

# NATIONAL RISK ASSESSMENT AND REDUCTION IN THE EUROPEAN CONTEXT

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**TABLE 5** Total number of reported disasters, by type of phenomenon and by year (2006-2015)

**TABLE 8** Total amount of estimated damage from disasters, by type of phenomenon and by year (2006-2015), in millions of US dollars (2015 prices)

**TABLE 6** Total number of people reported as killed, by type of phenomenon and by year (2006-2015)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Droughts <sup>1</sup>	208	n.a.	6	2	10,000	10,000	n.a.	n.a.	n.a.	35	20,251
Dry-mass movements <sup>2</sup>	11	n.d.r.	120	36	n.d.r.	n.d.r.	16	46	n.d.r.	13	242
Earthquakes <sup>3</sup>	6,692	780	87,918	1,893	226,733	20,946	711	1,120	773	9,526	357,092
Extreme temperatures	5,104	1,044	1,608	1,212	57,064	806	1,674	1,982	1,168	7,418	79,080
Floods <sup>4</sup>	5,845	8,565	4,026	3,581	8,481	6,151	3,577	9,819	3,574	3,408	57,027
Insect infestations	n.a.	n.d.r.	n.d.r.	n.a.	n.a.	n.a.	n.d.r.	n.d.r.	n.d.r.	n.d.r.	n.a.
Landslides	1,638	271	504	649	3,427	309	501	235	943	1,000	9,477
Storms	4,329	6,035	140,985	3,287	1,564	3,103	3,105	8,603	1,424	1,260	173,695
Volcanic activities	5	11	16	n.a.	323	3	n.a.	n.a.	102	n.a.	460
Wild fires	16	148	86	190	166	10	22	35	16	64	753
<b>Total</b>	<b>17,140</b>	<b>16,063</b>	<b>147,215</b>	<b>8,921</b>	<b>80,702</b>	<b>20,379</b>	<b>8,879</b>	<b>20,674</b>	<b>7,125</b>	<b>13,185</b>	<b>340,283</b>
<i>Subtotal disasters triggered by climato-, hydro- and meteorological hazards</i>	<i>6,708</i>	<i>791</i>	<i>88,054</i>	<i>1,929</i>	<i>227,056</i>	<i>20,949</i>	<i>727</i>	<i>1,166</i>	<i>875</i>	<i>9,539</i>	<i>357,794</i>
<b>Total DTNH</b>	<b>23,848</b>	<b>16,854</b>	<b>235,269</b>	<b>10,850</b>	<b>307,758</b>	<b>41,328</b>	<b>9,606</b>	<b>21,840</b>	<b>8,000</b>	<b>22,724</b>	<b>698,077</b>
Industrial accidents	1,870	1,669	776	947	1,061	727	787	1,907	891	1,056	11,691
Miscellaneous accidents	1,126	909	895	911	1,507	755	1,112	1,003	646	3,322	12,186
Transport accidents	7,021	5,075	5,275	5,008	4,177	5,144	4,153	3,804	4,852	5,448	49,957
<b>Total DTTH</b>	<b>10,017</b>	<b>7,653</b>	<b>6,946</b>	<b>6,866</b>	<b>6,745</b>	<b>6,626</b>	<b>6,052</b>	<b>6,714</b>	<b>6,389</b>	<b>9,826</b>	<b>73,834</b>
<b>Total</b>	<b>33,865</b>	<b>24,507</b>	<b>242,215</b>	<b>17,716</b>	<b>314,503</b>	<b>47,954</b>	<b>15,658</b>	<b>28,554</b>	<b>14,389</b>	<b>32,550</b>	<b>771,911</b>

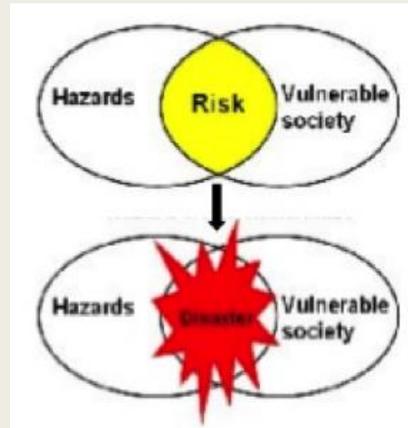
Source: EM-DAT, CRED, University of Louvain, Belgium

# The impact of the disasters in Romania

	Deaths (1993- 2005)	Afected (1993 – 2005)	Deaths (2006- 2015)	Afected (2006 – 2015)	Deaths (2015)	Afected (2015)
Europa	104,930	18,469,737	78,322	7,112,676	5,165	232,584
Romania	503	326,306	579	67,534	57	1,666

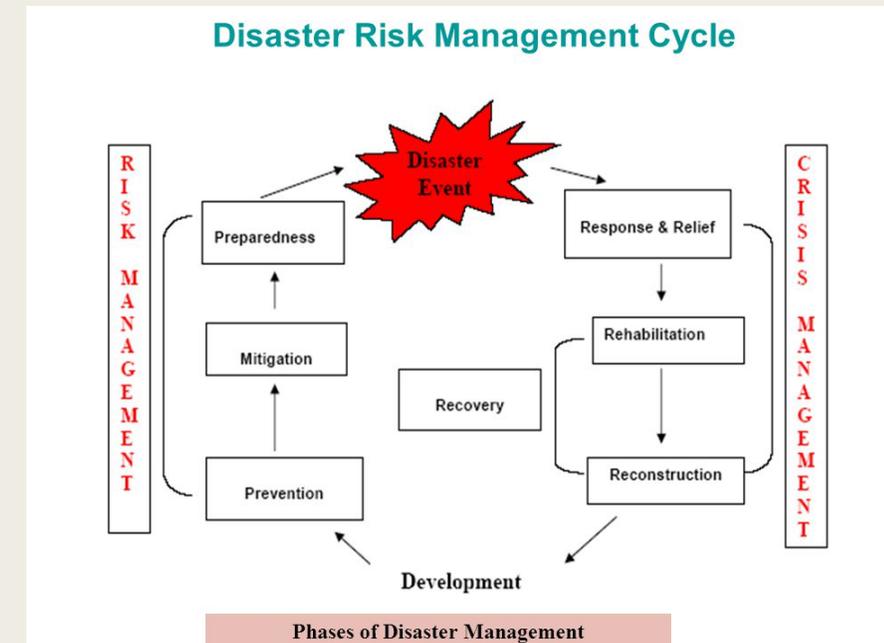
# What is a disaster?

