



Strategic Scientific Workshop “Co-production of knowledge in climate governance”

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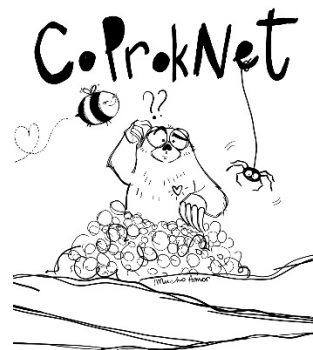
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Summary

The overall aim of this report is to record the research objectives, results to date, and points for further investigation regarding knowledge co-production in climate governance. The aim is to continue the conversation initiated at the Scientific Strategic Workshop: “Co-production of knowledge in climate governance”, held at the [University of Bayreuth Center of International Excellence "Alexander von Humboldt"](#), on May 5/6, 2022. This report is designed to share the key insights from the event and promote further discussion within the field of climate governance and interdisciplinary methodological approaches. The report is accordingly divided into five sections: 1. Introduction; 2. Knowledge Co-production Framework; 3. State-of-the-Art, 4. The Interactive Learning Experience (ILE): *A Story About knowledge*; 5. Ways forward.

We hope you find this report helpful for your research journey.
Bayreuth-Romssa/Tromsø-Nairobi-Rio de Janiero-Turin-Macerata-Coimbra.

Acknowledgments We would like to thank Prof. Dr. Eva Julia Lohse, professor of public law at the University of Bayreuth for her wonderful efforts and organization of the scientific strategic workshop. We are grateful to the University of Bayreuth Centre of International Excellence “Alexander Humboldt” for hosting and funding the collaborative event. Our gratitude goes to our international speakers: Dr. Robert Omondi Owino, Senior Lecturer and Chair of Private Law Department, and Jomo Kenyatta, University of Agriculture and Technology School of Law, Nairobi, Kenya. Further, we would like to thank Jane Murungi, PhD Student at the University of Turin, Italy and Lecturer at the University of Nairobi, School of Law (Kisumu campus) Kenya, for her insights and for spearheading the coordination of the online event. The methodology regarding knowledge co-creation utilized at this strategic workshop would not have been possible without the input of Prof. Dr. Giulia Parola, Visiting Professor at the Faculty of Law, Federal University of Rio Grande (FURG), Brazil, who also joined us remotely. Dr. Felix Otieno Odhiambo, lecturer of law at the Catholic University of Eastern Africa, Nairobi, and advocate of the High Court of Kenya who practices with the law firm of Japheth Kenvine Felix & Smith Advocates LLP, Nairobi, enriched the workshop with his insights on climate change legislation in Kenya. Many thanks to videographer, Davide Oddone, for capturing our teamwork in action. Very different and valuable practitioners’ views were added by the Lord Major of Bayreuth, Thomas Ebersberger, and Joyce Lesegi, Chairperson, Samburu Elders Council, Isiolo County, Kenya who reported on the impact and inter-relationship between climate change and alternative justice systems as experienced in Isiolo County, Kenya. George Chacha, who is a Rotary Peace Fellow, Civic Educator and active in Alternative Justice Systems in Migori County, Kenya also expressed his views on how climate change impacts

on the practice of AJS in Kenya, and how creating awareness among the local communities of more sustainable environmental practices and interventions at State level could somewhat combat climate change impacts and decrease conflict. Lastly, we would like to thank University of Bayreuth law students Nadja Skop, Richard Gänzle, and Alexander Ströher for assisting the event.



Figure 1. From the right: Davide Oddone, Robert Omondi Owino, Margherita Paola Poto, Eva Julia Lohse, Arianna Porrone, Jane Murungi, Juliana Hayden, Nadja Skop, Alexander Ströher, Felix Otieno Odhiambo

Introduction – The Five Ws

What The Scientific Strategic Workshop: Co-production of knowledge, referred to as CoPK, in climate governance, was established to support research that deepens existing working relationships and creates new partnerships in academia and beyond. The overarching objective was to create sustainable, forward-thinking, research networks between the University of Bayreuth and leading institutions around the world. The primary objective of this particular strategic workshop was to bridge the research gap on CoPK in climate governance by creating a common framework for further discussion and scientific exchange. The team of international participants discussed, analyzed, evaluated, and mapped interdisciplinary knowledge co-production methods and climate-smart practices so as to co-create guidelines for researchers, policy-makers, and legislators. Guided by environmental law experts and coordinated by Prof. Dr. Eva Julia Lohse, the strategic workshop utilized the conceptual framework of participatory rights in international environmental decision-making (Århus Convention and the Escazu Agreement) as well as provisions on participatory rights in environmental law at the national (inter alia constitutional) level.

