GEO Health Community of Practice (CoP)
Quarterly Plenary Telecon
November 1, 2019

In Attendance: 25 participants
John Haynes (NASA HQ), Juli Trtanj (NOAA), Helena Chapman (NASA HQ/BAH), John Balbus (NIH/NIEHS), Trisha Castranio (NIH/NIEHS), Kartik Sheth (NASA), Ricardo Quiroga (NASA), David Borges (NASA Disasters), Hunter Jones (NOAA), Amanda Quintana (USGCRP), Joy Shumake-Guillemot (WHO/WMO), Juan Castillo (PAHO), Josh Colston (U. of Virginia), Ben Zaitchik (John Hopkins U.), Tatiana Loboda (U. of Maryland, College Park), Mike Wimberly (U. of Oklahoma), Antar Jutla (U. of Florida), Moiz Usmani (U. of Florida), James Kubicki (U. of Texas, El Paso), Andreas Skouloudis (Joint Research Centre, Italy), Didier Davignon (Meteorological Service of Canada), Darren Lumbroso (HR Wallingford), Gina Tsarouchi (HR Wallingford), Jorge Luis Cañari Casaño (U. Peruana Cayetano Heredia, Peru).

Summary Notes:

John Haynes (NASA HQ) opened the telecon by sharing the news that the Earth Observations for Health (EO4HEALTH) implementation plan was submitted in March 2019, and revised drafts were submitted in June 2019. He expected that the EO4HEALTH community activity would be formally named a new initiative for the 2020–2022 GEO Work Programme at the GEO Plenary 2019 in Canberra, Australia. He stated that the Dengue MOdel forecasting Satellite-based System (D-MOSS) activity, related to dengue forecasting, was integrated in the EO4HEALTH projects.

John Haynes (NASA HQ) provided several highlights on one upcoming and three past GEO activities. These updates include:

- **GEO Symposium 2019 (Geneva, Switzerland):** This symposium provided an opportunity for formal presentation updates on GEO activities, preparation for the GEO XVI Plenary 2019, and final discussions about the 2020–2022 GEO Work Programme. At the symposium, he gave a presentation on the EO4HEALTH community activity and plans as an initiative. He stated that they requested from GEO leadership the opportunity to have a permanent point of contact at the GEO Secretariat and closer connections to AmeriGEO. He mentioned that Helena Chapman (NASA HQ/BAH) presented a poster on the wider GEO Health Community of Practice.

- **Central American Integration System (Sistema de la Integración Centroamericana, SICA):** He mentioned that Helena Chapman (NASA HQ/BAH) conducted a webinar (in Spanish) as an overview on EO4HEALTH and the wider GEO Health Community of Practice in August 2019. She also facilitated an open discussion on how SICA could become more involved with GEO, especially through the participation in the Work Groups.

- **AmeriGEO Week 2019 (Lima, Peru):** He mentioned that this annual symposium provided an invitation to present EO4HEALTH and the GEO Health Community of Practice. This session updated the AmeriGEO community on public health research in the Americas: *Introduction to EO4HEALTH* (John Haynes, NASA HQ); *Environmental*
Determinants of Enteric Infectious Diseases (GEO EO4HEALTH) (Jim Nelson, Brigham Young U.); Geospatial Surveillance for Vector-borne Disease (GEO EO4HEALTH) (Jack Malone, Louisiana State U.); and Early Warning System for Malaria Risk in the Amazon (NASA ROSES HAQ 2013) (Andres “Willy” Lescano, U. Cayetano Heredia University, Peru). He mentioned that Helena Chapman (NASA HQ/BAH) presented a poster on the wider GEO Health Community of Practice. After the final caucus discussions, it was decided that Health would be formally named as a cross-cutting priority in future AmeriGEO work plans.

- GEO XVI Plenary 2019 (Canberra, Australia): At this meeting, he said that EO4HEALTH will be formally named an initiative in the new 2020–2022 GEO Work Programme. He mentioned that Mary Beth Neely (AquaWatch) and Emily Smail (Blue Planet) coordinated the GEO Water for Life side event, where 17 GEO activities and initiatives (including EO4HEALTH) that intersect water and its societal impact would present brief updates. Specifically, Paula Fievez (FrontierSI, Australia), who serves as the head of partner engagement and health lead, presented the GEO Health Community of Practice poster. He emphasized that this side event aligns with one of the GEO Health Community of Practice priorities to identify future opportunities for cross-collaboration between GEO Work Programme activities. It also facilitated an expanded dialogue to engage these GEO activities and initiatives for collaborative GEO efforts. Finally, he mentioned that EO4HEALTH was showcased at the US Exhibit Booth, with illustrative panels and interactive displays on Earth observations for cholera risk forecasting and monitoring/forecasting of harmful algal blooms. Notably, Stéphanie Brazeau (Public Health Agency of Canada) was recognized for her international leadership in the GEO Health Community of Practice by the Canadian delegation.

