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Item 4 (a) of the provisional agenda*

Policy issues: state of the environment

UNEP-Live: status and prospects

Note by the Executive Director¹

Summary

The present note sets out the progress made to date on the development of UNEP-Live and the proposal for its continued development and use through the next medium-term strategy period, 2014-2017.

UNEP-Live is a web-based platform for promoting access to and the use of environmental information to keep the state of the environment under review. The prototype developed in the first phase and presented at the twelfth special session of the Governing Council/Global Ministerial Environment Forum has continued to be populated and improved. This note proposes further phases of development under the UNEP medium-term strategy 2014-2017, in line with directions established in the outcome document of the United Nations Conference on Sustainable Development, entitled "The future we want". Partnerships have and will continue to provide a crucial pathway for the delivery of environmental assessments and will become more important as the emphasis shifts towards developing national capacity for environmental assessment and reporting.

This note highlights the activities associated with UNEP-Live that are planned to empower countries to better assess and report on the state of their environment. These activities are undertaken in response to decisions GC-25/2 and GC-26/2, the latter of which calls for the presentation to the Governing Council of a detailed set of requirements and costing of resources needed for the development of a more elaborate version of the UNEP-Live platform.

* UNEP/GC.27/1.

¹ Issued without formal editing.

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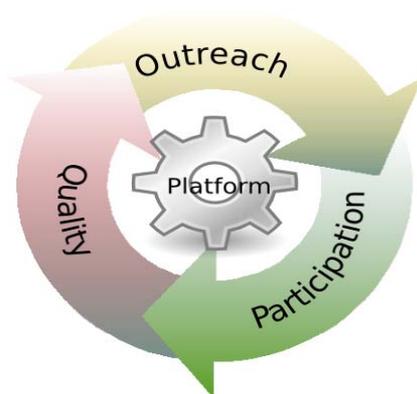
1. Phase I (2010-2013) – Proof-of-Concept Development: Status

1. The current rapid developments in information and communication technologies – especially their penetration in developing countries – provide opportunity for UNEP to re-evaluate the current assessment processes to determine how to yield additional benefits for Member States in terms of the completeness, accuracy and timeliness of assessment findings, how to re-use and re-purpose assessment data and information, how to streamline assessment processes, and how to increase the impact of key assessment finding in policy contexts. The UNEP-Live platform will be a vehicle for providing those benefits.

2. The global need to better organize environmental information and make it more accessible has been recognized in numerous intergovernmental fora, most recently in paragraphs 85k, 88d and 88e of the outcome document from the Rio+20 summit, *The Future We Want*. Paragraph 76g explicitly calls for *inter alia* “...inclusive, evidence-based and transparent scientific assessments, as well as access to reliable, relevant and timely data in areas related to the three pillars of sustainable development, building on existing mechanisms, as appropriate” as a means to promote the science policy interface. It also recognizes the need “... to strengthen participation of all countries in international sustainable development processes and capacity development for developing countries, especially in conducting their own monitoring and assessments”.

3. UNEP's printed assessment products are subject to limitations inherent in their nature that mitigate against their effectiveness in an increasingly connected and mobile world. Printing and distribution are costly and have significant environmental impact. Printed works inevitably have limitations on the number of pages, which means that valuable material has to be excluded; they are static in nature and expensive to keep up-dated as new information arises. They less accessible to the wider audiences because their static nature makes it expensive to adapt them to different audiences with different requirements; and being very difficult to transport means they do poorly as ready references. Finally, their creation and dissemination are largely one-way processes to which the audience has little opportunity to contribute. In addition, production of printed reports tends to focus scarce resources on producing content rather than on data development, capacity building and outreach.

4. The UNEP-Live platform is to be web-based and will promote access to, and use of, environmental information for keeping the state of the environment under review. Its purpose is to support improvements in assessment products and processes by providing services that better manage environmental data information, increase their re-use, reduce duplicate effort, streamline stakeholder participation and increases the potential pool of participants. It will help make UNEP's and Government stakeholders' environmental assessment processes more efficient, their products of greater relevance in policy fora, and enable flexible, customized delivery of assessment products to Member States and UNEP's major stakeholders.



The UNEP-Live platform building on success to improve environmental assessment

5. This diagram represents how development of the UNEP-Live platform will respond to these requirements. The platform is to foster greater Member State **participation** in environmental assessment processes at all levels through improved access to and re-use of data, information, knowledge and expertise. This in turn is expected to improve the **quality** of assessment products in terms of their timeliness, comprehensiveness, accuracy, richness and so on. Making it easier to tailor the packaging of each assessment's messages for different audiences ought to increase the **outreach** of

those messages to policy makers and decision-takers. We will revisit this theme in Section II.

6. Demonstrated success and relevance at policy level could then encourage investment in future assessments, while demonstrated success in communicating in policy domains could provide incentive for other States to strengthen their own assessments. Thus, a 'virtuous circle' is established that

increases overall understanding of the global environmental situation to better inform policy responses.

