Session 2: Disaster Risk Data for Economy and International Strategies – TRANSFER OF RISK
Challenges in harmonization of risk transfer mechanisms

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Norwegian insurance system

Natural hazards (river flooding, storm surge, storm)
- An “Act of God”; solidarity system; premium not based on the risk of damage

Urban/city flooding: (pluvial/flash floods, storm water, sewage backup)
- Infrastructure problem: Not considered a natural hazard; risk-based premium

• Both damages are included in property insurance

Property insurance
- Fire
- Theft
- Water & Urban flooding

Natcat coverage automatic included (by law)
- premium based on fire insurance sum
Solidarity, bundeled insurance natcat system

Norway, France, Denmark, Spain.

Positive:
• Accesses to natcat insurance coverage
• «Fair» - as the event is an «act of God» – BUT IS IT?
• Flat, spread out, affordable premium
• Law based - no competition
  – coordinate / contact with authorities
  – Often high, up to 100 % penetration – “huge loss data base”

Negative:
• Not risk-based gives low incentive for prevent measures
  – Preventive measures has no effect on price
• No competition in pricing – not in the «spirit» of insurers
How can the insurance incentivize resilience

1. *Reduced pay-out* after a claim if insured breaches the contract condition

2. *Awarding* customers who install preventive measures

3. *Not offer* the insurance cover at all (Uninsurable – “foreseen damage”)

*Finance Norway*
The value of loss data — shows the real risk picture

Insurance pay outs 2008 - 2017

- River flooding
- Storm surge
- Landslide
- Vanninntrengning utenfra
- Flomskader - NP
- Tilbakeslag, Stopp i avløp
-Urban flooding (sewer back up)

Blue + red = Urban flooding

--- pluvial/urban flooding
--- nat cat
Why do we need to cooperate between private and public

Governments | Private Sector
---|---
Local Authorities | Public Agencies

The value of collaboration

Insurance Industry

• Risk management
  • Assessment
  • Quantify & Calculate
  • Risk transfer products

• Collects local disaster loss data

• Compensate, don’t mitigate
Risk transfer – need a common risk risk picture

- Need dialogue between insurance sector and municipalities
- Different understanding of the risk picture
- When a damage occur: people contact their insurance companies (not the municipalities)
DG ECHO/JRC work under *UN Sendai Framework for Risk Reduction*

[http://www.unisdr.org/we/coordinate/sendai-framework](http://www.unisdr.org/we/coordinate/sendai-framework)
Insurance and municipalities dialog – value of loss data project

- Built on **dialog and feed-back** from municipalities
- Goal: Check how useful insurance loss data is for use in preventive measures
- Stakeholders: Finance Norway, ten pilot municipalities and researchers
- Reference group: 4 national agencies
- Period: 2013 - 2015
Oslo city’s – risk picture according to their loss / damage data
Risk picture after getting 10 years of insurance loss data
Main conclusion

– New insights into risks previously unknown
– Improved understanding of how climate change affects society
– Improved knowledge base for localization of future development areas
– Improved knowledge base for prioritizing management, maintenance, rehabilitation, and reinvestment
– Improved knowledge base for risk and vulnerability analyses
– Basis for better collaboration within the municipalities (planning and technical sector)
ClimRes geovisualization tool – ‘data display’ added to the tool-box

A new “data display” tool has been added to the set of geovisualization tools. Access the tool here: http://setebos.svt.ntnu.no/climres/ […]

Food for academia –

Showing disaster loss data payouts from insurance on municipality level

http://www.climres.no/
http://setebos.svt.ntnu.no/climres/
• How can public decision makers plan or invest in preventive measures (PM) without the correct risk picture or knowledge of the vulnerable areas?

• How can you understand the value of (or get the incentive to invest in) PM if you don’t know the costs?

• With more knowledge (loss data+) – more responsibility, and more action
Questions that need to be discussed

- Start with insurance data and then include other sources of damage data, or to «all at once»?
- How to ensure that measures on natural hazard prevention are given sufficient priority?
- Clarify regulations on public access to data.
- Do local authorities have sufficient institutional capacity to utilize the increase in data availability?
- Do local authorities have adequate routines for systemizing and storing their own damage data?
- Which government agency should be responsible?
- Access control regulation.
- Better routines for registering damage data.
Insurance loss data gives new risk awareness – payouts from natcat per municipality per year?

http://www.climres.no/
http://setebos.svt.ntnu.no/climres/
Next step: Make a (common) national data base, with access for municipalities

The ‘Knowledge Bank’ – Kunnskapsbanken

DATA PLATFORM

DATA SOURCES

Make data available and support assessment processes

Compile and systemize data

Collect and store

Data from existing sources
Loss data: Who needs what?

• Municipalities:
  – Need loss data on asset/address level for land use planning, investing preventive measures
• National authorities / agencies
  – Both (flood maps)
  – Understand the total risk picture
  – Reporting (to Sendai)
• Loss data combined with other data
  – Climate change scenarios (future picture)
  – Real Time Weather (early warning)
Thank you!