Juli Trtanj (NOAA) provided insight into the next steps of the Work Group activities to align with the GEO Health Community of Practice Work Plan. She emphasized that the Work Group activities should be structured around the integrated information systems (IISs), which can identify and engage decision-makers and clarify the gaps and needs in modeling prediction data and tools in order to reach overall project objectives. She said that this information is essential to provide as feedback to GEO efforts.

Helena Chapman (NASA HQ/BAH) confirmed that Ben Zaitchik (John Hopkins U.), Tatiana Loboda (U. of Maryland, College Park), Antar Jutla (U. of Florida), and Andreas Skouloudis (Joint Research Centre, Italy) will continue their outstanding leadership as Work Group leads. She mentioned that she would send Work Group information to all GEO Health CoP members, where interested members could confirm their interest to join any of the Work Groups.

Andreas Skouloudis (Joint Research Centre, Italy) and John Balbus (NIH/NIEHS) shared that they prepared a talk, Global Health Care Facilities, which was presented at the 21st William T. Pecora Memorial Remote Sensing Symposium (PECORA 21) in October 2019 in Baltimore, Maryland, USA. John Balbus (NIH/NIEHS) mentioned that it would be helpful to know key stakeholders (e.g. PAHO, WHO) and end-users who are working in topics related to health care infrastructure. Andreas Skouloudis (Joint Research Centre, Italy) offered to assist with the Work Lead responsibilities of the Food Security and Safety Work Group.
Helena Chapman (NASA HQ/BAH) shared an update about the GEO Health CoP meeting, which will be held during the American Geophysical Union Fall Meeting 2019 in San Francisco, California, USA. She mentioned that Outlook invitations have been disseminated, and that the agenda would be posted on the GEO Health Community of Practice webpage.

John Haynes (NASA HQ) encouraged GEO Health Community of Practice members to set up small meetings or side events that promote GEO Health Community of Practice at upcoming scientific conferences (e.g. European Geophysical Union). He stated that GEO Health Community of Practice leadership can share resources (e.g. poster, presentation slides, photos) to support these meetings.

Gina Tsarouchi (HR Wallingford) provided a comprehensive overview of the D-MOSS project. She mentioned that it was developed by a consortium led by HR Wallingford and sponsored by the United Kingdom (UK) Space Agency’s International Partnership Programme. D-MOSS is the first fully integrated dengue fever forecasting system incorporating Earth observations and seasonal climate forecasts to issue warnings on a routine basis. It integrates multiple stressors such as water availability, land-cover, precipitation, and temperature with data on past dengue fever incidents. This information is used to develop statistical models of disease incidence, which can then be used to forecast dengue outbreaks based on seasonal weather and hydrological forecasts as well as other factors.

John Balbus (NIH/NIEHS) commented that it is important to identify what stakeholders define as specifically useful for them (e.g. predictive capability), especially since dengue forecasting can rarely achieve a high degree of certainty. Darren Lumbroso (HR Wallingford) also agreed with this comment and mentioned that one observed challenge is that end-users want 95% certainty of future (e.g. forecasts 6 months in advance) outbreak events.

Joy Shumake-Guillemot (WMO) introduced the Global Heat Health Information Network (GHHIN) as an independent, voluntary, member-driven forum of scientists, professionals, and policymakers focused on enhancing existing efforts to address heat health risk. She said that it seeks to be a catalyst, knowledge broker, and forum for facilitating exchange, learning, and identifying needs. She also provided information for three upcoming conferences on heat and health topics, including the 6th International Conference on Climate Services (ICCS6) in February 2020 (India), GHHIN/Indian Institute of Tropical Meteorology (IITM) South Asia Heat Summit in February 2020 (India), and the 2nd Global Forum on Heat and Health in July 2020 (Denmark).

Ben Zaitchik (John Hopkins U.) asked if there were efficient ways for GEO Health CoP to collaborate with the WMO on the joint strategy. Joy Shumake-Guillemot (WMO) responded that one potential collaboration would be for GEO Health CoP members to become involved in the conference planning and start to build networks across Earth and health communities. She stated that many activities have been developed from these types of interactions.

Andreas Skouloudis (Joint Research Centre, Italy) asked if pilot projects would be recommended to explore monitoring and forecasting of the annual cycles related to urban heat and heat island effects. Joy Shumake-Guillemot (WMO) mentioned that GHHIN as a network
had not yet stepped into the space of developing or implementing pilot projects. She stated, however, that many partners (e.g. Red Cross) are implementing multidisciplinary projects at the community level. They hope to learn from and engage experts and citizen scientists on these projects.

**John Haynes (NASA HQ)** closed the telecon and mentioned that the next quarterly telecon would be scheduled in early 2020.

Adjourned: 12:00 PM EST