Citizen science data for the SDGs Ghana experience in monitoring 14.1.1b plastic debris density

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Citizen Science

Public participation

Voluntary contributions

Scientific research and knowledge production

Springer Link

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Mapping citizen science contributions to the UN sustainable development goals

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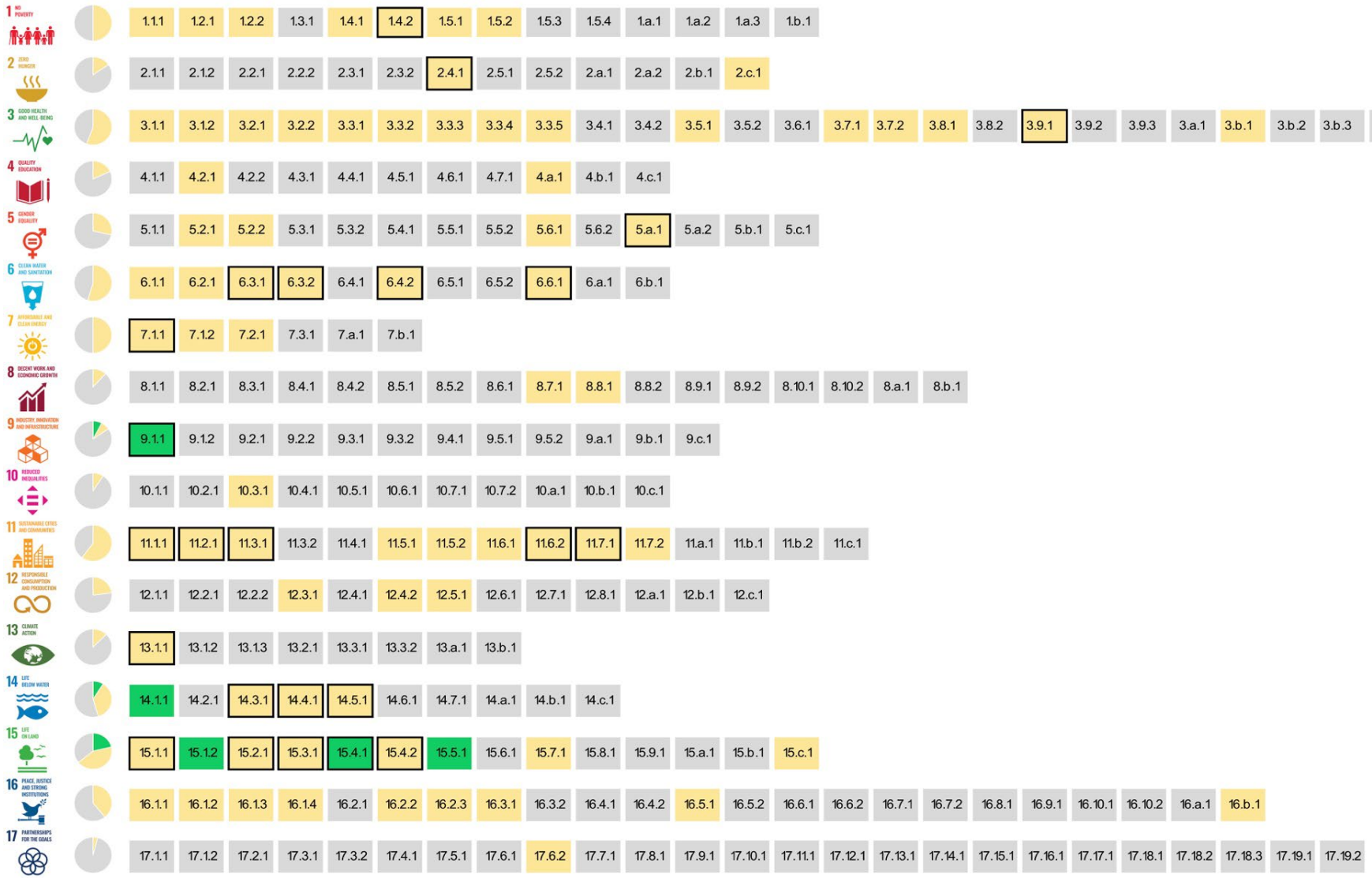
Abstract

The UN Sustainable Development Goals (SDGs) are a vision for achieving a sustainable future. Reliable, timely, comprehensive, and consistent data are critical for measuring progress towards, and ultimately achieving, the SDGs. Data from citizen science represent one new source of data that could be used for SDG reporting and monitoring. However, information is still lacking regarding the current and potential contributions of citizen science to the SDG indicator framework. Through a systematic review of the metadata and work plans of the 244 SDG indicators, as well as the identification of past and ongoing citizen science initiatives that could directly or indirectly provide data for these indicators, this paper presents an overview of where citizen science is already contributing and could contribute data to the SDG indicator framework. The results demonstrate that citizen science is “already contributing” to the monitoring of 5 SDG indicators, and that citizen science “could contribute” to 76 indicators, which, together, equates to around 33%. Our analysis also shows that the greatest inputs from

