



GEO Blue Planet is the coastal and ocean arm of the Group on Earth Observations (GEO), connecting ocean and coastal information with society. This initiative delivers usable data and information services to support informed decision-making toward reaching Sustainable Development Goal (SDG) 14, which in part is aimed at reducing the impacts of ocean pollution, particularly from land-based activities such as agricultural runoff. This over-enriches coastal waters with nitrogen or phosphorus (a process called eutrophication), which in turn leads to increased growth and biomass of algae, which in turn adversely affects ecosystem balance and water quality. Not all countries have the capacity to map and monitor this kind of “nutrient pollution” in their coastal waters. To address this gap, GEO Blue Planet partnered with a team from Esri, and the United Nations Environment Programme in 2019 to develop a new statistical approach and GIS workflow using what data developing nations have, coupled with satellite observations to report on eutrophication in their waters and identify potential eutrophication hot spots. The 2020 GEO Sustainable Development Goals (SDGs) Awards Program, led by the Earth Observation for SDG (EO4SDG) initiative, recognized this collaboration with a 2020 Special Category award for its productivity and novelty of results in support of SDG indicator 14.1.1 on coastal eutrophication. Initial results, workflows, dashboards, and other products are at chlorophyll-esriocceans.hub.arcgis.com.

Next steps include hosting sub-indicator one and two results and the subsequent information products in the ArcGIS Living Atlas of the World and developing a web application enabling users to query and understand the data and support decision making

Again, see this remarkable hub at <https://chlorophyll-esriocceans.hub.arcgis.com>