to the fact that you need to find (if in this situation) alternative accommodation, food and clothes supplies.

Fill in the application even when your insurance company does not cover this type of natural disasters. For instance, the standard politics do not cover standardized damage caused by an earthquake, fire or flood. Discover everything you can do for the procedures from your insurance company. Damage assessors may not be able to find your property.

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You could help them do it quickly by labeling your property by putting a sign with name, address, insurance and information where to find you.

Perform temporary building to avoid spreading the damage, as roof fixing; installing windows on the same damaged type. Some charities can supply with materials to make these urgent interventions on the object.

Use protective clothes while cleaning harmful substances that can spill. Keep all the invoices that should be attached to your insurance policy.

Do not switch on the electrical appliances if wet. Switch them off and dry them before switching them on again.

Turn on the water the following way: close the valve in the basements (and the valves of the boilers with warm water). Start opening the valves and taps from the lowest floors so the air may get out from the taps in the higher floors. Do not turn on the boiler until filled with water first.

Check if the food and water reserves are valid and usable before being used. Easily spoiled food can spoil if the electricity has been off for some time. The frozen food that is defrosted needs to be cooked as soon as possible.

The food that has been in contact with the water from the floods should not be eaten. Use bottled water or boil it for five minutes or even you may disinfect it, according the instructions for dosing of the disinfectant.

Wash and sterilize the containers and disinfecting instruments (according to the instructions of dosing).

Built inventory. In order to prove to your insurance company the damage caused in the time of the catastrophe, you need to prove the damage and the worth of the damage. Make a list of damaged objects. Take photos and videos if possible, attach your invoices to prove the value of the damage. Make a plan of the inside of the house.

Be careful with the skilled craftsmen not to deceive you. Unfortunately, among them there will be always some to use peoples' misfortune to earn money.

Be careful who you hire. Also, have into consideration that in case of crisis, the work on the buildings should not start until the damages are estimated by the authorized bodies.

To conclude: do not rush, search for offers from more skilled craftsmen and check out their work (ask the neighbors how much they paid for similar activities). Take care of the humidity. Dry off the premises completely to avoid health problems.



WHICH ARE THE POSSIBLE CONSEQUENCES

After the survived stress from the natural disaster, some people are confused and have mixed feelings and shock from one side, and on the other side feeling of relief because they survived. As the time passes by, those people can have sleeping and eating issues.

Every big or small natural disaster has psychological or emotional effect on you, your family and your neighbors. The need to return to your everyday life together with feeling of solidarity with the people around you, who are also traumatized at that moment, is your basic moving force at that moment. It happens when a person survives loss and it represents part of the recuperation.

You may have panic attacks to the smallest sign of storm. All these reactions are completely normal. The best way to pass through all this is to have conversation with your family, friends or neighbors. Tell what you feel after what had happened. Ask for professional help if needed.



The children usually cannot be noticed that experience problems, but they do, experiencing intensive emotional reactions towards themselves. They could be reflected through anxiety, fear, nervousness, stomachache, loss of appetite and other psychological reactions. And these are normal reactions of survived trauma.



When the child feels fear it means it is really scared. It believes that the disaster will happen again, that somebody will be hurt, that it will be separated from the family. That scares them the most.

Help your child by giving him an opportunity to express his feelings. It is probably easier with the little children to do it through drawing or games. Be always confident in front of them, even though it could be easier to seek for help, accommodation or permanent employment.



RECUPERATION MEASURES

Recuperation measures of the situation

Analysis of the damaged situation

Preparation of different analysis and reports

Creating order after the damaged situation

Estimation of damage

Taking other program measures

IMPORTANT:

The management team, as well as the all authorized bodies, according to the European recommendations, after finishing the danger and four hours the latest after completing of the activities, analyze their participation in implementing the measures. A report of the complete action from the management team and all the responsible bodies should be prepared in two days.

FORM NO.1

CHECK LIST IN CASE OF EVACUATION

Leave a list with important phone numbers and addresses near the phone.

Make a list of everything that needs to be fixed.

Think about attending a first aid course.

Show to your children how to dial important numbers in case of emergencies.

If possible, install smoke detectors.

Prepare emergency materials (look at the previous page).

Check all the potential disaster causes.

SHOW EVERY MEMBER OF THE FAMILY:

- How a fire extinguisher is used and where stands.
- How to close the water valve and turn off the main fuse.

MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS – FLOODS, LANDSLIDES, EARTHQUAKES

- How to react in case of:

Floods: _____

Thunderstorms: _____

Hail: _____

Earthquake: _____

- How to identify, sketch and perform the route for rescue
- Which is a safe place to meet.
- Who would they call in case of separation from the family?

