Jean Monnet Module: Disaster Risk Management in the framework of EU Integration

Lessons from past disasters in EU and WB

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Why disasters still meet numerous obstacles, when it comes to implementation or enforcement?

- Ethical and economic reasons
- Limitation on databases on disasters
- Fragmented information and knowledge

Learning from the past

- Learning from the past is a first logical requirement to prevent a disaster
  - EMDAT, the well-known database which is managed by CRED (2019)
  - Disaster cycle model- (UNISDR, 2015, pp. 30-31)
  - Consider the existing socioeconomic and political situation
  - Spirals (Morin, 2005; Michellier et al., 2020)

Learning enough from the past?

Limitations to learn from the past is exposed by statistical trends concerning disasters

- EM-DAT (Emergency Database, CRED, 2019).

DesInventar (D'Ercole et alii, 2009; Pigeon & Rebotier, 2016)-

✓goals of DesInventar is to list and to map local disasters, helping local managers and households to prevent them in the future.

- How local disasters are "set up" by urbanization dynamics?
- Global Assessment Report (GAR)

Statistics

- Mitchell et al (2014): “it is not possible to establish a true statistical average for mortality or economic losses from only a few decades of national data”.
- limited time series,
- poor quality of the data and information concerning losses
- Existing information transformed into usable knowledge to justify risk maps and contingency plans.
- Knowledge management systems (KMSs

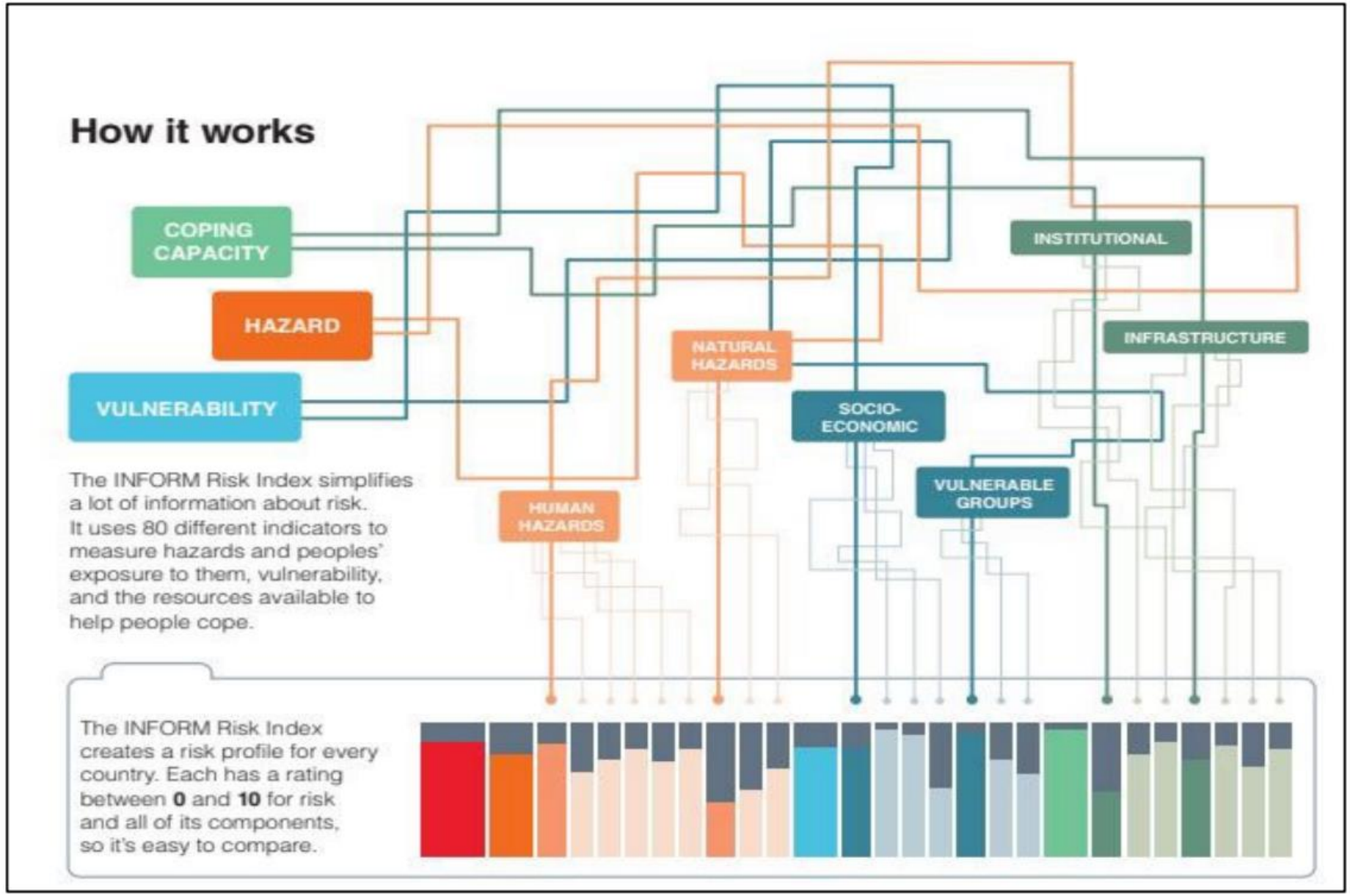

Figure 1: Components of risks covered by the INFORM Risk Index
Source: https://drmkc.jrc.ec.europa.eu/inform-index/ *INFORM report 2022*

