

Working Group *“Natural Disasters”*

CALRE 2017

MAIN ACTIVITIES

1) ESTABLISHMENT OF A TECHNICAL GROUP OF EXPERTS

- Recognition of the more frequent natural disasters in the European Union territory;
- Recognition of possible prevention and response strategies about natural disasters.

2) RECOGNITION AND ANALYSIS OF THE EUROPEAN LEGISLATIVE FRAMEWORK

- Analysis of the regulatory instruments provided by the European Union to deal with natural disasters.
- Study of the possibilities offered by the Structural Funds for the financing of prevention and analysis activities of what is required by European legislation State Aid .

3) ADMINISTRATION OF A SURVEY TO THE EUROPEAN REGIONAL PARLIAMENTS

- Collection of informations about regional expertises referring to natural disasters, about the main risks in the reference areas and about the implementation of best practices;
- Proposals development to submit to the European Institutions.

MEMBERS



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CALRE MEMBERS – REGIONAL PARLIAMENTS:



TECHNICAL AND SCIENTIFIC GROUP OF EXPERTS:



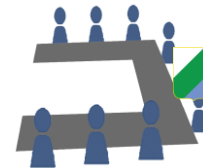
Universities

- Teramo
- L'Aquila
- Chieti e Pescara



Research Institutes

- INGV*
- GSSI**



Regional Bodies

- Regional Government
- Regional Parliament

* National Institute of Geophysics and Volcanology
** Gran Sasso Science Institute

GOALS TO ACHIEVE



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- ❖ *To deal with natural disasters with a programmatic approach* that allows to properly handle emergency situations;
- ❖ *To develop resiliency strategies to natural disasters* through mutual cooperation between the various institutions;
- ❖ *To develop a preventive approach* to these issues, through the contribution of the Scientific Research Institutions and Universities;
- ❖ *To develop strategies for dealing with such phenomena*, through the detection of common problems among the different regional Parliaments and promoting the best practices;
- ❖ *To identify the open issues* relating to "natural disasters";
- ❖ *To analyze the legislative instruments that the European Union makes available* to States and Regions;
- ❖ *To submit to the European institutions the regional requirements and the proposals developed.*



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MEETING SCHEDULE



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1° Meeting – L'Aquila

1° Meeting - Bruxelles

14 JULY 2017

Workshop of experts
Working Group CALRE 2017
“Natural disasters”

11 OCTOBER 2017

Presentation of the outcomes
of the activities through the
preparation of report to be
submitted to the Plenary
Assembly of Calre and
European Institutions

WORKSHOP OF EXPERTS
Working Group CALRE 2017
“NATURAL DISASTERS”
L’Aquila - 14 JULY 2017
Program and relations

- Introduction: **Giuseppe Di Pangrazio**, *President of Legislative Assembly of Abruzzo and Coordinator of the Working Group CALRE “Natural Disasters”*.

Speeches of *Scientific technical group*:

- Disaster risk reduction: from disaster management to disaster risk management, **Dr. Alessandro Urbani** – *Protection Soil Service of the Public Work Department, government of the area and environment policy of Abruzzo region*;
- The Resilience of Regional Systems. Theoretical Framework and Policy Implications, **Dr. Grazia Di Giovanni** - *Gran Sasso Science Institute GSSI*;
- Extreme atmospheric and hydrological events: climate change, natural causes and anthropogenic activities, **Prof. Gianni Pitari** – *University of L’Aquila*;
- Hazard evaluation and landforms risk (landslides and floods): European Framework and possible additional proposals, **Prof. Tommaso Piacentini** - *University of Chieti-Pescara*;

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- Prevention is better than cure - Some considerations on disaster prevention in Italy and Europe, **Dr. Vanja Kastelic e Dr. Michele Carafa** - *Istituto Nazionale di Geofisica e Vulcanologia*;
- Examination of European legislation on natural disasters, **Adv. Giovanni Giardino** - *Director of the Institutional and European Affairs Service of the Legislative Assembly of Abruzzo*;
- Questionnaire on natural disasters - Summary of the responses given by CALRE Legislative Assemblies, **Adv. Gabriella Rosa** - *Office manager of European relations Service of the Legislative Assembly of Abruzzo*;
- Short background on the US experience concerning natural disasters (US disaster law), **Dr. Alessandra Di Giuseppe** - *Research assistant in Private Comparative Law at Teramo University and researcher at Legislative Assembly of Abruzzo*.