Name: _____

Address: _____

Phone number: _____

- Who should you call in case of dividing (long distance call):

Name: _____

Phone number: _____

FORM NO. 2

SURVIVAL KIT (HOME SHOP)

- | | |
|--|---|
| <input type="checkbox"/> First aid kit | <input type="checkbox"/> Medicines |
| <input type="checkbox"/> Plastic cutlery | <input type="checkbox"/> Plastic glasses |
| <input type="checkbox"/> Knife | <input type="checkbox"/> Can opener |
| <input type="checkbox"/> Lighters | <input type="checkbox"/> Plastic boxes |
| <input type="checkbox"/> Lights | <input type="checkbox"/> Portable radio |
| <input type="checkbox"/> Clothes and Shoes | <input type="checkbox"/> Diapers |
| <input type="checkbox"/> Candles | <input type="checkbox"/> Paper and pencil |
| <input type="checkbox"/> Needle and thread | <input type="checkbox"/> Toilet paper |
| <input type="checkbox"/> Hygiene products | <input type="checkbox"/> Blankets |

MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS - FLOODS, LANDSLIDES, EARTHQUAKES

Plastic bags with strings

Plastic buckets with covers

Disinfection products

Games, cards, books, paper

Baby powder milk

Dipers

Blankets for sleeping bags

Oxygen bottles

Bottles

Stretcher

Pets

Rope

Plastic Bags

Wheelchairs

Soap and liquid detergent

Small fire extinguisher

Water
(look for instructions in the water part)

Food
(look for instructions in the foodpart)

FORM NO. 3

SURVIVAL SET IN A CAR

- | | |
|---|--|
| <input type="checkbox"/> Sand or salt | <input type="checkbox"/> Pulling Chain |
| <input type="checkbox"/> Starting cables | <input type="checkbox"/> Fire extinguisher |
| <input type="checkbox"/> Reserves of clothes and shoes | <input type="checkbox"/> Compass |
| <input type="checkbox"/> Cloth or paper towels | <input type="checkbox"/> Axe |
| <input type="checkbox"/> Product for cleaning ice and a brush (in winter) | <input type="checkbox"/> Antifreezer for a freezer and windscreen (winter) |

KEEP IN THE CAR:

- Lantern
- Blankets
- First aid kit
- Maps with the roads

FORM NO. 4

FIRST AID KIT

PACK EVERYTHING YOU NEED IN A PLASTIC BOX OR BUY A FIRST AID KIT

THE KIT MUST CONTAIN:

- Bandage in different sizes
- Sterile pad
- Bandages
- Triangular scarf
- Scissors
- Tweezers
- Needle
- Wet wipes
- Sunscreen
- Antiseptic
- Thermometer
- Wooden sticks for throat
- Jelly and other creams
- Safety pin
- Soap
- Rubber gloves
- Analgethics

FORM NO. 5**NEIGHBOURING AND RESOURCES****ARE THERE IN THE NEIGHBOUHOOD:** DOCTORS PARAMEDIC NURSES ELECTRICIAN PLUMBERS RADIO EMITTERS TERRAIN VEHICLES FIREWOOD

ARE THE PEOPLE WHO LIVE IN THE NEIGHBORHOOD PREPARED FOR CRISIS SITUATIONS?

EXPERTS SHOULD COME AND SHOW THEM HOW TEAMS SHOULD BE ORGANIZED FOR TEAM WORK IN EMERGENCIES.

ARE THE SURVIVAL SETS PREPARED?

Teams for emergencies: _____

The survival sets are in: _____

MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS - FLOODS, LANDSLIDES, EARTHQUAKES

Communication:

Where: _____

Who: _____

Estimation of damages:

Where: _____

Who: _____

First aid:

Where: _____

Who: _____

Rescue teams :

Where: _____

Who: _____

Shelter and special needs :

Where: _____

Who: _____

MEASURES TAKEN BY THE STATE BODIES FOR THE DAMAGES CAUSED BY THE NATURAL DISASTERS

For initial repair and prevention from spreading the damage should be taken organizational, technical and other measures and use of technical and other resources for personal and collective protection. That is acquired by activation of the participants in the system of protection and rescue, by including into the organizational forces for protection and rescue as well as the civil protection.

According to the Law of rescue and protection, natural disasters are: earthquakes, floods, landslides, avalanches and alluvium, frost, hail and draught. Those natural uncontrollable forces endanger the environment, peoples' life and health, material goods, animals and vegetation and the cultural heritage.

There are measures and activities taken by the state bodies, local authorities, trade associations and population in the handling with the natural disasters, in accordance with the Macedonian legal system. Those measures are in direction to protect from natural disasters and other catastrophes, rescuing, aid, support, participation in the protection and rescue system etc.

