



GROUP ON  
EARTH OBSERVATIONS

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The Launch of the G20 Global Agricultural Geo-  
Monitoring Initiative (GEO-GLAM)

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For information



## **The Launch of the G20 Global Agricultural Geo-Monitoring Initiative (GEO-GLAM)**

The G20 Agriculture Ministers met in Paris on 22 and 23 June 2011 to address the issue of food price volatility with the ultimate objective of improving food security and agreeing on an “Action Plan on food price volatility and agriculture.” This Action Plan will be submitted to the G20 plenary at the Summit in November 2011. The rationale for the Action Plan is the fact that food security will remain a critical issue for the international community. The Ministers recalled that important commitments and actions have already been taken, in particular at the L'Aquila Summit, the 2009 World Food Summit in Rome and the G20 Summits. They also noted that all countries have stressed the need for improved and more effective agricultural policies at the global and national levels, for better international coordination, and for concrete implementation of political commitments to promote food security and sustainable agricultural production.

With the understanding that better information and greater transparency is needed, Paragraph 32 of the Action Plan addresses the launching of the G20 GEO-GLAM initiative:

*“In order to improve crop production projections and weather forecasting, with the use of modern tools, in particular remote sensing tools, we decide to launch, via the Group on Earth Observations, an international voluntary network of agricultural production monitoring based on geoinformation. This “Global Agricultural Geo-Monitoring Initiative” will be a useful input for AMIS (Agricultural Market Information System) concerning the provision of more accurate crop forecasts data. The objectives, principles, modalities and schedule of this initiative are detailed in their annex n°3”.*

The full Action Plan can be found at the GEO website: [www.earthobservations.org/index.html](http://www.earthobservations.org/index.html).

### **1 ANNEX N°3: THE GLOBAL AGRICULTURAL GEO-MONITORING INITIATIVE IS REPRODUCED HERE**

*“We decide to launch a Global Agricultural Geo-Monitoring Initiative. This initiative will strengthen global agricultural monitoring by improving the use of remote sensing tools for crop production projections and weather forecasting. We agree on the objectives and next steps for this initiative that were proposed by the intergovernmental Group on Earth Observations (GEO) and several research centers from G20 countries. This initiative will involve representatives from various organizations and institutions interested in enhancing international monitoring capabilities around the world, including the organizations that comprise the GEO Agricultural Monitoring Community of Practice (FAO, WMO, etc.) created in 2007 by GEO. The objective of this initiative is to reinforce the international community’s capacity to produce and disseminate relevant, timely and accurate forecasts of agricultural production at national, regional and global scales. This will be achieved by:*

- *enhancing national agricultural reporting systems, including through a global geospatial education curriculum to ensure training of participants world-wide;*
- *establishing a sustained international network of agricultural monitoring and research organizations and practitioners;*
- *creating an operational global agricultural production monitoring system of systems based on both satellite and in situ observations.*

*This initiative will be a useful input for AMIS concerning the provision of more accurate crop forecasts data. The initiative will be coordinated by the intergovernmental Group on Earth Observations secretariat hosted by WMO in Geneva. The articulation with AMIS can be ensured through a GEO-FAO agreement.*

## 2 NEXT STEPS

*An international workshop on “strengthening agricultural monitoring at national and global scales to improve market transparency” will be organized in September 2011. On this basis, participants in the initiative will take the following decisions:*

- *Definition of framework, missions, rules and resources for the establishment of an international network of national and regional agricultural production monitoring organization;*
- *Definition of international programs in support to experiments and research activities in global agricultural monitoring;*
- *Establishment of a roadmap for international coordination of space agencies in the design and implementation of a satellite observing system covering agricultural production monitoring needs, and ensuring its long-term operation.*

*Before June 2012, specific roles and responsibilities of the various actors (GEO, FAO, WMO, Space Agencies and national agricultural monitoring organizations) will be defined, a strategy to provide satellite data to these actors will be elaborated and dedicated contacts will be made with funding agencies to gather and secure resources for a 6 years period. National, regional and international actors of the agricultural monitoring domain will be involved in the detailed definition of the project objectives, work-plan and calendar. G20 countries will be invited to provide, as in-kind contributions through their space agencies, the necessary satellite data for all countries involved. The budget for this one-year preparatory phase will cover only missions and workshops necessary to define this strategy and secure the 6-years budget. G20 countries can support this preparatory phase by funding the participation of their national experts and representatives or by direct contribution to the budget, on a voluntary basis”.*

As requested in Annex 3, an international meeting was convened by the GEO-GLAM coordination group on 22- 23 September 2011 and hosted by GEO in Geneva. It gathered 33 experts from 13 G20 member states<sup>1</sup> (Argentina, Australia, Brazil, Canada, China, European Union, France, Germany, India, Italy, Japan, Russia, and the United States) and four international organizations (CEOS, FAO, GEO, and WMO).

