



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

Final report

February 2013

Food and Agriculture Organization of the United Nations

Office of Evaluation (OED)

This report is available in electronic format at: <http://www.fao.org/evaluation>

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

© FAO 2013

FAO encourages the use, reproduction and dissemination of material in this information product. Except where otherwise indicated, material may be copied, downloaded and printed for private study, research and teaching purposes, or for use in non-commercial products or services, provided that appropriate acknowledgement of FAO as the source and copyright holder is given and that FAO's endorsement of users' views, products or services is not implied in any way.

All requests for translation and adaptation rights, and for resale and other commercial use rights should be made via www.fao.org/contact-us/licence-request or addressed to copyright@fao.org.

For further information on this report, please contact:

Director, OED
Viale delle Terme di Caracalla 1, 00153
Rome, Italy
Email: evaluation@fao.org

Composition of the Evaluation Team

Evaluation team

Dr Frank van Steenberg, Groundwater Expert

FAO Office of Evaluation

Ms Tullia Aiazzi, Senior Evaluation Officer

Ms Brenna Moore, Evaluation Analyst

Table of Contents

Acronyms	v
Executive Summary	vi
1 Introduction.....	1
1.1 Background of the Mid Term Review.....	1
1.2 Structure of the report.....	2
2 Evaluation methodology.....	2
3 Context of the project.....	3
3.1 Background: the importance of groundwater in a global context.....	3
3.2 The Groundwater Governance Project in a global context.....	4
4 Project concept and relevance.....	4
4.1 Project design and theory of change.....	4
4.2 Project relevance	5
5 Project implementation	7
5.1 Budget and expenditure	7
5.2 Project management	8
6 Results and contribution to stated objectives	9
6.1 Outputs and outcomes	9
6.1.1 <i>Component 1: Compilation of the state of groundwater governance</i>	<i>10</i>
6.1.2 <i>Component 2: Make a global/regional diagnostic – through five regional consultations.....</i>	<i>11</i>
6.1.3 <i>Component 3: Development of a Shared Vision and Global Framework for Action</i>	<i>12</i>
6.1.4 <i>Component 4: Communication strategy.....</i>	<i>13</i>
6.2 Technical quality	14
6.3 Early outcomes.....	15
7 GEF and FAO evaluation criteria	18
8 Conclusions and recommendations	20

Acronyms

GEF	Global Environmental Fund
GWP	Global Water Partnership
FAO	Food and Agricultural Organization
IAH	International Association of Hydrogeologists
IHP	International Hydrological Programme
IWMI	International Water Management Institute
MTR	Mid Term Review
OECD	Organisation for Economic Co-operation and Development
PCM	Permanent Consultation Mechanism
SIWI	Stockholm International Water Institute
UNESCO	United Nations Educational, Scientific and Cultural Organization

Executive Summary

Information about the evaluation

ES1. The project ‘Groundwater Governance: A Framework for Country Action’ (hereafter ‘Groundwater Governance Project’) is being undertaken because ‘the governance of subsurface water remains largely uncharted in spite of the large and increasing importance of groundwater use.’ Groundwater is not as visible as surface water, but plays a much larger role than often realized in irrigation and urban and rural water supplies and in sustaining ecological services.

ES2. The Groundwater Governance Project is an initiative funded by the Global Environmental Facility (GEF), executed by FAO in partnership with other agencies. Project activities started with an inception meeting in September 2011, after a period of preparation including the first steering committee meeting from January-August 2011. The current project closure date is January 2014.

ES3. The project has five components:

- Compilation of the state of groundwater governance – through thematic papers and country case studies, to be summarized in a synthesis document;
- Make a global/regional diagnostic – through five regional consultations, culminating into a diagnostic document;
- Development of a Shared Vision and Global Framework for Action on Groundwater Governance;
- Communication and Dissemination of the Framework for Action;
- Project Management, Monitoring and Evaluation.

ES4. The Project Document established that an independent Mid-Term Review (MTR) should be undertaken in the second year of project implementation. This report presents the findings of this MTR.

