



	<b>21<sup>th</sup> GEIA Conference</b> <b>Emissions Science for a Transitioning World</b> <b>Goals: Advance emissions science, Determine GEIA's next steps, Draft conference summary</b> <b>Location: Félix Houphouët Boigny University, Abidjan, Ivory Coast</b>	<b>PRESENTER INFORMATION</b>			
<b>Wednesday July 9</b>	<b>ACTIVITIES / PRESENTATIONS</b>	<b>First Name</b>	<b>Last Name</b>	<b>Affiliations</b>	<b>Country</b>
08H00-09H00	Badge Pickup / Poster Setup All attendees must have registered online by June 12				
09H00-10H00	Opening ceremony : Welcome/Introductions/Overviews (3-5 minutes each)	GEIA Executive Committee Co-Chairs			
	Thank You Conference Hosts & Sponsors, GEIA Supporters, Scientific Steering Committee, Working Groups, Partner Organizations, Participants.	Cathy	Leal-Liousse	CNRS	France
	Conference Goals, Format, Town Hall	Nicolas	Huneus	Centre for Climate and Resilience Research and Department of Geophysics, Universidad de Chile	Chile
		Brian	McDonald	NOAA Chemical Sciences Lab	USA
	Welcome to 21st GEIA Conference in Abidjan	President of University Felix			

		Houphouet Boigny			
	Welcome to 21st GEIA Conference in Abidjan	President of the local organizing committee			
	Thanks to our sponsors	IGAC, IRD, IPORA, GIZ, IUGG, ESA, Global Methane Hub, IIASA			
	Opening of the conference	Minister of Higher Education of Cote d'Ivoire			
10H00-10H30	Coffee/Tea Break				
10H30-12H00	<b>Session 1. Anthropogenic sources from urban to global scales</b>				
	<b>Moderators -</b>			Joint Research Centre, European Commission and Unisystems S.A.	
		Monica	Crippa		Italy
		Marc	Guevara	Barcelona Supercomputing Center	Spain
		Sekou	Keita	Université Peleforo Gon Coulibaly de Korhogo	Ivory Coast
	<b>Moderators Introduce Session 1 (5 minutes)</b>				

<b>Oral 1a - 7 Presentations (5 minutes each) Followed by Q&amp;A Panel</b>				
<b>Oral 1b - 7 Presentations (5 minutes each) Followed by Q&amp;A Panel</b>				
Introducing the United States Greenhouse gas And Air Pollutants Emissions System (GRA <sup>2</sup> PES)	Owen	Cooper	NOAA ESRL CSD	USA
The first European gridded Hydrogen Emissions Inventory	Hugo	Denier van der Gon	TNO, NL	Netherlands
Emission estimates and trends (2000-2022) of criteria air pollutants and greenhouse gases from electricity generation in Ghana	Sam-Quarcoo	Dotse	University of Environment and Sustainable Development	Ghana
Spatial Analysis of Urban Cooking Emission Sources in West African Cities: The Case of Yopougon District, Abidjan (Côte d'Ivoire)	Madina	Doumbia	University Peleforo GON COULIBALY	Cote d'Ivoire
High-resolution air pollutant emissions from thermal power plants in EU decarbonisation scenarios	Patrick	Drahelm	German Aerospace Center (DLR)	Germany
Particulate Matter (PM <sub>2.5</sub> and PM <sub>10</sub> ) emission inventory from road dust in Abidjan City	Sylvain	Gnamien	Felix Houphouet-Boigny University	Côte d'Ivoire
Reducing Air Pollution and Advancing Climate Action through	Adriana	Gomez-Sanabria	IIASA	Austria