- A disaster is the result from a combination of hazard, exposure, vulnerability and insufficient capacity to cope with the impact
- A disaster happens when a hazard affect human environment causing damages, casualties and disruption of a community
- Disaster is the materialization of the risk



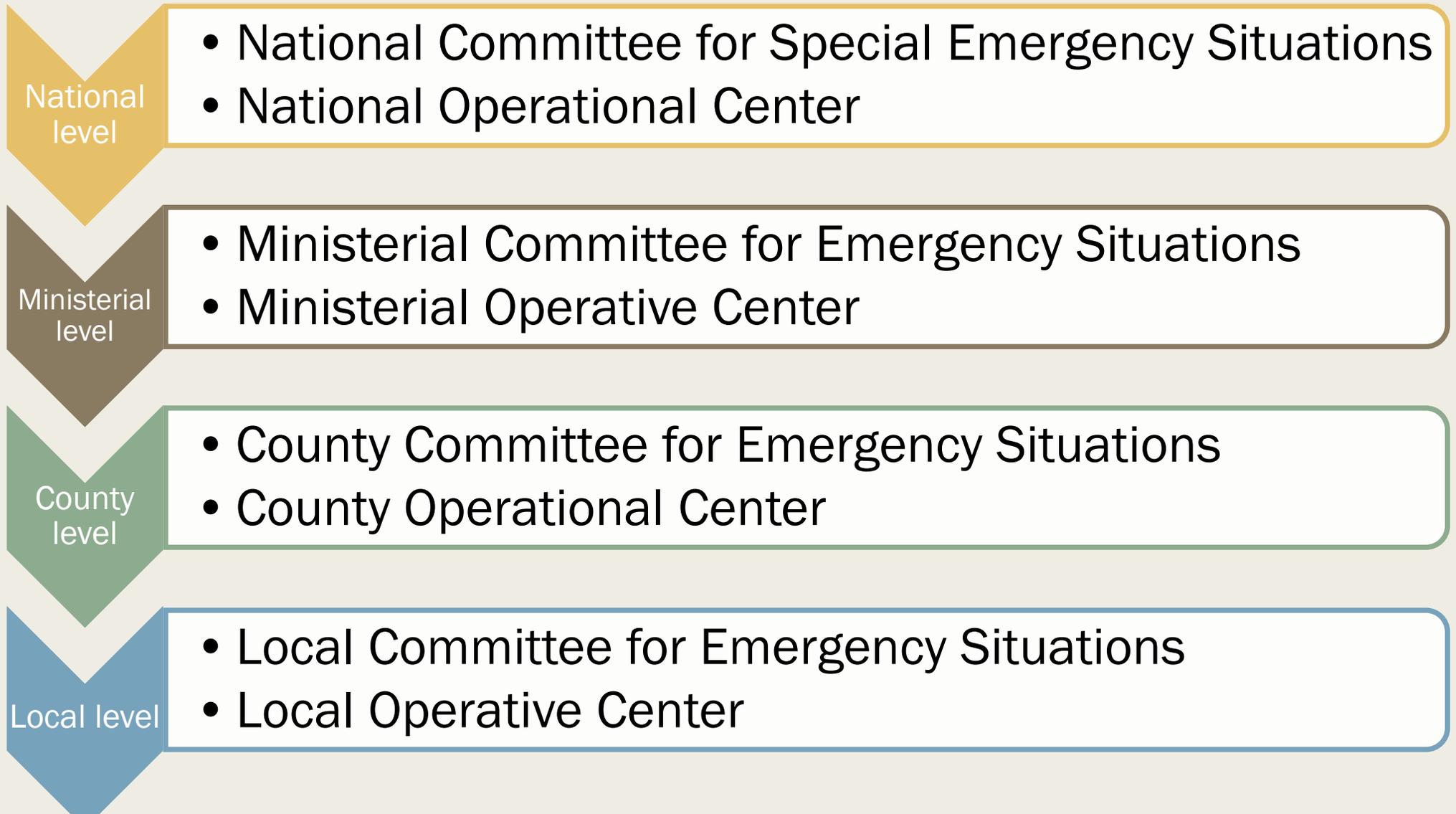
# What can we do that disaster does not hit us?

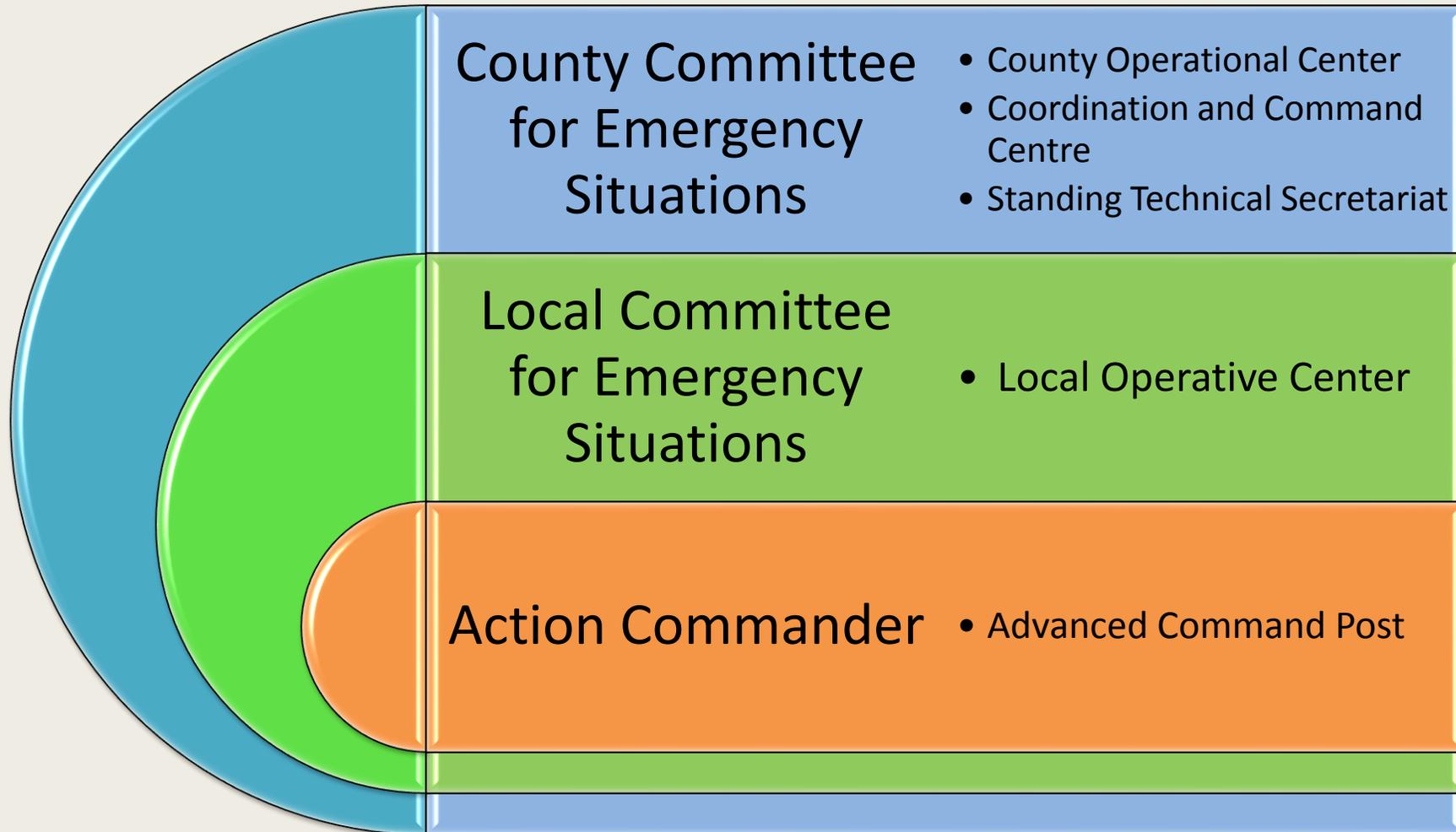
- Disaster management – systematic process (assessment, planning, organising, implementing, checking) aims to reduce the negative impact (consequences) or the frequency of a hazard