The damage occurred on the peoples property, as the expenses for the activities and the measures taken while removing and preventing the destroying of the property, the material goods, natural treasures, cultural heritage and environment, vegetation, injuries of the people and animals caused by natural disasters and other catastrophes, the Law of protection and security defines as direct destruction and damage of natural disasters and other catastrophes.

In cases like this, the measures for protection and rescue are activated – equipment, tools, temporary accommodation facilities, adjustment equipment, warehouses, transport, telecommunication and alarm devices, as well as intended material for protection and rescuing.

The participation of the government official bodies in the compensation of the damage caused by natural disasters is accomplished through the decision of the Government for the reimbursement of the caused damage caused by natural disasters and other catastrophes. Also, through the decision of the Council of the unit of the local authorities that decides the funds from the budget of the compensation from natural disasters and other catastrophes and distribution of charity for the population that had suffered.

The estimation and determination of the height of the damage caused from the natural disasters and other catastrophes is determined by formal committees formed by the Government, the councils of the local authorities and the administering bodies of the trade associations, public enterprises, institutions and services.

The estimation of damage is determined by unique methodology for damage estimation that is carried out by the government on a suggestion of the Ministry of Finances. The determination of the height of the damage begins immediately after the disaster and in a period of time of 360 days of the end of the disaster, the committees are in charge to write a report for the determined damage and send it to the commission formed by the Government.

The estimation and determination of the height of the damage, covers the type, size and the height of the damage expressed in payment in kind and other value indicators, according to the territory, activities, properties, ownership, time and the causes of the damage. The aid can be direct as financial or reduction, or releasing the population of taxes without responsibilities to pay it off.

The law on agriculture and rural development in the article 99 defines the help on loses from natural disasters and climate occurrences as aid on the agricultural economy on the loss of the agricultural properties as damages on greenhouses caused by the weather conditions. The maximum height of the aid should not exceed 100% of the determined loss of the sale profit of the agricultural goods and animals of the agriculture property and damages on the greenhouses.

The maximum amount will decrease for the amount received in the contract with the insurance (if the damaged was insured previously) and the height of the expenses that are not caused as a result of the climate occurrence.

Besides the given aid depending on the damage, the aid could be in a decrease, release or postponing form of the financial commitments of the agricultural businesses towards the Ministry.



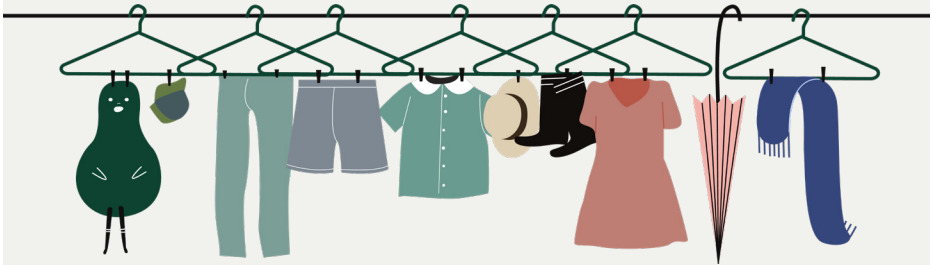
Even the social protection law predicts single financial aid of 30.000 denars, that is given to a person or family of social risk, as well as a person or family after suffered natural disaster or epidemic.



MINUTE KNOWLEDGE FOR LIFE

NATURAL DISASTERS - FLOODS, LANDSLIDES, EARTHQUAKES

Under payment in kind is understood as providing clothes, food and other services that the Center of social work will determine are necessary for a minimal survival of the individual or the family.



Single financial help is accomplished in the Center of social work, and in emergencies the Minister can issue a decision for single help. When it comes to natural disasters, this aid is given for satisfying the needs of a person or family that has been into a position of social risk and can leave permanent consequences due to suffered natural disaster (earthquake, flood, and landslide) epidemic or death to a family member.

PUBLICATIONS ON NATURAL DISASTERS

REPUBLIC OF NORTH MACEDONIA

When we talk about activities during, before and after a natural disaster as flood, earthquake or landslide, according to the legal regulations and instructions, the institutions undertake a large amount of activities as educational materials and publications.

In the Republic of North Macedonia from the Protection and Rescue Directorate, there are not enough publications on the subject protection in natural disaster, s earthquakes, floods and landslides. From the Protection and Rescue Directorate, there are published instructions on the official web page <http://dzs.gov.mk/> for self protection of the population in case of earthquakes, floods and first aid instructions.