	Sustainable Waste Management in Uganda				
	Developing up-to date global emission inventories: the EDGAR Fast-Track methodology	Diego	Guizzardi	JRC	Italy
	PAPILA: A High-resolution inventory of atmospheric emissions in Latin America	Nicolas	Huneus	Centre for Climate and Resilience Research and Department of Geophysics, Universidad de Chile	Chile
	First Complete African Anthropogenic Emission Inventory for Greenhouse Gases and Air Pollutants from 1990 to 2022	Sekou	Keita	Université Peleforo Gon Coulibaly de Korhogo	Ivory Coast
	Emission inventory of air pollutants and greenhouse gases in Burkina Faso: current situation	Bernard	Nana	Ecole Normale Supérieure / Université Joseph KI-ZERBO	Burkina Faso
	Volatile Organic Compound Emissions in an Arctic Oil Field	Kerri	Pratt	University of Michigan	USA
	Reporting National gridded ((0.1°×0.1°) Methane Emission Data for India: To Redefine Global Climate Studies	Saroj Kumar	Sahu	Berhampur University	India
	The Global Emission Modeling System (GEMS) with highly resolved source information	Shu	Tao	Peking University	China
		Huizhong	Shen	Southern University of Science and Technology	China
12H00-13H00	<b>Posters 1 - Short 15-Second Introduction to Each Poster by</b>				

	Poster Presenter Followed by Poster Reviews in Poster Area				
Poster #	Health Risk Assessment of heavy metals from burning of common cooking fuels in Nigeria	Khadijat	Abdulkareem	University of Ilorin	Nigeria
	Emission trajectories Through 2050: Integrating NDC 2025 Mitigation Measures	Ignacio	Leiva	Universidad de Chile	Chile
	Do Anthropogenic Terpenoids matter in Atmospheric Chemistry ? Lessons from the DATAbase project	Agnes	Borbon	LaMP/OPGC/UCA/CNRS	France
	Expanding the Horizon of VOC Emission Estimation: The Role of Quantitative Optical Gas Imaging Non-Conventional Sources (QOGI) for Non-Conventional Sources	Luca	Carrera	Polytechnic University of Milan	Italy
	RESPIRE: high-Resolution air Emissions Systems to support modelling and monitoring Efforts in Spain	Paula	Castesana	Barcelona Supercomputing Center	Spain
	The Use of Artificial Intelligence for Proxying Emissions in Climate TRACE	Gary	Collins	The Johns Hopkins Applied Physics Laboratory, Climate TRACE, Clean Air Fund	USA
	Quantifying Global Facility-Level Anthropogenic Air Pollution for Climate TRACE	Gary	Collins	The Johns Hopkins Applied Physics Laboratory, Climate TRACE, Clean Air Fund	USA
	Improving the representation of NMVOC emissions for air quality modelling in Europe	Kevin	de Oliveira	Barcelona Supercomputing Center	Spain

The Use of Climate TRACE as Input to Atmospheric Modeling	Zoheyr	Doctor	WattTime and Climate TRACE	USA
Quantification of Anthropogenic Emission Uncertainties of Air Pollutants and Greenhouse Gases Across Multiple Sectors	Thierno	Doumbia	Laboratoire d'Aerologie, University of Toulouse, CNRS/UPS	France
HTAP_v3.1 emission mosaic: a global effort to tackle air quality issues by quantifying global anthropogenic air pollutant sources	Diego	Guizzardi	JRC	Italy
A global anthropogenic emissions inventory of reactive gases and aerosols (1750 – 2024): an update to the Community Emissions Data System (CEDS) CMIP7-Fast Track	Rachel	Hoesly	PNNL - JGCRI	USA
Evaluation of ammonia emissions over the Benelux against spaceborne and in situ NH3 measurements using the WRF-Chem regional model	Marco	Hufnagel	Royal Belgian Institute for Space Aeronomy (BIRA-IASB)	Belgium
A new environmental challenge: assessing odour emissions and impact	Marzio	Invernizzi	Polytechnic University of Milan	Italy
Probing transient emissions from non-ideal operation of a modern wood stove	Leonard	Kirago	York University	UK
Emission and nitrogen deposition budget in two urban areas (Abidjan, Korhogo) and one rural	Diaby	Lamine	Université Nangui Abrogoua, IREN	Côte d' Ivoire

