**RESILIENT COMMUNITIES THROUGH AWARENESS AND PREPAREDNESS AGAINST THE RISKS OF FIRE, FLOOD, AND LANDSLIDE (READY4DISasters)**

**READY4DISasters COMPETENCE MAP TOOL**

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## Summary

The **READY4DISasters Competence Map Tool** is a meticulously developed resource designed to equip volunteers with the essential competences needed for effective disaster management. This tool is the result of extensive research and collaboration across four partner countries—Türkiye, Greece, Georgia, and Italy. A comprehensive survey involving 159 experienced volunteers and trainers provided valuable insights that shaped the Competence Map, ensuring it addresses the real-world needs and challenges faced by disaster response teams.

The Competence Map Tool systematically aligns these identified competences with tailored training modules and innovative educational resources. Volunteers can engage with the training content through the **Competence Wheel**—an interactive, path-based approach—or opt for a traditional module-by-module learning pathway. The tool is integrated with the **Open Educational Resources (OER) Platform**, offering accessible and structured training materials that include quizzes, assessments, and self-evaluation tools.

Additionally, the tool incorporates **educational games** designed to reinforce competences through practical, scenario-based learning experiences. These games are tailored for specific disaster types—floods, landslides, and fires—and provide a dynamic way for volunteers to apply their knowledge in simulated environments, complete with score systems and self-assessment features.

By following the nine distinct training paths outlined in the Competence Map, volunteers are guided through a logical and comprehensive learning process, ensuring they develop the skills necessary to respond effectively to disasters. The tool's accessibility across various platforms and in multiple languages further enhances its reach, making it an invaluable asset in building a resilient, well-prepared volunteer force.

## 1. Overview of Competence Map Tool

The **Competence Map Tool** is a crucial resource within the READY4DISasters project, designed to guide the systematic training and development of volunteers. It is grounded in a detailed analysis and mapping of the key competencies required for effective disaster response, with a specific focus on fire, flood, and landslide scenarios. These competencies and sub-competencies were identified through a rigorous survey and analysis process, involving experienced volunteers and trainers from partner countries.

### 1.1. Purpose and Objectives

The primary objective of the Competence Map Tool is to clearly outline the essential skills and knowledge areas that volunteers must acquire to be effective in disaster management roles. By mapping these competencies across various disaster scenarios, the tool serves several key purposes:

- **Identifying Learning Needs**: It helps pinpoint existing skill gaps among volunteers and aligns the training modules to address these gaps effectively.

- **Guiding Training Development**: The tool provides a structured approach for creating training materials that are tailored to meet the specific needs identified in the competence map.

- **Enhancing Volunteer Preparedness**: Through targeted training modules and assessments, the tool ensures that volunteers are well-prepared to respond to disasters with confidence and competence.

### 1.2. Nine Training Paths

The Competence Map Tool offers nine distinct training paths, each tailored to a specific type of disaster and stage of response. These paths ensure comprehensive coverage of the necessary skills and knowledge for volunteers and are organized as in Fig. 1.
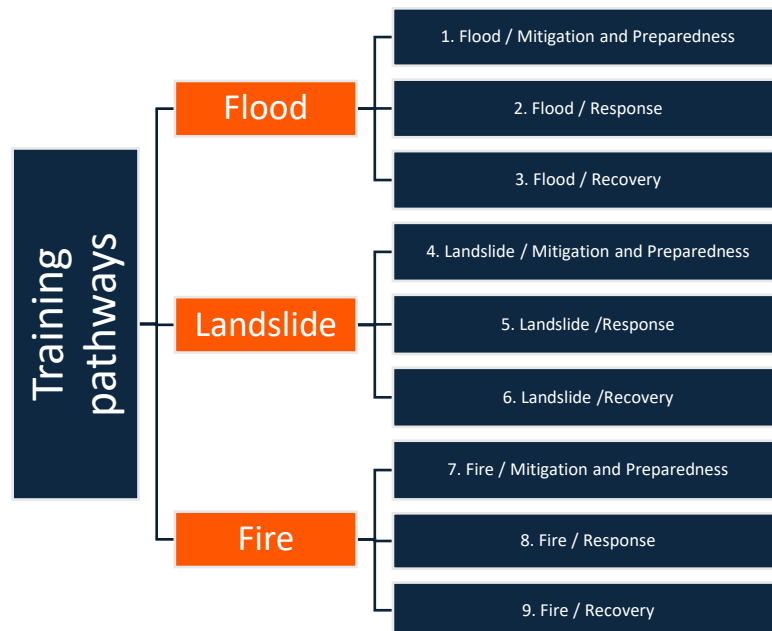


Figure 1. Nine Training paths.

These training paths can be visualized in a matrix format, as shown in Table 1. Each path aligns with the key phases of disaster management—Mitigation and Preparedness, Response, and Recovery—and is specific to the type of disaster (Flood, Landslide, or Fire). This structured approach ensures that volunteers progress through their training logically, acquiring the necessary competencies at each stage of disaster management.

Table 1. Matrix of Training Paths.

|  | Mitigation and Preparedness | Response | Recovery |
|---|---|---|---|
| Flood | 1 | 2 | 3 |
| Landslide | 4 | 5 | 6 |
| Fire | 7 | 8 | 9 |

## 1.3. Integration with Related Products

The Competence Map Tool is intricately connected with other key products developed within the READY4DISasters project, ensuring that the competencies identified are directly supported by comprehensive educational resources and innovative learning tools.

- **Open Educational Resources (OER) Platform and Training Modules**:

  o The competencies outlined in the Competence Map are foundational to the development of specific training modules, which are hosted on the OER platform. These modules are tailored for adult learners, providing the necessary knowledge and skills to enhance volunteerism.

  o The OER platform ensures that volunteers receive structured and accessible education on disaster preparedness, covering critical topics such as the occurrence and impact of disasters, disaster-specific scenarios, and European mechanisms in civil protection.

- **Educational Games for Competence Development**:

  o In addition to the structured training pathways and modules, the READY4DISasters project includes the development of **three separate educational games** specifically designed for fire, flood, and landslide scenarios. These games serve as digital trainers, offering innovative ways for volunteers and trainers to improve practical skills in disaster prevention and preparedness.

  o **Game Structure and Levels**: Each game is structured across three levels—elementary, intermediate, and advanced. As volunteers progress through these levels, they engage with increasingly complex scenarios that mirror real-life disaster situations. This structure

allows volunteers to gradually build and reinforce their competences, enhancing both their theoretical understanding and practical skills.

- o **Interactive Learning and Assessment**: The games are designed to be engaging and interactive, providing volunteers with a dynamic learning experience. They incorporate score systems and self-assessment features, allowing volunteers to track their progress and identify areas for improvement. The games also support multiple languages, ensuring accessibility for volunteers from different regions.

### 1.4. Structured Learning and Competence Development

The Competence Map Tool is organized into 14 key competence areas, each encompassing a set of sub-competencies. For each sub-competence, corresponding training modules have been developed, complete with learning objectives and assessment methods. This structure enables a comprehensive and systematic approach to volunteer training, ensuring that all necessary skills are covered.

The tool also integrates the nine training paths mentioned earlier, each tailored to a specific disaster type and response phase. By following these paths, volunteers can progress through their training in a logical and structured manner, acquiring the competencies needed to effectively contribute to disaster response efforts.

### 1.5. Impact and Benefits

The Competence Map Tool significantly enhances the effectiveness of volunteer training by clearly defining the required competencies and providing a roadmap for achieving them. This approach not only strengthens volunteer preparedness but also leads to more efficient and effective disaster response. Additionally, the tool aligns with the broader goals of the READY4DISasters project by contributing to the development of resilient communities that are better equipped to handle the challenges posed by disasters.

## 2. Structure of the Competence Map

The **Competence Map Tool** is systematically designed to outline the key competences necessary for effective disaster management, focusing specifically on fire, flood, and landslide scenarios. The structure of this tool is rooted in comprehensive research and analysis, guided by the results of an extensive questionnaire conducted with experienced volunteers and trainers across four countries: Türkiye, Greece, Georgia, and Italy.

### 2.1. Development Process

The development of the Competence Map began with identifying possible competences and sub-competences relevant to disaster response. These were initially prepared by project members who are experts in the fields of flood, landslide, and fire disaster management. To refine and validate these competences, a detailed questionnaire was distributed among experienced volunteers and trainers.

The questionnaire, consisting of 33 questions, was carefully crafted to assess the importance of each main competence and its sub-competences. Respondents were asked to rate the importance of these competences using a Likert scale, with options ranging from "not important" to "very important." A total

of 159 respondents participated in the survey, providing valuable insights into which competences are most critical for disaster management.

The data collected from the survey were meticulously analyzed to identify trends and gaps in the perceived importance of various competences. The results indicated that while most competences were deemed necessary, some sub-competences were not rated as highly important by the respondents. Based on these findings and expert evaluations, certain sub-competences were either refined or consolidated to ensure that the Competence Map focuses on the most relevant and impactful skills. The international report highlighted that, for all competences and their related sub-competences, the majority of respondents considered them either important or very important, with a combined score exceeding 81%. This feedback played a critical role in refining the structure of the Competence Map, ensuring it is both comprehensive and focused on the essential areas of disaster management.

### 2.2. Competence Areas and Sub-competences

The final Competence Map is organized into 14 key competence areas, each of which includes a set of carefully selected sub-competences. These sub-competences represent the core skills and knowledge necessary for volunteers to effectively respond to disasters, covering all phases of disaster management—Mitigation and Preparedness, Response, and Recovery.

To provide a detailed overview of the key competences and their corresponding sub-competences, the following table outlines the specific skills and knowledge areas that volunteers need to master, organized by competence area. Each sub-competence is linked to the relevant training modules, providing a clear map of the learning journey. Each identified sub-competence is directly linked to specific training modules developed as part of the READY4DISasters project. These modules are tailored to build the necessary skills associated with each competence, utilizing a variety of learning tools such as instructional content, quizzes, and practical assessments, all hosted on the Open Educational Resources (OER) Platform.

Table 2. The competences and sub-competences.

| Competences |
|---|
| **C1. Disaster Management: Understanding of the principles, methods, and tools for disaster management, including disaster risk reduction, emergency response, and recovery.** |
| C1.1 Understands disaster risk management principles and strategies. |
| C1.2 Knows how to access and use communication tools and equipment. |
| C1.3 Understands the roles and responsibilities of various agencies and organizations involved in disasters. |
| **C2. Safety and Security: Knowledge of safety procedures, equipment, and tools including maintaining a secure and safe environment** |
| C2.1 Adheres to safety procedures and protocols to ensure personal and team safety. |
| C2.2 Understands the importance of maintaining a secure and safe environment during disaster response activities. |

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| **C3. Teamwork and Collaboration: Understanding of the importance of working collaboratively with diverse teams** |
| C3.1 Demonstrates effective communication skills and the ability to work well with others. |
| C3.2 Understands the importance of working collaboratively with diverse teams in high-stress environments. |
| C3.3 Exhibits flexibility and adaptability in changing situations. |
| **C4. Assessment and Evaluation: Using all means to determine immediate and ongoing needs in disaster area** |
| C4.1 Demonstrates the ability to assess the immediate and ongoing needs of disaster-affected populations. |
| C4.2 Uses data and feedback to inform decision-making and planning for disaster response activities. |
| **C5. First Aid: Knowledge of basic first aid techniques, including CPR, wound care, and trauma management. This includes the ability to recognize and respond to life-threatening emergencies.** |
| C5.1 Practice first aid and emergency medical techniques |
| C5.2 Recognizes and responds to life-threatening emergencies. |
| **C6. Cultural Competence: Knowledge and sensitivity to cultural differences and diversity** |
| C6.1 Respects cultural practices and customs during disaster response activities. |
| C6.2 Works with diverse communities in disaster areas |
| **C7. Leadership: Ability to work effectively in teams and lead others in disaster situations.** |
| C7.1 Exhibits effective leadership skills in high-stress environments. |
| C7.2 Demonstrates the ability to make decisions quickly and effectively. |
| C7.3 Exhibits strong problem-solving skills and the ability to adapt to changing circumstances. |
| **C8. Evacuation and Rescue: Understanding of the procedure, protocols, and ways for evacuation and rescue during disasters** |
| C8.1 Identifies disaster areas and disaster risks |
| C8.2 Assesses disaster damage and identifies hazards |
| C8.3 Conducts rapid assessments of disaster-affected areas |
| **C9. Search and Rescue: Understanding of the procedure, protocols, and ways for search and rescue during disasters** |
| C9.1 Practices search and rescue techniques and tools |

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|---|
| C9.2 Keeps physical fitness and agility |
| C9.3 Identifies and locates missing persons |
| **C10. Shelter and Settlement: Knowledge of shelter management principles and procedures with practical considerations for disasters** |
| C10.1 Understands shelter and settlement options for disaster-affected populations |
| C10.2 Assesses shelter needs and availability |
| C10.3 Familiarize oneself with shelter management principles and procedures |
| **C11. Communication: Understanding the importance of communication** |
| C11.1 Communicate effectively with team members and external partners |
| C11.2 Communicate effectively with people from diverse backgrounds |
| **C12. Flood Assessment: Knowledge of flood risks including damage evaluations and identification of hazards** |
| C12.1 Identifies flood-prone areas and flood risks including monitoring systems |
| C12.2 Conducts rapid assessments of flood-affected areas, flood damage and identifies hazards |
| C12.3 Coordinates and manages recovery efforts according to recovery principles |
| C12.4 Demonstrates knowledge of water safety and sanitation principles |
| C12.5 Identifies and mitigates water-related health risks |
| **C13. Fire Risk, Safety, Suppression and Control: Knowledge of fire safety and suppression procedures, equipment, and tools.** |
| C13.1 Understands how to use fire extinguishers, smoke alarms, and other safety equipment. |
| C13.2 Demonstrates knowledge of fire suppression techniques and tools |
| C13.3 Assesses fire hazards and risks |
| C13.4 Identifies hazardous materials and their properties and assesses their risks |
| C13.5 Recognizes personal protective equipment (PPE) and decontamination procedures |
| **C14. Landslide Assessment: Knowledge of landslide risks including damage evaluations and identification of hazards** |
| C14.1 Identifies landslide-prone areas and landslide risks |
| C14.2 Assesses landslide damage and identifies hazards |
| C14.3 Familiarize oneself with landslide maps and monitoring systems |

| C14.4 Conducts rapid assessments of landslide-affected areas |
| --- |

### 2.3. Associating Modules with Competences and Sub-competences

The development of the **Competence Map Tool** is grounded in a strategic alignment between the identified competences and the training modules. Each module was meticulously crafted to address specific competences and sub-competences, ensuring that volunteers receive targeted and relevant training that directly enhances their ability to respond effectively in disaster situations.

### 2.4. Creation of Modules Based on Competences

1. **Competence-Driven Design**:

   o The core foundation of each training module is the set of competences identified as essential for effective disaster management. During the planning phase, these competences were mapped out to determine the key areas of knowledge and skills required by volunteers. The modules were then designed specifically to develop these competences in a structured and comprehensive manner.

2. **Tailored Learning Paths**:

   o Each module is not a standalone educational piece but rather a targeted learning tool aimed at building the competences necessary for disaster preparedness, response, and recovery. By starting with the competences, the content of each module was tailored to ensure that it meets the exact learning needs of volunteers, allowing them to progress through their training with a clear understanding of the skills they are acquiring.

3. **Detailed Association of Modules with Competences**:

   **Occurrence and Impact of Disasters** (Refer to Table 3):

   o This module was created to provide volunteers with a deep understanding of different disaster types and their impacts. It addresses the competences related to recognizing various disasters (such as floods, landslides, and fires) and assessing their environmental, social, and economic consequences.

   **Flood Disasters** (Refer to Table 4):

   o The competences required for effective flood disaster management, such as emergency planning, risk assessment, and recovery operations, served as the blueprint for this module. The content was specifically designed to build these competences, ensuring volunteers are well-equipped to handle flood-related emergencies.

   **Landslide Disaster** (Refer to Table 5):

   o In designing this module, the focus was on the competences necessary for landslide preparedness and response. The module covers contingency planning, hazard identification, and post-landslide recovery, all of which are critical competences for volunteers in landslide-prone areas.

   **Fire-related Disaster** (Refer to Table 6):

o   This module was structured around competences related to fire disaster preparedness, such as fire extinguishing methods, emergency planning, and post-fire evaluation. By aligning the module content with these competences, volunteers are prepared to effectively manage fire-related disasters.

**Rescue/Rescue Equipment (for Floods, Fires, Landslides)** (Refer to Table 7):

o   The competences needed for rescue operations across different disaster types were the foundation for this module. It includes detailed training on rescue procedures, the use of rescue equipment, and ensuring the safety of rescue teams.

**Promoting Prevention over Recovery** (Refer to Table 8):

o   Recognizing the importance of prevention, this module was designed to build competences in risk assessment, emergency planning, and community engagement. These competences are crucial for minimizing the impact of disasters and promoting a proactive approach to disaster management.

**Resiliency Metrics/Indicator** (Refer to Table 9):

o   This module was created to enhance competences in understanding and applying resilience metrics. Volunteers learn to assess the resilience of communities and infrastructure, integrating these metrics into disaster preparedness and recovery planning.

**European Mechanism in Civil Protection** (Refer to Table 10):

o   The competences associated with understanding the European Civil Protection Mechanism were the guiding force in developing this module. It covers the roles and responsibilities of the EU in disaster response, as well as the interaction between European and national organizations.