Fraisl, D., Campbell, J., See, L. *et al.* Mapping citizen science contributions to the UN sustainable development goals. *Sustain Sci* **15,** 1735–1751 (2020). https://doi.org/10.1007/s11625-020-00833-7

The SDG indicators where citizen science *projects* are 'already contributing', 'could contribute' or where there is 'no alignment'



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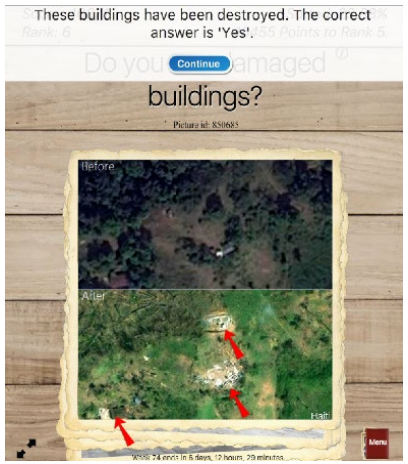
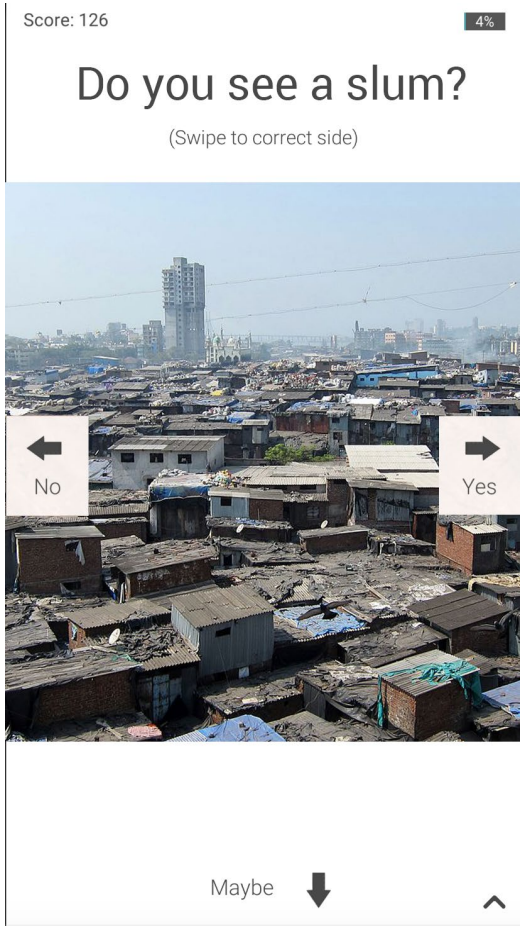
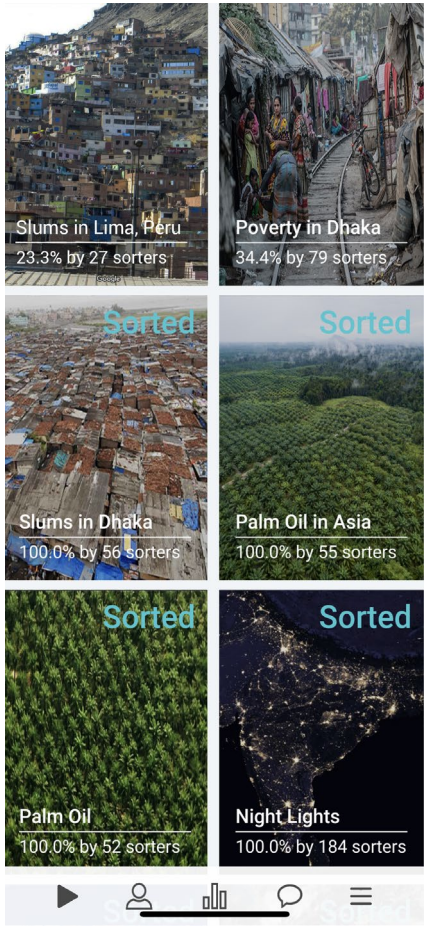
Picture Pile







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Demonstrating the potential of Picture Pile as a citizen science tool for SDG monitoring

D. Fraisl [a, b], L. See [a], T. Sturn [a], S. MacFeely [c], A. Bowser [d, e], J. Campbell [f], I. Moorthy [a], O. Danylo [a], I. McCallum [a], S. Fritz [a]

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https://doi.org/10.1016/j.envsci.2021.10.034

Highlights

- Citizen science can contribute to the monitoring of the Sustainable Development Goals.
- Picture Pile is a citizen science tool for rapid image classification.
- Picture Pile could contribute to the monitoring of 15 SDG indicators.
- To realize this potential, use cases for PP and the SDGs need to be developed.

