



Social impacts of climate change and climate adaptation in Finnish rural areas

Rauno Sairinen, Johanna Kohl & Suvi Järvinen

University of Eastern Finland, Joensuu

rauno.sairinen@uef.fi

www.joensuu.fi/myy

Study is part of the Finnish national research programme for climate adaptation (ISTO).

In Finland, there is a clear lack of studies which concern the social and community dimensions of climate change adaptation.

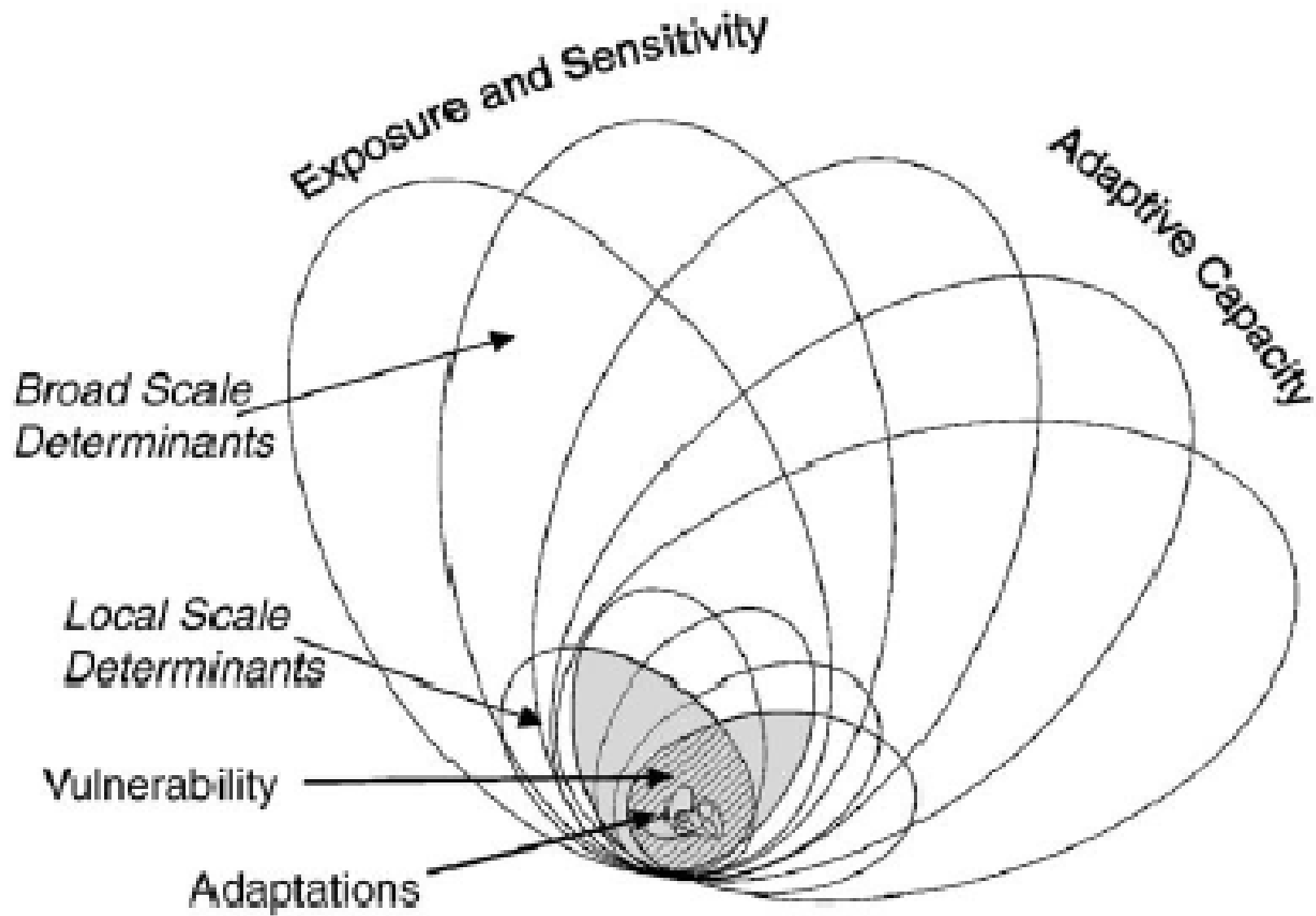


Target of the project

- Examines the impacts of climate change and related adaptation measure on well-being, livelihoods and local communities in the rural areas of Varsinais-Suomi region in southwestern Finland.
- What kind of social and community impacts we can identify by using prevention methods.

