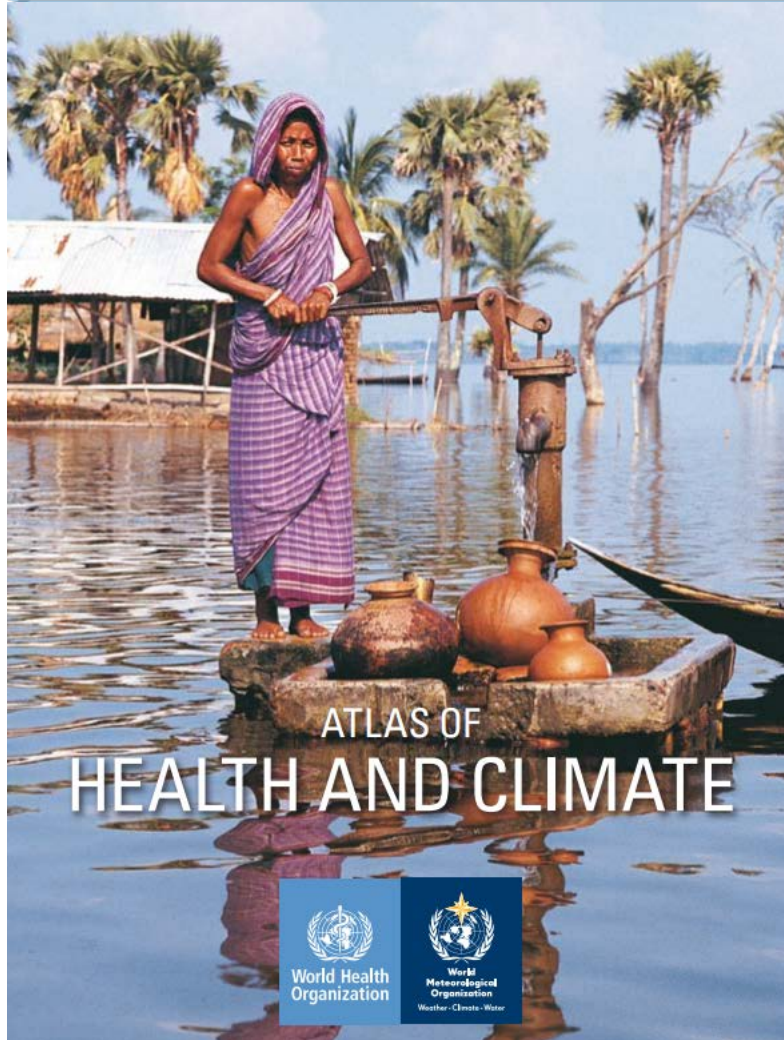


# EO/GI in SDGs: contributing to work of custodian agencies...some WHO perspectives

## 4<sup>th</sup> Expert Meeting of IAEG-SDGs WGGI

*New York, USA  
7 December 2017*

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World Health Organization  
Geneva, Switzerland



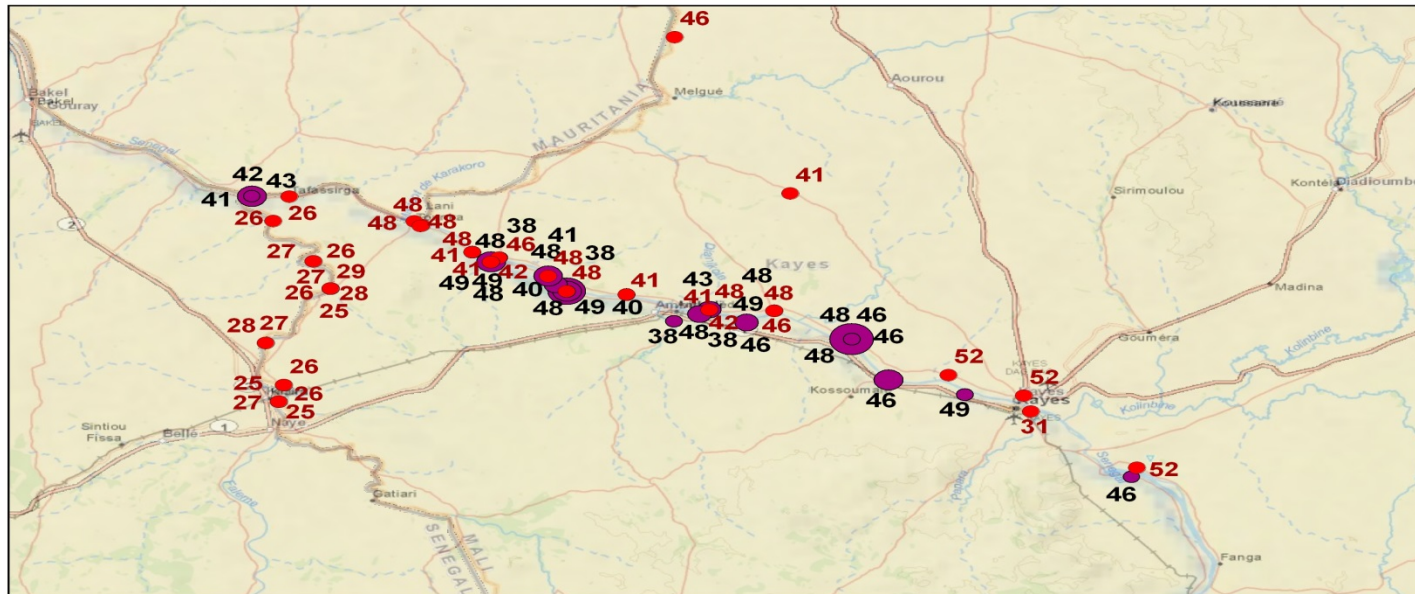
# Sustainable Development Goals...