# Competency levels within the NSES





# ACTIVATION PRINCIPLES



**Mayors**

Request to  
↓

**County**

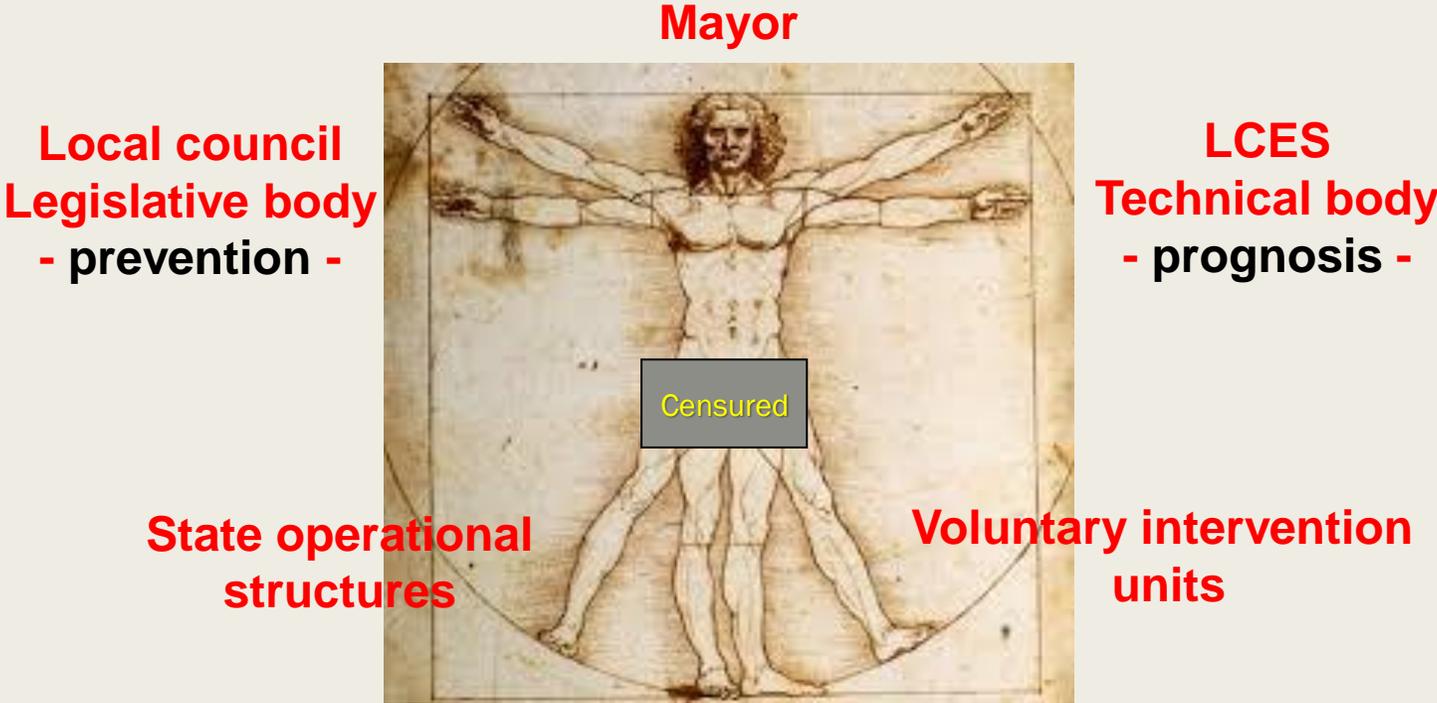
Request to  
↓

**National  
(Regional)**

Request to  
↓

**International**

# A simple logic!!!



# Co-ordination

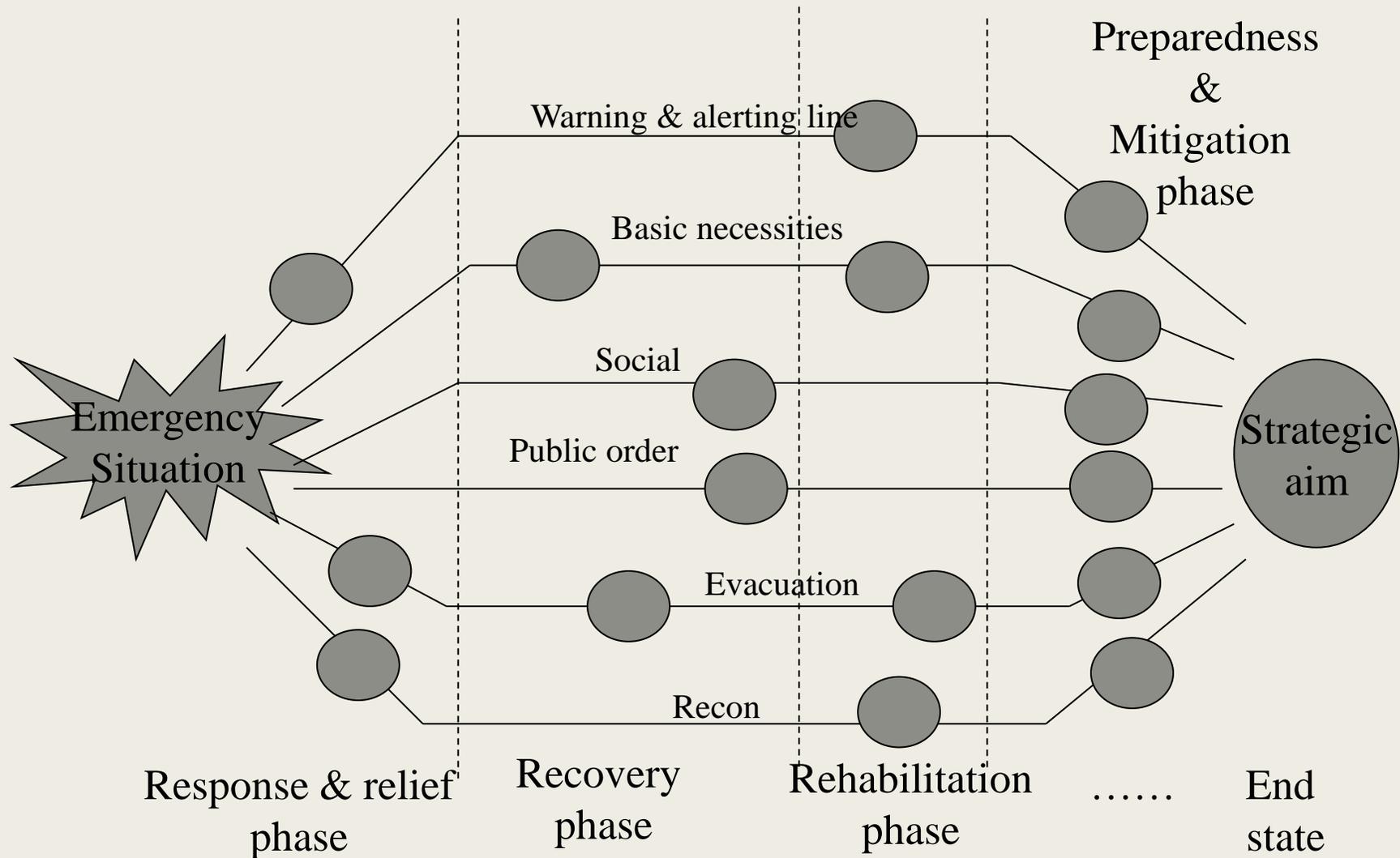
- Between state bodies and structures;
- So called “**emergency support functions**”
- Basic elements:
  - *leading agency - P;*
  - *supporting agencies - S;*
  - *their tasks;*
- The operative co-ordination belongs to GIES and County Inspectorates for Emergency Situations;



# Emergency Support Functions Matrix

	ESF 1	ESF 2	ESF 3	.....	ESF 16	ESF 17	ESF 18
	Notification & warning	Recon	Communication & IT	:	Aids of first necessity	Social, psychological & religious supp	Epizootic & zoonosis measures
M Interior	P	P	S	::	P	S	S
M Defense	S	S	S	::			S
M Economy	S	S	S	::			
M Agriculture	S	S	S	::	S		P
M Transportation	S	S		::			S
M Public Administration	S	S	S	::	S	P	S

# Emergency Support Functions – lines of operations



# NATIONAL RISK ASSESSMENT PROJECT



Leader	IGSU
<b>Partners</b>	MMAP
	ANSVSA
	ANDR
	IGAR
	IPE
	INSOC
	INSP
	INFP
	ICAS
	INCERC
	ICPA
	UTCB
UBB	



# Objectifs

1

- development of a set of tools for a unified risk assessment (methodology, database, GIS portal)

2

