Italian Civil Protection system for DRR activities

Luca Rossi
Civil Protection Mission

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Defence lives and property by damage or by possible damage due to natural & technological disasters and other destructive events.

DRR
Italy: a disaster prone country

Pop. 60,000,000; 8100 municipalities; 72% with a pop. < 5000
The largest Cultural Heritage patrimonium
Emilia Romagna earthquake 2012
Side effects – financial impact

1,5% GDP
Gross Domestic Product

Biomedical factories
Ceramics
Parmesan
Balsamic vinegar
fodder for livestock

…..
... but also

• Disruption of local authorities, lack in response and coordination
• Direct damages to
  • Emergency infrastructure (e.g. health centres, telecommunication, roads, basic services)
  • Cultural heritage
  • Houses and factories (need for shelters, food, …)

• Side effects
  • Company bankrupt, Lost of work, emigration
  • Lost of identity, hope, …
## Disaster Risks Reduction

### Mitigation
- Reducing/mitigating damages by developing structural measures
- Setting rules for land use, building codes
- Raising population awareness enhance self protection measures

### Alert
- Analysis of causes aimed at identifying risk typologies and areas affected by risks

### Response
- Operations aimed at fulfilling the basic needs of the population affected by the event based on previously elaborated emergency relief plans

### Recovering
- Interventions aimed at restoring normal life conditions
NPDRR Organizational Structure

**STEERING COMMITTEE**

- The National platform’s strategic decisional body is coordinated by the head of the National Civil Protection Department.
- Its members are authorized to act autonomously in terms of decisional power.
- Approves the platform governance, sets thematic work groups and issues guidelines for the activity of the platform.

**EXECUTIVE COMMITTEE**

- The National platform ordinary technical coordination body.
- Monitors the operability of technical work groups, promotes synergy and ensures results sharing.
- Represents the National platform in the framework of international fora and relates with foreign organizations and platforms.

**THEMATIC WORK GROUPS**

- The seats where sector-specific comparisons are made in order to define the state of risk reduction at a national and territorial level.
- Operate by interconnecting and interacting among each other.
- Elaborate reports on the main risk reduction activities.
NPDRR Organizational Structure

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**THEMATIC WORK GROUPS**

- Risk Analysis and Mapping
- Monitoring and Early Warning Systems
- Legal Framework
- Emergency Response Systems Planning and Organization
- Training and Communicatio
- Disaster Financing and Insurance Systems
- Structural Activities for Risk Mitigation

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XXVII DPPI SEE REGIONAL MEETING
27 - 28 November 2013, Sarajevo, Bosnia and Herzegovina
IDCP mandate

To Identify and involve all the public/private structures necessary to cope with the extraordinary events

Ensure unified coordination/direction at national level

Support all the operational structures involved, collecting and sharing data and information
Allowing for Fast recovery of critical public and industrial facilities after earthquakes

• DL. ABRUZZO: 1MLD€ FOR SAFE RECONSTRUCTION OF SCHOOLS IN THE EARTHQUAKE AREA

• EMILIA ROMAGNA DL: TECHNICAL GUIDELINES FOR THE QUICK FIXING OF INDUSTRIAL BUILDINGS AND EARLY RECOVERY OF FINANCIAL ACTIVITIES
Hydraulic and hydro-geological risk

Location of 2533 sites affected by landslide events with direct consequences to the population. Period 650-2008

Location of 1836 sites affected by floods events with direct consequences to the population. Period 590-2008
Hydraulic and hydro-geological risk

Hysorial distribution of landslise and flood events with casualties in Italy

From 1900 to 2011:
- More than 10,000 deaths, injured people, missing persons
- More than 350,000 homeless/displaced
- Thousands of destroyed/damaged buildings and facilities
- Hundreds of km of destroyed/damaged roads and railways

Socio-economic impact
Civil protection approach

- Cooperating at international level to improve European legal framework and to develop best practises