- Tools of global governance
  - Measuring progress for the global community
  - Informing global investments
- SDG calls for: sustainability (economic, social and environmental) in development under good governance
  - Huge opportunities
  - Tremendous challenges (incl. monitoring)...resources
- SDG monitoring: capturing the SDG ambitions
  - Not to dumb down the targets: full potential of indicators...use all available data sources
  - Preparing the work of major revision of indicators



# Geospatial data in cholera mapping (2010)

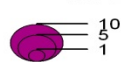
## Mali: Epidémies de choléra de 2005 et 2008



### Cas en 2005

● Cas de 2005  
World Basemap

**Nombre de cas  
en 2008**



World Basemap

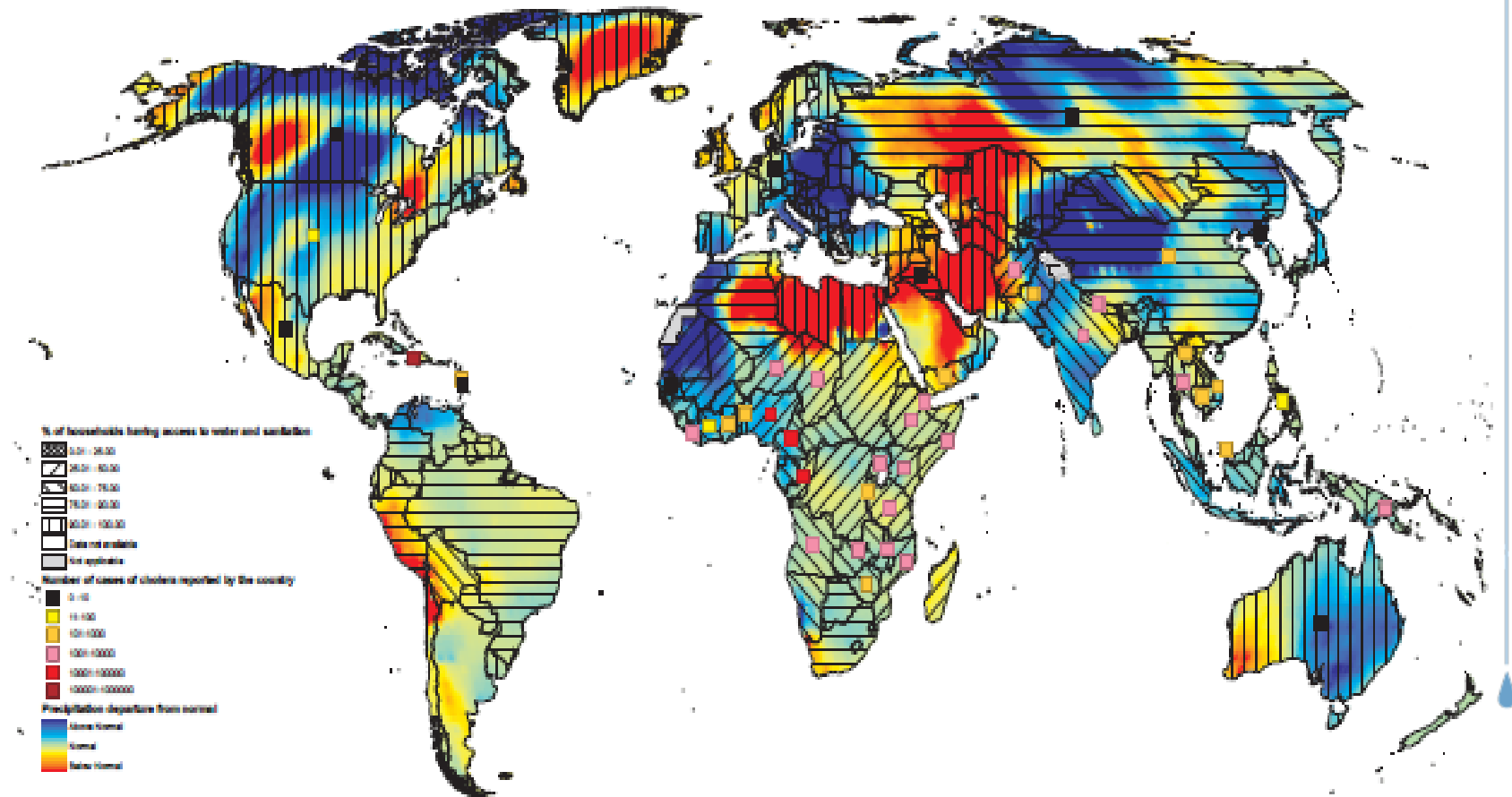
**Les valeurs sur la carte représentent  
les semaines où les cas ont été enregistrés**  
**Rouge: 2005**  
**Noir: 2008**

