

Draft Report of GEO-XI 13-14 November 2014 Geneva, Switzerland

13 November

Convened at 9:00 am

1 OPENING SESSIONS

Chairman: Philemon Mjwara, South Africa Co-Chair

1.1/1.2 Welcome and Opening Remarks

Philemon Mjwara, South Africa, Chairman wished the attendees a warm welcome and acknowledged his fellow Co-Chairs, Director Ryan and the delegation representatives. He noted that each year the GEO Plenary comes together to reaffirm our commitment to this organization and address such important issues as gaps in Earth observation (EO) data and how to make data more available. The Chair stated that, unfortunately, it was not possible to hold the Plenary in Gabon as planned, due to low response rate which was the result of a number of factors, including uncertainty around Ebola. He indicated that while the venue has changed, the principal task before us remains the same, and thanked Gabon for their hard work, early preparations, and understanding; the Secretariat for successfully changing the venue on such short notice; and the GEO community for demonstrating its commitment by adapting so quickly. He stated that GEO continues to make significant progress, and there will be many opportunities to demonstrate the added value of GEOSS. Mjwara recognized the full support received from the Government of Switzerland to hold the meeting in Geneva.

Karine Siegwart, GEO Principal, Switzerland welcomed the Plenary to Geneva, noting that after the decision to change the venue was made, the Government of Switzerland tried to provide as much support as possible. Switzerland wants to support GEO and its objectives, and thanked the Secretariat for its support.

Jiahong Li, Acting China Co-Chair welcomed the attendees on Vice Minister Jianlin Cao's behalf and noted the importance of GEO-XI in carrying out the tasks identified in the third Ministerial (Geneva 2014), and the development of the Implementation Plan for next decade. He stated progress is being made in GEOSS implementation, particularly in the Asia-Pacific region. China successfully hosted the Implementation Plan Working Group (IPWG) in September, including inviting delegates from the region to a workshop prior to the IPWG meeting. The participants showed how GEOSS is improving life in the region and overall the positive contributions made to the IPWG process. China GEO is promoting coordination of EO in China, noting that agricultural monitoring, drought monitoring and early warning are all important to China. GEOGLAM held its own implementation meeting in Beijing this fall. China reminded the Plenary of the release in 2013 of the first annual report on global environmental monitoring. In 2014, China will cooperate with the European Commission, Joint Research Center and Africa to make EO more available.

Rudolf Strohmeier, European Commission Co-Chair thanked Director Ryan, the Secretariat and the Government of Switzerland for successfully transferring the meeting to Geneva. He very much regretted the decision to cancel the meeting in Gabon, thanked the Government of Gabon for its original offer to host the meeting and expressed the hope that a GEO event would be held in Gabon

soon. The European Commission (EC) noted that programs such as Copernicus and Horizon 2020 continue to provide support for GEOSS. He stressed, however, that participation in GEOSS post-2015 will be politically acceptable in Europe only if two conditions are fulfilled. Firstly, that the deployment of GEOSS takes place as part of a genuine international, shared effort and, secondly, that the conditions for the new GEO facilitate all regions of the world benefitting from the initiative - this includes, of course, Europe. Mr. Strohmeier expressed the wish that, on the occasion of this Plenary meeting, participants can work together to prepare this more ambitious GEOSS that is called for by many organisations urgently requiring access to Global Observation Datasets. He referred to the climate domain, risk mitigation and natural resources exploitation as examples. This, in his view, would require building on the successes already achieved in the first phase, but also it should not stop us considering completely different approaches for the future. Nothing should be ruled out of the debate. Finally, he stated that tremendous achievement in the domain of international collaboration had been achieved by GEO and has enabled us to create a global community that otherwise would not exist: the European Commission is prepared to continue working in this spirit.

Kathryn Sullivan, United States Co-Chair thanked the Secretariat for the good work to bring the Plenary to Geneva and expressed regret that the change was necessary. She also expressed hope that a GEO meeting could be organized in Gabon soon. The US noted that Plenary had met in Geneva ten months earlier to underline the task to promote data sharing to help develop global solutions to meet the challenges of sustainability. She indicated the urgent need to make wise decisions about the future, citing the strains on the environment, on governments and on economies. GEO can provide the data and information necessary to allow our leaders to make good decisions. GEO came about because no single country can do it all – the challenges require major collaborations. Data and information are key ingredients to solve these challenges, and GEO brings them to decision makers. However, GEO will need to forge new strategic partnerships, develop critical links, and create innovative ways to make this happen. The discussion of Plenary will center on making this happen – what is GEO’s place and role? What is feasible to improve decision making? What governance structure will help us work together over the next decade? The US expressed optimism that GEO can bring together information, but cautioned against forgetting the “O” in Earth observations, stressing the potential of GEO to ensure the world maintains these observations.

Barbara Ryan, Secretariat Director added a warm welcome, extending her sincere appreciation to the four Co-Chairs. She noted that prior to Plenary, the Executive Committee held good discussions and lively debate on several key issues. She stated that this Plenary reflects a turning point for what GEO is doing. While there is new engagement in GEO - five new Member Countries joined in 2014 – there are still challenges in certain parts of the world. The Director noted the Executive Committee discussion held the day before about the need to reengage with some current Members, which is what this meeting is about. She added that the IPWG report to be considered focuses on the importance of information from the infrastructure perspective, including data sharing policy and data management, as well as demonstrations of more uptake of the data that exists in the infrastructure through applications. She stated there is palpable excitement about GEO, yet more work is needed. She highlighted how some Members – Austria, Greece and South Africa, have incorporated the GEO logo – i.e. a common look feel -- into the design for their national coordinating mechanisms. This relatively simple action supports something encouraged in the Geneva Ministerial Declaration -- the need to create national GEO mechanisms. She also noted a new best practice, namely that the Plenary agenda and documents were now available online during the meeting, including all the latest revisions.

1.3 Administrative Announcements

Secretariat Director noted that delegations intending to deliver formal statements must register their intent at the Registration Desk; oral statements will be limited to two minutes; there are no length restrictions on written statements. The Director indicated an evening reception hosted by the Government of Switzerland to be held Thursday, 13 November 2014.

1.4 Adoption of the Agenda (Plenary Document 1) (for approval)

Chair asked for any proposed changes.

Germany agreed to the agenda, and requested that for future Plenaries, Special Initiatives such as GFOI and GEOGLAM be discussed separately; the current time allotment is not sufficient. Germany would also like more time for the Implementation Boards, and thanked the Secretariat for the timely distribution of Plenary documents noting the importance for adequate time for delegations to review all the material.

Chair will try to accommodate the programmatic suggestions through reports during the Plenary.

Outcome: Document 1 was Approved.

1.5 Recognition and Statements from New Members (Plenary Document 2) (for information)

Secretariat Director reminded Plenary that GEO membership is open to any Member State of the United Nations, with the requirement that the government formally express its interest to the Secretariat and articulate what it expects to contribute to the GEO effort. The five new GEO Members (Armenia, Bulgaria, Poland, Senegal and Seychelles) were recognized by Plenary and invited to make formal Statements.