This meeting allowed an in-depth exchange, sharing of views and analysis, and discussion on the GEO-GLAM initiative outcome and principles, objectives, action plan, structure and governance. It was divided into four sessions: (i) presentation of the initiative and its straw-man implementation plan and clarifications of participant requests, (ii) presentation of the institutions (CEOS, FAO, WMO) and national experts, their analysis of priorities and their proposals to improve and strengthen the initiative, (iii) specific working groups to develop the main actions: global and regional monitoring; monitoring countries at risk; and strengthening national monitoring capacities; and (iv) further implementation plan and schedule of next steps.

The main outputs of the meeting are as follows:

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<sup>1</sup> Member states had been invited in May 2011 to designate national experts to contribute to the GEO-GLAM initiative’s definition

- General agreement of all participants (the CEOS representative and German expert underlined their “observer mandate”) on the relevance of the GEO-GLAM initiative, its objectives, implementation plan and structure;
- Statement of the importance of a governance structure approved by the G20, together with better institutional engagement and continuous G20 support, by maintaining the issue on G20 Agriculture Ministers’ agenda. It was noted that GEO-GLAM will need to build capacity at the institutional level, internationally and nationally, where there is an expressed need and a mandate;
- Statement of need and willingness for a close articulation between GEO-GLAM and AMIS. This articulation will be ensured by the cross definition of GEO-GLAM information inputs to AMIS, the involvement of FAO teams in GEO-GLAM, coverage by GEO-GLAM of AMIS geographical areas of interest, and representation of each initiative in the other’s structure (meetings, governance entities, etc.);
- Statement of need to define priorities, clearly related to users needs and requirements, and near term manageable successes;
- Shared inputs from the meeting participants for the detailed definition of GEO-GLAM actions: global and regional monitoring; monitoring countries at risk; strengthening national monitoring capacities; coordinating Earth Observation efforts;
- Necessity to address countries at risk from the beginning of the initiative, not waiting for Phase 2 (as indicated in the initial proposal) and the special need for supporting capacity building to establish effective national agricultural monitoring systems in food-insecure countries;
- Statement of the need to broaden the current GEO Agricultural Community of Practice (CoP) to include additional relevant national and international entities;
- Statement of the concerted role that the international space agencies and EO data providers (including CEOS, CGMS, FAO and WMO) will need to play in the GEO-GLAM initiative, for example with respect to the collection and provision of satellite and ground-based observations;
- Statement that R&D will be a strong component of GEO-GLAM, to strengthen its operational capacity by improved and more reliable outputs. R&D will address EO techniques development, crop and rangeland monitoring methods, model development and statistical analysis, better understanding of agricultural land use changes. The GEO JECAM (Joint Experiment for Crop Assessment and Monitoring) initiative was identified as an existing framework for operational research and development.

### 3 GEO-GLAM NEXT STEPS ARE THE FOLLOWING

- **October-November:** develop a detailed GEO-GLAM implementation plan integrating inputs from participants at the Geneva meeting and from other national and international experts;
- **7 October:** GEO-GLAM communiqué on the Geneva meeting and broad information of G20 Agriculture national representations to invite them to nominate experts (for those countries that have not yet done so);
- **21 October:** publication of a GEO-GLAM progress report that will be distributed to the G20 Agriculture national representations in preparation of the G20 Presidential Summit in November;

- **14-15 November:** presentation of GEO-GLAM initiative at the GEO-VIII Plenary meeting (Istanbul);
- **30 November:** Publication and dissemination of Version 2 of the GEO-GLAM implementation plan;
- **December-January:** further improvements to the GEO-GLAM implementation plan based on community feedback; commitment by the various national and international institutions on the various GEO-GLAM Tasks. Information provided by national GEO-GLAM experts and representatives to their respective Agriculture Ministers;
- **31 January 2012:** Publication and dissemination of the final version of the GEO-GLAM detailed implementation plan;
- **February-June 2012:** Obtaining official support and commitment by national and international (G20 + others) institutions. Securing funding for 2012-2018 GEO-GLAM implementation;
- From **October 2011 to June 2012** the GEO-GLAM initiative will be presented in regional and international events to create a large awareness of the initiative among national and international decision and policy makers.

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