The strategic workshop aimed to find similarities and differences between the provisions of participatory rights and effective CoPK practices from indigenous and local communities including: Bavarian Forest/Steigerwald and the Alps, Germany; Sápmi (in the Arctic region); Maasai, Ogiek, Endorois, Tana River county and the northern frontier, Kenya; Mato Grosso, Brazil. These regional case studies all have precedents of strong participatory processes in environmental decision-making (Germany) and/or significant input from traditional local knowledge bases (Sápmi, Kenya, Brazil). Given that the challenge of climate change stifles communities worldwide, it appeared sound to use a comparative approach to developing a common framework of CoPK.

The event was structured into three main parts:

- A. Speaker presentations and discussions on CoPK in climate governance.
- B. Interactive learning experience (ILE): A Story About Knowledge
- C. Ideation session regarding new CoPK partnerships and projects

Why Tackling climate change requires solutions from multilevel, multidiscipline, and polycentric perspectives. We hypothesize that rapid knowledge sharing and integration in environmental decision-making will practically help address complex ecological challenges at international, regional, national, and local levels. We put forth that CoPK can remedy the perceived lack of efficacy in conventional legal approaches, such as within administrative decision-making processes. Conventional legal approaches pose the risk

of limiting access rights to the procedural realm whereas CoPK integrates all stakeholder perspectives using a bottom-up model. The issue at hand is that an integrated, systematic, and feasible definition of CoPK is missing in legal research. Thus, CoPK is rarely used in environmental decision-making and policy-making processes. Legal frameworks may exclude critical indigenous, traditional, and ecological knowledge from their discretionary powers. This strategic workshop aimed to define and reflect on the process of CoPK to enable greater usage in mainstream legal processes.

Who The target audience included legal and interdisciplinary researchers, students, and active community members in alternative justice systems and public participation in environmental initiatives and decision-making (Kenya and Brazil).

Where The hybrid (in-person and online) event took place in Bayreuth, Bavaria, Germany at the University of Bayreuth. Several international participants joined virtually via the online platform, Zoom.

When The strategic workshop took place on May 5 and 6, 2022. Participants from German, Italian, Portuguese, Norwegian, Kenyan, and Brazilian research institutions, and communities took part in all aspects of the workshop. All shared materials from the workshop can be found in the Appendix to this Report. The team’s long-term goal is to continue in-person and virtual CoPK learning experiences, making the workshop a recurring event in the month of May, with all interested individuals through institutions, research forums, and community events.

Knowledge Co-Production Framework

A significant number of interdisciplinary scholars within the field of climate governance have recognized the importance of establishing a collective knowledge base to develop common and integrated responses to climate change. Establishing a common knowledge base, including but not limited to a conceptual framework and the creation of communication spaces between indigenous and non-indigenous knowledge systems within climate governance is predicted to increase the field’s accessibility, connectivity, and up-take of best environmental policy, legislation, and practices. To date, insufficient coordination among public and private sectors has resulted in inadequate national, regional, and international responses to climate change and fractured climate change mitigation strategies. With regard to this dilemma, participants at the strategic workshop prioritized the development of a holistic, situated and integrated cross-disciplinary participation-based approach to knowledge production within the field of climate governance.

This strategic workshop was largely successful in achieving its primary aim of bridging the knowledge gap on CoPK through the establishment of a common framework. The project outcomes are expected to include a co-created publication (a book, expected by the end of 2022), a short documentary (filmed by Davide Oddone), and the preparation of project proposals involving the partner institutions. The presentations, discussions, and mapping resulted in key insights that are promising for the creation and implementation of a common framework predicated on knowledge integration and expanding participatory governance practices. Participants' reflections on the de-colonization of knowledge opened the debate on the need to establish spaces for non-academically constructed and non-Western epistemologies. The integration of these epistemologies will facilitate the interaction of different knowledge systems and the expansion of participatory governance practices in the field of integral ecology. For example, the findings from this strategic workshop suggest that good climate governance requires the integration of legal studies, political science and international relations, anthropological and socio-ecological research, and strong community participation. The existing bodies of literature in each respective field and lived experiences (including, but not limited to oral stories, elders' memories) recounted by local and indigenous communities affected by climate change and degradation provide critical know-how regarding the protection of our blue and green spaces. These insights can complement each other and eventually result in a CoPK framework designed to address climate governance challenges. By combining the interests and perspectives of environmental, legal, political, and community stakeholders, a CoPK framework can readily identify the barriers effective to climate governance across different sectors. Thus, such an integrated effort is likely to increase governance capacity to protect non-human and human wellbeing.