# Cholera outbreaks in Mali along the main river: combining geospatial DHS data and cholera data



# Linking water with climate and health (2012)

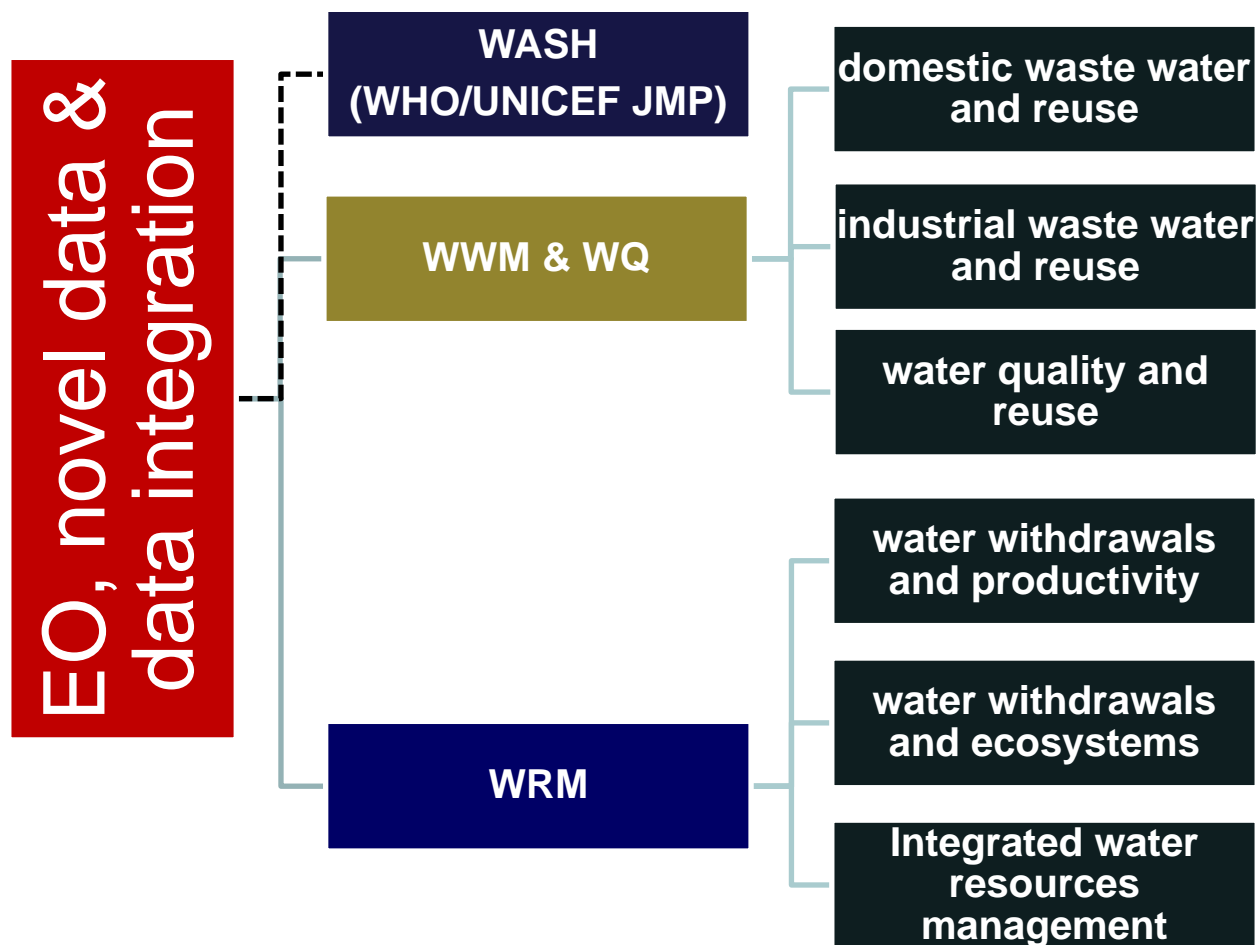
<http://www.who.int/globalchange/publications/atlas/report/en/index.html>