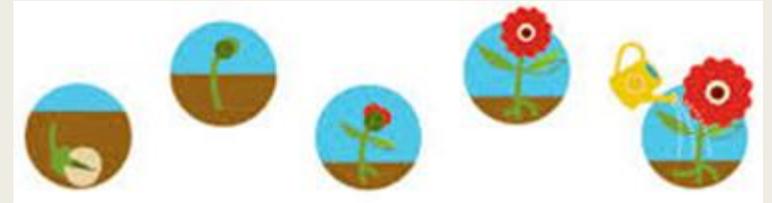
- the actual realization of a first nationally risk assessment

# Tracked results

- access to important information on exposure, vulnerabilities and risks:
  - government / authorities responsible for risk management
  - population
- exchange of information between authorities
- identification of interconnections and avoiding overlaps in the authorities' efforts in disaster risk management
- setting priorities for joint action to reduce disaster risk



# STEPS



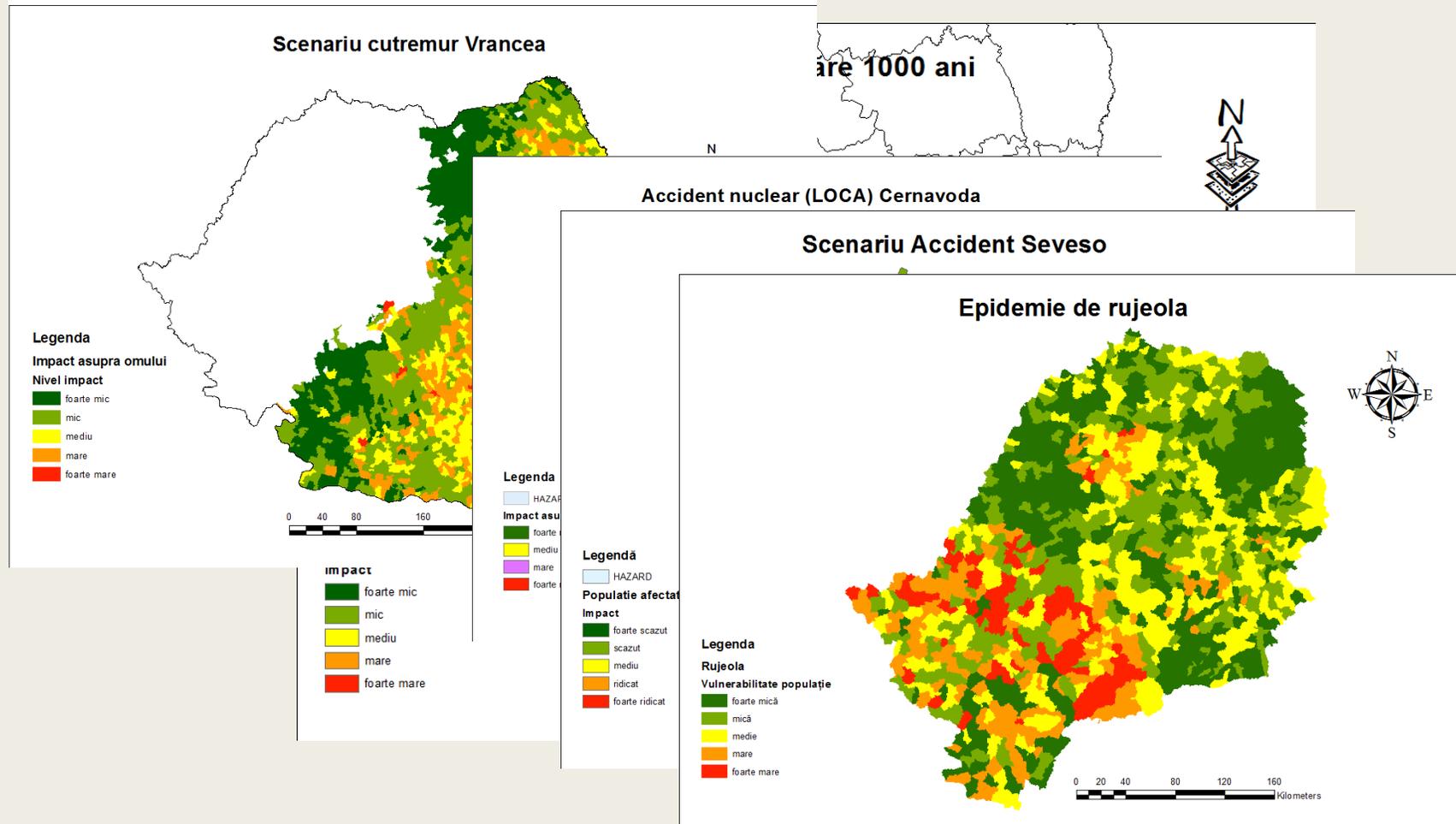
- Development and implementation of an unified [risk assessment methodology](#), which will establish a framework that ensures integration, comparability and compatibility of sectoral risk assessments results.
- Conduct a sociological study to establish the level of acceptable risk in Romania, defined as the potential loss that it is considered acceptable in the existent social, economic, political, cultural, technical and environmental conditions, in order to establish a general indicator on the need to implement measures to reduce risk
- Analysis of the legal, regulatory and institutional framework governing disaster risk management in Romania and in particular the risk assessment, to identify gaps and overlaps and to develop documented proposals for improvement.

