

Editorial (1.691 words)

Special issue on “Lay Rationalities of Climate Change”

Guest editors: Fátima Alves, Sandra Caeiro, Ulisses Miranda Azeiteiro

Climate Change (CC) is now widely recognized as the major environmental problem facing the globe and is one of the pillars of the Europe Union 2020 strategy. Nowadays a lot of efforts have been put on scientific research in this area, particularly in the hard science field that take as their object the natural factors in the strict sense, implied therein. Similarly a growing debate has been increasing about the policies of CC, not only at regional and global level but also at local level. Effectively CC public policies express the official position of governments and have been mainly emphasizing the mitigation and adaptive processes to CC and the possibilities of intervention at the level of ecosystems and human actions.

Nevertheless the knowledge that we have at present, that alerts us immediately to the multidimensionality of the CC, it tells us little about its social dimension. The relationship between nature and society are one of the dichotomies that researchers are struggling in finding scientifically informed understandings about the phenomena under study. Indeed it is not possible to understand climate change without identifying the relationships that are established between nature, society and its culture. Likewise it is not possible to work in this CC field, putting aside those dimensions. Climate change social dimension is fundamental to understand not only because CC has consequences on human communities, but also because human action affects the emergence, development and reaction to the phenomena.

Dealing with the CC in current societies requires global strategies and the buildup of local responses, considering not only local government and policies but also the community lived experiences and lay rationalities. This latter concept distinguished from scientific and professional knowledge emphasis on other skills that determine social action. Lay rationalities focus on lay knowledge that integrates individual understandings, explanations, life experiences, perceptions and intervention on climate change. The knowledge of the agents that serve social interaction does not correspond

at all to the scientific hegemony of power and knowledge, being a different kind of knowledge where the need to produce senses require models much closer to the local and cultural symbolic universes.

It is in this context and in order to promote an understanding of the spatial-temporally CC issues, in its multiple dimensions that this special volume was conceived. In it we try to give visibility to the social and cultural processes that contribute to the explanation and understanding of CC as well as for its intervention, disseminating innovative research and opening new grounds in a highly inter-disciplinary area. Although the study of society and human behavior is a field of social science research, in fact other areas of knowledge have deepened the need for understanding on what is termed by perceptions of CC. That efforts should lead to research that systematically integrate social scientists in their teams, specialized in studying the social and cultural factors related with CC.

In this special issue we were also interested in revealing the level of concepts and the level of social action, trying to contribute to the answer of questions like: How local populations explain, interpret and deal with climate change? What are the individual and collective actions in response to climate change? How do populations deal with Climate Change mitigation (risk perception and risk-mitigating)? What is the available traditional knowledge about Climate Change? How does the culture and beliefs deal with Climate Change?

A total of 6 double-blind peer-reviewed papers from Europe (2), Australia, Asia, South-America and the North America, cover different subjects related to the above themes of this thematic Issue of *Lay Rationalities of Climate Change*, namely; Lived Experience, Policy and Public Action; Public Opinion on Climate Change; Religious Motivation for Mitigating Human-Forced Climate Change; People's Experience and Facts of Changing Climate, Impacts and Responses; Stakeholders' Climate Perception and Adaptation in Coastal Areas; and Perceptions of Climate Variability and farmer Adaptations.

Dina Abbott and Gordon Wilson in "Climate Change: Lived Experience, Policy and Public Action" explore the concept and importance of lived experiences, as complementary knowledge to the one provided by the sciences, for policy and intervention on climate change. The authors defend the need of taking into account lived experiences in climate change policy and intervention, and the dangers of not doing so.

The paper identifies the challenge of establishing the validity of lived experience alongside forms of scientifically derived knowledge, and the practical challenge of capturing it in a form that is accessible to practitioners. Authors argue that a public action approach to policy provides a better output than the conventional rationalist approach to analyse the contested nature of climate science and the potential of lived experience to inform debates through active engagement. This public action theory of knowledge provides a novel means of analysing and meeting the challenge of diverse knowledge on climate change.