7. The annex contains a list of Frequently Asked Questions (FAQs) on UNEP-Live.

The Benefits of the UNEP-Live Platform

8. The benefits to be gained from a fully operational UNEP-Live platform are enhancements to the efficiency and cost-effectiveness of the future approach to keeping the world environment situation under review by:

- (a) facilitating a continuous global assessment process, evolving the current GEO process from a recurrent 5 year endeavour to a more easily up-datable approach,
- (b) utilizing, sharing and providing access to the best available data and information,
- (c) improving the quality and timeliness of data through exposure and transparency, thereby increasing its policy relevance,
- (d) contributing, as appropriate, to the reporting obligations of Multilateral Environmental Agreements (MEAs) and Millennium Development Goals (MDGs), and potentially to the future Sustainable Development Goals (SDGs) under discussion,
- (e) providing a collaborative platform to facilitate the social process that brings together experts during assessment activities at national, regional and global levels,
- (f) providing technology support to enable and facilitate national level SOE reporting,
- (g) making assessment outcomes more accessible, more current and more dynamic, and improving communication of assessment findings, and
- (h) providing opportunities to compare and learn, helping countries build capacities to develop their own assessments.

A: Overview

9. The UNEP Governing Council has, in its two previous sessions², requested the Executive Director to evaluate and test the feasibility of a platform for enhancing the timeliness, completeness, accuracy and accessibility of UNEP's environmental assessment products. This platform is what is currently referred to as "UNEP-Live".

10. The UNEP-Live platform is being implemented in phases. The initial focus has been on organizing UNEP's assessment products and supporting UNEP-led assessment processes. The prototype proof-of-concept for the UNEP-Live platform was first presented during the 25th Special Session of the Council/Forum³ and has been in continuous operation and development for over a year.

11. Many partnerships have been mobilized to achieve this result without additional demand on the Environment Fund. Significant developmental support was provided by Esri⁴; operations are supported by the US Geological Survey at the GRID-Sioux Fall facility; the content was enriched through institutional and technical networks such as those brokered through the Eye on Earth (EoE) Special Initiatives⁵, plus engagement with national and multi-national institutions including inter alia the European Environment Agency (EEA), US-Environment Protection Agency (US-EPA), EU-Joint Research Centre, Australia's Commonwealth Scientific and Industrial Research Organization (CSIRO), the South African Environmental Observation Network (SAEON). Significant support has also been received from international organizations such as the Group on Earth Observations and the Open Geospatial Consortium in the context of the special initiatives through UNEP's participation in such mechanisms as the GEO Architecture Implementation Pilots.

² Decision UNEP/GC-25/2: UNEP requested that the Executive Director "...elaborate further on the requirements for a migration to targeted assessments on thematic priority areas supported by a UNEP-Live enabling framework and to report thereon to the Governing Council at its twenty-sixth session in 2011. Decision UNEP/GC-26/2: requested UNEP to inter alia "...to present the pilot proof-of-concept phase of a UNEP-Live platform... consisting of an interactive web application with supporting data management capacities able to present historic near-real-time data and indicators on a limited number of environmental themes to the Governing Council at its twelfth special session, in 2012".

³ The UNEP-Live platform prototype is accessible at <http://www.uneplive.org>

⁴ Formerly the Environmental Systems Research Institute

⁵ Described in UNEP/GC-27/INF 11

12. The UNEP Secretariat actively aligns development of the UNEP-Live platform with continued development of the Eye on Earth network in partnership with the Environment Agency Abu Dhabi (EAD), EEA, US-EPA, CSIRO, SAEON and others. The implementation of the Eye on Global Network of Networks (GNoN) Special Initiative is laying the foundation for contributions to the UNEP-Live platform in key areas such as intelligently linking the findings in assessment reports to data and other evidence supporting them.

13. During 2012 there was an increasing shift in emphasis towards more forward-looking tasks to be addressed over the next 5 years, particularly development of national capacity for environmental assessment and reporting, and laying the basis for UNEP's future assessment products to be more dynamic, flexible, accessible and re-usable.

14. The partnership between UNEP and EAD is leading to development in 2013 and beyond of a national reporting toolkit⁶ for supporting state of the environment reporting. Governments using the national reporting toolkit will have a re-usable archive of environmental data, indicators and assessment narrative that will provide a baseline supporting future assessment tasks. It may also provide consistent, reliable and validated data that could be re-used towards meeting other reporting obligations, such as for the MEAs, MDG-7, the Global Environmental Goals (GEGs), the future SDGs, and list of core indicators identified in the Framework of the Environmental Statistics (FDES) by the United Nations Statistical Division (UNSD). Governments will be able to choose to make information generated by national toolkits available for integration into regional analyses, or into global services including UNEP-Live, thus helping to fill important data gaps. Initial deployment will be in the West Asian region but deployments in other areas are expected to follow given sufficient donor support.

15. The UNEP Secretariat is also engaging with regional environmental information networks such as EEA, Arab Region EIN, GeoSUR in Latin America and AfricaEIN to advise on using the UNEP-Live platform to strengthen regional networks. EEA, for example, have related to UNEP management and to GNoN many valuable lessons learned from their deployments of EIONET and ReportNet, European activities with clear parallels for UNEP-Live. Also, their principles of the Shared Environment Information System (SEIS) are embodied in the design principles of the UNEP-Live platform.

B: The Current Prototype UNEP-Live Platform

16. Content uploaded to UNEP-Live to date comprises largely existing UNEP products that have hitherto not been consolidated onto a single, ready-to-use access point. These comprise more than 300 assessment reports, more than 500 different variables as national, sub-regional, regional and global statistics or as geospatial data sets (maps) from the Environmental Data Explorer⁷; various environmental map data sets from the GRID-Africa archive, supplemented with over 10,000 maps from the Eye on Earth network; and information on over 200 environmental "hotspots". This "house-keeping" phase is largely concluded and allows focus to shift to meeting future requirements, as described in the next section. Future components, described in the next section include "State of Environment - Live" for generating and maintaining tomorrow's dynamic and flexible assessment products; and national environmental information to be provided under the "My Country" component.