Senegal (91st Member) expressed its gratitude to the Secretariat for accepting its application, and expressed its commitment to mobilize all available resources and engage any bodies necessary to promote the use and application of EO in all sectors of government, from local to regional. The first step was to initiate a GEO group which is already active in AfriGEOSS. Land cover for Africa is a major interest.

Bulgaria (92nd Member) expressed its appreciation to Plenary, Switzerland and the GEO Secretariat for hosting, noting it was a privilege to be accepted and contribute to GEO's objectives. Bulgaria highlighted disasters, climate, agriculture, water and energy Societal Benefit Areas (SBAs) as most important, noting that it also wants to achieve sustainable development.

Seychelles (93rd Member) thanked the Secretariat for the opportunity to participate in Plenary and in GEO. Seychelles has many issues where data is not available and is trying to tackle this problem; issues include an upward trend in coastal erosion and its impact on the economy. It is very important that the country makes the best use of EO across multiple agencies, including the Met Office and Fisheries Authority in the Ministry of the Environment. Seychelles will contribute to the GEO process from the small island perspective, building capacities to pick up on various tools where sea level rise is concerned, focusing on regional projects where it hopes to synchronize with GEO's objectives and benefit from the expertise of the GEO community.

Armenia (94th Member) expressed its sincere thanks to the Secretariat for endorsing its application, citing GEO membership as a unique chance to widen and enhance applications in disaster risk reduction and other domains of GEO. Armenia wished a prosperous future for GEO and benefiting society with EO.

Poland (95th Member) stated it has introduced its first GEO tools to support environmental decisions, noting that EO and monitoring tools are important for geology, water, soils, etc. Sustained observations are important for environmental protection issues, while internet tools make project coordination easier at the national level. Geohazard issues are also important, and the GEO community creates the opportunity to address national issues, enter into projects and test policies on a national level.

1.6 Evaluation of New Participating Organizations (Plenary Document 3) (for decision)

Secretariat Director noted the document has been revised following the 32nd Session of the Executive Committee, and can now be viewed online. All applicants listed in the Table have been recommended

by the Executive Committee; the rationale is included in the table. UCAR was accepted as an Observer at the GEO-X Plenary and has requested to change its status to PO.

Action: Participating Organizations listed in the Table of Document 3 were Accepted.

Chair explained further that, as GEO is in the process of moving into its second phase and a new Implementation Plan is being developed, the Executive Committee has recommended that a moratorium on new Participating Organizations be put in place. The specific recommendation follows:

The Committee agreed to recommend to Plenary that a moratorium on new PO applications be put in place following action on the current slate of PO applicants, until the new Implementation Plan for 2016-2025 is acted upon.

United States amplified one point, noting that, in making its recommendation, the Executive Committee is not making a prediction that the Rules of Procedure will change. Rather, a moratorium is to give GEO time to review and make sure it proceeds cautiously on accepting new POs.

Chair proposed to accept this moratorium.

Outcome: The proposed moratorium on new Participating Organizations was Accepted. The GEO Co-Chairs will determine the best way to make this announcement and assess its implications.

Secretariat Director- clarified that there is no moratorium on applications for new Observers. GEO should ensure that new energy and initiatives are supported; institutions should still feel free to join through Observer status, with the possibility of becoming Participating Organizations at a later time.

1.7 Evaluation of New Observers (Plenary Document 4) (for decision)

Secretariat Director proposed that the application for the Pan American Institute for Geography and History be accepted. Accepting this application will significantly supplement the participation of regional organizations from this part of the world.

Chair cited no objections.

Outcome: New Observers listed in the Table of Document 4 were Accepted.

1.8 Approval of GEO-X Report (Plenary Document 5) (for approval)

Outcome: Document 5 was Approved.

2 THE 2016-2025 IMPLEMENTATION PLAN

2.1 Presentation by the Implementation Plan Working Group and GEO Strategic Plan 2016-2025: Implementing GEOSS (Plenary Document 6) (for consultation)

Joern Hoffmann, Germany presented the draft plan on behalf of the Implementation Plan Working Group (IPWG), beginning by reviewing the charges from various Plenaries and the Geneva Ministerial regarding the development of the next phase of GEOSS implementation. He explained the IPWG's decision to call the new plan a "Strategic Plan" base on the view that it serves as a communication tool to explain the objectives and activities of GEO, a "bridge" between foundational documents and the Work Programmes; and a vehicle to promote innovative approaches and fresh perspectives for the implementation of GEOSS. The Plan covers five major issues: core functions, governance, engagement with developing countries, engagement with the private sector, and resources for GEO and GEOSS through 2025. The Plan contains three action areas with strategic objectives – Advocate, Engage, Deliver – and new management mechanisms that would be based on specific decisions of GEO (Plenary and/or the Executive Committee). The GEO community provided the IPWG significant feedback in development of the strategic objectives. The management mechanisms are organized around Flagships, Initiatives, Community Activities, Cross-cutting Activities and Secretariat Activities

– which would all require varying degrees of reporting, as well as varying levels of support from the Secretariat. The IPWG made several recommendations for Plenary acceptance (title of “Strategic Plan”; Action Areas; exploration of an evolved set of Societal Benefit Areas; delegation by Plenary of decision-making power to subsidiary bodies within GEO; consensus set of Governance principles and elements in the Plan), and sought guidance on several topics (completeness of proposed principles and elements; differentiation of POs; giving decision-making power to POs; revising criteria for GEO participation; reviewing composition of Executive Committee; exploring changes in GEO’s legal status; and developing an indicative scale of contributions to the GEO Trust Fund).

Plenary expressed appreciation for the IPWG’s work; voiced support for the Work Programme approach and stressed the need for GEO to remain an intergovernmental body. Highlights of the discussion included: the need to continue to advance GEO’s contributions in the area of full and open access to data; consideration of the future types and roles of Participating Organizations, consideration of Executive Committee membership; GEO’s legal status; the need to clearly define for Ministers the ultimate goals for the GEOSS infrastructure and the steps and resources needed to get there; development of options for Ministers to consider and decide upon; making the final document appealing to Ministers and worthy of their engagement; clarifying management mechanisms; focusing more on the UN Post-2015 Sustainable Development Agenda (e.g., Sustainable Development Goals, Framework for Disaster Risk Reduction); and evolution of the SBAs.

Chair provided a preliminary summary of discussion focusing on the need to decide: who the document is for – Plenary or Ministers; what is GEO and what are its products; the purpose of revised SBAs – to organize the programme of work, areas where GEO has impact; the role of developing countries and the private sector; and how to address management and resource issues.

Discussion of the Document will resume on Day Two.