## 2.5. Elaboration on the Competence-Module Association Process

The creation of these modules was deeply intertwined with the competences identified during the project's planning phase. Each module was specifically designed to address the competences that volunteers need to develop, ensuring that the training provided is both relevant and effective.

- **Competence-Centric Approach**: By starting with competences, the modules are not just educational tools but targeted interventions aimed at building specific skills and knowledge. This approach ensures that volunteers are trained in the exact areas where they need to be proficient, making the learning process more efficient and impactful.

- **Integrated Learning Experience**: The association of competences with modules creates a cohesive learning experience where each module builds on the competences addressed in previous ones. This integration helps volunteers see the connections between different aspects of disaster management and apply their learning in a holistic manner.

- **Enhanced Practical Relevance**: The modules are designed to go beyond theoretical knowledge, incorporating practical exercises and case studies that reinforce the competences. This ensures that volunteers can translate what they learn into real-world disaster response actions.

This competence-driven design of the training modules is fundamental to ensuring that volunteers are not only knowledgeable but also practically equipped to handle the complexities of disaster management.

Table 3. The content and competences of Module 1.

| 1. OCCURENCE AND IMPACT OF DISASTERS | Competences |
|---|---|
| **1.1 Occurrence and Impact of Flood** | C12.1, C12.2, C12.3, C12.5 |
| **1.1.1.  Occurrence of Flood** | C12.1 |
| **1.1.2. Impact of Flood** | C12.2, C12.3, C12.5 |
| 1.1.2.1. Environmental impacts | C12.5 |
| 1.1.2.2. Social impacts | C12.2 |
| 1.1.2.3. Economical impacts | C12.3 |
| **1.2. Occurrence and Impact of Landslide** | C14.1, C14.2 |
| **1.2.1. Occurrence of Landslide** | C14.1, C14.2 |
| **1.2.2.  Impact of Landslide** | C14.1 |
| 1.2.2.1. Environmental impacts | C14.1, C14.2 |
| 1.2.2.2. Social impacts | C14.1, C14.2 |
| 1.2.2.3. Economical impacts | C14.2 |
| **1.3. Occurrence and Impact of Fire** | C13.3, C13.4 |
| **1.3.1. Occurrence of Fire** | C13.4 |
| **1.3.2.  Impact of Fire** | C13.3, C13.4 |
| 1.3.2.1. Environmental impacts | C13.3, C13.4 |
| 1.3.2.2. Social impacts | C13.3, C13.4 |

Table 4. The content and competences of Module 2.

| 2. FLOOD DISASTERS | Competences |
|---|---|
| **2.1. Preparing for Flood Disaster** | C1, C3.1, C6, C8, C9, C10, C11.1, C12.1, C12.2, C12.3, C12.5 |
| 2.1.1. Developing a flood emergency plan | C1.1, C8 , C10.1, C12.2 |
| 2.1.2. Identifying flood-prone areas and potential hazards | C8.1, C8.2, C12.1, C12.2, C12.3 |

| | |
|---|---|
| 2.1.3. Assessing risks and vulnerabilities | C8.1, C8.2, C12.1, C12.2, C12.5 |
| 2.1.4. Developing evacuation plans | C1.1, C8, C9, C10 |
| 2.1.5. Creating a communication plan | C1.2, C1.3, C3.1, C6, C11.1 |
| 2.1.6. Understanding warning systems and alerts | C1.1 |
| **2.2. Post-Flood Recovery and Restoration** | C1.3, C3.1, C4.1, C4.2, C7, C8.2, C10, C11, C12.2, C12.4, C12.5 |
| 2.2.1. Assessment of damage and needs | C8.2, C10.2, C12.2 |
| 2.2.2. Identifying and addressing immediate needs | C4.1, C4.2, C10 |
| 2.2.3. Working with emergency services and other organizations | C1.3, C3.1, C11 |
| 2.2.4. Addressing long-term recovery needs | C11, C12.4, C12.5 |
| 2.2.5. Managing volunteers and resources | C7, C10.3 |
| 2.2.6. Planning for future disasters | C4.2 |
| **2.3. Case Studies** | C1, C3, C4, C8, C9, C10 |

Table 5. The content and competences of Module 3.

| **3. LANDSLIDE DISASTER** | **Competences** |
|---|---|
| **3.1. Preparedness for Landslide Disaster** | C1.1, C8, C14.1, C14.2, C14.3, C14.4 |
| 3.1.1. Developing a landslide contingency plan | C1.1, C8, C14.1 |
| 3.1.2. Identifying landslide-prone areas and potential hazards | C8.1, C8.2, C14.1, C14.2 |
| 3.1.3. Landslide Maps and Monitoring Systems | C14.3 |
| 3.1.4. Development of evacuation plans | C8, C14.4 |
| 3.1.5. Understanding warning systems and alerts | C14.1, C14.2 |
| **3.2. Post-Landslide Recovery and Restoration** | C1.3, C3.1, C4.1, C4.2, C7, C8.2, C10.3, C11, C14.1, C14.2, C14.4 |
| 3.2.1. Evaluation of Landslide Damages | C8.2, C14.4 |
| 3.2.2. Identifying urgent needs | C4.1, C14.1, C14.2, C14.4 |
| 3.2.3. Working with emergency services and other organizations | C1.3, C3.1, , C11 |
| 3.2.4. Managing volunteers and resources | C7, C10.3 |
| 3.2.5. Planning for future disasters | C4.2 |

| 3.3. Case Studies | C1, C3, C4, C8, C9, C10 |
| --- | --- |

Table 6. The content and competences of Module 4.

| 4. FIRE-RELATED DISASTERS | Competences |
| --- | --- |
| **4.1. Preparedness for Fire-related Disasters** | C1.1, C8, C13.1, C13.2, C13.3, C13.4 |
| 4.1.1. Developing a fire-related disasters emergency plan | C1.1, C8, C13.3 |
| 4.1.2. Identifying fire-related areas and potential hazards | C8.1, C8.2, C13.3, C13.4 |
| 4.1.3. Fire extinguishing methods | C13.1, C13.2 |
| 4.1.4. Fire extinguishing agents and their properties | C13.1, C13.2 |
| 4.1.5. Fire Extinguisher (YSC) and Usage Techniques | C13.1, C13.2 |
| 4.1.6. Automatic Fire Detection and Extinguishing Systems | C13.1 |
| 4.1.7. Development of evacuation plans | C8, C13.3 |
| **4.2. Post-Fire-related Disasters Recovery and Restoration** | C1.3, C3.1, C4.2, C7, C8.2, C8.3, C10.3, C11, C13.3, C13.5 |
| 4.2.1. Evaluation of Structural Damages | C8.2, C13.3 |
| 4.2.2. Post fire inspection and control of Post-fire Installations | C8.2, C8.3 |
| 4.2.3. Post Fire Residues | C8.2, C13.5 |
| 4.2.4. Working with Emergency Services and Other Organizations | C1.3, C3.1, C11 |
| 4.2.5. Managing Volunteers and Resources | C7, C10.3 |
| 4.2.6. Planning for Future Disasters | C4.2 |
| **4.3. Case Studies** | C1, C3, C4, C8, C9, C10 |

Table 7. The content and competences of Module 5.

| 5. RESCUE/RESCUE EQUIPMENT (FOR FLOODS, FIRES, LANDSLIDES) | Competences |
| --- | --- |
| **5.1. Introduction to Rescue Procedures** | C1, C2, C3, C4, C5, C8, C9, C10, C12, C13, C14 |
| **5.2. Rescue Procedure** | C1, C2, C3, C4, C5, C8, C9, C10, C12, C13, C14 |

| | |
|---|---|
| **5.2.1. Flood** | C1, C2, C3, C4, C5, C8, C9, C10, C12 |
| 5.2.1.1. Developing a plan | C1, C12 |
| 5.2.1.2. Safety and Security | C2 |
| 5.2.1.3. Teamwork and Collaboration | C3 |
| 5.2.1.4. Assessment and Evaluation | C4 |
| 5.2.1.5. First Aid | C5 |
| 5.2.1.6. Evacuation and Rescue | C8 |
| 5.2.1.7. Search and Rescue | C9 |
| 5.2.1.8. Shelter and Settlement | C10 |
| **5.2.2. Landslide** | C1, C2, C3, C4, C5, C8, C9, C10, C14 |
| 5.2.1.1. Developing a plan | C1, C14 |
| 5.2.1.2. Safety and Security | C2 |
| 5.2.1.3. Teamwork and Collaboration | C3 |
| 5.2.1.4. Assessment and Evaluation | C4 |
| 5.2.1.5. First Aid | C5 |
| 5.2.1.6. Evacuation and Rescue | C8 |
| 5.2.1.7. Search and Rescue | C9 |
| 5.2.1.8. Shelter and Settlement | C10 |
| **5.2.3. Fire-related disaster** | C1, C2, C3, C4, C5, C8, C9, C10, C13 |
| 5.2.1.1. Developing a plan | C1, C13 |
| 5.2.1.2. Safety and Security | C2 |
| 5.2.1.3. Teamwork and Collaboration | C3 |
| 5.2.1.4. Assessment and Evaluation | C4 |
| 5.2.1.5. First Aid | C5 |
| 5.2.1.6. Evacuation and Rescue | C8 |
| 5.2.1.7. Search and Rescue | C9 |
| 5.2.1.8. Shelter and Settlement | C10 |
| **5.3. Rescue Equipment** | C2.1, C9.1, C13.1, C13.2, C13.5 |
| **5.3.1. Flood** | C2.1, C9.1 |
| 5.3.1.1. Personal protective equipment (PPE) | C2.1, C9.1 |

| | |
|---|---|
| 5.3.1.2. Rescue equipment | C9.1 |
| **5.3.2. Landslide** | C2.1, C9.1 |
| 5.3.2.1. Personal protective equipment (PPE) | C2.1, C9.1 |
| 5.3.2.2. Rescue equipment | C9.1 |
| **5.3.3. Fire-related disasters** | C2.1, C9.1, C13.1, C13.2, C13.5 |
| 5.3.3.1. Personal protective equipment (PPE) | C2.1, C9.1, C13.5, |
| 5.3.3.2. Rescue equipment | C9.1, C13.1, C13.2, C13.5 |
| **5.4. Case Studies** | C1, C3, C4, C8, C9, C10 |

Table 8. The content and competences of Module 6.

| **6. PROMOTING PREVENTION OVER RECOVERY** | **Competences** |
|---|---|
| **6.1. Risk Assessment and Disaster management** | C1 |
| 6.1.1. Defining Disaster Management | C1 |
| 6.1.2. Understanding Risks in Disaster Management | C1 |
| **6.2. Emergency Action Plan** | C8 |
| 6.3.1. Emergency Action Plan for Flood | C8 |
| 6.3.2. Emergency Action Plan for Landslide | C8 |
| 6.3.3. Emergency Action Plan for Fire | C8 |
| **6.3. Strategies for Prevention** | C1.1, C1.3, C3, C4.2, C7.3, C12, C13, C14 |
| **6.3.1. Flood** | C1.1, C1.3, C3, C4.2, C7.3, C12 |
| 6.3.1.1. Risk assessment and management | C12 |
| 6.3.1.2. Early warning systems | C1.1 |
| 6.3.1.3. Infrastructure and land-use planning | C1.1 |
| 6.3.1.4. Community engagement and education | C3 |
| 6.3.1.5. Policy and governance | C1.3, C4.2, |
| 6.3.1.6. Climate change adaptation | C7.3 |
| **6.3.2. Landslide** | C1.1, C1.3, C3, C4.2, C7.3, C14 |
| 6.3.2.1. Risk assessment and management | C14 |
| 6.3.2.2. Early warning systems | C1.1 |

| 6.3.2.3. Infrastructure and land-use planning | C1.1 |
|---|---|
| 6.3.2.4. Community engagement and education | C3 |
| 6.3.2.5. Policy and governance | C1.3, C4.2, |
| 6.3.2.6. Climate change adaptation | C7.3 |
| **6.3.3. Fire** | C1.1, C1.3, C3, C4.2, C7.3, C13 |
| 6.3.3.1. Risk assessment and management | C13 |
| 6.3.3.2. Early warning systems | C1.1 |
| 6.3.3.3. Infrastructure and land-use planning | C1.1 |
| 6.3.3.4. Community engagement and education | C3 |
| 6.3.3.5. Policy and governance | C1.3, C4.2, |
| 6.3.3.6. Climate change adaptation | C7.3 |
| **6.4 Case Studies** | C1, C3, C4.2 |

Table 9. The content and competences of Module 7.

| 7. RESILIENCY METRICS/INDICATOR | Competences |
|---|---|
| **7.1. Introduction to Disaster Resilience Metrics and Indicators** | C1.1, C2.2 |
| 7.1.1. Definition and importance of disaster resilience metrics and indicators | C1.1 |
| 7.1.2. Overview of the relationship between resilience and disaster management | C1.1, C2.2 |
| 7.1.3. Key concepts and terminology | C1.1 |
| **7.2. Flood Resilience Metrics and Indicators** | C12 |
| 7.2.1. Understanding flood hazards and vulnerabilities | C12.1, C12.2 |
| 7.2.2. Metrics and indicators for flood risk assessment | C12.1, C12.2 |
| 7.2.3. Assessing the resilience of flood-prone communities and infrastructure | C12.1, C12.2 |
| 7.2.4. Case studies and best practices in flood resilience measurement | C12 (all) |
| **7.3. Landslide Resilience Metrics and Indicators** | C14 |
| 7.3.1. Understanding landslide hazards and vulnerabilities | C14.1, C14.2, C14.4 |

| | |
|---|---|
| 7.3.2. Metrics and indicators for landslide risk assessment | C14.1, C14.2, C14.4 |
| 7.3.3. Assessing the resilience of landslide-prone areas and slope stability | C14.1, C14.2, C14.4 |
| 7.3.4. Case studies and best practices in landslide resilience measurement | C14 (all) |
| **7.4. Fire Resilience Metrics and Indicators** | C13 |
| 7.4.1. Understanding fire hazards and vulnerabilities | C13.3, C13.4 |
| 7.4.2. Metrics and indicators for fire risk assessment | C13.3, C13.4 |
| 7.4.3. Assessing the resilience of communities and ecosystems in fire-prone regions | C13.3, C13.4 |
| 7.4.4. Case studies and best practices in fire resilience measurement | C13 (all) |
| **7.5. Applying Metrics and Indicators in Disaster Preparedness and Response** | C1.1, C4, C8 |
| 7.5.1. Integrating resilience metrics and indicators in preparedness planning | C1.1, C4 (all) |
| 7.5.2. Using metrics and indicators for early warning systems | C1.1 |
| 7.5.3. Assessing response capacity and effectiveness through metrics | C1.1, C4 (all), C8 (all) |
| **7.6. Recovery and Reconstruction Metrics and Indicators** | C1.1, C2.2, C3.2, C4.2, C8, C12.3, C14.3 |
| 7.6.1. Metrics and indicators for assessing post-disaster recovery and reconstruction | C8 (all) |
| 7.6.2. Monitoring progress and evaluating the effectiveness of recovery efforts | C4.2, C12.3, C14.3 |
| 7.6.3. Lessons learned from past disasters | C1.1, C2.2, C3.2 |

Table 10. The content and competences of Module 8

| **8. The EU CIVIL PROTECTION MECHANISM** | **Competences** |
|---|---|
| **8.1. Introduction, background and membership** | C1.3, C3, C6 |
| **8.2 Aims, tasks and responsibilities** | C1.1, C1.3, C3.2, C4, C6, C11 |

| 8.2.1 European Union Disaster Resilience Goals | C1.1, C1.3, C4 |
|---|---|
| 8.2.1 Legislation | C1.1, C1.3, C3.2, C4, C11 |
| **8.3 How it works** | C1, C3, C4, C11 |
| 8.3.1. European activation | C1.3, C3, C4, C11 |
| 8.3.2 Worldwide activation | C1.3, C3, C4, C11 |
| 8.3.3. Interaction with national organization | C1.3, C3, C11, C12.1, C13.3, C14.3 |
| **8.4 Organization and Resources** | C1.1, C1.3, C3.2, C11 |
| 8.4.1 The Emergency Response Coordination Center (ERCC) | C1.1, C1.3, C3.2, C11 |
| 8.4.2 The rescEU RESERVE | C 1.1, C1.3 |
| 8.4.3 The European Civil Protection Pool | C 1.1, C1.3 |
| 8.4.4 Monitoring systems | C12.1, C13.3, C14.3 |
| **8.5 Additional Training Resources** | C1.1, C1.3 |
| **8.6 Fund and financing** | C1.1, C3.2, C11 |
| **8.7 Case studies** | C1.1, C1.3, C 3.2 |

### 2.6. Associating Games with Competences and Sub-competences

The **READY4DISasters** project incorporates educational games as a dynamic tool to reinforce the competences outlined in the Competence Map. These games serve as digital trainers, offering volunteers an interactive and engaging way to apply the knowledge and skills they have acquired through the training modules. The games are specifically designed to align with the competences and sub-competences identified as essential for disaster management, ensuring that volunteers can practice and develop these skills in a simulated environment.

### 2.7. Game Structure and Competence Alignment

Three distinct educational games have been developed, each tailored to a specific type of disaster: floods, landslides, and fires. Each game is structured across three levels—elementary, intermediate, and advanced—progressively building the volunteer's competences through increasingly complex scenarios.

- **Elementary Level**: At this level, volunteers are introduced to basic concepts and competences. The focus is on familiarizing the players with the key principles of disaster management and ensuring they understand the foundational aspects of the scenario they are dealing with.