area (Lamto) in Côte d'Ivoire for the period 2017-2020				
Integrated assessment of transport sector decarbonization strategies in Abidjan and their impact on pollutants emissions	Cathy	Leal-Liousse	CNRS	France
The impact of global Copernicus Atmosphere Monitoring Service emissions inventories on global air quality forecasts and reanalyses	Aura	Lupascu	ECMWF	Germany
Impact Evaluation of VOCs Sources on Ozone Formation using Machine	Manisha	Mishra	Azim Premji University, Bengaluru	India
CO <sub>2</sub> , CO and $\delta^{13}\text{C}$ -CO <sub>2</sub> data from recurrent wildfire months in São Paulo Metropolitan Region, Brazil	Leslie	Morales-Espinoza	University of São Paulo	Brazil
Estimating the contribution of different tourism sectors to NO <sub>x</sub> and PM <sub>2.5</sub> emissions in the Netherlands	Abdullah Al	Nayeem	Oregon State University	USA
Direct airborne emission measurements for inventory validation and source attribution of volatile organic compounds	Eva	Pfannerstill	Forschungszentrum Jülich	Germany
High Resolution Inventory of CH <sub>4</sub> Emissions in Chile (2005-2022): Waste and Livestock Sectors	Diana	Rojas Vergara	Universidad de Chile	Chile
National Emission Modeling System for GHG emissions in Japan (NEMS-GHG)	Makoto	Saito	National Institute for Environmental Studies	Japan

	A Source Specific Calibration of Low-Cost Air Quality Sensors Using Machine Learning and Emission Inventories: A Case Study in Fianarantsoa, Madagascar	Rajat	Sharma	Université Gustave Eiffel	France
	A GIS analysis of the spatial distribution of open-air waste burning sites in the Abidjan area.	Ayenon	Yapo	Université Félix Houphouet Boigny, Abidjan	Côte d'Ivoire
13H00-14H15	Lunch				
14H15-15H00	<b>Session 2. Natural Emissions</b>				
	<b>Moderators -</b>	Katerina	Sindelarova	Charles University	Czechia
		Steve	Smith	Joint Global Change Institution	USA
		Pallavi	Saxena	University of Dehli	India
	<b>Moderators Introduce Session 2 (5 minutes)</b>				
	<b>Oral 2 - 6 Presentations (5 minutes each) Followed by Q&amp;A Panel</b>				
	Nitrogen dioxide (NO2) and Fire seasonality interplay over Ghana	Prince	Aslievi	Kwame Nkrumah University of Science and Technology, Kumasi	Ghana
	Temperature-Driven Terpene Emissions and Atmospheric Chemistry: Insights from Systematic Meta-Analyses	Efstratios	Bourtsoukidis	The Cyprus Institute	Cyprus
	Monoterpene and Sesquiterpene Emissions Increase with Forest	Eliane	Gomes Alves	Max Planck Institute for Biogeochemistry	Germany

	Degradation and Land Use Change in the Amazon Arc of Deforestation				
	Analysis of long-term trends of VOC emissions over Africa using the ESA Climate Change Initiative HCHO dataset and the MAGRITTE CTM	Glenn-Michael	Oomen	Royal Belgian Institute for Space Aeronomy	Belgium
	Concentration levels, emission sources and long term trend of carbonaceous aerosols at Nsimi, rural forest zone in the southern Cameroon	Marie-Roumy	Ouafo Mendo-Leumbe	U. Douala	Cameroon
	BVOC Emission and Reactivity Under Combined Stress: More Than Just an Additive Effect?	Eva	Pfannerstill	Forschungszentrum Jülich	Germany
15H00-15H45	<b>Posters 2 - Short 15-Second Introduction to Each Poster by Poster Presenter Followed by Poster Reviews in Poster Area</b>				
<b>Poster #</b>	Nighttime Vertical Gradients of O <sub>3</sub> and NO in Forested Regions Show Soil Emissions of NO	Simone	Andersen	Max Planck Institute for Chemistry	Germany
	Radiological Hazard Indices of Natural Radioactivity in Agricultural Soils: Implications for Food Safety	Bello Ibrahim	Ayodeji	Ahmadu Bello University	Nigeria
	Quantifying natural emissions and their impacts on air quality in a 2050s Australia	Kathryn	Emmerson	CSIRO	Australia

