



Food and Agriculture
Organization of the United
Nations

Office of Evaluation

Independent Mid-term Review of the project Groundwater Governance: A Global Framework for Country Action – GCP/GLO/277/GFF

Annexes

Food and Agriculture Organization of the United Nations

Office of Evaluation (OED)

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Annex 1. Evaluation terms of reference

Introduction

1. The project 'Groundwater Governance: A Global Framework for Action', henceforth referred to as the Project, is a GEF-funded initiative, executed by FAO in partnership with other agencies.
2. The Project Document established that an Independent Mid-term Review should be carried out in the second year of implementation. In the GEF evaluation system, a mid-term review of a Full-Size Project corresponds to an FAO mid-term evaluation, carried out under the overall responsibility of FAO's Office of Evaluation.
3. These Terms of Reference (ToR) have been prepared in close consultation among all stakeholders, including the Programme Coordination Unit, the FAO GEF Coordination unit within FAO's Investment Centre (TCID) and the FAO Office of Evaluation (OED), and were discussed with and endorsed by the Project Steering Committee. The ToR comply with the evaluation policies and procedures of both FAO and the GEF.
4. The Independent Mid-term Review is planned to take place in the period December 2012 to January 2013, and be completed by the beginning of February 2013 – to be discussed by the Project Steering Committee in March 2013.

Background of the initiative

1.1 Programme overview

5. The Project was prepared at the request of the GEF Secretariat and following recommendations of the GEF Scientific and Technical Advisory Panel (STAP), in response to the emerging global concerns over increasingly unsustainable use of groundwater and degradation of aquifers. Preparation of the Project was a cooperative endeavour led initially by the World Bank (PDF-A, PIF) in the International Waters Focal Area of GEF 4.
6. The responsibility for formulating and submitting the Project Document (ProDoc) was then taken over by FAO as Implementing Agency with continuing support by the project partners: World Bank, UNESCO-International Hydrological Programme (IHP) and the International Association of Hydrogeologists (IAH). The International Union for the Conservation of Nature and the Ramsar Secretariat collaborated through extensive consultations.
7. The Project implementation approach revolves around three main lines of action:
 - *Building on the Existing Knowledge Base and Initiatives* - This project builds on the knowledge base, management experience and good practices developed in selected countries particularly dependent on groundwater and highly visible internationally. A particular focus of the project is to draw lessons and experiences from ongoing and past projects and programs supported by partner agencies, and to consolidate

and synthesize knowledge and experience on the governance framework for groundwater at country level.

- *Strengthening Partnerships* - The project aims to strengthen existing partnerships. During project formulation and implementation, FAO and the executing agencies UNESCO and IAH collaborated closely with, and drew on the experience of, the UN-Water and its member agencies and programs (among them in particular IAEA, the World Bank, UNEP, UNDP, WHO, UNICEF, WWAP), the CGIAR organizations (in particular IWMI) and national geological surveys, bureaux and associations with a history of international cooperation on groundwater. It is expected that other partnerships will be forged during the life of the project, particularly with NGOs and especially in developing societal and community aspects of groundwater management policy. In addition, IUCN, the WWC and Ramsar Secretariat have expressed support for improved groundwater governance, and they would be invited to provide input to the project along with other expert bodies such as IWMI and IGRAC.
- *Mainstreaming Groundwater in the GEF Programs and Projects* - The GEF is keen to elevate the profile of groundwater management in its project portfolio. In helping to achieve this goal, the project partners with the GEF groundwater related projects in the International Waters focal area, both ongoing and under preparation, as well as reviewing a selected number of land degradation, biodiversity, climate change and POPs projects. Integrated approaches to groundwater management and groundwater related investments will be promoted globally by mainstreaming groundwater in GEF Programs and projects across all focal areas.

8. Partners' contributions in financial or in-kind resources are shown in Box 1 below.

Box 1. Funding sources and amounts

Funding source	Amount (USD)
<i>GEF allocation</i>	1,750,000
<i>FAO (in kind)</i>	850,000
<i>World Bank (in kind)</i>	850,000
<i>UNESCO (in kind)</i>	850,000
<i>IAH (in kind)</i>	150,000
<i>Total project budget</i>	4,450,000

Source: Project Coordination Unit

1.2 Programme objective, components and outcomes

9. The overall project objective is “to influence political decision-making by significantly increasing awareness of the importance of sustainable groundwater resources management in averting the impending water crisis”.

10. The project development objective (PDO) is “to extend the life of the set of livelihoods reliant upon groundwater access and related aquifer services”. This objective is consistent with FAO’s mission to raise levels of nutrition, increase agricultural productivity and improve the lives of rural populations. It will also help these countries to meet Millennium Development Goal 1: to eradicate extreme poverty and hunger. The emphasis on this objective will largely come from national Ministries of Water, Health and Agriculture and the related World Bank and UN agency projects that will co-finance this GEF project, but

the relevance of this objective to the GEF will be the efforts to increase the environmental sustainability of activities in productive sectors that this project will support.

11. The project's global environmental objective (GEO) is: to accelerate the accrual of global environmental benefits (goods and services) that are generated through improved groundwater resource governance at transboundary, national, and local levels. This is to be achieved in the face of rising human demand, overall water scarcity and the anticipated impacts of climate change. This will contribute to the GEF's objectives in the GEF international focal area focal area and address Millennium Development Goal 7: to ensure environmental sustainability objectives.

