GROUP ON EARTH OBSERVATIONS

GEO-XI

13-14 November 2014

Progress in the Implementation of Recommendations of GEOSS Evaluations

Document 11(Rev1)

As approved at GEO-XI.

Progress in the Implementation of Recommendations of GEOSS Evaluations

1 INTRODUCTION

The GEO-IX Plenary in November 2012 accepted the proposal formulated by the Monitoring & Evaluation Working Group (M&E-WG) to establish a process to track the implementation of recommendations from subsequent evaluations.

The first report was issued for and accepted with a revision by GEO-X.

This report document contains an updated assessment and ratings of progress of the M&E-WG to reflect new information arising in the past year and the addition of recommendations from the 4th Evaluation accepted at GEO-X.

2 STRUCTURE OF THE ASSESSMENT REPORT AND ITS PREPARATION PROCESS

The report is structured as a table (see Appendix) containing the following fields:

A/B	C	D	E	F	G	H
Evaluation Report Reference	**Text of the Recommendation**	**Evaluation Team Comments**	**Management Response**	**Current Status**	**M&E WG Assessment**	**M&E WG Rating of the Response**
From the Final Evaluation Reports to Plenary				From the GEO Sec	Prepared by the M&E-WG	

The Rating of the Implementation Response, column H, is expected to contain one of the following, associated to a color coding:

- Response to recommendation deferred;
- Response completed;
- Implementation of response continues. Progress is satisfactory;
- Implementation of response continues. Progress is unsatisfactory;
- Status information incomplete.

2.1 Report preparation process

Once the first five columns are compiled from the relevant Plenary documents, the process identified by the M&E-WG includes ~~four~~ two steps:

- Compilation of the inputs and provision to the M&E-WG by the Group on Earth Observations (GEO) Secretariat;
- Preparation of the Assessments and Ratings by the M&E-WG.

~~In response to the guidance from the 28th Executive Committee meeting, these steps were repeated to enable additional updates and developments to be incorporated into the final report.~~

3 FINDINGS OF THE INTERIM ASSESSMENT

The breakdown of the assessment ratings was as follows:

1	Response to recommendation deferred.
29	Response completed.
16	Implementation of response continues. Progress is satisfactory.
0	Implementation of response continues. Progress is unsatisfactory.
0	Status information incomplete.
46	Total number of recommendations from Evaluations 1- 4.

The single recommendation that was deferred was to develop indicators for task performance (Recommendation 4.7). The M&E-WG supports this concept in principle but concludes that indicators are not appropriate for the current plan. Development of indicators may be feasible in post-2015 GEO depending on the adopted plan. However, it is impossible to develop indicators without post-2015 targets; thus, this item has been deferred for future reconsideration.

Since last year, the M&E-WG has reached the conclusion that most (29) of these recommendations can be considered complete. A few of the completed actions have carried over from last year. However, we have also assessed as completed those actions which directed GEO to consider various alternative approaches that have since been taken in to account through the Implementation Plan Working Group (IPWG) process. In some cases the specific outcomes of the recommendation may not be achieved because the deliberative process in GEO reaches an adverse decision. In other cases, recommended actions did not have a clear end-point. Where evidence of progress was presented, these are seen to represent a good-faith effort by GEO to satisfy the recommendation and the desired effect of elevating those topics has been achieved.

Less than half (16) of the recommendations are considered in need of continued implementation and all demonstrate satisfactory progress. These largely focus on issues of communication, user-engagement, and reporting. While all of these recommendations are relevant to IPWG processes, M&E feels that continued progress is possible in the final year of the current plan. Continued progress on these recommendations would complement and strengthen the outcomes of the IPWG process. These items could be considered complete at the end of 2015 with evidence of progress in the next year.

