EKLIPSE

Knowledge & Learning Mechanism on Biodiversity & Ecosystem Services

Developing a mechanism for supporting better decisions on our environment based on the best available knowledge.

EKLIPSE is developing a European Mechanism to answer requests from policy makers and other societal actors on biodiversity related issues

More information on the processes and the EKLIPSE project funded by the EU in H2020 is available at ***www.eklipse-mechanism.eu***

CALL FOR KNOWLEDGE FOR INITIAL SCOPING – CfK 03/2018, EKLIPSE – JANUARY 2018

Responses most useful before: February 20th 2018

TOPIC:

How are European energy policies affecting biodiversity and ecosystem services in countries globally?

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1 Invitation to share knowledge for informed decision-making

This request was submitted by the Centre for Development and Environment, University of Bern.

Context: This call for knowledge emanates from the independent group of scientists working on the 2019 Global Sustainable Development Report mandated by the United Nations Member States[i]. This also relates to the EU 2030 Energy Strategy for reduced emissions, increased use of renewable energy, and energy efficiency improvement, which may have a range of positive and negative effects on biodiversity, ecosystem services, and the people benefiting from these services in Europe and globally. The telecoupling effects of the EU 2030 Energy Strategy needs an improved understanding to adjust measures accompanying its implementation towards policy coherence.

While a renewable energy transition is an unavoidable pathway for decarbonisation, some studies documented its effects on marine ecosystems, avian biodiversity, competing land use for food production, habitat loss and deforestation (i.e biofuels), with potential spillovers beyond the EU territorial boundaries. Other trade-offs may occur such as manufacturing hazards due to a growing demand of extractive resources needed in the fabrication of batteries and solar panels. In addition, important controversies currently animate the political debates centred on the role of nuclear energy and hydropower to support a fossil fuel free future, yet putting pressure on landscapes, biodiversity and

ecosystems in Europe and beyond. The full cost and benefits of opting for renewable energy when compared to the opportunity costs of renouncing conventional ones needs to be synthesized through collating existing knowledge and case studies. It is certainly understood that conventional energy sources likewise have impacts on biodiversity and ecosystem services globally.

EKLIPSE is inviting scientists, policy makers, practitioners and other societal actors to share their knowledge on this specific selected request to explore available resources and evaluate if the request requires a structured knowledge gap analysis and consultation on research priorities.

To scope current knowledge on how European energy policies affect biodiversity and ecosystem services in countries globally, we are interested in any reference to material, including grey literature and as yet unpublished results that refer to the following questions:

- What analyses exist that explore the EU energy policy strategy and related telecoupling effects on biodiversity and ecosystem services?
- What are the SDG targets and interlinkages that the EU energy policy tries to pursue (also indirectly) and what are the systemic trade-offs and co-benefits that are created beyond the territorial boundaries, where, at what scale, and who are the affected winners and losers?
- What policies and governance mechanisms could remedy these impacts on biodiversity and ecosystem services; or in hindsight, how could one have chosen pathways to more sustainable development?
- What are the recurrent patterns of interactions (nexus), cascading effects, etc.?
- What can be identified as leverage points and potentials for policy impact?
- What are the positive and negative feedback loops that may point to decarbonisation pathways?
- Are there any time issues, irreversibility?
- What is the relevance of context (place, scale, time)?
- What are the governance and transformation interventions that can potentially be applied? Lessons learnt?
- What are the main knowledge gaps?

References

1. Moser, S., Lannen, A., Kleinhückelkotten, S., Neitzke, HP, Bilharz, M. 2016. Good Intentions, Big Footprints: Facing Household Energy Use in Rich Countires. CDE Policy Brief, No. 9, Bern, Switzerland: CDE.
2. Gabrielle, B., Bamiere, L., Caldes, N., De Cara, S., Decocq, G., Ferchaud, F., Loyce, C., Pelzer, E., Perez, Y., Wohlfahrt, J., Richard, G., 2014. Paving the way for sustainable bioenergy in Europe: Technological options and research avenues for large-scale biomass feedstock supply. Renew. Sustain. Energy Rev. 33, 11–25. doi:10.1016/j.rser.2014.01.050
3. Lupp, G., Steinhaeusser, R., Bastian, O., Syrbe, R.-U., 2015. Impacts of increasing bioenergy use on ecosystem services on nature and society exemplified in the German district of Gorlitz. Biomass Bioenergy 83, 131–140. doi:10.1016/j.biombioe.2015.09.006
4. Vaissiere, A.-C., Levrel, H., Pioch, S., Carlier, A., 2014. Biodiversity offsets for offshore wind farm projects: The current situation in Europe. Mar. Policy 48, 172–183. doi:10.1016/j.marpol.2014.03.023