17. The following illustration shows how the welcome page at <http://www.uneplive.org> appears. This prototype site has been developed using web geo-portal technology, adapted to UNEP-Live requirements through technical in-kind support. The software code developed by commercial and governmental partners is available to UNEP for re-use and re-deployment in other environments, such as in national environment agencies.

⁶ State of Environment Reporting – Live

⁷ Previously the GEO Data Portal available at <http://http://geodata.grid.unep.ch/>

An Example of UNEP-Live in Action: Accessing data and indicators

A university professor directs a student to strengthen his/her research paper on forest management and community livelihood with strong evidence of trends supported by data and information. The research paper happens to focus on a hotspot area for which UNEP-Live happens to have current statistics and illustrations.

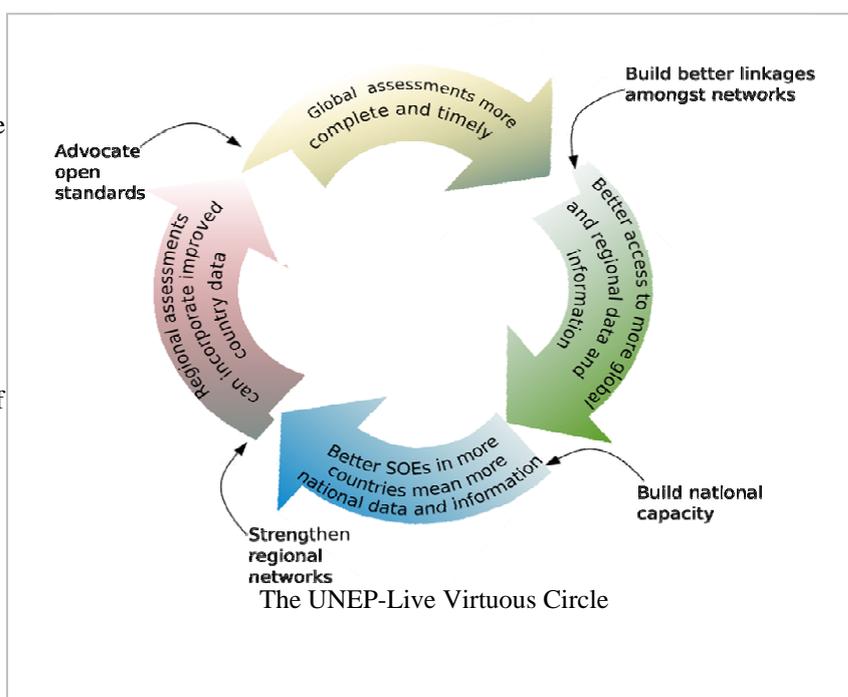
The student visits a well-known search engine and asks for information about forest change in the study area. The first result return identifies the UNEP-Live platform as the place to check and a single click brings up the *Hotspots* collection in UNEP-Live's *Environmental Alerts* section. Links from the *Hotspot* article highlight data and indicators for the area about trends in forest cover, school attendance figures and household income. Although the data and information from the search indicate that they are over a year old, it still gives evidence of the trends and justification for further in-depth analysis of the cause-effect in the interaction between sustainable forest management and livelihood of the communities living around the protected forest area.

II. Phase II (2014-2017): Development and Deployment.

18. The next phase of the implementation of UNEP-Live will be integrated with the Medium-term strategy (2014-17) and with the new Sub-programme 7 (*Environment Under Review*).

19. In Phase II UNEP-Live will address complementary aspects of improving access to and use of environmental information, namely: capacity development at national and regional levels for environmental assessment and reporting under a revitalized capacity building programme in accordance with the Bali Strategic Plan; and through GNoN building more effective bridges amongst global environment information networks in domains such as biodiversity, water security and climate change. Achieving this will require that the current proof-of-concept prototype platform be re-engineered with considerably more rigour and a deeper understanding of the architectural requirements, a demanding task for which UNEP will be calling on for support from industry, government and other partners.

20. This diagram reprises the concept of the “virtuous circle” seen in Section I. The added emphasis is on the actions and activities associated with the UNEP-Live platform – capacity building at national level, strengthening of regional networks, promoting and advocating for the use of open standards best practices for managing environmental information, and fostering better linkages amongst different geographic and sectoral networks - that will yield improved knowledge of the state



of the environment across a range of scales, and with outreach to national and international political and decision-making processes.

21. The following sections will describe how activities related to UNEP-Live will strive to improve understanding of the state of environment at global, regional and national scales. It will take a multi-pronged approach to build capacity of national institutions; to strengthen regional networks and foster data sharing amongst their members; and to foster improved linkages between and among global and regional networks that will improve countries' ability to access, analyse and incorporate needed data from distant sources into their next round of environmental assessment.

