

GEO Health Community of Practice (CoP)

Telecon: Focus on COVID-19 Activities

April 17, 2020

In Attendance: 41 participants

John Haynes (NASA HQ), Juli Trtanj (NOAA), Helena Chapman (NASA HQ/BAH), John Balbus (NIH/NIEHS), Ann Liu (NIEHS), Ricardo Quiroga (NASA Goddard), Helen Amos (NASA Goddard/SSAI), Pawan Gupta (USRA/MSFC), Sushel Unninar (NASA Goddard/GESTAR/MSU), Cynthia Hall (NASA Earth Science Data Systems), Amanda Staudt (NASEM), Jeff Morissette (National Invasive Species Council), Amanda Quintana (USGCRP), Blaize Denfeld (USGCRP), Mark Shimamoto (AGU), Kiersten Johnson (USAID Bureau for Resilience and Food Security), Ying Zhou (CDC), Annie Peddicord (Pacific Northwest National Laboratory), Bandana Kar (Oak Ridge National Laboratory), Rish Vaidyanathan (CDC), Curt Hammill (Esri), Aaron Naeger (U. of Alabama in Huntsville), Bob Chen (CIESIN/Columbia U.; NASA/SEDAC; GEO Human Planet), Haofei Yu (U. of Central Florida), Justin Schon (U. of Florida), Ali Akanda (U. of Rhode Island), Mike Wimberly (U. of Oklahoma) Greg Carmichael (U. of Iowa), Mark Gibson (Air Photon), Joy Shumake-Guillemot (WHO/WMO), Rifat Hossain (WHO), Jorge del Rio Vera Unoosa (UN Office for Outer Space Affairs), Ivan Petiteville (European Space Agency), Vincent-Henri Peuch (European Centre for Medium-Range Weather Forecasts), Carlo Buontempo (European Centre for Medium-Range Weather Forecasts), Astrid-Christina Koch (European Commission, DG DEFIS – Copernicus), Cristina Ananasso (European Commission, DG DEFIS – Copernicus), Hugo Zunker (European Commission, DG DEFIS – Copernicus), Didier Davignon (Meteorological Service of Canada), Andreas Skouloudis (Joint Research Centre, Italy), Naledzani Mudau (South African National Space Agency).

Summary Notes:

**Prepared by Helena Chapman (NASA HQ/BAH)*

John Haynes (NASA HQ) and **Juli Trtanj (NOAA)** opened the telecon by welcoming all participants. They moderated a dialogue on current CoP activities and updates related to the ongoing COVID-19 pandemic.

John Haynes (NASA HQ) shared three NASA web features on air quality updates for April 2020.

- NASA Goddard: [NASA Satellite Data Show 30% Drop in Air Pollution over Northeast US](#)
- NASA SPoRT: [New-generation Satellite Observations Monitor Air Pollution during COID-19 Lockdown Measures in California](#)
- NASA Earth Day Story: [How NASA is Helping the World Breathe More Easily](#)

Rifat Hossain (WHO) provided an update of the Monitoring and Evaluation of COVID-19 Response. He stated that his WHO team looks forward to insight and recommendations from the GEO Health CoP. He mentioned that while most COVID19 monitoring indicators data come from sentinel and other public health information or routine data collection sources, Earth

observations and remotely sensed data could be helpful to track population movements and increased vulnerability of people during this pandemic. He said that such information can also be helpful to prepare countries as they transition from lockdown scenarios to opening borders. **Juli Trtanj (NOAA)** offered to identify and connect GEO members who are interested in learning more about this COVID-19 indicator framework with Rifat and this team.

Curt Hammill (Esri) provided an update on the [COVID-19 GIS Hub](#), which is free and available platform for the use of GIS applications during the COVID-19 pandemic. He stated that Esri has developed geoportals for [Africa](#) and the [Caribbean](#) where end users can share models and other information in the geospatial context and facilitate cross-border collaborations. These commercial product licenses (e.g. software, cloud-based services) are free and available to end users. He also shared the [YouTube video](#) presentation by Jack Dangermond (president and founder of Esri).

Helena Chapman (NASA HQ/BAH) shared the [slides](#) of the webinar, *Advanced Geospatial Technology offered to the American Community during the COVID-19 Crisis*, conducted in Spanish on April 14, 2020..

Bob Chen (CIESIN/Columbia U.; NASA/SEDAC; GEO Human Planet) provided an overview of the NASA Socioeconomic Data and Applications Center ([SEDAC](#)) Global COVID-19 Viewer. Released last week, this [portal](#) integrates existing data (e.g. Population Estimation Service, Johns Hopkins University) and provides relevant population and age structure data for areas of interest related to populations that are currently or at-risk of COVID-19 transmission. He also shared additional resources of [WorldPop Demographics](#) and [POPGRID Mapping Tool](#).

Pawan Gupta (USRA/MSFC) provided an update on the atmospheric aerosol's response to the slowdown in human activities due to the COVID-19 pandemic. He described the case study of India, where the shutdown started on March 25, 2020, and was recently extended until May 3, 2020. He mentioned that they used aerosol optical depth (AOD) from MODIS Terra and Aqua satellites, to calculate AOD differences from March 31st to April 5th, for the years 2016 to 2020.

Vincent-Henri Peuch (Copernicus Atmosphere Monitoring Service, European Centre for Medium-Range Weather Forecasts) and **Carlo Buontempo (Copernicus Climate Change Service, European Centre for Medium-Range Weather Forecasts)** provided an update on Copernicus data and other resources related to the COVID-19 pandemic. **Vincent-Henri Peuch (Copernicus Atmosphere Monitoring Service, European Centre for Medium-Range Weather Forecasts)** shared updates on the [Atmospheric Monitoring Service](#). He described that they are working closely with the London School of Hygiene and Tropical Medicine on the health impacts of the COVID-19 situation due to changes in air quality. He mentioned that they seek partnerships to work on other environmental impacts related to the COVID-19 pandemic. **Carlo Buontempo (Copernicus Climate Change Service, European Centre for Medium-Range Weather Forecasts)** shared the Climate Data Store's [Monthly Climate Explorer for COVID-19](#) as an additional resource for researchers.

Andreas Skouloudis (Joint Research Centre, Italy) provided an update on predictability related to the global health-care facilities and their adequacy to cope during the evolving

epidemic. He emphasized that COVID-19 transmission in Italy has had unique features because it has involved different climate zones. As different countries introduced restrictions at variable times, we can expect different outcomes related to COVID-19 control. He stressed that the approach should be validated as time series analyses in north Sweden and Russia may help predict trends for autumn and winter in the Southern hemisphere. Hence, he mentioned that satellite data and products can play a significant role in research applications.

John Haynes (NASA HQ) and **Juli Trtanj (NOAA)**, based on participant response and engagement, agreed on the value of these weekly telecons and confirmed that the telecons would continue for the upcoming weeks. Several GEO Health CoP members suggested that the group discussions provide more opportunities for in-depth discussions on specific topics. As such, both Co-Chairs agreed to modify the agenda that can facilitate more in-depth discussions on specific topics related to COVID-19 research applications.

John Haynes (NASA HQ) and **Juli Trtanj (NOAA)** closed the telecon and mentioned that the next telecon would be scheduled for the following Friday, April 24th.

Adjourned: 12:30 PM EDT