How does Citizen Science matter for policy?

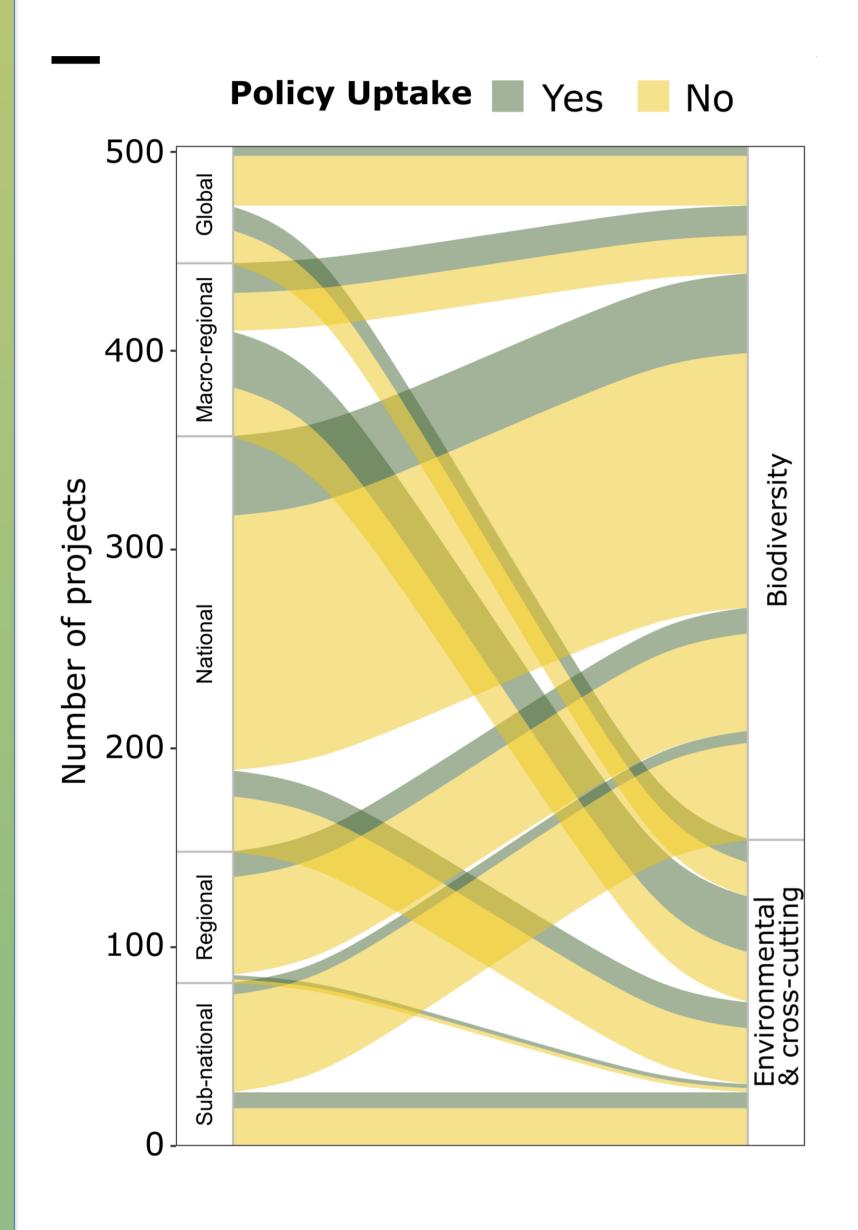


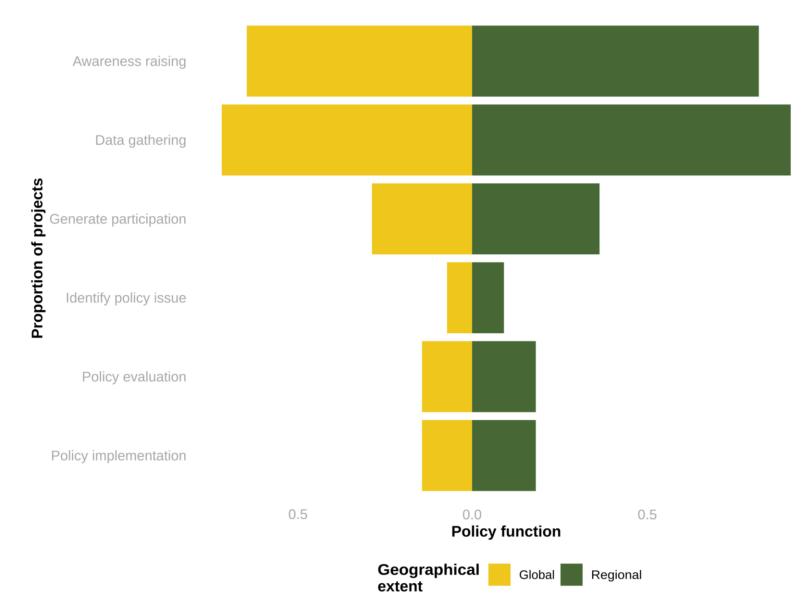
German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig

Analyzing the impact of citizen science in policy making

A. Almomani¹, E.P. Awai⁶, A. Bonn^{2,12,15}, I.A. de Barros⁸, C. Friedly⁴, M. Gharesifard¹, S. Hecker^{2,12}, E.C. Kartika⁷, A. Kraft³, E. Matthus⁵, M. Peter^{9,10}, N. B. Raja¹¹, A. Richter^{2,12}, J. Rouet-Leduc², S. Schade¹³

Citizen Science has been proven to support policy making (Bio Innovation Service, 2018), yet harnessing the full potential of Citizen Science requires further understanding of the particular areas of the policy development process where different Citizen Science projects have contributed. Using the policy cycle framework (Howlett&Ramesh, 2003) we assessed 500 Citizen Science projects reported in EU inventory and conducted in-depth analysis of 25 case studies. Our study aims to determine the impact of citizen science projects on the policy cycle.





Geographical Extent

Our results show differences between global and regional project impact on policy cycle and highlight a focus on agenda setting and policy implementation

Case Study II: Recording Invasive Species Counts (RISC)