APPENDIX

Progress in the Implementation of Evaluation Recommendations

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
1	1	GEO should develop a long-term Strategy to ensure the sustainability of GEOSS beyond 2015.	One of the key priorities for GEOSS in the Cape Town Declaration was to ensure the sustainability of Earth observing capabilities. In order to be effective in this role, GEOSS itself must be sustained. The framework for GEOSS must enable the continued development and long-term operation of the Earth observation system of systems. As such, thought to GEOSS beyond 2015 should occur now. Consideration may be given to constraining the future scope of GEO Work Plan and focusing on the achievement of substantive outcomes.	The Executive Committee is of the view that Recommendations 1, 2, & 7 address related issues. Improving an understanding of the needs of user communities and focusing GEOSS on addressing identified gaps enables the development of a long term sustainability strategy and resource commitments. The issue of sustainability was raised through the Cape Town Ministerial Declaration in which it is stated that: "We commit to explore ways and means for the sustained operations of the shared architectural GEOSS components and related information infrastructure" This charge to GEO should now be broadened to look beyond a 2015 GEO and should also include a gap analysis. It is inconceivable that current investments in GEOSS in the form of funding, infrastructure, goodwill and in-kind contributions do not foresee GEOSS continuing and being maintained beyond 2015. It is for this reason that Ministers are expected at this Summit to put in motion a process that will pronounce on the future of GEO beyond 2015. In response to guidance from the Summit, the Executive Committee could, if appropriate, start to explore models in the 2011/2013 time-frame for consideration by the GEO plenary and for discussion at the 2013 GEO Ministerial Summit.	The Executive Committee has created an internal "post 2015 Working Group" in charge of drafting the discussion paper for the Plenary and for the Ministerial Summit(s) from now to 2015.	The need to ensure sustainability beyond 2015 has been fully recognized by the Geneva Summit Declaration: "11. Resolve to develop a specific and strengthened framework for sustained resource commitments, in support of the new Implementation Plan;" and proposals are being developed by the IPWG (Implementation Plan Working Group) as indicated in their report to GEO-XI.	The Geneva Declaration makes a commitment in line with this recommendation. The IPWG is currently developing strategy documents which will hopefully be accepted to ensure operations beyond 2015.	Implementation of Response Continues. Progress is satisfactory.
1	2	GEO must investigate alternative models for sustained resource commitments from Members and Participating Organizations which are necessary for current and future operations.	The evaluation found that both the voluntary nature of GEOSS and the inadequate and discontinuous funding are key factors that may ultimately limit the sustainability of GEOSS. In addition, it was found that a major problem with the sustainability of GEOSS appears to be the lack of sufficient resources, both financial and human. While much of the current progress to date can be attributed to the voluntary and non-binding nature of the GEOSS initiative, the evaluation found that leadership and commitment are needed to deliver GEOSS fully (including support to the Secretariat). As such, it may be time for GEO to investigate alternative models for sustained resource commitments to ensure a framework capable of providing effective incentives for translating "voluntary acceptance" into a priority "commitment to action."	Note the Executive Committee response for recommendation 1. The Executive Committee acknowledges that the current model has at times put the GEO Trust Fund budget under strain and has, as a result, investigated various options including introducing a minimum participation or fee of association, as well as a GDP related subscription fee. While there is still room for further investigation, it was noted that the voluntary nature of GEO has been one of its primary selling points. For example, the severe impacts of Earth Observation related disasters are mostly experienced by poor regions and whilst GEO continues to work towards facilitating and enhancing the membership of such countries within GEO, this process could be jeopardised if a "membership fee" were introduced for all GEO Members, including those from the poorer regions.	Partly addressed by the above action. New mechanisms for making available proper resources are being developed at Work Plan task level (see Task ID-05 on "Catalyzing Resources for GEOSS implementation"), as well as in starting to interface with the private sector. One aspect of this issue is more effectively communicating the value of GEO/GEOSS to current and potential Member governments The Secretariat will receive a comprehensive assessment of GEO's communications program later this Fall. The assessment will include recommendations on steps GEO could take to clarify and strengthen its message and value to the GEO community, including Member governments, and external stakeholders with the aim, in part, of increasing Member engagement with and commitments to GEO's future viability and sustainability.	See above. In addition the IPWG has identified, and GEO-XI Plenary is expected to discuss and endorse, specific mechanism to manage different types of GEO activities (here included definition and availability of the required resources)	Several GEO bodies have discussed alternative arrangements for adequate resourcing of GEO tasks. M&E expects that there will always be space for renewed discussion on this topic; however, the process of the IPWG has investigated various options, incorporating many inputs. Thus, the recommendation to investigate these options is fulfilled. It remains the role of the GEO membership to decide if any alternative mechanisms be put in place.	Response completed.
1	3	GEOSS implementation in the short-term should be guided by an explicit approach linking activities and outputs of the GEO Work Plan to measurable, achievable objectives and strategic targets. This can be accomplished through adopting a logic model and performance measurement strategy.	While it was found that the GEOSS Work Plan overarching tasks correspond to Strategic Target outcomes, without a recognized logic model, the current approach to building GEOSS is not transparent in how activities connect to Strategic Targets and the vision of GEOSS. Without a clearly defined and linked approach, it is difficult for participants at all levels to see how activities are contributing to progress of GEOSS implementation.	The strategic target document is already in place and provides the means to clearly link Work Plan tasks with strategic targets and outcomes. .. The strategic targets were developed after the current 2009-2011 work plan was adopted. As the 2012 – 2015 Work Plan evolves, linkages between work plan tasks and strategic targets will be made evident. Notwithstanding the voluntary nature of contributions to GEO, an effort must be made to align contributions to strategic targets, in particular identifying those that are required as a priority. The Executive Committee also notes that the M&E Working Group has made use of the strategic targets as benchmark in its assessment. The Executive Committee however, would not recommend that GEO align itself to a specific model and would rather not make reference to any, including the logic model.	The starting point for developing the new GEO Work Plan 2012-2015 has been for the redefined tasks to explicitly address strategic targets, so the link (and the identification of potential gaps) is clearly established. Implementation Boards are now in place to identify gaps and recommend recovery actions. However, some of the progress/ activities cannot be quantified other than to say they contribute to the target. It is still not clear at what point one considers the target met. This is relevant to targets that call for an*increase* in something.	The recommendation has been fully taken on board by the IPWG for implementation for the 2016-2025 period. (ref. section 4 of IPWG report to GEO-XI where specific targets are indicated)	Actions have been taken by GEOSec to improve alignment and measurement of progress in the Work Plan against strategic targets through improvements to the work plan reporting system. Further, this recommendation has been integrated into the IPWG planning process for post-2015 GEO.	Response completed.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
1	4	GEO should clarify its role as a supporting and enabling platform by facilitating and providing value through coordination among existing Earth observation systems and developing an information networks system.	The Evaluation Team discovered confusion about the role that GEO and GEOSS play in the Earth observations community. Comments from key informants, survey respondents, and even certain published literature reflect unfulfilled expectations rather than new unexpected developments arising because of GEOSS. The Evaluation Team believes that GEO would benefit from positioning itself as a supporting and enabling platform. GEO should work to facilitate the exchange of best practices and successful concepts between sectors of the Earth observation community in the anticipation that new partnerships will develop, rather than become a producer or broker of information.	The Executive Committee is of the view that the role of GEO has been clearly communicated through the 10-Year Implementation Plan, adopted by Governments and Participating Organisations, and various Ministerial declarations. Advances in international data sharing and initiatives such as GEOBON demonstrates how GEO continues to add value in coordinating existing EO systems. Nonetheless, it is also true that improving communication is always beneficial to GEO and still needs to be done to raise awareness of what GEO is and how it engages other organizations. To address latter concern, the Executive Committee will work with the Secretariat to continue to improve the communication strategy of GEO emphasizing that GEOSS will be a supporting and enabling platform for data and information.	On-going. Evolution of the Report to Plenary on the WP progress and GEOSS implementation go in this direction: Recommendation also being reflected in the presentation of GEO activities (Not clear for SBIB). Communication can build on the progress achieved by the GEO Global Initiatives (e.g. GFOI, GEOGLAM, GEO-BON, Blue Planet). The 2014 Ministerial Summit will also be an opportunity As referenced above (1.2), the Secretariat will receive a communications assessment this Fall. The new Senior External Relations Manager is tasked with developing a Communications Plan to address this and other challenges and will present a draft of the Plan to the Executive Committee in March 2014.	A GEO Communication strategy has been presented and discussed at the 31st Executive Committee meeting in July 2014. The strategy also considers the request from the Geneva Ministerial declaration to broaden the stakeholders base. Based on ExCo31 discussions the GEO secretariat has produced an updated document on Engagement strategy which will be discussed during the ExCo32 in Gabon. In addition the IPWG has clearly recognized the need better communicate and engage and has identified in "ADVOCATE" and "ENGAGE" two of the three areas of GEO action in the next decade (the third is DELIVER). Finally, the IPWG report to GEO-XI makes a clear distinction between GEO and GEOSS	Actions have been taken by GEOSec to improve communication surrounding GEO and GEOSS in the short term, such as developing a communication strategy. Further, this recommendation has been integrated into the IPWG planning process for post-2015 GEO.	Response completed.
1	5	GEO must improve its efforts in communication and outreach through: a) clarifying their purpose to the stakeholder community; b) enhancing clarity and traceability of GEO processes; c) providing evidence of value-added results through GEOSS, and; d) d) engaging a wider audience beyond those directly involved in GEOSS implementation.	Greater effort is needed to reach a common understanding about GEOSS. Survey respondents expressed that one facet of GEOSS implementation that can use much improvement is the marketing and awareness of GEOSS. They would like to see improved communication and information sharing with the wider policy and end-user communities, especially about the purpose and added value of GEOSS, and also to define what GEOSS' unique contribution is to the Earth observation community. Finally, better advertisement of successful tasks (i.e. data sharing, GEONETCast), with identifiable impacts, might stimulate activity in other areas and aid in gaining further buy-in from Members and Participating Organizations.	The Executive Committee concurs with the recommendation.	Communication plan is being prepared (see also action within ExCom) and a new External Relations Manager is now in charge, among others, of communication strategy and plans. IIB recommended giving more emphasis to GEOSS Data CORE, a unique feature of GEOSS which should be built upon to promote GEOSS, and measure outreach and added value through the monitoring the use of Data CORE by the community. Same as above. Also GEO initiative to involve/engage the private sector (incl. foundations, NGOs). The response above outlines the Secretariat's short term approach to these related issues. The Communications Plan referenced above will include preliminary metrics to assess the success of the Plan's implementation. in addition, the Secretariat recently began a Private Sector Outreach Initiative with a primary focus on identifying GEO's value-add (and effective messaging and communication mechanisms) to non-government organizations (industry, non-governmental organizations, international development banks and foundations). Further steps in the private sector area will occur in tandem with the development and implementation of the Communications Plan.	See 1.4 above	The actions taken by GEO in the short term as well as the continuing efforts of the IPWG to chart the future of GEO appear to be an improvement on all fronts. However, this recommendation does not specify an endpoint. M&E currently assesses the progress as satisfactory, with the expectation that as long as progress continues, this recommendation can be considered "complete" fo the 2015 ministerial.	Implementation of Response Continues. Progress is satisfactory.
1	6	GEO should act to improve its understanding, engagement, and responsiveness to the user community by: e) a) undertaking a detailed characterization of its current users in order to strengthen and expand the user base; and, f) b) increasing opportunities for dialogue with the user community to provide helpful feedback on a timely basis.	The evaluation found that there needs to be more effort to incorporate the user component, as key informants felt that there were inconsistencies between what the users need and what the architecture provides. The inclusion of users in GEOSS development is an extremely important factor for fostering stakeholder buy-in and long-term success.	Executive Committee fully concurs with the recommendation and believes that effective user engagement is key to ensuring long term sustainability. This particular issue is addressed through the strategic target 5 "Ensure critical user information needs for decision making are recognized and met through Earth observations." The user-interface committee (UIC) of GEO is taking the lead in driving user community engagement initiatives and the Executive Committee will, in executing its oversight responsibility ensure that the UIC delivers effectively on this mandate.	On going. Recommendation taken on board by the User Task team, the ID Board and in the consolidation of the URR (User Requirements Registry) as part of the GCI-GEOSS Common Infrastructure. SBIB is forging closer relationships with Conventions. The usability testings of the GEOSS Portal are good examples of user engagement. Communities of Practice also contribute to this effort.	see point 1.4 above. User engagement is fully recognized as a priority. A new GEOSS Portal has been launched in December 5th 2013 and it was successfully demonstrated in GEO-X. Following the event, on-going feedback to GEOSS Portal and also entire GCI components are being acquired through feedback forms.	Efforts related to both the GEOSS Portal and to the IPWG appear to be satisfying point b of this recommendation through more opportunities for users to engage with GEO on GEOSS development. The continued development of the GEOSS Portal and Architecture Implementation Pilots represent both broad and specific attempts to understand and improve user requirements.	Implementation of Response Continues. Progress is satisfactory.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
