



Internal CEESP NRGF Background Brief #18

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Scale - What is it and what scale considerations can be integrated into NRGF during design?

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Scale aspects of NRGF

- Scale can be defined as the spatial, temporal, quantitative or analytical dimension used to understand a phenomenon¹; scale is therefore socially and politically constructed².
- Scale in ecology usually refers to spatial and temporal dimensions of a pattern or process; the social concept of scale includes the connection between representation and power, and both formal and informal institutions (cultural norms, rules, laws, policies)³.
- Many global conservation agencies now promote large-scale natural resource governance strategies to address phenomenon such as migration of birds across the globe; in contrast sociological approaches to natural resource governance emphasize the importance of ownership, collaboration and stewardship at scales relevant to the individual and community.
- The once-popular principle of subsidiarity – the concept that the goal of NR governance should be as much local solution as possible⁴ – has been challenged by recognition that localism can serve to buttress the position of local elites who enforce conformity and eliminate participation by marginalised groups⁵.
- Scale mis-matches occur in diverse contexts: when the scale of the planning and implementation of actions does not reflect the scale of the problem (e.g. short-term funding and long-term ecological processes)⁶; when cross-scale dynamics and interplay are not taken into account⁷; when power imbalances prevent governance input, usually from the local scale⁸.
- The concept of scale-dependent comparative advantage recognizes that different aspects of NRG can be delivered at diverse scales – local, , national, regional, global, annual, multi-decadal etc².
- The struggle to define the scale at which NRG should be planned and implemented is inseparable from the struggle over who should define, inform, and conduct the governance process⁸.

- Effective NRG appears better achieved through multi-scale multi-actor collaborative design rather than devolution to local-scale governance; bridging-boundary organisations can help facilitate the process⁹.
- Polycentric nested governance presents a potential solution to problems of scale mismatches¹⁰; nevertheless issues of transaction costs and complexity have dogged its implementation⁷.

How can the design of NRGF tools and knowledge reinforce progress in addressing scale?

- We need to look at the power dynamics between the creation of large scale NRG frameworks and the maintenance/strengthening of community-based, Indigenous and local frameworks⁸.
- We need to consider how the tension and possible synergies between large-scale and local-scale NRG frameworks is tied to the interaction between science and Indigenous and local knowledge and their roles in natural resource management and governance^{8, 11, 12}.
- We therefore need to pay attention to co-management structures and conscious boundary management that includes knowledge co-production, mediation, translation, and negotiation across scale-related boundaries to facilitate solutions to scale-related challenges¹.
- Investigation of the factors that underpin success in polycentric and nested governance arrangements, such as bridging/boundary organizations, brokers, co-design, will help in the production of NRGF tools and knowledge. Factors that overcome the barriers presented by transaction costs and complexity are also important.

Possibly useful references

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