emBRACE — Building Resilience Amongst Communities in Europe

Identify key dimensions; Develop indicators & models; Provide a conceptual framework; Build networks

emBRACE Field Study: Cumbria, UK. *Lead Institution: Northumbria University, UK*

Case Study Aim

The overall aim of the Cumbria, UK Case Study is to: understand community resilience relative to different communities' resource-sets; and to identify the social dynamics at play, which can foster or conflict with this process.

Two broad research aims:

a) To identify the resource-sets/capacities required by a community to build resilience to flooding and the capacities required to mobilise these resources

b) To assess how social norms such as trust, accountability, cooperation, power and influence interact to influence these factors

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Geographical Context

The **Cumbria, UK** Case Study is located in the North West of England. Much of our study area lies within the **Lake District National Park…**

…but we have researched from the River Derwent source to the sea (~48km); and from the rural to the industrial.

Our major study sites are the towns of **Cockermouth**, **Keswick** and **Workington.**

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Hazard Context

- Historical vulnerability to floods
- Small catchment scale (~48km)
- Rural – Semi-urban – Coastal-industrial
- National Park
- High precipitation
- Flashy run-off
- Complex social and ecosystem demands

Parking for flood recovery vehicles only

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Methods: Project Team – data collection

Sustainable Livelihoods Approach (SLA)

Physical / Financial / Human / Resources / Capacities / Social / Political / Natural / Place-Based

- MSc Fieldtrip, data collection
- Observations @ series of community engagement events
- ~60 interviews
- Local literature and archives

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Stakeholder Engagement

- Iterative Local Stakeholder Group consultation
- Ullswater D6.3 Workshop
- Keswick Social Network Mapping (SNM) Workshop
- Carlisle Data Workshop

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Preliminary findings: Indicators

- **DISASTERS ACTION LOOP**
  - DRR
  - SOCIAL PROTECTION
- **LEARNING LOOP**
  - ADAPTIVE CAPACITY
- **CAPACITIES & RESOURCES LOOP**
  - COMMUNITY
  - 3RD SECTOR
  - THRESHOLDS
  - VULNERABILITY
- **EVENT CONTEXT**

- Qualitative analysis, informed by emBRACE resilience components and Framework
- Multiple themes
  - Scale issues

National / Community / Individual

- Social protection emerging as a key indicator

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We have challenged a simplistic model…

Exposed/ Vulnerable Community + Disaster Management (Disaster Mitigation, Preparedness, Response) → **Resilience**

…with a more complex understanding (after Wisner et al. 2004)

Address Root causes of Vulnerability
Challenge shift toward privatisation of public goods/services and individualisation of risk
Nurture Whole Catchment Approach to FRM
– Challenge Land-use management: (LUM); e.g. Agri-Env Practice
Improve Land-use planning (LUP); to mitigate risks related to legacy of floodplain development
Long-term integration of:
Social protection
– Health & Wellbeing
– Social welfare safety nets
and
Civil protection
– Integrated Emergency Management (IEM)

Reduce Pressures
Facilitate local agency
Social / Institutional learning
– Cross-sector/community pragmatically-based ownership and understanding of:
– the risks,
– the limits of mitigation
– effective contingencies
Investment in loss-sharing institutions
– Availability /affordability of insurance (Statutory influence)
– Incentivise risk mitigation (e.g. LUP & PLP)

Achieve safer conditions
Human
– Learning
– Key skills
– Persistence
Social
– Flood Action Group
– Key Boundary actors
Physical
– Structural defences
– Non-Structural measures (e.g. FWS)
– Property-Level Protection (PLP)
Place-based
– Scheme-able Rivers
– Adaptable housing stock
Financial
– Loss sharing/compensation
Political
Participatory risk governance

Hazard

Residual flood risk remains

To a preliminary Community Resilience nexus

Resources/ Capacities — Social Protection — Civil Protection — Community Resilience — Social Learning

- Available resources and capacities underpin *Social* Resilience across all scales
- Resource mobilisation for *Community* Resilience is stimulated by social learning, but constrained or enabled by the prevailing institutions of Social and Civil Protection

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