

KMS-Workshop 06.03.2015



Time	Speaker	Topic
09:30	Poster Session & Coffee	
10:30	Ralph Schneider (Department of Geology), Konrad Ott (Department of Philosophy) & Martin Quaas (Department of Economics), Kiel University	Introduction
10:45	Annette Breckwoldt , Leibniz Center for Tropical Marine Ecology, Bremen	Participatory Coastal and Marine Management – people, reefs and fish in an Indonesian Archipelago
11:15	Benjamin Burkhard , Institute for Natural Resource Conservation, Kiel University	Dynamic coastal-marine social-ecological systems - Assessments based on their resilience, adaptability and ecosystem services
11:45	Cristina de la Vega-Leinert , Institute of Geography and Geology, University of Greifswald	Changing coastal land use: An opportunity for new forms of coastal citizenship?
12:30	Lunch-Break	
13:45	Angela Oels , Institute of Political Science, FernUniversität Hagen	Climate change, sea level rise and coastal communities: The rise of the resilience paradigm in climate migration discourse
14:15	Andreas Kannen , Helmholtz-Zentrum Geesthacht	Maritime Spatial Planning as a social process – challenges in the context of sea use trends and transboundary cooperation need
14:45	Kira Gee , Dept. of Geography and Planning, University of Liverpool	Marine spatial planning: A question of space and/or place?
15:15	Maria Hadjimichael , Innovative Fisheries Management (IFM), Aalborg University	The right to the sea
15:45	Coffee-Break	
16:15	Britta Weiffen , Institute of International Relations, University of Sao Paulo	Contested Ocean: Maritime claims and dispute resolution procedures
16:45	Sebastian Bruns , Institute for Security Policy, Kiel University	Choke Point Control: Maritime Security, Seapower & Capability-building ashore
17:15	M. Quaas und K. Ott	Final Statement
17:45	End	

Speaker I – Annette Breckwoldt

Participatory Coastal and Marine Management – people, reefs and fish in an Indonesian Archipelago

This paper arises from a three-year Indonesian-German research cooperation on the governance and management of Indonesian coastal and marine ecosystems. Project objectives were to investigate coastal and marine social-ecological dynamics and feedbacks and to analyze socio-political and institutional structures and processes to support adaptive coastal governance. Participating researchers and students worked in the Spermonde Archipelago, off South Sulawesi, Indonesia between 2007 and 2010. Methods included ship-based research excursions by an interdisciplinary team and several classical surveys and anthropological, participatory research methods applied by an interdisciplinary social-natural science team. This paper summarises our findings and draws policy conclusions. We discuss Marine Protected Areas and participation, thereby focusing on local “rules-in-use”. Reef exploitation and local livelihoods (including fisheries and mariculture), social networks, hierarchies and women’s roles in fisheries have been investigated to understand social vulnerability, resilience and marine resource governance in the face of environmental change. Throughout the study, the attitudes and future visions of islanders on the state and management of marine resources were also recorded. A clear outline of major policy recommendations and further research challenges conclude this paper.



Annette Breckwoldt studied marine biology (with physical oceanography and zoophysiology) in Bremen, Liverpool (Isle of Man) and Hawai’i. She worked in Paris as a consultant at UNESCO’s joint sections Coastal Regions and Small Islands (CSI) and Local and Indigenous Knowledge Systems (LINKS). Annette’s PhD (2007) was an interdisciplinary appraisal of community-based marine resource management efforts in Fiji, conducted at Newcastle University (UK) and the University of the South Pacific (Fiji). She lectures at Bremen University (Germany) in the faculties of geography and biology and works as postdoctoral scientist in the working group for Social-Ecological Systems Analysis (SES) at the Leibniz Center for Tropical Marine Ecology (ZMT, Bremen). Her main responsibilities here are with the social-ecological parts of the German-Indonesian Cooperation SPICE (Science for the Protection of Indonesian Coastal Ecosystems). Annette’s research interests encompass integrated coastal management, local marine resource use and management, human-nature interactions in the coastal zone, (small) islands, environmental perceptions, and working on the linkages between ecology, social sciences, (human) geography and environmental psychology.

