

Session III B

Wednesday, July 1, 2015

9:00 to 14:30

**Megacities & Metrology Needs Supporting
Greenhouse Gas Mitigation:
Urban Greenhouse Gas Flux Quantification**

Session IIIA

Wednesday, July 1, 2015 – Day 2

Megacities & Metrology Needs Supporting Greenhouse Gas Mitigation: Urban Greenhouse Gas Domes

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|----------------------------------------|---------------------|----|
| • Session Introduction | J. Whetstone (NIST) | 15 |
| • Lessons from Data Collected | P. Ciais (LSCE) | 25 |
| • Los Angeles Megacity Project | R. Duren (JPL) | 25 |
| • Towards a Megacity Project in Brazil | M.F. Andrade (USP) | 25 |

10:30 Break

Additional National & Regional Activity Summaries (5 – 8 min.)

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|-----------------------------------------------------|----------------|
| • MegaParis Measurements | I. Xueref-Remy |
| • Satellite Imagery to Monitor Large City Emissions | G. Broquet |
| • Summary of Activities in China | L. Zhang |
| • Summary of Activities in the UK | T. Gardiner |

12:00 to 1:00 Lunch

- 1:00 – 3:30 Discussion and Identification of Action Items/Main Points
Priorities, Timescales, Stakeholder Interactions
Summary of Conclusions, etc.

Session Goals & Questions

Session Goal: opportunities and challenges for developing a framework concept to enable nations to participate with in a robust global, integrated-greenhouse gas measurements system supporting international mitigation efforts

Questions

- **Designing a comprehensive tiered GHG measurement system architecture**
 - **Problem to address:**
 - providing better understanding of global to regional scale carbon fluxes to address carbon-climate uncertainties &/or
 - “verifying” or validating national inventories &/or
 - providing diagnostics to help inventory compilers like EPA improve the fidelity of those inventories &/or
 - provide other data that directly enables mitigation action by facility operators, regulators, etc.
 - **Technical**
 - **GHG concentration**
 - standards to satisfy a significantly expanded demand, varying levels of accuracy requirements
 - **Transport**
 - Adapting/optimizing NWP capabilities to atmospheric inversion analysis
 - **Seamless movement across geospatial scales**
 - **Organization – Are the BIPM/WMO the correct organizational entities**
 - UNFCCC and related user communities?
 - What parts of BIPM & WMO?
 - Other Organizations, e.g., Satellite agencies nationally and Internationally, ??
 - Is there an optimal mix of technical and organizational contributors