- **Intermediate Level**: The intermediate level challenges volunteers to apply their knowledge to more complex situations. Here, the game scenarios require the use of multiple competences simultaneously, encouraging volunteers to think critically and make informed decisions based on the disaster context.

- **Advanced Level**: At the advanced level, the games present highly challenging scenarios that require advanced planning, quick decision-making, and effective use of all the competences

developed in the earlier levels. This stage tests the volunteers' ability to handle disaster situations with confidence and efficiency, reinforcing the highest level of competence required in real-world scenarios.

## 2.8. Competence Integration through Gameplay

Each game is carefully integrated with the competences and sub-competences outlined in the Competence Map. For instance:

- **Flood Game**: The flood-related game is designed to reinforce competences such as assessing flood risks, implementing emergency plans, and conducting recovery operations. Sub-competences like identifying flood-prone areas, understanding warning systems, and coordinating rescue efforts are practiced through interactive gameplay, helping volunteers to internalize these critical skills.

- **Landslide Game**: In the landslide game, volunteers engage with competences related to landslide risk assessment, emergency response, and post-landslide recovery. The gameplay involves scenarios where volunteers must identify landslide-prone areas, develop contingency plans, and work with emergency services, aligning closely with the corresponding sub-competences.

- **Fire Game**: The fire-related game focuses on competences such as fire prevention, emergency response, and post-fire recovery. Volunteers are tasked with implementing fire safety measures, coordinating firefighting efforts, and managing recovery processes, which directly correspond to the sub-competences mapped out in the training modules.

## 2.9. Assessment and Feedback

The games include a **score system** that tracks the volunteer's performance throughout each level. This system is designed to provide immediate feedback, allowing volunteers to see how well they are applying the competences in practice. Self-assessment features are also integrated, enabling volunteers to reflect on their learning and identify areas for improvement. This iterative process ensures that volunteers can continuously enhance their skills and preparedness.

The educational games are not just supplementary tools but integral components of the Competence Map Tool. By associating specific competences and sub-competences with interactive gameplay, the READY4DISasters project ensures that volunteers are well-prepared to handle real-world disaster scenarios with competence and confidence. Competences covered by game levels are given in Table 11.

Table 11—Game Levels and associated competences

| Game | Level | Associated Competences |
|------|-------|------------------------|
| Flood | Level 1 | C1 8.1,8.2, C12.1, C12.4 |
| | Level 2 | C1, C2, C4, C7, C8, C11, C12 |
| | Level 3 | C1, C2, C3, C4, C5, C7, C8, C9, C12 |
| Landslide | Level 1 | C1 8.1,8.2, C14.1, C14.2 |
| | Level 2 | C1, C2, C4, C7, C8, C11, C14 |
| | Level 3 | C1, C2, C3, C4, C5, C7, C8, C9, C14 |
| Fire | Level 1 | C1, C8.1, C8.2 |
| | Level 2 | C1, C2, C4.1, C5, C7, C8, C13.1, C13.2, C13.3, C13.4 |
| | Level 3 | C1, C2, C3, C4, C5, C7, C8, C9, C11, C13 |

## 3. Implementation and Usage

The **Competence Map Tool** has been thoughtfully designed to offer a versatile and user-friendly experience for volunteers seeking to enhance their disaster management skills. This tool not only aligns competences with specific training modules but also provides multiple pathways for volunteers to engage with the content in a way that best suits their learning preferences.

### 3.1. Training Pathways and Competence Mapping

Table 12 presents a comprehensive overview of all modules and their associated units, mapped to the relevant competences according to the designated training pathways. This table serves as a detailed guide, illustrating how each module and unit contributes to the development of specific competences, ensuring that volunteers can clearly see the progression of their learning journey.

To further support the volunteers in their training, **48 framework tables** are provided in the appendices. These tables offer detailed information about each unit, including module titles, learning outcomes, step-by-step instructions for learners, and assessment methods. For instance, each table outlines the national learning time for the module, a description of the unit, and the specific competences it addresses within the READY4DISasters framework. Additionally, these tables include references to the corresponding H5P content, quizzes, and evaluation methods.

Table 12. Units and competences with respect to pathways.

| Pathways | Modules | Units | Competences |
|---|---|---|---|
| 1- Mitigation and Preparedness for Flood | Module 1. Occurrence and Impact of Disasters | Unit 1.1. Occurrence and Impact of Flood | C12.1, C12.2, C12.3, C12.5 |
| | Module 2. Flood Disaster | Unit 2.1. Preparing for Flood Disaster | C1.1, C3.1, C6, C8, C9, C10, C11.1, C12.1, C12.2, C12.3, C12.5 |
| | | Unit 2.3. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 6. Promoting Prevention Over Recovery | Unit 6.1. Risk Assessment and Disaster management | C1 |
| | | Unit 6.2. Emergency Action Plan for Flood | C8 |
| | | Unit 6.5. Strategies for Flood Prevention | C1.1, C1.3, C3, C4.2, C7.3, C12 |
| | | Unit 6.8. Case Studies | C1, C3, C4.2 |
| | Module 7. Resiliency Metrics/Indicators | Unit 7.1. Introduction to Disaster Resilience Metrics and Indicators | C1.1, C2.2 |
| | | Unit 7.2. Flood Resilience Metrics and Indicators | C12 |

| | | Unit 7.5. Applying Metrics and Indicators in Disaster Preparedness and Response | C1.1, C4, C8 |
|---|---|---|---|
| | Module 8. The EU Civil Protection Mechanism | Unit 8.1. Evolution and responsibilities | C1, C3, C4, C6, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.2. Organization and resources | C1.1, C1.3, C3.2, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.3. Case studies | C1.1, C1.3, C3.2 |
| 2- Response for Flood | Module 1. Occurrence and Impact of Disasters | Unit 1.1. Occurrence and Impact of Flood | C12.1, C12.2, C12.3, C12.5 |
| | Module 2. Flood Disaster | Unit 2.3. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 5. Rescue and Rescue Equipment (floods, landslides, fires) | Unit 5.1. Rescue Procedure for Flood | C1, C2, C3, C4, C5, C8, C9, C10, C12 |
| | | Unit 5.4. Rescue Equipment for Flood | C2.1, C9.1 |
| | | Unit 5.7. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 6. Promoting Prevention Over Recovery | Unit 6.1. Risk Assessment and Disaster management | C1 |
| | | Unit 6.2. Emergency Action Plan for Flood | C8 |
| | | Unit 6.5. Strategies for Flood Prevention | C1.1, C1.3, C3, C4.2, C7.3, C12 |
| | | Unit 6.8. Case Studies | C1, C3, C4.2 |
| | Module 7. Resiliency Metrics/Indicators | Unit 7.1. Introduction to Disaster Resilience Metrics and Indicators | C1.1, C2.2 |
| | | Unit 7.2. Flood Resilience Metrics and Indicators | C12 |
| | | Unit 7.5. Applying Metrics and Indicators in Disaster Preparedness and Response | C1.1, C4, C8 |
| | Module 8. The EU Civil Protection Mechanism | Unit 8.1. Evolution and responsibilities | C1, C3, C4, C6, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.2. Organization and resources | C1.1, C1.3, C3.2, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.3. Case studies | C1.1, C1.3, C3.2 |
| 3- Recovery for Flood | Module 1. Occurrence and Impact of Disasters | Unit 1.1. Occurrence and Impact of Flood | C12.1, C12.2, C12.3, C12.5 |

| | | | |
|---|---|---|---|
| | Module 2. Flood Disaster | Unit 2.2. Post-Flood Recovery and Restoration | C1.3, C3.1, C4.1, C4.2, C7, C8.2, C10, C11, C12.2, C12.4, C12.5 |
| | | Unit 2.3. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 6. Promoting Prevention Over Recovery | Unit 6.1. Risk Assessment and Disaster management | C1 |
| | | Unit 6.2. Emergency Action Plan for Flood | C8 |
| | | Unit 6.5. Strategies for Flood Prevention | C1.1, C1.3, C3, C4.2, C7.3, C12 |
| | | Unit 6.8. Case Studies | C1, C3, C4.2 |
| | Module 7. Resiliency Metrics/Indicators | Unit 7.1. Introduction to Disaster Resilience Metrics and Indicators | C1.1, C2.2 |
| | | Unit 7.2. Flood Resilience Metrics and Indicators | C12 |
| | | Unit 7.6. Recovery and Reconstruction Metrics and Indicators | C1.1, C2.2, C3.2, C4.2, C8, C12.3, C14.3 |
| | Module 8. The EU Civil Protection Mechanism | Unit 8.1. Evolution and responsibilities | C1, C3, C4, C6, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.2. Organization and resources | C1.1, C1.3, C3.2, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.3. Case studies | C1.1, C1.3, C3.2 |
| **Pathways** | **Modules** | **Units** | |
| 4- Mitigation and Preparedness for Landslide | Module 1. Occurrence and Impact of Disasters | Unit 1.2. Occurrence and Impact of Landslide | C14.1, C14.2 |
| | Module 3. Landslide Disaster | Unit 3.1. Preparedness for Landslide Disaster | C1.1, C8, C14.1, C14.2, C14.3, C14.4 |
| | | Unit 3.3. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 6. Promoting Prevention Over Recovery | Unit 6.1. Risk Assessment and Disaster management | C1 |
| | | Unit 6.3. Emergency Action Plan for Landslide | C8 |
| | | Unit 6.6. Strategies for Landslide Prevention | C1.1, C1.3, C3, C4.2, C7.3, C14 |
| | | Unit 6.9. Case Studies | C1, C3, C4.2 |

| | | Unit 7.1. Introduction to Disaster Resilience Metrics and Indicators | C1.1, C2.2 |
|---|---|---|---|
| | Module 7. Resiliency Metrics/Indicators | Unit 7.3. Landslide Resilience Metrics and Indicators | C14 |
| | | Unit 7.5. Applying Metrics and Indicators in Disaster Preparedness and Response | C1.1, C4, C8 |
| | | Unit 8.1. Evolution and responsibilities | C1, C3, C4, C6, C11, C12.1, C13.3, C14.3 |
| | Module 8. The EU Civil Protection Mechanism | Unit 8.2. Organization and resources | C1.1, C1.3, C3.2, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.3. Case studies | C1.1, C1.3, C3.2 |
| 5- Response for Landslide | Module 1. Occurrence and Impact of Disasters | Unit 1.2. Occurrence and Impact of Landslide | C14.1, C14.2 |
| | Module 3. Landslide Disaster | Unit 3.3. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 5. Rescue and Rescue Equipment (floods, landslides, fires) | Unit 5.2. Rescue Procedure for Landslide | C1, C2, C3, C4, C5, C8, C9, C10, C14 |
| | | Unit 5.5. Rescue Equipment for Landslide | C2.1, C9.1 |
| | | Unit 5.8. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 6. Promoting Prevention Over Recovery | Unit 6.1. Risk Assessment and Disaster management | C1 |
| | | Unit 6.3. Emergency Action Plan for Landslide | C8 |
| | | Unit 6.6. Strategies for Landslide Prevention | C1.1, C1.3, C3, C4.2, C7.3, C14 |
| | | Unit 6.9. Case Studies | C1, C3, C4.2 |
| | Module 7. Resiliency Metrics/Indicators | Unit 7.1. Introduction to Disaster Resilience Metrics and Indicators | C1.1, C2.2 |
| | | Unit 7.3. Landslide Resilience Metrics and Indicators | C14 |
| | | Unit 7.5. Applying Metrics and Indicators in Disaster Preparedness and Response | C1.1, C4, C8 |
| | Module 8. The EU Civil Protection Mechanism | Unit 8.1. Evolution and responsibilities | C1, C3, C4, C6, C11, C12.1, C13.3, C14.3 |

| | | Unit 8.2. Organization and resources | C1.1, C1.3, C3.2, C11, C12.1, C13.3, C14.3 |
|---|---|---|---|
| | | Unit 8.3. Case studies | C1.1, C1.3, C3.2 |
| | Module 1. Occurrence and Impact of Disasters | Unit 1.2. Occurrence and Impact of Landslide | C14.1, C14.2 |
| | Module 3. Landslide Disaster | Unit 3.2. Post-Landslide Recovery and Restoration | C1.3, C3.1, C4.1, C4.2, C7, C8.2, C10.3, C11, C14.1, C14.2, C14.4 |
| | | Unit 3.3. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 6. Promoting Prevention Over Recovery | Unit 6.1. Risk Assessment and Disaster management | C1 |
| | | Unit 6.3. Emergency Action Plan for Landslide | C8 |
| | | Unit 6.6. Strategies for Landslide Prevention | C1.1, C1.3, C3, C4.2, C7.3, C14 |
| 6- Recovery for Landslide | | Unit 6.9. Case Studies | C1, C3, C4.2 |
| | Module 7. Resiliency Metrics/Indicators | Unit 7.1. Introduction to Disaster Resilience Metrics and Indicators | C1.1, C2.2 |
| | | Unit 7.3. Landslide Resilience Metrics and Indicators | C14 |
| | | Unit 7.6. Recovery and Reconstruction Metrics and Indicators | C1.1, C2.2, C3.2, C4.2, C8, C12.3, C14.3 |
| | Module 8. The EU Civil Protection Mechanism | Unit 8.1. Evolution and responsibilities | C1, C3, C4, C6, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.2. Organization and resources | C1.1, C1.3, C3.2, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.3. Case studies | C1.1, C1.3, C3.2 |
| **Pathways** | **Modules** | **Units** | |
| 7- Mitigation and Preparedness for Fire-related Disasters | Module 1. Occurrence and Impact of Disasters | Unit 1.3. Occurrence and Impact of Fire-related Disasters | C13.3, C13.4 |
| | Module 4. Fire-related Disaster | Unit 4.1. Preparedness for Fire-related Disasters | C1.1, C8, C13.1, C13.2, C13.3, C13.4 |
| | | Unit 4.3. Case Studies | C1, C3, C4, C8, C9, C10 |

| | | Unit 6.1. Risk Assessment and Disaster management | C1 |
|---|---|---|---|
| | Module 6. Promotingg Prevention Over Recovery | Unit 6.4. Emergency Action Plan for Fire | C8 |
| | | Unit 6.7. Strategies for Fire Prevention | C1.1, C1.3, C3, C4.2, C7.3, C13 |
| | | Unit 6.10. Case Studies | C1, C3, C4.2 |
| | Module 7. Resiliency Metrics/Indicators | Unit 7.1. Introduction to Disaster Resilience Metrics and Indicators | C1.1, C2.2 |
| | | Unit 7.4. Fire Resilience Metrics and Indicators | C13 |
| | | Unit 7.5. Applying Metrics and Indicators in Disaster Preparedness and Response | C1.1, C4, C8 |
| | Module 8. The EU Civil Protection Mechanism | Unit 8.1. Evolution and responsibilities | C1, C3, C4, C6, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.2. Organization and resources | C1.1, C1.3, C3.2, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.3. Case studies | C1.1, C1.3, C3.2 |
| 8- Response for Fire-related Disasters | Module 1. Occurrence and Impact of Disasters | Unit 1.3. Occurrence and Impact of Fire-related Disasters | C13.3, C13.4 |
| | Module 4. Fire-related Disaster | Unit 4.3. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 5. Rescue and Rescue Equipment (floods, landslides, fires) | Unit 5.3. Rescue Procedure for Fire-related Disasters | C1, C2, C3, C4, C5, C8, C9, C10, C13 |
| | | Unit 5.6. Rescue Procedure for Fire-related Disasters | C2.1, C9.1, C13.1, C13.2, C13.5 |
| | | Unit 5.9. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 6. Promoting Prevention Over Recovery | Unit 6.1. Risk Assessment and Disaster management | C1 |
| | | Unit 6.4. Emergency Action Plan for Fire | C8 |
| | | Unit 6.7. Strategies for Fire Prevention | C1.1, C1.3, C3, C4.2, C7.3, C13 |
| | | Unit 6.10. Case Studies | C1, C3, C4.2 |
| | Module 7. Resiliency Metrics/Indicators | Unit 7.1. Introduction to Disaster Resilience Metrics and Indicators | C1.1, C2.2 |

| | | Unit 7.4. Fire Resilience Metrics and Indicators | C13 |
|---|---|---|---|
| | | Unit 7.5. Applying Metrics and Indicators in Disaster Preparedness and Response | C1.1, C4, C8 |
| | Module 8. The EU Civil Protection Mechanism | Unit 8.1. Evolution and responsibilities | C1, C3, C4, C6, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.2. Organization and resources | C1.1, C1.3, C3.2, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.3. Case studies | C1.1, C1.3, C3.2 |
| 9- Recovery for Fire-related Disasters | Module 1. Occurrence and Impact of Disasters | Unit 1.3. Occurrence and Impact of Fire-related Disasters | C13.3, C13.4 |
| | Module 4. Fire-related Disaster | Unit 4.2. Post-Fire-related Disasters Recovery and Restoration | C1.3, C3.1, C4.2, C7, C8.2, C8.3, C10.3, C11, C13.3, C13.5 |
| | | Unit 4.3. Case Studies | C1, C3, C4, C8, C9, C10 |
| | Module 6. Promoting Prevention Over Recovery | Unit 6.1. Risk Assessment and Disaster management | C1 |
| | | Unit 6.4. Emergency Action Plan for Fire | C8 |
| | | Unit 6.7. Strategies for Fire Prevention | C1.1, C1.3, C3, C4.2, C7.3, C13 |
| | | Unit 6.10. Case Studies | C1, C3, C4.2 |
| | Module 7. Resiliency Metrics/Indicators | Unit 7.1. Introduction to Disaster Resilience Metrics and Indicators | C1.1, C2.2 |
| | | Unit 7.4. Fire Resilience Metrics and Indicators | C13 |
| | | Unit 7.6. Recovery and Reconstruction Metrics and Indicators | C1.1, C2.2, C3.2, C4.2, C8, C12.3, C14.3 |
| | Module 8. The EU Civil Protection Mechanism | Unit 8.1. Evolution and responsibilities | C1, C3, C4, C6, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.2. Organization and resources | C1.1, C1.3, C3.2, C11, C12.1, C13.3, C14.3 |
| | | Unit 8.3. Case studies | C1.1, C1.3, C3.2 |

**3.2. Sunburst Diagrams (Wheel) for Interactive Learning**

To facilitate easy navigation and enhance the user experience, **Sunburst Diagrams**, also known as the **"Competence Wheel,"** were employed in the Competence Map Tool (Figure 2). These diagrams visually represent the training paths, with each path displayed in a distinct color. This interactive design allows volunteer users to select their desired path and explore the associated units.