A: UNEP-Live in Phase II - Objectives and deliverables

22. The UNEP-Live platform will improve UNEP's internal information organization and service information and capacity building needs of countries and regions. The overall objectives of UNEP-Live will be:

Externally for Governments, research communities and public

Institutions and civil society will have access to environmental data and information products, and impact of assessment processes, and outcomes improved; and their capacities to carry out their own assessment and reporting processes enhanced

[Direct support to PoW Subprogramme 7 - EA (A): Outputs 1, 2, 3 and 5]

- Governments will be able to deliver up-to-date SOE reporting using common approaches based consisting of publications, statistical data and geospatial data;

[linked to 'Indicators of Achievement' (i) and (ii) under PoW Subprogramme 7 EA(A)]

- A customized “wiki” style collaborative platform for shared development and communication of environmental assessments of states and trends; and [linked to 'Indicators of Achievement' (ii) under PoW Subprogramme 7 EA(C)]

- On-line gateway to country level environmental information consolidated from a wide range of participating partners/countries for download and analysis.

[linked to 'Indicators of Achievement' (i) and (ii) under PoW Subprogramme 7 EA(A); 'Indicator (ii) EA(C)]

Besides the Expected Accomplishments (EAs) of the 7th subprogramme *Environment Under Review* referenced above, the UNEP-Live platform will contribute to relevant activities in all UNEP's sub-programmes.

on priority data and indicators harvested through national monitoring processes.

[Direct support to PoW Subprogramme 7 - EA(A): Outputs 1, 2, 3 and 5; EA(B): Output 2; EA(C): Outputs 2 and 4]

Countries (through relevant line Ministries, national assemblies, and will be able to better coordinate environmental data generation and exchange activities especially those responding to reporting obligations under MDGs, relevant MEAs, future SDGs and USD environmental statistics.

[Direct support to PoW Subprogramme 7 - EA(A): Outputs 1, and 6; EA(B): Output 6]

Internally in UNEP

Increased operational efficiency and reduced costs of UNEP-led environmental assessment and reporting processes achieved by leveraging web-based technologies to automate, streamline, and optimize workflows.

[Direct support to PoW Subprogramme 7 - EA(A): Outputs 2, 4 and 5; EA(A): Outputs 1; EA(C): Output 4]

Wider participation and consultation in assessment processes promoted and facilitated (including south-south, north-south cooperation, and triangular cooperation), through catalyzing strategic partnerships and using web-based mechanisms such as “communities of practice”.

[Direct support to PoW Subprogramme 7 - EA(A): Output 1; EA(B): Output 2; EA(C): Output 2]

The UNEP-Live platform will be implemented incrementally. When fully operational in 2017 it will provide open access to UNEP’s and its partners’ environmental information holdings

B: New Features to Be Developed in Phase II

a) State of Environment – Live

23. Authors who collaborate in UNEP assessment processes will be provided with a working environment in which they be able to more effectively develop, refine and finalize their narrative of our understanding of the state and trends of the environment. The UNEP Secretariat is currently evaluating tools for UNEP-Live’s “SOE-Live” component based on the ‘wiki’ philosophy to provide these collaborative tools in controlled and managed ways that will ensure the quality and integrity of assessment products. Similar capabilities will be made available, upon request, to regional, sub-regional and national entities to facilitate production and dissemination of their own assessment products. The national environmental reporting toolkit described in the Section C: will also provide similar improved channels for collaboration.

An Example of UNEP-Live in Action: SOE-Live

A government-designated expert participating in the next global assessment needs current and credible data and information for preparing contributions to the thematic water chapter inputs. The expert needs trend data from across government sources and comparable data from other countries with similar developmental, environmental and social characteristics. The Government expert is required to prepare a case study on good practice of sustainable water management in Western Kenya as well as the lessons from his/her country that can be up-scaled.

The government expert joins the virtual Water Working Group of UNEP-Live to exchange ideas and seek examples of best practices in preparing an article on sustainable water use and human well-being. The UNEP-Live platform also accesses the Kenya “My Country” gateway from where the detailed report on sustainable water management can be found. Through UNEP-Live platform, the Government expert also searches and finds additional supporting data from other international sources that makes the case study current based on trends from the data and indicators section.

b) My Country

24. Another development will be an elaboration of the “My Country” component of UNEP-Live in response to Member States’ requirements, to provide a window into participating country’s environmental conditions, concerns and actions. Countries opting to deploy the State of Environment Reporting – Live toolkit described in Section C: following will have the option to use UNEP-Live’s My Country to highlight their most significant assessment findings, data and/or information. My Country will aggregate key environmental data, indicators and information from authoritative national sources and present them contextualized from UNEP’s global perspective: comparisons with

neighbouring and peer countries, for example, or in light of the country's engagement in multilateral environmental agreements, or as related to UN Development Assistance Frameworks, national development plans and priority areas for donor agencies.

25. The period 2013-14 will also see a shift in emphasis, depending on availability of extra-budgetary resources, to developing national capacity for environmental assessment reporting, dynamic state of environment reporting at national, regional, or global scales.

An Example of UNEP-Live in Action: My Country

A senior Government official needs to quickly prepare a brief or fact sheet for the Permanent Secretary or Minister on the state and trends of priority environmental issues to present at a regional environmental consultation. The official needs to quickly find existing current information from across government sources, and to complement this with information from external sources indicating how related issues in neighbouring countries influences the Government's response options.

