GEO Health Community of Practice (CoP)
Telecon: Air Quality
October 5, 2021

In Attendance: 23 participants
Juli Trtnaj (NOAA), Helena Chapman (NASA HQ/BAH), Kimberly McMahon (NOAA/National Weather Service), Matthew Andersen (US Geological Survey Office of International Programs), Sheila Fleischhacker (USDA NIFA), Trisha Castranio (NIH/NIEHS), Dorian Janney (NASA/GSFC/GPM), Sushel Unninayar (NASA/GSFC & GESTAR/MSU), Helen Amos (NASA GSFC/SSAI), Rochelle Williams (NASA Langley), Josh Colston (U. of Virginia), Cascade Tuholske (CIESIN, Columbia Univ.), Ben Zaitchik (Johns Hopkins Univ.), Aaron Naeger (Univ. of Alabama in Huntsville), Prixia del Mar Nieto (Louisiana State Univ.), Olayinka Osuolale (Elizade Univ., Nigeria), Didier Davignon (Environment and Climate Change Canada), Niall Robertson (Joint Biosecurity Centre, Department of Health and Social Care, UK), Adrian Guzman (Mexican Space Agency), Sandra Gómez (Frena la Curva, Honduras), Gracia Pineda (UNITEC, Honduras), Cristian Araneda Hernández (Sistema Nacional de Información Territorial, Chile), Heidi Blanck.

Summary Notes:
*Prepared by Helena Chapman (NASA HQ/BAH)

Juli Trtnaj (NOAA) and Helena Chapman (NASA HQ/BAH) opened the telecon by welcoming all participants. They invited CoP members to provide brief updates on upcoming conferences and related activities.

Juli Trtnaj (NOAA) mentioned that the WMO COVID-19 Task Team and Study Group continue to coordinate the community roundtables – Compound Climate Hazards and COVID-19 in June 2021 and COVID-19 Seasonality: Current Understanding and Relevance to Decision-making in September 2021 – to connect the meteorological and health communities to discuss the best scientific approaches that further examine the environmental aspects of COVID-19, especially for forecasting and predictions. Next, she invited CoP members to attend the Belmont Forum: Climate, Environment and Health 2 Collaborative Research Action – Asia Regional Scoping Workshop on Wednesday, October 6, 2021 from 3:00-4:30 UTC. Then, she mentioned that the White House is supporting working groups on drought, wildfires, and heat, where she is working with Vicki Arroyo (US EPA), John Balbus (HHS) and Kim McManon (NOAA) as co-chairs on the heat working group. She said that the National Integrated Heat Health Information System (NIHHIS) activities support efforts of this working group, including four priority areas to enhance preparedness and long-term infrastructure. Finally, she said that the US GEO briefing to the embassies in the African region has been postponed to a later date. She asked CoP members to share information about any ongoing projects in the African region.

Helena Chapman (NASA HQ/BAH) mentioned that the 14th Asia-Oceania Group on Earth Observations Symposium (Theme: Envisioning AOGEO in 2022 and Beyond) will be held virtually from November 10-12, 2021. She said that this event will include three special sessions – Biodiversity for Addressing Climate Change and Disaster Risk Reduction; Satellite Data for the Pacific Islands: Supplier and User Perspectives; and Earth Observation for Climate Change – that will highlight essential challenges and opportunities at regional and global scale. Then, she mentioned that the upcoming American Public Health Association Annual Meeting & Expo 2021 will be held in a hybrid
format (virtual/Denver, CO) from October 24-27, 2021. She said that their team will be moderating the *Using NASA Satellite Data to Enhance Global Health Surveillance and Decision-Making: A One Health Approach* session. Next, she congratulated Cascade Tuholske (CIESIN, Columbia Univ.) and colleagues for their recent publication (*PNAS*: Global Urban Population Exposure to Extreme Heat). Next, she shared two NASA web features published in September 2019: Supporting “Healthy Air, Healthy Planet” in Texas and Beyond and *NASA HAQAST Launches Five Innovative Tiger Teams*. Finally, she encouraged CoP members to view the archived sessions of the PACE Applications Workshop from September 2021.

**Didier Davignon (Environment and Climate Change Canada)** reminded CoP members that **GEO Week 2021** will be held from November 22-26, 2021.

**Helena Chapman (NASA HQ/BAH)** thanked CoP members for their support and participation during AmeriGEO Week 2021. She shared that the **Special Edition: The Americas** telecons have offered time for CoP members to share their research findings, engage in group dialogue, and make connections with CoP members. She introduced the three speakers for their flash talks.

