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MONITOR II –WP3_3.4: Adapting of contingency plans



Consortium „Bauer Consult”

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tel: +359 2 48 990 71

fax: +359 2 48 990 72



Contents

1.	Contingency and emergency plans.....	3
2.	Developing stages regarding Contingency planning	4
2.1	Identify the needs from contingency plans	4
2.2	Threat assessment.....	5
2.2.1	Select protection measures and controls.....	5
2.3	Recovery strategies	5
2.3.1	Plan development	6
2.4	Test, train and maintain.....	7
3.	Updating of contingency plans	8
4.	General recommendations	9

MONITOR II – WP3_3.4: Adapting of contingency plans



1. Contingency and emergency plans

The main state legislation regarding the activities for life and health protection, protection of the environment and property in case of natur disaster are the Law on disasters protection and the National programme for the disasters protection. Relevant normative acts of the regional and municipal level are the provincial and municipal emergency plan.

For sustainable flood prevention and protection it is very important to create a stable legal, administrative and economic framework in which each of the sectors, public, private and voluntary, may contribute to the flood prevention. It is important to ensure the security of facilities and technical infrastructure. It is also important to ensure the reduction of the adverse impact of floods on human health and property, as well as on water and terrestrial ecosystems.

In the process of planning of disaster protection, it is necessary to provide a procedures for the updating of the emergency and contingency plans at municipal, regional and national level. So that they can provide most suitable activities and mitigation measures in case of real distress situations which may arise.

The use of the most recent risk maps ensure that the emergency planning experts will have the most realistic forecast of the development of the floods, what areas will be affected and what kind of damages can be inflicted. So measures to mitigate the negative effects of the floods in emergency and contingency plans will be adequately complied with the disaster situation. As a result this will lead to greater security for the population and businesses.



2. Developing stages regarding Contingency planning

The process of developing an effective contingency plan can be broken down into six key stages:

- Identify your needs.
- Impact assessment.
- Select suitable measures and controls.
- Develop recovery strategies.
- Build the plan.
- Test, train and maintain.

2.1 Identify the needs from contingency plans

The flood risk is different for every town, river and terrain. This defines the different needs, structure and contents of the contingency plans.

Initially, it is important to define the specific requirements and characteristics of the risk, so that the development of the plan to ensure maximum actuality and efficiency. This will clarify what procedures and measures to be developed.

The key moments in the development of the evacuation plan are:

- Under what circumstances the contingency plan should be invoked?
- Defining of individual and common responsibilities for the development, updating and implementation of the plan.
- The scope of the plan. What objects and how they will be linked.
- The establishment of processes and mitigation activities in the plan
- Determining the requirements for the provision and use of the resources necessary for the protection measures
- Training and testing of the plan
- Preparedness maintenance in activation of the plan
- Feedback on the relevance of the plan in a real situation

After having defined the objectives, it is important to ensure that for all services and organizations have defined the role and responsibilities in the plan, as each one is necessary to be considered and assessed individually.



2.2 Threat assessment

Before developing of an effective plan, it is necessary to determine the risk, which objects are at risk and where are the critical points. This assessment helps the development of protective measures, with clear priorities and hierarchy in the taking of decisions; all this will minimise the risk.

In the identification of the risk objects, it is necessary to determine what functions have these objects and what could be critically threatened in the event of flooding. When the objects are accurately correlating with their functions then it will be clear which are more and less threatened.

2.2.1 Select protection measures and controls

The impact assessment stage will help to identify areas where disruption can be significantly reduced by implementing preventative measures. Although that in principle prevention is always better than cure, nevertheless it is true or not for any specific case, it is always good cost assessment to be prepared.

2.3 Recovery strategies

Recovery strategies enable rapidly normalization of the situation after the flood. Strategies should be based on the data gathered in the risk assessment, in order to ensure that they are appropriate to the organization's core requirements and the population. They should also take into account the full range of possible incidents and disruptions of the recovery activities.

Among the specific strategies that should be considered are:

- In extreme circumstances it may be desirable or necessary to transfer the whole functions or a part of some objects to an alternate location. An example for that is changing of the drinking water source or closing of the dumpsite and transport of the waste to other dumpsite.
- The contingency plan should identify such locations, which must be capable for the supporting functions they are assumed. The plan should also specify the circumstances under which relocation is to be undertaken, and the accurate location of such a move.



MONITOR II – WP3_3.4: Adapting of contingency plans

- Infrastructure renewal. In the event of major damage, it may be necessary to replace items of infrastructure. The contingency plan should specify emergency arrangements for the procurement, delivery and commissioning of replacement and put into operation infrastructure. This may involve arrangements with suppliers to supply equipment at short notice, the advance purchase and off-site storage of critical items of infrastructure equipment, sand bags and other protective materials.
- Roles and responsibilities. The plan should specify teams and persons and the areas for which they are responsible in an emergency situation. The people involved must understand their roles and the expectations that these roles place upon them, and they must be fully prepared to implement their responsibilities at short notice when required.