The senior official searches through UNEP-Live *My Country* for the existing reports (state of the environment report, summaries for policy makers, thematic reports) touching on the country in question. The same search also identifies the data and indicators for trends on the priority environmental issue that supports the country's national development plan, especially those relating to priority environmental issues identified in national development plans, and those reported through the national reporting toolkit relating to MDG7, GEGs, Achi target and in future core set of environmental indicators developed by the UN Statistical Division.

C: Building National Capacity for Environmental Assessment Reporting

26. UNEP has received over the past 15 years many calls to help Member States to be better able to collect environmental data, analyze these to support assessments, and to report their findings. As noted in the introduction, the Rio+20 outcome document *The Future We Want* makes clear the dependency that Member States attach to their ability to monitor and assess their environments as a necessary precursor to attaining sustainable development goals. A partnership activity, the Abu Dhabi Global Environment Data Initiative (AGEDI) sponsored by EAD is addressing aspects of these requirements. It is developing a software toolkit mentioned earlier as a deliverable under AGEDI and a contribution to UNEP-Live.

27. Four to six West Asian countries will be invited to participate in national reporting toolkit pilots after necessary consultation and requirements assessment, and with appropriate training and on-going support to facilitate production of dynamic national state of environment reports to on-line by 2014. Meanwhile, the National Environment Management Authority of Uganda has requested and is receiving support from the UNEP-Live team to prepare their most recent State of Environment report for web publication using the same wiki-like tools deployed in UNEP-Live. Informal requests have also been received from the Zambia Environment Management Agency for similar support in preparing their SOE report due for publication in 2013, using UNEP-Live methods and capabilities.

28. Following the pilot activity in West Asia, countries in other regions will be able to avail themselves of the national reporting toolkit for adaptation to their own national, sub-regional, regional and global reporting requirements.

29. An appropriate authority in each Member State will operate and maintain their own national reporting toolkit that will help manage the data and information needed to develop their reports. All data and information will reside on the national platform – not in a centralized UNEP-Live – and will be managed according to the practices, protocols and standards of the national authority. Participating countries will thereafter have a platform archive to provide baseline data for comparison in future assessment reports. The same consistent, reliable data can also be available for reports to multilateral environmental agreements, reducing the time and effort for the authors to find, collect and aggregate data. Member States using the national reporting toolkit will be better able to identify and fill their own environmental data and information gaps.

30. The benefits to countries using the national reporting toolkit include the option to publish their assessment reports and supporting data to the Internet in web-accessible forms. The open standards architecture used in national reporting toolkit and UNEP-Live means that Governments will be able to selectively release environmental data and information to the Internet so that they may be integrated into other national, regional and global environmental information systems, such as the "My Country" component of UNEP-Live described earlier.

D: Strategic Partnerships and Networks

31. UNEP's environmental assessment processes – whether integrated, thematic or rapid assessments – are by definition *collaborative* exercises, involving numerous external partners, that result in printed reports for distribution and future reference. The social and institutional processes underpinning these activities have been developed and honed over decades, and are well established and respected.
32. The dynamic SOE–Live component of the UNEP-Live platform will provide a collaborative environment that will begin to address these constraints to improve the efficiency and cost effectiveness of assessment processes and data exchange. Not *having* to physically travel either people or books will mean that more authors representing more regional views will be able to participate, and that the results of their participation will be more likely to be included. It also means that UNEP will be able to maintain a more consistent and fruitful engagement with these partners, rather than the episodic relationship that has been past practice.
33. Assessment report content, once created, will be more readily reused and adapted as new science and new information reflect on the state of the world environment. The same community of experts who created the original content will be invited to revise – and help review for quality assurance – new content reflecting new understanding. Those new results will be communicated through a variety of digital channels as soon as they are available. The online platform will also facilitate wide participation in consultations underpinning assessment processes, using a controlled collaborative environment to ensure the quality and validity of each assessment product.
34. Implementation of UNEP-Live will depend in large measure on engaging and sustaining the support of partners able and willing to sustain in-kind and financial support for its operation and development. This will be especially true as UNEP-Live development tackles the more complex and interlinked requirements of the national reporting toolkit, “My Country” and dynamic state-of-environment reporting.

E: Resource requirement

35. The direct resources required for implementing the UNEP-Live platform over the next 5 years – from 2013 to 2017 - will be met largely from the existing resources through streamlining of on-going activities and thereby realignment of current staff accordingly. The existing resources represent the staff time of current staff (posts) funded from the UN Regular Budget and the Environment Fund valued at USD 1.00 million and USD 12.50 million respectively.
36. The new investments required to complement the existing staff time is estimated at USD 3.05 million for the same 5 year period and of this USD 0.86 million represents new commitments to be met from the Environment Fund to cover mainly the standard operating costs such as communication, equipment maintenance and web-hosting, as well as the costs of external technical support for operation and maintenance of the platform and staff travel linked to internal working sessions or technical review meetings.
37. The remaining USD 2.19 million is expected to be raised from the extra-budgetary sources yet to be identified. The extra-budgetary resources will cover costs of expert consultation on technology and industry best-practices, out-posted office training and technical coordination related staff travel, and the additional labour including in-house capacity required for undertaking application programming and other data management tasks including “application-helpdesk” operation. The gradual increase in the estimated expenditures under extra-budgetary resources represent anticipated incremental expansion of functions and features of the platform based on user feedback and as prompted by the advancements in technology.
38. Indicative budget of the UNEP-Live platform for the 5 year period from 2013 to 2017 is presented in the table on the following page. *Please note that staff costs are based on 2014-2015 standard salary costs*
39. In addition to these direct costs there will also be costs associated with national-level capacity building - such as implementing the national reporting toolkits – for which it is assumed that extra-budgetary resources will need to be mobilized. One estimation, based on UNEP's prior experience in related ventures, suggests that the cost for each national intervention will be on the order of USD 500,000 over 5 years to cover in-country training and support, adaptation and customization of the toolkit, and on-going “help desk”-type support.