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Speaker II – Benjamin Burkhard

Dynamic coastal-marine social-ecological systems -

Assessments based on their resilience, adaptability and ecosystem services

Coastal-marine zones are dynamic social-ecological systems, often significantly modified by various human activities and under increasing impacts and risks of global change (climatic and land/sea use change, globalisation). Related assessments require innovative transdisciplinary approaches in order to deliver information and data required for an appropriate cross-sectoral sustainable management of limited space and resources. Respective requests have increasingly been registered from practitioners (e.g. from the planning sector), science (e.g. the LOICZ/Land-Ocean Interactions in the Coastal Zone project) and policy (e.g. the European Commission's Marine Strategy). Resilience and adaptability are used to describe the dynamic behaviour of complex adaptive socialecological systems. Whereas resilience refers to a system's ability to cope with stress and disturbances, adaptability deals with long-term trajectories. Both components can be found in characteristic adaptive cycles reoccurring on different interlinked temporal and spatial scales (*panarchy*). Societal benefits from the environment are described by the highly transdisciplinary integrative concept of ecosystem services¹. Coastal and marine areas are, on the one hand, known to deliver multiple ecosystem services in high qualities and quantities (e.g. food, hazard regulation, recreation). On the other hand, demands for goods and services (e.g. flood protection, energy, space) are also high here due to human population concentrations and anthropogenic activities. This leads to interesting landocean as well as human-environmental interactions and cross-sectoral integrated coastal zone management needs. The combination of social-ecological systems theory with the ecosystem service approach provides a framework for the integration of social sciences, economy, geography and ecology, delivering important insights for the governance of such systems. The concepts mentioned above have been applied in different national and international transdisciplinary coastal-marine research and development projects. Examples from Thailand related to the 2004 Indian Tsunami², offshore wind power establishment in the North Sea³ and further regions will be shown. The case studies, their outcomes and application potential for transdisciplinary research, coastal governance and adaptive sustainable planning will be presented and discussed.

Benjamin Burkhard is a geographer and human ecologist teaching and working with transdisciplinary social-ecological system analyses in various national and international projects, dealing for example with integrative coastal zone management. He studied Geography at the Universities of Berlin and Uppsala and received his PhD in Ecology in 2004 and his habilitation in Geography in 2012. Since 2001, he is working at the Institute for Natural Resource Conservation at Kiel University. Burkhard is the coordinator of the EU Horizon 2020 joint project ESMERALDA about assessment and mapping of ecosystems and their services for policy and decision-making in the EU member states. Furthermore, he is Secretary General of the Ecosystem Services Partnership (ESP), lead of the ESP Thematic Working Group "Mapping Ecosystem Services" and Deputy Secretary General of the International Association for Landscape Ecology (IALE). He is editorial board member of the journals *Ecosystem Services* and *Ecological Indicators* and active author, guest editor and reviewer for numerous highly ranked scientific journals. Burkhard got international working experience during research stays at the University of Salento, Italy, the University of Adelaide, Australia, the University of Arizona, USA, and during regular research and teaching stays in Finland, Austria and China. He is teaching systems analysis in the international MSc curricula in the Kiel School of Sustainability.

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Speaker III – Cristina de la Vega-Leinert

Changing coastal land use: An opportunity for new forms of coastal citizenship?

Coastal regions are historical foci of human settlement and activity. Land claim has expanded the terrestrial surface while modern coastal defence has fixed the coastline and tamed a fundamentally dynamic environment. This has contributed to changing coastal settlement and occupation patterns and coastal communities' behaviour and expectations with regards to coastal management. Over-reliance on protective technology, particularly in industrialised countries, has created a false sense of security, high protection expectations, a high propensity to ignore residual risk and a low tolerance for disasters. Coastal protection has become a buffer between marine and coastal natural forces and populations, who have unlearned the full implications of living in a rich, but changing and exposed environment.

