



# ***Conference "Innovation in Disaster Risk Reduction"***

***Krakow, Poland***

***Sandra Serrano, 9 MAY 2023***



# ***Integrated Risk Assessment***

## **Agenda**

- 1. Setting up the National Risk Assessment**
- 2. The National Context**
- 3. The National Disaster Risk Reduction (DRR) Strategy**



# ***1 – Setting up the National Risk Assessment***

## **Main driver:**

Decision No 1313/2013/EU on a Union Civil Protection Mechanism

“In order to **promote an effective and coherent approach to prevention of and preparedness for disasters** (...) Member States shall:

- (a) develop **risk assessments** at national or appropriate sub-national level (...);
- (b) develop and refine their **disaster risk management planning** (...);
- (c) make available (...) the **assessment of their risk management capability** (...);
- (d) participate, on a voluntary basis, in peer reviews on the assessment of risk management capability.”



# ***1 – Setting up the National Risk Assessment***





# ***1 – Setting up the National Risk Assessment***

## **1 – Identifying Stakeholders**

Only **Governmental Bodies**

were considered

(e.g. Environment Agency,

Water Institute, Forest

Services, Health Services,

Meteorological Institute, etc.)





# ***1 – Setting up the National Risk Assessment***

## **2 – Risk Identification**

### **12 natural hazards**

Floods, forest fires,  
earthquakes, tsunamis,  
landslides, heat waves,  
cold waves, droughts,  
snow, etc...





# ***1 – Setting up the National Risk Assessment***

## **2 – Risk Identification**

### **13 man-made hazards**

Industrial accidents, urban fires, transport of dangerous goods, dam breaks, traffic accidents (road, rail, sea, air), radiological emergencies, etc...





# ***1 – Setting up the National Risk Assessment***

## **3 – Risk Analysis and Mapping**

- **Risk** is a combination of **likelihood** and **impact**
- **Likelihood** - estimated according to probability of occurrence
- **Impact** - evaluated according to impacts in the people, economy and the environment







# ***1 – Setting up the National Risk Assessment***

## **3 – Risk Analysis and Mapping**

|                   |                    |                                |
|-------------------|--------------------|--------------------------------|
| <b>Likelihood</b> | <b>High</b>        | Once every 1-5 years           |
|                   | <b>Medium-High</b> | Once every 5-20 years          |
|                   | <b>Medium</b>      | Once every 20-50 years         |
|                   | <b>Medium-Low</b>  | Once every 50-200 years        |
|                   | <b>Low</b>         | Once every 200 years (or more) |



# ***1 – Setting up the National Risk Assessment***

## **3 – Risk Analysis and Mapping**

|                   |                  |  |
|-------------------|------------------|--|
| <b>Impact</b><br> | <b>Very High</b> | More than 50 victims. Medium-term evacuations. Significant damage. Impact in economy (need for financial support). Permanent environment impact.       |
|                   | <b>High</b>      | Up to 50 victims. Evacuation for more than 24 hours. Significant damage. Impact in economy (need for financial support). Long-term environment impact. |
|                   | <b>Moderate</b>  | Up to 20 victims. Evacuation for more than 24 hours. Impact in the economy and the environment (but not permanent)                                     |
|                   | <b>Low</b>       | Up to 5 victims. Short term (up to 24h) evacuations. Small scale damages to property. Damage to environment (not permanent)                            |
|                   | <b>Very Low</b>  | No victims. Short term (up to 12h) evacuations. Impact not relevant to economy. No environmental damage.   |