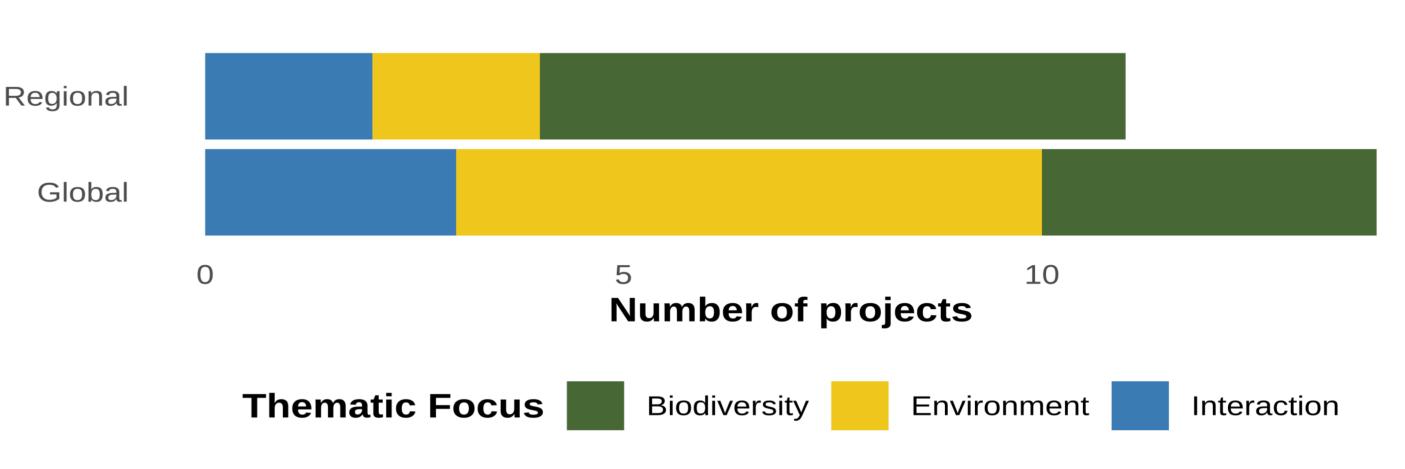


- Occasional reporting by citizen scientists of 21 invasive animal and plant species on the project website
- Data are used for developing Invasive Species Action Plans (ISAPs) and the Great Britain Invasive Non-native Species Strategy.

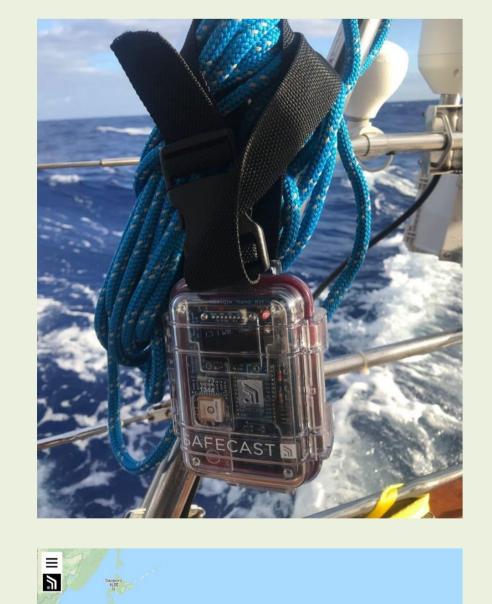


• Since 2010, Great Britain

Pictures: Wikimedia Commons, American bullfrog (Lithobates catesbeianus), Asian hornet (Vespa velutina), Water primrose (Ludwigia grandiflora)



Case Study I: Safecast, radiation mapping



- Citizen science-centered radiation mapping through monitoring, data collection, and open sharing of environmental radiation data
- Provides tools and community resources to help people understand the complexities of radiation measurements for informed decision-making
- Since 2011, global, based in Japan