- Sharing knowledge and responsibility with Local Government Authorities and Technical-Scientific Centres

- Improving monitoring network and forecasting capability (even based on new technologies, e.g. satellite based)

- Training:
  - Responders
  - Volunteers
  - Citizens (Enhancing awareness and resiliency)
  - International joint training
  - Exchange of experience
International cooperation

EU working groups on:
- risks mapping and assessment
- Early warning
- Delivering Information to the general public

Development of EU Civil Protection Modules
- AMP
- High Capacity Pumping
- Water SAR

International training:
- EU Civil Protection
- UNDAC
- INSARAG
- WFP

ISDR:
- LoU
- Chairing WG2 of the EUPDRR
- Support to DRR activities in requesting countries (PPRD East, Seychelles, Lebanon, Saudi Arabia...)

UNDP: capacity building projects
requires Member States to produce:

- **preliminary assessment** by 2011 to identify the river basins and associated coastal areas at risk of flooding.

- **flood risk maps** by 2013 and establish flood risk management plans focused on prevention, protection and preparedness by 2015

- Development of EWS

- Management of water discharge and monitoring of water levels

All assessments, maps and plans prepared shall be made available to the public.

The Directive shall be carried out **in coordination with the Water Framework Directive**, notably by flood risk management plans and river basin management plans being coordinated

Coordination of the public participation procedures in the preparation of these plans.
The early warning system

GCM-ECMWF, Reading
DALAM - UCEA, Roma
LAMI

Starting emergency procedures

System developed by ARPA-SMR of the Emilia Romagna Region

Rainfall field multifractal disaggregation

G.I.S.

Responders
Volunteers
Citizens
Media
Sharing knowledge & responsibility: National Network of Centres for Forecasting and Surveillance of Effects (CFSEs)

21 Planned Regional CFSEs

11 Regional/Provincial CFSEs fully operating
6 Regional CFSEs not operating
4 Regional CFSEs partially operating

1 National CFSE
Sharing knowledge & responsibility:
The community scientific network supporting DCP

National Scientific Group for Mayor Risks
(established L. 225/1992)
Improving monitoring networks:

Dates:
01/12/08 – 17/12/08

Δt: 16 gg
B_{dep}: -383 m

Range looks: 5
Azimuth looks: 4
Coher. thres.: 0.5
Height amb.: 10.56 m

Heights:

DEM: DTM_2007
(post March’07)
Resolution: 5 m

Detailed water depth

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Exchange and capacity building programs

ISDR Peer Review

UNDP – DRR Capacity Building

WFP National Early Warning Capacity Building

UNDAC Disaster Response Preparedness Mission
Italian Civil Protection Department & World Meteorological Organization

“DEWETRA” PLATFORM, FOR DATA AND INFORMATION COLLECTION ANALYSIS AND EXCHANGE released free of charge only and exclusively to national and international public entities and nonprofit institutions within the limits and under the conditions set for the purpose of "environmental monitoring and civil protection"

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**Italian-Albanian Cooperation**

In the field of Civil Protection

- **Overall objective:** To reduce risks and the vulnerability of Beneficiaries to natural and man-made disasters at national and regional levels

- **Purpose:**
  - To increase the ability of the Beneficiaries to effectively interact with the EU Civil Protection Mechanism and relevant EU institutions;
  - To increase the capability of the Beneficiaries to further develop effective national civil protection/disaster response systems and collaborate regionally.

- Establishment of technological networks covering Floods and Forest Fires;
- Promotion of Civil Protection voluntary work in Albania;
- Development of a C3 system (Command, Control, Coordination) both at National and local level;
- Establishment of a network of Storage and Logistical Centres for Civil Protection purposes.
Training: International exercises - EU
Training courses: EU/UNDAC/INSARAG
Training people
(Enhancing awareness and resiliency)

General Public

Citizens

Students

Tourists

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THANK YOU FOR YOUR ATTENTION