1	7	GEO should conduct comprehensive observational and structural gap analyses as anticipated in the 10-Year Implementation Plan and Strategic Targets document.	The identification of gaps in the implementation framework will enable the GEO community to effectively and strategically organize its activities to ensure that the set targets are achieved. There is a clear indication from respondents that a process to identify gaps in GEOSS implementation is not documented or widely known. The Evaluation Team believes there are clear benefits to be gained from a common approach to gap analysis of GEOSS.	Note the Executive Committee's response for recommendation 1. Executive Committee acknowledges the importance of gap analyses and coordinated addressing of targets. It does however caution that a comprehensive gap analyses is resource intensive and requires sufficient planning. During its 19th meeting, the Executive Committee therefore established Action 19.11 "The STC, the M&E WG, the Secretariat, and other interested members of the GEO Community to draft an initial outline of a process that can eventually lead to a coherent overall mechanism being put in place for required GEO/GEOSS gap analyses".	A systematic and periodic gap analysis was not recommended. Gap analysis will be run at task level and target level, the latter as a part of the Implementation Boards mandate.	The recommendation has been fully taken on board by the IPWG for implementation from 2016 onwards. Observational gaps definition process will be most probably developed. Management provisions identified for the different types of GEO activities are expected to take care off gaps in resources.	An alternate response was enacted for the current work plan period and demonstrated by the IB reports. Future gap analysis processes are incorporated into the IPWG proposal.	Response completed.
1	8	GEO should establish clear and consistent mechanisms for properly attributing contributions to eliminate the appearance of co-opting activities.	The evaluation found that there is a perception by key informants and survey respondents that GEO is co-opting achievements of contributors and giving limited or no acknowledgement or credit to Members and Participating Organizations. At this point in implementation, acknowledgement might be one of contributors' only immediate returns for integrating their systems into GEOSS.	The Executive Committee notes the importance of acknowledging the source of contributions to GEO and the GEOSS, including data providers IPR / copyright attributions. Hence, for example, the GEO is exploring within the framework of the Data Sharing Action Plan that will be presented to the 2010 Ministerial Summit, mechanisms to prevent possible infringements of a data provider's IPR / copyrights. The Executive Committee will also work with the Secretariat to provide visible public recognition to the organizations and entities making significant contributions to the advancement of GEOSS.	The GEO Work Plan Information Management System is making fully visible the contributions from Members and POs. Also the annual Work Plan (Task) Progress Report submitted to Plenary has for function to give credit to contributing Members and Organizations. Communication around this issue has also been improved (see Communication Strategy). An early priority of the Senior External Relations Manager is - to the extent feasible - to ensure that appropriate acknowledgement is provided to contributors to GEO activities, both in communications to the GEO community related to Work Plan activities as well as external communications (i.e., website articles, presentations, interviews). The above-referenced Communications Plan will identify the most appropriate mechanisms that can be employed to ensure this outcome. IIB recommended giving more emphasis to GEOSS Data CORE, a unique feature of GEOSS which should be built upon to promote GEOSS, and measure outreach and added value through the monitoring the use of Data CORE by the community. Significant efforts have been made by GCI team and Data Sharing Working Group and GEO Secretariat supporting GEO Members and Participating Organizations for their DataCORE resources (Beijing Pledged DataCORE) tagging, registering and making interoperability agreement with GCI Discovery and Access Broker. Currently more than 50Million DataCORE resources discoverable and potentially accessible through GCI (GEOSS Portal) which acknowledge each Member or Participating Organization contribution.	See point 1.4 above. In addition, the Geneva Summit has asked (and IPWG is taking care of) to clearly identify its role and links with global initiatives and international organizations having common areas of actions.	The available evidence suggests GEO is continuing to improve in this area. However, it remains to be seen whether GEO's actions are having an appreciable effect of perceptions. M&E finds the progress satisfactory and expects the findings of the 6th Evaluation will be helpful in determining if the response has been successful.	Implementation of Response Continues. Progress is satisfactory.
2	1	GEOSS activities must have clearly defined goals, with performance indicators and measurable tasks, aligned with the ADM Strategic Targets.	Progress of ADM towards the Strategic Targets outcomes is moderate. Important aspects such as "Completeness of Function", "Operational and Content Availability" and "Usability" are negatively evaluated. Survey results are more positive than interview results. Real use (test case and other evidence) shows negative evaluations and shortcomings in content availability and completeness of function.	ADC Response: A revision of all GEO Task documentation (annual action plans) that realize the 2012-2015 work plan should include elements that enable declaration and tracking of milestones and measures of success. Proposed tasks already are linked to their role in meeting the Strategic Targets. EXCOM remarks: The strategic target document was adopted at the GEO VI Plenary and provides the means to clearly link Work Plan tasks with the strategic targets and their outcomes.	Strategic Targets, Task descriptions and Priority Actions provide goals for GEOSS activities. Components sheets are now containing implementation details (e.g. expected achievements; output/activity descriptions with time of delivery . Boards are still working on Performance Indicators (PI) and are experiencing difficulties to define and consolidate them. The notion of PI has been somehow replaced by the analysis on assessing targets achievement (made by the Implementation Boards). In particular the Infrastructure IB is still working on PI, reviewing feasibility-wise those proposed by M&E WG and defining new ones. for the next assessment report.	The recommendation has been fully taken on board by the IPWG for implementation for the 2016-2025 period. (ref. section 4 of IPWG report to GEO-XI where specific targets are indicated)	This recommendation has been integrated into planning for post-2015. It remains the role of the GEO membership to accept and enact proposed changes.	Response completed.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
2	2	Formation of Provider-to-End-User projects with Performance Indicators and clearly defined goals.	Progress of ADM towards the Strategic Targets outcomes is moderate. Important aspects such as “Completeness of Function”, “Operational and Content Availability” and “Usability” are negatively evaluated. Survey results are more positive than interview results. Real use (test case and other evidence) shows negative evaluations and shortcomings in content availability and completeness of function.	ADC Response: The focus of topical or SBA Tasks in the future must include EO data publication and use, consistent with the interoperability goals of GEOSS, and engage the spectrum of participants from provider through to end-user, with an eye towards use outside the immediate scientific field. This is a broader issue for the joint committees to address where such publishing requirements for all science/data must be adopted and tracked. EXCOM remarks: Whilst EXCOM can broadly support this recommendation, EXCOM believes that GEO must limit the investments it makes in monitoring performance indicators. Such indicators and any associated evaluation process must be "lite".	Architecture Implementation Pilot (AIP) projects are going in this direction partially addressing the recommendation. In addition the GEO Work Plan tasks contain several other examples (disasters pilots, GFOI, GEOGLAM, …). AIP-6 will focus on different users categories. AIP-6 are focusing on supporting the Water, Disaster, Energy and Health communities in developing use case scenario based information systems. The challenge would be how to communicate to real user community in order to get their feedback and reflect to the GEOSS architecture.	AIP-7 in 2014 is focusing on the creation and deployment of several modern, light, Web or mobile applications (“apps”). Each app will be designed to address a specific user-driven problem such as "Flood and drought Monitoring, Food security and Energy management", "Environmental monitoring using Mobile Sensors", "Citizen Observatories", "Crowd Sourcing", "Wind and Solar Energy Potential Estimator" "Earth cover change detection" "Ocean observations and commercial fisheries" The GEO Appathon has been launched as a global App development competition open to any non-commercial individual, team or entity (students, scientists and developers) with a passion for unleashing the power of Earth Observations (EO) to allow us all to make smarter decisions.	The implementation of a contest mechanism addresses many of the WG's prior concerns on this recommendation. Notably, the contest requires direct communication with the user communities, setting specific evaluation criteria, and evaluation of actual projects against those criteria. It will be useful to see the outcomes of this contest in the future.	Implementation of Response Continues. Progress is satisfactory.
2	3	The Evaluation Team recommends that the usability issue be re-evaluated by a Human-Computer Interface (HCI) expert group, as the sole focus of that evaluation, a topic that was beyond the scope o skill set of this Evaluation Team. An HCI group would evaluate the GEOSS user interface through a set of usability and ergonomics factors, with recommendations that could range from simple tweaks to wholesale redesign.	The most telling indicator of the state of use of the GEOSS user interface was from the Test Case. As noted previously, the testers were unable to produce any result from the GEOSS, due to the complexity of the interface and the access mechanisms. The cause of the difficulty of use could range from the interface itself, the way the GCI returns the results, the way the holdings are managed and accessed, or otherwise. The Evaluation Team believes that prior usability tests may have been inadvertently biased by employing a control group that had extraordinary ability to use the system.	ADC Response: UIC-sponsored annual user usability tests have been conducted on the GCI interfaces and capabilities that have resulted in updates to the GCI. HCI expert consultation would be welcome on the emerging user interface that will be developed as a result of the Sprint-to-Plenary activities, evaluating the evolution of GEOSS capabilities. EXCOM remarks: Given the finite resources available to GEO Members, EXCOM would prefer that available efforts are directed to strengthening support of the tasks set out in the 2012-2015 Work Plan, rather than creating new expert groups.	No specific follow up per ExCom response. The routine users feedback available on the GEO Portal. Intensive efforts have been made to improve the GEOSS Portal and its data accessibility. GEOSS Portal human interface has been now significantly improved in more simplified and user friendly manner. Data accessibility has also been improved that 65 Million resources are discoverable and potentially accessible (15 Million when at GEO-IX). Launch of the new GEOSS Portal is planning at beginning of December with the new GEO website.		Completed as of GEO-X, no update required.	Response completed.
2	4	The Evaluation Team recommends that GEO undertake a pilot project to (1) implement a geospatial browser in the GCI that is capable of rendering thematic layers from GEO data holdings, (2) standardize a subset of GEO data holdings accessible through the geospatial browser, (3) develop a way ahead so the majority of GEO data holdings are accessible in this manner.	Numerous responses in interviews indicated that the GEO data sets are virtually inaccessible, and certainly not at an aggregated top level. The test case also pointed to the difficulty of retrieving data to answer specific questions. The GCI registry consists of pointers to external data sources, and the data in those external data sources can vary widely, with no consistent means of storage or access. There are not any machine-machine services that would permit the user to mine the underlying distributed data repositories. Although the Clearinghouse contains metadata records that are mined from the repositories, again the user cannot get to the final data other than by enacting multiple brute force searches against the end storage areas. What is missing is the capability to access a geographic area (e.g., a rectangle) and retrieve all parameter (along with their coordinates) therein. This type of function is commonly provided in geospatial information systems (such as GIS or Google Earth), albeit on a smaller scale.	ADC Response: The focus of the Sprint-to-Plenary effort is to streamline access to EO data. The user interface will include the capabilities of finding data based on a common EO vocabulary of observable properties, reaching into inventories of EO data, a geospatial browser to rendering select data resources, and identifying suitable helper applications to exploit EO data. This provides access to the majority of GEO data holdings that conform to data service practices and standards identified in the GEOSS documentation. These capabilities will be demonstrated in the 2011 Plenary and Exhibition. EXCOM remarks: EXCOM takes note that the issues identified during the 2011 evaluation are being addressed within the scope of the "Sprint to Plenary".	Addressed by the sprint to Plenary 2011. Building on it, new functionalities have been included in the GCI. The overall situation (which includes the specific recommendations) is being re-assessed in the frame of the sprint to Summit 2013. The function of a geospatial browser called by the recommendation is initially implemented within the "map viewer" in the Portal. It allows to get some different data layers. This was part of a Step 1 which is completed. Further implementation is part of an on-going Step 2. Step 3 still under evaluation, including alternative options to provide similar functionality. Intensive efforts have been made to improve the GEOSS Portal and its data accessibility. GEOSS Portal human interface has been now significantly improved in more simplified and user friendly manner. Step1 has been demonstrated using several data types during the 29th Executive Committee meeting. Step2 would be more work needed as this type of request may vary. For Step3, Data accessibility has also been improved that 65 Million resources are discoverable and potentially accessible (15 Million when at GEO-IX). Launch of the new GEOSS Portal is planning at beginning of December with the new GEO website.	A new GEOSS Portal has been launched in December 5th 2013 and it was successfully demonstrated in GEO-X. Following the event, on going feedback to GEOSS Portal and also entire GCI components are being acquired through the feedback form of GCI. The feedback will be discussed among GCI component providers on how to improve further not only for human-computer interface factor but also to discuss the GCI evolution towards post 2015. In particular Step 1 and 2, various communities are willing to develop their own services and make them available through their own Portal. Therefore, a Guidance paper on GEOSS Community Portal is being developed for GEOSS users/providers to follow on how to use the GCI. Also, it is continuous increasing the number of accessible resources and now 70 Million resources are discoverable and potentially accessible.	All of these recommendations appear to be realized in the current GEOSS Portal; although the relationship of GEO to the data will likely always limit the potential for fully standardizing the data.	Response completed.