Pictures: Safecast.org, Record-setting Pacific-crossing with Safecast onboard

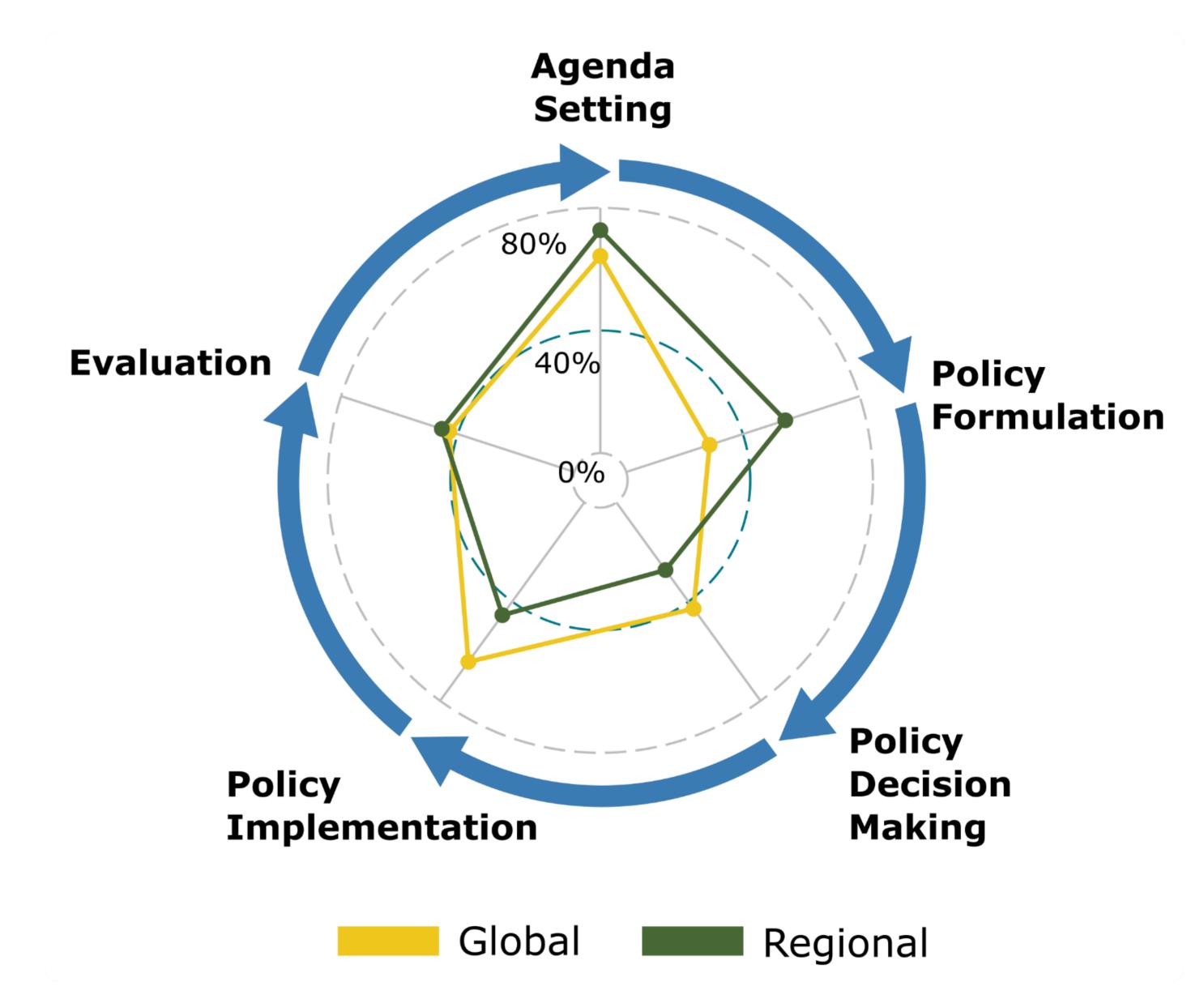


Fig.1: multi-criteria analysis of citizen science impact in policy cycle (n=25)

References

Bio Innovation Service (2018) Citizen science for environmental policy: development of an EU-wide inventory and analysis of selected practices. Final report for the European Commission, DG Environment under the contract 070203/2017/768879/ETU/ENV.A.3, in collaboration with Fundacion Ibercivis and The Natural History Museum, November 2018.

Howlett M and Ramesh M. (2009) Studying Public Policy: Policy cycles and policy subsystems, Oxford: Oxford University Press.

- 1. IHE Delft, Institute for Water Education; 2. German Centre for Integrative Biodiversity Research (iDiv);
- 3. Technical University Berlin; 4. Indiana University; 5. University of Cambridge; 6. Université Felix Houphouet-Boigny;
- 7. Resource ecology group, Wageningen University; 8. International Institute for Sustainability (IIS)
- 7. Resource ecology group, Wageningen University; 8. International Institute for Sustainability (IIS)

 9. Kiel Science Outreach Campus (KiSOC), IPN Leibniz Institute for Science and Mathematics Education; 10.

 Department of Landscape Ecology, Institute for Natural Resource Conservation, Kiel University; 11. GeoZentrum Nordbayern, University Erlangen-Nürnberg; 12. Helmholtz Centre for Environmental Research UFZ; 13. European Commission; 14. Friedrich-Schiller University Jena



iDiv is a research centre of the