12. The project components and outcomes are synthesised in Box 2 below.

Box 2. Project components and expected outcomes

Component	Sub-components	Outcome
Component 1: Compilation of the global state of groundwater governance in relation to groundwater supply and demand (quantity and quality)	1.1. Governance definition meeting report 1.2. Case studies 1.3. Thematic papers 1.4. Synthesis report	Outcome 1: Broad agreement on the scientific and economic issues in relation to groundwater management and a consensus on the scope for future action; and enhanced cooperation and synergies among UN Water Agencies, major IFIs, key NGOs, professional associations and client countries.
Component 2. Development of a global/regional groundwater diagnostic integrating regional and country experiences with prospects for the future.	2.1. Regional Consultations and Private Sector Roundtable 2.2. Global Groundwater Diagnostic, a report. 2.3. Mainstreaming groundwater in GEF Programmes.	Outcome 2: A Global Groundwater Diagnostic is informed by regional consultations (including private sector interests) and is projected globally by mainstreaming viable groundwater management practice in GEF Programs and projects and across focal areas
Component 3. Definition of a Shared Vision and Global Framework for Action on Groundwater Governance	3.1. A shared vision for groundwater governance translated into key policy messages. 3.2. A report, "Global Framework for Action on Groundwater Governance".	Outcome 3: A "Global Framework for Action on Groundwater Governance" based on Components 1 and 2 will raise political awareness globally on the urgency of improved groundwater governance, and by disseminating key policy messages fostering precautionary and proactive governance approaches, to prolong the integrity of aquifers and their associated goods and services
Component 4. Communication Strategy and Dissemination of the Framework for Action on Groundwater Governance	4.1. A Communication Strategy defined and implemented. 4.2. Outreach and dissemination of results.	Outcome 4.1: Systematic communication of project's advancements and dissemination of project documents will strengthen public participation and catalyze action. Outcome 4.2: Strategic dissemination of the Framework for Action and of key policy messages at the political level will leverage action and investments on groundwater governance.
Component 5. Project management, monitoring and evaluation	5.1. Project coordination services delivered. 5.2. Monitoring and evaluation planned and coordinated.	Outcome 5: The project will have ensured administrative services and budgetary control for the project duration. All monitoring and evaluation activities will have been planned and delivered by the project.

Source: Project Coordination Unit

1.3 Project execution and management structure

13. *Project Executing Agency:* The project is executed by FAO, through its Land and Water Division (NRL) located in Headquarters, with the collaboration of two main partners, UNESCO and the IAH, whose expertise in groundwater and active engagement in the promotion of groundwater science and management have been instrumental in the identification and finalization of the project design. The World Bank contributes to project execution through a co-financing arrangement and other partner agencies also contribute with their own resources.

14. *Project Steering Committee:* The PSC is composed of representatives of the funding partners and of executing agencies (GEF Secretariat, FAO, World Bank, UNESCO, and the IAH). The PSC has set its own operational procedures and approved its own Terms of Reference. The PSC meets as frequently as it deems necessary. The PSC is responsible for providing general oversight of the execution of the Project and ensuring that all inputs and activities agreed upon in the project document are adequately prepared and implemented. In particular, the PSC:

- provides overall guidance to the Project Coordination Unit (PCU) in the execution of the project;
- ensures that all project activities and outputs are in accordance with the project document;
- identifies, agrees and facilitates any multi-country activities that could assist with the execution of activities or meeting project objectives; and
- facilitates the dissemination of relevant project findings and recommendations globally.

15. *Project Coordination Unit:* the PCU established by FAO within NRL, is responsible for project execution and fulfilling all contractual obligations and adherence to GEF and FAO administrative procedures and general principles. The PCU is headed by a Project Coordinator and includes secretarial staff, one administrative assistant and a Communications Team. It carries out the day-to-day administration of the project and is responsible to the PSC for the project activities, financial accountability, staff welfare and discipline, regular administrative reporting to FAO management etc. The PCU prepared the annual Project Implementation Review and is responsible for supporting external and internal reviews and evaluations.

16. In addition to managerial services, the PCU provides library resources, communications, report duplication and translation services, and organizes outreach and communication activities – including the creation and maintenance of website, with the full support of the Communications Team. At all times the PCU acts as the Secretariat for the PSC. The PCU is supported by the Communications Team, which is operated in concert with UNESCO, IAH, and the Project Coordinator. This Team is responsible for the design and operation of the website, for the organization of consultation and outreach conferences, workshops, and special events and for the production of dissemination materials and publications. It operates according to periodic work plans.

17. *Advisory Panel on Groundwater Policy (APGP)*: Leading international experts on water policies and advocates of sustainable development form the APGP. The Panel should provide policy guidance throughout the project, and some of its members should participate to outreach events and conferences. The Panel will participate to the definition of the Vision and Framework for Action.

18. *Permanent Consultation Mechanism (PCM)*: The PCM is intended to form synergies among similar and complementary initiatives, and share experiences. In particular the Vision and the Diagnostic developed by the project will be circulated through the PCM for comments and contributions. The PCM has a dedicated space in the project's website; special consultation events will be held at key moments during the project through face to face and/or teleconferences.

Purpose of the Independent Mid-term Review

19. The purpose of the Independent Mid-term Review is to assess the progress being made by the Project towards achievement of outcomes, identify weaknesses and gaps if any, and recommend corrective actions as required.

Scope of the Independent Mid-term Review

20. The evaluation will critically assess the Project through the internationally accepted evaluation criteria that can reasonably be assessed at this point in time in implementation, namely relevance, efficiency and effectiveness. Prospects for sustainability and impact will be discussed as feasible and appropriate, in consideration of both the timing of the review and the nature of the initiative.

21. The focus of the Independent Mid-term Review will be on process and implementation aspects. In particular, it will:

- assess the current relevance of the Project;
- review the effectiveness, efficiency and timeliness of project implementation;
- assess the relevance, efficiency and effectiveness of partnership arrangements;
- review the relevance and technical quality of the deliverables produced so far by the Project, including technical and thematic reports, checklists and memoranda;
- identify issues requiring decisions and remedial actions in relation to implementation, coordination mechanisms and institutional set-up;
- propose any mid-course corrections and/or adjustments to the work plan as necessary.