Progress in the Implementation of Evaluation Recommendations

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2	5	A Systems Engineering Working Group should be established to revisit the efforts to date and map them to a defined Systems Engineering process, resulting in a plan of action for GEOSS implementation.	Numerous findings indicated that, although a working GCI was in place, there was not a clear plan to identify and fill gaps, nor was there a high expectation that the adequate architecture would be implemented by 2015. Although there was also significant documented resistance to the overly prescriptive processes of GEO, there still remains an unfilled need to document and follow an unambiguous systems engineering process. Systems Engineering is inclusive of requirements elicitation and management, design, requirements traceability to system/subsystem elements, integration, deployment, and life cycle management.	ADC Response: The ADC has overseen the systems engineering activities for GEOSS, coordinating the implementation and outreach of subordinate activities: Architecture and Implementation Pilot, Sprint to Plenary, and GCI Coordination Team. The proposed work plan includes a design and coordination Task (IN-05) to continue this engineering work under the new Infrastructure area. EXCOM remarks: Given the finite resources available to GEO Members, EXCOM would prefer that available efforts are directed to strengthening support of the tasks set out in the 2012-2015 Work Plan, rather than creating new expert groups. EXCOM therefore takes note that it is currently proposed to address this issue through the task IN-05 in the 2012-2015 Work Plan.	No specific follow-up. System Engineering processes are anyhow in place for GCI development and operations and for AIP activities, including reporting, for the latter. IN-01 task have done several System Engineering processes as follows: (i) The European Environment Agency (EEA) developed a document on "recommended solutions" for provision of in-situ data to Copernicus in consultation between the European Union and international in-situ providers on access conditions and approaches to ensure full and open access to GMES/Copernicus data, and finalizing a catalogue of in-situ needs for Copernicus services (land, atmosphere, marine, emergency). An inventory of in-situ issues identified in European GEO projects was also completed and this marks the end of the current phase of in-situ coordination at EEA. (ii) CEOS continued improving data access and interoperability of its Virtual Constellations (VCs) . CEOS has placed a renewed emphasis on the VC outputs to focus priorities and optimize outcomes. CEOS Visualization Environment (COVE; http://www.ceos-cove.org/) tool is being developed to support developing countries with data access and education of space-based observing systems. (iii) New combined CGMS-CEOS Working Group on Climate was formulated in 2013. Focus on Essential Climate Variable (ECV) Inventory developed by CEOS, CGMS, and WMO includes 200+ data records. This data will be used to assess gaps in a sustained climate architecture. These groups have also continued efforts towards defining a Climate Monitoring Architecture for space-based observations.	Through the 2012-2015 Work Plan Process, on-going IN-01 task ensures both Space based and In-situ observational coordination through CEOS and Copernicus processes. CEOS has been coordinated through its Virtual Constellations on how multiple agency satellite programs can be cooperating towards observing certain variables. Copernicus has established its in-situ needs and recommended actions. IN-05 task also organized a GEOSS Architecture Workshop discussing the current GEOSS architecture and its beyond 2015.	Since the specific recommendation was declined by EXCOM, there is no required follow-up action. The tasks already responsible for this work, appear to be active.	Response completed.
2	6	The Evaluation Team recommends that current generation technology be targeted for utilization by the Systems Engineering Working Group. The Team also recommends that GEO issue a policy requiring that all software in the GCI be made Open Source and available to GEO member organizations.	Although the Evaluation Team was not able to analyze design documents, the interviews produced anecdotal evidence that the GCI is using technology which lags by at least a partial generation. Specific examples of technology that is current, but not employed by the GCI are the semantic web and data brokering. Also, as far as the Evaluation Team was able to discern, current generation implementation techniques such as Open Source Software and Agile Programming were not used. The Team believes that if current generation methodologies were used it could improve the likelihood of attaining an implementation that keeps pace with user requirements.	ADC Response: Standards-based services and interfaces have been deployed within the GCI. Current generation technology and standards are being deployed in the GCI and by providers in direct result of the 201 Sprint to Plenary effort. This includes Web 2.0 and 3.0 (semantic) capabilities, rapid application development (RAD), enabling 'mash-ups', and support of open search query APIs. All GCI software has been made available as open source. EXCOM remarks: EXCOM notes the statement from the ADC that standards-based services and interfaces are already used in the GCI. EXCOM acknowledges that the challenge of transitioning to new technologies will remain an ongoing action for GEO, even after the GEO-VIII Plenary. This will require continued work, which should be addressed through a proper structuring of the necessary tasks in the 2012-2015 Work Plan, including designing the process for the evolution of the GCI architecture.	An updated GEO Portal, utilizing an improved GEO Data Access Broker (DAB) which incorporates semantic search technology is now in operational release. These new capabilities were demonstrated at the GEO-X Plenary and side events and included examples of efforts to document and train even novice users in making use of this infrastructure via free and open access materials.	Various communities are willing to develop their own services and make them available through their own Portal. Therefore, a Guidance paper on GEOSS Community Portal is being developed for GEOSS users/providers to follow on how to use the GCI including guidance of developing Open Source components. Data Management practices are also being discussed and finalized by an ad-hoc Working Group (reporting at GEO-XI Plenary)	There appears to be continued progress in this area with respect to continued development of the GEOSS Portal and an infrastructure that is adaptable to the various GEO communities' needs. The finalization of the Data Management report would conclude an adequate response to the recommendation to endorse Open Source components even if that guidance did not fully reflect the recommendation.	Implementation of Response Continues. Progress is satisfactory.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
2	7	Data retrieval, and the catalogue of archive data with metadata, should be improved to meet user requirements and needs.	Test Case.		Addressed by the sprint to Plenary 2011. Functionalities currently included in the GCI. Being re-assessed in the frame of the relevant task IN-03. Specifically addressed in AIP-6 and in the sprint to Summit 2013. Intensive efforts have been made to improve the GEOSS Portal and its data accessibility. GEOSS Portal human interface has been now significantly improved in more simplified and user friendly manner. Launch of the new GEOSS Portal is planning at beginning of December with the new GEO website. There are requests from several user communities that more specified or customized user services are needed on GCI services. Therefore, IN-05 task organized a task force to develop a "Community Portal" Guidance Document. Cold region, Energy and UNEP-Live are currently interested in and participating the community.	A new GEOSS Portal has been launched in December 5th 2013 and it was successfully demonstrated in GEO-X. Continuous improvements are being implemented along the lines of the recommendation Also, it is continuous increasing the number of accessible resources and now 70 Million resources are discoverable and potentially accessible.	The nature of this recommendation is somewhat vague. This issue may need to be revisited in future assessments of progress depending on the nature of GEO going forward in the post-2015 period. However, at this time, the re-launched portal appears to satisfy most of this recommendation within the limits of GEO acting as a broker rather than a warehouse or owner of data.	Response completed.
2	8	The gap analysis/filling, Target/Task match up software developed by Japan should be modified to meet the requirements.	The fifth outcome under Architecture: “Comprehensive gap analysis and gap filling, integrated across all Societal Benefit Areas, including issues pertaining to operational redundancy and succession planning (especially with respect to space missions) for systems and products” is not addressed. Target Task matching and interviewees indicated that this outcome from the GEOSS Strategic Targets is not directly addressed by any sub-task and indirectly by only three sub-tasks of the 29 tasks and sub-tasks This suggests that there is no concerted activity to do gap analysis and the ADM effort may be proceeding without clear direction.	ADC Response: Target/Task match-up from Japan has been applied to the existing ADC Tasks and will be applied to the new work plan as well. ADC recognizes the importance of gap analysis in the work plan. EXCOM remarks: EXCOM takes note of the ADC response, which shows that this recommendation is being addressed.	The Target/Task tool developed by Japan does not seem to be maintained any more. The Secretariat has developed the preliminary linkage between the outputs of the task components and the strategic targets (more specifically the "demonstrated by" statements associated with each target: This linkage is available online on the GEO website, together with a tool that allows the production of dedicated target-related reports.	No further developments to be expected. A new framework will be developed once the specific targets for the next decade will be defined and approved.	The linkages for the current plan are accessible through an interactive tool on the GEO website. This content will need to be renewed once a post-2015 plan is accepted and in place. The experience with the current plan, should facilitate a rapid development for post-2015.	Response completed.
2	9	Project proposals should identify gaps and the impact this will have on funding (as is seen with ESA/EU/GMES).	The fifth outcome under Architecture: “Comprehensive gap analysis and gap filling, integrated across all Societal Benefit Areas, including issues pertaining to operational redundancy and succession planning (especially with respect to space missions) for systems and products” is not addressed. Target Task matching and interviewees indicated that this outcome from the GEOSS Strategic Targets is not directly addressed by any sub-task and indirectly by only three sub-tasks of the 29 tasks and sub-tasks This suggests that there is no concerted activity to do gap analysis and the ADM effort may be proceeding without clear direction.	ADC Response: This recommendation requires some consideration. However, there are no project proposals, per se, in the context of the Architecture and Data domain. But offerings from contributors that could address this recommendation are under consideration. EXCOM remarks: EXCOM recognizes that gap analysis is important. However, the focus of gap analysis should be on the post-2015 GEO process.	See recommendation on gaps. An updated report on Critical EO priorities was issued in March 2012. [SBIB: This report was flawed and does not reflect the situation for Biodiversity accurately due to very rigid methodology of the report compilation process.] GEO Work Plan tasks IN-01 and IN-02 will run in 2013 an exercise together in contacting users in each SBA and identifying gaps in their required data sets. Under IN-01 task, the European Environment Agency (EEA) developed a document on “recommended solutions” for provision of in-situ data to Copernicus in consultation between the European Union and international in-situ providers on access conditions and approaches to ensure full and open access to GMES/Copernicus data, and finalizing a catalogue of in-situ needs for Copernicus services (land, atmosphere, marine, emergency). An inventory of in-situ issues identified in European GEO projects was also completed and this marks the end of the current phase of in-situ coordination at EEA.	See recommendation on gaps (1.7) A dedicated session on Requirements for Observations and Information was organized at the 2014 GEO Work Plan Symposium acknowledged the need for a more user-driven and better organized identification of requirements in GEO post-2015. The GCOS process and the response to its Implementation Plan from CEOS, as well as the IGOS-P approach, were highlighted as examples that could be built on.	Progress is being made among the tasks via the Work Plan Symposium. However, the issue of identifying and managing gaps will need to be revisited post-2015. Hopefully the IPWG plan will incorporate a process by which gaps are identified and activities are developed to fill them.	Implementation of Response Continues. Progress is satisfactory.
2	10	GEO implement a progress reporting system for all Tasks that measures progress against milestones, reports important issues and give confirmed or revised plans for further work. The Task Leads should be asked to grade their progress.	The moderate progress is substantively different from the ratings of the ADM tasks in the annual Work Plan Progress Reports. GEO appears to have no formal process by which progress against qualitative performance measures may be evaluated. The internal progress reporting appears at times to be more positive than what this evaluation has revealed. The progress of the overarching tasks seem to be moderate, however there is a difference of opinion between interviewees and survey respondents on	ADC Response: This is a valuable recommendation for all GEO Tasks and should be incorporated in the new 2012-2015 work plan documentation and the actual annual working documents (action plans) for each Task. EXCOM remarks: The Executive Committee concurs with the recommendation.	On-going, in the framework of the continuous improvement of WP Management System. and related Component Sheets (filled by Task component Points of Contact). A report generator and Target-Task linking tool(see also point 2.8 above) are also in place in support of GEOSS implementation monitoring and evaluation.	The IPWG has identified, and GEO-XI Plenary is expected to discuss and endorse, specific mechanism to manage different types of GEO activities (here included an appropriate reporting approach)	The IPWG plan appears to develop this concept in a positive direction. Implementation of an improved reporting mechanism will be dependent on adoption of that plan and subsequent implementation.	Implementation of Response Continues. Progress is satisfactory.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
2	11	GEO create a communications plan which clearly identifies GEOSS, its capabilities, and its data content.	The number of survey respondents who reported "don't know" or could not answer specific question about GEOSS. The difference in success reported by the test case and the Japanese use of the GEO Hazards super-site.	ADC Response: Improved communication is a necessary precondition to adoption. ADC supports this idea that seeks to collaborate with all entities of GEO to improve outreach and clarity on deploying a useful GEOSS infrastructure. EXCOM remarks: The Executive Committee concurs with the recommendation.	See response to above recommendations 1.4 and 1.5. The Communications Plan referenced above will be crafted, in large part, around the issues of how best to communicate the purpose, value and accomplishments (past, present, and anticipated) of GEOSS to both expert and non-expert audiences - with a primary focus on the implementation, innovation and implication of GEOSS content and capabilities	See updates on 1.4 and 1.5	GEO now has a communications strategy. Future evaluations would likely benefit from a greater understanding of who is targeted by the plan and how they are reached so that evaluations would have greater access to diverse informed opinions on GEOSS implementation.	Response completed.