- **Interactive Path Selection**: Volunteers can interact with the wheel by selecting a specific path that aligns with their interests or areas of responsibility. Upon choosing a path, the user is presented with the relevant units, each of which focuses on developing the competences required for that particular disaster scenario (e.g., floods, landslides, fires).

- **Integration with OER Platform**: The Sunburst Diagrams are seamlessly connected to the **Open Educational Resources (OER) Platform**. This platform hosts all training materials in the H5P format, ensuring that content is not only engaging but also accessible across various devices. When a volunteer selects a unit via the wheel, they are directed to the corresponding training materials, which include learning outcomes, training resources, quizzes, and self-assessment tests.

- **Comprehensive Learning Units**: Each unit within the OER platform is designed to deliver a holistic learning experience. Volunteers can access multimedia training materials, participate in interactive quizzes, and complete self-assessment tests to gauge their understanding and progress. This structure ensures that learning is both deep and measurable, with clear outcomes aligned with the competences outlined in the Competence Map.

**3.3. Educational Games for Competence Development**

In addition to the structured training pathways and modules, the READY4DISasters project also includes the development of **educational games** as a dynamic tool for reinforcing competences. These games are designed to serve as digital trainers, offering volunteers and trainers innovative ways to improve practical skills in disaster prevention and preparedness.

- **Game Structure and Levels**: The educational games are structured across three levels—elementary, intermediate, and advanced. Each level is designed to progressively build the volunteer's competences, with scenarios that mirror real-life disaster situations. As volunteers advance through the levels, they are required to apply more complex problem-solving and decision-making skills, directly correlating with the competences outlined in the training modules.

- **Competence Reinforcement**: The games integrate theoretical and practical knowledge developed by the project partners, allowing volunteers to visualize and engage with the material in an interactive environment. As volunteers navigate through the game scenarios, they are able to reinforce their learning from the modules, making the connection between theory and practice more tangible.

- **Score System and Self-Assessment**: To track progress and provide feedback, the games include a **score system** that evaluates the volunteer's actions during the game. This system allows learners to see their development and identify areas where further improvement is needed. At the end of

each game, volunteers can assess their knowledge using a strategy-based final step, which serves as a comprehensive evaluation of their learning process.

- **Accessibility and Multi-language Support**: The games are accessible across various mobile platforms, including iOS and Android, and will be available in multiple languages, including English, Turkish, Italian, Greek, and Georgian. This ensures that volunteers from different regions can engage with the training materials without language barriers.

The educational games are more than just a supplementary tool; they are an integral part of the Competence Map Tool, designed to inspire and motivate volunteers to develop their skills through a dynamic and enjoyable learning process.

### 3.4. Alternative Learning Pathways

Recognizing that not all users may prefer the interactive path-based approach, the Competence Map Tool also offers an alternative, traditional learning pathway (Figure 3). Volunteers who prefer a more linear learning experience can choose to progress through the training material module by module.

- **Module-by-Module Learning**: This alternative approach is designed for users who prefer to follow a traditional educational structure, where they can complete each module sequentially. This method allows volunteers to build their knowledge progressively, focusing on one area of competence at a time before moving on to the next. The detailed framework tables in the appendices provide additional support for this approach by offering in-depth information about each unit's content and objectives.

- **Flexibility in Learning**: The inclusion of both interactive paths and traditional module-based learning provides flexibility, catering to different learning styles and preferences. Whether a volunteer prefers to follow a specific disaster response path or take a more comprehensive approach by covering all modules, the Competence Map Tool supports their needs.

### 3.5. Access and Availability

The Sunburst Diagrams, educational games, and all associated training materials are easily accessible via the project's official website. Volunteers can visit the website to choose their preferred learning pathway, interact with the competence wheel, and begin their training journey.

- **Project Website Integration**: The Competence Map Tool is fully integrated into the project's website, providing a central hub for all training activities. Users can access the wheels, explore the modules, engage with the educational games, and utilize the OER platform from any location, making it convenient for volunteers across different regions to participate in the training.

- **User-Friendly Interface**: The website is designed to be intuitive and user-friendly, ensuring that volunteers of all technical skill levels can navigate the resources with ease. The integration of the Competence Map Tool with the website ensures a seamless user experience, from selecting a training path to completing assessments.
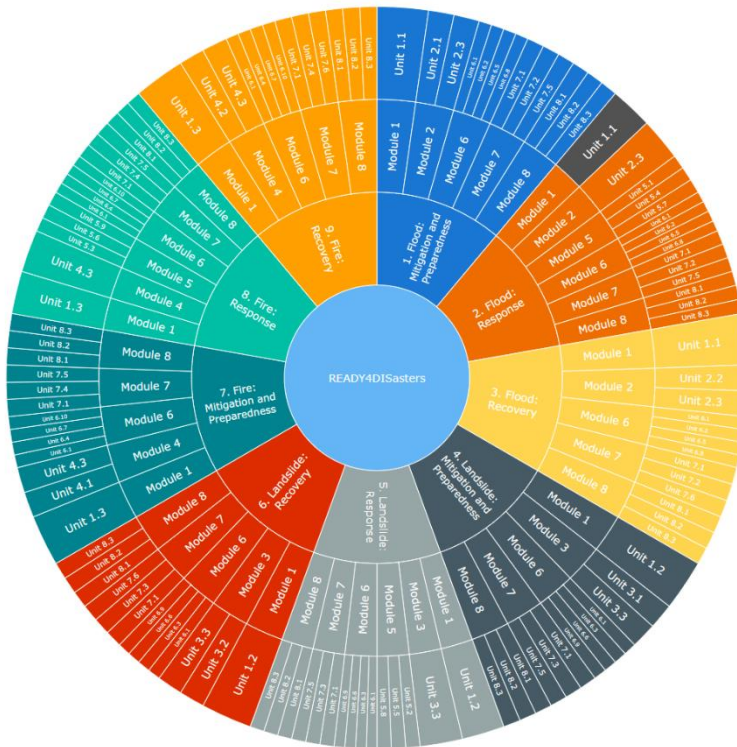
Figure 2. Sunburst Chart (wheel) according the 9 training paths.



Figure 3. Sunburst Chart (wheel) according to the classical concept.

## 4. Conclusion

The **READY4DISasters Competence Map Tool** represents a comprehensive and versatile resource designed to equip volunteers with the necessary skills and knowledge to effectively manage and respond to disasters. By aligning competences with carefully crafted training modules and innovative educational tools, this tool ensures that volunteers are thoroughly prepared for real-world disaster scenarios.

A key strength of the Competence Map Tool lies in its flexibility and adaptability. The integration of **Sunburst Diagrams**, or the **"Competence Wheel,"** offers volunteers an interactive, path-based approach to learning. This allows them to choose disaster-specific training paths tailored to their roles and responsibilities, ensuring that their learning is both relevant and practical. For those who prefer a more traditional learning method, the tool also offers a module-by-module pathway, providing a structured progression through the training materials.

Moreover, the inclusion of **educational games** adds a dynamic dimension to the learning experience. These games serve as digital trainers, offering an engaging way for volunteers to reinforce the competences developed through the training modules. With levels ranging from elementary to advanced, the games challenge volunteers to apply their knowledge in simulated disaster scenarios, enhancing both their theoretical understanding and practical skills. The integrated **score system** and self-assessment features further support volunteers in tracking their progress and identifying areas for improvement.

The Competence Map Tool is seamlessly connected to the **Open Educational Resources (OER) Platform**, where volunteers can access a rich array of training materials in the H5P format. Each unit within the platform is designed to be comprehensive, including multimedia content, quizzes, and self-assessment tests that align with the competences identified in the map. The detailed **framework tables** provided in the appendices offer additional support, giving volunteers clear guidance on each unit's content, learning outcomes, and assessment methods.

Accessibility is a core principle of the READY4DISasters project. The Competence Map Tool, educational games, and all associated training resources are available through the project's official website, ensuring that volunteers from diverse regions can easily engage with the materials. The multilingual support across different mobile platforms further extends the reach of the training, making it inclusive and adaptable to the needs of a global audience.

In conclusion, the **READY4DISasters Competence Map Tool** is not just a training resource—it is a strategic and interactive framework that empowers volunteers to develop the competences required for effective disaster response. Through the combination of innovative learning pathways, engaging educational games, and comprehensive training modules, this tool plays a crucial role in building a skilled, confident, and well-prepared volunteer force. By supporting various learning styles and providing accessible, high-quality resources, the Competence Map Tool ensures that volunteers are ready to face the challenges of disaster management with competence and resilience.

**References**

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Competences For Volunteers - Questionnaire Result Greece Report,
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Competences For Volunteers - Questionnaire Result Italy Report,
https://ready4disasters.gtu.edu.tr/docs/Competence%20volunteers-questionnaire%20report%20Italy.pdf

Competences For Volunteers - Questionnaire Result International Report,
https://ready4disasters.gtu.edu.tr/docs/Competence%20volunteers-questionnaire%20report-INT_FINAL.pdf

**Appendices**

**Table A1. Framework for Unit 1.1**

| | |
|---|---|
| **Module title:** | *Module 1 – Occurrence and Impact of Disasters* |
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 1.1 Occurrence and Impact of Flood* |
| **Authors & Affiliation** | *Gebze Technical University* |
| **Description of the Unit** | *This unit focuses on the occurrence and impact of floods including the classification of floods and their general causes. This unit also includes the areas susceptible to floods. It also covers the environmental, social, and economical impacts of floods.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 1.1, the trainee will be able to:*<br><br>1. *Identify flood-prone areas and the risks of flood including monitoring systems.*<br>2. *Conduct rapid assessments of flood-affected areas, flood damage and identify hazards.*<br>3. *Familiarize with debris removal and disposal procedures.*<br>4. *Demonstrate knowledge of water safety and sanitation principles*<br>5. *Identify the types and classifications of floods*<br>6. *Explain the environmental, social and economic impacts of floods* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>• *C12.1*<br>• *C12.2*<br>• *C12.3*<br>• *C12.5* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |

| Learning content | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
|---|---|
| External resources | Understanding floods<br>https://www.chiefscientist.qld.gov.au/__data/assets/pdf_file/0022/49801/understanding-floods_full_colour.pdf<br><br>Basic components and terminology of flood hazard areas<br>https://www.upperdarby.org/FloodplainManagement-1 |
| Evaluation | *Final assessment at the end of the Unit:  multiple choice questions, true/false questions matching questions, fill the blanks*<br>*Quiz implemented in H5P* |
| EQF level | *3* |

**Table A2. Framework for Unit 1.2**

| Module title: | *Module 1 – Occurrence and Impact of Disasters* |
|---|---|
| National Learning time for the Module | *3 hours* |
| Unit title: | *Unit 1.2 Occurrence and Impact of Landslide* |
| Authors & Affiliation | *Gebze Technical University* |
| Description of the Unit | *This unit focuses on the occurrence and impact of landslides including the types of landslides and their general causes. Unit also includes the areas susceptible to landslides. This unit also covers the environmental, social and economical impacts of landslides. It also covers the catastrophic historical landslide disasters.* |
| Learning outcomes (Knowledge + Skills + Autonomy & Responsibility) | *After completing Unit 1.2, the trainee will be able to:*<br><br>1. *Identify landslide-prone areas and landslide risks.*<br>2. *Assesses landslide damage and identifies hazards.*<br>3. *Explains the general causes of landslides*<br>4. *Identify the types and classifications of landslides*<br>5. *Explains the environmental, social and economic impacts of landslides* |
| Reference to the READY4DISasters | *This unit is contributing to the achievement of the following* |

| Competence map (see project web site link) | competences and sub-competences:<br><br>● C14.1<br>● C14.2 |
|---|---|
| **Step by step indication for learners** | Step 1: complete H5P of the Unit<br><br>Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test. |
| **Supporting elements** | |
| **Learning content** | PPT Implemented with H5P<br>Videos implemented with H5P<br>Quizzes implemented with H5P |
| **External resources** | - |
| **Evaluation** | Final assessment at the end of the Unit:  multiple choice questions, true/false questions matching questions, fill the blanks<br><br>Quiz implemented in H5P |
| **EQF level** | 3 |

**Table A3. Framework for Unit 1.3**

| Module title: | Module 1 – Occurrence and Impact of Disasters |
|---|---|
| **National Learning time for the Module** | 3 hours |
| **Unit title:** | Unit 1.3 Occurrence and Impact of Fire-related Disasters |
| **Authors & Affiliation** | Gebze Technical University |
| **Description of the Unit** | This unit focuses on the occurrence and impact of fire-related disasters including the classification of fire-related disasters based on the nature of the burning material and location of the fire, and their general causes. This unit also covers the environmental, social, and economical impacts of fires. |
| **Learning outcomes (Knowledge + Skills + Autonomy &** | After completing Unit 1.3, the trainee will be able to: |

| | |
|---|---|
| **Responsibility)** | 1. *Identify fire hazards and the risks of fire-related disasters.*<br>2. *Identify hazardous materials and their properties and assess their risks.*<br>3. *Identify the types and classifications of fire-related disasters.*<br>4. *Explain the environmental, social, and economic impacts of fire.* |
| **Reference to the READY4DISasters Competence map**<br>**(see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C13.3*<br>● *C13.4* |
| **Step by step indication for learners** | *Step 1: Complete H5P of the Unit*<br><br>*Step 2: At the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
| **External resources** | The 6 Types And Classes Of Fire<br>https://www.haspod.com/blog/fire/classes-of-fire<br><br>TOP 10 COMMON FIRE INCIDENTS AND HOW TO PREVENT IT<br>https://firetechglobal.com/top-10-common-fire-incidents-and-how-to-prevent-it/<br><br>World Fire Statistics Bulletin No. 29<br>www.genevaassociation.org/research-topics/world-fire-statistics-bulletin-no-29<br><br>Industrial Fire Protection And Workplace Safety<br>https://csafire.com/industrial-fire-protection-and-workplace-safety/ |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions, true/false questions matching questions, fill the blanks* |

| | |
|---|---|
| | *Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A4. Framework for Unit 2.1**

| | |
|---|---|
| **Module title:** | *Module 2 – Flood Disaster* |
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 2.1. Preparing for Flood Disaster* |
| **Authors & Affiliation** | *LARES Italia* |
| **Description of the Unit** | *This unit focuses on the following main topics:*<br><br>● *flood disasters, particularly on preparedness.*<br>● *elements of flood preparedness and planning for floods.*<br>● *aspects of methods and technologies for identifying flood-prone areas and relative hazards*<br>● *aspects of alert systems and communication practices;* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 2.1, the trainee will be able to:*<br><br>1. *Describe the concept of flood disasters and flood preparedness;*<br>2. *Describe the assessment of flood risks;*<br>3. *Explain early warning systems.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>C1.1, C3.1, C6, C8, C9, C10, C11.1, C12.1, C12.2, C12.3, C12.5 |
| **Step by step indication for learners** | *Step 1: complete the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT slides* |

| | |
|---|---|
| | *Quizzes at the end of the presentation* |
| **External resources** | Flood evacuation plans https://n-somerset.gov.uk/my-services/planning-building-control/planning-applications/application-guidance/supporting-documents/plans-tests-reports/flood-evacuation-plans

4 Types of Emergency Alert and Warning Systems https://www.lexipol.com/resources/blog/4-types-of-emergency-alerts-and-warning-systems/

United Nations, Guidelines for Reducing Flood Losses https://www.un.org/esa/sustdev/publications/flood_guidelines.pdf |
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blanks* |
| **EQF level** | *3* |

**Table A5. Framework for Unit 2.2**

| | |
|---|---|
| **Module title:** | *Module 2 – Flood Disaster* |
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 2.2. Post-Flood Recovery and Restoration* |
| **Authors & Affiliation** | *LARES Italia* |
| **Description of the Unit** | *This unit focuses on the following main topics:*

- *post flood recovery and restoration*
- *assessment of damage and needs*
- *the assistance provided to meet needs after a flood*
- *cooperation among organizations*
- *aspect of long-term recovery*
- *aspect of planning for future disasters* |
| **Learning outcomes** | *After completing Unit 2.2, the trainee will be able to:* |

| (Knowledge + Skills + Autonomy & Responsibility) | 1. Describe main aspects of disaster recovery; |
|---|---|
| | 2. Recognise steps of damage and needs assessment |
| | 3. Define recovery and long-term recovery |
| | 4. Explain who participates in flood disasters. |
| | 5. Paraphrase what future disaster planning looks like. |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>C1.3, C3.1, C4.1, C4.2, C7, C8.2, C10, C11, C12.2, C12.4, C12.5 |
| **Step by step indication for learners** | *Step 1: complete the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT slides*<br>*Quizzes at the end of the presentation* |
| **External resources** | Strategies for Managing Volunteers during Incident Response: A Systems Approach https://www.hsaj.org/articles/684<br><br>Post-Disaster Needs Assessment PDNA - Lessons from a Decade of Experience https://www.gfdrr.org/sites/default/files/publication/Final_PDNA_Evaluation_Report.pdf |
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blanks* |
| **EQF level** | *3* |