22. In this context, the following features will be assessed.

- a. Relevance of the initiative to:
 - the GEF IV-International Waters – Strategic Objective Number 2 “To play a catalytic role in addressing transboundary water concerns by assisting countries to utilize the full range of technical assistance, economic, financial, regulatory and institutional reforms that are needed” and Special Programme Number 3 – “Balancing overuse and conflicting uses of water resources in transboundary surface and groundwater basins”;

- The development priorities and needs for sustainable governance and management of groundwater at country-level;
 - FAO's Vision and Global Goals,
 - FAO's Strategic Objective F (Medium Term Plan 2010-2013) - Impacts of agricultural practice on water quality and quantity, particularly the Organizational Result F02 Countries address water scarcity in agriculture and strengthen their capacities to improve water productivity of agricultural systems at national and river-basin levels including transboundary water systems; and Organizational Result F06 Improved access to, and sharing of knowledge, for natural resource management;
 - FAO's ongoing programme on water scarcity (Unit Result F0201).
- b. Robustness and realism of the project, including logic of causal relationships between inputs, activities, expected outputs, outcomes and impact (against specific and development objectives) and validity of indicators, if any; suggestions for revision of the project may be made if appropriate.
- c. Particular attention will be paid to the validity of assumptions and risks as initially identified in the project document and whether unforeseen issues are negatively affecting project implementation and progress towards objectives.
- d. Quality and realism of the project's design, including:
- Duration;
 - Stakeholder and beneficiary identification;
 - Institutional set-up and management arrangements;
 - Approach and methodology.
- e. Financial resources management, including:
- Adequacy of budget allocations to achieve outputs and promote outcomes;
 - Rate of delivery and budget balance at the time of the evaluation.
- f. Management and implementation:
- Effectiveness of management, including quality and realism of work plans;
 - Efficiency and effectiveness of operations management;
 - Gaps and delays if any between planned and achieved outputs, the causes and consequences of delays and assessment of any remedial measures taken;
 - Efficiency in producing outputs;
 - Effectiveness of internal monitoring and review processes; this will also include information provided by the project through GEF Tracking Tools;
 - Efficiency and effectiveness of coordination and steering bodies, e.g. the PSC; Quality and quantity of administrative and technical support by FAO to the project, including the Lead Technical Unit, the Budget Holder and project Task Force;
- g. Timeliness and adequacy of resources and inputs made available through co-financing from participating countries and resource partners.
- h. Extent to which the expected deliverables and outputs have been produced, their quality and timeliness, and the expected outcomes have been achieved against plans at the time of the evaluation, i.e. at completion of year two of implementation. The

project log-frame (Annex 2) gives an indication of the key outputs and outcomes to be assessed by the evaluation.

- i. Extent to which outputs and deliverables produced so far integrate perspectives of food security, gender equality and social inclusion, so as to contribute effectively to the development of a Global Framework for Action on Groundwater Governance that is relevant to and meets the UN Millennium Development Goals.
- j. The prospects for sustaining and up-scaling the initiative's results, with focus on potential uptake and mainstreaming of the 'Global Framework for Action'.
- k. The actual and potential catalytic role of the project in supporting the creation of an enabling environment with a view to achieve sustainable global benefits with regard to groundwater governance mechanisms.
- l. Overall performance of the project up-to-date: extent to which the project has attained, or is expected to attain, its intermediate/specific objectives and FAO Organizational Result/s (impact), and hence, contribute to the relevant Strategic Objectives and carry out its Core Functions.

23. Based on the above analysis, the evaluation will draw specific conclusions and formulate recommendations for any necessary remedial action by the GEF, FAO and/or other partners to improve project performance and effectiveness. The evaluation will draw attention to specific good practices and lessons of interest to other similar activities.

Evaluation methodology

24. The evaluation will adhere to the UNEG Norms & Standards¹.

25. The evaluation will adopt a consultative and transparent approach with internal and external stakeholders throughout the evaluation process. Triangulation of evidence and information gathered will underpin the validation of evidence collected and its analysis, and will support conclusions and recommendations.

26. The evaluation will make use of the following tools: review of existing reports (including the thematic papers and regional consultation reports), semi-structured interviews with key informants, stakeholders and participants. To the maximum possible extent, standardised interview protocols and check-lists will be used throughout the evaluation, so as to ensure comparability of findings across stakeholders.

27. The evaluation will include the following activities:

- i. A desk review of the project documents, outputs and monitoring reports (e.g. project inception report, PSC reports and reports from other relevant meetings; project implementation reports (PIR); six-monthly progress reports), and other internal documents including consultant and financial reports;

¹ <http://www.uneval.org/normsandstandards>; both GEF and FAO evaluation units are members of UNEG and subscribe to its Norms and Standards

- ii. A review of specific project products including: thematic papers, regional consultation reports, country case studies, the content of the project website, annual work plans, publications and other materials and reports;
- iii. Interviews with staff and partner institutions involved in project implementation including UNESCO-IHP, IAH, the World Bank, the Project Coordinator, consultants and the Budget Holder;
- iv. Phone or videoconference interviews with stakeholders and partners situated outside of FAO Headquarters, to canvass their views on achievements, issues and ways forward.

28. The team will independently decide which outputs and outcomes to assess in detail, given the resources available, after consultation with OED and programme management.

Consultation process

29. The Evaluator/s will maintain close liaison with the FAO Office of Evaluation, FAO NRL and the key project partners. The Evaluator/s will be free to discuss with the authorities concerned anything relevant to its assignment, but will not be authorized to make any commitment on behalf of the project partners, the donor or FAO.

30. At the end of the mission, the team will present its preliminary conclusions and recommendations to the PCU, FAO-GEF Unit, and OED; and at the first scheduled PSC after evaluation finalization, if deemed opportune.

31. The Terms of Reference of the evaluation and the final draft report will be circulated among the project key partners before finalisation; comments and suggestions will be incorporated as deemed appropriate by the evaluation team.

The Evaluation Report

32. The evaluation team will prepare an outline of the report, based on the template provided in Annex 1, and discuss it with OED early in the evaluation process. The report will be prepared in English, with numbered paragraphs. Translations into other languages of the Organization, if required, will be FAO's responsibility.

33. The evaluation report will illustrate the evidence found that responds to the evaluation issues, questions and criteria listed in the TOR. It will include an executive summary. Supporting data and analysis should be annexed to the report when considered important to complement the main report.

34. The recommendations will be addressed to the different stakeholders and prioritized: they will be evidence-based, relevant, focused, clearly formulated and actionable.

35. The Evaluator bears responsibility for submitting the final draft report to OED by 10 January 2013, on which OED will provide comments within one week. The revised report will be circulated to other FAO stakeholders, who within two additional weeks will submit to the Evaluator comments and suggestions that the Evaluator will include as appropriate in the final report (within one week of receipt of the comments).