Evaluation methodology

ES5. The evaluation methodology consisted of a review of main documents, interview in person or by phone/skype with core team involved in project implementation and a Google Survey among the members of the Permanent Consultation Mechanism, drawing a response of 56 stakeholders.

ES6. During the MTR, extensive consultation took place with project stakeholders; both draft Terms of Reference and report were circulated to FAO internal stakeholders for comments and suggestions, as well as to the Project Steering Committee. The comments and suggestions received were incorporated, as considered appropriate by the team, into the final report.

ES7. The MTR was carried out under the responsibility of FAO Office of Evaluation (OED) and carried out by an independent consultant, supported in his work by OED staff.

Key findings and conclusions

ES8. The MTR found the project to be highly relevant and timely. Groundwater use is a large, increasing and often forgotten component in water management, but also in economic development and ecological services. Groundwater governance in most countries is weakly

developed and is generally invisible on political agendas. This is in spite of some extremely worrying facts and figures some of which are of global significance. The Groundwater Governance Project hence is the right activity at the right time.

ES9. The project so far has managed to bring together five very important organizations (FAO, GEF, IAH, UNESCO-IHP and World Bank), around the theme of groundwater governance in a program for which they take joint responsibility. Four regional consultations have been well implemented and have resulted in a fertilization of ideas. This is also the assessment of a majority of members of the Permanent Consultation Mechanism.

ES10. After some delays the overall progress of the project is on track. The project has also generated considerable material and unearthed a large number of previously little known good cases. It also served already to launch new initiatives such as UNESCO Category 2 Groundwater Centres in Uruguay and China. The thematic papers and the case studies – combined with the outcomes of the regional consultations – provide a solid knowledge base. Combined with the goodwill created with the regional consultation this provides the basis for the next step of the Vision and Framework of Action. A main challenge that remains is to make the strong links between groundwater governance and main players and themes in ‘the rest of the world’: for instance in land use planning, urban development, mining, food security and economic development. This comes out of a text analysis of the main documents produced so far as well as the assessment of members of the Permanent Consultation Mechanism.

ES11. This new stage requires a different approach and careful planning in order to achieve the envisaged and also to achieve the potential of the project to put groundwater high on the agenda. It is important that the follow up process is well planned and has a gravitational pull of people wanting to be associated with it and initiatives wanting to be linked and tangible output coming out of it.

Recommendations

ES12. The MTR formulated 3 main recommendations. Each of them is supported by a detailed plan of work for the next project stage. It is suggested that these recommendations are discussed with some sense of urgency prior to the last Regional Consultation and the Private Sector Roundtable in March 2013: this will allow timely and important decision-making, such as the timetable of events, the content of the Framework of Action, the writing /support group to set in motion the Vision and the Framework for Action preparation process..

Recommendation 1: To the Project, on its Vision and Framework Process

Make the Vision and Framework Process widely-connected by scheduling it alongside and linked into other activities

Box 1. Plan of work for implementing Recommendation 1

a) Make an early start on the Vision and Framework Process preferably at the March 2013