3 GEO ENGAGEMENT STRATEGY

European Commission on behalf of the Executive Committee presented a framework for engagement designed to solicit guidance from Plenary on GEO’s different stakeholder communities, their expected contributions to GEO, what GEO has to offer them, how GEO should prioritize its engagement efforts across stakeholder communities, and what are the different ways GEO should engage with the diverse communities.

Plenary discussed the importance of engaging with UN agencies and conventions; other international agendas, including the emerging Sustainable Development Goals; international development banks, such as the World Bank and Inter-American Development Bank; and international development agencies. GEO must make every effort to engage with these organizations and mechanisms at the highest levels to understand the nature of potential partnerships, and engage in projects accordingly. The challenge is to find a top down approach and an efficient way for GEO to engage with stakeholders, and the different strata they represent.

Chair proposed the next step is for the Executive Committee to further refine GEO’s engagement strategy with the private sector that could be brought to the next Plenary, building on the significant work of the Secretariat, including the Private Sector Think Tank.

4 DATA PRINCIPLES

4.1 Towards Data Management Principles (Plenary Document 7) (*for consultation*)

Alessandro Annoni, European Commission Joint Research Center presented the Document which reflected the work of the Task Force on Data Management Principles (TF-DMP). He stated the need to promote data management principles similar to the way data sharing principles have been promoted.

Key elements are Discoverability, Accessibility, Usability, Preservation and Curation of data. The Principles were proposed for consultation, citing implementation would occur in concert with IPWG actions. He also requested that Plenary extend the mandate of the Task Force to start drafting implementation guidelines for the principles.

Chair looked for comments from Plenary on the principles themselves, comments on operationalization and engagement with the IPWG and, ultimately, whether to extend the life of the Task Force.

Plenary appreciated the draft principles and the accomplishments of the Task Force in such a short period of time. Principles should be incorporated into GEO's next 10-year plan and consideration should be given to differing impacts of implementation on organizations of different sizes. The Task Force's mandate should be extended and it should work closely with the IPWG and continue to coordinate all activities with the Data Sharing Working Group (DSWG).

Outcome: Data Management Principles Task Force is extended by one year, with direction to interface with the IPWG and DSWG, to continue to benchmark areas in which GEO has an interest and to develop Implementation Guidelines for GEOSS Data Management Principles.

4.2 Report on Data Sharing Principles Post-2015 and Mechanisms to Ensure Legal Interoperability of Shared Data (Plenary Document 8) (for consultation)

Michel Schouppe, European Commission presented the Document on behalf of the Data Sharing Working Group (DSWG), which includes GEOSS Data Sharing Principles Post-2015 and a revised version of the DSWG White Paper on Legal Mechanisms to Share Data as part of GEOSS Data-Core. He noted the rising trend of open data which is observable worldwide since GEO published in 2005 its Data Sharing Principles. The renewed GEO is an opportunity to strengthen GEO's role in promoting Earth observation data sharing on a free, full and open basis to anyone and for any purpose. DSWG recommends an "Innovative Approach" with revised Data Sharing Principles Post-2015 which will make the GEOSS Data-CORE the default standard of data sharing through GEOSS. In addition, this approach will also broaden the concept of "free of charge" beyond research and education purposes. The Legal Mechanisms paper looks in more detail at various legal issues relating to sharing and reusing GEOSS data. It provides a definition of "legal interoperability" and a list of standard licences/waivers for voluntary use by the GEO community. DSWG seeks advice from Plenary on (i) the proposed innovative wording (version 1) of the new Data Sharing Principles for introduction in the new GEOSS 10 Year Implementation Plan, and (ii) on its recommended legal interoperability mechanisms.

Plenary supports the Innovative Approach for the revision of the GEOSS Data Sharing Principles, and supports recommendations and conclusions for standard mechanisms to share data through GEOSS Data-CORE. The final formulation of the principle should be integrated into the next 10-Year Implementation Plan currently being developed under IPWG leadership, with the implications of the revision carefully considered. Additional issues raised by Plenary participants include: the importance of attribution and open metadata, and the usefulness of establishing national monitoring and reporting structure by the each GEO government regarding the openness of its EO data.

Chair noted that the Plenary agreed to accept the Innovative Approach to Data Sharing Principles and supported the recommendation on Legal Interoperability Guidelines.

5 GEOSS IMPLEMENTATION

5.1 Assessment of Progress -- Targets and Tasks (Plenary Document 9) (for approval)

Rick Lawford, Canada presented the Document, noting that it represents the work of over 1000 experts who participate in GEO activities. Highlights included the following: Water moved from

yellow to green, thanks in part to Water Strategy Report and European Commission projects; Health: still have unfinished Task Sheets. Overall, there is a need to make sure there GEO has an internal structure that is coherent from Target Outcomes (so called “Demonstrated by” bullets; see GEO-VI Doc12 Rev1) to Targets; and that everything works as a linked system.

Chair noted that there are many lessons to be learned from this assessment: even though we have Strategic Targets, GEO needs to improve on how they are formulated; alignment needs to be corrected. Are we able to accept this as a fair assessment of progress? What should we be doing to accelerate achievement of Targets?

Plenary agreed the Assessment is a very important document; it is important that recommendations be tracked by the Implementation Boards or by Executive Committee, otherwise the report is only a paper exercise. Key issues include ensuring that Tasks are geared toward making sure GEOSS data can be used; should GEO establish standards for archiving and the application of data, and interoperability, at both national and regional levels; services need to be provided to user organizations; user engagement needs more attention.

Lawford noted that many projects have been acquiring data or ensuring access through the GEOSS Common Infrastructure (GCI) development; and that it is more difficult to make sure data are to a minimum standard and readily accessible. GEO needs to have a strategy to address the declining support for *in situ* monitoring. GEO provides services to other organizations (e.g., FAO, UN Sustainable Development Goals; Convention on Biodiversity). Regarding user engagement, the bar is different for each of the Tasks. The Executive Committee is perhaps the best place where the level of expectations can be managed.

Outcome: Document 9 was Approved.

5.2 Monitoring and Evaluation

- Fifth Evaluation of GEOSS Implementation (Weather, Water, Climate) and Executive Committee Response (Plenary Document 10) (*for approval*)

John Adamec, U.S. National Science Foundation stated key messages from the Fifth Evaluation include: the evaluation process is better because of improvements in Board reporting; current strategic targets are deeply ambiguous and should be specific, measurable, and firmly achievable, and should be organized around users and societal sectors, rather than data provider communities; there is a need to consistently and clearly articulate the unique role and mission of GEO vis a vis other international organizations; there is an opportunity for GEO to advocate *in situ* observation networks; and challenges exist in securing appropriate forms and levels of support over the necessary time frames to achieve desired outcomes. He also reviewed the Evaluation recommendations and the Executive Committee’s responses.

- Progress on the Sixth (final) Evaluation of GEOSS Implementation

John Adamec, U.S. National Science Foundation reviewed progress on the 6th Evaluation which will cover the first 10-Year Implementation period, build on prior evaluations; and hopefully generate forward-looking recommendations applicable to the next Implementation Plan. He requested the GEO community actively participate in the Evaluation.

