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Insurance and Maladaptation



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Two messages...

- Many research projects and papers, and many initiatives, but little linkage with insurers.
- Existence of insurance can result in “maladaptation”

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PART ONE

Flood Research

- Is it too divorced from practical applications?
- Does it actually reduce the risk?

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Council of Europe

- EUR - OPA
 - (Council of Europe Open Partial Agreement) Major Risks Agreement, Ministers recommended a meeting of European Natural Disaster Reduction (NDR) Groups
- First meeting of Europe NDR groups, held on 21/23 January 2003:
 - Aim, to enhance co-ordination in Europe
 - List of “action fronts”

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Agreed NDR Action Fronts

- Link disaster reduction and sustainable development
- Adaptation to climate change
- Explore Socio Economic impacts
- More research on vulnerability reduction
- **Involve insurers more closely**
- Better vulnerability assessments
- Land use planning issues

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EC Framework Programmes (FP)

- FP 2 (1989-1992)
 - 6 flood projects, cost 4.6 m Euro
- FP 3 (1991-1994)
 - 12 flood projects, cost 8.4m Euro
- FP 4 (1994-1998)
 - 14 flood projects, cost 10m Euro
- FP 5 (1998-2002), cost 35m Euro
- FP 6 (2003)

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Recent (FP4) EC Research

- EUROTAS
 - Linking flood models, land use and GIS to produce integrated catchment models
- WRINCLE
 - Improved methods of downscaling outputs from GCMs to a catchment level and data sets at 50km resolution for engineering designs

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New (FP5) EC Research (1)

- ACTIF
 - Achieving Technology Innovation in Flood Forecasting
- ADC-RBM
 - Advanced Study Course in River Basin Modelling for Flood Risk Mitigation
- CARPE DIEM
 - Catastrophic assessment of Available Radar Precipitation Estimation + Development of Innovative Environmental Management

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New (FP5) EC Research (2)

- ECOFLOOD
 - Towards Natural Flood Reduction Strategies
- EFFS
 - European Flood Forecasting System
- ELDAS
 - European Land Data Assimilation System to predict floods and droughts.

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New (FP5) EC Research (3)

- EURAINSAT
 - European satellite rainfall analysis and monitoring
- Floodman
 - Flood forecasting, warning and management using radar satellites and hydrological models
- FLOODRELIEF
 - REaL timE flood decision support system integrating hydrological Meteorological and remote sensing technologies

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New (FP5) EC Research (4)

- IMPACT
 - Investigation of extreme flood processes and uncertainty
- MANTISSA
 - Microwave Attenuation as a New Tool for Improving Stormwater Supervision Administration
- MITCH
 - Mitigation of Climate Induced Natural Hazards

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New (FP5) EC Research (5)

- MUSIC
 - Multi Sensor precipitation measurements Integration, Calibration and flood forecasting
- SPHERE
 - Systematic, Paleoflood and Historical data for the improvement of flood Risk Estimation
- THARMIT
 - Torrent Hazard control and Risk MITigation

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UK Research

- CEH seasonal catchment scenarios
- NERC Flood Risk from Extreme Events (FREE)
- EPSRC Decision Support Framework
- Foresight Coastal flooding

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Looks impressive?

- But hardly any of this is specifically for disaster reduction
- - or involves the insurance industry to any great extent
- the insurance industry is doing its own advanced research and modelling.

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Central Europe Floods 2002

- Many deaths - at least 16 in Czech Republic, 21 in Germany
- Estimated 20 billion Euros damage in Germany, 2-3 billion in Czech Republic
- Estimated 20,000 - 30,000 buildings damaged in Germany
- In Saxony alone 740km roads, 538 km railways, over 400 buildings and 180 bridges destroyed
- Over 400 buildings destroyed in the Czech Republic

Source: PBA

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Why not work together?

“Prevention policy is too important to be left to governments and international agencies alone. To succeed, it must also engage civil society, the private sector and the media”

Kofi Annan

Programme Forum 1999, July 1999, Geneva.

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PART TWO

Can insurers cause maladaptation?

- Yes, if cover is cheap and readily available
 - people may take more risks
 - some may profit from a disaster (eg Sarno, 1998).
- Flood examples
 - not available in all countries
 - where it is it can be state insurance or private sector insurance.

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Flood examples of maladaptation

- Availability of cheap flood insurance
- Reinstatement practices
- Structural versus non structural flood management

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Cheap flood insurance in the UK

- Guaranteed cheap cover for all since 1961
- By 2002,
 - 27% of all new house building in England was in flood hazard areas.
 - 40% of all objections by the Environment Agency were over ruled.
 - Over 1 million houses were at risk
- *(In Scotland there was almost no new house building in flood hazard areas.)*

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The result?

- In 2003 insurers cancelled the guarantee
 - 400,000 houses potentially uninsurable in England and Wales.
- *(They cancelled it for Scotland too, even though the many of the problems there are being dealt with effectively.)*

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ABI Statement of Principles

- January 2003, flood insurance no longer guaranteed for high hazard areas.
- 1961 price ceiling no longer applies.
- Premiums have already increased by around 250% with average excesses of £5,000 to £25,000 in flood hazard areas.
- Premiums will continue to rise until 2007, when remaining cover may be cancelled.

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Reinstatement Practices

- Insurers want to settle claims as quickly and cheaply as possible.
- Builders want simple and quick solutions:
 - start work before the building is fully dried out
 - use new hollow core doors and windows instead of drying out old solid wood ones
 - cheap paint instead of microporous
 - low level wiring and pipework

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Building codes

- No public pressure for more resilient codes for storm or flood, because insurance is cheap.
- Retrospective resilient reinstatement codes would increase claims costs in the short term.
- *(But soon, insurers in Scotland may have no choice due to new legislation.)*

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Flood - Structural Solutions

- Build or improve flood defences
 - can we afford it?
- Raise embankments
 - what if they fail?
- Bigger culverts
 - damage to wildlife except brown rats
 - Weil's disease
 - danger to children and maintenance workers

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Flood - Non Structural Solutions

- Plant trees and change agricultural practices
- Control development in floodplain
- Flood warning schemes and educate public
- Restore rivers to natural watercourses
- Open up culverts
- Promote sustainable drainage methods

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Structural v Non Structural

- Insurers and politicians want short term quick fixes, so argue for structural solutions.
- In the long term these can make matters worse.
- *(In Scotland all flood defences since 1995 have incorporated non structural elements - "low wall and attenuation" policy).*

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To sum up

- Cheap insurance enables more people to put themselves at risk.
- Cheap reinstatement by insurers means the claims costs will be worse next time.
- Insurers demand quick fix structural defences which need to be maintained and give a false sense of security.

Not sustainable!

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Solutions?

- Dialogue with planners at a local level as in Scotland.
- Promoting resilient building codes and threatening the "Australian solution" at central government level.
- Promoting non structural measures.
- Partnerships not confrontation.

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New Research Report

*“Flood risk & insurance in England & Wales:
- are there lessons to be learned from Scotland?”*

Includes global insurance solutions

Available free from
www.benfieldhrc.org

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