Indicative Budget for UNEP-Live Platform 2013-2017	2013	2014	2015	2016	2017	Total
EXISTING STAFF RESOURCES (in USD thousands)						
UN Regular Budget						
<u>Staff cost</u> : representing staff time of UNEP current staff *	200	200	200	200	200	1,000
Environment Fund						
<u>Staff cost</u> : representing staff time of UNEP current staff *	2,500	2,500	2,500	2,500	2,500	12,500
NEW INVESTMENTS (in USD thousands)						
Environment Fund						
<u>Activity cost</u> : consisting of consultants for troubleshooting and resolving systems operation related issues; and staff travel related to internal technical review/coordination meetings or working sessions	30	85	80	85	80	360
<u>Operating cost</u> : consisting of hardware maintenance, software licence renewal, web-hosting services, and standard costs such as communication and project reporting/evaluation	90	95	100	105	110	500
Extra-budgetary resources (source to be identified)						
<u>Staff cost</u> : of project staff providing additional in-house capacity *	-	250	250	250	250	1,000
<u>Activity cost</u> : consisting of subcontracts for conversion of GEO-5, creation of the SOE-Live baseline and applications programming; expert group consultation on technology solutions and industry best-practices; and staff travel related to out-posted office training	560	110	145	170	205	1190
Total New Investments	680	540	575	610	645	3,050

III. Phase III: (post 2017) - Operations

40. The strategic objective for the UNEP-Live platform in Phase III is to continue to consolidate Phase II activities and catalyse enhanced institutional, scientific and technological infrastructures and capacities for cooperation taking regional and national priorities into account within the framework of the "Delivering as One" initiative and supporting national UNDAFs.

41. Designing programmatic interventions will be in accordance with the Bali Strategic Plan and the "Delivering as One" initiative. National-level components of UNEP-Live – national reporting toolkit in particular - will be integrated and delivered as a set of key UNDAF outputs in support of an overall national mechanism to keep the country's environmental situation under review.

42. Technical development of the central UNEP-Live platform will be most intense during 2013 as new technical and institutional challenges are taken on to deploy innovations such as My Country, SOE-Live and integration of content being published from the national reporting toolkits. Technical development is expected to continue – but at a reduced pace - throughout the project period, largely in response to emerging opportunities in areas such as social media, mobile computing, more affordable and more capable telecommunications infrastructure in developing countries, and the likes. The initial investment during the development period in 2013 will give way to a period of consolidation focusing on data and information creation, integration into and use and follow-on.

43. We can also anticipate that there will be un-anticipatable developments in technology, methodology, scientific interpretation and evolving user requirements that will continue to drive development of UNEP-Live throughout its lifetime.

A. Capacity-building and technology support

44. The first functional area is to build national institutional and technological capacity in developing countries and countries with economies in transition for collecting, managing, analysing and disseminating environmental data and information for decision-making in support of national development goals. Development and enhancement of the national reporting toolkit is expected to continue to gather pace throughout the MTS period, contingent up the availability of extra-budgetary support. Requests for support from Member States are anticipated to increase as increasing number of Governments share the results of their own experiences. This period will see many ‘firsts’ – perhaps the first Russian-language deployments, or the first requiring oriental scripts - each of which will require significant investment for initial translation and cultural adaptation. Thereafter, costs will reduce as more components are available for reuse elsewhere.

B. Assessment

45. The second function is to enhance the interaction between scientists and decision makers through timely, credible, legitimate and relevant assessments of the state of and outlook for the environment. The objective will be achieved by using the UNEP-Live platform and the national reporting toolkit to address the targets of a coherent assessment approaches that reduce overlap and duplication and that provide a structured set of multi-scaled assessments

C. Early warning, monitoring and observation

46. The third function is to address systematically early warning of emerging environmental issues and threats by integrating environmental observation, assessment and monitoring functions, together with effective and timely dissemination of information in an easy-to-understand format to a broad range of users. Global Environmental Alert Service (GEAS) will be expanded to deliver a wider range of alerts and atlas products will continue to be developed on an online basis.

D. Environmental indicators, data support and information-sharing

47. The fourth function is to identify and mobilize the priority data flows needed to support the publication of a set of global, regional, national and city-level indicators across the six thematic areas of the medium-term strategy and to facilitate access to environmental knowledge by building the necessary capacity at the national and regional levels.

E. Networking and partnerships

48. The fifth function is to continue to connect national, international, scientific and technical capacities and efforts to keep the state of the environment under review. The strategic objective and the planned programmatic activities will contribute to the implementation of the relevant portions of the Bali Strategic Plan, in particular its call in chapter IV, section F, to support scientific exchanges, establish environmental and interdisciplinary networks and promote coherent partnerships.

49. In line with an existing deliverable under expected accomplishment “d” of the Environmental Governance sub-programme, the approach will be to link incrementally relevant thematic and geographically oriented networks at various levels, including regional, multidisciplinary, thematic and, as appropriate, national environmental information networks and partner institutions, working towards a highly connected system by 2016. These networking structures will support activities undertaken across the four functional areas described above.