- Progress in the Implementation of Recommendations of GEOSS Evaluations (Plenary Document 11) (*for approval*)

John Adamec, U.S. National Science Foundation presented the Document, noting that of 46 recommendations contained in Evaluations 1-4, 29 had been completed; for 16, progress was satisfactory; and 1 response has been deferred. There were no unsatisfactory or incomplete responses. The 6th Evaluation Team will prepare an interim report for IPWG at the end of January 2015, and the IPWG has taken up many recommendations from previous reports.

Outcome: Documents 10 and 11 were Approved.

5.3 GEO 2012-2015 Work Plan Update and Highlights (Plenary Document 12) (for approval)

Alexia Massacand, GEO Secretariat noted four new Task components, one in Ocean (Carbon and Climate) and three in Biodiversity (Essential Biodiversity Variables, global wetland observing system, and BON in a Box), reviewed GEO accomplishments in 2014, noting that the GEOSS Common Infrastructure is now linked to 35 data providers, contains 14 million resources (2 million DataCORE) and more than 75 million single fields (50 million Data-Core). Societal Benefit Area highlights include: GEOGLAM continues to produce monthly crop condition maps (maize, rice, soybeans and wheat) for the Agriculture Market Information Service (AMIS), and its role has been re-affirmed by the G20 Agriculture Ministers; GEO BON continues to support the Convention on Biodiversity, engaging in five projects to develop Essential Biodiversity Variables and develop a Marine Biodiversity Observation Network; Global Carbon Budget continues to take on increased importance; efforts are underway to develop an integrated Global Greenhouse Gas Information System. Climate Change detection and adaption is focusing on coupling atmospheric, ocean and land systems; Copernicus Climate Services are beginning to be established; Cold Regions is building momentum to coalesce partners and portals and to make the GEOSS Portal a key gateway to cold region data. In Disasters, CEOS is leading pilots in floods, volcanoes and earthquakes; Supersites are growing with seven sites across the globe. Ecosystem activities include further advances in GEO-GNOME, including the development of a portal for mountain change data and model outputs to help predict climate change impacts. The Energy community is focusing attention on renewable energy, especially in solar energy and wind; the Global Energy Atlas is being expanded into the geothermal and marine domains; the GEO Energy team is trying to put together a GEOSS professorship in Renewable Energy. GFOI Methods and Guidance tools are being tested in Ghana and are being considered by the UNFCCC and the IPCC; capacity building is expanding into more developing countries; CEOS continues to provide satellite data. In the Health domain, efforts continue to expand the Cholera Early Warning System and expand mapping capabilities to predict environmental conditions that are conducive to disease transmission. The GEO Secretariat needs a technical Expert in Health and encourages Members and Participating Organizations to consider providing a secondee. Urban activities are focusing on mapping global human settlements; several Members are joining forces (new working group) and making data available through GEOSS. Water is seeing a growing partnership between GEO, WHO, UNEP and UNHABITAT in water monitoring relating to the emerging Sustainable Development Goals. Oceans and Blue Planet is developing applications building on crowd-sourcing; focus is also on key coastal areas especially in capacity building; cross-Atlantic studies are increasing, building on the Galway Statement on Atlantic Ocean Cooperation (May 2013).

Jean-Christophe Desconnets, France presented the GEOCAB Portal for Capacity Building, noting it is designed to provide information that helps decision makers, policy makers, EO professionals and scientists to become more familiar with EO applications and opportunities; and to make this information freely accessible through a web resource facility. GEOCAB is attempting to provide organization across the capacity building domain. The GEO community is encouraged to contribute resources to the GEOCAB Portal, and the GEOCAB Portal team is encouraged to establish an interoperability agreement with the GCI.

Outcome: Document 12 was Approved.

5.4 Featured Initiatives

Secretariat Director stated the featured initiatives would focus on applications using GEOSS data, including the GEO Appathon 2014 winners, AIP-7 applications and the winner of the Copernicus Masters Best Service Challenge. She began the presentation by paying tribute to the late Doug Nebert who was one of the creators of the AIP program.

The **GEO Appathon 2014** was a great success with almost 250 participants from close to 50 countries across the globe. The top winners were:

- **1st Prize:** *Growers Nation App* - provides useful information on the plants that can be best grown according to the specific soil and climate data at a precise location. The App is aimed primarily for smallholder farmers in developing countries and will allow them to view a wealth of information allowing a crop diversity plan to be placed into action. Furthermore, a simple social networking system can allow users to discuss specific plant types and any related and pertinent issues.

Developers: Lead by Tobias Sturn in association with International Institute for Applied Systems Analysis (IIASA), University of Maryland (UMD) and the UK Met Office.

- **2nd Prize:** *Weather Hazard* -- serves to inform the public about weather and associated hazard conditions in El Salvador, in particular, landslides and flood conditions triggered during the rainy season.

Developer: David Eliseo Martínez Castellanos based in El Salvador.

- **3rd Prize:** *Geofairy* -- provides localized information on weather, vegetation, elevation, soil moisture, land cover, atmosphere and precipitation, information that is often difficult to acquire in developing countries. Geofairy could guide people in developing countries to make plans and take actions to prevent environmental degradation.

Developers: A team led by Liping Di from the CSISS Center at George Mason University.

More information is available at www.geoappathon.org

Bart De Lathouwer, Open Geospatial Consortium presented the results of the Architecture Implementation Pilot – Phase 7 (AIP-7) which included 24 projects representing 80 plus organizations (including the private sector and Small and Medium-Sized Enterprises) focused on developing GEOSS-based applications in multiple domains. AIP 7 was also dedicated to the memory of Doug Nebert.

AIP-7 results included applications in: GEOSS Water Services – 48 hour flood prediction; Environment, using social media and citizen science; Health and Biodiversity using an Open GeoSocial API and *in situ* citizen science observations; Oceans – Plankton App and Ocean Observations App which featured a reversal of the computing paradigm by “uploading the process to the data”; and Energy - preliminary screening of sites of interest for solar and wind developments in the ECOWAS region. A call for proposals for AIP-8 will be available in January 2015; the focus will be on developing more apps using cross-SBA approaches.

Rudolf Strohmeier, European Commission Co-Chair introduced the winner of the Copernicus Masters Best Service Challenge Award sponsored by GEO. Dr Charalampos (Haris) Kontoes, representing a team from the National Observatory of Athens (NOA), Greece presented the application *FireHub - A Space-Based Fire Management Hub*. The application is delivered through the BEYOND project, at the Greek National Observatory and is a real-time fire detection and monitoring application that provides 15 minute updates on a 0.5 x 0.5 km grid. The app also includes a fire smoke dispersion forecasting tool. The system is fully compliant with Copernicus and is transferable across Europe. More information is available at www.ocean.space.noa.gr/FireHub

Chair noted how interesting and rewarding it is to see downstream applications from data provided through GEOSS, providing information to decision-makers.