<p>Regional Conference.</p> <ul style="list-style-type: none"> i. Present the process (including time-table and calendar of events); if feasible draft Diagnostic (main messages to larger world so far)¹ and expected outcomes of the Framework for Action (FFA) (see 3c); ii. Use some of the discussion to explicitly contribute to the Vision (or have ingredients of a draft Vision); iii. Orient the Roundtable for the Private Sector to a meeting of champions – involving large private sector enterprises in tangible actions (for instance data sharing), but maybe also municipal users that are often the first champions for better groundwater governance and management.
<p>b) Schedule events alongside other water development and food security meetings where specific steps in the Vision and Framework for Action process are discussed, promoted or launched; for example²:</p> <ul style="list-style-type: none"> i. Giving the Stockholm Water Week (or another event) the ‘privilege’ of hosting the launching of the draft Vision (and Diagnostic) on Groundwater Governance; ii. Presentation of Vision/FFA and follow up at the IW GEF Conference 2013 in October 2013; iii. Organizing a special event around World Water Day 2014 to launch the FFA iv. Launching of FFA at Intergovernmental Council of the UNESCO International Hydrological Programme (IHP) at its 21st session in July 2014 , so that all Member States can buy in and commit to follow up steps; v. Identify other events – such as Africa Water Week, Asia Water Week and also very importantly non-water events (e.g. in urban management, mining, food security) – where drafting team and core members can have side-events or presentations;
<p>c) Make sure that groundwater governance (including suggestions for a future Code of Conduct) is discussed as part of the Country Dialogues on Water Governance organized by OECD;</p>
<p>d) Engage in the GEF Replenishment Process in which new priorities will be established that will take place in 2013 (will start in January/ February) by briefings to the Technical Committee on the Diagnostic, Vision and Framework for Action;</p>
<p>e) Develop a special issue of the IAH Publications Series or Hydrogeology Journal on Groundwater Governance (in order to reach 3000 plus groundwater specialists³) – making use of selected presentations at the Regional Consultations and work done as part of the Thematic Papers – consider the same for other more general journals;</p>
<p>f) Consider to link to the formulation of the new Sustainable Development Goals, which are currently under preparation – establishing contact with the drafting team and issuing a position statements (based on the Diagnostic and Vision) on how groundwater governance can be linked to the SDGs, having groundwater governance at least mentioned in an SDG on Water Resources Management;</p>

¹ The full Diagnostic can be prepared only when the report of the last regional consultation is ready in order for it to be comprehensive

² It is important to be selective given time and resources and avoid mega-events where the groundwater message is drowned in a sea of competing topics.

³ The reason is that in this important target group better sharing of ideas on groundwater governance alongside technical hydrogeological excellence will be helpful.

- g) Enlarge the support group – keeping intact the core project team of FAO, GEF, IAH, UNESCO-IHP and the World Bank – but have a larger number of organizations involved, endorsing the outcomes (and even adding their logos) of the next steps.

Recommendation 2: To the Project, on resources and plans

Adequately resource and plan the organization of the Vision and Framework for Action Process

Box 2. Plan of work for implementing Recommendation 2

- h) Extend the closing date of the project to September 2014 - as also requested by the Steering Committee in its last meeting; and develop a detailed implementation plan including clarifying the remaining in-kind contributions of the project partners and assessing the financial resources at hand and those that can be mobilized from others;
- i) Following the extension of project closing date, set a time table for activities as follows:
- iv. Key messages from diagnostic – March 2013
 - v. Consultation on different topics – April-July 2013
 - vi. Draft Vision – August 2013
 - vii. Final Vision and Draft Framework for Action – January 2014
 - viii. Final Framework for Action – March 2014;
- j) Have clearly dedicated staff at FAO NRLW to coordinate the process. It is noted that the core team here is engaged in several time-competing activities. Where required, mobilize additional resources from the WPP Program of the World Bank, the Policy Support Program of BGR or others;
- k) Select as a priority a Vision / FFA support /drafting team with members (not more than 5) selected by the different project partners – with members having good listening skills and writing skills, but would work independently. The writing team will:
- i. Make preparations at international events and be involved in the preparations of special sessions;
 - ii. Prepare drafts versions of the key documents: Diagnostic, Vision and Framework;
 - iii. Engage in systematic discussion with stakeholders (prepare a plan)– to get ideas and inputs but also trigger actions and new activities;
 - iv. Keep contact and ask for input of the World Groundwater Panel (see f) and the Steering Committee.
- l) Align the communication activities of UNESCO-IHP and FAO NRLW, and make it very much useful for the Vision and Framework for Action process, among others by:
- i. Directing attention to the activities and early outputs of the V/FFA process and create the momentum (through regular newsflashes and statements on groundwater issues and solutions) to help give the V/FFA a magnetic pull;
 - ii. Clarifying (and possibly activating) the role of the Community of Practice – combining it with the platform for the PMC and setting up a number of thematic discussions;
 - iii. set up the Ground Water Talks as planned and extend to other champions and persons working on groundwater governance ;
 - iv. Target outputs from the Diagnostic (especially the key messages) to a larger media and explore developing media partnerships and making use of journalist networks;