36. Annexes to the evaluation report will include, but are not limited to:
- Terms of reference for the evaluation;
 - Profile of the Evaluator/s;
 - List of documents reviewed;
 - List of organizations and persons met during the evaluation process;²
 - Itinerary of the evaluation mission;
 - Data collection instruments (e.g. copies of questionnaires, surveys – if applicable)

Ratings

37. In order to facilitate comparison with routine reporting to GEF and contribute to the GEF programme learning process (IWLearn), the evaluation will rate the success of the project on the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU).

38. Each of the items listed below will be rated separately, with comments and an overall rating given.

- Achievement of objectives
- Attainment of outputs and activities
- Progress towards meeting GEF-4 focal area priorities/objectives
- Cost-effectiveness
- Impact
- Risk and Risk management
- Sustainability³
- Stakeholder participation
- Country ownership
- Implementation approach
- Financial planning
- Replicability
- Monitoring and evaluation.

Composition of the evaluation team

39. In consideration of the work-load and type of work required for the Mid-term review, all parties agreed that a single Evaluator could meet this Terms of Reference within the available time, provided that he/she has the required level of evaluation and process skills and experience.

40. The Evaluator will have had no previous direct involvement in the formulation, implementation or backstopping of the project and will sign the Declaration of Interest form

² The Evaluator will decide whether to report the full name and/or the function of the people who were interviewed in this list.

³ Sustainability will be assessed in terms of Likelihood: Likely (L): There are no risks affecting this dimension of sustainability. Moderately Likely (ML): There are moderate risks that affect this dimension of sustainability. Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability. Unlikely (U): There are severe risks that affect this dimension of sustainability

of the FAO Office of Evaluation. He/she is responsible for conducting the evaluation, applying the methodology, participating in briefing and debriefing meetings and discussions, and preparing the final written report.

41. The Evaluator is fully responsible for his/her independent report which may not necessarily reflect the views of FAO. An evaluation report is not subject to technical clearance by FAO, although OED is responsible for ensuring conformity of the evaluation report with standards for project/programme evaluation in FAO.

42. The Evaluator should have the following skills and competences:
- Demonstrated experience in project and process management, with technical understanding of groundwater and specifically ‘groundwater governance’ if possible;
 - Demonstrated experience in the evaluation of global projects;
 - Familiarity with the objectives of the GEF International Waters programme, particularly as it relates to transboundary waters (Strategic Objective 2 and Special Programme 3);
 - University Degree and a minimum of 15 years of relevant professional experience; and
 - Fluency in English.

Evaluation timetable

43. Box 3 below contains the time-table for the whole process of the mid-term review. If adjustments will be required, these will be discussed and agreed among the Evaluator, OED and the PCU.

Box 3. Time-table for the mid-term review

Activity	Date
Finalization of TOR (including consultations with project partners and donor)	End November 2012
Selection of Evaluator	End November 2012
Background reading (home base); OED phone briefing	Early December 2012
Missions to FAO and UNESCO HQ for interviews	9-19 December
Draft report provided to OED	10 January 2013
Comments by OED	11-15 January 2013
Circulation of final draft to other stakeholders	18 January 2013
Comments to team on final draft	18-31 January 2013
Finalization of report	Early February 2013
Presentation of final Evaluation Report	TBC

Annex 2. List of persons interviewed during the evaluation process

Name	Designation	Date
Mohamed Bazza	FAO Senior Officer NRL	18-21/12/12
Louise Whiting	FAO Water Policy Specialist	19/12/12
Corinne Spadaro	FAO Project Operations Clerk	18/12/12
Stefanie Neno	FAO Project Information Officer	19/12/12
Andrea Merla	FAO/UNESCO IHP Advisor	19/12 & 10/1/13
Alexander Muller	FAO Assistant Director General	20/12/12
Pasquale Steduto	FAO Principal Officer L&W	20/12/12
Genevieve Braun	FAO-GEF Liaison	20/12/12
Rikke Oliviera	FAO GEF Liaison	20/12/12
Ivan Zladavsky	GEF IW Focal Area Coordinator	12/1/13
John Chilton	IAH Head Secretariat	20/12/12
Shammy Puri	IAH Secretary General	20/12/12
Stephen Foster	IAH Ex Past President	2/1/2013
Alice Aureli	UNESCO-IHP Chief Groundwater Systems	10/1/13
Marina Rubo	UNESCO-IHP	10/1/13
Lucila Minelli	UNESCO-IHP	10/1/13
Jacques Ganoulis	UNESCO Chair INWEB	10/1/13
Marcus Wijnen	World Bank Water Resources Specialist	20/12 & 7/1/13
Jacob Burke	World Bank Water Resources Specialist	19/12/12

Annex 3. Results of the survey among members of the Permanent Consultation Mechanism

This annex is the result of the anonymous Google Survey among the 84 members of the consultation mechanism, sent out on 4 January 2013 with closing date on 21 January 2013. 56 Responses were received.

The scores in the tables related to percentages. In all cases respondents were asked to select two priority answers (and all did); hence the percentage score is the percentage of these combined answers.

1. So far, What has been the largest strength in the Groundwater Governance program?

Different organizations now jointly working on groundwater governance	25
Exchange of ideas and experiences taking place in the regional consultations	38
The 'state of the art' is formulated in technical papers and case studies	6
It has raised the attention for the topic of groundwater governance	23
New initiatives being triggered or linked to	3
There has not been much added value of the project so far	3
Other	3

Responses Other:

- * As a new member I cannot comment on this
- * Dissemination of Existing literature on Groundwater Governance
- * The impact is difficult to judge at this time

2. So far, what has been the main part missing from the Groundwater Governance Program?

- 1 – Beyond those involved no one is aware of it.
- 2 – So far not many visible results, only a few (but not all) reports.
- 3 – Apparently unclear financial business, as we have been asked to hire local support staff, and were then informed that there was no money for the staff after all. This happened at a very (too) late stage, when several agreements with the staff had already been made. So far there has been no answer about how this happened, which does not make us happy.
- 4 – Poor interest from governments, partly due to the way they have been involved.
- 5 – Goals could be more clearly defined. Role of PCM even less clear.

I think that it is necessary more emphasis in mass communication projects, specially using social networks, like facebook and twitter, to disseminate the contents and progress concerning the GGP program.