# STEPS

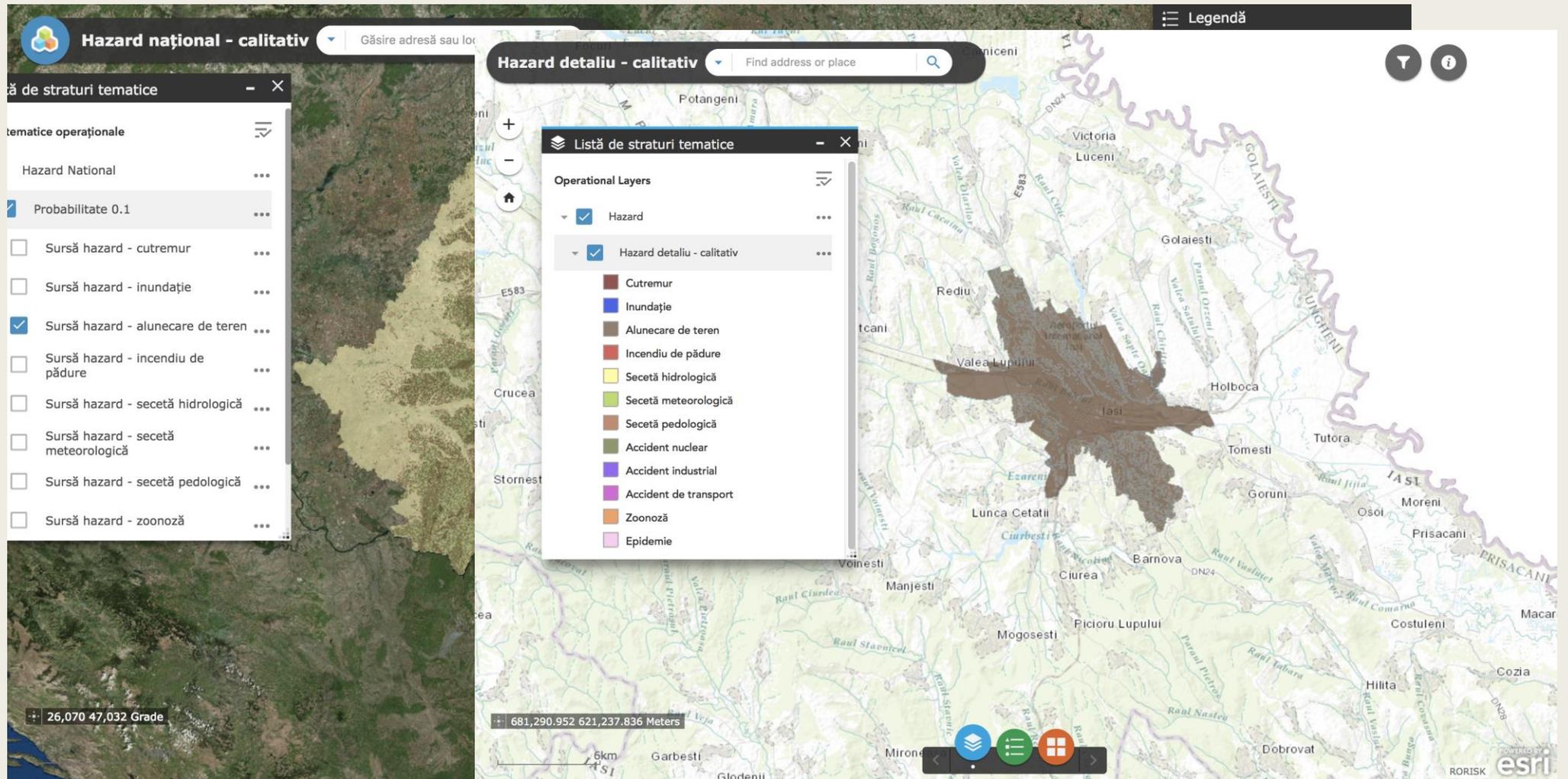


- [Assessing at the nationally level the risks](#) of floods, droughts, forest fires, earthquakes, mass movements (landslides, collapses and landslides), Seveso accidents, hazardous substances transport accident, nuclear accidents, epidemics and zoonosis, based on the unitary risk assessment methodology.
- Developing an information system - database, WebGIS application and [GIS portal](#) - which will provide, on one hand, exchange of information and data between authorities and institutions with responsibilities in risk assessment and support their work to develop risk maps and, on the other hand, information citizens and stakeholders.
- Drafting a [country report](#) containing the results of the evaluation, risk diagram, an analysis of uncertainty and recommendations for reducing risk associated with the risk scenarios considered.

