## Ad hoc GEOGLAM Team Informational Briefing at SDCG-3 Meeting 9 February 2013 Sydney, Australia

Continuing the practice of informing the SDCG of milestones, plans and activities, an informational session on the status of GEOGLAM was provided to the SDCG-3 participants. Brian Killough (NASA – SEO, GEOGLAM), John Faundeen (USGS - SDCG, LSI, GEOGLAM), and Inbal Becker-Reshef (University of Maryland) represented the CEOS ad hoc GEOGLAM Team. The attendees included:

- Frank-Martin Seifert for ESA
- Ake Rosenqvist for NSC
- Julio Dalge for INPE
- Alex Held for CSIRO
- Kerry Sawyer for CEO
- George Dyke for DCCEE

The wide breadth of CEOS representation provided for inclusive discussions. The briefing was comprised of three parts: Introduction, Objectives & Requirements, and Phase 1 Objectives. John Faundeen introduced the topic by relaying the GEOGLAM meetings held to date highlighting those that have occurred since SDCG-2 held in September of 2012. To date, the GEOGLAM participants have identified desired products, resolutions needed to attain those products, initial target crops and countries, and a method to address the potentially complex crop calendars. The existence of an initial Year One Work Plan was relayed as well as the structure of the work plan. Lastly, some of the existing synergies between the SDCG and the GEOGLAM activity were identified.

Inbal Becker-Reshef provided a comprehensive update on the GEOGLAM initiative starting with the context and international calls which indicated more satellite exploitation was needed in order to provide more accurate and timely crop forecasts affecting food stocks and prices. She reinforced the need for better information and management of food production by relaying the projected food production needs in the next 40 years will increase between 50 and 70%. The organizational structure of the GEO Agriculture Task, initiated in 2007, was displayed to understand some of the major players contributing to GEOGLAM. The GEOGLAM initiative was formally endorsed and adopted by the G-20 in 2011. Current support by countries and agencies was outlined including those expressing interest to contribute. Inbal explained the components of the initiative, which has three main elements plus three cross-cutting areas. The diversity of cropping methods, tracts of land, and seasonal calendars add levels of complexity to the initiative. The EO Data Coordination, Component No. 4, has the following activities:

• Developing EO requirements strategy through phased approach

- Developing required baseline datasets and database for requirement assessment
- Interoperability of VIIRS with MODIS for agricultural monitoring
- Joint LDCM/Sentinel 2 processing for agricultural monitoring (ESA/NASA)
- Near real time data processing of MODIS and VIIRS
- Development of customized national crop condition monitoring systems

Inbal then detailed the proposed approach having three phases over five years that takes into account the number of countries, sensors, products & distribution, and capacity building, especially for at-risk countries. At the end of five years, GEOGLAM aims to include the main producer countries ( $\sim$ 20) accounting for 80% of global food, and three to five at-risk countries.

Brian Killough detailed the analysis that has gone into preparations for Phase 1. He relayed one goal was to perform a volumetric assessment for GEOGLAM over the countries of Australia, Argentina, Russia, Ukraine, and Uganda. This assessment would help to refine the GEOGLAM EO requirements and determine the desired missions and instruments needed to support a phased implementation approach. Brian displayed the SEO work to date over the five target countries identifying the number of Landsat scenes necessary to cover the agricultural areas. His preliminary analysis focused on the NPP and Landsat-7 missions in determining the total number scenes required. He also examined the countries GFOI is focusing on in comparison to the GEOGLAM targets. The overlap now would include 18 countries that both GEO initiatives have in common. These overlaps are wall-to-wall optical measurements of entire countries and not specific areas, since forests and croplands do not exist simultaneously.

The remainder of the session included open discussion on the way forward for GEOGLAM and SDCG. Last year there was concern amongst CEOS participants that trying to address both GFOI and GEOGLAM at the same time might overwhelm the SDCG. This briefing relayed that significant SDCG resources will not be required in 2013. To gauge the reaction to the briefing each participant was asked their opinion of the session. Some direct quotes are noted below:

Ake Rosenqvist – "Very interesting and informative." "Less fear of

conflicts." "Can see synergies." "Countries we are working with want to know forests and agriculture."

Frank-Martin Seifert - "Agriculture is a worldwide driver for forest

degradation." "Natural to work together." "Common

requirements will strengthen acquisitions."

Julio Dalge - "Likes the initiative." "We can not waste pixels."

Alex Held - "This will benefit from SDCG/GFOI experience."

In summary, the session was viewed very positively by the participants who came away with knowledge of how the GEOGLAM initiative has progressed since last September as well as the near-term plans being worked on in preparation for the GEOGLAM Workshop being held in Washington, DC on February 20-22, 2013.