Outreach in general media at global, regional or national level.

Inter-and intra- regional exchange of ideas and experience. The participation of NGOs was been low in the sub-Sahara Africa region yet they are major implementors of groundwater programmes; they perceive groundwater management as a function of government.

<p>Effective stakeholder participation is considered a key aspect that will assist in the success of groundwater governance and high priority should be placed on this - not that this is necessarily missing in the program - but must be given priority status</p>
<p>Actual exchange of ideas. The regional consultations have been interesting, but have been focused on presentations rather than discussions and exchanges. There need to be better opportunities for participants to meet and discuss pertinent issues, exchange experiences, and conceptualize new approaches and action items.</p>
<p>Some indication of the eventual outcome of the program.</p>
<p>There are already some activities going on in groundwater governance even at the global level. Besides consultations, the project could have minimally involved themselves in these.</p> <p>In the regional consultations, there is little emphasis on involving river basin organizations more formally. These will most likely be the entry point for improving groundwater governance.</p>
<p>political will and concrete action getting things moved</p>
<p>I miss the large groundwater users in the consultations - mining and energy sectors, large industries and agriculture.</p>
<p>At this stage, in the project website it should have been presented much more case studies, covering a greater extent throughout the world.</p> <p>For example: In the Latin American region, the GEF project on the Guarani Aquifer was and is today a prime example of how four countries met to carry out a project that allowed substantial progress in scientific knowledge about the aquifer and also allowed to put groundwater "on the surface" and make it "visible" to ordinary people. While Governance project document (Groundwater Governance: A Global Framework for Action (FAO final 2010) pg.15) mentioned that the Guarani Aquifer as a case study, I think it has not been sufficiently publicized as to be taken into account as a successful antecedent of GEF project.</p>
<p>There is a need for synthesis and analysis of the findings and information from the regional consultations. It would not be expected that this be completed, as at least one more regional consultation is pending. Also, there is the question as to whether a synthesis of the various thematic papers would be helpful. Currently, these are stand-alone documents, some of which are quite long.</p>
<p>Some real aquifers where the groundwater governance has been applied, and some other where to apply it.</p>
<p>There are no clear laws/regulations/policies governing ground water and thus there seems to be a delink between ground and surface water.</p>
<p>Some baseline/benchmark information system/environment seems to need development in order to know the general situation analysis on groundwater governance in vulnerable areas</p>
<p>Cross-sectoral and discipline interactions. From my limited exposure it is still too much groundwater expert centric.</p>
<p>Further discussion on how to obtain funding for capacity building, in particular for developing countries.</p>
<p>I have only recently joined the program, and up till now I haven't been missing anything.</p>
<p>Actions, actions, actions</p>

<p>More diffusion of the program to the stakeholders (authorities of organism of water and environment, population in areas who use groundwater, like societies of agriculture, etc)</p>
<p>1) the main part missing from the groundwater Governance program is the most international governments not concern. 2) the international community that does expense much finance to project in developing the groundwater. 3) the clashes and constant conflicts caused not to speak out any so called groundwater governance program.</p>
<p>A mi criterio, al comienzo del programa ha faltado dejar esclarecido un concepto unívoco de “gobernanza de aguas subterráneas”. Para la reunión realizada en Montevideo para América Latina y El Caribe, estimo ha faltado crear un espacio de debate en idioma español, así como también el envío de los documentos preparatorios deberían haber sido traducidos al idioma español, ya que la difusión y comprensión masiva de dichos documentos es de vital importancia para lograr a futuro una buena gobernanza del agua subterránea, teniendo presente que aún en nuestros tiempos el idioma extranjero no es de entendimiento masivo y popular.</p> <p>In my opinion, at the start of the program it takes leave enlightened a univocal concept of 'groundwater governance'. For the meeting in Montevideo for Latin America and the Caribbean, I believe has failed to create a space for debate in Spanish language, as well as also the sending of the preparatory documents should have been translated into Spanish language, since the diffusion and massive comprehension of such documents is vital to achieve good governance of groundwater in the future, bearing in mind that even in our times the foreign language is not massive and popular understanding.</p>
<p>Sharing of results in an effective way across all stakeholders.</p>
<p>It is extremely theoretical and has not been linked to real case studies. The experience of the members of the consultation program remains, therefore, misused.</p>
<p>The integrated concept of ground water manage</p>
<p>The effective participation of capacity building networks/organisations</p>
<p>Difficult to engage people at grassroots level. The other challenge the high level of diversity in the Sub-Saharan region and i believe this applies to other region as well. E.g. what is a problem in one part of the region is not a problem in another part. so maybe there should be some kind of classification to then address issues in a more focused manner.</p>
<p>1. The technical aspect like the the introduction of new models to re-evaluate the the exact discharge an recharge based on the accumulated experiences. 2. Harmonization of laws and regulations at the regional level. 3. How to act towards the enforcement of laws</p>
<p>- Establishing strong groundwater monitoring systems and management. - encourage the communication system for continuous data exchange and dialogue between all involved at policy, technical and scientific levels.</p>
<p>la integralidad con el agua superficial y su institucionalidad a nivel de cada gobierno.</p>

