Discussion of GHG Activities

Mark Dowell & All

WGClimate
The Joint CEOS/CGMS
Working Group on Climate

Assign contributors/volunteers

1. User engagement (but also UNFCCC & GCOS)
2. CGMS involvement and parallel operationalisation
3. Roadmap Action Harmonisation and Refinement

Activity 1: General User engagement

- Multi-pronged approach:
  i. Champion users, beta-testers
  ii. GEIA engagement , possible Subgroup
  iii. UNFCCC Sec as enabler in bringing together SO/EO community and Parties/Agencies & specific "groupings" LDCs, AOSIS

- Managing expectations for pilot datasets for 2023 Global Stocktake

- Feedback into incremental improvement of dataset, but also interfaces and how data is made available

Activity 1: Engagement with UNFCCC & GCOS

- Building on Joanna and Simon's presentations from yesterday

- With opportunity for a more structured/detailed discussion at SIT TW in September 2020 (on GHG/AFOLU/Biomass)

- Focus on GHG requirements (both A & T) in GCOS? (Table 1 BAMS paper)

- What help would be most effective from UNFCCC Sec?

- What role could UNFCCC Sec have in engagement with users?

- Do we still need some clarification on timeline?...

- CEOS Involvement in *adhoc* Group on Systematic Observations?

- CEOS GHG TT engagement in UNFCCC event form now to end 2021?

WGClimate
The Joint CEOS/CGMS
Working Group on Climate

	High-level requirements for the CO_2MVS for policy makers	Technically Implied Accuracy Requirement[30]	Space & time resolution
1	Detection of emitting hot spots such as megacities or power-plants.	46 kton CO_2/yr/km^2	2x2km^2 pixel; daily
2	Monitoring the hot spot emissions to assess emission reductions/increases.	1 kton CO_2/yr/km^2	2x2km^2 pixel; daily
3	Assessing emission changes against local reduction targets to monitor NDCs.	0.2 kton CO_2/yr/km^2	0.1°x0.1°; monthly
4	Assessing the national emissions and changes in 5-year time steps for the GST	0.2 kton CO_2/yr/country	Country area; yearly

Janssens-Maenhout, G., B. Pinty, M. Dowell, H. Zunker, E. Andersson, G. Balsamo, J. Bézy, T. Brunhes, H. Bösch, B. Bojkov, D. Brunner, M. Buchwitz, D. Crisp, P. Ciais, P. Counet, D. Dee, H. Denier van der Gon, H. Dolman, M. Drinkwater, O. Dubovik, R. Engelen, T. Fehr, V. Fernandez, M. Heimann, K. Holmlund, S. Houweling, R. Husband, O. Juvyns, A. Kentarchos, J. Landgraf, R. Lang, A. Löscher, J. Marshall, Y. Meijer, M. Nakajima, P. Palmer, P. Peylin, P. Rayner, M. Scholze, B. Sierk, J. Tamminen, and P. Veefkind, 0: Towards an operational anthropogenic CO2 emissions monitoring and verification support capacity. Bull. Amer. Meteor. Soc., 0,

https://doi.org/10.1175/BAMS-D-19-0017.1

Activity 2: Closer involvement of CGMS

- Involvement of CGMS WGs competences – will be increasingly important

- How should we engage at CGMS WG days?

- What tasks/actions should we (proactively) propose to them?

- What additional CGMS agency competences should we be requesting for GHG TT?

Activity 3: Implementation Action table

- Annex C in Roadmap Report
- We need to address/verify consistency and "actionability"
- Identify Contributors (incl. Agency level)
- Cross-check with other contributing entities and have clear, mutual, understanding of "dependencies"

1. Stakeholder Engagement
2. System Development Facilitation
3. Operational Preparation and Training
4. Sensor Development
5. L1 & L2 GHG Product Development
6. Flux Inversion Model Development
7. Calibration & Validation

WGClimate
The Joint CEOS/CGMS
Working Group on Climate