2	12	Pay attention to the implementation of the GEOSS Data Sharing Action Plan.	The question "If you are a data provider, do you publish your datasets through GEOSS?" was answered negatively by a large majority of the respondents. The reasons given included "My system is not for public access", "I did not know I could do it", "Too political", "Difficulty in quality control", "My data is proprietary and under copyright" and "I do not know how to make my data set compliant". Approximately 20% said they do not publish their data because of commercial and intellectual property rights.	ADC Response: ADC-affiliated tasks have been supporting the recommendations of the Data Sharing Task Force. Critical tracking elements for data policies, access, and pricing have been introduced into the GCI to enable discovery of data resources such as GEOSS Data-CORE. Broader GEO awareness of data sharing principles and actions within the SBA Tasks is necessary to achieve a more open and accessible GEOSS. EXCOM remarks: EXCOM fully supports the GEOSS Data Sharing Action Plan, which was adopted at the GEO-VII Plenary. At its 21st meeting in March 2011, EXCOM instructed the current Data Sharing Task Force to make the implementation of the GEOSS Data-CORE its highest priority. EXCOM was pleased to note the progress reported by the Data Sharing Task Force on the GEOSS Data-CORE at its 22nd meeting.	High attention is being devoted to the issue. The Data Sharing Task Force has become a full Working Group to report to Plenary. Data CORE is under implementation (more than 1 million resources to date). The Data Sharing Working Group has made a significant progress to date. Four sub-groups have been established and made achievements as follows: (i) The GCI and DataCORE sub-group 50 million resources are now discoverable and potentially accessible. Co-working with AIP-6 in testing single sign on, user metrics and so on. (ii) The Legal Interoperability sub-group Developing a white paper with compiling a list of recommended open access licenses and waivers, as well as restricted licenses. (iii) The documentation and data quality sub-group Developed a GEOSS data quality guideline and published to the GEO website. (iv) The Capacity Building sub-group Being plan to provide support to GEO Members in enabling them to establish national coordinating mechanisms, develop flexible policy frameworks and to promote with data providers the benefits of full and open access to data. DSWG is also established a ad-hoc working group for a Post 2015 Data Sharing Strategy that when completed will be forwarded to the GEO Post 2015 Working Group for their consideration.	Following update from each four sub-groups of the Data Sharing Working Group (DSWG): (i) The GCI and DataCORE sub-group 70 million resources are now discoverable and potentially accessible. More than 50 million resources are Data CORE. Co-working with AIP-7 in testing single sign on, user metrics and so on. (ii) The Legal Interoperability sub-group Developing a white paper with compiling a list of recommended open access licenses and waivers, as well as restricted licenses. The paper will be reviewed by EXCOM. (iii) The documentation and data quality sub-group Developed a GEOSS data quality guideline and published to the GEO website. The sub-group co-work with newly formed Data Management Principles Task Force in order to leverage the document. (iv) The Capacity Building sub-group Being plan to provide support to GEO Members in enabling them to establish national coordinating mechanisms, develop flexible policy frameworks and to promote with data providers the benefits of full and open access to data. A survey form has being developed in order to distribute and collect information from members and participating organizations. DSWG has also completed to develop Post 2015 Data Sharing Principles and has forwarded to both EXCOM and IPWG for their consideration.	The Data Sharing Working Group appears to be engaging in a great deal of relevant activity which suggests they are paying close attention to the Data Sharing Action Plan. The increase in available resources will likely be a viable measure for the growth of Data CORE and the GEOSS Portal.	Response completed.
3	1	The large cooperative initiatives such as GEOBON and GEOGLAM should now be implemented with some urgency. Providing leadership on this should be a major responsibility of the co-chairs of the Societal Benefits Implementation Board.	Within all of the three SBAs the establishment of cooperative initiatives was mentioned as a major accomplishment. In particular, GEO-GLAM and JECAM are seen as important accomplishments. The gap analysis prepared for CBD by GEO BON and GEO BON's linking to Biodiversity Indicators, development of EBVs as well as communication with CEOS for GEO-GLAM all are mentioned as important accomplishments.	The Executive Committee welcomes the significant progress of both GEO BON and GEO GLAM and thanks GEO Members and Participating Organizations who have been contributing to their implementation for their efforts. However, we also recognize the importance of ensuring that continuing effort is devoted to delivering the other activities within the Ecosystems, Biodiversity and Agriculture SBAs. Under the new work plan management structure the Societal Benefits Implementation Boards are responsible for assessing progress of tasks and advising on the implementation. The Boards will collectively ensure that the GEO BON and GEO GLAM tasks have effective leadership and are already instigating relevant actions to this effect.	Building also on GFOI experiences and lessons learned, France is about to second personnel to the GEO Secretariat on GEOGLAM. GEO BON has great aspirations yet little funding. The group has decided to focus only on deliverables that are likely to be ready by 2015, i.e., those currently funded or with high probability of getting funds. Everything else is on the back-burner for the moment.	France has seconded an expert to coordinate the GEOGLAM initiative. The IPWG has identified, and GEO-XI Plenary is expected to discuss and endorse, specific mechanism to manage different types of GEO activities and these large global initiatives form the type of activities that are proposed to have the most "rigid" management scheme. The IPWG has also proposed to develop specific management guidelines.	Additional information on GEO Bon would be helpful in assessing success. The draft plan of the IPWG seems to endorse both greater leadership and higher priority for these initiatives that will also generate greater expectations. It will be important to manage these expectations and document outcomes such that measureable evidence of success can be easily obtained.	Implementation of Response Continues. Progress is satisfactory.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
3	2	The targets and outcomes should be revisited with a goal to establish more measurable and potentially achievable ones in a post 2015 GEO plan.	Outcomes achieved are regarded as of general nature, such as improved collaboration. The tasks EC-09-02a, EC-09-02b and EC-09-02e have had no reported activities and thus no progress. Progress in the Agriculture, Biodiversity and Ecosystems SBAs is mixed, with Agriculture being judged as having progressed slightly more than the other two. The Agriculture community believes data produced will be sufficient to meet user needs by 2015. This is also true for Ecosystem data on the local scale. However, there is significant skepticism that the Biodiversity data produced by 2015 will be of sufficient quality or will provide global coverage to meet user needs. GEO has established numerous ambitious targets and outcomes under the various SBAs, but responsibility and duty for ensuring achievement are unclear, with users as well as with task leads and participants.	The Executive Committee acknowledges the need to review the Strategic Targets and outcomes as part of planning for post 2015. In the interim, realistic milestones and deliverables are being included in the 2012-15 Work Plan and the Implementation Boards are charged with reporting on progress towards the current strategic targets. The GEO Monitoring and Evaluation Working Group is invited to work with the Boards on strengthening the reporting process and to participate in the development of measurable targets and outcomes for the post 2015 period.	This will be achieved in the post-2015 era. Plenary/Executive Committee has indicated that it did not wish to revisit Targets before 2015.	The recommendation has been fully taken on board by the IPWG for implementation for the 2016-2025 period. (ref. section 4 of IPWG report to GEO-XI where specific targets are indicated)	Specific targets have been proposed for the post-2015 period. It remains the role of the GEO membership to endorse these targets.	Response completed.
3	3	GEO should develop guidelines on how to take pilot projects and transition them to implementation, potentially drawing on the experience of national or global projects that have been successful.	Outcomes achieved are regarded as of general nature, such as improved collaboration. The tasks EC-09-02a, EC-09-02b and EC-09-02e have had no reported activities and thus no progress. Progress in the Agriculture, Biodiversity and Ecosystems SBAs is mixed, with Agriculture being judged as having progressed slightly more than the other two. The Agriculture community believes data produced will be sufficient to meet user needs by 2015. This is also true for Ecosystem data on the local scale. However, there is significant skepticism that the Biodiversity data produced by 2015 will be of sufficient quality or will provide global coverage to meet user needs. GEO has established numerous ambitious targets and outcomes under the various SBAs, but responsibility and duty for ensuring achievement are unclear, with users as well as with task leads and participants.	The Executive Committee agrees that successfully transitioning from pilot projects to full implementation is important and promotes the identification of best practices and sharing them with relevant tasks and projects. The SBIB have identified the GFOI and Global Land Cover as potential examples of best practice and will ensure that the lessons learned from these projects are applied to other GEO tasks, where appropriate.	The point is under discussion within the post 2015 WG, as part of GEO strategic direction (refer to recommendation 2 o the post 2015 WG). The GEO IX Plenary generally indicated the need for a more structured approach for definition and development of new "services"	see 3.1 above	Guidelines for this, building off experience in 2005-2015, is proposed for the 2016-2025 plan which will set appropriate expectations for different types of activities.	Response completed.
3	4	Tasks should be identified and implemented to remedy technical and structural gaps; or alternatively, outcomes should be changed if it is difficult to agree on definitions (e.g. desertification).	The lack of tasks addressing desertification was pointed out in the mid-term report (Key Finding 1 and Section 4.1.1). CEOS is given credit for facilitating data sharing, but there is a general perception that satellite data should be more accessible (Section 4.1.1. and Key Finding 24). In gap analysis much is left to task leads and co-chairs. This may lead to lack of communication with users and low engagement and commitment of those not directly involved in task leadership. (Key Finding 2).	Where technical and structural gaps are identified within a task the Task Coordinator, working with the Task Team and relevant Implementation Board, should develop a plan for addressing the gap in the first instance. If this requires a change in the strategic target outcomes (achieved through and demonstrated by), the issue will be discussed by the Executive Committee and options presented to the Plenary. The Executive Committee acknowledges that the linkages between the satellite community and the Biodiversity SBA could be improved and welcomes the organization of workshops by CEOS & GEO BON and the Wildlife Conservation Society and NASA to discuss how this can be achieved.	The ecosystem task is developing a new activity involving the United Nations Convention to Combat Desertification-UNCCD and USA about the definition and implementation o a GEO dry-land observation network, which will close the mentioned gap and will also provide key information to the Agriculture tasks. A new initiative is also being discussed with the United Nations Convention on Biodiversity-UNCBD, with the support of GEOBON, to improve availability of Biodiversity related observations (here included those from satellites) worldwide and for Regional and National use. The initiative was presented to the Executive Committee at its 26th meeting.	Additional initiatives have been identified and progressively developed which contribute to cover the gap identified by the recommendation. They are Blue Planet, a global coordinated effort on Oceans-related observations and user applications, AfriGEOSS, a strengthened coordination framework for GEO in Africa and an initiative addressing the Sustainable Development Goal (SDG) on water, in partnership with several UN organizations.	Efforts have been made to address gaps in the current work plan. The efforts of the IPWG are expected to obviate the need for further follow-up to this specific recommendation since the specific plan and outcomes are being revised. However, a process of gap identification and management needs to be part of GEO post-2015. If such a process is included in the accepted plan, this recommendation could be considered closed.	Implementation of Response Continues. Progress is satisfactory.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
3	5	Tasks and components should, unless they have already done so, a) clearly document their current and future requirements for satellite data, and b) strengthen their relationships with satellite data providers through organizations such as CEOS, to ensure sustainable access to data. A basis for the work will be the report from US-09- 01a on Critical Earth Observations Priorities (March 2012) and the work should be made in cooperation with task ID- 04 of the Work Plan 2012- 2015.	The lack of tasks addressing desertification was pointed out in the mid-term report (Key Finding 1 and Section 4.1.1). CEOS is given credit for facilitating data sharing, but there is a general perception that satellite data should be more accessible (Section 4.1.1. and Key Finding 24). In gap analysis much is left to task leads and co-chairs. This may lead to lack of communication with users and low engagement and commitment of those not directly involved in task leadership. (Key Finding 2).	The Executive Committee recognizes that satellite data is an essential component of the GEOSS and that it is important that satellite data are embedded in the task where appropriate. CEOS is leading the delivery of the space-based component of GEO, therefore we welcome the proposal that the Agriculture, Ecosystems and Biodiversity SBAs should develop closer links with CEOS. The Executive Committee agrees that it is important that the tasks identify their current and future satellite data requirements, however, it is essential that these are developed in consultation with the satellite community to ensure that the requirements are feasible and that all of the potential satellite contributions are included. We recognize the important contribution that CEOS, and its members, is already making to the GFOI, FCT and GEO GLAM initiatives; and recommend that CEOS is invited to work with the Agriculture, Biodiversity and Ecosystems Task Coordinators and Task Teams to further develop this collaboration.	CEOS has taken the relevant actions on GEOGLAM. CEOS and biodiversity CoP are also in discussion. See comment above on Task US-09-0.	A CEOS GEOGLAM AdHoc group has been set up and meets monthly via Telecon. The group is presently updating EO data requirements for GEOGLAM. The IPWG has identified the need for and will propose specific processes to document observational needs and user requirements.	The response of the secretariat indicates productive two-way interactions between CEOS and GEOGLAM for determining requirements. This is a positive development. Future work in this area is dependent on the details of the processes for post-2015 GEO.	Implementation of Response Continues. Progress is satisfactory.