However, the strategic workshop participants concluded that further investigation and testing are required to solidify which tools, methods, and approaches will best enable the adoption and mainstreaming of a CoPK framework. While a definitive common CoPK framework for climate governance remains elusive, the following criteria are suggested here:

1. Utilizing scientific knowledge and interdisciplinary knowledge sharing regarding the status of the green and blue environments in question to inform all levels of decision making;
2. Establishing cooperation across sectors and academic disciplines through a participation-based approach;
3. Bridging the science-policy gap by bringing together innovative insights from different sectors and affected communities;
4. Providing national and international decision-makers with key information relating to climate governance best practices across the affected areas/regions.

State of the art on CoPK in Climate Governance (Workshop Presentations)

The first day of workshop was dedicated to the participants presentations, and namely:

Co-creating ecological knowledge (Margherita Paola Poto and Arianna Porrone).

The first presentation provided context on the experience of knowledge co-creation as an innovative methodological approach to climate and environmental law. This novel approach integrates elements of indigenous methodology, illustrated storytelling, and participation in the creation of research. The presenters provided concrete examples of the major milestones in CoPK utilization within climate governance achieved to date. The milestones include the use of visual storytelling, monographs, articles and interactive learning toolkits.

Alternative Justice Systems (AJS) and Climate Change in Kenya (Jane Murungi and Joyce Lesegi, with interventions from George Chacha)

The overall objective of the presentation was to explain the opportunities for co-production of knowledge that could support dispute resolution within the Alternative Justice Systems in Kenya. The setting for the presentation was Isiolo county, which is a semi-arid land, in the north of Kenya. There adverse impacts of climate change are evident. Kenya's second longest river, the Ewaso Nyiro, traverses Isiolo county. It has, for centuries, been a source of water for the pastoral and nomadic communities in the region. Over 50% of economic activity in the county revolves around the nomadic pastoral communities selling meat. Now, however, the Ewaso Nyiro has over the past few years been drying up significantly. This, in part, is a result of climate change. Consequently, there is now a loss of livelihood and threatened life. These circumstances are leading to worsening incidences of conflict which arise from trying to access dwindling water and grazing pasture. Joyce Lesegi explained that, from her experience, addressing disputes which are related to climate change within the AJS system poses a great challenge indeed to the AJS practitioners. Therefore, more tools of know-how and support are required for successful dispute resolution in the context of climate change. This is therefore the opportunity for co-production of knowledge by collaborating with diverse peoples that can support with the required know-how. George Chacha, also gave useful recommendations on the possible interventions that could support AJS in the situation provided.

Co-Production as a driver of Climate Policy and Regulation – An Overview (Omondi R. Owino)

Using the example of (failed?) legislative restrictions on the use and production of charcoal in Kenya, the third presentation categorized the stages in governance where co-production of knowledge should and could happen in order to overcome the limits to climate change research in a classical setup (namely ‘knowledge silos’, ‘monodisciplinary research’ and ‘low utility’). They were identified as ‘setting-up’, ‘project development and design’, ‘implementation’, ‘managing and disseminating outputs’ and ‘evaluation’.

Citizen Lawmaking as Co-Production? – The example of the Bavarian popular legislation on Biodiversity „Save the bees“ (Eva Julia Lohse)

This presentation was centred around the question, whether the concept of co-production does also apply to referenda and other forms of direct popular law-making. Using the example of amendments to the Bavarian Nature Conservation Act in 2019, it explored the pros and cons of such an approach, especially how this could be used to enhance acceptance of restriction to (economic) freedoms by including factual knowledge of all stakeholders involved. Simultaneously, it was shown that this process can also go wrong, if the government only includes particular knowledge.

Coproduction of Knowledge in Kenya’s Climate Change Laws (Felix Otieno Odhiambo)

The last presentation focused on the possibilities of a bottom-up approach to decision-making in (Kenya’s) Climate Change Laws and evaluated, whether participation and bottom-up approaches can be equaled to co-production of knowledge or could at least be used to include more knowledge in decision-making. It explored both the advantages, mainly acceptability for stakeholders, as well as challenges, such as lack of funding or time barriers for collaborative research. Finally, the role of traditional and indigenous knowledge and laws in this context was highlighted.