<p>v. Use www.groundwatergovernance.org to post consultation documents and make set up links to other groundwater websites – making it the prime portal and link to for instance:</p> <ul style="list-style-type: none"> • SIWI • IWMI • TheWaterChannel • Water Observatory • BGR/BGS • OECD • Etc.
<p>m) Rename the Advisory Committee as the World Groundwater Panel and:</p> <ul style="list-style-type: none"> i. consider having an iconic figurehead for it (ex-president, television personality), for instance from a country that is a major groundwater user (India, China) so as to help the political process in these high impact countries; ii. extending membership (now 7) to have more regional representation; iii. define role as reviewers and ambassadors/ spokespersons;
<p>n) Actively engage the Permanent Consultation Mechanism by asking its members to:</p> <ul style="list-style-type: none"> ix. Provide comments on draft versions of the document by email; x. Join/ organize debate on specific topics through skype conference, webinar or others (making use also of the IHP National Committees and IAH discussion groups or IW Learn Community of Practice if these would become available); xi. Forming teams or committees that work on the follow up of the outcomes of the FFA; xii. Generally help promote and raise publicity for the Vision and Framework for Action and for better groundwater governance in general – using information packages and statements drafted by the communication team;
<p>o) Create a large mailing list and make good use of constituencies (IAH members; FAO Regional Offices; World Bank TTLs; UNESCO-IHP committees) with special efforts to engage with ‘people on the ground’– getting engagement by asking comments and contributions to the V/FFA – particularly from individuals who do not necessarily have a water background.</p>

Recommendation 3: To the Project, on contents

Agree on content of the Diagnostic, the Vision and Framework for Action document, make sure they have ‘teeth’ and weight and communicate the expected heavy output and spin-off widely

Box 3. Plan of work for implementing Recommendation 2

p) **Diagnostic.** This should capture the main messages from the Consultations, Case Studies and Thematic Papers. It is an alert to main issues and not a long technical document that will take much time to complete. For the latter purpose, it is better to have the existing Synthesis updated and elaborated (as a sort of ‘State of the World in Groundwater’). The Diagnostic will bridge the analytical stage to the visionary stage. It is proposed that the Diagnostic is produced rapidly and is used to convey a message to a larger media and community, and hence also generate more excitement for the process, with a range of

<p>messages that show the urgency, regional variations and some solutions – for instance (taken from discussions so far):</p> <ul style="list-style-type: none"> i. In Europe the top aquifer is gone; ii. Small island states live on ever thinner slivers of groundwater; iii. Two-third of Asia’s megacities are overusing and uncontrollably polluting the aquifer they primarily depend on for their water supply; iv. In one third of India, groundwater resources on which its Green Revolution relied are in peril; v. Bangkok was subsiding due to groundwater abstraction but is now ‘back from the brink’.
<p>q) Vision. This should be a short document that sets out the need for better management of groundwater resources, but particularly linking groundwater governance with larger processes – economic development, ecological functions and land use planning – so that many non-water stakeholders can relate to it.</p>
<p>r) Framework for Action. This should be a document endorsed by the project partners and possibly other support organizations (OECD, UNEP, WHO, WBCSD, INBO, GWP, WWC, etc.) that outlines the actions required – doing justice to the variety of socio-economic and geographical –contexts – to achieve the Vision on Groundwater – including a number of tangibles such as:</p> <ul style="list-style-type: none"> i. Formulation of a Code of Conduct on Groundwater Governance for countries along the lines of the Voluntary Guidelines for Land Tenure prepared – following a two year consultation process – by FAO. The Framework for Action could also include a working sets of ideas for this code of conduct; ii. Pipeline of GEF-supported projects that will promote Transboundary Groundwater Governance – probably combined with special exchange and learning events and mirrored in a new emphasis in the GEF International Waters programme; iii. Set of project templates promoting local groundwater governance and improved food security and access to water, to be used in the portfolios of the World Bank as well as the GEF Adaptation Fund, the GEF SSCF and SLDF. These would be based on good practices as identified among others in the consultation or the framework process such as Bangkok Groundwater Management or Andhra Pradesh Farmer Managed Groundwater Systems and many others (see also annex 4 to this report) that can serve as examples for such templates; iv. Other possible actions that are being considered but not yet connected to the larger Framework – such as creating ‘hydrogeology of the future’ curricula – addressing challenges of groundwater management with the help of CAPNET/BGR.
<p>s) Define and start to prepare the activities to take place beyond 2014 – such as possible International Year of Groundwater, continuation of World Groundwater Panel, continuation of the website (as broad groundwater portal) , formulation of a Code of Conduct, stock taking events at WWF7 and IW GEF Conference 2015, workings of follow up groups, etc.</p>