# ***1 – Setting up the National Risk Assessment***

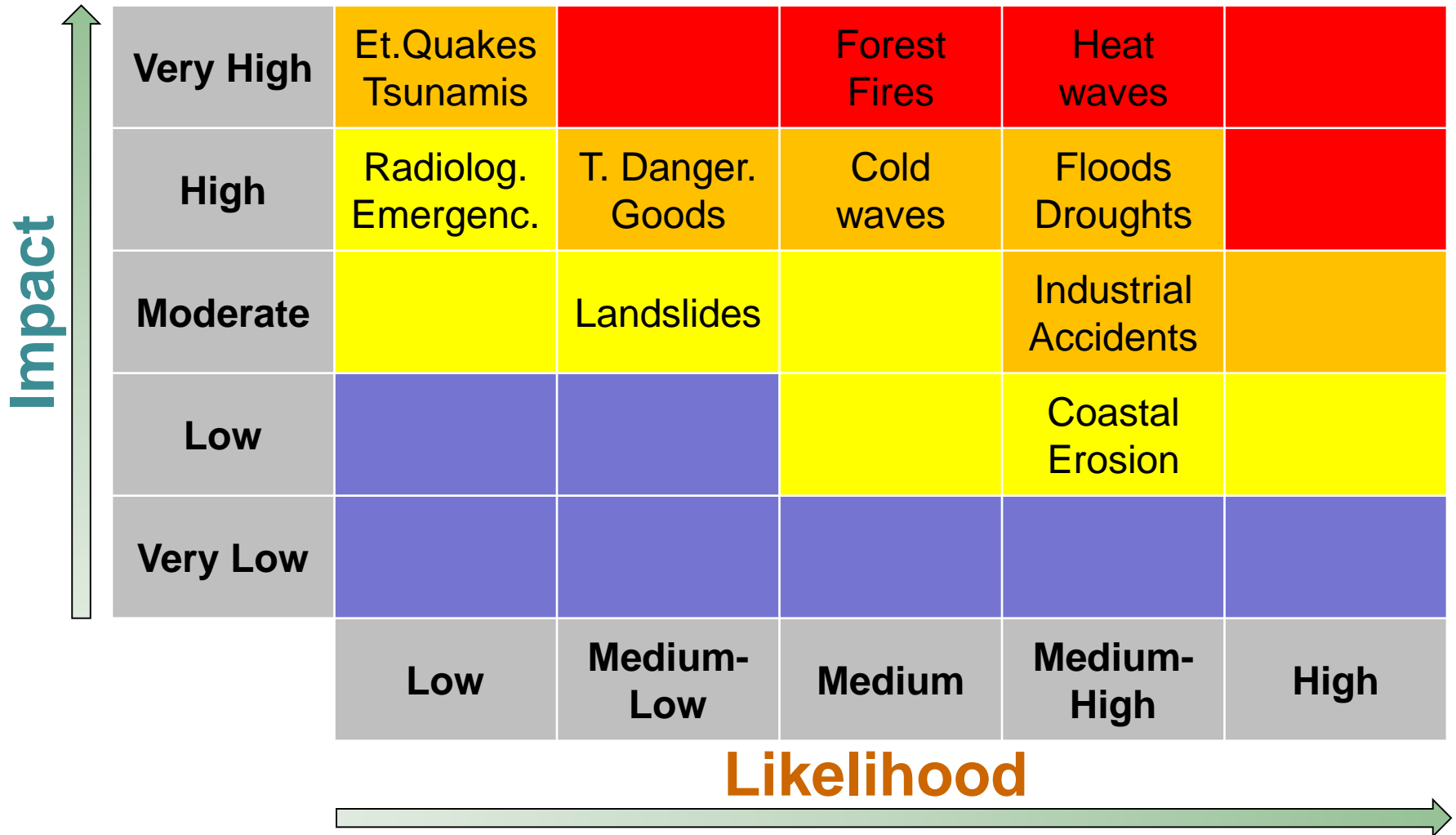
**Impact**

|                  |               |                   |               |                    |               |
|------------------|---------------|-------------------|---------------|--------------------|---------------|
| <b>Very High</b> | High Risk     | Extreme Risk      | Extreme Risk  | Extreme Risk       | Extreme Risk  |
| <b>High</b>      | Moderate Risk | High Risk         | High Risk     | High Risk          | Extreme Risk  |
| <b>Moderate</b>  | Moderate Risk | Moderate Risk     | Moderate Risk | High Risk          | High Risk     |
| <b>Low</b>       | Low Risk      | Low Risk          | Moderate Risk | Moderate Risk      | Moderate Risk |
| <b>Very Low</b>  | Low Risk      | Low Risk          | Low Risk      | Low Risk           | Low Risk      |
|                  | <b>Low</b>    | <b>Medium-Low</b> | <b>Medium</b> | <b>Medium-High</b> | <b>High</b>   |

**Likelihood**



# 1 – Setting up the National Risk Assessment





# ***1 – Setting up the National Risk Assessment***

## **2019 UPDATE**

- New risk considered: wind storms
- Updated data regarding the risk of heat waves, droughts, floods, tsunamis, dam-break, accidents in Seveso establishments
- New climate change scenarios



## ***2 – The National Context***





## ***2 – The National Context***

### **National Risk Assessment is part of the National Emergency Plan**

The **National Emergency Plan** defines a set of rules of procedure to be applied in response to a major emergency, caused by a natural or man-made event (excluding malicious threats).

It is a “multi-hazard” Plan: rules of procedure should apply to all types of emergencies.



## ***2 – The National Context***

### **Responsability:**

**The Portuguese Authority for Emergency and Civil Protection (ANEPC)** is, by law, the Government Authority designated to coordinate the work on the  
National Emergency Plan  
(including the National Risk Assessment)





## ***2 – The National Context***

### **Advisory Group:**

ANEPC was supported by the **National Civil Protection Committee (CNPC)**, which provided feed-back on the National Risk Assessment.

