

Policy Brief #4

(An Urgent Call to Save our Waterways and Seas)

Preamble

The ISC GeoUnions Standing Committee for DRR seeks to strengthen the long-standing International Science Council (ISC) leadership in advancing Disaster Risk Reduction. The International Council of Scientific Unions (the predecessor to ISC) coordinated and represented the science and technology communities in preparation to the 3rd World Conference on Disaster Risk Reduction that reported the Sendai Framework for Disaster Risk Reduction. The ISC and the UN Office on Disaster Risk Reduction co-sponsor the Sendai Hazard Definition and Classification Review to further define the Sendai Framework to provide consistent awareness and terminology to strengthen and clarify actions in support of the Sendai Framework and improved societal well-being.

Context

The recent major environmental problem that occurred in Istanbul and around the Marmara Sea off Coast by the "snot' outbreak" heralds an social alarm. It is a "Sensitive case study of anthropogenic impact on land/sea induce unbalance of material cycles" and needs urgent attention by all parties involved and affected.

Impacts

The gloopy, mucus-like substance is created as a result of prolonged warm temperatures and calm weather and in areas with abundant nutrients in the water. The phytoplankton responsible grow out of control when nutrients such as nitrogen and phosphorus are widely available in seawater. These nutrients have been abundant in the Sea of Marmara, which receives the sewage of almost 20 million people as well as being fed directly from the nutrient-rich Black Sea.

In ordinary amounts, these phytoplanktons are responsible for breathing oxygen into the oceans, but their overpopulation creates the opposite effect. Under conditions of stress, they exude a mucus-like matter that can grow to cover many square miles of the sea in the right conditions.

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This sticky substance attracts viruses and bacteria, including E-coli, and can turn into a blanket that suffocates the marine life below. As the mucus reached the shoreline it started to threaten the breeding ground of fish. As a consequence, the interaction between water and the atmosphere limited which is a threat to marine life and the fishing industry. The seaweeds/phytoplankton aggregates started to rotten and produce chemical compounds that should be affected to human health. Local governments and public health departments should strongly warn citizens not to breath unprotected, as decomposed compounds may produce toxic gases. This can pose a serious public health problem.

Policy Advise to National Governments

1. The authorities should allocate considerable resources to reduce pollution and significantly improve the treatment of wastewater from coastal cities
2. Furthermore, they should properly maintain existing monitoring stations and increase their number to provide continuous data to study the water quality in vulnerable areas. Aerosol monitoring should be constantly carried out to avoid inhalation of pollutants by citizens.
3. Governments should invest more in environmental science and technologies to mitigate or avoid potential problems in vulnerable areas

Action Advice to ISC GeoUnions members and expert panels.

GeoUnion Members are asked to support these policy briefs by distributing them to respecting expert panel groups and disseminate to Governments and NGOs.

Involvement of Global Stakeholders to Disseminate This Policy Brief

International Science Council, IAP Global Network of Science Academies, WMO, National Meteorological Agencies, Geo-Unions be involved for dissemination of.

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