Eco_Care Ideation Session: Strategic Planning 2022-2023 (Juliana Hayden)

From 2020 to 2022, many of the research institutions involved in the Eco_Care network had primarily focused on the establishment of best practices within marine governance, including interdisciplinary projects regarding the establishment of ‘good environmental

status,’ of EU marine waters through real-time and digitalized experimental learning experiences. As the network of institutions, researchers, and community leaders look ahead to new opportunities for CoPK climate governance research projects, the focus is slightly shifting to the development of shared course content (exchanges) and innovative co-created materials. Calls for proposals from Horizon 2021-2027, ERASMUS+, LIFE programme, and national funding bodies can help finance and grow the network’s international relationships and research.

The Interactive Learning Experience (ILE): *A Story About Knowledge*

The second day of the workshop opened with an Interactive Learning Experience (ILE), guided by Arianna Porrone and Margherita Paola Poto. During the session (1h), participants were asked to create a group project around a research question: ‘Where can knowledge be looked for/searched, found, treasured, and kept?’. Participants were also prompted to explore thinking outside their comfort zone, collectively work on the research question and try to reformulate it. The process encouraged searching for nuances that would resonate with participants’ personal experiences. The working materials were: [A Story About Knowledge. Illustrated Version \(Porrone, Poto, Russo, 2021\)](#) and the prototype of the Story About Knowledge Touchbook. The group was given a creative kit including glue, scissors, post-its, pens, pencils, paper clips, and papers, as tools to re-create their story about knowledge as a group (**Figure 2**).



Figure 2. *Story About Knowledge*. Illustrated version, the prototype of the Touchbook, and some of the workshop tools.

As described by one of the participants, the result was a mixed media story, a multisensory experience that could be touched and felt through the stuffed characters and the book carvings, a journey, and a mind-map. What clearly emerged from the process was the need to remove barriers and obstacles to cohesively find knowledge. Searching, finding, and treasuring knowledge (in particular our green and blue spaces) requires cooperative, considerate, multi-species work. In this endeavour, one needs to remove barriers and pre-conceptions, become humble, and “dig” for answers. Sometimes, knowledge can only be found in cooperation with others. This phenomenon is demonstrated in our learning experience through the case of a Salmon who needs the intuition and wisdom of a Mole to find it (knowledge) within the heart of the (h)earth. This exercise is designed to teach all ages that the learning process is not flawless. Rather, it flows imperfectly as the oceans’ waves. The intrinsic motivation to search for imperfect knowledge (i.e develop a research question) is passion. The search for knowledge is ultimately an act of love that requires courage, the ability to explore other research environments, and actively listening and supporting others’ talents. The Mole, Eagle, Bear

and Salmon in this story all step outside their ecosystems (comfort zones) to look for knowledge and work together to create their common path. Rather than finding a singular answer to their learning quest, they arrive at a common multidisciplinary question. A recurring motif throughout the work is a spider spinning a web, encouraging researchers and pupils to consider connectivity.



Figure 3. The co-created mindmap

Ways forward

To continue the exploration of CoPK’s potential within the field of climate governance, strategic research partnerships, projects, and eventual networks must be developed. UiT The Arctic University of Norway, the University of Bayreuth, and the University of Turin are spearheading research opportunities to foster cooperation within the EU and abroad (Kenya and Brazil). The strategic planning ideation session at the workshop (led by Juliana

Hayden) was critical for assessing the participants' various needs, goals, and perspectives regarding their research projects' sustainability and growth opportunities.

A key takeaway was the desire for increased student and researcher mobility and joint learning opportunities, such as learning exchanges. Securing ERASMUS+ funding will enable the co-creation of climate governance course materials and research projects. The group agreed to adhere to the EU Open Science policy applied to research, education, and dissemination, providing open-access data and information for research communities and the general public. Further, the creation of open-access learning materials, including the literature and data presented at the strategic workshop, is a priority to enable increased participation in cross-disciplinary environmental and legal studies education. Supporting co-creation through the internationalization of climate governance learning initiatives may be facilitated by attaining large-scale, multi-year grants including HORIZON Europe's 2021-2027 program, the Norwegian Research Council, and other German funding initiatives (DAAD, DFG).

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