



GLOBE Collaborates with the United Nations Environment Programme

Lyn Wigbels, GLOBE International Coordinator

**Pierre Boileau, Head, Global Environment
Outlook, Science Division, United Nations
Environment Programme**

**Charles Mwangi, Assistant Country Coordinator,
GLOBE Program (Kenya)**

23rd GLOBE Annual Meeting, Detroit, USA

Tuesday, 16th July 2019



NASA/UNEP GLOBE Agreement

- **GLOBE and UNEP will cooperate on:**
 - environmental education and training
 - citizen science
 - collection and distribution of environmental data
 - participation of environmental researchers in GLOBE
- **Share education and training resources for distribution to GLOBE and UNEP communities**
- **Promote closer collaboration of UNEP Regional Offices with GLOBE countries and Regional Coordination Offices**



NASA/UNEP GLOBE Agreement

- **Increase awareness of and promote use of GLOBE data by international science community**
 - Through UNEP's Global Resource Information Database (GRID) Centres and publications
 - Encourage UNEP's university partners and UNEP Regional Offices to encourage participation of environmental researchers in GLOBE and scientists to use GLOBE data in their research
- **Promotion and incorporation of GLOBE protocols and data in UNEP publications, products and guidelines**
- **Identify opportunities for collection of GLOBE data for UNEP assessments**



UNEP – Leading authority on the Environment within the UN System

United Nations
General
Assembly
Resolution 2997,
1972

2. *Decides* that the Governing Council shall have the following main functions and responsibilities:

(a) To promote international co-operation in the field of the environment and to recommend, as appropriate, policies to this end;

(b) To provide general policy guidance for the direction and co-ordination of environmental programmes within the United Nations system;

(c) To receive and review the periodic reports of the Executive Director of the United Nations Environment Programme, referred to in section II, paragraph 2, below, on the implementation of environmental programmes within the United Nations system;

(d) To keep under review the world environmental situation in order to ensure that emerging environmental problems of wide international significance receive appropriate and adequate consideration by Governments;

(e) To promote the contribution of the relevant international scientific and other professional communities to the acquisition, assessment and exchange of environmental knowledge and information and, as appropriate, to the technical aspects of the formulation and implementation of environmental programmes within the United Nations system;

Institutional and financial arrangements for international environmental cooperation.



Keeping the environment under review has a number of elements...

Integrating a Variety of Types of Environmental Data



- World Environment Situation Room
- Environment Live (Open data and forecasting)
- Indicator Reporting Information Systems
- Geospatial information systems

- SDG Reporting and International Obligations
- Building national capacity on environment statistics and economic environmental accounting
- Indicators informing policy - SDG policy briefs, data use and analysis, and Environment Live database

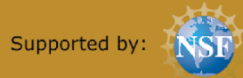
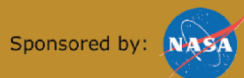
- Providing access and use of scientific information for developing countries
- Library and knowledge services
- Knowledge management tools and services
- Network partners e.g. Online Access to Research on the Environment

- Global Environmental Monitoring Systems on Water
- Air Quality Monitoring
- Monitoring Land and Biota Systems
- Monitoring the oceans

