



Building Resilience Amongst Communities in Europe



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

emBRACE Field Study: Van, Turkey. Lead Institution: Middle East Technical University, Turkey

Case Study Aims

To evaluate individual and community resilience from a psychosocial perspective

- Stakeholder perceptions of the state of resilience and its associated factors (indicators) following quakes
- How community resilience contributes to individual resilience
- Identification of indicators contributing to community (e.g., social networks, previous disaster experience and learning, trust, etc.) and individual resilience in an earthquake context

Research Questions

- How do stakeholders evaluate (from the acute phase to the reconstruction phase) the actions and processes that took place in the aftermath of Van earthquakes?
- What are the indicators of community resilience and individual psychological resilience?
- How did the 1999 Marmara earthquake and its aftermaths influence the consequences of Van earthquakes?

Geographical Context



Hazard Context

Van Earthquakes

(USGS)

M = 7.1 on October 23, 2011

M = 5.6 on November 9, 2011

Life losses: 644

Injuries: 1966

(Republic of Turkey Prime Ministry Disaster and Emergency Management Presidency, 2013)

Methods: Project Team

Middle East Technical University (METU) Team

- A. Nuray Karanci (Clinical Psychologist)
- Gozde Ikizer (Clinical Psychologist)
- Canay Dogulu (Social Psychologist)

Collaborating Researchers from Case Sites

- Suvat Parin (Sociologist, Van Yuzuncu Yil University)
- Ruhi Kose (Sociologist, Van Yuzuncu Yil University)
- Dilek Ozceylan Aubrecht (Industrial Engineer, Sakarya University)

Mix of qualitative and quantitative methods

- Pilot study: Semi-structured interviews with earthquake survivors (N = 51)
- In-depth interviews with earthquake survivors (N = 20)
- Focus groups with stakeholders (N = 19)
- Quantitative survey on individual psychological resilience (N = 360)

Preliminary findings: Indicators

Human	Physical	Social	Political	Natural	Financial
Awareness of EQ risk / EQ education	EQ-resistant buildings	Social solidarity	Socio-politic context: peace and equality	Climate conditions	Economic resources
Psychological health	Transportation facilities	Earthquake preparedness	Effectiveness of post-disaster aid and services		Investments/ Credit facilities
Perceived psychological support	Appropriate city plans	Being a civic society (e.g., NGOs)	Effective disaster management system (long-term planning)		Tourism potential
Fatalism		Community in which members are content with available resources	Provision of permanent housing		Job opportunities/ Employment
Optimism		Moral and cultural traditional values	Collaboration between institutions		
Religious faith		Society of mutual trust	Healthy information dissemination		
Physical resistance/ strength		Society resistant to hardships			
Education/ Knowledge skills					

Indicators in bold are those who received high importance ratings in participatory assessment workshop conducted in Van.

Preliminary findings: Resources

Relation of Capacity Indicators to the emBRACE Framework

- **Human** – Most indicators are general but also have bearing on the elements of the action loop and the “risk/loss perception” element of the learning loop.
- **Physical** – Most indicators are general but also have bearing on the elements of the action loop.
- **Social** – Most indicators are general but also have bearing on the elements of the action loop.
- **Political** – Most indicators are general and also earthquake-specific but also have bearing on the elements of the action loop.
- **Natural and Financial** – All indicators are general but also have bearing on the elements of the action loop.

Preliminary findings:

Individual Psychological Resilience

Indicators: Lack of posttraumatic symptoms & stress-coping ability

Predictors: Socio-demographic factors [male gender, education (+), income (+)], personality factors [neuroticism & extraversion (-), optimism(+)], pre-quake mental health (+), religiousness (-), satisfaction with life (+), structural social capital (+), severity of exposure, post-quake adversity (-), coping self-efficacy (+), problem-solving coping (+), helplessness coping (-)

Key Summary Findings

- All six domains of the Sustainable Livelihoods Approach (SLA; DFID, 1999) seem to be important in perceptions of community resilience.
- Some indicators are general whereas some are hazard-specific.
- General indicators seem to be related to different elements of the action and learning loops of the framework.
- Some indicators correspond to contextual changes; hence, contextual factors seem to be important for the resilience spiral.
- Indicators seem to point out to individual, community, and national characteristics for resilience.
- Evaluation of the interrelations between individual, community (local), and national levels of resilience might be important (Kimhi, 2014).