In the paper “Internet Public Opinion on Climate Change: a World Views Analysis of Online Reader Comments”, Joop de Kraker, Sacha Kuijs, Ron Cörvers and Astrid Offermans assess the representation of different world views with respect to climate change in public opinion on the internet. The distribution of comments over the different world views was highly uneven, with world views characterized as ‘climate sceptic’ scoring more than 90% of the assigned comments. The strong dominance of these ‘climate sceptic’ world views was independent of year, newspaper, and scope of the article. These findings are in stark contrast with the outcomes of public opinion surveys indicating that only a minority of the population has a preference for a ‘climate sceptic’ world view. Author’s explained this difference by the fact that the contributors of online reader comments are not representative for the population at large. However, as internet-based opinions have a proven potential to strongly influence the opinion of the general public and politicians on climate change, the authors advise analysts to pay due attention to ‘climate sceptic’ world views in ex-ante assessment of the societal support for climate policies.

In the “Religious Motivation for Mitigating Human-Forced Climate Change: Scientifically Informed, Politically Astute, and Collaborative” Jame Schaefer investigates for several religious groups, in the United States, the content of their motivation, awareness of climate science, networking, and political advocacy for providing insight about their capacity for helping mitigate the climate crisis. Motivated by their religious faiths, the activities of these three groups demonstrate that they are scientifically informed, politically astute, and collaborative with others when striving to achieve their mutual goal mitigating the adverse effects of climate change locally to globally. This study raises awareness of contributions religious groups are striving to make toward mitigating the adverse effects of climate change now and in the future.

In the paper “People’s Experience and Facts of Changing Climate: Impacts and Responses” Rajesh Sada, Anushiya Shrestha, Ashutosh Shukla and Lieke Melson analyze the connection between changes in different attributes of climate as perceived by the local people residing in peri-urban area of Kathmandu Valley and the results obtained from analysis of recorded temperature and rainfall data of seven different hydro-meteorological stations located at different parts of Kathmandu Valley. Besides this, the study also explores the impacts of climate change experienced by the local people and the responses they have adopted to enhance their resilience capacity. Local people are responding to these changes and impacts as per their own skills and traditional knowledge. Household level water management, adoption of innovative technologies in agricultural practice, increasing dependency on groundwater sources, changing cropping pattern and systems and occupational diversification are some important responses they are adopting to deal with the impacts of changes in climate.

In the “Stakeholders’ climate perception and adaptation in coastal Uruguay” Gustavo J Nagy, Leonardo Seijo, José E. Verocai and Mario Bidegain discuss the assessment and inclusion of stakeholders’ perception, and citizen participation instances to implementing management options to deal with climate threats within the existing institutional framework in Uruguay. It is stated in this work that co-production of knowledge and the achievement of agreed and feasible options are achieved by means of a consultation process which results in adaptive co-management agreements and collective decisions. This process is seen as both an empowerment of local actors and a multi-stakeholder learning-by-doing experiment allowing for both an increase in coping capacity to climate threats and facilitates long-standing conflict resolution. The co-production of knowledge is a way to achieve the rapprochement of scientists with institutional and community actors. Thus, the participatory process gives stakeholders responsibility for identifying their specific needs and priorities, and helps to establish community ownership.

Iain Elgin-Stuczynski and Simon PJ Batterbury in “Perceptions of climate variability and farmer adaptations in Corangamite Shire, Victoria, Australia” present the results of a survey to dairy farmers’ lay knowledge of climate change and the adaptation strategies they have implemented to respond to climatic and economic drivers. This study of dairy farming adds to knowledge of how climate changes are perceived, in a field where the consequences of CC are strongly felt and how they are adapted to in a region heavily reliant on rainfall for its prime economic activity.

Given the variety of research topics this thematic issue is neither thematically or geographically complete representing only an overview of some current thematic issues in *Lay Rationalities of Climate Change*. Nevertheless the articles address important challenges to the development of knowledge about the CC, where the social dimension is integrated, as well as open up future lines of research. These articles enlighten us that it is not possible to understand or intervene at the level of CC without considering local and lay knowledge, the people, their behavior and their actions and interactions.

Finally, we would like to take the opportunity of acknowledging all those who have contributed towards this Thematic Volume of *IJCCSM - International Journal of Climate Change Strategies and Management*. We warmly thank all authors who submitted their manuscripts for consideration of inclusion in this thematic volume. The reviewing was a double-blind process. We thank the reviewers who have taken time to provide timely feedback to the authors, thereby helping the authors to improve their manuscripts.

The Guest Editors

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