3	6	Procedures or guidelines for gap identification should be developed and implemented that allow task leads to identify gaps and outline potential solutions. The evaluation team is aware that development of a Gap Analysis Strategy is underway. GEO is encouraged to pursue this in a way that does not unduly increase reporting burden on task leads.	The lack of tasks addressing desertification was pointed out in the mid-term report (Key Finding 1 and Section 4.1.1). CEOS is given credit for facilitating data sharing, but there is a general perception that satellite data should be more accessible (Section 4.1.1. and Key Finding 24). In gap analysis much is left to task leads and co-chairs. This may lead to lack of communication with users and low engagement and commitment of those not directly involved in task leadership. (Key Finding 2).	The Executive Committee agrees that GEO needs to be able to identify, and address, gaps in its activities, structures and capability. Gap analysis of the current work plan is being carried out by the Implementation Boards, who are charged with monitoring the progress of the tasks towards delivering the strategic targets. The evaluation process will also be critical in identification of gaps and making necessary recommendations to bridge them.	No specific follow up per ExCom response. Current mechanisms in place for gap analysis (at task level and by the Boards) are confirmed.	See recommendation on gaps (1.7)	This recommendation largely overlaps with recommendation 1.7 and the response listed there as completed.	Response completed.
3	7	GEO needs to review its process for managing changes in strategic targets and outcomes. If changes in direction are being driven by end user requirements, the document outlining strategic targets and outcomes need to tangibly reflect these changes for evaluation of progress to be effective.		The Executive Committee notes that the GEO Strategic Targets can already be amended subject to the agreement of Plenary. However, EXCOM believe that if any changes are to be made to the Strategic Targets document in the period through to 2015, then the focus should be on changes to the outcomes (achieved through and demonstrated by). Revisions to the Strategic Targets should be considered within the framework of the GEO Post-2015 discussions.	No mandate was given by GEO IX Plenary to review Strategic Targets.		Completed as of GEO-X, no update required.	Response completed.
3	8	There is a questionable need for an Ecosystem SBA. Activities currently conducted under Ecosystems would be better accomplished through cross-SBA tasks and components (such as the Marine and Forest activities under the 2012- 2015 Work Plan). GEO should examine what the role of regional ecosystem projects is within GEO Targets and Outcomes.	The role that regional activities play within GEO need to be better articulated. Regional systems can provide valuable data sets to fulfil global information requirements and GEO is stimulating regional initiatives, but the process for bringing these regional networks with globa activities, particularly within the Ecosystems SBA, needs to be better understood. (Key Findings 5, 6 and 7).	The process of determining the nature of GEO Post 2015 will consider viable options which could include the revisiting of SBAs. Plenary will provide direction in this regard.	GEO IX discussed options on how to structure GEO activities post 2015. On the SBA oriented structure, GEO IX generally indicated to "Maintain the current basic SBA structure while allowing for modifications, and explore linkages to sustainable development (Rio+20) framework themes". Revisiting SBAs will take into account M&EWG recommendations. The Ecosystem Task has now a coordinator, Institute of Atmospheric Sciences and Climate, National Research Council, Torino, Italy and has planned a roadmap for 2013 addressing strategic targets. The initiative on Cold Regions Observations is being launched; it will also contain observations related to ecosystems and biodiversity.	The IPWG, while confirming the need of the SBAs concept, is proposing an evolution of them as a primary tool for engaging communities; a review on the number and designation of SBAs is expected applying the criteria of having them user-focused.	This recommendation is taken into account in the IPWG process which is reviewing the designation of all SBAs.	Response completed.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
3	9	GEO should encourage leads of regional tasks to first align their activities with regional national strategic priorities and second with GEOSS outcomes, to ensure on-going support of their governments (e.g. through funding and high level representation at meetings), to give these activities a clearer mandate, and to accelerate implementation.	The role that regional activities play within GEO need to be better articulated. Regional systems can provide valuable data sets to fulfil global information requirements and GEO is stimulating regional initiatives, but the process for bringing these regional networks with globa activities, particularly within the Ecosystems SBA, needs to be better understood. (Key Findings 5, 6 and 7).	The Executive Committee agrees with the recommendation.	This process takes place, to a large extent, through the annual Work Plan Update in which governments and Leads both participate to highlight priorities		Completed as of GEO-X, no update required.	Response completed.
3	10	A reporting structure should be established that explicitly links activities and progress to GEO Targets and Outcomes and contains quantitative measure of progress. The Evaluation Team has been told that a reporting structure will be developed by the Boards under Work Plan 2012–2015. The Evaluation Team encourages the Boards and Secretariat to have the process completed by the end of 2012.	The interviewees give a less positive evaluation of progress than the Work Plan progress Report 2009 – 2011. This may be due to the interviews explicitly asking about progress against targets and outcomes, rather than about progress is general. (Key Finding 11)	The Executive Committee agrees that it is essential that GEO is able to determine if it is on track to achieve the strategic targets and is pleased to report that a methodology has been developed by the SBIB. The implementation will be in 2 phases, the first is a gaps analysis and will be presented at the GEO IX Plenary. Taking into account the feedback from Plenary, the SBIB will then develop measurable objectives and milestones by the end of 2013.	The Boards presented their reports at GEO IX. Follow up is on going.	See recommendation 2.10	A proposal for a new structure of activities and expectations with respect to progress towards target outcomes is part of the IPWG report for the post-2015 plan. It remains the role of the GEO membership to decide if any alternative mechanisms be put in place.	Response completed.
3	11	GEO should evaluate the role that it will play in achieving progress at a global scale through a voluntary network. If funding opportunities are not available, expectations on achievement must match the capacity to achieve the targets and outcomes of the SBAs.	Targets are perceived as ambitious given the limits of funding and the availability of dedicated staff. Limited capacity in developing countries an the inclusion of these countries across activities are seen as a major organizational challenge for many tasks. (Section 4.2.2 and Key Findings 15 and 16.)	The Executive Committee agrees that it is essential that GEO is able to monitor progress and that the goals set take account of the voluntary nature of GEO. The Implementation Boards are developing a methodology for measuring progress towards achieving the strategic targets. The Post 2015 Working Group could also provide scenarios for funding and resourcing of GEO. The Executive Committee will consider the outcomes of these activities and, if necessary, make recommendations to Plenary for amending the Strategic Targets outcomes (achieved through and demonstrated by).	No specific follow up per ExCom response. Post 2015 WG results, when available, will form the basis for a re-evaluation of targets.	The recommendation has been fully taken on Board by the IPWG for implementation for the 2016-2025 period. The reference is section 4 of IPWG report to GEO-XI where specific targets are indicated, and section 6 where different types of activities are proposed, each of them with specific features, encompassing the full management and implementation cycle.	The essence of this recommendation has been integrated into the post-2015 which explicitly attempts to match resources with expectations. It remains the role of the GEO membership to decide if such a system be put in place.	Response completed.
3	12	GEO should leverage more resources to enable participation from developing countries in these SBAs. Close cooperation between the SBAs and Tasks ID-02 and ID-05 of the Work Plan 2012-2015 should be encouraged.	Some respondents felt there is too much staff turnover, both within in the tasks and in the GEO management/support. (Key Finding 17)	Capacity building in developing countries is a priority for GEO, and the GEO community is making efforts to increase the level of engagement with developing countries, for example through initiatives such as AFRIGEOSS. The Executive Committee agrees that strong links between ID-02 (Developing Institutional and Individual Capacity) and ID-05 (Catalysing Resources for GEOSS Implementation) tasks and the Agriculture, Biodiversity and Ecosystems SBAs will help facilitate capacity building in these areas and we encourage the relevant Task Coordinators to explore how this can be achieved.	On-going. Task ID-05 is seeking to identify more resources for GEO activities (e.g. in connection with the Belmont Forum). Also EU-funded projects support this objective (e.g. project EOPOWER (Earth Observation for Economic Empowerment))	Early October 2014, the IMAAFS (Information for Meeting Africa's Agricultural Transformation and Food Security Goals) conference took place in Addis-Ababa (Ethiopia). A side-meeting has been set up to involve all projects working on agricultural monitoring in Africa. Inside GEO, a good link is established between the coordinators of the AfriGEOSS and GEOGLAM initiatives.	The coordination of AfriGEOSS and GEOGLAM appear to satisfy the intent of the recommendation to increase coordination and opportunities to leverage resources for the benefit of developing countries. It seems that this effort if successful could become a model for other SBAs and regions. M&E would not expect GEO to be able to advance on all possible opportunities simultaneously and does not believe that was the intent of this recommendation. Actions in the past few years appear to satisfy this item.	Response completed.
3	13	Activities within Agriculture, Biodiversity and Ecosystems tasks should leverage more creative mechanisms to engage users particularly in developing countries, such as citizen-science networks. These can be a cost effective way of engaging a broader audience.	The voluntary nature of GEO inhibits the participation, capacity and influence of developing countries on the process, which will likely have more limited national resources to devote to planning and priority setting. (Key Finding 18)	Providing users with the information they need to make informed decisions is the primary goal of GEO, therefore the Executive Committee encourages the development of novel approaches for engaging users, including, where appropriate, citizen-science networks. We note that there is already significant involvement of the user community in the Agriculture, Biodiversity and Ecosystem Communities o Practice, although further involvement of users is always welcome. The Building a User-Driven GEOSS (ID-04) task is responsible for advancing user-oriented perspectives and needs in GEOSS development, and the Executive Committee recommends that the Task Coordinators of the Agriculture, Biodiversity and Ecosystems tasks and the ID-04 Task Team are invited to work together to explore how to improve the engagement of users in the tasks.	The GEO Wiki website is already addressing some aspects of the recommendation. The Work Plan Symposium will provide the occasion to implement the Management response (different task teams to work together). GEO BON has linked with EarthWatch and HSBC to pilot a citizen science 'activity'. New activities started in 2013 to address the challenge of citizen-sensing integration into GEOSS (see GEO-X Task Progress Report on IN-04 GEOSS Worldwide Communication Network of Networks)	The Geneva Ministerial declaration has clearly recognized the need of strengthening the involvement of developing countries. The IPWG is going to develop proposal to put this into practice. The IPWG has also recognized the need for GEO to promote new ways to collect date and receive feedback, such as citizen observations	This recommendation appears to have been incorporated into the post-2015 plan. Further, actual demonstrated progress is evident in the 2014 GEO Appathon which is a leveraged public-engagement that encourages citizen science.	Response completed.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
3	14	Task and component sheets should clearly identify all stakeholders of the task e.g. end users, data providers, etc., and prioritized user requirements.	It is sometimes unclear who the users are but in general it is felt that stakeholders interests are well represented (Key Finding 20). The Agriculture and Biodiversity communities desire stronger interaction with national governments for use of data and output. (Key Finding 21) Information and data are generally made publicly available through websites. It is not clear to what extent the information reaches out to a broad user audience or is linked to GEO data portals or data standards. (Key Finding 22)	The Executive Committee agrees that the Task Component Sheets should clearly identify the relevant users and how their requirements are being addressed, and notes this information is requested in the template. The Component Points of Contact are charged with updating the Task Component Sheets and the Executive Committee encourages them to explicitly address user requirements in their reports.	Recommendation is applicable in principle to all SBA-related tasks. The mechanism to collect the recommended information is in place. The Secretariat will make explicit to the Component Points of Contact the request of specific information on user requirements.	The Secretariat has highlighted the problem as an input to the task sheets updating process. Some progress has been made. In particular the GEOGLAM initiative is delivering a monthly bulletin on global conditions of 4 major crops (wheat, maïze, rice and soya) which is published in the Agricultural Market Information System (AMIS) Market Monitor (www.amis-outlook.org). THE AMIS group comprises G20 plus Spain, plus seven major producing, consuming and exporting countries of commodities covered by AMIS. Its secretariat, led by FAO, comprises 10 international organizations (WFP, WB, WTO, OECD...)	The 5th evaluation continued to have concerns about the identification of users on the task component sheets. There is perhaps a more fundamental mis-match between what is reasonable to report and what is desired by those reading the reports. As the secretariat update suggests, a comprehensive listing of users may be impossible in the highly-networked web of organizations and individuals. Perhaps, it would be more helpful and less burdensome for tasks to identify a few specific individuals outside of the task who have agreed to be listed as interested representatives of the broader user community, like references on a job application. This would show that the task has carefully considered their user base and provide actionable information to evaluators.	Implementation of Response Continues. Progress is satisfactory.