50. The exercise will link nodes and focal points of existing regional environmental information networks and partner institutions, such as United Nations specialized agencies and other international organizations, subsidiary scientific bodies of multilateral environmental agreements, scientific institutions and observing systems. The establishment of national environmental information networks will be undertaken within the framework of the “Delivering as One” initiative and in response to decision 23/6.

51. Regional networks currently under development or consideration with support from UNEP include the third phase of the Africa Environmental Information Network, which will cover more than 60% of the countries in Africa. Most of Europe is currently served by the European Environment Information and Observation Network (EIONET) under the auspices of the European Environment Agency. Efforts are under way to establish a West Asia environmental information network, which would comprise two subregional components, one for the Gulf Cooperation Council countries and the other for the Mashreq countries. In LAC, existing initiatives on networking such as GeoSUR will be

consolidated and strengthened. The Pacific region Environmental Information Network (PEIN) under the auspices of SPREP will also be strengthened and integrated with the Eye on Earth GNON special initiative.

52. Strategic partnerships will continue to be established and will include developing a North-South programme, including engaging centres of excellence in the North with a wide range of national and regional partners and organizations in the South, especially in the areas of environmental data, information and assessment. Facilitating South-South cooperation as one of the key mechanisms for implementing capacity-building and technology support projects on the ground will entail engaging with a wide range of partners and organizations.

53. Other strategic partners may also be engaged, however, depending on the outputs to be delivered. For example, in developing tools to access environmental knowledge, private sector corporations in the information technology sector will have a comparative advantage in the development and customization of technical tools. Several institutions, such as the European Environment Agency, the Global Biodiversity Information Facility (GBIF), and the GEMS/Water secretariat, which already have a comparative advantage in the area of networking, will be key partners for UNEP in moving forward on the networking target to underpin the UNEP-Live platform.

Annex Frequently Asked Questions about UNEP-Live

1. Q. What is UNEP-Live?

A. UNEP-Live is a web-based platform to promote access to and use of environmental information for keeping the state of environment under review.

2. Q. What is UNEP-Live's unique added value?

A. It integrates the most current state of knowledge about the world environment situation with the science, data and expert interpretation that underpin that knowledge.

3. Q. What does UNEP-Live do?

A. UNEP-Live supports three different but related aspects of environmental assessment tasks – 1) Locating resources, such as previous assessments, scientific data and indicators; 2) transforming these resources into new information products through comparison, analysis and interpretation; and 3) publishing assessment findings and providing links to contextually-relevant data and information from other reliable sources. These tasks apply to all types of assessments that UNEP undertakes (not just integrated assessments) and also to anyone else producing assessments, including Member States, so UNEP-Live is potential benefit for others as well as for UNEP.

4. Q. Who uses UNEP-Live?

A. UNEP-Live is targeted at the needs of all those involved in environmental assessment and decision support: its core constituency is government researchers and analysts participating in decision support processes. Related audiences include (but are not limited to):

UN entities seeking environmental perspectives for integrated national development strategies
contributors to UNEP assessment products seeking pertinent country-level instances and examples

students and academic researchers

NGOs

news media

the general public

5. Q. What can be found in UNEP-Live?

A. A. UNEP-Live currently presents national environmental information under "My Country", "Data and Indicators" aggregated from a range of global sources, "Maps" from UNEP and partners, "Assessment Reports" generated by UNEP and partners, "Environmental Alerts" such as the Global Environment Alert Service and "State of Environment - Live" for producing tomorrow's dynamic and flexible assessment products.

6. Q. Why would I use UNEP-Live rather than a famous search engine?

A. UNEP-Live doesn't compete with the likes of Google - it exploits them by publishing well-organized and well-tagged metadata in ways that optimize discovery by search engines; anyone searching for assessment-related environmental data and information using will find themselves coming to UNEP-Live. UNEP-Live supports environmental assessment, which is a lot more than Google's strength of "just finding stuff".

7. Q. Why would anyone use UNEP-Live at all?

A. The 'anyone' in question here are those with an interest in environmental assessments - creating them, maintaining them, using them - so it is not necessarily going to be of interest to everyone unless they have that interest. As noted above, even the task of finding assessments is no doubt best handled by existing search engines (provided that UNEP has its assessment material organized, and that is part of the task for UNEP-Live) but that's all they do - none of them provide the evidence trail that links assertions about the environment to the supporting evidence; none of them provide tools for bring those assertions up to date as new science and new findings affect our understanding. That's the 'live' part of UNEP-Live

8. Q. Where can I see an example of how the re-integration of data / information actually works?

A. We're working on it for the prototype.

9. Q. Who is responsible for QA/QC?

A. Ultimately, UNEP is responsible for all aspects of the quality of the content delivered by UNEP-Live. The real question is: how does UNEP ensure QA/QC? To which the answer is that UNEP will in principle work with its communities of expert partners to vet and validate substantive content, and UNEP-Live will provide collaborative workspace and tools to support those processes, but the precise details are yet to be established.

