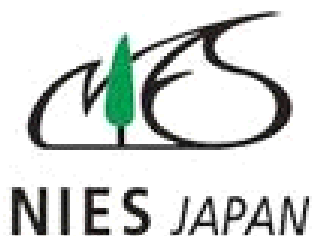


**International Workshop on Air Quality in Asia**  
**Inventory, Modeling and Climate Impacts of Greenhouse Gas emissions (GHG's) and Aerosols;**  
**Remote sensing applications and Integrated Technologies**

**Local Host:**



**Sponsors:**



**Objective:** Greenhouse gas (GHG) emissions and short lived climate pollutants (SLCP) from the Asian region have been increasing continuously due to rapid population growth and industrial activities. Quantification of GHG's and SLCP from different sources in Asia and understanding their climate impacts is an important task requiring integration of both top-down (satellite remote sensing) and bottom-up (ground based) approaches including modeling. Through involving GOF-C-GOLD - Southeast Asia Regional Research and Information Network (SEARRIN) linked with other international and local projects, we envisage to achieve the following objectives: a). review GHG and SLCP emission estimates and methodologies from different sources including biomass burning in the Asian region; b). understand the impact of GHG's and aerosols on local climate; c). explore the potential of satellite remote sensing datasets for quantifying pollutants, aerosols and pollution episodes; d). review inverse modeling approaches for characterizing emissions; e). strengthen the SEARRIN activities in the region.

The workshop will include the below scientific sessions:

-Regional Campaigns/Projects on Air Pollution in Asia; Anthropogenic emissions inventory in Asia; Earth Observation Programs in Land Cover/Land Use/Air Pollution/GHG emissions and Coordination Activities; Biomass burning emissions; Aerosols, Climate Change and Air Quality

**Workshop dates:** June 24-26, 2014

**Venue: M.O.D Palace Hotel**, Address: 33A Pham Ngu Lao Street, HoanKiem District, Ha Noi.

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**Host:** VNU of Engineering and Technology; Dr.Son Pham Bao, [sonpb@vnu.edu.vn](mailto:sonpb@vnu.edu.vn); Dr.Giang Truong Vu Bang, [giangtvb@vnu.edu.vn](mailto:giangtvb@vnu.edu.vn); Dr.Tu Tran Xuan, [tutx@vnu.edu.vn](mailto:tutx@vnu.edu.vn); Dr.Hung Bui Quang, [hungbq@vnu.edu.vn](mailto:hungbq@vnu.edu.vn);

**Workshop registration:**

<[http://gofc-fire.umd.edu/meeting/static/Vietnam\\_workshop\\_2014/index.php](http://gofc-fire.umd.edu/meeting/static/Vietnam_workshop_2014/index.php)>

**Workshop Conveners:**

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Department of Geographical Sciences, University of Maryland College Park (UMCP), USA, Phone: 1-330-234-0387 Fax: 1-301-405-6806; Email: [Krisvkp@umd.edu](mailto:Krisvkp@umd.edu);

**Dr.Chris Justice**, Professor, Department of Geographical Sciences, University of Maryland College Park (UMCP), 4321 Hartwick Road, Suite 209, College Park, Maryland, 20740, USA, Phone: 301.405.4050; Email: [cjustice@umd.edu](mailto:cjustice@umd.edu)

**Dr. Toshimasa Ohara**, Director, Center for Regional Environmental Research, National Institute for Environmental Studies (NIES), Tsukuba, 305-8506, Japan; Phone: 81-29-850-2491 Fax: 81-29-850-2569  
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**Local Conveners:**

**Dr. Binh Nguyen Ngoc**, Associate Professor and Rector of University of Engineering and Technology, Vietnam National University, Hanoi, Vietnam; Phone: 84-4-3754-7461; Fax: +84-4-37547460; Email: [nnbinh@vnu.edu.vn](mailto:nnbinh@vnu.edu.vn);

**Dr. Cu Pham Van**, Associate Professor, Faculty of Geography, VNU University of Science, 334 Nguyen Trai, Thanh Xuan, Hanoi; Phone: 84-4-35571178; Fax: 84-4-38589739; Email: [phamvancu@vnu.edu.vn](mailto:phamvancu@vnu.edu.vn);

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Dr. Minh Duong Le, [iwaga2014@vnu.edu.vn](mailto:iwaga2014@vnu.edu.vn), [iwaga2014@gmail.com](mailto:iwaga2014@gmail.com)

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**Day-1- Tuesday, June 24th, 2014**