	Balancing Biogenic methane emissions with Microbial mitigation Approaches in Wetlands	Gabriel-Ibeh	Ifeoma	Nnamdi Azikiwe University	Nigeria
	Estimation of uncertainty of the isoprene emissions in a global dataset	Jana	Markova	Charles University	Czechia
	Studying the impact of soil moisture stress on isoprene emissions	Katerina	Sindelarova	Charles University	Czechia
	Three years of measuring VOC concentrations and fluxes at a mixed forest site in Belgium	Bert	Verreyken	Royal Belgian Institute for Space Aeronomy	Belgium
	Influence of an increase in wet atmospheric nitrogen deposition on greenhouse gas and reactive nitrogen gas emissions	Moussa	Zoure	Daloa University	Ivory Coast
15H45-16H15	Coffee/Tea Break				
16H15-16H30	Group photo				
16H30-17H00	Continue Poster 1 and 2 Review				
17H00-18H00	Summary Discussion of Key Findings - Sessions 1 & 2				
	Led by Session 1 & 2 Moderators All Attendees Participate				
18H15-19H45	<b>Side-meetings</b>				
	African emissions : estimation and mitigation				

	<i>The side meeting is organized by the GEIA project's Africa Emissions Working Group. The objective is to bring together people concerned by this topic, to present the group's activities as well as those of other partners or institutes who will be present, in order to develop joint actions in the future.</i>				
	GEIA VOC side-meeting				
	<i>Side meeting of the GEIA VOC working group for networking and to discuss work and progress of the group's ongoing projects (data directory, global VOC observation data overview). Open to members and non-members of the VOC working group!</i>				
	GEIA Methane side-meeting				
	<i>The newly formed GEIA Methane Working Group is seeking participation in recommending a state-of-the-art methodology for integrating atmospheric and activity data to track changes in global methane emissions".</i>				
19H45-21H30	Cocktail dinner				
<b>Thursday July 10</b>					

08H00-09H00	Badge Pickup / Poster Setup All attendees must have registered online by June 12				
09H00-09H15	Day 2 Overview - Progression from Sessions 3&4 to Town Hall to Next Steps				
09H15-10H00	<b>Session 3. Integrated top-down and bottom up assessments</b>				
	<b>Moderators</b>	Hugo	Denier van der Gon	TNO, NL	Netherlands
		Nicolas	Huneus	Centre for Climate and Resilience Research and Department of Geophysics, Universidad de Chile	Chile
		Tomohiro	Oda	USRA	USA
	<b>Moderators Introduce Session 3 (5 minutes)</b>				
	<b>Oral 3 - 6 Presentations (5 minutes each) Followed by Q&amp;A Panel</b>				
	Novel approaches to address air pollution using Activity data	Sanjar	Ali	WRI India	India
	Top-down estimates of European emissions of black carbon for 2022	Jgor	Arduini	University of Urbino	Italy
	Top-Down Daily All Forms Carbon Emissions Calculated Asia-Wide Using Multiple Satellites and Surface Observations in Tandem	Jason Blake	Cohen	China University of Mining and Technology	China

	Advancing sectoral emission estimates using TEMPO and LEO satellite observations	Zhen	Qu	North Carolina State University	USA
	Global emissions of VOCs constrained by TROPOMI formaldehyde and glyoxal data and the MAGRITTE chemical transport model	Yasmine	Sfendla	Royal Belgian Institute for Space Aeronomy	Belgium
	An open-source data system for comparing top-down and bottom up emissions: Application to methane	Steve	Smith	Joint Global Change Institution	USA
10H00-10H30	<b>Posters 3 - Short 15-Second Introduction to Each Poster by Poster Presenter Followed by Poster Reviews in Poster Area</b>				
<b>Poster #</b>	Meta-modeling for the Climate TRACE Emissions Inventory	Zoheyr	Doctor	WattTime and Climate TRACE	USA
	An integrated framework for optimising air quality management in South Africa	Daniel	Düring	North-West University	South Africa
	Validation of a global bottom-up point source catalogue with satellite-based emissions	Marc	Guevara	Barcelona Supercomputiung Center	Spain
	Analysis of Temporal Variation of Methane Emission Concentration in Nigeria and the implications to Economic Growth	Gabriel Friday	Ibeh	Dannis Osadebay University	Nigeria

