

Mapping the current landscape of science-policy interface studies on biodiversity and ecosystem services

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Purpose/Methodology

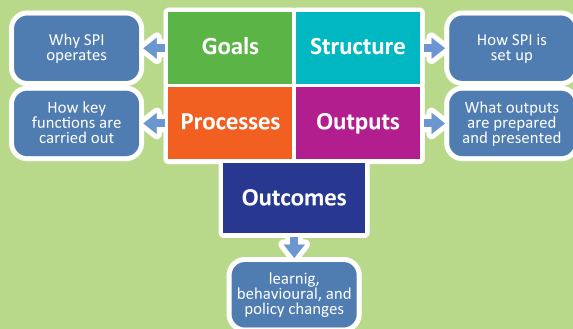
Purpose:

To identify the latest findings and critical gaps in SPI studies with a view to strengthening SPIs for mainstreaming biodiversity and ecosystem services into policies.

Methodology:

- Literature review on biodiversity-relevant SPIs
- Keyword search on ('science-policy' OR 'policy-science') AND 'biodiversity' in the Scopus database (6 April, 2017): 181 articles
- Total number of articles relevant for review: 96
- Number of articles relevant for analysis on effectiveness of SPIs: 77
- Review of key features of SPIs based on the SPIRAL project frameworks

The key features of SPIs are goals, structure, processes, outputs and outcomes



(Young, Watt, van den Hove, & the SPIRAL project team, 2013: 10)

Acknowledgement:

"This research was supported by the Environment Research and Technology Development Fund (S-15-1(4) Science-Policy interface on Natural Capital and Ecosystem Services in International, Asian and Japanese Contexts; Predicting and Assessing Natural Capital and Ecosystem Services (PANCES)) of the Ministry of the Environment, Japan."

Results (1)

- Most previous studies targeted global level SPIs (38%, 17% were about IPBES), followed by national (20%) and regional (19%) level SPIs.
- Most of the regional and national level SPI studies focused on Europe (60%) and North America (14%).
- Despite emerging needs, there is not much SPI research in Asia, Latin America and Africa

FIGURE 1:
GEOGRAPHICAL SCALE OF SPI STUDIES

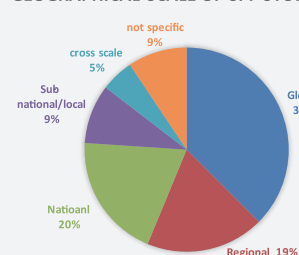
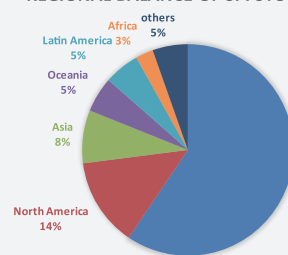


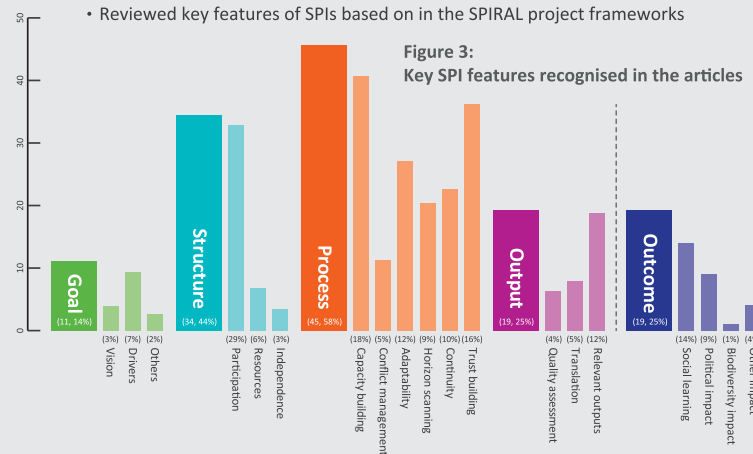
FIGURE 2:
REGIONAL BALANCE OF SPI STUDIES



Results (2)

- Total number of articles which analyse SPI's effectiveness: 77 out of 96
- Some articles identified more than one key features of SPI
- Reviewed key features of SPIs based on in the SPIRAL project frameworks

Figure 3:
Key SPI features recognised in the articles



Key challenges and success factors of SPIs

| | Challenges | Success factors |
|-----------|---|---|
| Goal | <ul style="list-style-type: none"> Identification of key research topic Timely provision of comprehensive knowledge into policies | <ul style="list-style-type: none"> Joint formulation of research and policy between researchers and policymakers |
| Structure | <ul style="list-style-type: none"> Handling the socio-ecological complexity and political dimensions Knowledge gap between scientists and policy makers Need to strengthen scientific basis Complexity of decision-making process Fragmentation of group of interest involved in SPI Limited incentives for scientists and policy makers to participate in SPI | <ul style="list-style-type: none"> Involvement of various fields/sectors scientist and policy makers including social scientists and practitioners Promotion of inter-/trans-disciplinary research to apply integrated approach Establishment of discussion platform among different stakeholders Putting in place structures and incentive schemes that support long-term inter-active dialogue |
| Process | <ul style="list-style-type: none"> Overcoming silo mentalities and integrating research into policy Handling the socio-ecological complexity and political dimensions Timely provision of consolidated views Lack of common language/philosophies between scientists and policymakers Need to improve data collection and use Addressing and communicating uncertainty of science | <ul style="list-style-type: none"> Creation of iterative and collaborative interface team including local stakeholders and citizens Collaboration with different stakeholders and knowledge holders More engagement with social sciences Ensuring transparency in designing governance structures of SPI Engaging policymakers in research project Enhancing national level of capacity including data collection and technical skill Applying precautionary principle and ecological risk management strategies Establishing conflict management mechanism |
| Output | <ul style="list-style-type: none"> Making finding more policy relevant Transforming knowledge between different communities Need to strengthen scientific basis | <ul style="list-style-type: none"> Focusing on knowledge for implementation and evaluation Producing concerted views from the knowledge community Improving quality assessment process of knowledge products Translating knowledge to be understandable Recognising the role of knowledge brokers |

Conclusion

Research gaps

- Not much research on SPIs in Asia, Latin American and African region
- Not much empirical research assessing effectiveness of SPIs based on outcomes of SPIs.

Toward effective interdisciplinary SPIs

- More dynamic, iterative and collaborative interactions with practitioners, knowledge holders (including ILK) and policy makers
- Consolidating interdisciplinary study that recognizes the interconnectedness of social and ecological system
- Joint formation of research and policy
- Building capacity and long-term trust of organization