Fraisl, D., See, L., Sturn, T., MacFeely, S., Bowser, A., Campbell, J., Moorthy, I., Danylo, O., McCallum, I., & Fritz, S. (2022). Demonstrating the potential of Picture Pile as a citizen science tool for SDG monitoring. *Environmental Science & Policy*, *128*, 81–93. https://doi.org/10.1016/j.envsci.2021.10.034

Citizen Science for the SDGs StoryMap: https://dataforchange.net/strengthening-measurement-of-marine-litter-in-Ghana

Citizen Science for the SDGs Ghana
3 interconnected phases

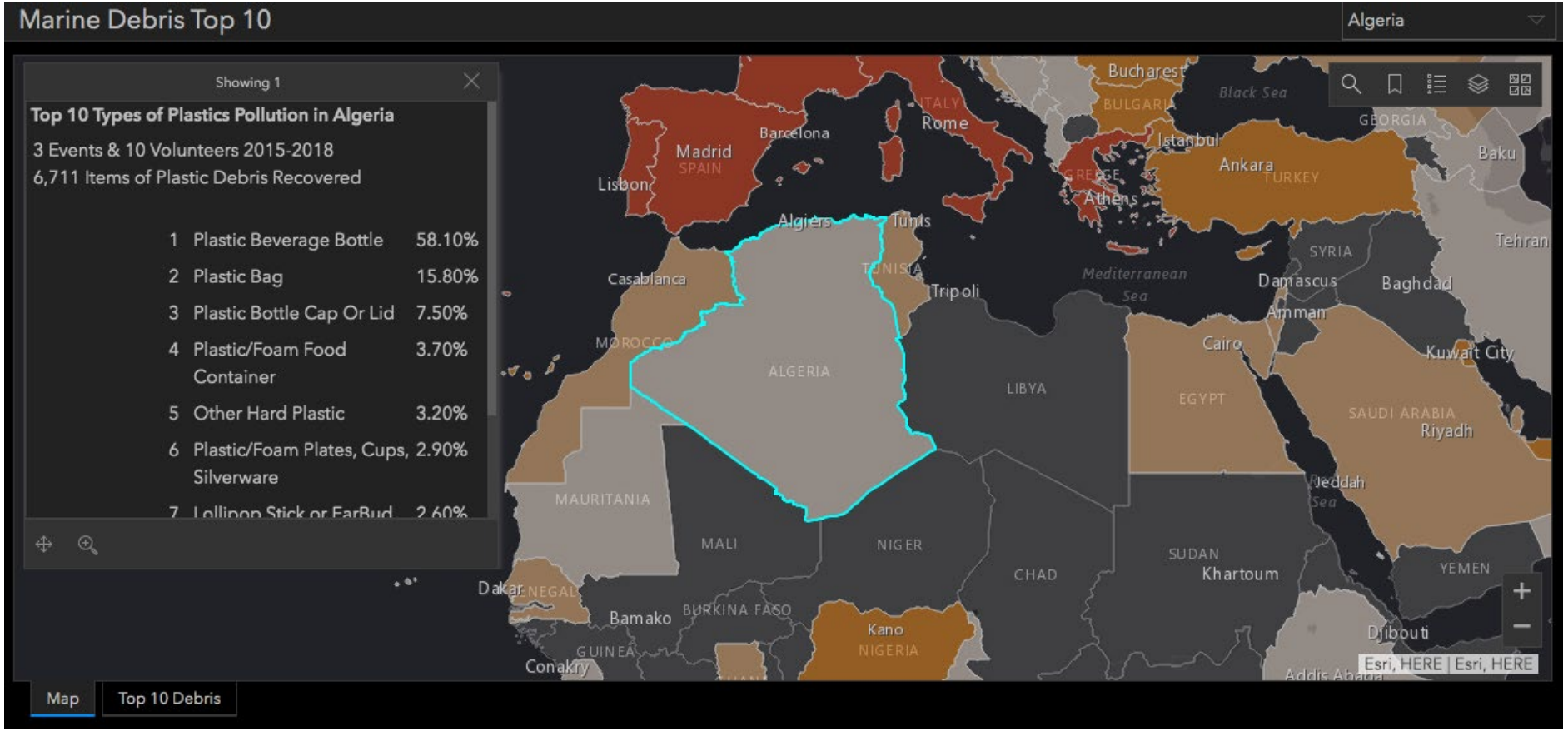
Global Methodology
14.1.1b Plastic Debris Density

Level 1: Monitoring based on globally available data from EO, modelling

Level 2: National data on beach litter count per km2 of coastline, floating plastic debris density

Level 3: Suggested for countries interested in national monitoring of selected issues, e.g., indicators related to plastic ingestion, entanglement, microplastics

Global Earth Challenge Marine Litter Platform



Wilson Center

EARTH DAY NETWORK

Thank you!

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