	A Review of Ammonia Emissions in Colombia and Latin America	Saul	Martinez Molina	Universidad de los Llanos / Universidad Nacional de Colombia	Colombia
	High spatial and temporary resolution model for estimation of local and global emissions generated by the transportation sector in Chile, 2015-2050	Mauricio	Osses	Universidad Técnica Federico Santa María	Chile
	NOx emissions in Bucharest across the seasons: evaluating WRF-Chem and CAMS-REG inventory against SWING+ and in situ measurements	Antoine	Pasternak	Royal Belgian Institute for Space Aeronomy (BIRA-IASB)	Belgium
	Working Group Report - A directory of global in-situ VOC observations for better findability of data for modelers and beyond	Eva	Pfannerstill	<u>Forschungszentrum Jülich</u>	Germany
	Introduction to the 2027 IPCC Methodology Report on Inventories for Short-lived Climate Forcers	Steve	Smith	Joint Global Change Institution	USA
	Bridging observations and models simulations to determine ozone photochemical regimes in China	Yijuan	Zhang	University of Bremen	Germany
10H30-11H00	Coffee/Tea Break				
11H00-12H15	<b>Session 4 Impacts of emissions of greenhouse gases, air pollutants, and emerging toxics</b>				
	<b>Moderators -</b>	Agnes	Borbon	LaMP/OPGC/UCA/CNRS	France
		Zig	Klimont	IIASA	Austria

	Erika	von Schneidemesser	Research Institute for Sustainability (RIFS) and part of Helmholtz	Germany
<b>Moderators Introduce Session 3 (5 minutes)</b>				
<b>Oral 4 - 8 Presentations (5 minutes each) Followed by Q&amp;A Panel</b>				
REACH: an accessible regional air quality and health assessment model	Medinat	Akindele	Carnegie Mellon University	USA
EDGAR contribution to the GEO Human Planet: emission trends and mitigation opportunities over global urban areas	Monica	Crippa	Joint Research Centre, European Commission and Unisystems S.A.	Italy
Enhancing 5-Day Particulate Matter (PM10) Forecasts in Morocco Using U-Net: A Deep Learning Approach	Anass	Houdou	Mohammed VI University of Sciences and Health, Casablanca	Morocco
Machine Learning-Based Analysis of Seasonal Air Pollution Trends in Delhi: Impact of Meteorology and Emission Sources	Pavan	Kumar	Rani Lakshmi Bai central Agricultural University	India
Ongoing improvements and applications of a high resolution emission inventory in South Africa	Mogesh	Naidoo	CSIR	South Africa
Particle number measurement standard for diesel vehicles in Chile	Mauricio	Osses	Universidad Técnica Federico Santa María	Chile
Impact of domestic and commercial combustion activities	Marie Alexia	Yapo	University of Toulouse	France

	on PM2.5 personal exposure in Abidjan (Cote d'Ivoire)				
	From Inventory to Modeling: Strengthening Data Systems for Climate Transparency in Côte d'Ivoire's Energy Sector	Jean Jacques	Kouame	GIZ	Cote d'Ivoire
<b>Poster #</b>					
12H15-12H45	<b>Posters 4 - Short 15-Second Introduction to Each Poster by Poster Presenter Followed by Poster Reviews in Poster Area</b>				
	Gaseous Pollutant and Particulate Concentrations in the Airsheds of Local Cassava Granules Processing Locations	Khadijat	Abdulkareem	University of Ilorin	Nigeria
	Long term variability of inorganic nitrogen dry deposition fluxes in major African ecosystems	Marcellin	Adon	Université Félix Houphouët Boigny	Côte d'Ivoire
	Characterisation of household solid waste in Abidjan	Ange Stephane	Ahoua	UFHB/LASMES	Côte d'Ivoire
	Assessment of the cost-effectiveness of Rwanda's climate and air pollution mitigation measures	Medinat	Akindele	Carnegie Mellon University	USA
	The "Integrated Nitrogen Studies in Africa" project: outputs and outcomes	Claire	Delon	CNRS	France
	Effect of Quarry Operations on Air Quality and Public Health in Southern Nigeria	Imoh Dominic	Ekpa	Federal University of Technology Ikot Abasi	Nigeria