Conclusions: **Mario Mazzocca**, Undersecretary of regional government Presidency *and member of the group of experts*

Such contributions are published on the website of CALRE at the following link:

<http://www.calrenet.eu/natural-disasters-leader/#documentation>



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BRUXELLES -11 OCTOBER 2017

**FINAL DOCUMENT
WORKING GROUP CALRE 2017
“NATURAL DISASTERS”
SYNTHESIS**

FACT-FINDING FRAMEWORK

Natural disasters that have most affected the Regions in the period 1998-2009

Frequent risks



Spain

- Floods
- Drought
- Epidemics and diseases
- Earthquakes
- Volcanic hazards
- Forest fires
- Water hyacinth

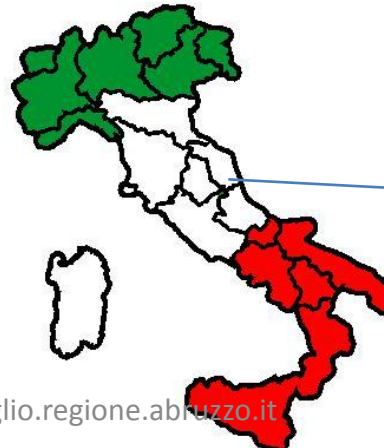


Austria

- Floods
- Drought
- Earthquakes
- Extreme weather events
- Heavy snow.
- Avalanches.

Portugal

- Floods
- Extreme weather events
- Forest fires
- Coastal Waves



Italy

- Floods
- Hydrogeological instability
- Coastal erosion
- Earthquakes - tsunami
- Extreme weather events
- Drought
- Forest fires



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EXAMINATION OF EUROPEAN LEGISLATION ON NATURAL DISASTERS

WORKING METHOD FOLLOWED

The examination of the legislation has been carried out using the following working method:

- 1. a review of the division of competences concerning natural disasters between the Union;**
- 2. a review of the European legislation on natural disasters prevention and risk management;**
- 3. a review of the European legislation on emergency management.**

The examination concerns Directives, Regulations and Communications of the European Commission.



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EXAMINATION OF EUROPEAN LEGISLATION ON NATURAL DISASTERS



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There is no *ad hoc* subject or competence definable as natural disasters but this area may cover several matters.

The screening of the legislation showed that European Law concerns mainly emergency management and risk prevention.



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EXAMINATION OF EUROPEAN LEGISLATION ON NATURAL DISASTERS



On natural disasters prevention

European Commission approved many Communications for enhanced disaster response capacity (eg. **COM/2013/021 on Eu strategy on adaptation to climate change; Action Plan, regarding Sendai Framework for Disaster Risk Reduction 2015-2030**)

On regulatory action

Are recorded thematic interventions (Directive “**Water**” 2000/61/EC, Directive “**Floods**” 2007/60/EEC, Directive “**INSPIRE**” 2007/2/EEC, Directive “**VAS**” 2001/42/EC, Directive “**VIA**” 2011/92/EU, Reg. EU n. 2013/1301, art. 5, “**FESR**”).

Concerning the aspect with the issue of structure planning of civil engineering works, have been introduced **10 EUROCODES** (The Eurocode 8 provides the seismic rules, both for buildings and civil works).