Adjourned at 18:00.

14 November 2014

Convened at 9:00 am.

Ezio Bussoletti, Italy and Stephen Briggs, European Space Agency provided an update on the status of Rosetta – Philae Mission which took ten years to complete; the first time a human probe has been landed on an object from outside the solar system; Mission has great potential to help understand the relations between organic and inorganic matter.

6 IMPLEMENTATION PLAN WORKING GROUP SUMMARY OF PLENARY CONCLUSIONS FROM DAY ONE

Danielle Lacasse, Canada thanked the Plenary for the excellent input the previous day; the IPWG was impressed with the quality and caliber of the comments, which were very thoughtful, insightful and helpful. She stated that the purpose of this session was to validate the messages received from Plenary, agree that the IPWG characterized those inputs properly, and ensure agreement on the path forward.

The high level messages from Plenary included: the IPWG's current approach was a firm basis upon which to build the Plan; it is important to adapt the document(s) to audience(s); certain aspects of the document needs to be reinforced, including making it more visionary and aspirational; better describe the unique value of GEO; GEOSS should be more visible and better defined; expectations of and from Members should be better defined; and the role of Communities of Practice (CoPs) and the private sector should be more evident.

Regarding the scope of GEO's activities: Plenary agreed with the scope of activities (Advocate/ Engage/ Deliver), the strategic objectives, and the core functions; the scope of each area should be refined (what is in? and what is out?); the key functions and deliverables of GEOSS should be clearly defined in order to garner financial resources and political buy-in; Plenary noted the need to revise the SBAs to make them more impact-oriented and better integrated with each other; and the Plan should take into account the current and emerging Millennium/Sustainable Development Goals users, and existing CoPs.

Management issues identified include: Plenary broadly accepted the proposed management mechanisms and noted the alignment with the current structure; the "management mechanisms" would be better expressed as "implementation mechanisms"; the Plan needs to avoid a burdensome reporting structure and must ensure that the management mechanisms facilitate rather than hinder cooperative activity; Plenary supports a stronger role for the Secretariat, and broadly accepted the Work Programme concept.

Feedback from Plenary on Governance issues included: general agreement with governance principles and elements, which IPWG will continue to refine; acceptance of the basic organizational structure (Plenary, Executive Committee, subsidiary bodies) but expressed caution over formal delegation of decision-making authority, agreeing it could be considered provided there are specific limits, including Plenary oversight and clear mandates for the subsidiary bodies. Regarding Participating Organizations, Plenary indicated: general agreement to strengthen PO opportunities to contribute to, and influence, GEO governance and direction, but that GEO should remain an intergovernmental body (i.e., no decision power for POs at Plenary or in the Executive Committee); IPWG should consider having PO observers in the Executive Committee and allowing them a stronger role at the implementation level; and IPWG should explore options for different categories of POs and related criteria for these categories. In relation to the Executive Committee, Plenary: agreed to explore options for the composition of the Executive Committee and mechanisms for nominations, and options for rotation of Co-Chairs; Executive Committee membership can increase, however there should be a size limit. There was also comment on not having a quota for developing countries, Regarding GEO's legal status and Secretariat structure, Plenary: agreed on the need to explore options for obtaining legal

status, including an assessment of benefits, risks and costs, and that GEO should seek expert advice on this issue; agreed the GEO Secretariat should remain centralised, although regional presence could be explored for specific initiatives.

On the issue of resourcing GEO, Plenary reaffirmed its commitment to the voluntary nature of contributions, but directed the IPWG to cautiously develop options for an indicative scale of contributions; options would need to be tested with Members prior to GEO-XII.

The IPWG recognizes there is a significant amount of work ahead before the GEO-XII Plenary and Ministerial Summit: establish priorities; develop a Plan that meaningfully engages Ministers to make decisions; continue to engage with other Working Groups to ensure consistency; coordinate with the Ministerial Working Group, M&E Working Group (6th evaluation), Data Management Principles Task Force and Data Sharing Working Group; and actively solicit feedback on key issues from the Executive Committee and Plenary.

Chair indicated his intent to not re-open the discussion, but asked Plenary for any modifications to the IPWG's analysis.

Plenary discussion included comments on: the importance of GEO's legal status and whether there is a quicker way to identify options; whether GEO should consider making formal requests for contributions; whether the IPWG should produce several documents – one for Ministers that is more at a political level and focuses on GEO's added value, the other more inspirational and visionary; how to make the Plan more focused on how GEO operates and its relationship to the outside world; the need to make the engagement strategy more strategic, including a much stronger set of suggestions as to how GEO works internally, and how it relates to the outside world, including what steps are needed and how they will be implemented; and the need for the Executive Committee to provide thoughtful and substantive input to the IPWG moving forward.

Plenary generally supported the approach of the IPWG in developing the Strategic Plan. Members and POs were invited to provide written comments on the emerging Plan before the IPWG meeting in mid-December.

7 AFRIGE OSS IMPLEMENTATION PLAN (PLENARY DOCUMENT 13) (FOR CONSULTATION)

Chair introduced the topic by noting specific challenges in Africa and reinforced the need for an initiative like AfriGEOSS.

Andiswa Mlisa, GEO Secretariat presented the Document, reminded Plenary of AfriGEOSS' mission and expected results; outlined GEO's current membership from Africa and presented the outline of the AfriGEOSS Implementation Plan. The Plan is comprised of a framework for coordination, key activity areas and the management arrangement, including the Steering Committee and Coordination Team; activities are currently overseen by an internal Working Group comprised of selected Members, POs, with additional contributions from other organizations. A formal Steering Committee is being established. AfriGEOSS' focus is on: identifying user needs and coordinating the development and demonstration of applications that meet those needs; supporting Africa in achieving open and affordable access to EO data; coordination and collaboration to strengthen national and regional capacity-building networks; providing the necessary framework for African countries and organizations and international partners to access and leverage on-going local and international bilateral and multilateral EO-based initiatives across Africa; raising awareness and continuously engaging all stakeholders, using existing networks and specific measures, such as the AfriGEOSS website, exhibitions, promotion material, side events, and periodic GEOSS-in-Africa Conferences.

Plenary: expressed overwhelming support for AfriGEOSS and the Implementation Plan, citing the need for better coordination– AfriGEOSS provides a clear and single point of entry for African activities through which various actors can engage. Various Members and POs noted their specific

contributions to AfriGEOSS; Plenary offered to help develop strong linkages between AfriGEOSS and existing and emerging EO initiatives in Africa;

8 FORMAL STATEMENTS BY MEMBERS AND PARTICIPATING ORGANISATIONS (CONTRIBUTIONS TO GEOSS, FINANCIAL CONTRIBUTIONS TO TRUST FUND AND KEY ANNOUNCEMENTS)

Statements by Members, Participating Organizations and Observers are available at (<http://www.earthobservations.org/documents.php>).

