

**European Research Council**  
Executive Agency



Department B: Scientific Department

**Project No: 229459**

**Project Acronym: "WATERWORLDS"**

**Project Full Title: Waterworlds: Natural environmental disasters and social resilience in anthropological perspective**

**ERC GRANT**

## **Mid-Term Activity Report**

**Period covered: from 01-01-09 to 30-06-11**

**Start date of project: 01-01-09**

**Principal Investigator name: Kirsten Hastrup**

**Host Institution name: University of Copenhagen**

**Date of preparation: 30-06-11**

**Date of submission: 30-08-11**

**Duration: 60**

## **SUMMARY OF THE MAJOR ACHIEVEMENTS SINCE THE START OF THE PROJECT (2 pages)**

*The information provided in this section will only be made available to ERCEA staff and to the Evaluation Panel Members*

### **Major achievements by *Waterworlds***

In general, the *Waterworlds* team have pursued the ambitious questions stipulated in the proposal, and relating to social responses to water-related environmental changes. At issue is a deeper understanding of how people take action and recreate their world after major environmental turmoil or in anticipating climate change. All members of the team have conducted one or several fieldworks in their area, and analytical and conceptual work progresses at a very intense pace right now. More details, than can be accommodated in this report, can be found along with the three financial reports submitted so far.

### *Research achievement and potential impact*

The first question to be substantially addressed was the question of resilience, which was part of the title of the project. In the social sciences, *resilience* conventionally points to the amount of perturbation a particular society or community can absorb and still be recognizable. Our analyses so far show that any concept of social resilience must be able to take multiple actions, expectations and regulations into account; people never simply react to environmental changes as such, but engage in a complex social and moral re-orientation. In this perspective, resilience is an emergent quality of all responsible social action; it is the rule and not the exception of social life, given that all societies must demonstrate a degree of flexibility to operate and ultimately to survive. The renewed awareness of ‘social resilience’ may be transformed into new global measures of mitigation, harnessing human creativity and social flexibility as the key issue in adaptation to climate change.

A volume edited by Kirsten Hastrup (PI), on *The Question of Resilience. Social Responses to Climate Change* (2009), marks the first joint achievement by the group as whole, and it was the outcome of the first international conference hosted by *Waterworlds*.

### *Novel methodologies*

In the project, an innovative move was made in the project design, defining the areas to be studied as *regions of disaster*, rather than social communities, or geographical locations. These regions were defined in terms of three major water-related calamities, the melting ice, the rising seas, and the drying lands. This move has proved immensely productive, in allowing team-members to engage in meaningful comparison within and across the regions, and to highlight the social nature of the perception of and response to natural hazards. As local climate changes are closely linked via the general atmospheric conditions of the globe, the methodological starting point has also facilitated a conceptual revision of the facile distinction between ‘the local’ and ‘the global’, which can now be seen as deeply entangled.

The local/global distinction was also substantially questioned in a joint effort to analyse human mobility in response to climate change, historically as well as presently. This was the topic of a second international conference hosted by *Waterworlds* in the spring of 2010. One of the outcomes of this conference is an edited volume (by Kirsten Hastrup and Karen Fog Olwig), which is being published by Cambridge University Press under the title of *Climate Change and Human Mobility. Global Challenges to the Social Sciences*.

In sum, the innovative methodology, facilitating comparative moves on multiple scales, has allowed for a rethinking of the (bounded) object of the social sciences, which is perforated by natural as well as social moves.

### *Inter- and cross disciplinary developments*

Within the *Waterworlds* group, the collaboration between anthropologists and geographers has proven productive in highlighting the intertwinement of natural and social processes at different scales. The conference in 2010 on *Climate Change and Human Mobility* contributed further to this process, by incorporating also a historical dimension.

Throughout the first 30 months, *Waterworlds* has forged additional links with other disciplines. Guests from the fields of meteorology, information technology, education, community psychology, sociology, science and technology have given papers on their own work at our weekly seminars. The interdisciplinary ambition culminated (so far) in an international workshop on *Anticipating Nature*, held in January 2011, where scientists from a wide range of sciences from physics to anthropology discussed climate modelling as a social process – equally appertaining to Arctic hunters seeing their world melt, Indian biologists attempting to ascertain the potential catch of fish in the future, and to atmosphere physicists operating with complex simulation models.

A volume emanating from the workshop, *Anticipating Nature. The Social Life of Climate Models* (edited by Kirsten Hastrup and Martin Skrydstrup) is currently under review with Routledge. The volume marks a major achievement in terms of interdisciplinarity by highlighting the rationalities inherent in modelling across multiple scales, and responding to different interests.

