Policy-making in Climate Change

Authors

Prof. Dr. Walter Leal
Germany
Email: walter.leal@haw-hamburg.de

Franziska Mannke
Germany
Email: franziska.mannke@haw-hamburg.de

Address

Prof. Dr. Walter Leal
Research and Transfer Centre „Applications of Life Sciences“
Hamburg University of Applied Sciences
Faculty of Life Sciences
Lohbruegger Kirchstraße 65
21033 Hamburg
Germany
Email: walter.leal@haw-hamburg.de

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Abstract

Climate change ignores national borders. Neighboring countries experience similar challenges, for example in the area of coastal protection, or when coping with extreme weather events. To shoulder the complex task of adapting to climate change, joint societal efforts are needed. Public bodies as well as private actors – from European to local level - are challenged to find solutions. This paper introduces the project “Developing Policies and Adaptation Strategies to Climate Change in the Baltic Sea Region - ASTRA”, co-financed by the European Regional Development Fund (ERDF) through the INTERREG IIIB Baltic Sea Programme. ASTRA featured a regional impact assessment of the ongoing global change in climate trends, resulting in recommendations for strategies and policies for adapting to climate change. Further, the project aimed at ensuring awareness for the socio economic system to prevent the adverse effects of climate change and to ensure a stable development of the Baltic Sea Region.

Introduction

Many natural systems are being affected by climate variation and climate changes, particularly in respect of temperature increases. Current scientific evidence indicates that global warming is progressing due to an increase in anthropogenic, i.e. man-made, greenhouse gas concentrations, mostly due to industrial activity. Still, uncertainties in the

projection of future climate change remain – also due to the ambiguity of our social and economic systems. Although there are variations seen in the extent and scope of impacts of climate change, as well as regional (i.e. geographical) variations, the net annual costs of climate change are expected to increase over time as global warming continues. According to the International Panel on Climate Change (IPCC), "a portfolio of adaptation and mitigation measures can diminish the risks associated with climate change (IPCC 2007: 8-9, 17, 20; Hilpert et al. 2007: 9).

Europe has warmed faster than the global average (Commission of the European Communities 2007: 4). According to the Green Paper on Climate Change Adaptation, the average temperature in Europe has increased within the last century by almost 1°C. Among the most vulnerable areas are coastal zones where sea level rise combined with increased risks of storms are among the major impacts. The Baltic Sea Region (BSR) for example, is a region affected by a rise in sea level to varying orders of magnitude, the reason being land uplift and subsidence (Meier et al. 2006: 41). In particular, Scandinavia will experience an increase in precipitation, a larger part of it in form of rain instead of snow. (Commission of the European Communities 2007: 4-5). Furthermore, climate change is expected to affect the biodiversity of the region. For example, more than fifty per cent of Europe's plant species could be vulnerable or threatened by 2080 (Commission of the European Communities 2007: 5).

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Policy-making in the Baltic Sea: Experiences from the ASTRA Project

The ASTRA project has its foundation in a successful previous European project titled SEAREG, which assessed the impacts of future sea level rise in the Baltic Sea Region. The positive response of planners that cooperated and/or were addressed there led to the idea to widen the scope of climate change impacts that affect the spatial development of the BSR. This approach has been new, as the focus did not only lie on coastal areas and problems of sea level rise. ASTRA aimed at taking all effects of climate change into account that affect spatial development in order to foster the joint, interdisciplinary elaboration of adaptation and mitigation strategies with spatial planners and further stakeholders.

Project set-up and management of work load aligned to overall objectives

Referring to the basic project design, the project wanted to involve its stakeholders at the municipal and regional level in a constructive way. It had as such a wide partner base from the very beginning on, involving as much as 36 partners. Among them were universities and research institutes which provided the scientific knowledge base and strategic recommendations. Furthermore, municipalities, city councils and local authorities took part as to directly benefit from the project-specific knowledge that was generated. Some of the latter served also as case studies where decision-makers started to take climate change issues into account, resulting in some reformed planning practices.

The large circle of partners consisted of so-called inner and outer circle partners. Those belonging to the outer circle were generally not financially involved in the project. However, they served as important dissemination channels receiving continuous project input and participating in the project's international conferences.

Concerning the scope of the project, the overall work load had been broken down into three so-called work packages, the first one comprising regional climate impact modelling and case

study research, the second work package on communication and dissemination having a cross-cutting theme, and a third work package on the development of strategic recommendations for developing adaptation strategies. Each of the work packages was then broken down into a range of single tasks. Figure 1 illustrates how the single project results feed into the final project outcome, the so-called policy paper which provides guidance for decision-makers.