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EXAMINATION OF EUROPEAN LEGISLATION ON NATURAL DISASTERS

Regarding emergency management there are many regulatory actions of European Union:

- **Solidarity Fund** (Reg. EU n. 2012/2002)
- **Union civil Protection Mechanism** (Decision 1313/2013/EU)
- **Exempt from the notification requirement for the aid to undertaking in relation to damage resulting from major natural disasters.** (Reg. EU n. 651/2014)
- **Provision of emergency support within the Union to meet the humanitarian needs of people affected by disasters** (Reg. EU n. 369/2016)
- **Possibility to use FESR, with a co-financing rate up to 95%, to support operations in response to major or regional natural disasters** (Reg. EU 2017/1199).



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DATA ELABORATED BY SCIENTIFIC WORKING GROUP



Data elaborated by the International Disaster Database regarding the effects of earthquakes, floods, landslides registered in Europe between 1900 and 2014 tell us that there have been **791** such events. **More than 20 million people were involved, with 380.000 deceased** or hurt and 3.3 million people left without a home.

To **sheer human suffering** we must also add the **economic** damage, that is getting more and more unsustainable, with an estimation just for Europe of **more than 100 billion € from the year 2000** (Poljanšek et al., 2017).

According to experts, this frame is possibly going to get worse if, the number of natural extremes registered in Europe is bound to increase, also because of the climate change effects not only on the average climate, but also on the climate extremes.

The economic and social cost of the earthquakes is also increasing, (only in Italy it is estimated that the cost of post-seismic reconstructions of the last 50 years has been about three billion a year to rise to more than four considering the damage caused by landslides and floods).

The anthropic impact is not neutral in this.



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SCIENTIFIC GROUP'S ACTIVITIES

In the first phase, the WG has focused its attention on natural hazards distinguishing them in the following categories:

Hydrogeological, geophysical, meteorological

Data collected here show that the rate at which the effects of natural hazards are increasing is ever faster than the actions put in places to decrease the vulnerability of the most at risk territories. **To put it simple, many natural events appear to be tragically connected to wrong “developments” that do not fit with the climatic, geodynamical and geomorphological characteristics of the territories.**

We need to modify the intervention strategies, considering that 95% of the available funds is used to help territories recover from natural hazards.

Also European Commission estimates that for every 1 € spent in preserving from natural hazards we would spare between 4 and 7 needed for post-disaster recovery.



CONCLUSIONS GROUP'S SCIENTIFIC

The scientific Working Group strongly agrees with the slogan From Commitment to Action launched by the Global Platform for Disaster Risk Reduction (22-26 May 2017 – Cancun, Mexico) and hopes that the European regions, called to face the effects of natural hazards in their territories, will make the appropriate steps so that the management of natural risks will not translate in the usual post-event managing.

The US Disaster Law is based on the common format of disaster cycle and is allocated in four phases:



FEMA (Federal Emergency Management Agency) coordinate the response to disasters in USA.

In the year 2000 was adopted the *Disaster Mitigation Act* in order to strengthen the **pre-disaster phase**.

By virtue of that legislation, the **President of the United States can allocate funds from the National Pre-disaster Mitigation Fund to States that:**

- identify high risk areas of natural disaster
- demonstrate the ability to use public-private equity instruments in the context of risks from natural calamities
- must have the Pre-Disaster Mitigation Grant Program



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CONCLUSIONS

TEN ADVISABLE INTERVENTIONS OF THE EUROPEAN UNION ON NATURAL DISASTERS



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TEN ADVISABLE INTERVENTIONS OF THE EU ON NATURAL DISASTERS



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- 1. To introduce the same method for Risk.** The Legislative Assembly of Upper Austria raised the question of the method used for risk analysis, noting that, because it is not ruled at Union level, each Member State has developed its own method. Moreover, because of such legal fragmentation in this field of EU legislation, in some cases, the comparison between the different methods used by each Member State is difficult. A useful solution, therefore, could be to introduce a consistent method for risk analysis.
- 2. To provide measures against climate change.** Some Legislative Assemblies have raised the issue of climate change and the necessity to promote regulatory actions at European level that encourages the common goal of mitigating against the effects of climate change in order to strengthen risk prevention.



