



Knowledge & Learning Mechanism
on Biodiversity & Ecosystem Services

Impacts of EU renewable energy policies on overseas biodiversity and the UN SDGs

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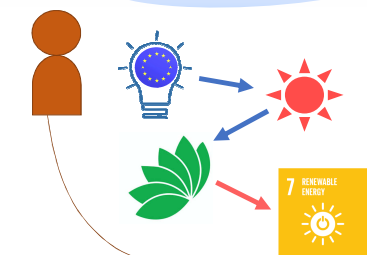
EU
renewable
energy
policies



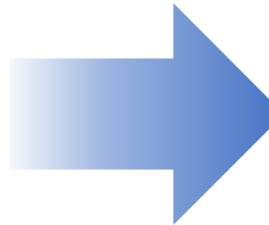
biodiversity



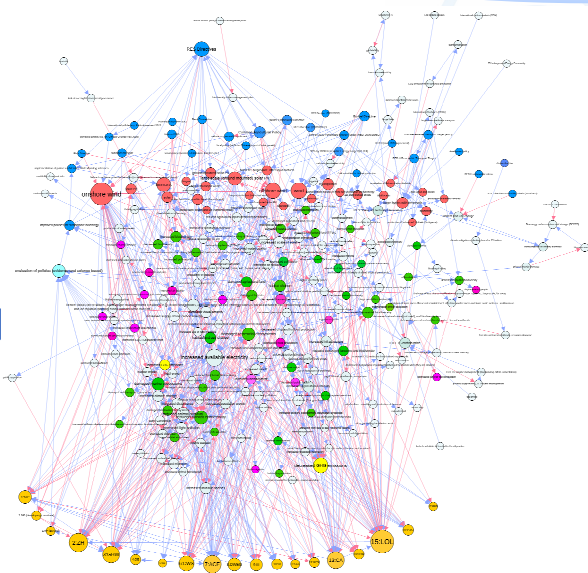
EKLIPSE knowledge
synthesis request by the
University of Bern for the
Global SDG Report



+ review of key
policies/technologies
and expert workshop



19 individual conceptual
models of the system, using
Fuzzy Cognitive Mapping in
Mental Modeler [1]



model integration
in R::igraph [2],
visualisation in
Gephi [3]
→ system of
combined impacts
from policy

SDG	1:NP	2:ZH	3:GHW	4:QE	5:GE	6:CWS	7:ACE	8:DWEG	9:III	10:RI	11:SCC	12:RCP	13:CA	14:LBW	15:LOL	16:PJSI	17:PFG
ICSU-scaled weight- summed impact [3]	0.93	-1.47	0.36	0.69	0.27	0	2.91	0.84	0.33	1.53	-0.03	-0.54	1.05	-0.45	-1.83	1.35	0.06

Cumulative impact of policies on each SDG, standardised to the ICSU scale (-3 to 3) [4]

REFERENCES

- [1] Mental Modeler was developed by Dr Steven A. Gray (Michigan State University). URL: www.mentalmodeler.org
- [2] Csardi G, Nepusz T: The igraph software package for complex network research, InterJournal, Complex Systems 1695. 2006. <http://igraph.org>
- [3] Bastian M, Heymann S, Jacomy M (2009) Gephi: an open source software for exploring and manipulating networks. International AAAI Conference on Weblogs and Social Media.
- [4] Griggs et al. (2017). Methodology developed by the International Council for Science (ICSU score-scale)



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



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