- Global Environment Outlook
- Frontiers
- Emissions Gap Report and more

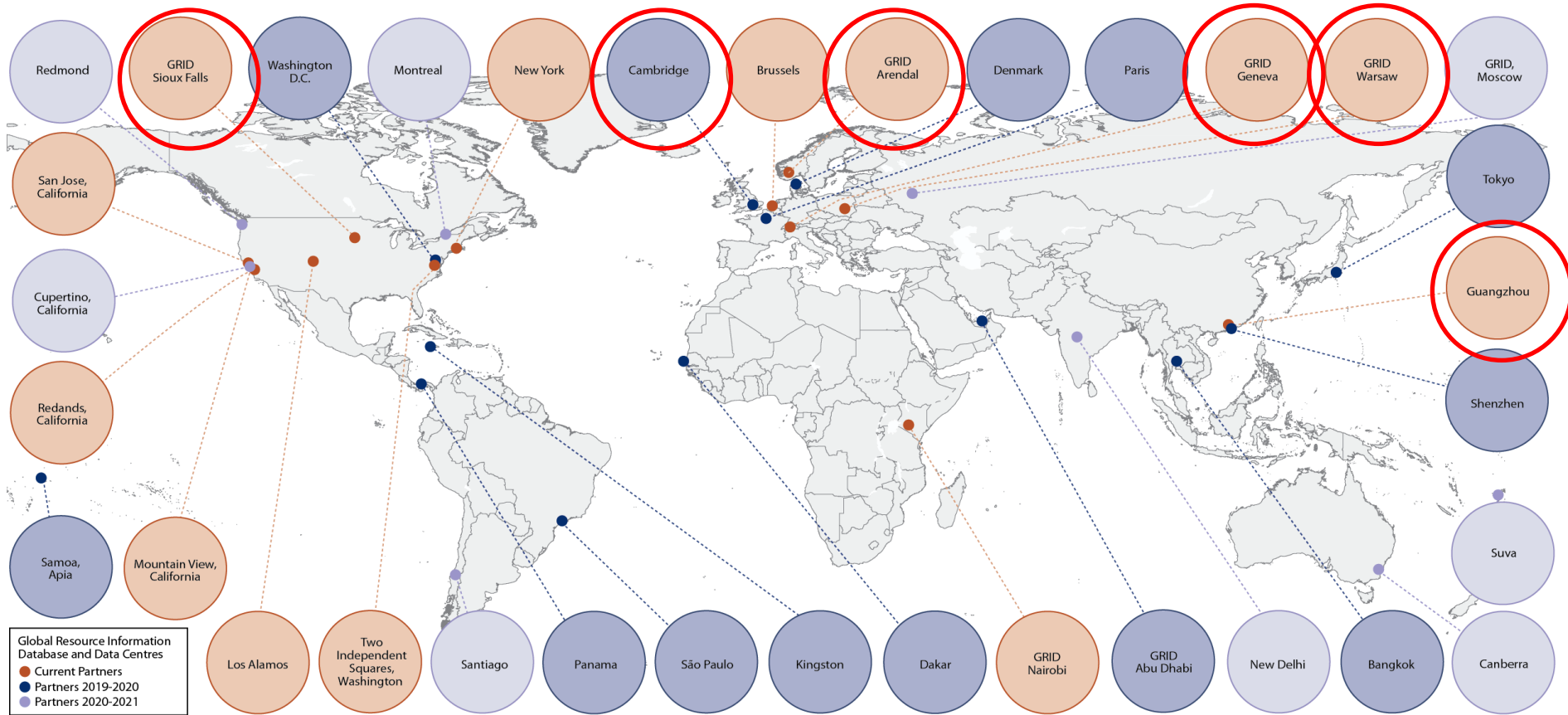
- Private institutions, business and other non-governmental organizations
- Citizen science data with relevance in e.g. environment and health, such as the Global Mosquito Alert Consortium, or City planning

- Data for the future
- Scenario building, modelling
- Supporting decision making
- Forecasting and prevention





A global partnership of GRID and collaborating centres...





With monitoring on the ground...and in the air...



- Renewed mandate: UNEA resolution 3/10 - **Addressing water pollution to protect and restore water-related ecosystems**
- Collecting and sharing freshwater quality monitoring data
- Maintaining the global water quality information system GEMStat
- Capacity development/training to empower countries to deliver authoritative and reliable data
- GEMS/Water is responsible for gathering data from Member States to support reporting against SDG indicator 6.3.2



Proportion of **bodies of water** with **good** ambient water quality



...and tracking progress on the environmental dimension of the SDGs...





...all coming together in our global assessments...

