**CEOS SUMMARY OF THE OUTCOMES OF GFOI PLENARY**

**AND SDCG-13**

 Version 1.0, 28 Mar 2018

**Introduction**

This paper has been prepared by SDCG EXEC to communicate to CEOS agencies as to the main decisions and outcomes arising from the Bogota GFOI Open Forum with component and side meetings. It also serves to inform the development of the actions required within CEOS on next steps for participation in Phase 2 of GFOI.

**GFOI Plenary**

1. The Bogota Plenary had a record attendance of 130 participants from 38 countries and relevant international organisations. It was well designed as a platform to share knowledge and experiences and well executed with strong positive feedback from country attendees and donors. It also demonstrated that the GFOI office is now well established.
2. The addition of major donor countries (UK – with Germany pending) and IFIs (World Bank with its FCPF Carbon Fund) has resulted in a refreshed sense of purpose and direction. The GNU block (Germany, Norway, UK – responsible for a large percentage of global forest-related development aid) clearly sees GFOI as a unique and effective channel for better coordination of donor efforts to improve efficiency in aid spending, effective mechanism to increase quality and consistency for reporting on forests and related emissions, and potentially unlocking large blocks of funds earmarked for results-based payments that cannot be distributed without adequate verification. Finally, the inclusion of ESA as Lead for the R&D component strengthens the voice of space agencies in the extended Leads Group.
3. “Country-driven” is the mantra for phase 2 – including for the activities of the Data Component led by CEOS. The actual mechanisms for the touted *Country Needs Assessment* (CNA) process are not yet clear and are not the responsibility of any single component or specified in the Phase 2 materials. A more systemic and comprehensive CNA process is needed for future meetings. Clarity on this is important for all contributors, including CEOS and needs to be addressed in the Phase 2 process design. Nevertheless Phase 2 engagement for CEOS must include strong links to this CNA process, and connections to the R&D Work Plan, and feed in ultimately to refinement of the MGD versions.
4. The trial Data Component meeting was encouraging and proved to be among priorities for many countries (based on breakout group polling). For example, it clearly demonstrated the arrival of the Sentinel 1 and 2 data streams within countries’ forest monitoring activities. This scoping meeting only scratched the surface in identifying where gaps wrt data and tools lie for GFOI countries. Phase 2 foresees support to these countries in the tools and systems for effective exploitation of EO data for country reporting.
5. The Data Component as envisioned for Phase 2 seeks to broaden the scope of ‘data’ to include support on *in situ* observations, as well as the tools and systems for the application of data. CEOS will continue to support on space data aspects and the tools and systems as capacity allows. GFOI must identify complementary capacity and authority on issues such as in-situ data.
6. The GFOI Early Warning activity in response to expressed country needs was advocated for by CEOS and has started its User Needs Assessment work funded by Norway. This will take 3-6 months likely to produce directions, with a major Multi-Stakeholder Forum planned in Lima, Peru, in July 2018. We anticipate that this could be a vibrant activity for GFOI and one that is highly relevant to CEOS and EO data use, including core and contributing missions. SDCG EXEC is on the Task Force following this.
7. GFOI Office will write to CEOS affirming the strong contribution from CEOS and encouraging continued participation in Phase 2 – as part of the updating of opinion from all sides on the CEOS-GFOI relationship. SDCG SEC is also polling all CEOS agencies to that end.

**SDCG**

1. The new SDCG Co-Chair from UKSA, Joanne Nightingale, is a welcome addition to the SDCG capacity and skill set. Joanne has strong links to the CEOS WGCV Land Product Validation team and is familiar with the CEOS Biomass protocol work of that group which could be an invaluable technical resource for the evolution of policy-relevant biomass measurements to GFOI from CEOS data sources.
2. Partners and donors appreciated SDCG’s effort towards increased coverage of CEOS core missions, which led to the availability of multiple global coverage of forested areas by various optical and SAR sensors for the first time in 2017, and request continuity in this acquisition effort. Integration of upcoming sensors to increase the accuracy of emission estimates will be a challenge for the future.
3. The increasing amount of available EO data turns the emphasis of SDCG to data uptake with the respective tools and mechanisms e.g. data cubes and cloud computing facilities. SDCG EXEC arranged a ‘Data Cube Club’ technical exchange meeting, mainly using the fortuitous co-location of IDEAM and Colombia Cube to show Vietnam (VNSC), Taiwan, and Honduras the potential for forest monitoring and more applications.
4. It was agreed to evolve the R&D Component as well as the approach of SDCG towards it (SDCG Element-3) to Phase 2. ESA funding for the coordination of the R&D Component will be awarded via open tender and is still some months away. But it was unanimously agreed that we should evolve to a more specific, funded programme of R&D activities with direct links to countries’ needs - e.g. reducing operational obstacles and helping the donor countries implementing e.g. their results-based payments. This evolution has significant potential to attract funding support for the R&D work. Selection of the R&D topics must remain country-driven (donors and recipients) and that needs to be addressed also in Phase 2 design. Assessing and reducing uncertainties, NRT monitoring, time series analysis, degradation and biomass measurements from space are probable topics. Data Component (CEOS) and R&D Component (ESA) leads will cooperate closely in designing this evolution and component links. An outline approach will be explained to a future Leads Team meeting. Great care will be taken to consult with data providers and R&D teams to ensure an elegant conclusion to Phase 1, and full support for the design of a Phase 2 R&D effort.
5. Recognising the policy need and the space agency investment, SDCG will add stewardship of biomass measurements to its global baseline acquisition strategy, which has hitherto addressed only forest area measurements. Biomass estimations are strongly linked to emission factors, ultimately leading to a better characterisation of countries’ GHG emissions. A range of novel microwave and LiDAR instruments is within scope and a number of space agency missions are implicated. Strong links will be needed to the R&D Work Plan to ensure technical obstacles to the introduction of such measurements into the reporting processes are addressed.
6. SDCG EXEC has identified a contact (Julian Gonzalo) within the World Bank team engaging GFOI that will be responsible for participation in Data Component activities. Mutual interests will be explored using that channel. The role of CEOS and SDCG has to be clarified in the further process and management of the Data Component given the broader scope.
7. The two SDCG Co-Chairs Joanne and Frank Martin are progressing the SDCG resourcing study tasked by CEOS Plenary and SEC. Consistent with other CEOS groups, the Co-Chairs will investigate first the possibility of the Co-Chair agencies providing funding for the Secretariat supporting.
8. SDCG has accepted the LSI-VC action to establish a reference group of potential ARD users within the GFOI community and to provide feedback to CEOS on the utility of the CEOS ARD standards for forest monitoring purposes. Planet was in attendance for part of SDCG-13 and is interested in studying whether their SR product could be certified as CARD4L compliant.
9. For CEOS agencies, this GFOI Plenary affirmed the importance of continued attendance at the major GFOI meeting of the year and ensuring continued strong ties to the thematic community.
10. In summary, SDCG needs to reflect on its strategy and mandate, and update its Work Plan to reflect the evolution of GFOI. This may be rate-limited by clarity on the CNA process and component interaction process but most tasks should be able to be progressed meantime. SDCG EXEC has an action to provide thoughts on this process to push along the process in GFOI Leads.

The CEOS Lead for GFOI (Osamu) will seek to provide an up to date summary of the GFOI agencies and CEOS agency position as to CEOS engagement in GFOI at the coming SIT-33 meeting as the basis for a strong participation in Phase 2.