Impact of air pollution on people's health in Ouagadougou (Burkina Faso)	Joelle Nicole	Guissou	université Joseph Ki-ZERBO	Burkina Faso
The Impacts of Emissions of Greenhouse Gases, Air Pollutants, and Emerging Toxics in Liberia	Samuel	Koenig	United Methodist University	Liberia
The challenge of government to balance between mitigating air pollution and promoting socio-economic sustainable development: A South African perspective	Phathutshedzo	Mukwevho	North-West University	South Africa
Trend analysis from 1970 to 2022 of global mercury emissions in EDGARv8	Marilena	Muntean	Joint Research Center	Italy
Using existing observations of atmospheric composition to characterize urban air quality in Dakar	Demba Ndao	Niang	University of Dakar	Senegal
Long term variability of carbonaceous aerosols in a West African savanna over a 15 year-period (Lamto, Côte d'Ivoire)	Arsene	Ochou	Félix Houphouet Boigny University	Côte d'Ivoire
Overview of the International Network to study Deposition and Atmospheric chemistry in AFrica (INDAAF) : a long term atmospheric measurements program in Africa	Money Guillaume	Ossohou	University of Man & Laboratoire des Sciences de la Matière, de l'Environnement et de l'Energie Solaire, Université Félix Houphouët-Boigny	Côte d'Ivoire

	Use of the REACH reduced-complexity model to study air quality in West Africa	Prince Junior	Oula	Université Jean Lorougnon Guédé Daloa	Côte d'Ivoire
	Low-cost sensors Validation and Estimation of PM (PM <sub>1</sub> , PM <sub>2.5</sub> , and PM <sub>10</sub> ) concentrations over West African regions	Muawiya	Sani	Center for Atmospheri Research	Nigeria
	Air quality in a natural reserve the case of the Banco forest Abidjan Côte d'Ivoire	Séka Louis Hermann	Yapo	Université de San Pedro	Côte d'Ivoire
	Design of an autonomous and optimized system for real-time air quality monitoring in Niger	Mounir	Zakari	Université André Salifou, Zinder	Niger
12H45-14H00	Lunch				
14H00-14H30	Summary Discussion of Key Findings - Sessions 3 & 4 and Lead in to Town Hall				
	Led by Session 3 & 4 Moderators All Attendees Participate				
14H30-16H15	Town Hall -- We invite the audience to contribute to a lively interactive discussion of how GEIA can best support decision making processes and how we can best organise ourselves to support mitigation of air pollution and greenhouse gases.				
	Moderators	Nicolas	Huneus	Centre for Climate and Resilience Research and	Chile

				Department of Geophysics, Universidad de Chile	
		Zig	Klimont	IIASA	Austria
		Evelyne	N'Datchoh Touré	Universite Felix Houphouet-Boigny Abidjan	Cote d'Ivoire
16H15- 16H45	Coffee/Tea Break				
16H45- 18H00	GEIA Working Groups - Updates, Opportunities, Next Steps				
	Africa				
	VOC Emissions				
	Methane				
	Near Real Time				
	Africa				
	Latin America				
	China				
	Urban				
18H00- 18H20	Demonstration of ECCAD and Updates	Thierno	Doumbia	Laboratoire d'Aerologie, University of Toulouse, CNRS/UPS	France
18H20- 18H40	Demonstration of LEAP	Charlie	Heaps	SEI Africa	USA
18H40- 19H00	IPCC SLCF emission inventory guideline report	Steve	Smith	Joint Global Change Institution	USA
19H30- 22H00	Reception				
<b>Friday July 11</b>					

08H00-09H00	Badge Pickup / Poster Setup All attendees must have registered online by June 12				
09H00-10H00	Conference Summaries and Key Findings				
10H00-10H30	Coffee/Tea Break				
10H30-12H00	Moving Forward -				
	GEIA Scientific Steering Committee Members Leaving in 2025				
	GEIA Working Groups and New Topics				
	Next GEIA Conference				
	Other Partnering Organizations				
	Ending Remarks				
12H00-13H30	Lunch				
	<b>END OF CONFERENCE</b>				
<b>14H00-17H00</b>	<b>GEIA Scientific Steering Committee Meeting/Visits</b>				