- **Drivers of Environmental Change** - Population/demographics, Urbanization, Development, Technology, Climate Change
- **Air and Health** – 6-7 million premature deaths/yr, GHG emissions increasing, ozone hole, mercury
- **Biodiversity in crisis** – 60% decline in the Living Planet Index since the 1970s, IPBES says 1 million additional extinctions by 2050.
- **Oceans** – coral bleaching events at 6-year intervals, recovery time is 10 years
- **Land** – need 50% more food by 2050, food waste, 77% of agricultural land for meat production.
- **Freshwater** – 70% used for food product, 1.4 million deaths per year from pathogens





United Nations
Environment Programme

... and our thematic assessments.



knowledge flagships for
sustainable development

Objective:

- Assessing environmental issues for evidence-based policies and green solutions to achieve the environmental dimension of the 2030 Agenda

Outcome:

- Governments and other stakeholders increasingly use our thematic assessments in their decision-making processes to inform policies, solutions and actions to tackle pressing environmental challenges

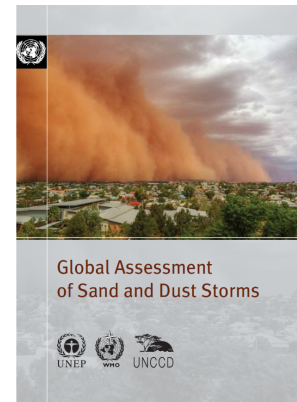
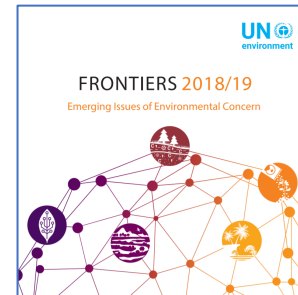
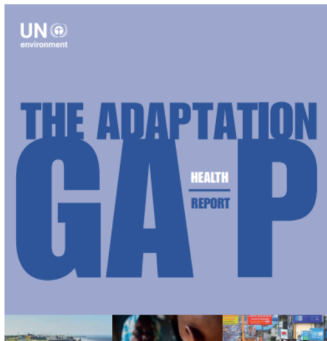
Thematic Focus:

- Climate, Air, Land, Water, Oceans

Key Products:

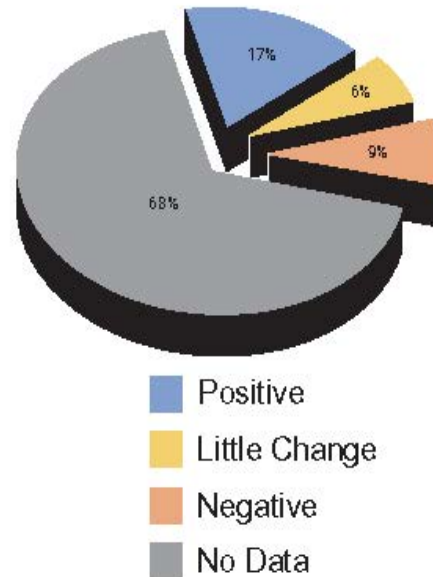
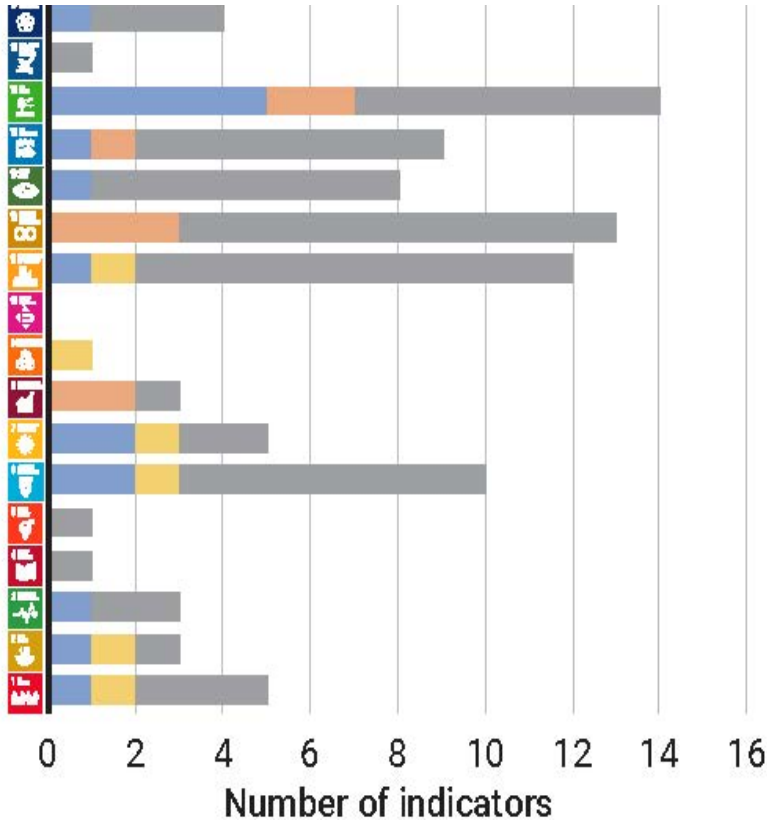
- Annual **Frontiers Reports** on Emerging Issues of Environmental Concern (**flagship**)
- Annual Carbon **Emissions Gap Reports** (**flagship***)
- Annual Climate **Adaptation Gap Reports**
- **World Oceans Assessment** Reports
- **Sand and Dust Storms** Outlooks
- Other thematic assessments, on-demand, such as the report on alternatives to plastics