**Table A6. Framework for Unit 2.3**

| Module title: | *Module 2 – Flood Disaster* |
|---|---|
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 2.3. Case Studies* |

| | |
|---|---|
| **Authors & Affiliation** | *LARES Italia* |
| **Description of the Unit** | *This unit focuses on the following main topics:*<br><br>● *description of three events*<br>● *conditions and triggers of the floods*<br>● *institutional responses*<br>● *organized efforts in rescue*<br>● *assessment of damages and needs following the disasters*<br>● *lessons learned* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 2.3, the trainee will be able to:*<br><br>1. *Describe main aspects of flood disasters*<br>2. *Explain conditions the trigger a flood disaster*<br>3. *Recognise importance of institutional responses*<br>4. *Recognize importance of early warning systems*<br>5. *Explain recovery after a disaster* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>C1, C3, C4, C8, C9, C10 |
| **Step by step indication for learners** | *Step 1: complete the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT slides*<br>*Quizzes at the end of the presentation* |
| **External resources** | Flood example in Sanliurfa<br>https://www.aa.com.tr/tr/gundem/sanliurfada-siddetli-saganak-sele-neden-oldu/2845878<br>https://www.dha.com.tr/gundem/sanliurfadaki-sel-felaketinde-olu-sayisi-15-oldu-camur temizlenen-2222121<br>https://www.sanliurfa.bel.tr/icerik/15400/21/baskan-beyazgul-taskin-derelerini-incelemelerde%20bulundu |

| Evaluation | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blanks* |
|---|---|
| **EQF level** | *3* |

**Table A7. Framework for Unit 3.1**

| Module title: | *Module 3 – Landslide Disaster* |
|---|---|
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 3.1. Preparedness for Landslide Disaster* |
| **Authors & Affiliation** | *Kocaeli Province Disaster and Emergency State Management (AFAD) - Turkey* |
| **Description of the Unit** | This unit focuses on the stages of landslide disaster preparedness. Disaster risk management is a set of principles and strategies that aim to ensure that societies and regions are prepared for potential hazards and can respond effectively in disaster situations. Landslide to the disaster preparation of stages understanding . |
| **Learning outcomes (Knowledge + Skill + Autonomy and Responsibility)** | *After completing Unit 3.1 the trainee will be able to:*<br><br>1. *Recognise how to act before a landslide disaster and how this can be done.*<br>2. *Understands the need for risk analysis and planning before a landslide disaster.*<br>3. *Describe that the measures to be taken after the risk analysis in a landslide disaster should be listed and the solution phase should be carried out sequentially.*<br>4. *Explain how and where to evacuate during and after a landslide disaster.*<br>5. *Recognise the Evaluation of Landslide Damages.*<br>6. *Describe the importance of immediately going to a safe place, leaving the house or following the instructions given by the authorities when landslide warnings come.*<br>7. *Identify working with emergency services and other organizations.*<br>8. *Describe the managing volunteers and resources.* |
| **Reference to READY4DISasters Competency map (see project** | *This unit contributes to the acquisition of the following competences and sub-qualifications:*<br><br>*C1.1, C8, C14.1, C14.2, C14.3, C14.4* |

| | |
|---|---|
| **web site link )** | |
| **Step by step indicator for volunteers** | *Step 1: complete 3.1 of the unit*<br><br>*Step 2: at the end of the unit , assess your learning results through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *Training module implemented with booklet 3.1*<br>*Evaluation Exam administered with 3.1 of the Handbook* |
| **External resources** | Government Officials' Remarks on Shovi Tragedy Cause Public Outcry<br>https://civil.ge/archives/555818<br><br>Ministry of Interior Disaster and Emergency Management Presidency<br>https://en.afad.gov.tr/<br><br>Kocaeli provincial disaster risk reduction plan<br>https://kocaeli.afad.gov.tr/kurumlar/kocaeli.afad/Kocaeli-IRAP.pdf<br><br>AYDES Remote Sensing<br>https://www.afad.gov.tr/aydes-uzaktan-algilama-uzal55<br><br>Fatal landslides in Europe<br>https://www.researchgate.net/publication/301202359_Fatal_landslides_in_Europe<br><br>The Sentinel missions<br>https://www.esa.int/Applications/Observing_the_Earth/Copernicus/The_Sentinel_missions<br><br>Copernicus website<br>https://www.copernicus.eu/en<br><br>A Regional-Scale Landslide Early Warning System Based on the Sequential Evaluation Method: Development and Performance Analysis<br>https://www.mdpi.com/2076-3417/10/17/5788 |
| **Evaluation** | *Final assessment at the end of the unit : multiple choice questions, true/false matching questions, fill in the blanks* |
| **EQF level** | *3* |

**Table A8. Framework for Unit 3.2**

| | |
|---|---|
| **Module title:** | *Module 3 – Landslide Disaster* |
| **National Learning time for the module** | *3 hours* |
| **Unit title:** | *Unit 3.2. Post-Landslide Recovery and Restoration* |
| **Authors & Affiliation** | *Kocaeli Province Disaster and Emergency State Management (AFAD) - Turkey* |
| **Description of the Unit** | *The post landslide recovery and restoration process is complex, but can be successfully navigated with effective communication, accurate data collection, sound leadership and rapid site assessment. These factors combine to prepare communities to recover faster and better assist in future events.* |
| **Learning outcomes (Knowledge + Skill + Autonomy and Responsibility)** | *After completing Unit 3.2 the trainee will be able to:*<br><br>1. *Identify and evaluate the landslide damages.*<br>2. *Demonstrate knowledge about identification and prioritization of emergency in landslide disaster.*<br>3. *Familiarize with the services, other organizations, partnership and coordination and understand their importance in an emergency landslide disaster.*<br>4. *Recognize the importance of volunteerism in landslide disaster and demonstrate how to use resources*<br>5. *Identify the importance of planning and evaluation for future disasters* |
| **Reference to READY4DISasters Competency map (see project web site link)** | *This unit contributes to the acquisition of the following competences and sub-qualifications:*<br><br>*C1.3, C3.1, C4.1, C4.2, C7, C8.2, C10.3, C11, C14.1, C14.2, C14.4* |
| **Step by step indicator for volunteers** | *Step 1: Complete 3.2 of the unit*<br><br>*Step 2: Evaluate your learning results with the e-self-assessment test at the end of the unit.* |
| **Supporting elements** | |
| **Learning content** | *Training module Implemented with handbook 3.2*<br>*Evaluation Examination Applied in Handbook 3.2* |

| External resources | Emergency Response Coordination Centre<br>https://civil-protection-humanitarian-aid.ec.europa.eu/what/civil-protection/emergency-response-coordination-centre-ercc_en<br><br>The European civil protection pool<br>https://civil-protection-humanitarian-aid.ec.europa.eu/what/civil-protection/european-civil-protection-pool_en<br><br>Geographical Information System<br>https://vahaptecim.com.tr/cografi-bilgi-sistemleri-cbs/<br>2014 Oso landslide<br>https://en.wikipedia.org/wiki/2014_Oso_landslide<br><br>2017 Sierra Leone mudslides<br>https://en.wikipedia.org/wiki/2017_Sierra_Leone_mudslides<br><br>Highway 1 Crews Have Realigned, Strengthened Section After Massive Slide<br>https://dot.ca.gov/-/media/dot-media/programs/risk-strategic-management/documents/mile-marker/mm-2018-q2-big-sur-slide-a11y.pdf<br><br>United States Geological Survey website<br>https://www.usgs.gov/<br><br>International Federation of Red Cross and Red Crescent Societies<br>https://www.ifrc.org/<br><br>Emergency Response Coordination Centre (ERCC)<br>https://civil-protection-humanitarian-aid.ec.europa.eu/what/civil-protection/emergency-response-coordination-centre-ercc_en#:~:text=The%20centre%20ensures%20the%20rapid,The%20ERCC%20operates%2024%2F7.<br><br>EU Civil Protection Mechanism<br>https://civil-protection-humanitarian-aid.ec.europa.eu/what/civil-protection/eu-civil-protection-mechanism_en<br><br>United Nations Office for Disaster Risk Reduction<br>https://www.undrr.org/<br><br>World Health Organization<br>https://www.who.int/<br><br>United Nations Office for the Coordination of Humanitarian Affairs |
| --- | --- |

| | https://www.unocha.org/ |
|---|---|
| **Evaluation** | *Final assessment at the end of the unit : multiple choice questions, true/false matching questions, fill in the blanks* |
| **EQF level** | *3* |

**Table A9. Framework for Unit 3.3**

| | |
|---|---|
| **Module title:** | *Module 3 – Landslide Disaster* |
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 3.3 Case Studies* |
| **Authors & Affiliation** | *Kocaeli Province Disaster and Emergency State Management (AFAD) -  Turkey* |
| **Description of the Unit** | *This unit aims to raise awareness, educate and prepare people for landslide disasters with 4 case studies.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 3.3, the trainee will be able to:*<br><br>*1. Explain how to respond to any landslide emergency cases.*<br>*2. Describe which one services must be found in rescue Works.*<br>*3. Explain how to analyze slope instabilities of geological hazards and potential slope failure risks in the area.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences:*<br><br>C1, C3, C4, C8, C9, C10 |
| **Step by step indication for learners** | *Step 1: complete the Unit*<br><br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT slides*<br><br>*Quizzes at the end of the presentation* |
| **External resources** | 1997 Thredbo landslide |

| | https://en.wikipedia.org/wiki/1997_Thredbo_landslide |
|---|---|
| | News: Retaining wall collapses in Kocaeli<br>https://www.ntv.com.tr/galeri/turkiye/kocaelide-istinat-duvari-coktu-4-apartman-tahliyeedildi,SdiAHyTmnkOlYrTv1B-m-Q/yGOfJKBMCUmEvTFc-xJxLA<br><br>News: Wall collapsed in Izmit<br>https://sonkalekocaeli.com/haber/14748586/yuvamda-duvar-goz-gore-gore-coktu<br><br>News: Rescuers recover 21st body in Shovi landslide area<br>https://agenda.ge/en/news/2023/3030#gsc.tab=0<br><br>News: Two weeks after the Shovi landslide. What do we know so far?<br>https://jam-news.net/tragedy-in-shovi-3/<br><br>Landslide in Racha: Live Blog<br>https://civil.ge/archives/554327<br><br>The National Environment Agency publishes the first assessment of the natural events developed in Shovi<br>https://www.primetime.ge/news/sazogadoeb/garemos-erovnuli-saagento-shovshi-ganvitarebuli-stiqiuri-movlenebis-shesakheb-pirvelad-shefasebas-aqveynebs<br><br>News: 16 people were affected by the landslide in Racha, they need urgent help<br>https://sakartvelosambebi.ge/ge/akhali-ambebi/rachshi-metsqershi-16-adamiani-mohqva-mat-gadaudebeli-dakhmareba-schirdebat<br><br>What caused the disaster in Shovi- the National Environment Agency publishes the first assessment<br>https://www.radiotavisupleba.ge/a/32536555.html<br><br>News: The leaders of different countries of Georgia express their condolences due to the natural disaster in Shovi<br>https://accentnews.ge/ka/article/93062-shovshi-momxdari-stikiuri-ubedurebis-gamo-sakartvelo<br><br>News: Search operations in Shovi continue<br>https://rustavi2.ge/ka/news/263687 |

| | |
|---|---|
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blanks.* |
| **EQF level** | *3* |

**Table A10. Framework for Unit 4.1**

| | |
|---|---|
| **Module title:** | *Module 4 – Fire-Related Disaster* |
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 4.1 Preparedness for Fire-related Disasters* |
| **Authors & Affiliation** | *Kocaeli Metropolitan Municipality - Turkey* |
| **Description of the Unit** | *This unit focuses on the importance, fire related disasters including hazard identification process, fire-extinguishing agents, extinguishing methods and automatic fire extinguishing systems.*<br><br>*This Unit also covers planning topics, such as effective development evacuation planning phase to prevent civil casualties.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 4, the trainee will be able to:*<br><br>*1. Describe the basics of the emergency plan, fire-extinguishing agents' usage techniques and intervention methods and fire detection systems.*<br>*2. Recognize the possible fire relates hazards.*<br>*3. Explain the importance of fire extinguishing agents and usage techniques.*<br>*4. Identify the importance of development of a effective evacuation plan.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences:*<br><br>C1.1, C8, C13.1, C13.2, C13.3, C13.4 |
| **Step by step indication for learners** | *Step 1: complete the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |

| Supporting elements | |
|---|---|
| **Learning content** | *PPT slides* <br><br> *Quizzes at the end of the presentation* |
| **External resources** | Fire Emergency Evacuation Plan and the Fire Procedure <br> https://www.firesafe.org.uk/fire-emergency-evacuation-plan-or-fire-procedure/ <br><br> Enclosure fires <br> https://rib.msb.se/filer/pdf/20782.pdf <br><br> Disaster Preparedness <br> https://civil-protection-humanitarian-aid.ec.europa.eu/what/humanitarian-aid/disaster-preparedness_en |
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blankS* |
| **EQF level** | *3* |

**Table A11. Framework for Unit 4.2**

| Module title: | *Module 4 – Fire-Related Disaster* |
|---|---|
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 4.2 Post-Fire-related Disasters Recovery and Restoration* |
| **Authors & Affiliation** | *Kocaeli Metropolitan Municipality - Turkey* |
| **Description of the Unit** | *This unit focuses on the importance, recovery and restoration of the fire related disasters including evaluation process of structural damages, fire installations' control and inspection, post fire residues, working with volunteers and emergency institutions.* <br><br> *The Unit also refers to future disaster planning to be ready for the future disasters.* |
| **Learning outcomes (Knowledge + Skills + Autonomy &** | *After completing Unit 4.2, the trainee will be able to:* |

| | |
|---|---|
| Responsibility) | 1. Describe the basics of the recovery and restoration principles, while planning for the future disasters.<br><br>2. Recognize the possible hazards, structural damages and control of the fire installations.<br>3. Identify the importance of working with emergency service and volunteers.<br>4. Identify the importance of teamwork, collaboration, and planning for the future disasters. |
| Reference to the READY4DISasters Competence map (see project web site link) | This unit is contributing to the achievement of the following competences:<br><br>C1.3, C3.1, C4.2, C7, C8.2, C8.3, C10.3, C11, C13.3, C13.5 |
| Step by step indication for learners | Step 1: complete the Unit<br>Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test. |
| Supporting elements | |
| Learning content | PPT slides<br>Quizzes at the end of the presentation |
| External resources | Fire damage restoration<br>https://www.polygongroup.com/en-GB/services/fire-damage-restoration/<br><br>Forensic engineering of fire-damaged structures<br>https://www.semanticscholar.org/paper/Forensic-engineering-of-fire-damaged-structures-Ingham/550b40b6048e627f1444f8fd8e14b9ef590c68a3<br><br>Post-Fire Inspection and Control of Installations – Photograph<br>https://novecsystems.com/wp-content/uploads/2014/08/big_big.jpg<br><br>Post Fire Residues - Photograph<br>https://www.tennessean.com/story/news/local/dickson/2015/10/21/cam-shoots-burning-house-music-video-dickson/74359096/<br><br>Working with Emergency Services<br>https://www.iha.com.tr/haber-dag-arama-kurtarma-tatbikati-gercegini-aratmadi-1073819<br><br>Volunteer Management Plant<br>https://attend.org.uk/sites/default/files/M1- |

| | |
|---|---|
| | [R1A7%20Volunteer_Management_Plan_Workbook.pdf](R1A7%20Volunteer_Management_Plan_Workbook.pdf) |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions, true/false questions  matching questions, fill  the blanks.* |
| **EQF level** | *3* |

**Table A12. Framework for Unit 4.3**

| | |
|---|---|
| **Module title:** | *Module 4 – Fire-Related Disaster* |
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 4.3 Case Studies* |
| **Authors & Affiliation** | *Kocaeli Metropolitan Municipality -  Turkey* |
| **Description of the Unit** | *This unit focus on the importance of the intervention methods in different fire types with 3 case studies. Thus, it is possible to obtain information about intervention methods in events such as house fires and factory fires.*<br><br>*This unit also; provides information about the fire prediction and tracking system and provides an example of how we can be prepared for future disasters.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 4.3, the trainee will be able to:*<br><br>*1.  Describe the basics of the intervention methods for the multiple events, which may occur in the same time.*<br><br>*2.  Recognize the importance of the evacuation procedure and muster area.*<br><br>*3.  Identify the importance of teamwork, collaboration of the volunteers and professional* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences:*<br><br>C1, C3, C4, C8, C9, C10 |
| **Step by step indication for learners** | *Step 1: complete the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |

| Supporting elements | |
|---|---|
| Learning content | *PPT slides*<br><br>*Quizzes at the end of the presentation* |
| External resources | *-* |
| Evaluation | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blanks.* |
| EQF level | *3* |