5. Zaman, K., Awan, U., Islam, T., Paidi, R., Hassan, A., bin Abdullah, A., 2016. Econometric applications for measuring the environmental impacts of biofuel production in the panel of worlds' largest region. Int. J. Hydrog. Energy 41, 4305–4325. doi:10.1016/j.ijhydene.2016.01.053

The final framing of the request is being developed through an interactive dialogue between the EKLIPSE scientists and the requester (University of Bern), and will be further discussed with stakeholders to ensure relevance for policy making regarding biodiversity and ecosystem services.

We want to explore the amount of knowledge that exists in this area, who the main knowledge holders are and, if after scoping we decide to answer this request, we want to identify the most suitable methodology for answering it.

Please contribute your comments and knowledge/references in the online KNOCK forum.

How to contribute to the Call for Knowledge

All knowledge collected through this call for knowledge will be collected and discussed on the KNOCK Forum. To upload documents and participate in the discussion, please register at our quick and easy 'Keep me Posted' page. Then, please click on the relevant thread to upload your information. Each thread already contains documents that are potentially relevant to the request. We invite you to add any information that you think is relevant for this request, and justify its inclusion (e.g. additional information from countries, scales or disciplinary perspectives not covered sufficiently etc…). Relevant information should be grouped under the following headings: **1) literature reviews, 2) empirical studies/practical experiences, 3) modelling studies and 4) conceptual papers** and can include:

- Links to open access papers.
- Links to published and unpublished grey literature or case studies.
- Description of on-going research projects, or knowledge compilations, expected to deliver results within the next year.
- Your on-the-ground experiences in this field.

2 Objective of the call and request to be addressed by this call

EKLIPSE coordinates innovative and transparent approaches for science, policy and societal actors to jointly provide the best available evidence leading to better informed decision-making and to identify current and future research priorities. A request on whether missing knowledge is hampering the effectiveness of approaches that aim to restore biodiversity and ecosystem function and services was proposed by Centre for Development and Environment, University of Bern to the EKLIPSE Call for Requests (CfR.2/2017). The objective of this call for knowledge is to launch an initial scoping process on the request meant to identify available assessments, existing studies and other resources.

3 Background on EKLIPSE

EKLIPSE is an EU-funded project that started in February 2016. With support from the European Commission and a high level Strategic Advisory Board (SAB), the project aims to establish a robust and flexible long-term mechanism for policy support on biodiversity and ecosystem services, communicating

and engaging a wide set of knowledge holders and ensuring tailor-made outreach of results to knowledge requesters and society more broadly.

