HEI Virtual Workshop on Health Applications for Satellite-Derived Air Quality: Opportunities and Potential Pitfalls

Resources
April and May 2022

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Recommended Resources to Get Started

*If you are new to using satellite-derived air quality data for health applications, we recommend the following resources to get started.*


Copernicus is the European Union's Earth observation programme: [https://atmosphere.copernicus.eu/](https://atmosphere.copernicus.eu/).

The NASA Health and Air Quality Applied Sciences Team Connects NASA Data and Tools with Health and Air Quality Stakeholders. Information is provided throughout the website, particularly under the Tools and Resources Menu: [https://haqast.org/](https://haqast.org/).

The NASA Applied Remote Sensing Training (ARSET) provides trainings for beginner and advanced users of satellite data: [https://appliedsciences.nasa.gov/arset](https://appliedsciences.nasa.gov/arset).

Selected Relevant HEI Publications

This is a selection of HEI publications that extensively relied on satellite data for exposure assessment. Publications are freely available at www.healtheffects.org and www.stateofglobalair.org.

Health Effects of Exposure to Air Pollution


Global Burden of Disease


Openly Available Data and Tools Shared by Workshop Participants

Here we share some data access and tools shared by workshop participants. Items under our Recommended Resources for Getting Started are not repeated here. This list is intended for informational purposes and is not meant to be comprehensive.

- Committee on Earth Observation Satellites (CEOS) https://ceos.org/ourwork/virtual-constellations/acc/
- Copernicus data catalogue: https://atmosphere.copernicus.eu/catalogue#/ 
- Early adopter programs for upcoming NASA missions
  - Plankton, Aerosol, Cloud, ocean Ecosystem (PACE): https://pace.oceansciences.org/app_adaptors.htm
  - Tropospheric Emissions: Monitoring of Pollution (TEMPO), https://weather.msfc.nasa.gov/tempo/
- Global air quality datasets from the Washington University in St. Louis Atmospheric Composition Analysis Group led by Randall Martin: https://sites.wustl.edu/acag/datasets/
- NASA Worldview: https://worldview.earthdata.nasa.gov/
- Surface PARTICulate mAtter Network (SPARTAN): https://www.spartan-network.org/data
Articles Recommended by Workshop Participants

*Here we share some publications shared by workshop participants. This list is intended for informational purposes and is not meant to be comprehensive. It also does not include all references cited by the presenters, so interested parties are recommended to also view specific presentations for detailed information on a subtopic of interest.*


Cooper MJ, Martin RV, McLinden CA, and Brook JR, 2020. Inferring ground-level nitrogen dioxide concentrations at fine spatial resolution applied to the TROPOMI satellite instrument, Environmental Research Letters; doi:10.1088/1748-9326/aba3a5.