3	15	GEO should examine mechanisms for capturing user feedback across the three evaluated SBAs to augment the involvement and participation of the general public. GEO may promote (encourage) citizen science networks, active online communities of citizen-scientists amateur or nonprofessional scientists, volunteers, students, tourists around the world to gather and share their sightings and observations related to these SBA, thus contributing directly to GEO projects. This mechanism may enhance sustainable and transparent public access to data.	It is sometimes unclear who the users are but in general it is felt that stakeholders interests are well represented (Key Finding 20). The Agriculture and Biodiversity communities desire stronger interaction with national governments for use of data and output. (Key Finding 21) Information and data are generally made publicly available through websites. It is not clear to what extent the information reaches out to a broad user audience or is linked to GEO data portals or data standards. (Key Finding 22)	The Executive Committee agrees that it is important that GEO captures feedback from its users and engages with all potential users, including the general public. The ID-04 (Building a User-Driven GEOSS) are developing mechanisms to engage users, and the Executive Committee recommends that this Task Team is invited to work with the Agriculture, Biodiversity and Ecosystems Task Teams and Communities of Practice to explore how citizen scientists can be engaged in these SBAs.	See 1.6. Also as mentioned under 3.13, new activities started in 2013 to address the challenge of citizen-sensing integration into GEOSS (see GEO-X Task Progress Report on IN-04 GEOSS Worldwide Communication Network of Networks). The activities started in 2013 with an aim to enhance the GEOSS Common Infrastructure (GCI) with new data sources and mobile access capabilities. An update of the initially planned activities in order to include citizen-sensing data as an important additional source of GEOSS data had been incorporated. Several individual initiatives as well as collaboration projects on that field are co-locating under the umbrella of IN-04 C1.	The Geneva Ministerial declaration has clearly recognized the need of strengthening the involvement of developing countries. The IPWG is going to develop proposal to put this into practice. The IPWG has also recognized the need for GEO to promote new ways to collect data and receive feedback, such as citizen observations	Developments in GEO during the past year and in the proposals of the IPWG provide evidence that these mechanisms are not only being examined, but acted on. The GEO appathon in particular is a direct demonstration of both engaging a new sort of user-participant and also developing tools to expand the user base and data collection.	Response completed.
3	16	GEO should sponsor more focused workshops that touch on issues that are common to clusters of SBAs to bring leaders of these communities to work on common goals.	Cooperation within tasks and components is an important success factor to achieve progress. It requires a common understanding of what is to be achieved and how to get there. While the former seems to be on the positive side, there were answers to the relevant question in the interview questionnaire that indicated that the latter was not always the case (Key Finding 19).	The Executive Committee agrees that many of the issues GEO is addressing are common to more than one task or SBA and that the relevant Task Teams need to work together to address these. We recognize that there are already good links between many tasks, but acknowledge that improvements can be made and are pleased to report that the Implementation Boards are already addressing this issue; for example, a list of potential SBA clusters have been developed and a workshop to bring together the Agriculture and Water tasks has been organized.	Steps in the recommended direction are taken in the context of GEO Work Plan Symposia, whose programs are typically organized around “global issues” addressed by different Tasks, thus bringing different Task teams together. Drought was also the focus of an Agriculture-Water Workshop in 2012. However cross-SBA workshops remain ad-hoc events.	As regards GEOGLAM, a recent contact has been established with the WMO / Commission of Agricultural Meteorology (CAgM) (Weather Task). Discussions are being held to see how CAgM could contribute improved seasonal to sub-seasonal forecasts to the GEOGLAM community. AfriGEOSS approach is clearly responding to the recommendation. Regional and subregional meetings have been held(Asia-Pacific, Southern African region) and are planned	M&E agrees with the approaches taken by GEO Tasks thus far which focus on interaction between major organizations and projects and regional to sub-regional coordination efforts as these seem the most likely to be able to mobilize sufficient resource commitments.	Implementation of Response Continues. Progress is satisfactory.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
3	17	GEO as a voluntary organization needs to better leverage its position as a consensus-builder among governments and international institutions to encourage their representatives to provide more support for participation in GEO activities, e.g. by supporting applications for third-party funding opportunities such as those made through the EU research programmes.	Distributed responsibility across multiple agencies within nations national governments for activities relevant to SBA targets, particularly within Biodiversity and Ecosystems, within national governments is a constraint to engaging these users in global monitoring. (Key Finding 26)	The Executive Committee agrees that GEO needs to utilize its position as a consensus-builder and facilitator to secure contributions to GEO activities. This consideration could also inform the work of the Post 2015 Working Group who may provide scenarios on how GEO can better utilize its voluntary framework to address the requirements of its Members and Participating Organizations, which in turn will help encourage contributions to GEO activities.	The point is under discussion within the post 2015 WG,	The Geneva Summit confirmed that "The resourcing mechanisms for the implementation of GEOSS through 2025 will continue to rely on voluntary contributions but highlighted also the need for a of more active membership and engagement, and, based on this voluntary contribution principle, for a specific and strengthened framework or mechanism for steady resource commitments to GEOSS, from both public and non-public sources, will be developed by 2016. This approach will be developed by the IPWG in order to define a framework that will enable GEO to sustain its activities through 2025	This recommendation has been integrated into planning for post-2015. It remains the role of the GEO membership to decide if any alternative mechanisms be put in place.	Response completed.
3	18	GEO should develop a simple fact sheet on how the organization operates to clarify this to incoming task leads and participants (a GEO '101'). This should make clear how the voluntary structure of GEO operates, and what the roles and responsibilities of the Secretariat, ExCom, Boards and Task leaders are.	Several interviews indicated unclarity uncertainty on how GEO works as a voluntary organization, particularly in relation to the responsibility for implementation of the ambitious targets and outcomes of the SBAs (Key Findings 14 and 27). This may lead to too high expectations of GEOSS and the GEO Secretariat (Key Finding 6).	The Executive Committee agrees that a GEO fact sheet would be helpful, and have asked the Secretariat to develop one.	This is addressed through ExCom26 Doc 5 "GEO Work Plan and Implementation Boards Issues" which clarifies the various Work Plan roles and responsibilities. Also the Work Plan Introduction provides insight in the voluntary nature of GEO.The Senior External Relations Manager will assist in the development of this information.	The IPWG report is partially addressing the recommendation	In addition to IPWG consideration, updates and redesign of the GEO website appear to provide the relevant information in a much more clear and directly accessible format than previously. Short introductory materials, such as could be shared with a novice colleague, would still be helpful.	Implementation of Response Continues. Progress is satisfactory.
4	1	Implement activities related to Landslides to the Disasters SBA Increasing the abilities to detect small forest fires, and fires in overcast conditions for the Disasters SBA Energy sources other than wind, solar and bio for the Energy SBA Prediction of potential hazards to energy infrastructure for the Energy SBA	The Disasters and Energy SBAs will not achieve their strategic targets unless new tasks/components are added.	The Executive Committee recommends that the Secretariat makes a quick assessment, together with relevant CoPs and task team on the suitability of implementing the recommendation two years before the end of the 2005-2015 period, in time to report to GEO-X The Executive Committee also recommends that this should be taken in full account when defining the GEO 2025 Implementation Plan	New Recommendation	Inclusion of these components was not proposed as a revision of the 2012-2015 GEO Workplan.	This recommendation was given due consideration and found infeasible for the current period. The relevance of this recommendation to future consideration is dependent on undetermined details of the post-2015 plan.	Response completed.
4	2	Complete task sheets for Components to clarify implementation.	Within the Health SBA a few Task Components are not described in task sheets.	The Executive Committee fully concurs with the recommendation and directs the Secretariat to work with Task Components lead to fill in the task sheets.	New Recommendation	The Secretariat has taken action and updated task sheets are now online	The M&E WG appreciates this action and supports the continued maintenance of existing reporting tools until any changes proposed by the IPWG are accepted and implemented.	Response completed.
4	3	a. The GEO Societal Benefits Implementation Board take stronger action to secure cross-task and cross-SBA interaction, cooperation, and utilization of data and information. This could be accomplished by putting the responsibility for coordination on individual members. b. The GEO Societal Benefits Implementation Board should implement the equivalent of GEOBON under existing international frameworks or agencies.	Cross-SBA cooperation is unsatisfactory and must be improved. Tasks and Components consist of activities initiated and funded by sources external to GEO. Coordination of tasks within the SBAs is hardly visible.	a. The Executive Committee fully concurs with the recommendation and recalls that it is full in line with the Implementation Boards terms of reference and that this is particularly critical for the Societal Benefits Implementation Board. The Board should be asked to identify means and ways to ensure this essential function and to report at the first Executive Committee after the GEO-X Plenary. b. The Executive Committee thinks that this recommendation should be for Members and PO's contributing to a certain initiative and asks them to take this into account for existing and new initiatives/tasks. The GEO Societal Benefits Implementation Board is asked to provide advice on best-suited existing framework for coordination of similar initiatives.	New Recommendation	The discussion on cross interactions has evolved during the year. In particular the three Boards have developed a concept of a Steering Advisory Board" (see response to ExCom action 31.10, to deal with cross-cutting, coordination aspects. The IPWG is also working on the overall Governance+Management picture and this aspect is well taken into account.	Discussions of the IPWG for post-2015 have taken these items into account and while not necessarily agreeing to implement them "as is" certainly reflect an agreement with the intent to increase within and between task coordination while expectations against available resources. The move by the boards to pilot a cross-board steering group, is also consistent with this goal.	Implementation of Response Continues. Progress is satisfactory.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
4	4	GEOSS should develop manuals on use of the next version of the GEO Portal, including examples of cases. Webinars and workshops could support the introduction of the updated GEO Portal.	Data must be made more accessible over the GEO Portal. Today it is difficult and time consuming to locate data and information. There is not a clear understanding of the difference between the GEO Portal and the GCI.	The Executive Committee fully concurs with the recommendation and recognizes the need of further efforts to improve the functionalities of the GEOSS Common Infrastructure (GCI), to provide a clear identity to the GEO Portal with respect to the GEO website and to provide a much bette and user friendly information on GCI use. The Executive Committee thinks that this recommendation is taken into account by the on-going GC revision (pending its results) and that the specific recommendation on manuals, ..etc. should be forwarded to the GCI team for their consideration	New Recommendation	A new GEOSS Portal has been launched in December 5th 2013 and it was successfully demonstrated in GEO-X. Following the event, on going feedback to GEOSS Portal and also entire GCI components are being acquired through the feedback form of GCI. The feedback will be discussed among GCI component providers on how to improve further not only for human-computer interface factor but also to discuss the GCI evolution towards post 2015. Tutorials and Manuals for data providers have been developed already and posted on the Standard and Interoperability Forum Wiki site. Tutorials and Manuals for users will be needed by GCI Providers and also ID tasks. Capacity Building Task (ID-02) has approached the GCI team to co-develop SBA specific user manuals for GEO Portal. The GEOSS Portal now has four video tutorials (click "VIDEO TUTORIALS" on www.geportal.org)	While user documentation will always need updating to match the growth and expansion of the GEOSS Portal and GCI, the rapid deployment of instructional material in the past year via both document and other media provides a strong foundation for enabling users to access GEOSS.	Response completed.
4	5	GEO/GEOSS should make stronger efforts to identify and involve active users in the Communities of Practice and organize more dedicated workshops in cooperation with user organizations and associations like the IEA and WHO. Task leaders should be more specific in describing users and use engagement in the task sheets and develop performance indicators that reflect user needs and value-creation to users.	Users response was too low to judge if they are sufficiently involved and their needs are taken properly care of. Participants and Users perceive that networking and synergy will be the main value-adding elements.	The Executive Committee notes that this critical issue is well addressed in the approach for the GEO post 2015, calling for strengthening and broadening the GEO (user) community. For the completion of the current phase, the Executive Committee recommends that the Secretariat to work with Task Components leadership to ensure user involvement and to describe it clearly and that the Institutions Implementation and the Societal Benefits Implementation Boards work together to identify and organize dedicated events to foster user engagement.	New Recommendation	The Secretariat has made use of different tools and various events to bring forward this message. Example are: meeting of the Blue Planet Steering Committee, use of the AfriGEOSS coordination mechanism to involve African users in different European calls for projects in various SBAs, inputs to the AIP-7 call (see also recommendation 2.2)	The reported activities demonstrate a commitment to achieving this recommendation. M&E notes that it would be helpful if user information were centrally compiled and made available across GEO activities via the Secretariat and, that continued user participation be documented to identify active users and measure success in recruitment and retention.	Implementation of Response Continues. Progress is satisfactory.
4	6	The planning of the final evaluation should start immediately. The Evaluation Team should be recruited as soon as possible and the possibilities to financially support the Team should be identified. The Team should include members from all continents. External competence will be needed	Although not a direct outcome of the evaluation of the Disasters, Energy and Health SBAs, these Recommendations are offered by the Evaluation Team.	The Executive Committee takes note of the recommendation and proposes that the M&E Working Group provides its assessment in time to activate an early start, if deemed necessary.	New Recommendation	The M&E WG requested nominations for ET6 members by April, 2014 in order to launch the final evaluation in May 2014. The Evaluation was actually kicked off in mid July, because we had to wait for a suitable number of nominated members (As of 29 May 2014, only 4 nominations were received). The evaluation Team is now composed by 7 members, representing three caucuses	The final evaluation was started earlier than previous evaluations. However, recruitment has proven difficult. The M&E WG has suggested that alternate evaluation approaches should be considered for post-2015 GEO that make more efficient use of the available resources.	Response completed.