**Table A13. Framework for Unit 5.1**

| Module title: | *Module 5 – Rescue and Rescue Equipment (floods, landslides, fires)* |
|---|---|
| National Learning time for the Module | *3 hours* |
| Unit title: | *Unit 5.1 Rescue Procedure for Flood* |
| Authors & Affiliation | *LARES Italia* |
| Description of the Unit | *This unit focuses on the importance, organization and development of rescue procedures for floods.*<br><br>*This Unit also covers fundamental topics, such as Safety and Security, Assestment and Evaluation, First Aid, Evacuation and Rescue operations.* |
| Learning outcomes (Knowledge + Skills + Autonomy & Responsibility) | *After completing Unit 5, the trainee will be able to:*<br><br>*1. Describe the concept of rescue operations in flood settings*<br>*2. Explain the importance of Safety and Security in rescue operations.*<br>*3. Explain how to assess and evaluate flooded environments.* |
| Reference to the READY4DISasters Competence | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>*C1, C2, C3, C4, C5, C8, C9, C10, C12* |

| map (see project web site link) | |
|---|---|
| **Step by step indication for learners** | *Step 1: complete the Unit*<br><br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT slides*<br><br>*Quizzes at the end of the presentation* |
| **External resources** | International Federation of the Red Cross<br>https://www.ifrc.org/<br><br>Prepare for a flood<br>https://www.cdc.gov/floods/about/?CDC_AAref_Val=https://www.cdc.gov/disasters/floods/index.html<br><br>United Nations, Guidelines for Reducing Flood Losses<br>https://www.un.org/esa/sustdev/publications/flood_guidelines.pdf<br><br>WHO – Standards for Medical Teams<br>https://www.who.int/docs/default-source/documents/publications/classification-and-minimum-standards-for-foreign-medical-teams-in-suddent-onset-disasters.pdf |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions,  true/false questions  matching questions, fill  the blankS* |
| **EQF level** | *3* |

**Table A14. Framework for Unit 5.2**

| **Module title:** | *Module 5  – Rescue and Rescue Equipment (floods, landslides, fires)* |
|---|---|
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 5.2 Rescue Procedure for Landslide* |
| **Authors & Affiliation** | *LARES Italia* |
| **Description of the Unit** | *This unit focuses on the importance, organization and development of rescue procedures for Landslides* |

| | This Unit also covers fundamental topics, such as Safety and Security, Assessment and Evaluation, First Aid, Evacuation and Rescue operations. |
|---|---|
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 5.2, the trainee will be able to:*<br><br>1. *Describe the concept of rescue operations in landslides settings*<br>2. *Explain the importance of Safety and Security in rescue operations.*<br>3. *Explain how to assess and evaluate landslides-related risks and hazards.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>*C1, C2, C3, C4, C5, C8, C9, C10, C14* |
| **Step by step indication for learners** | *Step 1: complete the Unit*<br><br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT slides*<br><br>*Quizzes at the end of the presentation* |
| **External resources** | International Federation of the Red Cross<br>https://www.ifrc.org/<br>WHO – Standards for Medical Teams<br>https://www.who.int/docs/default-source/documents/publications/classification-and-minimum-standards-for-foreign-medical-teams-in-suddent-onset-disasters.pdf |
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blankS* |
| **EQF level** | *3* |

**Table A15. Framework for Unit 5.3**

| | |
|---|---|
| **Module title:** | *Module 5 – Rescue and Rescue Equipment (floods, landslides, fires)* |
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 5.3 Rescue Procedure for Fire-related Disasters* |
| **Authors & Affiliation** | *LARES Italia* |
| **Description of the Unit** | *This unit focuses on the importance, organization and development of rescue procedures for fire-related disasters*<br><br>*This Unit also covers fundamental topics, such as Safety and Security, Assestment and Evaluation, First Aid, Evacuation and Rescue operations.* |
| **Learning outcomes**<br>**(Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 5, the trainee will be able to:*<br><br>1. *Describe the concept of rescue operations in fire settings*<br>2. *Explain the importance of Safety and Security in rescue operations.*<br>3. *Explain how to assess and evaluate fire-related disasters* |
| **Reference to the READY4DISasters Competence map**<br>**(see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>C1, C2, C3, C4, C5, C8, C9, C10, C13 |
| **Step by step indication for learners** | *Step 1: complete the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT slides*<br>*Quizzes at the end of the presentation* |
| **External resources** | EU had almost 360 000 professional firefighters in 2022 https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20230807-1#:~:text=In%202022%2C%20there%20were%20359%20780%20professional%20firefighters,total%20number%20of%20firefighters%20of%202%20800%20people.<br><br>International Federation of the Red Cross |

| | https://www.ifrc.org/ |
| --- | --- |
| | National Fire Chiefs Council<br>https://www.ukfrs.com/<br><br>Search Tactics for Fire Companies: Search Methods<br>https://www.firetrainingtoolbox.com/firefighter-search-rescue/<br><br>WHO – Standards for Medical Teams<br>https://www.who.int/docs/default-source/documents/publications/classification-and-minimum-standards-for-foreign-medical-teams-in-suddent-onset-disasters.pdf |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions,  true/false questions  matching questions, fill the blankS* |
| **EQF level** | *3* |

**Table A16. Framework for Unit 5.4**

| **Module title:** | *Module 5  – Rescue and Rescue Equipment (floods, landslides, fires)* |
| --- | --- |
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 5.4 Rescue Equipment for Flood* |
| **Authors & Affiliation** | *LARES Italia* |
| **Description of the Unit** | *This unit covers the major features of personal protective equipment and rescue equipment to be used in flood rescue operations* |
| **Learning outcomes<br>(Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 5, the trainee will be able to:*<br><br>*1.  Recognize the main PPE used in flood rescue operations*<br>*2.  Recognize the main rescue tools and equipment for floods.* |
| **Reference to the READY4DISasters Competence map<br>(see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>*C2.1, C9.1* |

| Step by step indication for learners | Step 1: complete the Unit |
|---|---|
| | Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test. |
| **Supporting elements** | |
| Learning content | PPT slides |
| | Quizzes at the end of the presentation |
| External resources | - |
| Evaluation | Final assessment at the end of the Unit:  multiple choice questions,  true/false questions  matching questions, fill the blanks |
| EQF  level | 3 |

**Table A17. Framework for Unit 5.5**

| Module title: | Module 5  – Rescue and Rescue Equipment (floods, landslides, fires) |
|---|---|
| National Learning time for the Module | 3 hours |
| Unit title: | Unit 5.5 Rescue Equipment for Landslide |
| Authors & Affiliation | LARES Italia |
| Description of the Unit | This unit covers the major features of personal protective equipment and rescue equipment to be used in flood rescue operations |
| Learning outcomes (Knowledge + Skills + Autonomy & Responsibility) | After completing Unit 5, the trainee will be able to:<br><br>1. Recognize the main PPE used in landslides rescue operations<br>2. Recognize the main rescue tools and equipment for landslides. |
| Reference to the READY4DISasters Competence map (see project web site link) | This unit is contributing to the achievement of the following competences and sub-competences:<br><br>C2.1, C9.1 |

| Step by step indication for learners | Step 1: complete the Unit<br><br>Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test. |
|---|---|
| **Supporting elements** | |
| Learning content | PPT slides<br><br>Quizzes at the end of the presentation |
| External resources | - |
| Evaluation | Final assessment at the end of the Unit:  multiple choice questions,  true/false questions  matching questions, fill the blanks |
| EQF level | 3 |

**Table A18. Framework for Unit 5.6**

| Module title: | Module 5  – Rescue and Rescue Equipment (floods, landslides, fires) |
|---|---|
| National Learning time for the Module | 3 hours |
| Unit title: | Unit 5.6 Rescue Equipment for Fire-related Disasters |
| Authors & Affiliation | LARES Italia |
| Description of the Unit | This unit covers the major features of personal protective equipment and rescue equipment to be used in flood rescue operations |
| Learning outcomes<br>(Knowledge + Skills + Autonomy & Responsibility) | After completing Unit 5, the trainee will be able to:<br><br>1.   Recognize the main PPE used in fire rescue operations<br>2.   Recognize the main rescue tools and equipment for fire rescue. |
| Reference to the READY4DISasters Competence map<br>(see project web site link) | This unit is contributing to the achievement of the following competences and sub-competences:<br><br>C2.1, C9.1, C13.1, C13.2, C13.5 |
| Step by step indication for learners | Step 1: complete the Unit |

|  | Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test. |
|---|---|
| **Supporting elements** | |
| **Learning content** | *PPT slides* <br><br> *Quizzes at the end of the presentation* |
| **External resources** | *-* |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions, true/false questions  matching questions, fill  the blanks* |
| **EQF  level** | *3* |

**Table A19. Framework for Unit 5.7**

| **Module title:** | *Module 5  – Rescue and Rescue Equipment (floods, landslides, fires)* |
|---|---|
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 5.7 Case Studies* |
| **Authors & Affiliation** | *LARES Italia* |
| **Description of the Unit** | *This unit describes a major flood event, and covers a thorough description of rescue operations following the disaster.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 5.7, the trainee will be able to:* <br><br> *1.   Describe the flood event* <br> *2.   Describe how rescue operations were carried out* <br> *3.   Explain best practices put in place in rescue operations* <br> *4.   Identify pitfall of rescue operations* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:* <br><br> *C1, C3, C4, C8, C9, C10* |
| **Step by step indication for** | *Step 1: complete the Unit* |

| learners | Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test. |
|---|---|
| **Supporting elements** | |
| **Learning content** | *PPT slides* <br><br> *Quizzes at the end of the presentation* |
| **External resources** | News: Bad weather in Emilia Romagna, cloudbursts and flooding: two victims <br> https://www.ansa.it/sito/notizie/cronaca/2023/05/03/maltempo-in-emilia-romagna-nubifragi-ed-esondazioni-due-le-vittime-_8e6d9c66-c4d8-4ec1-999f-54bb8b3a036e.html |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions,  true/false questions  matching questions, fill  the blanks* |
| **EQF level** | *3* |

**Table A20. Framework for Unit 5.8**

| **Module title:** | *Module 5  – Rescue and Rescue Equipment (floods, landslides, fires)* |
|---|---|
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 5.8 Case Studies* |
| **Authors & Affiliation** | *LARES Italia* |
| **Description of the Unit** | *This unit describes a major landslide event, and covers a thorough description of rescue operations following the disaster.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 5.8, the trainee will be able to:* <br><br> *1.   Describe the landslide event* <br> *2.   Describe how rescue operations were carried out* <br> *3.   Explain best practices put in place in rescue operations* <br> *4.   Identify pitfall of rescue operations* |
| **Reference to the READY4DISasters Competence map** | *This unit is contributing to the achievement of the following competences and sub-competences:* |

| (see project web site link) | |
|---|---|
| | *C1, C3, C4, C8, C9, C10* |
| **Step by step indication for learners** | *Step 1: complete the Unit* |
| | *Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT slides* |
| | *Quizzes at the end of the presentation* |
| **External resources** | Landslide Case study – Australia |
| | https://knowledge.aidr.org.au/media/1117/1removing-the-rubble.pdf |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions,  true/false questions  matching questions, fill the blankS* |
| **EQF level** | *3* |

**Table A21. Framework for Unit 5.9**

| Module title: | *Module 5  – Rescue and Rescue Equipment (floods, landslides, fires)* |
|---|---|
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 5.9 Case Studies* |
| **Authors & Affiliation** | *LARES Italia* |
| **Description of the Unit** | *This unit describes a major fire disaster, and covers a thorough description of rescue operations following the disaster.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 5.9, the trainee will be able to:* |
| | *1.  Describe the fire event* |
| | *2.  Describe how rescue operations were carried out* |
| | *3.  Explain best practices put in place in rescue operations* |
| | *4.  Identify pitfall of rescue operations* |

| Reference to the READY4DISasters Competence map (see project web site link) | This unit is contributing to the achievement of the following competences and sub-competences:<br><br>C1, C3, C4, C8, C9, C10 |
|---|---|
| Step by step indication for learners | Step 1: complete the Unit<br>Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test. |
| Supporting elements | |
| Learning content | PPT slides<br>Quizzes at the end of the presentation |
| External resources | Fire case study – Texas, USA<br>https://www.hsdl.org/c/abstract/?docid=234956 |
| Evaluation | Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blanks |
| EQF level | 3 |

**Table A22. Framework for Unit 6.1**

| Module title: | Module 6 – Promoting Prevention Over Recovery |
|---|---|
| National Learning time for the Module | 3-4 hours |
| Unit title: | Unit 6.1 Risk Assessment and Disaster Management |
| Authors & Affiliation | OI.KO.POLI.S |
| Description of the Unit | This unit focuses on the definitions of Disaster Management and Risk Assessment.<br>The unit also covers the goal of Disaster Management and all the necessary components and actions which included and the importance of Disaster Management.<br>This unit also covers the importance of Risk Assessment in Disaster Management.<br>Finally, the process and the challenges in Risk Assessment and Disaster Management are explored. |

| | |
|---|---|
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 6.1, the trainee will be able to:*<br><br>1. *Describe the principles, methods, and tools of disaster management.*<br>2. *Explain the importance of disaster management and its goal.*<br>3. *Explain the importance of Risk Assessment in Disaster Management.*<br>4. *Define the steps of the process of Risk Assessment.*<br>5. *Describe the challenges in Risk Assessment and Disaster Management.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C1* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br><br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br><br>*Quizzes implemented with H5P* |
| **External resources** | What Is Disaster Management? Understanding Emergencies From Prevention to Mitigation<br>https://publichealth.tulane.edu/blog/what-is-disaster-management/<br><br>Evacuation Plans and Procedures eTool<br>https://www.osha.gov/etools/evacuation-plans-procedures/eap/<br><br>4 Phases of Disaster Management Explained (the Easy Way)<br>https://home.akitabox.com/blog/4-phases-of-disaster-management/<br><br>Landslide susceptibility mapping using the Rock Engineering System approach and GIS technique: an example from southwest Arcadia (Greece)<br>https://eurogeologists.eu/tavoularis-landslide-susceptibility- |

| | mapping-using-rock-engineering-system-approach-gis-technique-example-southwest-arcadia-greece/ |
|---|---|
| | 5 Disaster Recovery Strategies to Minimize Downtime and Prevent Data Loss<br>https://www.arcserve.com/blog/5-disaster-recovery-strategies-minimize-downtime-and-prevent-data-loss |
| | Shocking video from the moment of the earthquake in Egremni<br>https://www.mylefkada.gr/top-stories/sigklonistiko-vinteo-apo-tin-stigmi-tou-sismou-stous-egkremnous-72511/ |
| | River flooding mechanisms and their changes in Europe revealed by explainable machine learning<br>https://hess.copernicus.org/articles/26/6339/2022/ |
| | Development of the Landslide Susceptibility Map of Attica Region, Greece, Based on the Method of Rock Engineering System<br>https://www.mdpi.com/2073-445X/10/2/148 |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions,  true/false questions  matching questions, fill in the blanks*<br><br>*Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A23. Framework for Unit 6.2**

| **Module title:** | *Module 6 – Promoting Prevention Over Recovery* |
|---|---|
| **National Learning time for the Module** | *3-4 hours* |
| **Unit title:** | *6.2. Emergency Action Plan for Flood* |
| **Authors & Affiliation** | *OI.KO.POLI.S* |
| **Description of the Unit** | *This unit focuses on how we can effectively respond to disasters, why it is essential to have emergency action plans in place and how crucial is to ensure the safety of individuals and reduce potential damage caused by flooding.* |

| | |
|---|---|
| | *Also, it contains a step-by-step guide to develop an effective emergency action plan for floods.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 6.2, the trainee will be able to:*<br><br>1. *Recognise the procedure, protocols and ways of evacuation and rescue in disaster situations.*<br>2. *Describe the steps to be taken in the event of a disaster, including evacuation procedures, communication strategies, and resource allocation.*<br>3. *Create an effective emergency action plan for floods.*<br>4. *Explain the importance of an emergency action plan for floods.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C8* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br><br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
| **External resources** | Development of the Landslide Susceptibility Map of Attica Region, Greece, Based on the Method of Rock Engineering System<br>https://www.mdpi.com/2073-445X/10/2/148<br><br>4 Phases of Disaster Management Explained (the Easy Way)<br>https://home.akitabox.com/blog/4-phases-of-disaster-management/<br><br>Evacuation Plans and Procedures eTool<br>https://www.osha.gov/etools/evacuation-plans-procedures/eap/<br><br>What Is Disaster Management? Understanding Emergencies From Prevention to Mitigation<br>https://publichealth.tulane.edu/blog/what-is-disaster- |

| | management/ |
| --- | --- |
| | 5 Disaster Recovery Strategies to Minimize Downtime and Prevent Data Loss https://www.arcserve.com/blog/5-disaster-recovery-strategies-minimize-downtime-and-prevent-data-loss |
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill in the blanks* *Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A24. Framework for Unit 6.3**

| | |
| --- | --- |
| **Module title:** | *Module 6 – Promoting Prevention Over Recovery* |
| **National Learning time for the Module** | *3-4 hours* |
| **Unit title:** | *6.3. Emergency Action Plan for Landslide* |
| **Authors & Affiliation** | *OI.KO.POLI.S* |
| **Description of the Unit** | *This unit focuses on how we can effectively respond to disasters, why it is essential to have emergency action plans in place and how crucial is to ensure the safety of individuals and reduce potential damage caused by landslide.* *Also, it contains a step-by-step guide to develop an effective emergency action plan for landslides.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 6.3, the trainee will be able to:* 1. *Recognise the procedure, protocols and ways of evacuation and rescue in disaster situations.* 2. *Describe the steps to be taken in the event of a disaster, including evacuation procedures, communication strategies, and resource allocation.* 3. *Create an effective emergency action plan for landslides.* 4. *Explain the importance of an emergency action plan for landslides.* |

| Reference to the READY4DISasters Competence map (see project web site link) | This unit is contributing to the achievement of the following competences and sub-competences: <br><br> ● C8 |
|---|---|
| Step by step indication for learners | Step 1: complete H5P of the Unit <br><br> Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test. |
| Supporting elements | |
| Learning content | PPT Implemented with H5P <br> Videos implemented with H5P <br> Quizzes implemented with H5P |
| External resources | Landslide in Zarouchla, Achaia, Greece <br> https://www.in.gr/2021/11/25/greece/axaia-katolisthisi-sto-dromo-akratas-zarouxlas-kleisti-eparxiaki-odos/ <br><br> Evacuation Plans and Procedures eTool <br> https://www.osha.gov/etools/evacuation-plans-procedures/eap/ |
| Evaluation | Final assessment at the end of the Unit:  multiple choice questions, true/false questions  matching questions, fill in the blanks <br><br> Quiz implemented in H5P |
| EQF level | 3 |