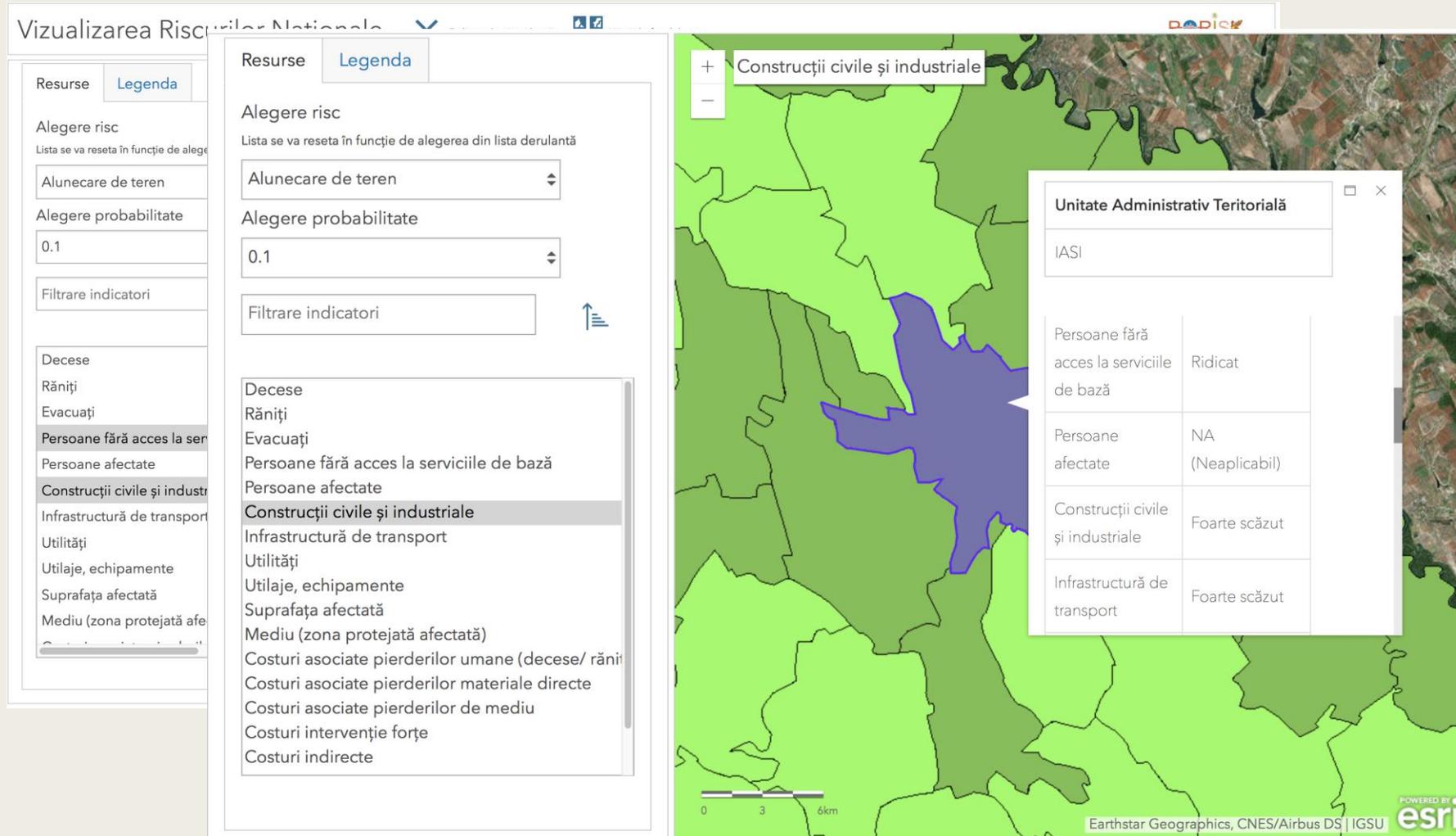
# Maps developed in the RO-RISK project



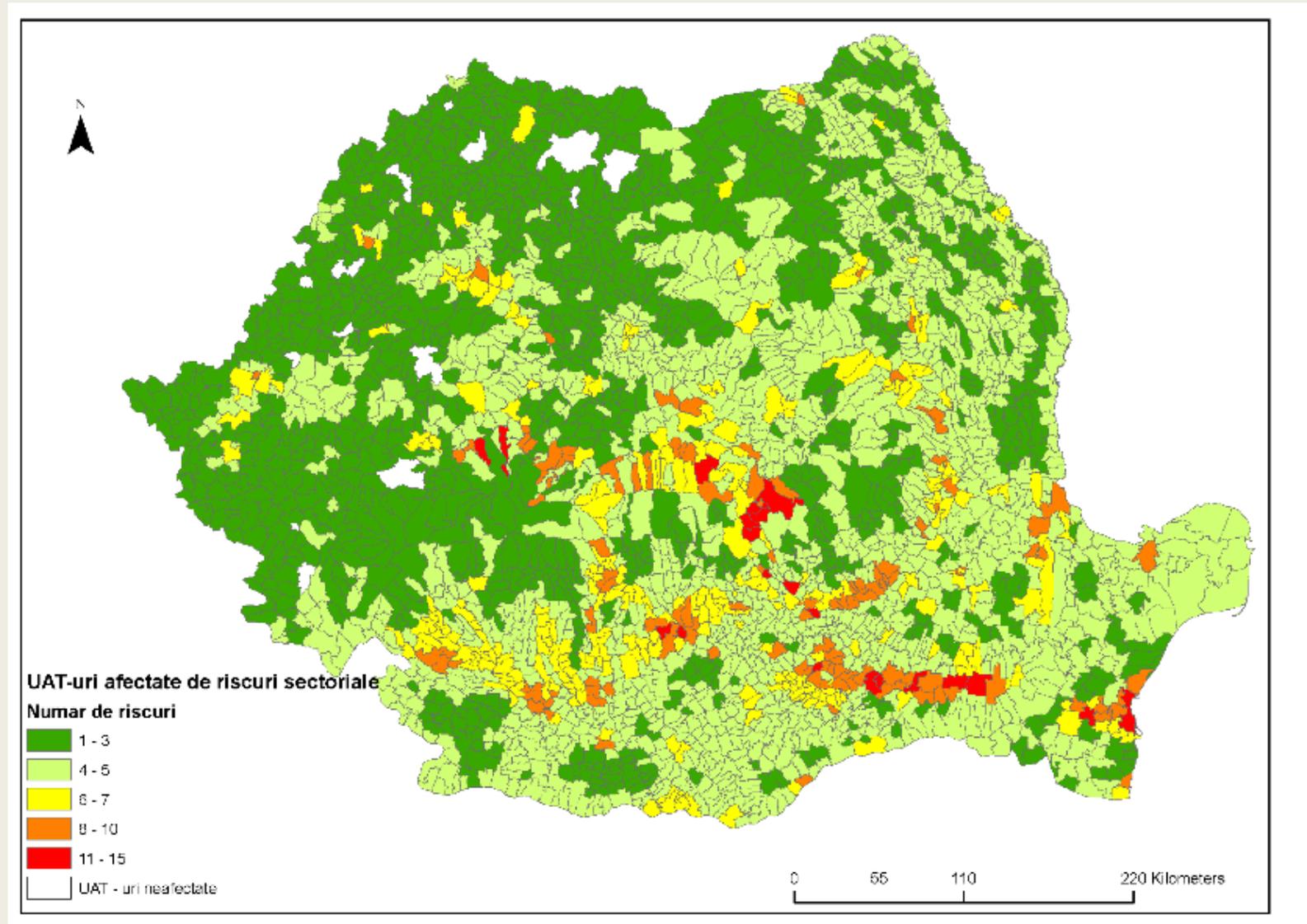
# Landslide hazard



# Landslide risk

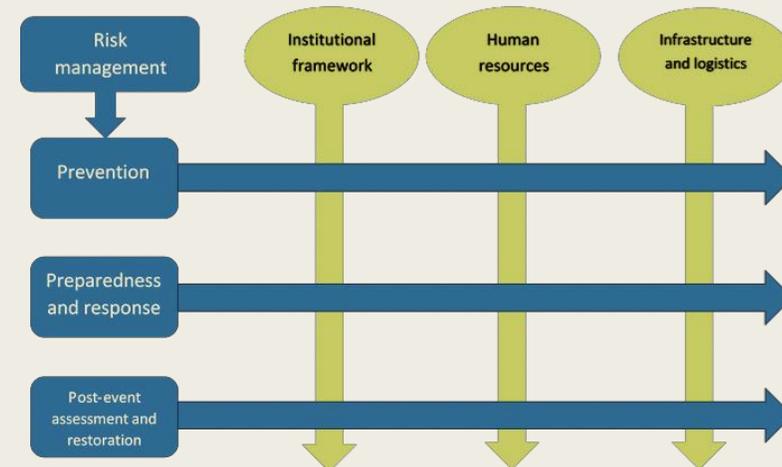


# Multi-risk



# Country report

- A complex document that integrates both the methodological aspects and the framework of the evaluation, as well as the results of the evaluation process of the 10 risks that were investigated during the project.
- In addition, the report also contains a cross-sectional assessment of needs, both in terms of risk and institutional management, as well as a road map for effectively addressing identified weaknesses.



# Country report - weak points identified



## ■ Prevention

- *Lack of disaster risk strategies, policies and plans that include the results of the risk assessment*
- *Non-uniform approaches and lack of regulation in hazard and risk assessment*
- *Lack of an adequate budgetary mechanism for systematically addressing and prioritizing risk prevention and mitigation measures*
- *Poor correlation between the scientific research activity and practical application in the field*

## ■ Response

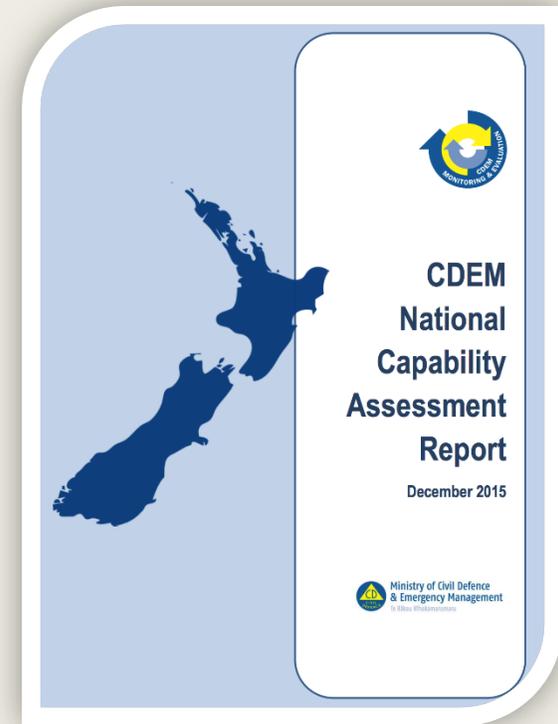
- *Insufficient correlation between responsibilities and real possibilities to implement the measures set out in the SNMSU*
- *Insufficient endowment both in terms of number and specialization in risk types*
- *Low effectiveness of Voluntary Emergency Services*