### Special Edition: The Americas – Part 3

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Presentation Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prixia del Mar Nieto</td>
<td>Louisiana State University (USA)</td>
<td>Satellite-based Models to Predict the Potential Generations of Visceral Leishmaniasis Vector (<em>Lutzomyia longipalpis</em>) in the State of Bahia, Brazil</td>
</tr>
<tr>
<td>Cristian Araneda Hernández</td>
<td>Sistema Nacional de Información Territorial (SNIT-IDE) (Chile)</td>
<td>El Rol de la Infraestructura de Datos Geoespaciales de Chile (IDE Chile) durante la Pandemia COVID-19, Emergencias y Desastres</td>
</tr>
<tr>
<td>Lauren Childs-Gleason and Rochelle Williams</td>
<td>NASA Langley (USA)</td>
<td>Building Capacity to Use Earth Observations for Health Applications: A Summary of NASA’s DEVELOP Program and Projects in Central and South America</td>
</tr>
</tbody>
</table>

**Juli Trtanj (NOAA)** opened the discussion by asking how data are integrated in the National System of Territorial Information of Chile and subsequently communicated to the public. **Cristian Araneda Hernández (Sistema Nacional de Información Territorial, Chile)** said that data are mixed in the spatial data infrastructure that has interoperability between different government ministries. He said that the Ministry of Health sends data for the COVID-19 dashboard each day, which are available on different servers. **Juli Trtanj (NOAA)** expressed that these national efforts are impressive, from obtaining and integrating data across servers, including the wide viewership. She reflected on how this dashboard could be used for different health outcomes and how this would work across countries.

**Juli Trtanj (NOAA)** asked about their approaches to enhance scientific communication and community outreach for these efforts. **Cristian Araneda Hernández (Sistema Nacional de Información Territorial, Chile)** said that their team expected challenges in data integration, operability, and other technical issues, but that they observed the new challenge related to communicating technical information about COVID-19 or vaccination to the general population. **Juli Trtanj (NOAA)** agreed that we should brainstorm on how to enhance our scientific communication.
and community engagement. She invited him to join some of the CoP small work groups and contribute his expertise to these discussions.

Sushel Unninayar (NASA/GSFC & GESTAR/MSU) asked about the vaccination rate in Chile. Cristian Araneda Hernández (Sistema Nacional de Información Territorial, Chile) said that the Ministry of Health has reported a high vaccination rate, although he confirmed that there are logistical challenges with the supply chain of vaccinations. Juli Trtanj (NOAA) said that the supply chain can be affected by climate variables as well as human dynamics (e.g. lack of workers due to unavailability or not permitted to work).

Juli Trtanj (NOAA) asked if the regional focus would be of interest to CoP members. Matthew Andersen (US Geological Survey Office of International Programs) shared his agreement with the regional focus. Ben Zaitchik (Johns Hopkins Univ.) suggested that the regional focus could lead to potential partnership efforts, including SERVIR. Juli Trtanj (NOAA) agreed that they could explore GEO and non-GEO partner networks with a broader reach in Africa as well as clarify connections with NASA SERVIR. Dorian Janney (NASA/GSFC/GPM) recommended that it is important to identify what partners do, their needs, and how they inform their decision-makers about Earth observation data. Ben Zaitchik (Johns Hopkins Univ.) also suggested agencies like the Famine Early Warning Systems Network (FEWSNET), UN Platform for Space-based Information for Disaster Management and Emergency Response (UN SPIDER), and African Association of Remote Sensing of the Environment (AARSE). Juli Trtanj (NOAA) proposed that each small work group could identify 1-2 partners in the African region.

Juli Trtanj (NOAA) requested feedback from CoP members on upcoming logistics for the CoP annual meeting in December 2021. She mentioned that the meeting could be held on one or two days (December 7 and/or December 14, 2021), with science talks, open discussion, and high-level updates from the GEO Secretariat. Didier Davignon (Environment and Climate Change Canada) noted that it would offer an opportunity to clarify the objectives of working groups and next steps, especially since it would occur shortly after COP26 and GEO Week 2021. He suggested that CoP members discuss how they can contribute to these objectives. Ben Zaitchik (Johns Hopkins Univ.) agreed that the agenda could build on the COP26 discussions as well as add scientific talks that translate to action (similar to AGU Fall Meeting). Trisha Castranio (NIH/NIEHS) and Matthew Andersen (US Geological Survey Office of International Programs) agreed that these applied science talks could also recruit new CoP members.

Juli Trtanj (NOAA) thanked CoP members for their continued contributions to the field and engagement in the group discussion. She agreed that this telecon had provided an opportunity to share information, connect researchers, and leverage resources that can amplify current activities using Earth observations for public health applications.

Juli Trtanj (NOAA) closed the telecon and mentioned that the next community telecon will be scheduled for Tuesday, October 19, 2021 at 8:30AM EDT (GMT-4). Helena Chapman (NASA HQ/BAH) said that the next telecon will include an invited presentation by Myles Harris (University College London), who will describe the University College London (UCL) Institute for Risk and Disaster Reduction Space Health Risks Research Group that aims to investigate risks to health in space to promote good health and well-being on Earth.

Adjourned: 10:00AM EDT (GMT-4)