Workshop on investing in Disaster Risk Reduction in South Easter Europe”

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Good practices – the Italian Experience

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Why this presentation

• The last few years have shown how calamitous events have worsened in frequency and intensity, as well as after the pandemic it has been clear that we must be prepared to handle multi-hazard situations and multi-level risks. It is crucial to invest not only in emergency response but also in prevention and preparedness.

• We presented some examples of Good Practices in investing among the activities of DRR that we consider working well in Italy.
1. Italian Civil Protection System overview

2. Examples of good practices in DRR:
   a. Preparedness – The “I don’t take risks” Campaign

3. Conclusion remarks
Italy: a country prone to disasters

Earthquakes
Most of the Italian territory is prone to seismic risk

Volcanoes
10 volcanoes, 2 active and 8 quiescent. Vesuvio and Campi Flegrei at very high risk

Hydraulic and Hydrogeological risk
Extreme weather events
82% of Italian municipalities are exposed to hydro-geological risk

Forest Fires
30% of the Italian territory is exposed to the risk of forest fires

Tsunamis
Italy has been affected by historical tsunamis

Drought
Due to climate change the drought risk has increased
Other risks

The National Civil Protection Service can be activated as well for the following types of risks:

- Chemical
- Nuclear
- Radiological
- Technological
- Industrial
- Transport
- Environmental
- Sanitary
- Return or fall to earth from outer space of objects and space debris
- Kinetic effect
- Cyber/hybrid attacks

More than 1000 industrial plants at significant risk
Disaster Risk Management Cycle

PREVENTION AND PREPAREDNESS
Risk analysis and reduction

OVERCOMING EMERGENCY
Resumption of normal living conditions

FORECASTING
Monitoring and early warning

EMERGENCY MANAGEMENT
Relief and assistance

In Italy, civil protection deals with the entire risk cycle
National scientific network and the early warning systems (annual budget)

- The national scientific network - Conventions and Agreements with the competence centers for applied research and operational activities - about 26 mln Euro
- Maintenance of Radar network - about 5 mln Euro
- Maintenance of monitoring systems of both hydro-pluviometric and accelerometric networks - about 10 mln Euro
The monitoring network is mainly made up of rain gauges and hydrometers but there are also other sensors (anemometers, thermometers, snow meters, etc.).
The radar network

Dual-Polarization
Single-Polarization
Scientific network of Competence Centres coordinated by the Department
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Following the 2009 Abruzzo earthquake, the National Fund for Seismic Prevention was established to promote non-structural and structural prevention actions for seismic risk reduction.

- **Total allocation**: approximately 965 M€ for the first 7 years, followed by ca. 50 M€ per year
- **Multiannual Programming** of Funded Actions
- **Coordination** by the Civil Protection Department and regulated through decrees
- **Implementation** of actions by the Regions

![Annual funds (M€)](chart.png)
1. Facing the issue in a logic of integration:
   - **non-structural prevention actions** (seismic microzoning, emergency and territorial planning)
   - **structural prevention actions** (vulnerability reduction), on public and private buildings, and urban infrastructures.

2. Raising the attention and **awareness of private citizens** and of **administrators** regarding seismic risk and increasing risk awareness and a culture of prevention.

3. Increase the effects of the allocation by requesting **co-financing from local governments and private individuals**.

4. Aiming at **reducing the risk to human lives** by limiting interventions to the highest hazard areas (ag>0.125g) and to the most vulnerable and/or important structures for emergency management.
Decision chain

- Distribution of funds according to expert committee judgement:
  - **Structural prevention (~90%)** → short term effect (strengthening of buildings)
  - **Non-structural prevention (~10%)** → long- and medium-term effect (urban planning, contingency planning, design improvement)

- Distribution of funds among Regions:
  - according to **seismic hazard** (ag≥0.125g) and **risk** (global/individual combination)

- **Selection of municipalities** for non-structural prevention:
  - according to **seismic hazard**

- **Selection of buildings** by Regions, according to the requests by municipalities
Implementation of the plan

- Pointing towards the reduction of the risk of human losses → interventions on highest hazard areas (ag ≥ 0.125g);