Anthropogenic meddling with natural processes has contributed to decrease the socio-ecological resilience of coastal communities, especially in low-lying soft coasts, which are often eroding throughout the world. Natural buffers have been removed, eroding land & cliffs have been sealed and sediment sources cut off. Superimposed on these transformations, climate change is dealing the cards anew and raising the stakes. With increasing populations and assets at risk and growing awareness of the negative impacts of coastal defence, prioritisation has become critical in coastal management strategies.

Prioritisation means:

- 1) coming to terms with the notion of letting go some of the land won to the sea, which runs against the grain of centuries of coastal occupation,
- 2) a new valuation of coastal land use and ecosystems and services,

and results in a differential approach: the reinforcement of hard coasts in densely occupied areas simultaneous to the release of land and ecological restoration in sparsely occupied ones.

This reconfiguration of coastal land use spurs resistance and conflicts, which need to be addressed to rethink policy and foster new forms of coastal citizenship and socially sensitive mechanisms in decision-making and management.

A. Cristina de la Vega-Leinert trained as a physical geographer at the Institute de Géographie Alpine (France). After a Master's research on Quaternary meltwater sedimentology (University College Dublin, Republic of Ireland) she focused in her PhD on Holocene coastal environmental changes (Coventry University). As a postdoctoral research fellow she coordinated the EU funded project SURVAS Project (Synthesis and Upscaling of sea-level Rise Vulnerability Assessment Studies) at the Flood Hazard Research Centre (UK), and, while at the Potsdam Institute for Climate Impact Research (Germany), the DINAS-COAST Project (Dynamic and Interactive Assessment of National, Regional and Global Vulnerability of Coastal Zones to Climate Change and Sea-Level Rise) project as well as the science - stakeholder dialogue within the ATEAM (Advanced Terrestrial Ecosystem Analysis and Modelling). Since 2008 she is a senior researcher at the Institute of Geography and Geology of the Ernst-Moritz-Arndt University Greifswald. As part of the COMTESS Project (Sustainable Coastal Land Management: Trade-offs in Ecosystem Services) her current research analyses existing divergence and convergence in perceptions and preferences for coastal protection, land use management strategies and landscapes between science, policy and the broader society, with a particular emphasis on managed realignment and its socio-ecological implications.

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Speaker IV – Angela Oels

Climate change, sea level rise and coastal communities:

The rise of the resilience paradigm in climate migration discourse

This paper engages in a discourse analysis of international policy documents on climate change and migration to offer a critique of the dominant resilience paradigm. Coastal communities around the world face the threat of rising sea levels as a result of unmitigated climate change. Many small island states face the ultimate security threat: their very existence as nation states is at stake. The fact that climate change destroys livelihoods has first been problematized in a discourse on “climate refugees”. This paper investigates how the problem of (future) climate change induced displacement has been articulated over the last 15-20 years and which policy options have been favored by each discourse. Originally, the fact that climate change could displace people in the future was considered a scandal that needs to be prevented by drastic emission reductions. Over time, as the climate negotiations failed to make progress and a certain level of global warming looked inevitable, the call for refugee status or other legal arrangements for affected populations emerged. However, no policy along these lines was ever implemented.

More recently, there has been a remarkable shift in the social construction of climate change induced migration. The discourse of resilience has emerged as the new guiding paradigm in environmental politics in general and in climate migration in particular. Resilience focuses on a social or ecological system’s ability to survive shocks and still persist in its major functions. Resilience often demands a radical transformation of social and ecological systems in order to allow them to survive. Climate change induced migration is now presented as a rational strategy of adaptation to unavoidable levels of climate change. As a result, the relocation of millions of people is rendered acceptable and rational. The discourse of resilience tends to accept climate change as “given”, as something coastal communities have to live with and prepare for.