10. Q. Who pays for UNEP-Live?

A. UNEP-Live is a programmed activity within UNEP's over-all programme of work - in fact, it's to be a key deliverable of the new 7th sub-programme *Environment Under Review* - so its core operations are paid for by the Environment Fund - the costs of bespoke customizations for particular assessment tasks are covered by the project activities that need the customizations - but this is only feasible because of the technological and other types of support UNEP receives through partnerships such as with Esri and the Eye on Earth special initiative on Global Network of Networks.

11. Q. Is UNEP-Live a giant data store that has consumed all the world's environmental data and information?

A. No! The motto of UNEP-Live is "link, not load" i.e. keep data as close to their authoritative source as possible and, if needs be, mobilize funds to build the capacity of those authoritative custodians so that their data are link-able.

12. Q. How can my country participate in UNEP-Live?

A. The single best way is to ensure that your country's environmental data, information and knowledge products are published to the internet using well-known standards, formats and protocols – your country can of course request UNEP's advice and support on which protocols and how best to implement them as part of UNEP's strategic capacity building efforts. (Implementing the national reporting toolkit is one way to achieve that.) This will make your country's environmental data and information better able to be aggregated and compared with other countries' information to plug help UNEP and others to build regional and global views of the state world environmental situation. Your country can also incorporate UNEP-Live value-added services and products to augment existing national environmental information portals. The crucial point is that your country does not have to give any of its data or information to be loaded into UNEP-Live – remember the mantra is "link, not load".

13. Q. Where will UNEP-Live content come from?

A. UNEP-Live links to environment-related content from diverse and disparate but authoritative sources, the most important of which will be national State-of-Environment Reporting - Live sites (where available). Other sources will be:

- National government reporting toolkit web sites (where available)
- UNEP repositories of government-sourced data (Environment Data Explorer, WDPA, GEMS/Water, UNEP-Live Reports Repository etc.)
- UN repositories of data source from countries, including UN Statistical Division, FAO's data.fao.org, and the World Bank
- Regional environmental repositories such as EEA EioNET/ReportNet and GeoSUR

14. Q. UNEP-Live has "My Country" gateways - what are they actually for?

A. The gateways provide a number of services to environmental assessors:

- an environmental profile of each country providing key information about environmental state, trends and equity presented in easily understood format
- access to targeted environmental data for download and analysis, from a wide range of sources
- references to assessment reports prepared by or about each country
- references to sections of global assessment containing statement about, or case studies relating to each country
- links to key in-country environmental data and information resources

15. Q. Can I have my own UNEP-Live reflecting my country or institution? What are the requirements?

- A. The answer is a definite 'yes' in that the national reporting toolkit will be freely distributable and able (with additional investment) to be adapted to national or institutional requirements. At another level - that of the UNEP platform server software - there will be additional issues of technical capacity.

16. Q. Will "My Country" only provide official data?

- A. Good question! UNEP works with UNSD and other UN agencies that are responsible for the compilation and publication of official statistics reported by countries, and some of these are incorporated into "My Country" and are, presumably, official. Other data are sourced from in-country sources government sources where they are web-accessible and are, also, presumably, official; yet others are drawn from compilations such the Environment Data Explorer, which are derived from official sources. One question remains whether these are all equally "official". A broader question remaining is whether, or under what circumstances, information from other sources might also be presented in "My Country"; perhaps we ought to leave it up to each country to decide.

17. Q. Does "My Country" build national capacity?

- A. No. My Country is one component of the UNEP-Live platform, built and operated by UNEP. The national capacity development component will be a separate series of activities undertaken on a case-by-case at the request of Governments to help them to better meet their environmental assessment and reporting aspirations, many of which are driven by reporting obligations under the MEAs.

UNEP's strategy is to encourage countries to establish web services publishing their environmental data and information in the context of national development strategies. Direct capacity development will be possible in countries which implement the UNEP-Live national reporting toolkit, a deployable facility to be installed and operated by participating ministries on their own systems and under their own authority. This will be one aspect of UNEP's long-term, strategic engagement with each country, involving not just the technology aspects but also support on methodological design and selection, advisory aspects, training and on-going support. The toolkit's open standards framework will ensure that any national SOE content that countries elect to publish to the web is readily integrated into the global UNEP-Live platform via the "My Country", "Data and Indicators", "Maps" and "Assessment Report" components. UNEP-Live's "My Country" can demonstrate to countries an incidental benefit of that approach by showing how their own content can be re-represented in added-value products by third parties such as the UN.

18. Q. What is "SOE-Live" and is it different to "UNEP-Live"?

- A. SOE-Live - like "My Country" and "Emerging Issue" and so on - is part of the UNEP-Live platform, built and operated by UNEP. Its role is to support the development and production of dynamic, flexible and readily-updated environmental assessment products. It is to provide a controlled wiki-like environment in which collaborating authors and other partners can write and review assessment findings and keep them updated to reflect the most recent scientific findings. The goal is to maximize reuse of existing assessment products and to place the emphasis on the changes and new implications. Using this web-based authoring and collaboration technology is one of the most innovative features of UNEP-Live.

19. Q. How will we know whether "UNEP-Live" is succeeding?

- A. The metrics for measuring the success of UNEP-Live derive from the indicators of achievement for the seventh sub-programme of UNEP, *Environment Under Review*. In practice, these high-level indicators will need to be augmented with more operational metrics, especially feedback solicited during the development phase as user requirements are being incorporated. Feedback will also likely be sought from operational partners in other networks to ascertain the institutional and technical quality of service that they receive from the UNEP-Live platform.
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