9 REPORT OF THE EXECUTIVE COMMITTEE (PLENARY DOCUMENT 14) (FOR APPROVAL)

Kathryn Sullivan, United States Co-Chair presented the Document, summarizing key actions taken by the Executive Committee since the last Plenary, including establishing a Budget Working Group, overseeing GEOSS Implementation (Data Sharing/Data Management/GCI), Monitoring and Evaluation (especially issues that are recurring), reappointment of the Secretariat Director; Framework for Engagement; Principles of Governance and Oversight, with a particular focus on the role of the Secretariat vis a vis the Executive Committee; and engagement with IPWG. The Executive Committee also put a sharper focus on the need for the community to engage in a select group of issues: thinking cleverly about GEO's key purposes, points of distinction – why is there a GEO? What is it doing that is missing from activities of other groups? What are the most important and valuable things that GEO does? Membership and participation – igniting our core – increasing the number of Member Countries and Participating Organizations that are active in GEO – what are the factors that keep our Members engaged? ExCom also examined the respective roles of Plenary, the Executive Committee and the Secretariat – the need for clearer alignment, mutual understanding of roles and relationships to increase GEO's efficiency in the years ahead. Re-thinking SBAs – exploring more integrative methods focused on interdisciplinary relationships (e.g., water-energy-food nexus); nexus points could be a way to tie work more powerfully to issues in which Ministers are engaged. Also, need to understand GEO in a compelling and purpose-oriented way – requires several levels of thinking about what and why GEO does what it does, what its purpose and impact can be. Sullivan requested Plenary to: 1) endorse the notion that IPWG can work under more liberal guidelines specifically requesting that IPWG shares thinking (drafts, questions) earlier in order to learn Plenary's thinking; and 2) when we get materials – review them in the spirit that it is not a perfect document. These documents need to be given the necessary time for ideas to mature; and reviewed in the spirit of collaborating together, putting creativity into action to achieve the quality we need.

Plenary: agreed it is important for GEO to look outward; endorsed giving IPWG more latitude, more license to raise questions with Members; IPWG should be clear exactly what Members are being asked to do; Plenary should provide clear guidance, provide feedback quickly, making sure its responses are useful.

Outcome: Document 14 was Approved.

10 FINANCIAL DOCUMENTS

10.1 2013 Financial Statements and Report of the External Auditor (Plenary Document 15) (for approval)

Luckson Ngwira, World Meteorological Organization presented the Document, noting that GEO has received an Unqualified Audit Opinion, which continues to be a significant accomplishment. The overall financial status is sound. The Total assets have increased by CHF 0.4 m from CHF 2.9 m at 31

Dec. 2012 (which included cash of CHF 2.6 m) to CHF 3.3 m (including cash of CHF 3.1 m). The total liabilities have decreased by CHF 0.3 m from CHF 0.9 m at 31 Dec 2012 to CHF 0.6 m (these liabilities are primarily for long-term employee benefits). As a result of the above changes in total assets and total liabilities, GEO's Trust Fund net assets increased by CHF 0.7 m during 2013, from CHF 2.0 m at 31 Dec 2012 to CHF 2.7 m. This represents the cash requirement for 10 months of operations. There was a surplus of CHF 0.4 m in 2013, compared to a deficit of CHF 0.2 m in 2012, noting the 2.0 m carry over was maintained. The revenue of CHF 4.7 m in 2013 had increased from CHF 4.5 m in 2012. The 2013 expenditure was CHF 4.3 m, compared to CHF 4.8 m in 2012. The expenditure was well within budget of CHF 5.9 m. As in previous years, he again cited the difficulty aligning expenditures with actual income because of the unpredictable timing and amount of contributions. The Audit concluded it would be helpful if this could be rectified.

Ngwira again reinforced that: it is difficult to work with pledges that come in late and at different times of the year; his unit enjoys working with the GEO Secretariat; GEO is fully compliant with WMO rules; and, in summary, they are happy to have GEO as a customer.

Outcome: Document 15 was Approved.

10.2 Interim Report on Income and Expenditure (Plenary Document 16) (for information)

Patricia Geddes, GEO Secretariat, presented this report. She noted that the report also included a re-forecast of the expected expenditure taking into consideration a more accurate evaluation of the status of pledges and remittances to the Trust Fund. The re-forecasting process undertaken in March, June and September would constitute the milestones for the Budget Working Group in the future. As of 30 September the Trust Fund, including the GFOI initiative, was showing a deficit of CHF 1.2 million due to the late arrival of several of the largest pledges. The Secretariat is currently working with the donors to expedite the arrival of these pledges in the Trust Fund before year-end.

Secretariat Director noted that GEO is a voluntary organization that relies on voluntary pledges. When those pledges do not arrive in a timely manner, or at all, which is of considerable concern this year, it makes planning, budgeting and reporting very difficult. Unfilled pledges this year may negatively affect the 2014 reports provided to Plenary next year.

Luckson Ngwira, WMO indicated that pledges are in the system and noted as income now; but regulations mandate that one cannot spend the funds until they have been deposited in the bank account. 2014 pledges can be received up to 31 December.

10.3 Presentation of Proposed 2015 Budget (Plenary Document 17) (for approval)

Secretariat Director provided an overview of the activities of the Budget Working Group, comprised of Australia, European Commission, South Africa (initially) and the United States. She expressed the hope that the additional work in this area will result in increased donor confidence and contributions.

Patricia Geddes, Secretariat presented the Proposed 2015 Budget, reviewing Table 1 expected income and Table 2 estimated expenditures.

Secretariat Director recognized the in-kind contributions (secondees) provided in 2014 by China, European Space Agency, France, Japan and South Africa; and noted the Germany-supported Junior Professional Officer (JPO) who joined the Secretariat in November 2014. In addition, she expressed great appreciation for offers of additional secondments expected in 2015, including, Germany (Agriculture), Greece (Regional Development and Communications), Switzerland (Water) and the United States (Biodiversity and Ecosystems).

Two best practices were noted -- Canada's commitment for five years, which provides greater stability and continuity, and Japan's accounting for currency fluctuations in advance of its contribution.

Chair expressed his appreciation to the Budget Working Group, noted the income report; commented that pledges that are made need to be realized, otherwise the budget that is being approved may not be

realized; expressed appreciation for the assurance that the money is being well-handled by the Secretariat, and appreciated the support of the WMO Finance Department.

Outcome: Document 17 was Approved.

11 UPDATES TO RULES OF PROCEDURE (PLENARY DOCUMENT 18) (FOR APPROVAL)

Secretariat Director presented the Document, noting the following proposed changes to the Rules of Procedure: change to Terms of Reference for the IPWG (page 17) and the Budget Working Group (page 20); guidance and application forms for POs and Observers – have tried to make the distinction clearer -- e.g. the Table on page 26 illustrates the different roles and responsibilities. An analysis was conducted on the Work Plan contributions, showing that the need to not only re-engage the base, but do a better job of capturing the coordination functions play by POs (e.g., CEOS for space agencies, WMO for the weather community, GCOS and WCRP for Climate, etc.). The Director expressed the need to take into account and acknowledge the entire ecosystem of organizations that comprise GEO. These organizations are more than their individual and specific contributions to the Work Plan.