CNPC is a cross-departmental advisory board, with **representatives from all the Ministries** (e.g. health, environment, defence, transport, etc.)

and from **emergency services**

(e.g. Police, Fire-Brigades, Armed Forces, etc.)



## ***2 – The National Context***

### **Approval:**

The National Emergency Plan  
(including the National Risk Assessment)  
is approved by the **Council of Ministers**,  
after positive feed-back from the Advisory Group  
(National Civil Protection Committee)



## ***3 – The National DRR Strategy***





# ***3 – The National DRR Strategy***

## **Background (2018/20)**

**DRIVER**

...**preventive efforts are spread across** multiple areas, entities and legal frameworks, **leading to the lack of perception of a collaborative and unifying action** regarding the preventive pillar of civil protection...

*in 2018/2020 Strategy*



## ***3 – The National DRR Strategy***

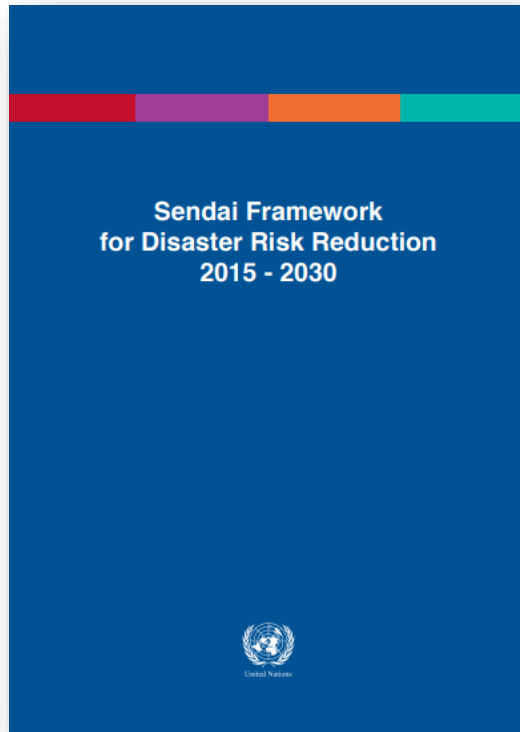
“The National Strategy for Preventive Civil Protection is an **effective national strategy for disaster risk reduction** and illustrates **the national commitment to the goals outlined by the Sendai Framework for Disaster Risk Reduction 2015-2030**, in particular with regard to risk governance and capacity building of local authorities”

*in 2018/2020 Strategy*



# ***3 – The National DRR Strategy***

## **Background (2018/20)**





# ***3 – The National DRR Strategy***

## **New Cycle (2021/30)**

### **Programme of the XXII Constitutional Government:**

Approval of

*“a Preventive Civil Protection Strategy 2020/30,  
integrating all areas of disaster risk management.”*





# ***3 – The National DRR Strategy***

## **New Cycle (2021/30)**

**Council of Ministers Resolution n° 112/2021, 11<sup>th</sup> of August**



**I Inter-ministerial Coordination group**  
(21 members; Leader: Minister of Home Affairs)





# 3 – The National DRR Strategy

## New Cycle (2021/30)

|                                      |  |  |   |   |  |
|--------------------------------------|--|--|---|---|--|
| <b>136</b><br>Operational Objectives | <b>Strategic Objective 1</b><br>Strengthen governance in risk management | <b>Strategic Objective 2</b><br>Improve risk knowledge | <b>Strategic Objective 3</b><br>Implement risk reduction strategies | <b>Strategic Objective 4</b><br>Improve preparedness      | <b>Strategic Objective 5</b><br>Involve citizens in risk awareness |
|                                      | <b>Priority area 1.1</b><br>Articulation and Co-operation                | <b>Priority area 2.1</b><br>Risk assessment            | <b>Priority area 3.1</b><br>Non-structural prevention               | <b>Priority area 4.1</b><br>Monitoring, alert and warning | <b>Priority area 5.1</b><br>Risk education                         |
|                                      | <b>Priority area 1.2</b><br>Training for risk management                 | <b>Priority area 2.2</b><br>Loss assessment            | <b>Priority area 3.2</b><br>Structural prevention                   | <b>Priority area 4.2</b><br>Emergency planning            | <b>Priority area 5.2</b><br>Community awareness                    |
|                                      | <b>22 Operational Objectives</b>   | <b>15 Operational Objectives</b>                       | <b>39 Operational Objectives</b>                                    | <b>38 Operational Objectives</b>                          | <b>22 Operational Objectives</b>                                   |



***Thank you!***

***Conference "Innovation in Disaster  
Risk Reduction"***

***Krakow, Poland***

***Sandra Serrano, 9 MAY 2023***