

WORLD BANK-NASA-NOAA-EfSI ROUND TABLE ON GREEN HOUSE GAS EMISSIONS

28 NOVEMBER 2023

Dr. Susmita Dasgupta (Development Economics Sustainability and Infrastructure) and Mr. Brian Blankespoor (Development Economics Strategy & Collaboratives) organized the World Bank – NASA – NOAA – EfSI Greenhouse Gas round table, hosted by the World Bank’s Office of the Chief Economist on 28 November 2023.

Reductions in greenhouse gases are urgently needed to mitigate climate change. The Intergovernmental Panel on Climate Change (IPCC) has highlighted the urgency of steep emissions reductions to keep global warming below 1.5° C. Cumulative emissions of 2,390 Gt CO₂ since 1850 have been associated with global warming of about 1.07° C. The discussions at COP27 last year also highlighted the critical need for countries to accelerate GHG reductions in the near term and move towards net zero emissions in the longer term. However, limited information has impeded monitoring the progress of these pledges and action plans.

Satellite data can transform how we confront climate change. The purpose of this meeting was to recognize the remarkable value and real-life application of the products of our collaboration so far, and to explore opportunities to expand it, given the urgency of the climate challenge. The World Bank’s research on how to post-process satellite GHG readings already provides insight on how to make the data more useful for the policymakers. This meeting is expected to broaden the engagement with other departments of the World Bank on their information requirements from the scientific community to improve monitoring of GHG, given the urgency of the climate challenge.

It was further acknowledged that better data on GHG emissions will enable the World Bank to offer better advice and support to its client countries in their efforts to (i) monitor and evaluate the effectiveness of their climate change mitigation measures, and (ii) compare their emissions profiles, identify best practices, and work together to achieve global emission reduction targets. It will also help the World Bank to assess the impact of various interventions and advise governments when and how to adjust their strategies.

AGENDA

1. Welcome and purpose of the meeting —Dr. Susmita Dasgupta (10 mins)
2. Opening remarks – Dr. Indermit Gill (5 mins)
3. World Bank’s Climate Change Action Plan – Dr. Susmita Dasgupta (10 mins)

4. Advancement of GHG measures from satellite and its use in policy (Moderator: Mr. Somik Lall) (20 mins)
 - Dr. Ken Jucks (NASA/HQ)
 - Dr. Charles Miller (NASA/JPL)
 - Dr. John Miller (NOAA)
 - Dr. David Crisp (NASA/JPL, Crisp Spectra LLC)

5. World Bank activities and asks: *reliable high resolution datasets of globally comparable GHG concentration anomalies and GHG flux estimates* (Moderator: Mr. Brian Blankespoor) (25 mins)
 - Mr. Somik Lall (World Bank/DECWD)
 - Dr. Umar Serajuddin (World Bank/DECDG)
 - Mr. Craig Meisner (World Bank/SCCFE)
 - Dr. Chandan Deuskar (World Bank/SURGP)
 - Dr. Nagaraja Rao Harshadeep (World Bank/SENCR)

6. Discussion and Q&A (Moderator: Dr. Nagaraja Rao Harshadeep) (20 min)

7. Visit to geospatial lab organized by Dr. Nagaraja Rao Harshadeep

FULL LIST OF EXTERNAL PARTICIPANTS

Name, affiliation	Participation
Dr. Ken Jucks (NASA/HQ, Program Manager, Upper Atmosphere Research Program; Program Scientist, Aura, OCO-2, OCO-3, CLARREO-Pathfinder, GeoCarb, OMPS-Limb, DCOTSS NASA, Earth Science Division) (NASA profile)	In-person
Dr. Charles Miller (NASA/JPL, Carbon Cycle Science Group) (NASA profile)	Online
Dr. John B. Miller (NOAA, Deputy Lead, NOAA Global Monitoring Laboratory Carbon Cycle and Greenhouse Gases Division) (NOAA profile)	In-person
Dr. David Crisp (NASA/JPL, Retired; Crisp Spectra LLC) (NASA career profile, 2022)	Online
Dr. Abhishek Chatterjee (NASA/JPL, Project Scientist, OCO-3; Deputy Project Scientist, OCO-2; Scientist, Carbon Cycle and Ecosystems) (NASA profile)	In-person
Dr. Lesley Ott (Dr. Lesley Ott (NASA/GSFC, Lead for greenhouse gas modeling within NASA's Global Modeling and Assimilation Office and GSFC Lead for the U.S. GHG Center) (NASA profile)	In-person

Dr. Kevin Bowman (NASA, PI: Tropospheric Ozone and its Precursors from Earth System Sounding (TROPESS), NASA Carbon Monitoring System Flux (CMS-Flux), JPL lead for GHG Center) (NASA profile)	In-person
Dr. Junjie Liu (NASA/JPL, Principal Scientist) (NASA profile)	Online
Dr. Brendan Byrne (NASA/JPL, Scientist) (NASA profile)	Online
Dr. Vivienne Payne (NASA/JPL, Project Scientist, OCO-2; Deputy Project Scientist, OCO-3; Co-Lead, NASA Sounder Science Discipline Team; Group Supervisor, Tropospheric Composition) (NASA profile)	Online
Dr. Tomohiro Oda (Earth from Space Institute (EfSI), Founder, PI) (Universities Space Research Association (USRA), Senior Scientist)	Online
Dr. Arlyn Andrews, Lead, NOAA Global Monitoring Laboratory, Carbon Cycle and Greenhouse Gases Division	Online
Dr. Colm Sweeney, Lead, NOAA Global Monitoring Laboratory, Technology Transition, Engineering and Applications Division.	In-person

FULL LIST OF INTERNAL PARTICIPANTS

Name, affiliation	Participation
Dr. Indermit Gill (World Bank, Chief Economist)	Online
Mr. Somik Lall (World Bank, Economic Adviser)	Online
Dr. Deon P. Filmer (World Bank, Director)	In-person
Dr. Carolyn Fischer (World Bank, Research Manager)	In-person
Dr. Susmita Dasgupta (World Bank, Lead Environmental Economist)	In-person
Mr. Brian Blankespoor (World Bank, Senior Geographer)	In-person
Mr. Joseph Rebello (World Bank, Senior External Affairs Officer)	In-person
Mr. Marcelo Buitron (Special Assistant)	In-person
Dr. David Wheeler (World Bank, Retd.)	Online

Dr. Thijs Benschop (World Bank, Statistician)	In-person
Mr. Craig Meisner (World Bank, Senior Economist)	In-person
Dr. Chandan Deuskar (World Bank, Urban Specialist)	In-person
Dr. Nagaraja Rao Harshadeep (World Bank, Lead Environmental Specialist)	In-person
Mr. Benjamin P. Stewart (World Bank, Senior Geographer)	In-person
Dr. Nancy Lozano Gracia (World Bank, Lead Economist)	In-person
Dr. Augustin Maria (World Bank, Senior Urban Specialist)	Online
Dr. Govinda R. Timilsina (World Bank, Senior Research Economist)	In-person
Dr. Harris Selod (World Bank, Senior Economist)	In-person
Dr. Alejandro Molnar (World Bank, Economist)	In-person
Ms. B. Elaine Wylie (World Bank, Program Assistant)	In-person

CLOSING

In closing, the attendees agreed that all the organizations they are affiliated with will benefit from long term engagement.