Progress in the Implementation of Evaluation Recommendations

Eval #	Rec #	Recommendation	Evaluation Team Comments	Management Response	Status as of GEO-X	Updated Status	M&E WG Assessment	Rating of Implementation Change
4	7	Well in advance of the start of the final evaluation, the tasks should be presented with clear performance indicators that derive from the logic model. Task leaders should be told that part of the evaluation will be measuring the outcomes against these indicators.	Although not a direct outcome of the evaluation of the Disasters, Energy and Health SBAs, these Recommendations are offered by the Evaluation Team.	In response to a recommendation from the first evaluation, the Executive Committee "…. would not recommend that GEO align itself to a specific model and would rather not make reference to any, including the logic model." Since then the information contained in the task sheets has been greatly improved to contain outputs connected to timelines. Rather than go for indicators for the conclusion of the 2005-2015 period, the Executive Committee recommends to use the current approach to assess task progress. Nevertheless the Executive Committee proposes that the M&E Working Group identifies a few key indicators (up to five) to be used for the final evaluation and to be tracked throughout the evolution of GEOSS For post 2015, the Executive Committee recommends to take the recommendation fully into account.	New Recommendation	Per the ExCom response, no indicators have been adopted for the 2015 period. The M&E WG has continued to provide guidance to the ETs in the form of evaluation framework questions that represent critical measures of success.	Specific action on this recommendation was not supported. The indicator concept will be revisited in the future in light of the targets and goals established for 2016-2025 and any changes to GEO organization.	Response to recommendation deferred.
4	8	The post-2015 process should include revisiting the Strategic Targets and Outcomes with the aim to reduce the number of Strategic Targets and Outcomes, make them less ambiguous, more measurable, and potentially achievable.	Although not a direct outcome of the evaluation of the Disasters, Energy and Health SBAs, these Recommendations are offered by the Evaluation Team.	The Executive Committee fully concurs with the recommendation and will make sure that it will be taken into account when shaping GEO 2025, in particular for targets to be more focused and measurable.	New Recommendation	The M&E Working Group, among others in GEO, has brought this recommendation to the IPWG for consideration. The recommendation has been fully taken on board by the IPWG for implementation for the 2016-2025 period. (ref. section 4 of IPWG report to GEO-XI where specific targets are indicated)	The IPWG process has accepted and incorporated this recommendation in their proposals for the 2016-2025 period.	Response completed.