<p>* Meaningful and focused integration of the various inputs, eg technical papers, workshop presentations and workshop discussion.</p> <p>* Serious buy-in from key stakeholders.</p>
<p>The project is designed to raise awareness of the importance of groundwater resources in the world, and identify and promote best practices in groundwater governance as a way to achieve the sustainable management of groundwater resources. It is fine to raise the awareness and promote best practices for the groundwater specialists and officials, as they are in the heart of the issue, but the project aims at influencing "political decisions" related to groundwater and I think this will need a strong communication and involvement of not only the people who are specialists in groundwater/water resources, but also politicians and legislators (e.g., parliamentarians, politicians, etc..).</p>
<p>Map generation identification of groundwater in the Trifinio Region with support from the Institute of Atomic Energy of the United States. The Commission for the Trifinio Plan recognizes the importance of advancing the governance of water and requires technical support and funding to implement actions in the Trifinio governance.</p>
<p>Divulgar los términos empleados de forma más clara y sencilla, a fin de lograr fijar y fortalecer el término GOBERNANZA DE LAS AGUAS SUBTERRÁNEAS, para que tenga repercusión en todas las comunidades científicas, así como al público en general. Por otra parte, presentar un ejemplo de un modelo general de la metodología a emplear en el análisis de GOBERNANZA DE LAS AGUAS SUBTERRÁNEAS, que pueda ser aplicada en cualquier país.</p> <p>Disclose the terms used more clear and simple, in order to achieve secure and strengthen the term governance of underground waters, so you have repercussion in all scientific communities, as well as the public in general. On the other hand, present an example of a general model of the methodology to be used in the analysis of governance of the Groundwater, which can be applied in any country.</p>
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<p>A more active participation of universities and capacity building institutions on how are they approaching the topic by involving local governments and stakeholders.</p>
<p>Easily digestible and visual products that can be disseminated to promote understanding and uptake of GWG.</p>
<p>I probably miss something but I had no opportunity to work on coastal island groundwater, which is a crucial issue for many low level Pacific island country as the level of sea water is growing due to climate change</p>

The Program is very well organized and the results will help to understand the importance of groundwater governance for water resources protection and management, at different scales.
The development of key projects or an implementation plan to address issues which are being raised by the project. The project is more of a diagnostic tool, often reinforcing what we may know already, but is an excellent way to synthesis information in a coherent and consistent way. With this information, what will be the next steps, to ensure this project will make a difference in the longer term?
No specific comments so far.
My opinion comes from the Montevideo Regional Meeting, which is the only one in which I have participated. A structured design of the workshop based on e.g. GW-MATE's Overview Series No. 1 Groundwater Governance could have been helpful in focusing the discussions and reducing the number of participants which, in my opinion, was excessively large. As a result, the meeting report neither reflected the richness of some of the presentations which were very good and useful, nor achieved an overall synthesis to contribute to the next steps.
Difficult to say, for I have been at the margin of the project so far - took however an active part in the latest Regional Consultation (Asia and the Pacific). Perhaps country-level relevance of the debate, i.e., grounding the debate in country-specific situations, seems to be missing so far.
I participated on the Regional consultations in China last December. I do not know, how many filled Questionnaires have been returned to the organizers however, their evaluation and presentation on the meeting was little "superficial". Probably evaluation report is much more comprehensive however, for its presentation and related discussion has to be given in future more time.

3. What would in your opinion most importantly define a successful Vision and Framework for Action on Groundwater Governance process?

High quality of content	6
Good stakeholder process	19
Generating political support for improved groundwater governance	32
Catalyzing new initiatives on groundwater governance	17
Creating many links between ongoing activities on groundwater governance	12
Firm guidance for groundwater management at country and local level	20
Connecting the groundwater community to the world at large	6
To make a vision and Framework for Action is not very useful	0
Other	3

Responses Other:

- * Securing additional and significant funding to support activities and initiatives
- * Providing a guidebook for groundwater management
- * Systematic analysis of inputs so far

4. How would you prefer to be involved yourself as member of the Permanent Consultation Mechanism?

Provide comments on draft versions of the document by email	30
Joining debate on specific topics through skype conference, webinar or others	16
Forming teams or committees that work on follow up of the outcomes	29
Help promote and raise publicity for the Vision and Framework for Action	18
Would not like to be involved	0
Other	7

Responses Other:

- * However more engagement would require funding for IWMI
- * Very peripheral participation
- * Provide consulting service
- * Strengthen ties with political decision makers on groundwater governance
- * Role of PCM is unclear
- * Translating global outcomes into regional action
- * "unknown"

5. Would you have specific ideas or suggestions for the preparation of the Vision and Framework for Action, including the process, outcomes, links to other initiatives, follow up once completed, etc?

Make something that could be presented to governments for follow-up. Do not mess around with people that have been told that they will receive a couple of months of much-needed salary, ask them to send in their CVs, have them fill in forms, make a contract, have them do some work already, and then, when the contract is about to be finalized, let them know by a short e-mail "oh sorry, we do not have the money". This is morally incorrect. The UN is there to help these people, not to bother them even more.

"Think globally, act locally!" Based on the old slogan I recommend to look for tangible global outcomes that can be translated to regional and national activities. Often at regional and national level there are potential partners or projects which could help bringing to fruit any proposed follow up activities.

I would suggest a follow up on agreed action plan, starting at country level and progressively moving to regional level; this could be in a 2 to 3 years period given that some processes (i.e. development of country policies takes more than a year) take long. Countries could set their own targets or design a universal framework (but probably regions/countries are at different levels in terms of groundwater governance). Links to other initiatives would also be welcomed, i.e. UNESCO initiatives on mapping groundwater resources and also groundwater monitoring network initiative; just a thought, Thank You

This project must be linked to the world wide groundwater monitoring program as well as other relevant regional groundwater projects that are underway - or planned - and these should be assessed for possible linkages.

As lead author of the central thematic paper on governance and policy, I am already actively involved in all aspects of the project.
Our main interest as Cap-Net had been to partner in follow up capacity development actions. We remain committed to doing this.
The challenge as always is implementation. There needs to be strong linkages to national actions and outcomes. Focus on a few countries where these actions can be implemented.
Not at this time.
Developing a framework for or guidebook to better groundwater governance is a complex task. It may be that there is a core group of people among the members of the very large Permanent Consultation Mechanism who have interest in assisting this effort. If it has not already done so, the Project Steering Committee may wish to develop an approach for consulting with these self-identified individuals as synthesis, analysis, and document preparation proceed.
Not at this moment; later when we have the draft versions.
I think the process should be participatory, involving all the stakeholders and mechanisms to link the program to other regional, international and local initiatives needs to be established as well as formation of follow up teams for the way forward
<ul style="list-style-type: none"> - Finding a way to embed it into existing national and global initiatives would improve uptake. - Highlighting the benefits, through good case studies, of good governance. These case studies could be targeted at policy and decision makers, funders, communities, etc. In essence, creating a convincing story and not yet another framework and vision for which they need to find a budget and personnel for without them seeing what the return on investment will be.
Not at this time, but some may emerge as we move forward.
<ol style="list-style-type: none"> 1). I think it would be nice to involve local and country stakeholders to identify missing gaps 2). This year should define actions, specifically. Otherwise, it will be big ideas, big offices, big money spent and No practical actions. This explains why some members are already opting out of involvement.
Existing legal frameworks that protect the quantity and quality of groundwater, it is of the utmost urgency articulate mechanisms to implement them, given that the groundwater are turning more and are more vulnerable
<p>I am greeting you all and extremely happy to submit you my consultations and the a responses you of asked me as for as I could. my suggestions as follows:</p> <p>to enlarge and deliver to all the people of the world in order to understand what water governance is from capital city to village and can achieved to promote the representatives of the countries of permanent consultation mechanism and make offices to wark in to carry out the huge duties on thier shoulders. if so made I hope the public people in the globe will undrestand what water governance is and at the same time every individual will keep the know- how and how to treat the awareness from the foresaid office. it is better to serve like media,TV,radio and free newspapers</p>

