EU Mass Shelter Risk Profiling

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Project co-funded by the EU Civil Protection Mechanism

Mass Shelter Planning Assumptions

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Mass Shelter Planning Assumptions

- 5 days notice
- 10% of the population displaced will need assisted shelter
- Shelter required for 6 weeks

L'Aquila Shelter Camp at RFC – operational 5 months

Scenario 1 – North Sea Flooding

- North Sea Coastal Surge
  - 1 week warning – 8-36 hrs accuracy improves
  - High tide & surge coincide
  - > 1500 km length; low lying areas (6m above sea level) & several Kms inland.
  - Some coastal defences are compromised, older over topped
  - Dense coastal population centres with variable building types.
  - Damage due to velocity, standing water & pollution (silt, chemical & biological)
  - More than 3 million affected > 300 000* may require assisted long term shelter.
  - Rehabilitation (structural damage/ pollution /exposure to salt water /molding); 1-2 years & extended tail of up to 5 years.
  - Time & long term recovery data – limited evidence

Scenario 2 – Earthquake

- Magnitude (7-8.5Mw) sufficient to cause XII-VIII intensity damage.
  - No warning & many after shocks
  - Soft ground, fissures, permanent ground movement, landslides etc.
  - High population centre with variety of building types & ages.
  - Min 40km (probably > 70km) severe damage zone
  - Reconstruction period ~1 to > 5 years.
  - 3 million affected 35% properties uninhabitable – 35000 in need of assisted shelter.

Scenario 3 – Nuclear & Industrial Incidents

- A point source explosion / pollution event
  - 3-5 km radius of damage for Industrial site explosion (Gas, fertiliser, Fireworks etc)
  - 40 km exclusion zone for Nuclear site
  - 0-18 hrs warning
  - Permanent exclusion around Nuclear
  - 1-5 years reconstruction around industrial site.
  - 250 000 displaced – 25 000 in need of long term assisted shelter.

Summary 1

- Overview hazard exposure data available to project team for country & hazard.
- High magnitude low frequency (HMLF) hazards pose a significant threat to European populations.
- Long term displacement for affected populations should be effectively planned for.

Summary 2

- Use of national level hazard assessment for resolution required
- Historical records of HMLF are rare and contexts have changed (hazard process, population density and built environment).
- Care with generic scenarios
- Consider cascading hazards
- More detailed analysis of historical events in terms of % population requiring long term shelter in relation to scale and intensity of event and time for reconstruction.

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