**Table A25. Framework for Unit 6.4**

| Module title: | Module 6 – Promoting Prevention Over Recovery |
|---|---|
| National Learning time for the Module | 3-4 hours |
| Unit title: | 6.4 Emergency Action Plan for Fire |
| Authors & Affiliation | OI.KO.POLI.S |
| Description of the Unit | This unit focuses on how we can effectively respond to disasters, why it is essential to have emergency action plans in place and how crucial is to ensure the safety of |

| | |
|---|---|
| | *individuals and reduce potential damage caused by fire. Also, it contains a step-by-step guide to develop an effective emergency action plan for fires.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 6.4, the trainee will be able to:*<br><br>1. *Recognise the procedure, protocols and ways of evacuation and rescue in disaster situations.*<br>2. *Describe the steps to be taken in the event of a disaster, including evacuation procedures, communication strategies, and resource allocation.*<br>3. *Create an effective emergency action plan for fires.*<br>4. *Explain the importance of an emergency action plan for fires.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C8* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br><br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
| **External resources** | Development of the Landslide Susceptibility Map of Attica Region, Greece, Based on the Method of Rock Engineering System<br>https://www.mdpi.com/2073-445X/10/2/148<br><br>Evacuation Plans and Procedures eTool<br>https://www.osha.gov/etools/evacuation-plans-procedures/eap/<br><br>Your Wildfire Action Plan - Sustainable Defensible Space<br>https://defensiblespace.org/community/your-wildfire-action-plan/ |

| Evaluation | Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill in the blanks<br><br>Quiz implemented in H5P |
|---|---|
| **EQF level** | *3* |

**Table A26. Framework for Unit 6.5**

| Module title: | *Module 6 – Promoting Prevention Over Recovery* |
|---|---|
| **National Learning time for the Module** | *3-4 hours* |
| **Unit title:** | *6.5 Strategies for Flood Prevention* |
| **Authors & Affiliation** | *OI.KO.POLI.S* |
| **Description of the Unit** | *This unit focuses on the strategies for flood prevention.*<br>*İn detail:*<br>*✓ Risk Assessment and Management: Regular risk assessments should be conducted to identify areas at high risk of flooding. The aim of risk management is to reduce the vulnerability of communities and infrastructure to flooding and ensure their resilience in the face of future flood events.*<br>*✓ Early Warning Systems: Implementing early warning systems is crucial in flood prevention. These systems can provide timely information about approaching floods, giving communities enough time to take necessary precautions and evacuate if needed.*<br>*✓ Infrastructure and Land-Use Planning: Building infrastructure that is resilient to floods is key in flood prevention. This can include constructing flood-resistant structures and improving drainage systems. Additionally, implementing appropriate land-use planning strategies, can further prevent disasters caused by flooding.*<br>*✓ Community Engagement and Education: Engaging and educating communities about flood risks and preventive measures is crucial in enhancing their preparedness and response capabilities.* |

| | ✓ *Policy and Governance: very important factors in flood prevention are constructing flood-resistant structures, improving drainage systems and implementing appropriate land-use.* |
| --- | --- |
| | ✓ *Climate Change Adaptation: exacerbates the frequency and intensity of floods, emphasizing the importance of integrating climate change adaptation strategies into flood prevention efforts.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 6.5, the trainee will be able to:* <br><br> 1. *Describe the strategies for flood prevention.* <br> 2. *Explain the importance of each strategy.* <br> 3. *Analyze the key factors of each strategy.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:* <br><br> ● *C1.1, C1.3* <br> ● *C3* <br> ● *C4.2* <br> ● *C7.3* <br> ● *C12* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit* <br><br> *Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P* <br> *Videos implemented with H5P* <br><br> *Quizzes implemented with H5P* |
| **External resources** | Development of the Landslide Susceptibility Map of Attica Region, Greece, Based on the Method of Rock Engineering System <br> https://www.mdpi.com/2073-445X/10/2/148 <br><br> 4 Phases of Disaster Management Explained (the Easy Way) <br> https://home.akitabox.com/blog/4-phases-of-disaster-management/ |

| | |
|---|---|
| | Evacuation Plans and Procedures eTool<br>https://www.osha.gov/etools/evacuation-plans-procedures/eap/<br><br>What Is Disaster Management? Understanding Emergencies From Prevention to Mitigation<br>https://publichealth.tulane.edu/blog/what-is-disaster-management/<br><br>5 Disaster Recovery Strategies to Minimize Downtime and Prevent Data Loss<br>https://www.arcserve.com/blog/5-disaster-recovery-strategies-minimize-downtime-and-prevent-data-loss<br><br>10 Examples of Flood resistant architecture around the world<br>https://www.re-thinkingthefuture.com/designing-for-typologies/a2295-10-examples-of-flood-resistant-architecture-around-the-world/<br><br>European Flood Awareness System<br>https://www.efas.eu/en<br><br>River Defences<br>https://www.geograph.org.uk/photo/5164362 |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions, true/false questions  matching questions, fill in the blanks*<br><br>*Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A27. Framework for Unit 6.6**

| | |
|---|---|
| **Module title:** | *Module 6 – Promoting Prevention Over Recovery* |
| **National Learning time for the Module** | *3-4 hours* |
| **Unit title:** | *6.6 Strategies for Landslide Prevention* |
| **Authors &** | *OI.KO.POLI.S* |

| Affiliation | |
|---|---|
| **Description of the Unit** | *This unit focuses on the strategies for landslide prevention.*<br>*İn detail:*<br>*✔ Risk Assessment and Management: Identifying areas prone to landslides and assessing factors such as slope stability and land-use practices can help in developing comprehensive landslide prevention strategies.*<br>*✔ Early Warning Systems: Deploying early warning systems that monitor slope movement and soil conditions can provide valuable time for evacuation and other preventive actions.*<br>*✔ Infrastructure and Land-Use Planning: Constructing retaining walls, implementing slope stabilization measures, and avoiding construction in high-risk areas can prevent landslides and protect communities.*<br>*✔ Community Engagement and Education: Creating awareness about landslides and educating communities on proper land management practices, including slope stabilization techniques and vegetation planting, can reduce the likelihood of landslides*<br>*✔ Policy and Governance: Developing and implementing policies that regulate activities such as deforestation, quarrying, and construction in landslide-prone areas can contribute to prevention efforts.*<br>*✔ Climate Change Adaptation: As climate change leads to more frequent and severe rainfall events, implementing climate change adaptation measures such as erosion control and drainage systems can help prevent landslides.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 6.6, the trainee will be able to:*<br><br>1. *Describe the strategies for landslide prevention.*<br>2. *Explain the importance of each strategy.*<br>3. *Analyze the key factors of each strategy.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C1.1, C1.3*<br>● *C3*<br>● *C4.2*<br>● *C7.3*<br>● *C14* |

| Step by step indication for learners | Step 1: complete H5P of the Unit |
|---|---|
| | Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test. |

| Supporting elements | |
|---|---|
| Learning content | PPT Implemented with H5P<br>Videos implemented with H5P<br>Quizzes implemented with H5P |
| External resources | Development of the Landslide Susceptibility Map of Attica Region, Greece, Based on the Method of Rock Engineering System<br>https://www.mdpi.com/2073-445X/10/2/148<br><br>What Is Disaster Management? Understanding Emergencies From Prevention to Mitigation<br>https://publichealth.tulane.edu/blog/what-is-disaster-management/<br><br>Analysis of slope instabilities in the Corinth Canal using UAV-enabled mapping<br>https://www.researchgate.net/publication/334319829_Analysis_of_slope_instabilities_in_the_Corinth_Canal_using_UAV-enabled_mapping<br><br>Landslide susceptibility mapping using the Rock Engineering System approach and GIS technique: an example from southwest Arcadia (Greece)<br>https://eurogeologists.eu/tavoularis-landslide-susceptibility-mapping-using-rock-engineering-system-approach-gis-technique-example-southwest-arcadia-greece/ |
| Evaluation | Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill in the blanks<br><br>Quiz implemented in H5P |
| EQF level | 3 |

**Table A28. Framework for Unit 6.7**

| Module title: | Module 6 – Promoting Prevention Over Recovery |
|---|---|
| National Learning time for the Module | 3-4 hours |
| Unit title: | 6.7 Strategies for Fire Prevention |
| Authors & Affiliation | OI.KO.POLI.S |

| | |
|---|---|
| **Description of the Unit** | *This unit focuses on the strategies for fire prevention.* <br> *İn detail:* <br><br> ✔ *Risk Assessment and Management: Conducting risk assessments is crucial in developing effective fire prevention strategies. Risk assessments help identify fire-prone areas, assess the vulnerability of communities and infrastructure and determine appropriate prevention measures.* <br><br> ✔ *Early Warning Systems: Implementing early warning systems that detect the presence of smoke or rapidly spreading fires can enable prompt responses, including evacuations and firefighting operations.* <br><br> ✔ *Infrastructure and Land-Use Planning: Constructing fire-resistant structures, establishing firebreaks, and implementing zoning regulations that limit development in high-risk areas can prevent the spread of fires and minimize damage.* <br><br> ✔ *Community Engagement and Education: Educating communities about fire safety measures and promoting responsible land management practices can significantly reduce the risk of wildfires.* <br><br> ✔ *Policy and Governance: Enforcing strict regulations on activities that contribute to fires, such as land clearing and open burning, and implementing effective fire management policies can contribute to fire prevention.* <br><br> ✔ *Climate Change Adaptation: Adapting to climate change and its associated impacts, such as longer fire seasons and increased drought conditions, is vital in preventing fires.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 6.7, the trainee will be able to:* <br><br> 1. *Describe the strategies for fire prevention.* <br> 2. *Explain the importance of each strategy.* <br> 3. *Analyze the key factors of each strategy.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:* <br><br> ● *C1.1, C1.3* <br> ● *C3* <br> ● *C4.2* <br> ● *C7.3* <br> ● *C13* |
| **Step by step indication** | *Step 1: complete H5P of the Unit* |

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|---|---|
| **for learners** | *Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
| **External resources** | 4 Phases of Disaster Management Explained (the Easy Way)<br>https://home.akitabox.com/blog/4-phases-of-disaster-management/<br><br>Evacuation Plans and Procedures eTool<br>https://www.osha.gov/etools/evacuation-plans-procedures/eap/<br><br>5 Disaster Recovery Strategies to Minimize Downtime and Prevent Data Loss<br>https://www.arcserve.com/blog/5-disaster-recovery-strategies-minimize-downtime-and-prevent-data-loss<br><br>Analysis of slope instabilities in the Corinth Canal using UAV-enabled mapping<br>https://www.researchgate.net/publication/334319829_Analysis_of_slope_instabilities_in_the_Corinth_Canal_using_UAV-enabled_mapping<br><br>Landslide susceptibility mapping using the Rock Engineering System approach and GIS technique: an example from southwest Arcadia (Greece)<br>https://eurogeologists.eu/tavoularis-landslide-susceptibility-mapping-using-rock-engineering-system-approach-gis-technique-example-southwest-arcadia-greece/<br><br>The EU Fire Safety Guide<br>https://cfpa-e.eu/the-eu-fire-safety-guide/ |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions, true/false questions  matching questions, fill in the blanks*<br><br>*Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A29. Framework for Unit 6.8**

| **Module title:** | *Module 6 – Promoting Prevention Over Recovery* |
|---|---|

| National Learning time for the Module | *3-4 hours* |
|---|---|
| **Unit title:** | *6.8 Case Studies* |
| **Authors & Affiliation** | *LARES Italia* |
| **Description of the Unit** | *This unit focuses on Kerala floods in 2018.* *The study begins with the description of the event and highlights to the value of prioritizing prevention over recovery in the context of disasters like the Kerala floods is essential for humanitarian, economic, environmental, and social reasons. By investing in preventive measures, we can save lives, protect livelihoods, preserve ecosystems, address climate change, and build resilient communities. The aftermath of disasters is often a call to action, but the truest form of resilience lies in our ability to anticipate, adapt, and mitigate the impacts of these events before they occur.* |
| **Learning outcomes** **(Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 6.8, the trainee will be able to:* 1. *Describe the flood prevention strategies.* 2. *Recognize the value of prevention over recovery.* 3. *Explain the value of flood prevention strategies.* |
| **Reference to the READY4DISasters Competence map** **(see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:* ● *C1* ● *C3* ● *C4.2* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit* *Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P* *Videos implemented with H5P* *Quizzes implemented with H5P* |
| **External resources** | - |

| | |
|---|---|
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill in the blanks* |
| | *Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A30. Framework for Unit 6.9**

| | |
|---|---|
| **Module title:** | *Module 6 – Promoting Prevention Over Recovery* |
| **National Learning time for the Module** | *3-4 hours* |
| **Unit title:** | *6.9 Case Studies* |
| **Authors & Affiliation** | *OI.KO.POLI.S* |
| **Description of the Unit** | *This unit focuses on the development of a landslide susceptibility map in the Attica region of Greece using the method of Rock Engineering System (RES).* |
| | *The study begins by collecting and analyzing various data, including geological, geomorphological, hydrogeological, and meteorological data.* |
| | *Then applying the Rock Engineering System, a well-established and widely used method in geotechnical engineering, to assess the landslide susceptibility.* |
| | *Finally the results of the analysis are used to create a landslide susceptibility map for the Attica region. The map provides valuable information about the areas that are most susceptible to landslides, allowing for better planning and decision-making processes related to land use, infrastructure development, and environmental protection. The study also evaluates the accuracy of the landslide susceptibility map by comparing it with historical landslide events in the region.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 6.9, the trainee will be able to:* |
| | *1. Describe the necessary steps for the development of a landslide susceptibility map using the method of Rock Engineering System (RES).* |

| | 2. Recognize the characteristics used in estimating the susceptibility to landslides <br> 3. Explain the importance of the existence of a landslide susceptibility map and the conclusions taken from it. |
|---|---|
| **Reference to the READY4DISasters Competence map** <br> **(see project web site link)** | This unit is contributing to the achievement of the following competences and sub-competences: <br><br> • C1 <br> • C3 <br> • C4.2 |
| **Step by step indication for learners** | Step 1: complete H5P of the Unit <br><br> Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test. |
| **Supporting elements** | |
| **Learning content** | PPT Implemented with H5P <br> Videos implemented with H5P <br> Quizzes implemented with H5P |
| **External resources** | - |
| **Evaluation** | Final assessment at the end of the Unit:  multiple choice questions, true/false questions  matching questions, fill in the blanks <br><br> Quiz implemented in H5P |
| **EQF level** | 3 |

**Table A31. Framework for Unit 6.10**

| **Module title:** | Module 6 – Promoting Prevention Over Recovery |
|---|---|
| **National Learning time for the Module** | 3-4 hours |
| **Unit title:** | 6.10 Case Studies |
| **Authors & Affiliation** | KBB |
| **Description of the Unit** | This unit focuses on a fire in a metal plating factory. |

| | |
|---|---|
| | *The study begins with the description of the event and highlights the immense value of fire prevention strategies, early detection, and effective response protocols. By investing in prevention, maintaining advanced fire safety systems, and training personnel, businesses and organizations can significantly reduce the risk of fire incidents, protecting lives, property, and the environment. Fire safety should always be at the forefront of every organization's priorities, promoting a culture of preparedness and vigilance.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 6.10, the trainee will be able to:*<br><br>1. *Describe the critical importance of prioritizing fire prevention measures over recovery efforts.*<br>2. *Recognize the fire prevention strategies*<br>3. *Explain the value of fire prevention strategies* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C1*<br>● *C3*<br>● *C4.2* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
| **External resources** | *-* |
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill in the blanks*<br><br>*Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A32. Framework for Unit 7.1**

| | |
|---|---|
| **Module title:** | *Module 7– Resiliency Metrics/Indicators* |
| **National Learning time for the Module** | *2 hours* |
| **Unit title:** | *Unit 7.1 Introduction to Disaster Resilience Metrics and Indicators* |
| **Authors & Affiliation** | *Gebze Technical University* |
| **Description of the Unit** | *This unit is an introduction to Disaster Resilience metrics and Indicators. It covers definition and importance of disaster resilience metrics and indicators, key concepts and terminology and relationship between resilience and disaster management.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 7.1, the trainee will be able to:*<br><br>1. *Describe resilience metrics and indicators.*<br>2. *Explain relationship between resilience and disaster management.*<br>3. *Interpret key concepts and terminology about the topic* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub competences:*<br><br>● *C1.1*<br>● *C2.2* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
| **External resources** | IFRC Framework for Community Resilience<br>https://www.ifrc.org/sites/default/files/IFRC-Framework-for-Community-Resilience-EN-LR.pdf<br><br>Hyogo Framework for Action 2005-2015: *Building the Resilience of Nations and Communities to Disasters |

| | https://www.unisdr.org/2005/wcdr/intergover/official-doc/L-docs/Hyogo-framework-for-action-english.pdf |
| --- | --- |
| | Sendai Framework for Disaster Risk Reduction 2015 - 2030 https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf?_gl=1*128gcjb*_ga*MTkyNjMwMTk1NS4xNjkxNDIxMzU1*_ga_D8G5WXP6YM*MTY5Mzc4MjgzNy4zLjAuMTY5Mzc4Mjg0NC4wLjAuMA |
| | Advancing resilience of coastal localities: Developing, implementing, and sustaining the use of coastal resilience indicators: A final report https://www.researchgate.net/publication/346474442_Advancing_the_Resilience_of_Coastal_Localities_Developing_Implementing_and_Sustaining_the_Use_of_Coastal_Resilience_Indicators_A_Final_Report |
| | Modeling single family housing recovery after hurricane Andrew in Miami-Dade County, Florida https://oaktrust.library.tamu.edu/server/api/core/bitstreams/d8ebe92c-921f-41b9-a48b-c647c9914488/content |
| Evaluation | *Final assessment at the end of the Unit:  multiple choice questions, true/false questions matching questions, fill the blanks*<br><br>*Quiz implemented in H5P* |
| EQF level | *3* |