However, there is clearly resistance to such (Western) framing of the discourse on climate migration. In October 2014, small island people have blocked the biggest coal port in Australia with their canoes to make it very clear: “We are fighting, not drowning.” In his speech at the Warsaw climate summit in 2013, the Philippine delegate Yeb Sano emphasized: “We refuse to accept that running away from storms, evacuating our families, suffering the devastation and misery, having to count our dead, become a way of life.” Just preparing for the rising waters and coming storms is clearly unacceptable for affected populations. The message of the protestors is clear: Climate mitigation needs to return to the top of the international policy agenda as it is the most effective risk reduction strategy for coastal communities.



Dr. Angela Oels is temporary full professor in International Politics and Scientific Director of the M.Sc. Programme “Interdisciplinary Distance Studies in Environmental Sciences” at the Distance Teaching University in Hagen, Germany. Dr. Oels investigates how the construction of climate change as a security issue in international political and scientific discourses has influenced policy making. In particular, she has studied the securitization of ‘climate change induced migration’ over the last 20 years. Dr. Oels holds a Prediploma in Environmental Engineering from the TU Berlin, Germany and a PhD in Environmental Sciences from the University of East Anglia, United Kingdom. From April 1st, 2015, Dr. Oels will be Visiting Professor at the Lund University Centre on Sustainability Studies (LUCSUS) and the Department of Political Science at Lund University, Sweden.

Speaker V – Andreas Kannen

Maritime Spatial Planning as a social process – challenges in the context of sea use trends and transboundary cooperation need

The presentation will focus on challenges in marine governance, in particular by looking at Maritime Spatial Planning (MSP), and the increasing need for transboundary cooperation when planning for human activities in the sea. The presentation will draw on several case studies analysed in the frame of national and international research projects and in the frame of the International Council for the Exploration of the Sea (ICES). It will establish MSP as a social process embedded in (and aiming to integrate across) political and policy processes of various sectors and at various policy levels. Significant developments such as offshore wind farming which has been a stimulator for MSP in Germany, but also neighbouring countries, will be used for illustration. As illustrated also in the recent EU Framework Directive on MSP, trans-national cooperation within regional sea areas such as the North Sea and the Baltic is a significant challenge, in particular in the light of differing policy contexts, interests and planning cultures among different countries. Within the EU FP 7 Research project KnowSeas, transboundary contexts and governance mechanisms in several specific case studies with different approaches and structures to marine governance in different geographical areas were analysed and compared. A key issue emerging from those (and other) cases are the different ways of institutions in exercising power. Most of the institutions analysed in KnowSeas for example do not take (executive) action themselves, but seek to influence or stimulate action by others. The general marine governance framework in the regional seas is thus largely composed of varying types of networks, interest groups and cooperation mechanisms surrounding national and international executives, with the two levels being engaged in a continuous process of exchange and influencing each other.

What recommendations can be drawn from these cases for formalised planning processes such as MSP? The main message is that the sea needs to be seen by planners as a social space and conflicts rooted in different perceptions, values and attitudes of coastal people can be observed. From the European perspective recognition of regional history, specifics and context may ask for different cooperation approaches in different areas. Overall, in order to deal with the current challenges in marine areas, marine spatial planning and similar tools for integrated planning need to be developed in the form of communication processes, which link diverse sets of information and span a dialogue between groups of society and across spatial scales including the transnational dimension.

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Speaker VI – Kira Gee

Marine spatial planning: A question of space and/or place?

Marine spatial planning (MSP) has gained prominence as a space-based approach to managing a growing range of demands on marine resources. Its purpose is to “analyse and plan the spatial and temporal distribution of human activities in sea areas to achieve economic, environmental and social objectives” (European Commission 2013 p.1), minimising spatial conflicts whilst maximising the benefits from defined sea areas. In many contexts, zoning is the instrument of choice, reflecting a rational-administrative approach to MSP driven by a functional perspective of the sea. This tends to regard the sea as a physical space which can be structured according to different demands and apportioned to different uses in the pursuit of socio-economic (such as blue growth) and ecological objectives (such as the EU Marine Strategy Framework Directive).