Important tools

- The Group on Earth Observation earth observation to create disaster loss data for disaster risk reduction strategies and for reporting on the Sendai Monitor Global Indicators.
- European Commission launched in 2015 the Disaster Risk Management Knowledge Centre translates complex scientific data into usable information and advice for policy-making.

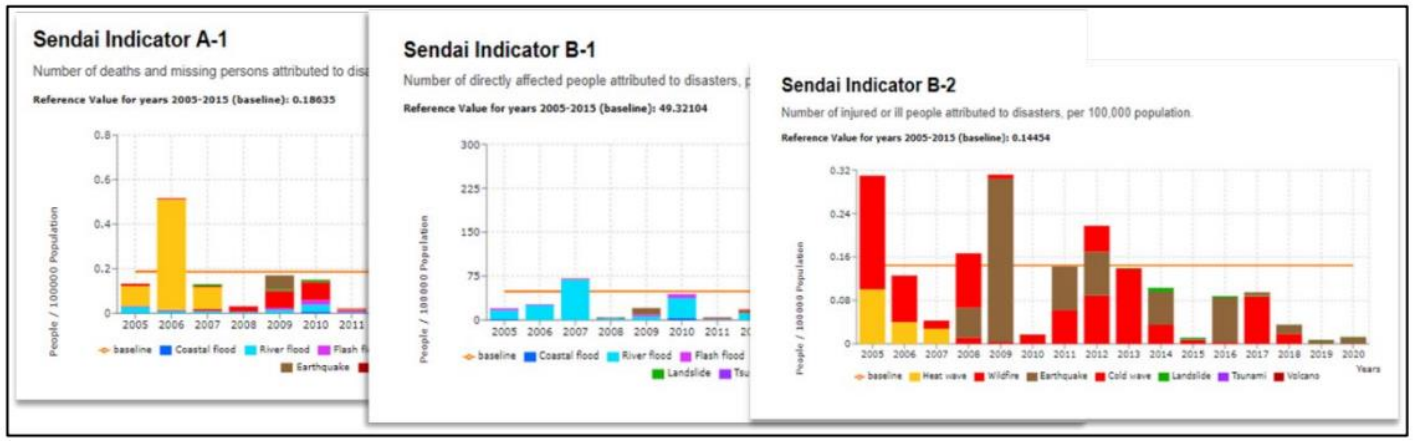

Figure 2: Risk Data Hub: Example of disaster loss data aggregated as Sendai indicators

Knowledge management systems (KMS)-Good practices

- Integrating several existing databases, favouring information sharing and creation of knowledge.
- National Observatory of Natural Hazards- France-
- integrates databases concerning damages recorded by insurance companies in France
- assess elements that contribute to disaster prevention and management
- Collaboration of two stakeholders- Insurance and state

Disaster risk reduction (DRR) Vs Climate change adaptation (CCA)

- Seek to reduce if not avoid risk to hydromet and geo hazards
- Seek to foster adaptive capacity
- Seek to foster societal resilience
- Face an uncertain climate future (e.g. climate water and weather variability, change and extremes)
- Have (share) overlapping but different time frames (short to midterm; midterm to longer term)
- Focus on hydro-meteorological hazards
- Could benefit from each other's knowledge
- Seek to reduce vulnerability of at-risk populations
- Are concerned about rural development
- Are concerned about hazard risk management (but on different time scales)

International Processes and Global Agendas

Ramasamy, S., 2016. "Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA)."

A calls for greater integration between CCA and DRR

- integration of institutions governing DRR and CCA
- DRR funding comes from humanitarian budgets vs funding for CCA comes from environmental ministries
- different terminologies, which further complicates cooperation and communication between the two fields

Literature

- Julien Rebotier, Patrick Pigeon, Michael H Glantz. Learning from past disasters to prepare for the future. Handbook of Disaster Risk Reduction for Resilience, Springer, pp.79-105, 2021, ff10.1007/978- 3-030-61278-8_4ff. ffhalshs-03265362f
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- Ramasamy S., 2016. “Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA).” Presentation for the Food and Agriculture Organization (FAO).
- CRED, 2019, Base de données EM-DAT, http://www.emdat.be