12.00 to 1.30pm – Meeting registration

1.30 Welcome and Opening addresses – Nguyen Huu Duc (Vice-President of Vietnam National University, Hanoi)

1.45 Objectives of the Meeting – Chris Justice/Krishna Vadrevu (University of Maryland, USA)

***I. Session topic: Air Quality, Regional Campaigns/Emission Inventory studies in Asia***

***Session Chair: Toshimasa Ohara (NIES, Japan)***

*Keynote presentations: (25-minutes presentation followed by 5-minutes discussion)*

2.00 Current status of Air pollution in Asia and scientific challenge for SLCP mitigation – Toshimasa Ohara (NIES, Japan)

2.30 7-SEAS campaign-Jeff Reid (NRL, USA)/George Lin (National Central University, Taiwan)

*3.00–3.30–Tea Break and group photos*

*Contributed presentations (15-minutes presentation followed by 5-minutes discussion)*

3.30 Trends of anthropogenic emissions of air pollutants over Southeast and South Asia-Jin-Ichi Kurokawa (Asia Center for Air Pollution, Japan)

3.50 Air pollution monitoring project in Vietnam – Nguyen Thi Nhat Thanh (VNU, Vietnam)

4.10 Recent emission scenarios over Indian sub-continent with special focus on new emerging sector and transport - Kumar Sahu (Institute for Energy and Climate Research (IEK-8): Troposphere, Germany)

4.30 Traffic emission inventory for Hanoi – Ngo Tho Hung (Asian Institute of Technology Center in Vietnam, Hanoi, Vietnam)

4.50 Assessment Status and Trend of Short-lived Climate Pollutants (SLCPs) in Hanoi – Hoang Xuan Co (Vietnam National University, Hanoi, Vietnam)

5.10 Tropospheric ozone and aerosols in Southeast Asia – Haruo Tsuruta (Atmospheric and Ocean Research Institute, The Univ. of Tokyo, Japan)

5.30 IPCC Task force on Inventories and IPCC guidelines on AFOLU (Agriculture, Forestry and other Land Use) – Nalin Srivastava (Institute for Global Environmental Strategies, IPCC-TSU, Japan)

5.50 *Adjourn*

***Welcome Dinner***

**Day-2-Wednesday, June 25<sup>th</sup>, 2014**

**Morning 9.00 - 12.50**

***III. Session topic: Earth Observations and Remote Sensing Applications***

***Session Chair: Chris Justice (University of Maryland College Park, USA)***

*Keynote presentations: (20-minutes presentation followed by 5-minutes discussion)*

- 9.00 NASA LCLUC program; LC/LUC and Atmospheric interactions-Chris Justice (Univ. of Maryland College Park, USA)
- 9.25 Development of Earth Observation in Vietnam (from Landsat to VnRedSat-1) - Pham Van Cu (VNU, Vietnam)
- 9.50 REDD++ and Remote Sensing inputs – Pham Manh Cuong (Vietnam Administration of Forestry, Vietnam)

*Contributed presentations (15-minute presentation followed by 5-minutes discussions)*

- 10.15 Updates on GOSAT and its successor, GOSAT-2 – Tsuneo Matsunaga (NIES, Japan)
- 10.35 Near Real Time Detection of Burn Scar Area using Landsat-8 imageries – Surya Candra (Indonesia National Institute of Aeronautics and Space, Indonesia)
- 10.55-11.30-*Tea Break (including group picture)*
- 11.30 Global land cover mapping GLCNMO and data sharing system CEReS Gaia – Ryaturo Tateishi (Chiba University, Japan)
- 11.50 Satellite data applications in Myanmar – Zin Mar Lwin (Mandalay University of Technology, Myanmar)
- 12.10 Rice and Mangrove monitoring in Mekong Delta, Vietnam using Remote Sensing data-Lam Dao Nguyen (Vietnam National Satellite Center – VAST, Vietnam)
- 12.30 Characterization of air quality in global mega-cities by OMI and MODIS measurements-Wataru Takeuchi (Univ. of Tokyo, Japan)

*12.50-1.45 Lunch*

**Afternoon 1.45-6.00**

***IV. Session topic: Biomass burning emissions***

***Session Chair: Krishna Vadrevu (University of Maryland College Park, USA)***

*Keynote presentation: (20-minutes presentation followed by 5-minutes discussion)*

- 1.45 Satellite derived Fire products for Biomass burning studies - Chris Justice (Univ. of Maryland, USA)

*Contributed presentations (15-minute presentations followed by 5-minute discussion)*