### *Advancement and transfer of knowledge*

In terms of the advancement of knowledge, which is the main ambition of the project, I do not hesitate to state that *Waterworlds* has already come a long way. Through the ethnographic and analytical work undertaken by the team, the de facto inseparability of nature and society has been firmly established, and will be further probed at a third major international conference in September 2011, challenging the conventional dichotomy (*Nature/Society*).

The entanglement of the local and the global has also been firmly established and has provided the impetus for a fourth international event, a workshop with the title: *Exploring Causalities* (to take place in January 2012), addressing the force of climate as a social driver head-on. Members of the *Waterworlds* team have continually engaged in multiple kinds of dissemination towards academic, public, and political audiences.

### *The joint research process*

Within the project, team-members are co-localized and thus able to share their insights on a daily basis. During term time, *Waterworlds* run weekly seminars, where guests may be invited. Mostly they are used for team members to present their own fieldwork plans, results, and draft papers for discussion. This makes a sustained and substantial exchange of ideas and a joint probing of conceptual questions possible.

A major asset for *Waterworlds* is the administrator, who keeps a keen eye on the finances, as well as the individual people, their travels, and their reports. She participates in all meetings and keeps track of decisions made and invitations issued.

By way of conclusion, I am confident that *Waterworlds* is half way towards the fulfilment of the scientific goals. The responses to environmental disasters (actualised or anticipated) studied by the group challenge received notions of cultures, nations or even geographical regions. This has significant theoretical and methodological implications for an environmental anthropology, which can no longer operate within bounded entities or localities as before.

As stated in the proposal: “Taking climate induced environmental disaster as its point of departure, the ambition is both to take anthropology to a new level of sophistication in dealing with this new complexity, and to facilitate new modes of urgent interdisciplinary research.” This is what we have been able to pursue in an extremely productive manner, thanks to the ERC.

## **PUBLISHABLE BRIEF SUMMARY OF THE ACHIEVEMENTS OF THE PROJECT** (1 page)

*The summary should be a stand-alone description of the project and its outcomes. This text should be as concise as possible and suitable for dissemination to non specialist audiences.*

### ***Waterworlds***

#### **Natural environmental disasters and social resilience in anthropological perspective**

The point of departure for the project is the present sense of human vulnerability in the face of major environmental disasters and global climate change. People suffer from a loss of habitual natural resources, from fear of an increasingly unpredictable nature, and from social disruptions as natural habitats are destroyed; the challenges are unevenly distributed, but in almost all corners of the world, there is a feeling of changing weather patterns and intensified weather events. This makes forecasting and planning extremely difficult.

The ambition of the present project is to study local, social responses to particular environmental disasters related to water, as spurred by the *melting of ice* in the Arctic and in mountainous glacier areas such as the Andes, the *rising of seas* that flood islands and coastal communities across the globe, and the *drying of lands* accelerating desertification in large parts of Africa and elsewhere. By studying located responses on the ground, *Waterworlds* aims at comprehending how people take action and attempt at establishing some kind of certainty about their world amidst the manifest turbulence. Such certainty is a precondition for responsible action.

The basis for research and for the advancement of science in the course of the project is fieldwork in affected regions. The researchers have conducted anthropological and geographical fieldwork in Greenland, among hunters suffering from a melt-down of the sea-ice as well as among policy-makers and industrialists wanting to capitalize on easier access to natural resources; in Peru, where both high-land communities and low-land cities are affected by the run-off and final disappearance of the glaciers which severely affects the availability of water; on the southeast Indian coast, where the sea encroaches upon people; in several Pacific Islands, threatened by a rise of sea-level, as well as a degradation of coral reefs and new, intensified cyclone patterns; in Ghana, where dramatic downpours result in the flooding of fragile fields; in Burkina Faso, where the land-use pattern in the dry-lands is challenged by an unpredictable seasonality; in Mauretania, where the nomads move towards the city, because the grazing becomes too scarce and the wells dry up; and finally in a community of glaciologists, trying to anticipate the course of climate change on the basis of ancient ice, recovered from the ice-cap of Greenland.

On the basis of the fieldworks already conducted, the *Waterworlds* team has been able to develop a set of new conceptual tools by which to understand the social responses to global environmental challenges. A renewed theory of social resilience that builds on the actualities of social life in distinct localities has been proposed, and the entanglement of natural and social processes has been documented, without pre-empting the question of causal connections. In the process, *Waterworlds* has facilitated an interdisciplinary dialogue and exposed the need for explicating the different scales and rationalities employed within different disciplines.

It has been demonstrated beyond doubt that people never simply react and adapt to changes, but engage in a complex social and moral reorientation that in itself contributes to societal change. The advancements made at the conceptual level regarding the social response to environmental changes, may inform new measures of mitigation and adaptation to climate change.

\* Please, notice that this summary will be published