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TEN ADVISABLE INTERVENTIONS OF THE EU ON NATURAL DISASTERS



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- 3. To legislate on risk prevention (in particular on prevention of certain types of risks such as fires and earthquakes).** To enable to, it might be useful to make obligatory some prevention codified practices, by increasing simulation testing. Furthermore, collaboration and the sharing of best practices should be encouraged in order to create a common protocol for action. The Regional Assembly of Puglia has stressed that in field of water resource the most advanced form of prevention is the planning of the Water Balance: the identification of water bodies and infrastructures enables the rational utilization of surface and groundwater water resources. This ensures the accessibility to resource by all users, the sustainability of the use of resources, the balance between available resources and uses for different uses in ordinary and critical situations.
- 4. To legislate on containment of land consumption.** The appropriate use of soil is one of the most important measures to prevent natural hazards. Therefore, it would be desirable to introduce specific regulatory measures to ensure adequate maintenance of the territory. Furthermore, it is necessary to make up for lost time and to draw up a framework directive for soil protection, which includes shared mapping methods of land.



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- 5. To harmonise and make systematic the European disaster law.** The European legislation on natural disasters is quite fragmented, a more comprehensive and shared approach on prevention of natural disasters is required. For example, it would be useful establish harmonised procedures for defining the seismic qualification of buildings, as an integral part of any program at National and European scale for reducing the vulnerability of buildings.
- 6. To increase the Solidarity Fund and to simplify the procedures for accessing it.**



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7. To reconsider and to integrate the Article 50 of EU Regulation 651/2014 on exempted aid for damage caused by natural disasters, for example by reallocating some allowable damages. At present, costs related to "loss of income" due to the total or partial suspension of business activity for a maximum period of six months from the date of the last of such occurrences. It might be useful to have the flexibility to extend the period of six months, should the activity take longer. The eligible costs together with the "loss of income", could be taken into account in the "actual loss" to be calculated on the basis of reasonable standards. A new form of business aid could be introduced, exempted from the notification for the investment on natural disaster prevention interventions, by analogy to the aid for the protection of the environment referred to in Art. 36 et seq. under the same European Regulation. It might be useful to provide a new form of business aid affected by earthquakes and concurrent disastrous events.



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TEN ADVISABLE INTERVENTIONS OF THE EU ON NATURAL DISASTERS



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- 8. To Invest in research on natural disasters, in public information and in training of professionals in the field.** A European approach to natural disaster prevention policies cannot exclude resources for better scientific knowledge, with particular regard to geological / geomorphological mapping and hazards due to hydrogeological, seismic and meteorological events (through shared methods at European level), characterisation of risks associated with natural events and awareness / education of the population. The resources for developing the scientific research should not be strictly limited in the above-mentioned matter (disasters and risk management), but focused on the study of the physical mechanisms responsible for the rapid increase of the problem starting with global and regional climate warming.



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TEN ADVISABLE INTERVENTIONS OF THE EU ON NATURAL DISASTERS



9. Examine the possibility of introducing a Fund for the pre-disaster phase based on the model of the US experience.

10. To use, through concrete actions, both the Structural and Investment Funds and all the EU beneficiary Funds, to face the issues related to natural disasters taking into account also as noted in the draft opinion of the Committee of the Regions at the plenary session held on 9 and 11 October 2017 [“A European policy on the seismic requalification of buildings and infrastructure”](#). In particular, under points 24 and 25 of the same opinion of the European Committee of the Regions:

“24. proposes that EU regulations should provide for the use of ESI funds for the seismic requalification of public and private buildings, together with road transport and services infrastructure that is of strategic importance to EU countries;

25. calls on the European Commission to develop in coordination with the Member States and, where relevant, local and regional authorities an action plan for the seismic requalification of buildings and infrastructure in keeping with Article 5(5)(b) of Regulation (EU) No 1301/2013 on the European Regional Development Fund; also asks the Member States and local and regional authorities to make full use of the support provided for this investment priority in the regional development operational programmes”.