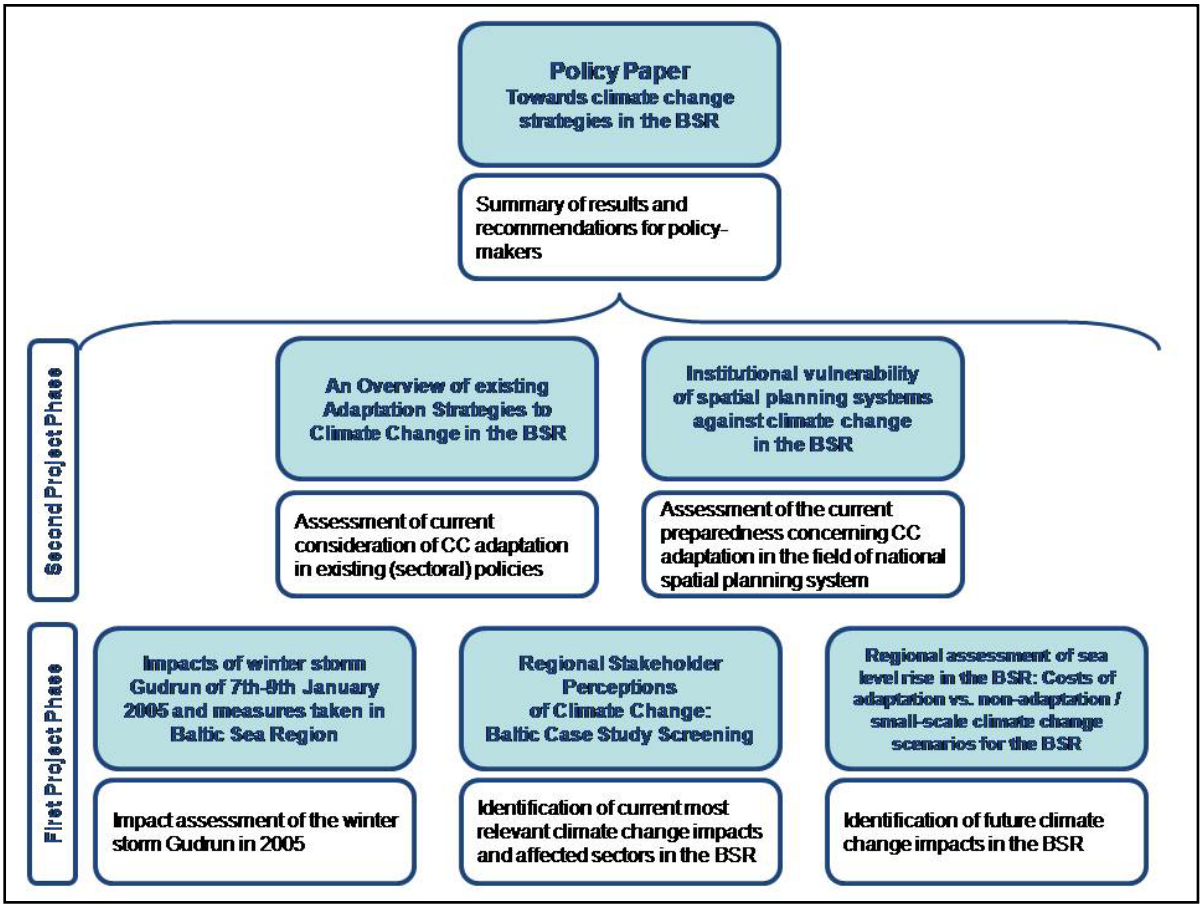

Figure 1: Feeding of single project results into final project outcome

Due to the interdisciplinary formation of the partner consortium, it was of utmost importance to create a common understanding of climate change. The underlying key concepts of climate change were elaborated in each of the international conferences and meetings in order to ensure that the relations between adaptation, mitigation, vulnerability and uncertainty were understood by anyone no matter which background one had. This refers back to the theory of organizational learning that is defined as the process of improving actions through better knowledge and understanding (Garvin, D.A. 2000: 77).

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Recommendations for policy-makers

Resulting from the project work, the project partners designed recommendations for policy-makers, revealing a range of starting points on how adaptation strategies to climate change could be developed. Generally, adequate adaptation strategies can only be developed when existing threats and bottlenecks are recognized and a joint baseline target state is defined – answering the questions to what degree risk and vulnerability are generally accepted.

An analysis of current, i.e. sectoral, policies in the beginning of this development process can provide valuable insights on identifying where adaptation to climate change is already being considered, and where it should be incorporated. To achieve this, three different approaches were followed:

1. the hazard-based approach where conclusions are based upon the analysis of a specific hazard;
2. the vulnerability-based approach where the set of questions "who is vulnerable to what, in what way and where?" provides the starting point of discussion; and
3. the policy-based approach which investigates the efficacy of existing or planned policies concerning the changing climate.

For all of the approaches, concrete examples were provided by the project partners (Hilpert et. al. 2007: 36pp).

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