<p>Previamente a la elaboración final de la visión y el marco para la acción, estimo sería provechoso para el proyecto realizar una reunión con todos los miembros del mecanismo de consulta permanente para debatir el borrador de las conclusiones finales. Luego estimo de vital utilidad para lograr a futuro una buena gobernanza de las aguas subterráneas, que el proyecto mantenga on line el espacio de debate entre los miembros del mecanismo de consulta permanente.</p> <p>Prior to the final preparation of the vision and the framework for action, I think it would be helpful for the project to hold a meeting with all the members of the permanent consultation mechanism to discuss the draft of the final conclusions. Then think of vital utility to achieve future good governance of groundwater, keep the project online space for discussion among the members of the permanent consultation mechanism.</p>
<p>Yes, I would have specific ideas, especially pertaining to latest happenings in groundwater governance in India and Bangladesh where I have been working very closely of late.</p>
<p>I suggest to keep it practical, bearing in mind that the specific social, economic, geological, etc. conditions of each region, country, or zone to be managed, will play a main role in the success of it's implementation. So the Framework shouldn't be a "One size fits all", since reality shows that it's better to have flexible enabling tools that will adapt to each situation. In the end, Follow up may prove to be more important than the making of the Framework itself, so this stage (generally neglected) should be carefully planned.</p>
<p>Will comment once get involved</p>
<p>Involve capacity building networks acting on groundwater management</p>
<p>discover a way of cross-pollination through the involvement of several professionals in each state.</p>
<p>involvement of professionals and high level experts in the preparation of Framework of action.</p>
<p>Provide good bibliographic tools by important categories of research and policy analysis.</p>
<p>Me gustaria participar en una idea clara de gobernalidad, porque en mi país no hay ley de agua y este tema no esta incluido en los debates.</p>
<p>Africa has institutions and processes who lead the direction of groundwater governance, however weak in some instances.</p> <ul style="list-style-type: none"> * AMCOW and its Africa Groundwater Commission * The Regional Economic Communities * The Regional UNESCO IHP <p>The outcome of the processes must be that each of these institutions has taken the Vision and Framework for Action on board and into their processes.</p>

The first phase of the project consists of a review of the global situation of groundwater governance and aims to develop a Global Groundwater Diagnostic integrating regional and country experiences with prospects for the future. This first phase builds on a series of case studies, thematic papers and five regional consultations. While the thematic papers are adequate and cover almost all the topics, the case studies are very limited (3 only from Kenya, South Africa and India). I note that the first phase has not finished yet. The second phase will be the development of a Global Framework for Action consisting of a set of policy and institutional guidelines, recommendations and best practices designed to improve groundwater management at country/local level, and groundwater governance at local, national and transboundary levels. I am not sure about the dissemination of this output and how it will be communicated to the targetted audience, but I would recommend making sure that it is launched in a number of major activities related to water in the 5 regions for this part.

In the case of the proposed Trifinio water governance has to be linked to the shared water management in border areas. Promote support of national authorities with jurisdiction over the regulation of groundwater and be part of the environmental agenda of Central America as strategic natural resource. The proposal vision and should contribute to the debate of national legislation on strategic actions for the protection of underground aquifers and indicators to assess the use and consumption of water which allows monitoring.

Dado que el marco Global tiene su plataforma en el desarrollo de los niveles fronterizos, nacionales y locales, es fundamental que un grupo de especialistas en aguas subterráneas, tengan la tarea de diseñar los preceptos metodológicos que hagan digerible el conocimiento de la Gobernanza de las Aguas Subterráneas, en función de elaborar instrumentos técnicos que permitan la toma de decisiones en estos niveles, en el manejo integral sostenible del recurso hídrico subterráneo y finalmente sean transferidos a los beneficiarios directos de esta fuente. Given that the Global Framework has its platform in the development of the border, national and local levels, is essential to having a group of specialists in groundwater, the task of designing the methodological precepts that make palatable the knowledge of the governance of the underground waters in function develop technical instruments that allow decision making at these levels in the integral management sustainable underground water resource and finally transferred to the direct beneficiaries of this source.

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In Africa/Sub-Saharan Africa, it could be linked to on-going initiatives with BGR, World Bank, Cap-Net, IWMI and others to develop and disseminate training and advocacy material on GWG for national as well as transboundary entities (like river basin organisations).

I believe we need to think how to best spread the Vision and Framework for Action and how to make it effective. My personal recommendation would be to support and promote, in each country concern, an integrated groundwater management project. The goal would be to show how groundwater exploitation can be sustainable.

The comparative analysis between the results of the different consultation meetings, considering similarities and differences, will allow to construct the map of the state of the art of groundwater governance, in the world. The MAP must be dynamic and interactive. It will be very important to strength the links with other IHP programmes, like GRAPHIC, GRAPHIC, TWAP...etc.... Knowledge is the key.....

Idea of projects/follow-up actions to realise the Vision and/or catalysing actions included in the Framework should be included in the Vision/Framework for Action reports.