*The Emissions Gap Report is UNEP's most-cited report





State of Environmental Data



❖ **68% of environment-related SDG indicators do not have enough data to assess global progress.**



GLOBE in 2nd UN Environment Assembly

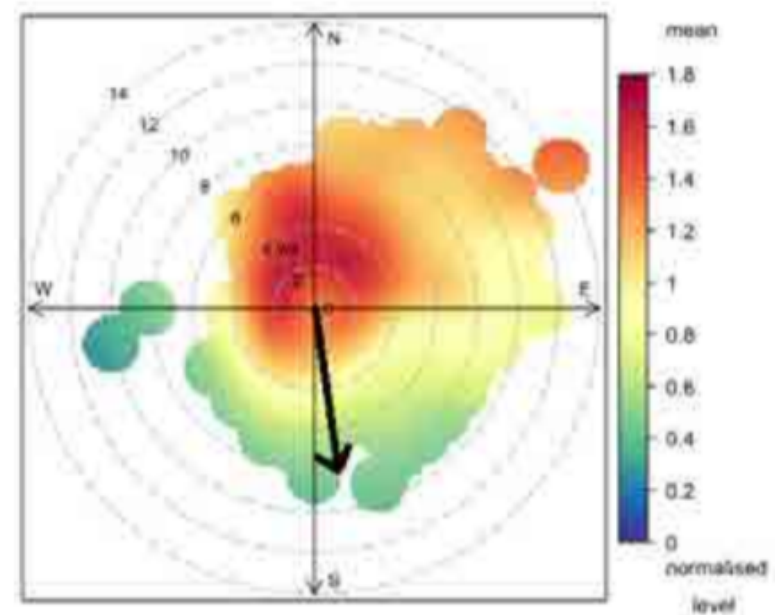
- GLOBE students invited to make a presentation on their research during 2nd UNEA meeting on 20th May 2016.





UNEP Air Quality Pilot Project

- GLOBE schools hosted 4 air quality kits donated by UNEP. UNEP's scientists had training session with students to inform them of the preliminary findings.



PM2.5 plotted against wind speed and wind direction

<https://www.researchgate.net/publication/321992765> A Nairobi experiment in using low cost air quality monitors



UNEP's GEO for Youth Report

- GEO for Youth report aims to inform youth (15-24 years) about the current state of the environment and explore future pathways to achieve a sustainable future.





CONTACT INFORMATION

Lyn Wigbels lwigbels@ucar.edu

Pierre Boileau pierre.boileau@un.org

Charles Mwangi maina.charles@gmail.com

UN Environment Website: <https://www.unenvironment.org/>

www.globe.gov