**Table A33. Framework for Unit 7.2**

| Module title: | *Module 7– Resiliency Metrics/Indicators* |
| --- | --- |
| National Learning time for the Module | *2 hours* |
| Unit title: | *Unit 7.2 Flood Resilience Metrics and Indicators* |
| Authors & Affiliation | *Gebze Technical University* |
| Description of the Unit | *This unit focuses on the Flood resilience metrics and indicators. It covers topics about understanding  flood hazards and vulnerabilities, metrics and indicators for flood risk assessment, resilience assessment of flood prone communities and infrastructure and case studies and best practices in flood resilience measurement.* |

| | |
|---|---|
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 7.2, the trainee will be able to:*<br><br>1. *Identify flood hazards and vulnerabilities.*<br>2. *Understand metrics and indicators for flood risk assessment.*<br>3. *Relate the assessment of resilience in flood prone communities and infrastructure.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C12* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
| **External resources** | Community flood resilience assessment frameworks: a review<br>https://link.springer.com/article/10.1007/s42452-019-1731-6<br><br>The 'Flood Resilience Rose': A management tool to promote transformation towards flood resilience<br>https://onlinelibrary.wiley.com/doi/10.1111/jfr3.12726<br>Flood resilience: a systematic review<br>https://www.tandfonline.com/doi/full/10.1080/09640568.2019.1641474#d1e168<br><br>Quantifying the flood risk index of the Malaysian "rice bowl"<br>https://www.sciencedirect.com/science/article/pii/S2214581823000113?via%3Dihub<br><br>An Integrated Multidimensional Resilience Index for urban areas prone to flash floods: Development and validation<br>https://www.sciencedirect.com/science/article/abs/pii/S0048969723035581?via%3Dihub |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions, true/false* |

| | questions matching questions, fill the blanks<br><br>*Quiz implemented in H5P* |
|---|---|
| **EQF level** | *3* |

**Table A34. Framework for Unit 7.3**

| | |
|---|---|
| **Module title:** | *Module 7– Resiliency Metrics/Indicators* |
| **National Learning time for the Module** | *2 hours* |
| **Unit title:** | *Unit 7.3 Landslide Resilience Metrics and Indicators* |
| **Authors & Affiliation** | *Gebze Technical University* |
| **Description of the Unit** | *This unit focuses on the Landslide resilience metrics and indicators. It covers topics about understanding landslide hazards and vulnerabilities, metrics and indicators for landslide risk assessment, resilience assessment of landslide prone areas and slope stability and case studies and best practices in landslide resilience measurement.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 7.3, the trainee will be able to:*<br><br>1. *Identify landslide hazards and vulnerabilities.*<br>2. *Understand metrics and indicators for landslide risk assessment.*<br>3. *Relate the assessment of resilience in landslide prone communities and slope stability.* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C14* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P* |

| | |
|---|---|
| | *Quizzes implemented with H5P* |
| **External resources** | Geographic variation of resilience to landslide hazard: A household-based comparative studies in Kalimpong hilly region, India<br>https://www.sciencedirect.com/science/article/abs/pii/S2212420919312117<br><br>A simple method for landslide risk assessment in the Rivière Aux Vases basin, Quebec, Canada<br>https://www.sciencedirect.com/science/article/pii/S2590061722000345 |
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blanks*<br><br>*Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A35. Framework for Unit 7.4**

| | |
|---|---|
| **Module title:** | *Module 7– Resiliency Metrics/Indicators* |
| **National Learning time for the Module** | *2 hours* |
| **Unit title:** | *Unit 7.4 Fire Resilience Metrics and Indicators* |
| **Authors & Affiliation** | *Gebze Technical University* |
| **Description of the Unit** | *This unit focuses on the Fire resilience metrics and indicators. It covers topics about understanding fire hazards and vulnerabilities, metrics and indicators for fire risk assessment, resilience assessment of fire prone areas and case studies and best practices in fire resilience measurement* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 7.4, the trainee will be able to:*<br><br>1. *Identify fire hazards and vulnerabilities.*<br>2. *Understand metrics and indicators for fire risk assessment*<br>3. *Relate the assessment of resilience in fire prone regions.* |
| **Reference to the** | *This unit is contributing to the achievement of the following competences and sub-competences:* |

| READY4DISasters Competence map (see project web site link) | • *C13* |
|---|---|
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
| **External resources** | Forest fire susceptibility mapping via multi-criteria decision analysis techniques for Mugla, Turkey: A comparative analysis of VIKOR and TOPSIS<br>https://www.sciencedirect.com/science/article/abs/pii/S0378112720314134?via%3Dihub |
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blanks*<br><br>*Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A36. Framework for Unit 7.5**

| **Module title:** | *Module 7– Resiliency Metrics/Indicators* |
|---|---|
| **National Learning time for the Module** | *2 hours* |
| **Unit title:** | *Unit 7.5 Applying Metrics and Indicators in Disaster Preparedness and Response* |
| **Authors & Affiliation** | *Gebze Technical University* |
| **Description of the Unit** | *This Unit focuses on Applying Metrics and Indicators in Disaster Preparedness and Response. It includes topics on Integrating resilience metrics and indicators in preparedness planning, Using metrics and indicators for early warning systems, and* |

| | *Assessing response capacity and effectiveness through metrics* |
|---|---|
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 7.5, the trainee will be able to:*<br><br>1. *Explain integrating resilience metrics and indicators in preparedness planning*<br>2. *Describe benefits of using metrics and indicators for early warning systems*<br>3. *Classify response capacity and effectiveness through metrics* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C1.1*<br>● *C4*<br>● *C8* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
| **External resources** | Proposing a metric to evaluate early warning system applicable to hydrometeorological disasters in Brazil<br>https://www.sciencedirect.com/science/article/abs/pii/S2212420923000596?via%3Dihub |
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blanks*<br><br>*Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A37. Framework for Unit 7.6**

| **Module title:** | *Module 7– Resiliency Metrics/Indicators* |
|---|---|

| National Learning time for the Module | *2 hours* |
|---|---|
| **Unit title:** | *Unit 7.6 Recovery and Reconstruction Metrics and Indicators* |
| **Authors & Affiliation** | *Gebze Technical University* |
| **Description of the Unit** | *This unit focuses on Recovery and Reconstruction Metrics and Indicators, It includes topics on Metrics and indicators for assessing post-disaster recovery and reconstruction, Monitoring progress and evaluating the effectiveness of recovery efforts, and Lessons learned from past disasters* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 7.6, the trainee will be able to:*<br><br>1. *Describe metrics and indicators for assessing post-disaster recovery and reconstruction..*<br>2. *Explain monitoring progress and evaluating the effectiveness of recovery efforts*<br>3. *Understand lessons learned from past disasters* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C1.1*<br>● *C2.2*<br>● *C3.2*<br>● *C4.2*<br>● *C8*<br>● *C12.3*<br>● *C14.3* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*Videos implemented with H5P*<br>*Quizzes implemented with H5P* |
| **External resources** | *-* |

| | Final assessment at the end of the Unit:  multiple choice questions, true/false questions matching questions, fill the blanks |
|---|---|
| **Evaluation** | |
| | *Quiz implemented in H5P* |
| **EQF level** | *3* |

**Table A38. Framework for Unit 8.1**

| **Module title:** | *Module 8 – The EU Civil Protection Mechanism* |
|---|---|
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 8.1 Evolution and responsibilities* |
| **Authors & Affiliation** | *Training 2000* |
| **Description of the Unit** | *This unit focuses on the origins of the EU civil protection mechanism focusing on its background and the reasons behind the need of a well-coordinated joint response to natural and man-made disasters at European level. The unit also covers aims, roles and responsibilities of the Mechanism and  the importance of the EU Disaster Resilience Goals.  Legislation aspects are also taken into consideration.*<br>*This Unit also covers the Mechanism activation procedure and functioning at European and global level. Finally, the interaction with national organizations are explored.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 8.1, the participant will be able to:*<br><br>*1. Describe the historical background, aims, roles and responsibilities of the EU Civil Protection Mechanism (UCPM) and its importance in disaster management at European and global level under the common EU Disaster Resilience Goals.*<br><br>*2. Distinguish between intervention modalities and resources available of the UCPM according to the disaster-stricken area*<br>*3. Explain the importance of working collaboratively with international civil protection volunteers while respecting cultural differences*<br>*4. Identify the functions of the monitoring system available at European and global level* |

| | |
|---|---|
| | 5. *Use monitoring systems for identifying flood-prone areas, flood risks, landslide and fire hazards at European and global level* |
| **Reference to the READY4DISasters Competence map (see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C1*<br>● *C3*<br>● *C4*<br>● *C6*<br>● *C11*<br>● *C12.1*<br>● *C13.3*<br>● *C14.3* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>  *https://gtuzem.gtu.edu.tr/UE2/mod/h5pactivity/view.php?id=35268*<br>*Videos implemented with H5P*<br>1.  https://youtu.be/xQUIvatKKoA  (Video © European Union, 2022)<br>2.  https://youtu.be/N6soXnTsgZg  ( Video © United Nations Office for Disaster Risk Reduction)<br>3.  *https://youtu.be/koO91yI8coo  (Video© European Union, 2023)*<br>*Quizzes implemented with H5P* |
| **External resources** | ● Civil Protection Knowledge Network - Disaster Prevention and Risk Management https://civil-protection-knowledge-network.europa.eu/knowledge-network-capacity-development/disaster-prevention-and-risk-management<br>● Civil Protection Knowledge Network - The Disaster Resilience Goals, https://civil-protection-knowledge-network.europa.eu/disaster-resilience-goals<br>● *What is the Sendai Framework for Disaster Risk Reduction?, https://www.undrr.org/implementing-sendai-framework/what-sendai-framework* |

| | |
|---|---|
| | • Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism Text with EEA relevance, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013D1313 <br> • The EU civil protection mechanism in numbers, https://www.consilium.europa.eu/it/infographics/civil-protection/ |
| **Evaluation** | *Final assessment at the end of the Unit: multiple choice questions, true/false questions matching questions, fill the blanks* |
| **EQF level** | *3* |

**Table A39. Framework for Unit 8.2**

| | |
|---|---|
| **Module title:** | *Module 8 – The EU Civil Protection Mechanism* |
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 8.2 Organization and resources* |
| **Authors & Affiliation** | *Training 2000* |
| **Description of the Unit** | *This unit focuses on three core elements of the EU Civil Protection Mechanism which can be activated in disaster-stricken countries. The ERCC coordinates the delivery of assistance in terms of relief items, expertise, civil protection teams, etc. The RescEU RESERVE is an upgrading of the Mechanism which is able to respond, among other emergencies, to chemical, biological, radiological and nuclear (CBRN) risks.* <br> *Finally, the European Civil Protection Pool reinforces the resources for a faster and better-coordination European cooperation in civil protection. The last section concerns the training aimed at verifying the emergency response teams, their equipment and proper functioning in each phase of an international emergency response. Funds and financing are also taken into consideration.* |
| **Learning outcomes (Knowledge + Skills + Autonomy &** | *After completing Unit 8.2, the trainee will be able to:* <br><br> *1. Describe the principles, methods and tools of the Emergency Response Coordination Centre (ERCC); the RescEU RESERVE, and the European Civil Protection Pool under the EU Civil Protection Mechanism (UCPM)* |

| | |
|---|---|
| Responsibility) | 2. *Explain the procedure for activating EU Civil Protection Mechanism, how it is coordinated in terms of human capital, resources available and main responsibilities*<br>3. *Operate with other international civil protection volunteers respecting roles, responsibilities and cultural differences in the each phase of an international emergency response under the UCPM*<br>4. *Manage different monitoring systems according to the disasters to collaborate under the UCPM* |
| Reference to the READY4DISasters Competence map (see project web site link) | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C1.1, C1.3*<br>● *C3.2*<br>● *C11*<br>● *C12.1*<br>● *C13.3*<br>● *C14.3* |
| Step by step indication for learners | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| Learning content | *PPT Implemented with H5P*<br>*https://gtuzem.gtu.edu.tr/UE2/mod/h5pactivity/view.php?id=35269*<br>*Videos implemented with H5P https://youtu.be/mGpGYKOc0g (Video© European Union, 2023)*<br>*https://youtu.be/Q8aZQlR9iEQ  Video© European Union, 2016)*<br><br>*https://youtu.be/G5rH9pCSoRo (Video© European Union, 2019)*<br><br>*https://youtu.be/fjauY-FF_JE  (EU Science Hub- JRC, 2022)*<br>*https://youtu.be/x84UjQ4XD7Q  (EU MODEX, 2021)*<br><br>*Quizzes implemented with H5P* |
| External resources | 2010/481/EU, Euratom: Commission Decision of 29 July 2010 amending Decision 2004/277/EC, Euratom as regards rules for the implementation of Council Decision 2007/779/EC, Euratom establishing a Community civil protection mechanism (notified under document C(2010) 5090) Text with EEA relevance https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32010D0481 |

| | Link var ama Unit 8.1 içeren kısımda var |
|---|---|
| | Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism Text with EEA relevance |
| | https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013D1313 |
| | |
| | Copernicus Emergency Management Service - Mapping |
| | https://emergency.copernicus.eu/mapping/#zoom=2&lat=23.343&lon=33.82273&layers=0BT00 |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions, true/false questions  matching questions, fill  the blanks*<br>*Quiz implemented in H5P* |
| **EQF level** | *3/4* |

**Table A40. Framework for Unit 8.3**

| Module title: | *Module 8 – The EU Civil Protection Mechanism* |
|---|---|
| **National Learning time for the Module** | *3 hours* |
| **Unit title:** | *Unit 8.3 Case studies* |
| **Authors & Affiliation** | *Training 2000* |
| **Description of the Unit** | *This unit presents two case studies regarding the activation of the EU Civil protection Mechanism taking place in 2023, namely the Emilia Romagna floods (May 2023)  in Italy and the wildfires in Greece ( July/ August 2023).*<br>*This unit emphasizes the role of the EU Civil Protection Pool and how its teams and assets were deployed by the Participating members of the UCPM in disaster-stricken countries. Both natural disasters underline the effects of climate change on the environment with extreme weather events and on the pivotal role of a common European pool of human resources and equipment and ICT to better respond to disaster.* |
| **Learning outcomes (Knowledge + Skills + Autonomy & Responsibility)** | *After completing Unit 8.3, the participant will be able to:*<br><br>*1.   Describe the methods and tools used under the EU Civil Protection Mechanism (UCPM) in case of floods and fire.* |

| | |
|---|---|
| | 2. *Explain how and which type of resources of the EU Civil Protection Pool were used to help Italy and Greece as examples of disaster-stricken countries in 2023.*<br>3. *Compare the EU Mechanism activations basing on the resources deployed and collaboration of the Civil protection international teams during the emergency.* |
| **Reference to the READY4DISasters Competence map**<br>**(see project web site link)** | *This unit is contributing to the achievement of the following competences and sub-competences:*<br><br>● *C1.1, C1.3*<br>● *C3.2* |
| **Step by step indication for learners** | *Step 1: complete H5P of the Unit*<br>*Step 2: at the end of the Unit, assess your learning outcomes through the e-self-evaluation test.* |
| **Supporting elements** | |
| **Learning content** | *PPT Implemented with H5P*<br>*https://gtuzem.gtu.edu.tr/UE2/mod/h5pactivity/view.php?id=35272*<br>*Videos implemented with H5P*<br>*https://www.youtube.com/watch?v=irERHrpkYKw*<br>*(Protezione Civile Regione Emilia Romagna, August 2023)*<br>*https://www.youtube.com/watch?v=jB8nd-O8m2Q*<br>*(France24 English, August 2023)*<br>*Quizzes implemented with H5P* |
| **External resources** | Copenicus - EMSN154: Flood in Emilia Romagna, Italy<br>https://emergency.copernicus.eu/mapping/list-of-components/EMSN154<br><br>Copernicus -Information Bulletin 169 – The Copernicus Emergency Management Service maps some critical wildfires in Greece - UPDATE<br>https://emergency.copernicus.eu/mapping/ems/information-bulletin-169-%E2%80%93-copernicus-emergency-management-service-maps-some-critical-wildfires |
| **Evaluation** | *Final assessment at the end of the Unit:  multiple choice questions, true/false questions matching questions, fill  the blanks*<br><br>*Quiz implemented in H5P* |
| **EQF level** | *3/4* |