2.3.1 Plan development

The activities in the recovery plan must be described briefly and clearly so that plans' users could quickly and easily find the necessary information and perform their specified functions.

A useful approach to lay out the plan is to structure it according to the various emergency circumstances that have been envisaged. The planning activities should be described step by step in these sections as well as they should be targeted to individuals or teams, so everybody will know what he/she is suppose to do.

Three phases of response for each identified emergency (flood) situation are the following:

- The first one is activation of the plan and it consists of procedures for the communication regarding the formation or the occurrence of the emergency situation and assessment of the situation.
- The second phase is after the end of the critical (flood) situation. This is the stage of recovery during which the actions for recovery start and carry out.
- In followed phase the damage shouldl be assessed, the effectiveness of emergency/contingency plan shouldl be analysed and the recommendations for its improvement should be given.

MONITOR II – WP3_3.4: Adapting of contingency plans



2.4 Test, train and maintain

Testing, training and maintenance are essential follow-up activities that must be carried out after the completion of the plan. It is important that the plan is thoroughly tested in all its aspects. An untested plan is worthless, as there is a high probability of failing under the pressure of an actual emergency. For this reason, planning standards generally recommend a structured and comprehensive testing schedule covering at least the following areas:

- Co-ordination of responsible parties. Testing should demonstrate that responsible services and persons understand and can carry out their assigned roles in emergency cases. Given the human aspect to this, it is advisable that at least some testing is carried out under pressure situations to ensure that people are able to function under the stress of an actual emergency.
- Notification procedures. The communication elements of the plan are easy to overlook but are in fact critical. Testing should ensure that communication procedures are viable and effective, and able to function properly under emergency conditions.

Unfortunately the real situations are not possible to be tested in advance and therefore the quality and relevance of risk maps are of great importance. They are also the basis for the development of such plans.



3. Updating of contingency plans

The proper allocation of the responsibilities, the quick links for communication between the services, hierarchy in decision-making and the allocation of necessary resources in the event of a disaster are the base of emergency/contingency plan.

In the process of updating of an emergency/contingency plan for the settlements it is necessary to identify the factors determining the degree of risk, then to define the responsibilities of the role and activities of all services and residents in the case of a disaster. Such an approach will help the right actions at the time of the disaster and will lead to a reduction of the negative effects from it.

In the operation and implementation of an emergency/contingency plan in case of flood, it is important to monitor its implementation and objectively indicate gaps and errors in it. All participants should consider whether their tasks under the plan are properly distributed according to the situation and whether their actions really help to limit the damage from the floods.

Such is the practice in Germany, where after each flood working groups specialized in the flood risk management; describe damage after the flood, focusing its conclusions in the following aspects:

- collection of reports and records for the flood from responsible services
- proof of the effectiveness of the taken protection measures
- review of the operating structure
- proof of availability of staff
- proof of availability of resources
- quality of the cooperation work between all services
- adaptation of the training courses closest to the actual conditions

In addition to this there are questionnaires to all parties involved in the plan; so the lapses in the plans could be easily identified and the plans could be adapted more precisely to the real situation.

In addition to the processing of the information from the terrain situation, for the updating of the plans additional data may be obtained from the new improved risk maps. A condition for this is cooperation work between risk assessment experts, maps creator experts and contingency planners.



4. General recommendations

In Bulgaria the contingency planners are employees in the Civil protection agency. This is the Administration with which the experts preparing the risk maps must closely cooperate, so the prepared plans will plan and organize effective protection measures for the population and property.

The joint operation of all types of experts and local authorities is crucial for the success of such projects; thus will be covered the full requirements of each administration and service. The result will be a good product (risk maps and contingency plans) that ensures the population and property protection.

Unfortunately, such an approach has not yet been adopted in our country, the communication between the various authorities is very difficult, which leads to incomplete and sometimes not needed design developments, also too expensive projects and long terms of the project implementation. And last but not least, the development of such projects shall be implemented according to different methodologies, which is the reason for a different type of final products and results.

It is recommended adoption of a common national basic structure and the establishment of clear rules for the emergency/contingency plans development on the basis of flood risk maps. These texts must be in addition to the current Bulgarian legislation "Water Law" and the "Law on Disasters and Accidents", which regulate the preparation of such plans.

This will ensure that the approved plans will cover the General national conditions and requirements to them. So their future adaptation by common national procedures will take place in a very clear, technically accurate and easy way.

It is necessary to develop common national procedures for risk map and contingency plans updating in addition to the same national Laws, in order to guarantee at a maximum stage the public safety in case of flood.