- Wide spectrum of actions:
  - a) Non-Structural Prevention
     Improvement of tools: seismic microzonation, urban and emergency planning
  - b) Structural Prevention
     Reduction of the vulnerability: retrofit of public buildings and urban infrastructures
  - c) Structural Prevention
     Reduction of the vulnerability: retrofit of private buildings

- Actions co-funded by local public administrations and private owners
Seismic upgrading of public buildings and infrastructure

Funded interventions: 1,292

- Town hall: 52%
- Security: 6%
- Hospital: 10%
- School: 24%
- Municipal and other: 8%
- Public transport: 6%
- Hospitals and health structures: 10%
- Other: 24%

83% seismic upgrading
Seismic Upgrading of Private Buildings → Monitoring

**ALLOWED GRANTS**
- 3,818 buildings

**PROJECTION**
- 6,500 buildings

**SINCE 2017, FISCAL INCENTIVES (70-85% TAX DETRACTION) FOR PRIVATE OWNERS HAVE BEEN INTRODUCED**

- **61%** local reinforcement
- **35%** Seismic upgrading
- **4%** Demolition and rebuilding

Platform to support Regions in managing seismic upgrading interventions on private and public buildings.
Some considerations

- **Main action to mitigate seismic risk** → generalized reduction of the seismic vulnerability of existing constructions / adequate seismic safety to new constructions.

- This objective is the longest and by far the most expensive to be achieved: **huge investments and very long term risk mitigation policies are required.**

- The **fund allocation is still largely insufficient**: a purely structural retrofit program at such rate would require some centuries to be completed. Meanwhile hundreds of billions of Euro would be spent after future destructive earthquakes.

- The **National Plan for Seismic Risk Prevention** has received now a new regular fund (50 M€/year): this is important, because continuity on these plans remains a fundamental aspect.
We’re now going to talk about...

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I don’t take risks

Io non rischio – I don’t take risks is a national communication Campaign on best practices of civil protection.

Italy is a country exposed to many natural risks, but the individual exposition to such risks can be considerably reduced through the knowledge of the risk, the awareness of the possible consequences and the adoption of a few simple measures of self protection.

http://iononrischio.protezionecivile.it/en/homepage/
I don’t take risks

The most effective way to defend ourselves from a risk is to know it → this usually involves a level of in-depth knowledge that cannot be easily communicated.

Volunteers live and work in their own territory, they know it and in turn they are known by local institutions and citizens. Therefore, in the Campaign, volunteers meet their fellow citizens and explain the risks of the territory and good civil protection practices.
The characteristic of the campaign is the contact of the volunteer with the citizen "in the square", in a weekend once a year.

Volunteer communicators, properly trained by other volunteer trainers on earthquakes, tsunamis and floods (and recently also on volcanoes), explain to the citizens how to behave before, during and immediately after the emergency, through the use of simple tools, such as cards and leaflets.
The initiative, **conceived in 2011** by ANPAS, one of the largest national voluntary civil protection organizations, was welcomed and taken up by the Civil Protection Department together with **three of its Competence Centers**: INGV, ReLUIS and CIMA Foundation.

Over time, the involvement has gradually extended to the Regional Civil Protection Directorates, about 30 national organizations and hundreds of local associations. **The initiative is present now in all Italian Regions.**
I don’t take risks

The Campaign has grown spontaneously over the years. In 2011 the experimentation started in 9 Italian squares, reaching over 850 of the 2019 edition, when the experimentation on volcanic risk was also started.

After the 2020 and 2021 pandemic, in which the Campaign continued with online activities, the 2022 edition took place in over 600 squares. Our President Sergio Mattarella also participated in the Campaign, wearing the typical yellow scarf.
“I don’t take risks” outside Italy

The methodology adopted in the Campaign was also exported to other countries, which showed interest in the feasibility study of the initiative in their territory. In particular, within three international projects, the Campaign was carried out in Albania, Montenegro and Tunisia, after an adaptation of the contents with respect to some local socio-cultural aspects.
Concluding remarks

Overall, there is a strong need to strengthen and integrate prevention and preparedness measures, including by promoting systematic exchange of experiences among countries and fostering mutual knowledge to help identify gaps at regional/national levels and assess existing capacities to be further developed.

It is important to promote initiatives such as this meeting to build a European community in DRR, and we thank very much Croatia and to the UNDRR for having organized this workshop.

Thank you for your attention!