The Moratorium on PO applications, but not Observer status, was also noted.

Outcome: Document 18 was Approved; changes, including the updated Terms of Reference for the data Management Principles Task Force (approved at this Plenary) will be incorporated into the Rules of Procedure effective immediately. The Moratorium on PO applications recommended by ExCom, but not Observer status, was accepted.

Addendum: Outcomes of Caucus Meetings

Secretariat Director thanked Argentina, Estonia and Gabon for their participation in the Executive Committee in 2014, and announced the composition of the Executive Committee for 2015:

- **Africa:** South Africa (Co-Chair), Egypt;
- **CIS:** Russian Federation;
- **Europe:** European Commission (Co-Chair), Germany and Italy;
- **Americas:** United States (Co-Chair), Colombia, México;
- **Asia:** China (Co-Chair), Australia, Japan, Korea.

12 MEMBERSHIP OF IMPLEMENTATION BOARDS (PLENARY DOCUMENT 19) (FOR APPROVAL)

Secretariat Director presented new membership of [Implementation Boards](#)

Chair stated that, in the future, it would be helpful to distinguish new people joining the Boards.

Outcome: Document 19 was Approved.

13 MINISTERIAL SUMMIT 2015 – ARRANGEMENTS FOR SUMMIT PREPARATION

Secretariat Director reported that 16 nominations have been received for the Ministerial Working Group (MWG); the first meeting is scheduled for 20 January 2015 in Geneva, Switzerland.

Chair stated his assumption that a few additional nominations could add value, and therefore, would be accepted.

Outcome: Establishment of the MWG, and its current membership, was accepted by Plenary.

Secretariat Director reported that conversations are ongoing with both the European Caucus and the Americas Caucus to identify a host for the Summit. The timing of the meeting is subject to the host's availability; it is hoped to have a time and date by the first meeting of the MWG. The Director reinforced Plenary's guidance that the final product of the IPWG needs to capture the attention of Ministers.

14 ANY OTHER BUSINESS

There was no other business.

Closing comments:

China expressed appreciation to Plenary for two days of productive meetings, noting the high quality presentations, documents and comments on the GEOSS development agenda; believe Plenary has focused on the most important issues of GEOSS, including development of the next Implementation Plan, Data Sharing and Data Management Principles activities, Work Plan update and AfriGEOSS; thanked Switzerland for helping to make the meeting possible, and the Secretariat staff for organizing the event.

European Commission echoed China's comments and applauded the Chair on his efficient management of the meeting; focused on the future, noting the productive format of holding the IPWG discussion over two days; strongly believes that GEO needs to look to how to increase outreach and impact for the Ministerial; what can we do to make Ministers interested in our endeavor.

United States added thanks to the Secretariat and Switzerland for such a successful meeting; stated the need to think in a visionary and creative way if we want to position GEO to be part of the global solutions for the many critical challenges facing our society around the globe; need to study issues beforehand and arrive with thoughtful interventions prepared and, once at Plenary, debate and discuss and explore options; need to sustain and build upon momentum by giving GEO the level of attention it truly needs; need to commit genuine intellectual energy and close attention to deliver both a vision and plan worthy of the challenge and opportunity before us; have heard so many needs from countries and people around the world for Earth observation information to build resilient societies, build sustainable growing economies and take care of the planet itself; to do that depends on the ability to monitor the Earth and bring that information into the decision-making process. The level of energy and effort we put into GEO is absolutely critical to answering the question of whether GEO can deliver on its potential.

Secretariat Director noted the high energy in the room for the IPWG and AfriGEOSS efforts; should adopt Germany's recommendation that initiatives such as GEOGLAM and GFOI be discussed at each Plenary; noted in Member Statements the themes that emerged, including the endorsements of France, Finland Netherlands, South Africa and the United States on further advances in open data sharing; thanked Switzerland for its for hospitality and continued support noting that Switzerland appeared to be the only country that made a financial pledge for 2015; and lastly, sincerely thanked the entire Secretariat staff for their hard work, dedication, and support.

Chair again expressed regret at not being able to hold the Plenary in Gabon and expressed appreciation to Gabon for preparations they made; noted that he also wrote a personal letter to the GEO Principal expressing appreciation; thanked Switzerland for helping us to continue the work; and also noted Germany's suggestions about raising certain features in future agendas. He thanked the Secretariat for its hard work and providing the structure for useful discussion and debate through thorough and timely document preparation; thanked the Executive Committee for its ability to have frank discussions, and still retain mutual respect; and most importantly thanked the Members of Plenary for all their contributions.

Meeting adjourned at 3:30 pm.

**Group on Earth Observations
Eleventh Plenary Session – GEO-XI
Geneva, Switzerland 13-14 November 2014 (WMO Building)**

Review of Meeting Outcomes

Chair: South Africa

Thursday, 13 November 2014

Convene at 09:00

1 Opening Sessions

1.1 Welcome

1.2 Opening Remarks

1.3 Administrative Announcements

1.4 Adoption of the Agenda (Plenary Document 1) *(for approval)*

Approved.

1.5 Recognition and Statements from New Members (Plenary Document 2) *(for information)*

1.6 Evaluation of New Participating Organizations (Plenary Document 3) *(for decision)*

Accepted.

Moratorium on new PO applications until after IPWG and 2015 Ministerial deliberations endorsed.

1.7 Evaluation of New Observers (Plenary Document 4) *(for decision)*

Accepted.

1.8 Approval of GEO-X Report (Plenary Document 5) *(for approval)*

Approved.

2 The 2016-2025 Implementation Plan

- 2.1 Presentation by the Implementation Plan Working Group and GEO Strategic Plan 2016-2025: Implementing GEOSS (Plenary Document 6) *(for consultation)*

Coffee at 10:30, Reconvene at 11:00

2 The 2016-2025 Implementation Plan (Continued)

- 2.2 Feedback by Delegations
- 2.3 Next Steps

12:30 Lunch, Reconvene at 14:00

3 GEO Engagement Strategy

4 Data Principles

- 4.1 Towards Data Management Principles (Plenary Document 7) *(for consultation)*

Data Management Task Force mandate extended by one year, to develop Implementation Guidelines for GEOSS Data Management Principles.

- 4.2 Report on Data Sharing Principles Post-2015 and Mechanisms to Ensure Legal Interoperability of Shared Data (Plenary Document 8) *(for consultation)*

- **Development of DSP Proposal Version 1 (Innovative Approach) supported;**
- **Recommendations on Legal Interoperability Guidelines supported.**

5 GEOSS Implementation

- 5.1 Assessment of Progress -- Targets and Tasks (Plenary Document 9) *(for approval)*

Approved.