- 2.10 Biomass burning in Thailand – Narisira Thongboonchoo (KMIT, Thailand)
- 2.30 Emissions of non-methane volatile organic compounds from open crop residue burning in Yangtze River Delta region, China – Hiroshi Tanimoto (NIES, Japan)
- 2.50 Forest fire Monitoring Project in Vietnam – Le Thanh Ha (VNU, Vietnam)
- 3.10 Multi-Temporal Wildfire Monitoring using MODIS data in Laos– Vivard Phonekeo (AIT, Thailand) and Thateva Saphangthong (Ministry of Agriculture and Forestry, Laos)

*3.3-4.00-Tea Break*

- 4.00 Indonesia Peatland fire detection with nighttime Landsat- Preliminary results – Chris Elvidge (NOAA, USA)
- 4.20 Recent active forest fires on Peatland in Indonesia – Hiroshi Hayasaka (Hokkaido University, Japan)
- 4.40 Indoor Air Pollution due to Yak Dung Combustion in Nam Co, Tibet - New Band PM2.5 emissions estimates in Tibet Domestic Sector –Eri Saikawa (Emory University, USA)
- 5.00 Satellite remote sensing of Biomass burning pollution in Asia – Krishna Vadrevu (University of Maryland College Park, USA)
- 5.20 Biomass burning from peatland fire in Riau, Indonesia–Israr Albar (Ministry of forestry, Indonesia)
- 5.40 Using satellite imagery and GIS for mapping forest fire risk zones and in Hotspots Analysis in the Northwestern region, Vietnam – Pham Ngoc Hai (VNU, Vietnam)
- 6:00 *Adjourn*

***Reception Dinner***

**Day-3-Thursday, June 26th, 2014**

**Morning 9.00-12.00**

***V. Session topic: Aerosols and Air Quality***

***Session Chair: Brent Holben (NASA Goddard, USA)***

*Keynote presentation (25 minutes presentation followed by 5-minutes discussion)*

- 9.00 Aeronet – Brent Holben (NASA Goddard, USA)
- 9:30 *Remote sensing for aerosol research – Eric Vermote (NASA GSFC)*

*Contributed presentations (15-minutes presentation followed by 5-minutes discussion)*

10.00 Continuous observation of aerosols in East Asia using a ground-based Lidar network (AD-NET) - Nobuo Sugimoto (NIES)

*10.20-11:00 –Tea Break*

11:00 Transboundary and Long range Transport of Air pollution: an important Air Quality issue in South Asia– Umesh Kulshresta (Jawaharlal Nehru University, India)

11.20 Monitoring Urban Heat Island in Vietnam and its relation to air quality with remote sensing – Tran Thi Van (Ho Chi Minh City University of Technology, Vietnam)

11:40 – Ground observation of particulate matter in East China Sea Area – Akinori Takami (NIES, Japan)

*12.00-1:15-Lunch*

**Afternoon 1.30-6:00**

***VI. Session topic: Air Pollution Modeling, Impacts and Scenarios***

***Session Chair: Tatsuya Hanaoka (NIES, Japan)***

*Keynote presentation (25 minutes presentation followed by 5-minutes discussion)*

1.15 Server-side maps processing for the Air Quality with the WCPS Standard – Campalani Piero (Jacobs University Bremen , Germany)

1.45 National SDI: Problems and challenges – Dang Hung Vo (VNU, Vietnam)

*Contributed presentations (15-minutes presentation followed by 5-minutes discussion)*

2.15 Simulation of atmospheric air pollutants over Japan and its application to health impacts under MEXT/RECCA/SALSA project in Japan – Daisuke Goto (NIES, Japan)

2.35 Surface ozone simulation over Japan using a new atmospheric chemical-transport model (NICAM-CHASER)- Tran Thi Ngoc Trieu (AORI, Univ. of Tokyo)

2.55 Inferring CO<sub>2</sub> and Particulate Matter Source Regions Using a Lagrangian Transport Model–Ronald Macatangay (University of Phillipines, Phillipines)

*3:15-3:45 Tea Break*

3:45 Integrated Spatial Database System for Air Pollution and Forest Fire Monitoring – Bui Quang Hung (VNU, Vietnam)

4:05 Co-benefits of reducing air-pollutants in ASEAN by 2050 while achieving 2°C global temperature limit target - Tatsuya Hanaoka (NIES)

4:25 Simplified emission inversion for NO<sub>x</sub> and SO<sub>2</sub> with constraint of satellite observations – Syuichi Itahashi (Central Research Institute of Electric Power Industry, CREIPI, Japan).

**VII. Session topic: SEARRIN**

4.45 South East Asia Regional Information Network (SEARRIN) discussion – Chris Justice and Krishna Vadrevu (UMd, USA)

**Closing Session**

5.45 Concluding Remarks from the Host – VNU

6:00. *Meeting adjourn*

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