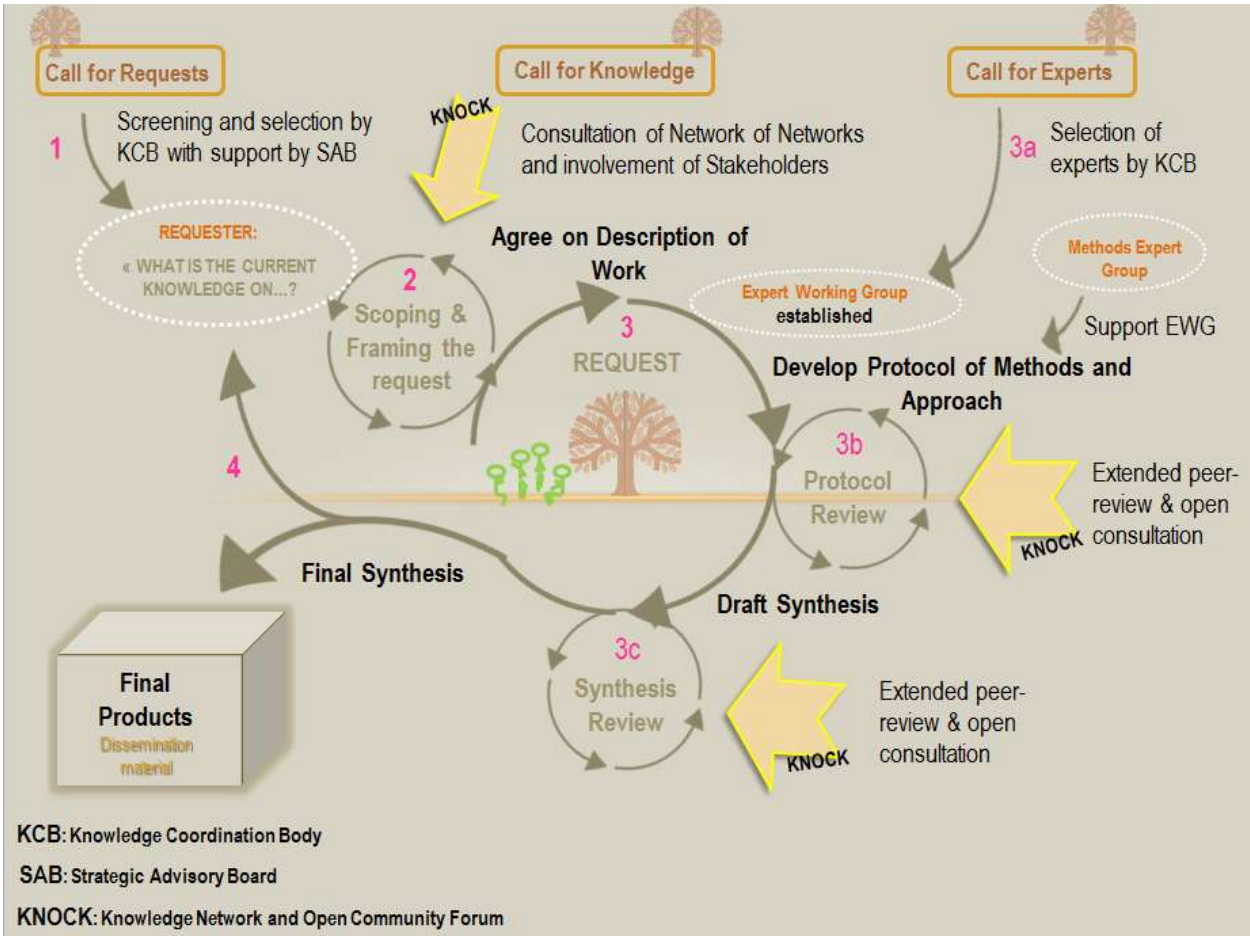
The success of EKLIPSE and its resulting mechanism is in everyone's hands:

- the 'requesters' from policy and society who need to know what knowledge is out there to answer their policy or societal needs;
- the knowledge holders (be they scientists or other citizens) who want their knowledge to mean something; and
- the extensive networks working on biodiversity and ecosystem services who have the enthusiasm and knowledge to make the mechanism work in the long term.

4 The process: how EKLIPSE answers requests

The EKLIPSE process consists of several steps (see figure below): After the Call for request (step 1), the second step is the Call for Knowledge that supports further Scoping and Framing the request (step2). Based on the findings of the Call for Knowledge, EKLIPSE and the requester discuss how to proceed with the request (step 3). If already sufficient knowledge on the request is available or other reasons exist for not continuing with the request, the request will not be taken further, and the outcome is the collection of knowledge identified in second step. If EKLIPSE and the requester agree on continuing, the request will be framed and finalised jointly with relevant science, policy and societal actors. EKLIPSE then organizes a Call for Experts inviting experts to form an expert working group on the request (step 3a).

The selected expert group will, together with the Knowledge Coordination Body (KCB) and the requester, agree on the methodological approach to be taken for the knowledge synthesis. This will be compiled in a protocol, made publicly available and peer reviewed (step 3b). During the process of gathering, integrating and synthesizing the best available evidence, communication between all relevant actors will be key. Finally, the results of the co-generated evidence will be peer reviewed before being communicated in targeted ways to the requester (e.g., as a report or brief or other output to be discussed with the requester), as well as relevant decision-makers, the knowledge community and the general public (steps 3 c and step 4).



5 Next steps: How EKLIPSE will continue with this request

If EKLIPSE decides to carry out a new knowledge synthesis based on the responses to this call for knowledge, it will invite experts on the topic to express their interest in joining the Expert Working Group. The expert working group will cover diverse and complementary skills (including multidisciplinary skills and a broad geographical coverage) and will interact with relevant stakeholders to ensure appropriate methodological choices and uptake of outputs.

The Call for Experts will be widely publicized on the EKLIPSE website, on the Forum and other dissemination channels to ensure a broad coverage of disciplines and geography. The selected group will be supported financially by the EKLIPSE project for travel expenses and in certain cases through honorary contracts.

[i] Further information on the Global Sustainable Development Report 2019 is available at https://sustainabledevelopment.un.org/globalsdreport/2019