To date, this underlying spatial-functional approach has hardly been questioned. Recently though, recognition has been growing that the sea cannot be understood simply in resource terms. Evidence from cultural geography suggests that non-material values, cultural practices and affective dimensions associated with the sea are important to communities, individuals and wider society, and a place-based approach is also advocated by terrestrial planning, where more social understandings of planning are emerging with greater focus on place-making rather than zoning. Values related to place are often overlooked in current MSP processes, mostly because they are inherently difficult to elicit, express spatially or compare with economic and ecological values.

This contribution explores the relationship between MSP and place from three perspectives. The first is a conceptual angle, asking whether a simple transfer of terrestrial place-based concepts is actually possible or whether the sea might impose certain constraints on the notion of place. The second is related to the understanding of planning as a social process, arguing that planners need to closely engage with the lived realities which contribute to the production of places. The third part of the presentation will highlight examples of how place-related values can be made more accessible to MSP processes, using concepts such as cultural landscape, seascape and cultural ecosystem services.

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Speaker VII – Maria Hadjimichael

The right to the sea

In the current climate of the global financial crisis, developed countries are increasingly focused on economic growth and development, and the crisis is continuously being used to entrench a neoliberal agenda allowing for further deregulation of the economy and privatization of public assets. The expansion of privatization of space for corporate interests has moved from primarily in-land and the coastal space to marine space with a range of policies and strategies some of which with already identifiable effects such as the privatization of marine resources and the decline of small-scale fisheries, the displacement of coastal communities for further development of the coast, and the dislocation of fishers for developments in the sea (such as marine aquaculture) being only but a few broad examples. In the EU specifically, this shift has been named Blue Growth, the long term strategy of the European Commission aiming *“to support sustainable growth in the marine and maritime sectors as a whole. It recognises that seas and oceans are drivers for the European economy with great potential for innovation and growth”*. This presentation will build on the theories of Henri Lefebvre’s ‘Production of Space’ and David Harvey’s ‘the right to the city’ but will also attempt to highlight the re-imagination of the sea as commons. This theoretical background will be used to argue against the EU’s Blue Growth strategy. Finally, ideas will be put forward for some initial steps to take and arguments to make, as a new way of re-organizing across coastal and marine space, and start reclaiming the right to the sea, as resistance to the current wave of privatization.

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Speaker VIII – Britta Weiffen

Contested Ocean: Maritime claims and dispute resolution procedures

At the beginning of the 21st century, most international boundary disputes had been resolved and few states possessed the will or capacity to alter territorial delimitations by force. Recent research on maritime security has therefore concentrated on non-traditional, transnational security challenges, such as threats to globally relevant sea lanes posed by piracy and terrorism. Yet, even as the prospect for conflict over disputed land boundaries seems to have dwindled, the risk of militarization of maritime claims is growing. Maritime claims involve diplomatic contests between two or more states over access to or usage of a maritime area. Because these disputes are taking place at sea, away from population centers and the media, and boundaries are harder to define, the involved parties appear more inclined to use military force than they might elsewhere and the potential for violent confrontation is greater. In addition, unresolved maritime claims that had lain dormant for decades are aggravated by the increasing relevance and accessibility of ocean resources. With accelerated pursuit of oil and gas reserves in disputed offshore territories and competition over fishery rights, coastal states become less willing to surrender maritime claims. Recent examples include clashes over uninhabited islands in the East and South China Seas as well as recurrent quarrels over the eastern Mediterranean, the Falklands/Malvinas, and the Caribbean near Nicaragua and Colombia.

