Group on Earth Observations (GEO) Health Community of Practice
Using Environmental Observations to Improve Health Decision-Making

INTRODUCTION

- The use of Earth observation (EO) data among interdisciplinary and multi-agency teams can significantly advance scientific knowledge of existing public health threats to human, animal, and ecosystem health.
- Using the One Health approach, analysis of these geospatial data can enhance our understanding of the dynamic ecosystem processes that influence human and animal health.
- These data can support disease preparedness and response actions in disease epidemic or humanitarian efforts.

OBJECTIVES

- To focus on developing integrated information systems (IIs) that sustain engagement between scientists and decision makers to provide useful EO data that protect health and build resilience.
- To build partnerships across public and private sectors.
- To stimulate innovative and open approaches to gathering and providing useful risk assessment, monitoring, prediction, and forecasting information.

GLOBAL PERSPECTIVES

- EO data for health that inform early warning to early action and disaster risk reduction are relevant for monitoring progress of health-related development goals.
- UN Sustainable Development Goals (SDGs): Planned activities focus on SDG3 (Ensure healthy lives and promote well-being for all at all ages), including targets 3.3 (end selected infectious disease epidemics), 3.9 (reduce morbidity and mortality from environmental contaminants), and 3.d (strengthen capacity for early warning and risk management).
- Sendai Framework for Disaster Risk Reduction 2015-2030: Planned activities aim to improve health outcomes and resilience of persons and communities, highlighting target g (increase availability and access to early warning systems) and priority 3 (invest in disaster risk reduction for resilience).

WORKING GROUPS

- Seven working groups aim to seek and engage health partners, clarify and address health needs for capacity building, and identify and address EO and prediction gaps and needs (Figure 1).
- These multidisciplinary scientific areas lend themselves to cross-collaborations and synergies among various GEO groups.
- These efforts support the Earth Observations for Health (EO4HEALTH) framework and activities.

PREVIOUS ACCOMPLISHMENTS

- Previous work has been focused on health early warning systems for air quality (e.g., AirNOW International, Persistent Organic Pollutants), heat, infectious disease (e.g., dengue, leptospirosis, malaria, meningitis), water-related illness (e.g., cholera), and ecosystem-related health impacts (e.g., harmful algal blooms).
- Participants attend and contribute to the agenda of quarterly telecons, in-person conference meetings, and working group tasks and activities (Figure 2).

MEMBERSHIP

- Participants include representatives across the public and private sector, such as academic institutions, nongovernmental organizations, nonprofit organizations, private companies, and state, federal, and international governmental agencies.
- Efforts aim to seek and expand sustainable long-term connections or partnerships with the Earth and health communities.

LEADERSHIP CONTACTS

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- GEO Health Community of Practice webpage: http://www.geohealthcop.org/