Cholera outbreaks in areas with poor WASH coverage and greater precipitation anomalies



# EO in SDG water monitoring: a UN initiative



# Task Team Contributors (WHO led)

- **International:** WHO, GEO, WMO, UNU-FLORES, WCRP (GEWEX), WMO-CHY, CIESIN, World Bank, UN Global Pulse
- **Countries:** Australia (CSIRO), Bangladesh, China, Colombia, Japan (MEXT), Germany, Pakistan, USA (USEPA, USGS, NSF, USACE, US GEO),
- **Space Agencies:** ESA, JAXA, NASA, NOAA
- **Academia and institutes:** Chouaib Doukkali University (Morocco), U of Tokyo, Chinese Academy of Sciences, U of Bonn, Vrije Universiteit Amsterdam, University of Twente, CUNY, U of Texas, GMU, Delatres, Fraunhofer Institute of Optronics, WRI
- **Two members from SG IEAG on data revolution for SD**





# Application of EO in wastewater monitoring

**SDG indicator:** Proportion of wastewater safely treated

**EO support for the indicators** (pop density, landuse, landcover, etc.) integrated with other geospatial, survey and admin data

1)



2)



EO integrated with other geospatial data to estimate waste water generation potential, releases and their impacts.

High resolution satellite images can document the location of treatment facilities.