INSTRUCTIONS FOR SELF PROTECTION OF THE POPULATION IN CASE OF EARTHQUAKES



INSTRUCTIONS FOR SELF PROTECTION OF THE POPULATION IN CASE OF FIRST AID



INSTRUCTIONS FOR SELF PROTECTION OF THE POPULATION IN CASE OF FLOODS

INSTRUCTIONS FOR SELF PROTECTION THE CITIZENS CAN FIND ON THE FOLLOWING LINKS:

<https://www.dzs.gov.mk/>
<https://www.dzs.gov.mk/instructions>

The direction for protection and rescue implements campaigns for prevention and education of the population in natural disasters and trainings for self protection of the population in case of natural disasters.

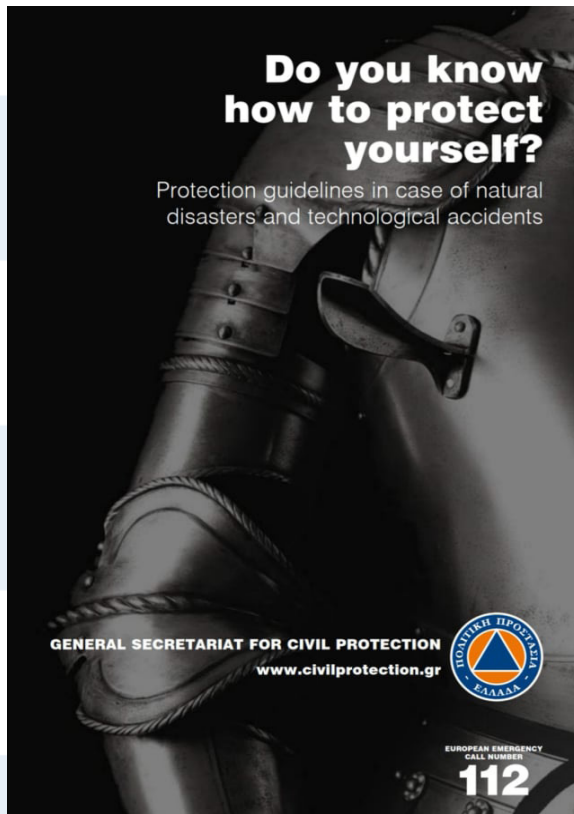
GREECE

Greece is very often hit by a row of dangers and risks of catastrophes. A large number of scientists put efforts to monitor the disasters in order the institutions and the population to be prepared for responding properly and plan a strategic solution to the problem. Also, it is considered preventive response to erosion of the soil, floods and tectonic earthquakes. The situation in Greece shows that this country is very vulnerable when it comes to natural disasters.

When we talk about the readiness and reaction of the population in a certain moment during and after a catastrophe, it is needed certain knowledge of those activities, trainings from the authorized institutions or through publications, leaflets etc. By this, the population will be introduced with the basic directions of reacting in a certain situation. According the research and the electronic information in Greece there are not many existent publications for protection of natural disasters.

FROM THE EXISTENT WE MENTION:

DO YOU KNOW HOW TO PROTECT YOURSELVES? – A guide for protection in natural and technological disasters issued by the General Secretariat of civil protection of Greece.



On the official internet page of the General Secretariat of civil protection of Greece <https://www.civilprotection.gr> there are documents attached for protection in case of natural disasters as earthquakes, floods and landslides. Those documents can be found on the following links:

<https://www.civilprotection.gr/en/earthquakes>

<https://www.civilprotection.gr/en/landslidesmudslides>

<https://www.civilprotection.gr/en/floods>

Because of the low number of publications, documents and instructions for protection in case of natural disasters, as earthquakes, floods and landslides natural disasters of the two neighboring countries Republic of North Macedonia and Greece, there is a need for preparation of this kind of a guide for protection in case of natural disasters.

USEFUL LINKS

<https://www.dzs.gov.mk/>

Direction for protection and rescuing of Republic of North Macedonia

<http://cuk.gov.mk/mk/>

Center for crisis management of Republic of North Macedonia

<http://ckrm.org.mk>

Red Cross of Republic of North Macedonia

<https://www.civilprotection.gr>

General Secretariat of civil protection of Greece

<https://www.ifrc.org>

Red Cross of Greece

<https://www.preventionweb.net>

Platform of information of risks and disasters

NUMBERS IN EMERGENCIES

REPUBLIC OF NORTH MACEDONIA

POLICE	192
FIREFIGHTING SERVICES	193
EMERGENCY MEDICAL HELP	194

GREECE

POLICE	100
FIREFIGHTING SERVICES	199
EMERGENCY MEDICAL HELP	166
EUROPEAN NUMBER FOR EMERGENCIE	112



European Union

"Project co-funded by the European Union
and national funds of the participating countries"

