

# Q & A for the Citizen Science Workshop

*Q: How effective are these approaches to create awareness among the public, and has it reduced marine litter pollution?*

**A (Hillary Burgess, NOAA):** Monitoring data have been harnessed to inform and prioritize prevention - e.g. outreach and education campaigns, policies, point source identification and intervention etc. These data have also been used to evaluate the efficacy of such actions, with mixed but mostly favorable results. There is evidence that participation in clean-ups and environmental monitoring programs benefits not only the goal of data collection, but also education, awareness and behavior that can extend beyond the initial activity.

*Q: I understand that the citizen science data will be processed by UNEP and partners. However, how are the different sources managed and integrated? Is there a central data infrastructure?*

**A (Hillary Burgess, NOAA):** (My response here mostly meant for you Anne: I think this is an important question and being new to this initiative I'm not sure how UNEP and the GMLP intend to address integration/interoperability. For NOAA/MDMAP we have a central data repository that houses data originating from our protocols and are in the process of building an API to expand accessibility. I'm not sure if Marine Debris Tracker App data have been brought to the table, but that is a database that utilizes the same debris taxonomy as MDMAP but data collection is more of an opportunistic GPS based approach - not standardized. Because they share a list however, the datasets can "talk to each other". I don't know that we have undertaken the effort to map to UNEP categories.)

**A (Dany Ghafari, UNEP):** The answer to the second question is yes, UNEP manage an Environment Global database with around 1500 indicators (Environment, Social and Economic indicators). The database includes SDG Indicators where UNEP is the custodian agency and environment related SDG Indicators.

Different sources of data are managed in different ways based on the available technology, some data sources are managed by linking their databases directly to UNEP database using API's and some others the data is downloaded in Excel, format the downloaded data and update the database.

**Q:** *How many annual datasets will be collected prior to 2025 or 2030 to assess trends in the UN SDG indicator 14.1.1 across the 3 CS debris monitoring platforms presented?*

**A (Hillary Burgess, NOAA):** MDMAP data will continue, and we have the goal of increasing coverage over time.

**A (Dany Ghafari, UNEP):** So far, we have 4 years (2015,206,2017 and 2018) of data collected and this will be used to assess the progress made. We are also looking to see if data is also available for 2019 and 2020. For the SDG reporting and monitoring data if exist can be reported from the year 2000 up to the latest year where the data exist.

**Q:** *What about smaller items (meso plastics) which we find on the beach and are a larger threat to wildlife? It is easy to distinguish a bottle, cap or plastic bag. But it is more difficult to identify smaller items.*

**A (Hillary Burgess, NOAA):** There are approaches to shoreline monitoring of plastics smaller than a bottle cap and existing datasets that could be included alongside the other sources. However, these data tend to be more technical and expensive to acquire. Although some of these plastics are "primary sources" (e.g. resin pellets) many are fragments of items that have fragmented and weathered over time, so monitoring larger items gives us a useful metric for loads entering the environment over time.

**Q:** *What happens to trash after collection by citizen science to avoid recounting such data, specifically in developing countries which lacks proper waste disposal method?*

**A (Sarah Koeller, Ocean Conservancy):** This factor, as you can imagine varies widely among countries and is one of the many reason why we work with trusted partners (other NGOs, environmental agencies and other like-minded organizations) to plan their volunteer cleanups taking local resources and factors into mind. So, what happens to the debris collected varies, depending on what's available. At the very least, cleanup organizers make sure that debris are removed from the environment and disposed of safely and securely. For some, that means recycling certain items, for others the only option is landfill. We have a brand of our program that is working on waste management improvement, improving capture.