## ■ Restoration / rehabilitation

- *The lack of a legislative framework that clearly establishes responsibilities for this phase*

# National risk management capability

- ❑ COMMUNICATION FROM THE COMMISSION
  - Guidelines on risk assessment capability assessment (2015/C 261/03)
    - *The risk management capability assessment covers the entire risk management cycle (risk assessment, risk management planning for prevention and preparation, and implementation of risk prevention and preparedness measures).*
- ❑ New Zealand National Capability Assessments & CDEM Capability Assessment Tool



# National risk management capability

D2	L O C A L	Contribuțiile comunitare privind gestionarea hazardurilor și riscurilor sunt evaluate și sunt definite "niveluri acceptabile de risc"	L O C A L	D2.1	Există un proces de identificare a comunităților expuse hazardurilor și riscuri	1		1	20,0%	
				D2.2	Există un proces de implicare a comunităților expuse riscurilor în procesul de informare/educare	1		1	20,0%	
				D2.3	Există discuții explicite cu comunitățile despre niveluri acceptabile de risc	1		1	20,0%	
				D2.4	Comunitățile cu risc specific sunt consultate cu privire la opțiunile de gestionare a riscurilor	1		1	20,0%	
				D2.5	Comunitățile sunt informate cu privire la rezultatele activităților de reducere a riscurilor și la orice risc	1		1	20,0%	
						0				
						TOTAL PENTRU INDICATOR				
						TOTAL PENTRU OBIECTIVUL G1D				