Coffee at 15:30, Reconvene at 16:00

5 GEOSS Implementation (Continued)

5.2 Monitoring and Evaluation

- Fifth Evaluation of GEOSS Implementation (Weather, Water, Climate) and Executive Committee Response (Plenary Document 10) *(for approval)*;

Approved.

- Progress on the 6th (final) Evaluation of GEOSS Implementation and Evaluation;
- Progress in the Implementation of Recommendations of GEOSS Evaluations (Plenary Document 11) *(for approval)*.

Approved.

5.3 GEO 2012-2015 Work Plan Update and Highlights (Plenary Document 12) *(for approval)*

Approved.

5.4 Featured Initiatives

- Appathon;
- 7th Architecture Implementation Pilot (AIP 7);
- Copernicus Masters Award.

18:00 Caucus Meetings

19:00 Reception (Hosted by Switzerland)

Friday, 14 November 2014

Convene at 9:00

6 Implementation Plan Working Group Summary of Plenary Conclusions from Day One

7 AfriGEOSS Implementation Plan (Plenary Document 13) *(for consultation)*

Plenary welcomed the proposed coordination framework, it strongly supported the AfriGEOSS implementation.

Coffee at 10:30, Reconvene at 11:00

8 Formal Statements by Members and Participating Organisations

(Contributions to GEOSS, Financial Contributions to Trust Fund and Key Announcements)

12:30 Lunch, Reconvene at 14:00

9 2014 Report of the Executive Committee (Plenary Document 14) *(for approval)*

Approved.

10 Financial Reports

10.1 2013 Financial Statements and Report of the External Auditor (Plenary Document 15)
(for approval)

Approved.

10.2 Interim Report on Income and Expenditure (Plenary Document 16) *(for information)*

10.3 Presentation of Proposed 2015 Budget (Plenary Document 17) *(for approval)*

Approved.

11 Updates to Rules of Procedure (Plenary Document 18) *(for approval)*

Approved.

Coffee at 15:30, Reconvene at 16:00

12 Membership of Implementation Boards (Plenary Document 19) *(for approval)*

Approved.

13 Ministerial Summit 2015 – Arrangements for Summit Preparation

14 Any Other Business

17:00 Closure

**Draft List of Participants
GEO-XI
13-14 November 2014
Geneva, Switzerland**

MEMBERS

Armenia

Saghatelyan Armen
Asmaryan Shushanik

Australia

Barrell Susan
Minchin Stuart

Austria

Stowasser Rainer

Brazil

Misi André
Ferreira Hilcéa
Gomes Alessandra
Honjo Knodel Susan

Bulgaria

Yovev Valentin
Pashova Lyubka

Canada

Grimes David
Lacasse Danielle
Mills Laura
Ott Michael

China

Li Jiahong
Gong Peng
Li Congcong
Qi Cheng
Qin Haoyuan
Shi Ling
Tang Yan
Yu Le
Yue Huanyin
Zhang Xingying

Colombia

Cabrera Edersson
Quintana Juan José
Carretero Socha Carlos Alfredo
Pedraza Adriana

Costa Rica

Fallas Juan Carlos

Croatia

Cacic Ivan
Ivancan-Picek Branka

Czech Republic

Tolasz Radim

Egypt

Abou El-magd Islam
Ghareeb Ahmed Hoda
Nasr Mohamed

Estonia

Kutser Tiit
Talkop Reet

European Commission

Strohmeier Rudolf
Ollier Gilles
Annoni Alessandro
Appel Florian
Berger Michael
Beroud Florence
Gideon Hulda
Haeuser Chrisoph
Imala Vincent
Jacobs Tim
Koch Astrid
Mangin Antoine
Nardin Corinne
Pesaresi Martino
Rubio Iglesias Jose
Schoupe Michel
Shiel Jane
Tilche Andrea
Watson Kym

Finland

Strahlendorff Mikko
Juurola Eija
Kaukolehto Marjut

France

Marbouty Dominique
Pircher Vincent
Chevrel Stéphane
Desconnets Jean-Christophe
Hosford Steven
Leclerc Dominique
Ruellan Etienne
Sand Aurelie

Georgia

Megrelidze Irakli
Kanchaveli Tamari

Germany

Becker Paul
Dettmann Carsten
Grabs Wolfgang
Hoffmann Jörn
Staudenrausch Helmut

Ghana

Mensah Foster

Greece

Gerasopoulos Evangelos

Guinea

Bah Mamadou

Iceland

Snorrason Arni

Italy

Bussoletti Ezio
Biasini Maurizio
Bombelli Antonio
Candela Laura

Japan

Kinoshita Yoshiaki
Fukasawa Masao
Ishida Chu
Ishida Yoshiaki
Isogai Keisuke
Iwao Koki
Kato Mariko
Kawano Takeshi
Kawasaki Akiyuki
Koike Toshio
Matsuo Naoko
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Kim Youn-Gi
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Rakotondrahanta Claudia

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Soumano Mohamed
Thiam Diallo Aya
Sidibe Sidi Mohamed Youba

Mexico

Romero Victoria

Netherlands

Grim Ruud
Lantsheer Frank
Noort Mark

Niger

Wata Sama Issoufou

Norway

Nesje Øystein
Bye Bente
Eide Lars
Moldestad Dag Anders
Skrøvseth Per-Erik

Peru

Pacheco Linares Jorge

Poland

Hardej-januszek Agnieszka
Zdeb Weronika

Portugal

Caetano Mário

Russian Federation

Asmus Vasily
Andreeva Zoya
Konyakhin Aleksander
Kulichkov Sergey
Kushnyr Oksana
Mikhailov Valentin
Sapritsky Victor
Veselov Igor

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Dieye Amadou

Seychelles, Republic of

Prosper Justin

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Muofhe Mmboneni
Chirima George
Makapela Lulekwa
Malinga Sandile
Mudau Humbulani
Newby Terry
Walters Michele

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Diaz Paula
Maso Joan
Serral Ivette

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Nilsson Stefan
Boberg Göran

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Siegwart Karine
Stalder Michelle
Bérod Dominique
Giuliani Gregory
Heinimann Andreas
Ray Nicolas
Romero José
Schmocker-Fackel Petra
Wüest Alfred

Tajikistan

Olimov Suhrob

United Kingdom

Marsh Stuart

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Kimball Suzette
Ryker Sarah
Adamec John
Broun Caroline
Colohan Peter
DeLoatch Ivan
Druckenmiller Matthew
Eisenstadt Anita
Foley Gary
Garcia Hernan
Gevorgyan Yana
Giri Chandra
Johnson Noor
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Muchoney Douglas
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IHO

Frachon Bruno

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IISD

Lawford Richard

IOC

Fischer Albert

ITC

Van Der Meer Freek

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De Lathouwer Bart
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Chou Tien-Yin
De Salvo Paola
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POGO

Seeyave Sophie

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Telespazio France

Rigal Didier

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Kull Daniel

Togo

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