While a number of studies have compared the management of conflicts over territory, crossborder rivers, and maritime zones, maritime claims and maritime conflict resolution procedures have hardly been studied in more detail. This paper maps different types of maritime claims as well as different mechanisms of conflict management, such as bilateral negotiations, negotiation with the nonbinding assistance of third parties, or submission of the issue to the binding judgment of a third party (e.g. arbitration or adjudication). It aims to explore whether there is an association between the issue at stake and the mechanisms chosen. For example, Paul Hensel and Sara Mitchell, who direct the ICOW Territorial Claims Data Set, have argued that salience, i.e. the degree of importance attached to the issue, might have an impact on conflict management and the type of conflict management mechanism chosen. Thus, maritime claims where the access to resources is at stake should be particularly challenging to manage. Beyond a look at issue-specific institutions such as the International Tribunal for the Law of the Sea (ITLOS), it is interesting to take into account the characteristics of international institutions that may enhance the effectiveness of their conflict management efforts. These characteristics may include degree of institutionalization, average democracy levels, member preference similarity, the use of binding vs. non-binding conflict management techniques, and distinctions between regional vs. global and judicial vs. nonjudicial institutions.

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Speaker IX – Sebastian Bruns

Choke Point Control: Maritime Security, Seapower & Capability-building ashore



Maritime chokepoints attract a continuous interest in the policy, military, and business world.¹ Only in the wake of the visible rise of piracy incidents off the Horn of Africa and in the Gulf of Aden from 2006/2007, chokepoints have entered the mindset of the broader academic and policy-making communities. Concurrently, with anti-piracy missions abound, maritime security operations (MSO) became one of the mainstays of international navies – despite the enduring validity of Samuel Huntington’s stern 1954 warning that navies were simply not built and maintained for this. Beyond those – often poor and instable – countries that are adjacent to major chokepoints and thus subject to the immediate fallout of such adverse conditions, choke point security is also a concern to those governments whose livelihood, security and social order depend on the functioning of these routes (the ‘First World’) for the import and export of goods. They also may be adversely affected by problems associated with maritime chokepoints. The control of these choke points has a fundamental systemic dimension as the underlying system dubbed “globalization” rests on the freedom of the seas and benevolent choke point control: In the globalized world, there is a vested interest that the security around chokepoints is upheld and disturbances in the just-in-time economy are kept to a minimum. Each of these chokepoints must be assessed on its own merits, what has worked to combat maritime piracy in South East Asia, cannot work at the Horn of Africa. Whereas naval convoys may be a useful solution to a given problem in one region, capacity-building (such as the training of local maritime constabulary and naval forces) may be the more suitable aspect in other areas. Stakeholder analyses must be conducted thoroughly. After more than a decade of entanglement in difficult and largely unpopular ground campaigns, Western powers are increasingly looking to their navies to provide an alternative, less costly handle of power in distant areas. However, they must be integrated in other military and non-military levers of power. Regional quarrel, local wars, insurgencies, terrorism, piracy, the effects of climate change, demographics, littoral and offshore resource conflicts, and many others issues can put immense pressure on these narrow straits and canals which are relatively easily closed to international traffic. In addition, choke points have a tendency to be focal-points even in peacetime as they are often the site of major collisions and shipping losses.

Sebastian Bruns is a fellow at the Institute for Security Policy at the University of Kiel, Germany (ISPK), he recently completed his dissertation. Sebastian’s areas of interest include maritime security, naval strategy, and transatlantic defense and security relations. Since December 2014, Sebastian Bruns is a member of the German Navy’s Chief of Naval Operations’ expert advisory group on strategy. Further awards include a U.S. Department of Defense research grant (September 2012) to conduct interviews with naval strategy decision-makers and a prestigious German Marshall Fund Congressional Fellowship (2010-11). As part of the GMF Fellowship, he served as a legislative aid for Rep. Todd Young (IN-09), and handled all military, defense, and national security affairs for the Congressman, who held a seat on the House Armed Service in the 112th U.S. Congress.

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¹ Chokepoints are man-made or natural bottlenecks where maritime traffic congests due to narrow seaways and where littoral security challenges congregate to form unique risk patterns. They are also the site of energy routes, undersea cables, critical infrastructure such as offshore and energy lines of communication.