## Rezultat Centralizator pentru Obiectivul 1

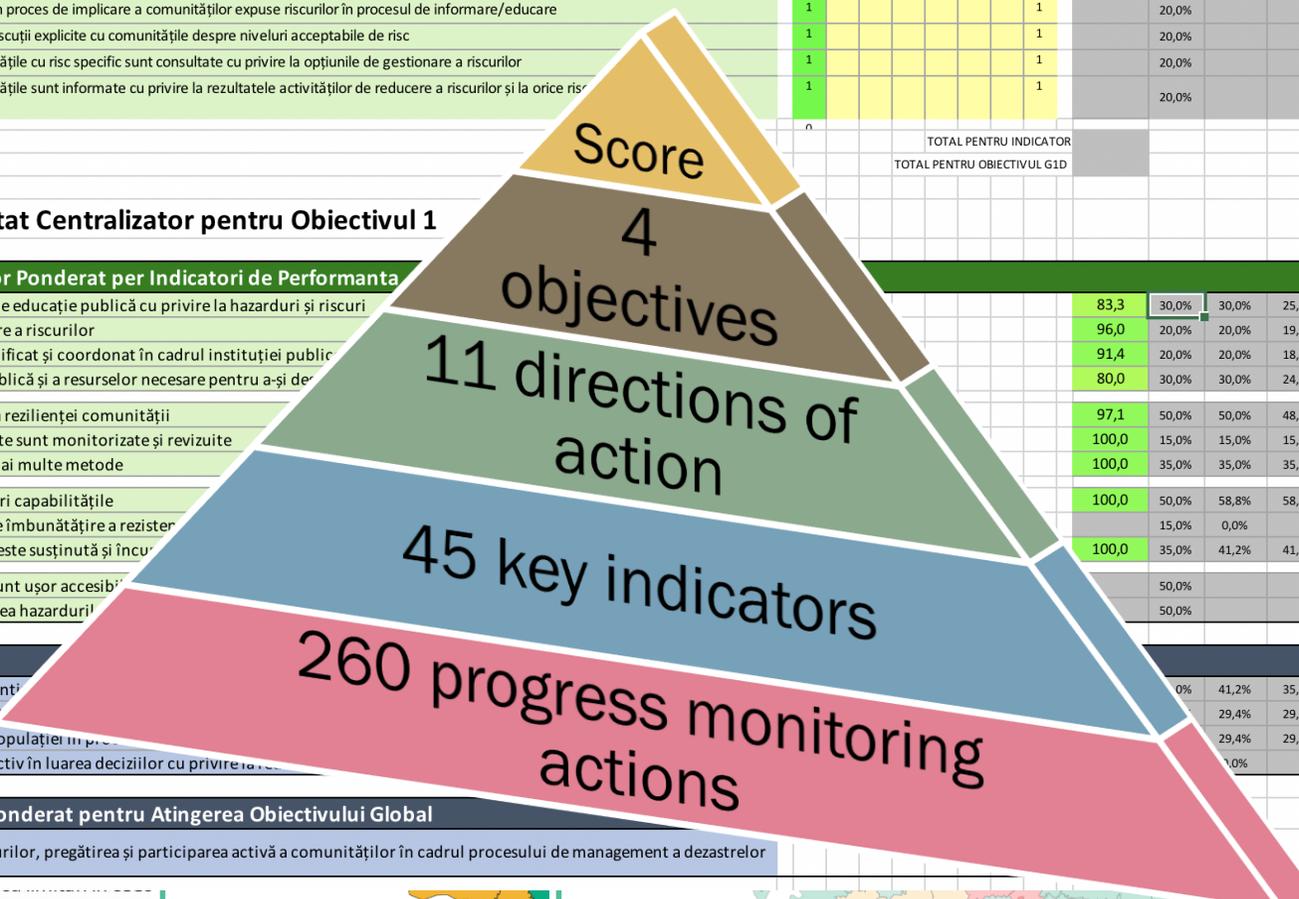
### Scor Ponderat per Indicatori de Performanta

O1A-1	Există programe planificate și coordonate de educație publică cu privire la hazarduri și riscuri	83,3	30,0%	30,0%	25,0
O1A-2	Utilizarea tuturor formelor de conștientizare a riscurilor	96,0	20,0%	20,0%	19,2
O1A-3	Managementul informării publice este planificat și coordonat în cadrul instituției publice	91,4	20,0%	20,0%	18,3
O1A-4	Existența responsabilului cu informarea publică și a resurselor necesare pentru a-și de	80,0	30,0%	30,0%	24,0
O1B-1	Există o abordare strategică și coordonată a rezilienței comunității	97,1	50,0%	50,0%	48,6
O1B-2	Reziliența comunitară și programele aferente sunt monitorizate și revizuite	100,0	15,0%	15,0%	15,0
O1B-3	Mesajul de pregătire este difuzat folosind mai multe metode	100,0	35,0%	35,0%	35,0
O1C-1	Comunitățile sunt sprijinite pentru a-și spori capacitățile	100,0	50,0%	58,8%	58,8
O1C-2	Capitalul social este investit ca o metodă de îmbunătățire a rezistenței		15,0%	0,0%	
O1C-3	Participarea voluntarilor în cadrul SNMSU este susținută și încurajată	100,0	35,0%	41,2%	41,2
O1D-1	Informațiile privind pericolele și riscurile sunt ușor accesibile		50,0%		
O1D-2	Contribuțiile comunitare privind gestionarea hazardurilor și riscurilor		50,0%		

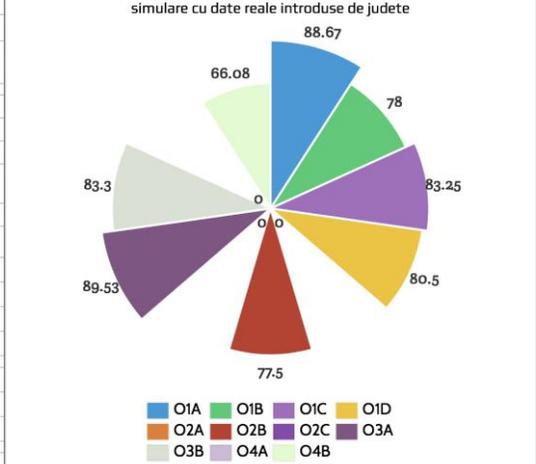
### Scor Ponderat pentru Atingerea Obiectivului Global

O1	Creșterea cunoașterii și conștientizării riscurilor, pregătirea și participarea activă a comunităților în cadrul procesului de management a dezastrelor				
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60-80	Există angajament din partea institut...
40-60	Se înregistrează un progres fără a fi c...
20-40	Progres minor, cu unele intenții viitoa...
0-20	Niciun progres, nu există niciun demers în acest sens



## Vedere de ansamblu indicatori



O3B-1	100.00
O3B-2	0.00
O3B-3a	93.33
O3B-3b	100.00
O3B-3c	100.00
O3B-4	100.00
O3B-5	96.00
O3B-6	100.00
O3B-7	70.00
O3B-8	100.00
O3B-9	100.00

# Challenges



- Establishment of GLERN and good functioning of PNRRD
- Use the portal as a basis for risk assessments managed at the level of ministries and other central public administration authorities with disaster management responsibilities (HG 557/2016)
- New country report 2018 on risk assessment + country report on risk management capabilities
- Using the results of evaluations in public policies and risk management plans
- Improving the methodology for unitary assessment and risk integration
- Develop a unitary impact assessment methodology

**THANK YOU FOR YOUR  
ATTENTION!**

