

10/25/2021

GEIA COVID-19 Online Workshop

Introduction/Welcome

Europe

Question to Matthuis: Thanks for sharing results of emissions of air pollutants from different sources in Europe. Have you evaluated the health benefits related to emissions from different sources in Europe? - Pallavi Saxena, Hindu College, University of Delhi and iLEAPS SSC Member.

Volker: We calculated concentrations and reductions caused by the lockdowns. We also looked at impacts of the meteorological situation on the concentrations. No exposure or health effects were calculated. See here: <https://acp.copernicus.org/articles/21/13931/2021/>

Question to Volker Matthias (from M. Guevara): You show quite a significant difference between reduction of shipping activity in the North Sea and the Baltic Sea. Do you know why the results are so different?

Volker: We expected that, because the Baltic Sea has much more passenger traffic compared to the North Sea. Some ferry lines reduced the number of ships sailing on fixed routes (e.g. Kiel-Oslo) or stopped this traffic. In the North Sea, on the other hand, ship traffic is dominated by cargo transport which wasn't affected very much.

Question to Philippe Ciais (from M. Guevara): Does the comfort temperature that you found for France (i.e. around 15 deg from what I saw in the plots) vary a lot between countries?

Question for speakers: Any comments on COVID effects on non-road operations (rail, farm equipment, etc.)? - Tesh Rao

Marc: In our study we focussed on non-road transport emissions related to construction and industrial machinery. For the other types of non-road machinery (farm equipment, rail) we assumed no impact of COVID-19 restrictions. Overall, we estimated a very slight reduction of total 2020 non-road transport emissions (between -3% and -1.8%), most of them occurring during April.

Question from Karl Seltzer: Marc: are the daily adjustment factors only available at the country-level?

Marc: Yes, the daily adjustment factors are available at the country level, but not at a lower administrative level (.e.g NUTS level 2)

Thanks for the nice presentation Marc. In your study, how much Secondary Organic Aerosol (SOA) is produced from EC and OC? - Pallavi Saxena, Hindu College, University of Delhi and iLEAPS SSC Member.

Marc: Our study only focuses on changes in primary emissions, I do not have a specific answer to your question (perhaps V. Matthias?)

Volker: We looked at effects on secondary inorganics, see the appendix in <https://acp.copernicus.org/articles/21/13931/2021/>. We were not completely confident about the emissions of SOA precursors because we didn't put much focus on checking their reliability. In addition, CTMs are often not very good at modeling SOA.

N. America

México's publications <https://doi.org/10.1016/j.scitotenv.2020.143183> - Abraham Ortinez

L. America

Why is there an increase in biomass burning that leads to increased PM2.5 concentrations during strict lockdown in Latin America? - Pallavi Saxena, Hindu College, University of Delhi, India

A: According to Nestor Rojas, one of the authors: There is a high burning season in Colombia and Venezuela in the first quarter of each year, coinciding with the start of COVID restrictions in 2020. In 2020 it was more severe, possibly due to the El Niño phenomenon.

to Rodrigo Seguel. Nice paper. You relate ozone to NO_x emissions, but what about the changes in VOC emissions. Do you have any information about the perturbations in VOC emissions, specifically in urban areas where ozone is often controlled by VOCs? - Guy Brasseur

A: We are conducting a fully focused study on VOCs at this time, with detailed speciation for VOCs vehicular emissions and concentrations, in Santiago. We are using a PTR-TOF-MS for local ambient measurements at the city center.

México's publications <https://doi.org/10.1016/j.scitotenv.2020.143183>

Thanks!

Africa

None.

Asia

None.

Global

None.

Wrap-up

Will the ppt slides from all of the presenters be available? - BH Baek