As follow up, from the presentations in all regional meetings, representative and paradigmatic cases could be selected to implement pilot GW Governance projects and some kind of international GWG "lighthouse function" and "benchmarking" (as developed in GW-MATE) could be led by the sponsoring agencies in order to contribute to the SUR (Sustainability-Upscalability-Replicability) Challenge.

now i am a consultant for the (HCWW) Holding Company For Water And Wastewater. I am establishing a new company for water botteling and within collection of data i found that their is a very long pressed ground water well in the egyptian western dessert SEWA MY IDEA IS HOW TO INVOLVE FAO in making agricultural projects and other activities in this promessing place thks

Engaging with highest-level policy- and decision-makers in select target countries, for highest visibility and impact of project outcomes.

Based on my experience on regional consultation: Asia and Pacific region in China and also on my evaluation of reports from other regional meetings sent me by Dr. Aureli I propose that more attention will be given to the groundwater governance in emergency situations, particularly with respect to natural disasters. Almost all regions are affected by different natural disasters and each one requires specific governance policy, reaction and governance organization. Asia region is a good example. In final evaluation of regional consultations I propose to give more attention to this topic.

Jaroslav Vrba

Annex 4. Examples of Good Practices in Groundwater Governance identified as part of Thematic Papers and Regional Consultations

Country	Good practice
<i>Latin America and the Caribbean</i>	
Chile	Pan de Azúcar Aquifer: Creation of a Mesa (stakeholders' group) for: participatory groundwater monitoring (quality and quantity); coordination; capacity building.
Bahamas	Vulnerability modelling for protection after Hurricane Frances
Paraguay	Formation of the Water Council for the Capiibary Catchment to suggest new regulations and legislation to local authorities and undertake (ground)
Brazil	Creation of Groundwater Monitoring Network
Costa Rica	Sardinal Aquifer: Creation of a technical committee, preparation of aquifer management plan and groundwater monitoring.
Paraguay, Argentina, Uruguay, Brazil	Transboundary Guaraní Aquifer: Regional coordination mechanism; pilot projects supporting local groundwater management; creation of manuals and guides for local regulation
Venezuela	Establishment of different exploitation areas depending on the state of the groundwater resources.
Argentina	Santa Fe: Monitoring; pollution risk management; delineation of protection zones; recharge quantification; impact of climate change.
Plata River Basin (Argentina, Bolivia, Brazil, Paraguay, Uruguay)	Cuenca del Plata Treaty (1969), including integrated groundwater resources management.
Guatemala, Honduras and El Salvador	Trifinio Plan for integrated natural resources management, incl development of hydrogeological map of the area and groundwater monitoring; establishment of a permanent committee; constant dialogue between stakeholders and special effort for managing transboundary conflicts
Peru	Groundwater management strategies for Ica-Villacuri Valleys (sustainable use or orderly depletion) and Chancay-Lambayeque Valley (conjunctive management to address water-logging and salinization)
<i>Near East and North Africa</i>	
Lebanon	Litani River Authority: including groundwater monitoring in river basin management
Bahrain	Banning of high water consumption alfafa cultivation Managed aquifer program making use of treated sewage effluent at strategic location
Jordan	Setting up highland platform combining economic development with water resource management
Morocco	Contract management on three aquifers (Souss, Triffa and Figuig) to support local organizations (WUAs, Basin Authority and extension services)
Kuwait	National committee to discuss overuse in Abdally and Wafra and to close illegal wells
Algeria	Conservation activities (protection zones and well closure) in the intensively exploited La Mitidja Aquifer
Sudan	Water board overseeing enforcement of well licensing system in Gash
Tunisia	Agricultural development group representing all stakeholders managing and monitoring (abstraction and salinity) of the overused coastal El Bsissi aquifer
Egypt	Abstraction limits and regulated land use in Uwinat oasis

<i>Sub-Saharan Africa</i>	
Southern Africa	Mapping of trans-boundary aquifers benefits under regional cooperation and production of a web-based SADC hydrogeological map
South Africa	Managed aquifer recharge as a joint exercise between a coal mining company in the Limpopo coalfields and local land users
<i>Asia and the Pacific</i>	
China-Russia	Heilongjiang Amur boundary river: transboundary cooperation on groundwater inventory
China, Shenzhen City	Systematic use of rain water: capture, infiltration and treatment of roof runoff; additional management of parking area runoff and i design of the stormwater wetland
China, Zhongmu County	Swipe card based on water quota used in groundwater based irrigation system
Thailand, Bangkok	Reversed trends in groundwater resource decline and environmental degradation through application of regulatory measures (licensing and charging); successful targeting of groundwater management measures in objectively-defined priority areas; central groundwater 'apex' agency working i with provincial government offices to manage a diffuse groundwater resource; recycling of groundwater conservation fee into a 'groundwater fund' to finance monitoring and research activities; groundwater pollution control in the more vulnerable aquifer recharge areas
Indonesia, Jakarta	Phasing out individual pumping; increasing groundwater price four fold; 10% of water prices shared with surrounding communities
Philippines	Legislation to ban the direct injection of waste water into groundwater
Cambodia	Zoning of aquifers under stress
Kyrgyzstan	Ban on pumping from fossil aquifers
India, Andhra Pradesh	Systematically promoted local management: farmers become "barefoot hydrogeologists", engage in data collection and analysis; Groundwater Management Committees federated into Aquifer Associations; crop water budgeting, access to water saving techniques; Farmer Water Schools build capacities and enabling informed choices
New Caledonia (Pacific)	Voh-Kone-Pouembout Water Management Committee to plan the management of groundwater in vicinity of new developed large scale mining complex
<i>North America, Europe and Australasia</i>	
USA, Arizona	Active Management Areas – controlling over use through water rights quantification; conservation programs; monitoring of use; assured water supply for new development; no new agricultural acreage; water banking (aquifer storage & recovery)
USA, Arizona	Upper San Pedro Partnership, a consortium of 21 local jurisdictions, state and federal agencies, and non-government organizations aimed to restore and maintain the sustainable yield of the regional aquifer within the Sierra Vista Subwatershed
Australia, NWI	National Water Industry Policy: Nationally compatible water access entitlements; water plans with provisions for environmental water needs; removal of barriers to trade in groundwater licences and allocations: water accounting – metering; recognise connectivity of surface and groundwater
Netherlands	Serious game for groundwater governance (IGRAC)
Spain	Groundwater Management Associations; study of groundwater dependent wetlands; education and awareness campaigns