Research tasks:

- 1) How we should analyse and make typologies about the social impacts of climate change and adaptation into it (**conceptual work**).
- 2) How climate impacts are understood in rural areas of the county of Varsinais-Suomi (**land use practices and natural resource usage**).
- 3) How and through which mechanisms these impacts are intertwined to people's everyday life, welfare, and future expectations (**social impact mechanisms**).
- 4) Who are relevant actors concerning the social and community impacts? (**actors of adaptation**)



Method

- The research was based on futures studies and social impact studies.
- The main method was argumentative delphi panel with 7 experts from various areas of rural development.
- Additional topic interviews.

Members of the delphi panel

- regional environmental center official
- village expert (communities, rural settlement)
- planner (rural areas)
- researcher (climate change and flood-related issues)
- organization operations director (energy and sustainable devel.)
- researcher (natural resource economy and policy)
- researcher (the future and community in the countryside)
- regional official (land use planning; planning)
- parish representative (local values and worries).

The Varsinais-Suomi region



- The Varsinais-Suomi was chosen as the research subject area because of the distinctive features of its geography and land use: sea, coastline, archipelago and riverbanks.

General feelings of the results

- A great uncertainty about the impacts and possible need for the social change brought about by climate change.
- Climate change is a difficult subject to approach since there is no immediate impact, but only then when there have been some major catastrophes.
- What can and should we believe in? How should we act today? How to anticipate risks?

Finnish rural area as a winner

- *“If we examine the agricultural sector, it is a part of adaptation, so we should attempt to benefit (from the impacts of climate change) and thus bring about certain new agricultural products and related innovations and industrial activities.”*
- This statement reflects research results concerning Finland’s more favorable position in Europe.
- It has been estimated that Finnish forestry and agriculture will benefit on global warming: longer growing seasons, new crops, better harvests, use of wood energy and biofuels.

New questions, challenges and risks

- Uncertainty regarding whether there would be drought or rain, or both.
- “Who benefits and who suffers?” or can anyone be well-off in the face of climate change more than just momentarily? Global market problems influence anyway?
- Vulnerabilities: dependency on industries or locations that are vulnerable to the various impacts of climate change may lead to unbearable swings in income and welfare.
- New health problems: For example the lack of snow in winter makes the landscape even more depressingly gray.
- How do the climate refugee questions influence these areas?

Effects on leisure-time, recreational and tourism use of the rural areas

- A strong belief that rural tourism will be able to survive the altered weather conditions.
- In the archipelago, both positive (an extended ice-free period) and negative (storms, turbulence, dry periods) effects.
- The rising sea level is a negative factor: damage to the coastline and short properties.
- Winter tourism and other winter activities will suffer.
- Frequency of some harmful pests, such as deer flies and ticks, are predicted to rise.

Flood-risk areas

- Risks to business, livelihoods, housing etc are felt real.
- New building and land use planning restrictions have been developed, but can be difficult to implement.
- Preparation for flood risks is important for vulnerable groups such as children, the elderly, residents of sparsely populated areas, and the chronically ill.
- In flood risk districts: construction and development will shift elsewhere and real estate values will drop.

Concrete security threats and responsibilities (floods and storms)

- In summer 2010 the Asta storm inflicted massive damage on forest-owners, rural residents and summer houses throughout Finland.
- Who is responsible for providing compensation for the damages incurred and how responsibility would be shared.
- Insurance companies have urged people to protect better their property.
- What is the role of municipalities and state?
- The state promised to compensate individual forest owners for part of the damage.

“The threat hanging over us is unbearably weighty”

- The growth of a more general feeling of insecurity: The global scale of the phenomenon feeds the fear that all humanity and our present-day ways of life will be destroyed.
- From the psychological perspective: such threatening images can be shocking and affect the fundamental feelings of security.
- A discussion of threats to security is rather difficult to carry out.
- Increased anxiety can trigger stress or pacification of the community.
- The role of the media: a constant flow of negative images of the future environment could dishearten people.

Relevant acting and local opposing

- The term acting refers to the capability of various actors to define problems and generate operational models as well as commit other actors to working alongside them.
- Adaptation to climate change can pressure communities to alter their life style, livelihoods and behaviors.
- Communities seek to oppose such changes which they view to be a threat to their current way of functioning or culture (location of rural settlement, windmills and landscape)

In developing climate adaptation measures

- Take into account the culture of local communities.
- Show respect for the community.
- Find the capacities of rural people.
- Increase the feeling of belonging and, consequently, working together.
- Reliability and acceptance of local knowledge.
- Can aid in discovering generally acceptable ways of adapting to changes.
- Importance of village communities may again become a major topic of discussion.

Actors: New operational forms were proposed

- The municipality, local residents,
- Village and interest organizations.
- Volunteer fire brigades, lumberjacks
- Parishes, local companies
- Increasing need to better relate climate, socio-political and psychological discussions to one another.
- **Social contacts:** are seen to increase confidence, experiential knowledge, care for other members of the community and the level of security felt.



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- The social impacts of climate change refer to effects on the people's everyday life, livelihoods, cultural and social practices and community capacities for future changes.