LOOKING FOR INTERDISCIPLINARY UNDERSTANDING: DEFINING KEY CONCEPTS IN THE A-LA-CARTE PROJECT

A-LA-CARTE PROJECT

A-LA-CARTE (Assessing limits of adaptation to climate change and opportunities for resilience to be enhanced) is a four-year collaborative research project (2011-2014) of FICCA (the Finnish Research Programme on Climate Change). A-LA-CARTE seeks to explore the limits of adaptation to anticipated climate change, to investigate the extent to which present-day systems are resilient to changes in climate and to explore the options for enhancing this resilience. Case studies concern:

(A) agrifood systems, focusing on food supply by farms and access to food by consumers, and

(B) biodiversity and conservation challenges posed by physical and regulatory barriers.

GLOSSARY

At the start of the project key concepts were defined across disciplines for a joint glossary. It turned out that each of the disciplines have their own definitions or even research paradigms of the concepts. The definitions worked as boundary concepts (Miettinen 2013): loose and tension-laden which just because of that enable and instigate communication and cooperation across disciplines, and also towards stakeholders.

KEY CONCEPTS - with excerpts

1 Resilience

"the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks" (Walker et al., 2004; cf. Holling 1973)

Recent definitions focus also on social-ecological systems and "the capacity to buffer change, learn and develop" (Folke et al. 2002)

2 Sustainability

The term was introduced in the 1970s although it has long historical roots in discussions on such issues as rates of population growth, resource use, and pressure on the environment (Kidd 1992). The emerging discourse of sustainability concerns complementarity of resilience and efficiency which at best are synergistic.

3 Diversity / Biodiversity

Resilience is often associated with diversity - of species, of human opportunity, and of economic options - that maintains and encourages both adaptation and learning (Elmqvist et al., 2003). In A-LA-CARTE response diversity is a key issue in resilience.

4 Interdisciplinarity

Multidisciplinarity: "juxtaposition of different disciplines" Interdisciplinarity (in a narrow sense): "interaction of different disciplines" Transdisciplinarity: "crossing the boundary between science and society" In practice these terms are quite complicated and hard to frame (Miettinen et al. 2010). Are there novel transdisciplinary objects or tools for supporting transdisciplinarity? Can we create pidgin (language) and trading zones (see Galison 1997) for relevant stakeholders?

5 Systems concepts (relevant to the project)

The major disciplines involved in the project have their own systems concepts and models. The environmental and climate research use the social-ecological system (see Folke & al. 2002). An agrifood system has its origins partly in agricultural economics. Sociology and economics mostly speak about socio-technical systems (e.g. Geels & Schot 2007). Psychology has its own systems concepts, e.g. activity system suggested by the cultural-historical activity theory which are used to explain the behavior of the individual, and communities of a system.

6 Agrifood system / Food system

"...agri-food systems are embedded in complex ecological, economic and social processes… their interactions are dynamic and vulnerable to short-term shocks and long-term stresses like climate change… an interdisciplinary research agenda on agri-food systems that focuses on dynamic system interactions in complex, ride-prone environments and explores how pathways can become more resilient and robust in an era of growing risk and uncertainty." (Thompson and Scoones 2009)

7 Food chain and networks

Busch (2007) has compared the neoclassical model of economy and supply chain management models of agrifood systems. The latter models – that have quickly spread since the late 1990s – regard supply chain as a basic unit of analysis and a unit of management: competition takes place between supply chains and not between the firms.

8 Stakeholder involvement and resilience-related agency

The stakeholders may be defined as actors interested in and ready to contribute to the enhancement of resilience in case fields of the project. These actors may be found in different levels (may be a farm, a local food chain, an agro-system).

The project aims at transforming its concepts, models and indicators into a form that makes them suitable as tools of thinking, analysis and maybe decision-making/ planning by selected stakeholder groups (creation of a pidgin language).

IN FINNISH

These concepts are also shortly described in Finnish in the glossary. Translations of the key terms has resulted in discussions on their meaning and scope. For example, “resilience” has been translated in various ways (e.g. “sietokyky”, “kesätävyys”, “muutoskestävyys”, “uusiutumiskyky”, “resilienssi”).

SELECTED PUBLICATIONS


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