# EO applicability for SDG water monitoring

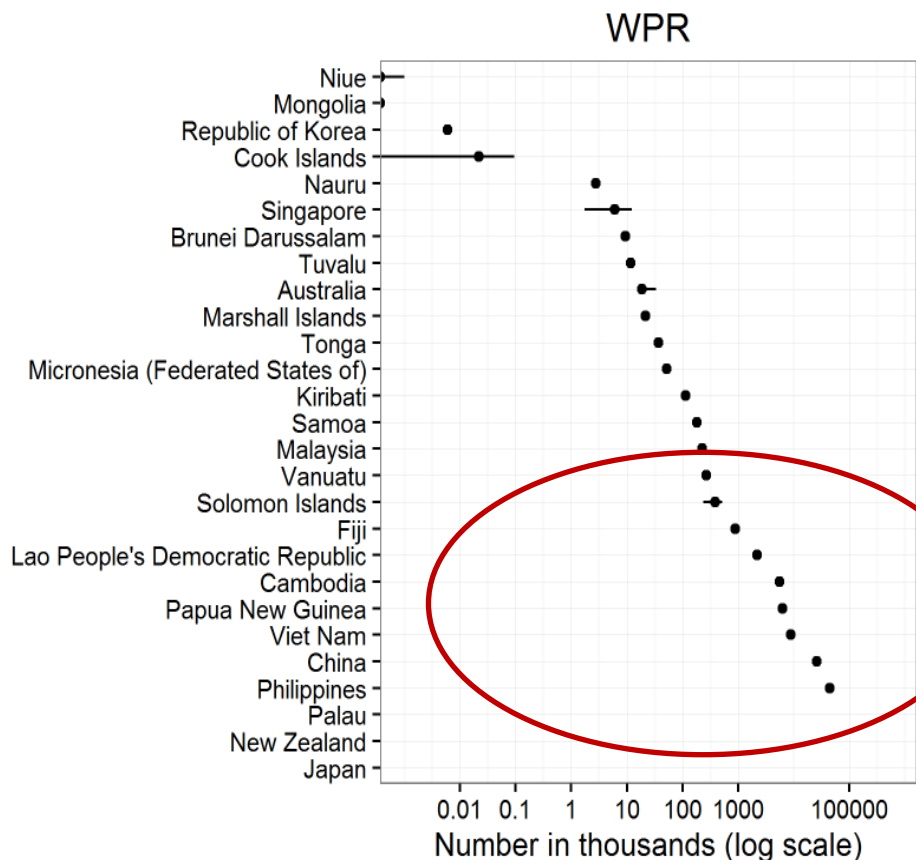
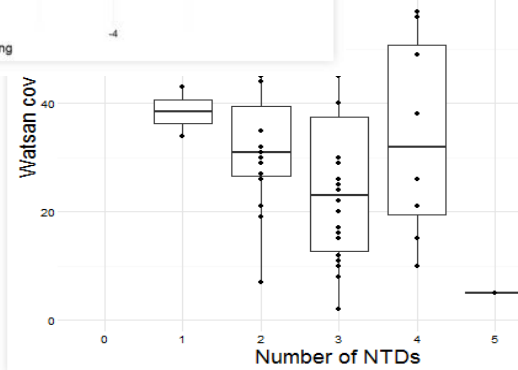
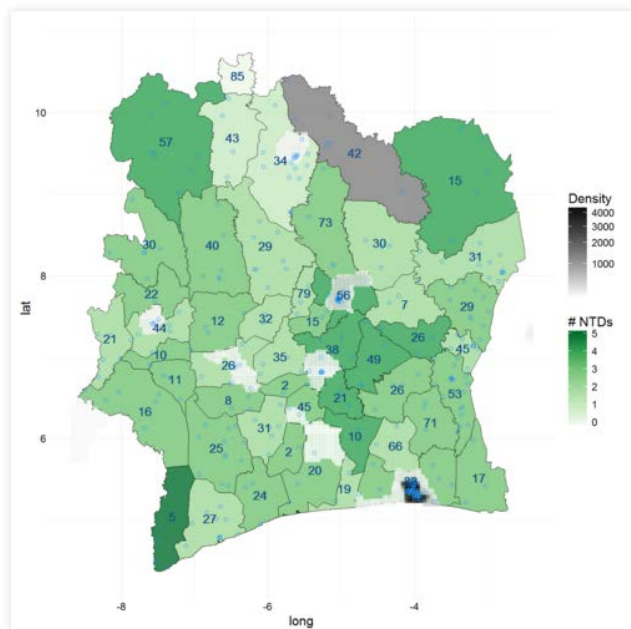
Indicator/EO applicability	EO + EO-Based Data and Model Relevance	Other Socio-Economic, and Census/Statistical Data Relevance	Direct Measurability	Analytical Soundness	Limitations
6.1+6.2 WASH					Computed as a residual product using EO
6.3 Wastewater and Water Quality					For Nitrates, Phosphates and Algae, Phytoplankton Blooms and Sediment
6.4 Water Efficiency					Accurate Quantification of Water Use and Type Required
6.5 Water Resource Management					Associated “management” inputs combined with EO on Water availability/change variables
6.6 water ecosystems					Resolution and accuracy is dependent on type of parameter, data availability and application





# Neglected Tropical Diseases: WASH inequality (2016)...work on disaggregation

NTD endemicity higher in clusters of lower WASH access: serious issue in many PIC



# Food for thought...

- Inclusion of EO/GI in SDGs is a great opportunity:
  - Are we delivering as per expectation?
- Are NSOs accepting EO as official statistics?
- EO/GI for use not just for constructing indicators, but also for greater data disaggregation (not limited to tier III indicators...)
- WGGI can do important work contributing to major revisions of SDG indicators framework
- Address needs of country work: SDG interlinks



# THANK YOU

**SDGs have been truly  
transformational...**

**Need to use all available data to make  
data revolution a real success and help  
achieve the SDG aspirations ?**

**Rifat HOSSAIN**

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