1 Introduction

1.1 Background of the Mid Term Review

1. The project ‘Groundwater Governance: A Global Framework for Action GCP/GLO/277/GFF’, henceforth referred to as the Project, is a GEF-funded initiative, executed by FAO in partnership with other agencies. Within FAO, the Project is implemented by the Land and Water Division (NRL) of the Natural Resources Department of FAO in partnership with UNESCO-IHP and the International Association of Hydrogeologists (IAH), with support from the World Bank and GEF International Waters. Funding is provided by the GEF (USD 1,750,000) with co-financing – in the shape of in-kind contributions – from FAO, UNESCO-IHP and the World Bank. These co-financing contributions, equivalent to USD 2,700,000, brought the total budget to USD 4,450,000. In addition, regional consultations were co-funded by the countries hosting them.

2. The Groundwater Governance Project started after preparation effectively in April 2011 and at the time of writing this report, its closure date was January 2014. The project has five components:

1. Compilation of the state of groundwater governance – through thematic papers and country case studies, to be summarized in a synthesis document
2. Make a global/regional diagnostic – through five regional consultations, culminating into a diagnostic document
3. Development of a Shared Vision and Global Framework for Action on Groundwater Governance
4. Communication and Dissemination of the Framework for Action
5. Project Management, Monitoring and Evaluation

3. Box 1 contains an overview of the planned activities, as taken from the main project presentation at the Regional Consultations:

Box 1. Overview planned activities



Source: Presentation at Asia-Pacific Regional Consultation

4. The Project Document established that an independent Mid-Term Review (MTR)⁴ should be undertaken in the second year of project implementation. The purpose of the MTR 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. Based on an assessment of the progress in 2011-2012, recommendations are made on the planning of the activities in the forthcoming phase, including the last regional consultation and roundtable, the preparation of a diagnostic report and the preparation and content of the Vision and Framework for Action. Full terms of reference for the MTR are provided in Annex 1.

5. This is the report of the independent Mid Term Review (MTR) of the Groundwater Governance Project⁵. The MTR was undertaken in the period December 2012-January 2013, by an independent consultant supported by two OED staff members. The Review covers the period 2011-2012 as well as the plans for the activities in the remainder of the project.

1.2 Structure of the report

6. This Mid Term Review report discusses subsequently: the methodology used for the review (section 2); an assessment of the context for the project (section 3) and the main findings (section 4) and recommendations (section 5). The main findings include a six-point assessment of achievements, following the rating system used by the GEF.

2 Evaluation methodology

7. The methodology used for the mid-term review has been:
- (a) Review of project documentation – in particular progress reports, thematic papers and outcomes of the regional consultations, including the participants survey undertaken as part of each consultation.
 - (b) Interviews with key persons involved in the implementation of the project, either in person or by phone. This included interviews with the FAO team implementing the project, and with the partner institutions (IAH, UNESCO-IHP, the World Bank and GEF). Annex 2 provides the list of persons consulted.
 - (c) Questionnaire survey using Google Doc – this was sent to the 84 members⁶ on the mailing list of the project's Permanent Consultation Mechanism (PCM). The PCM consists of a register of groundwater experts and managers, who are meant to be consulted in the preparation of the main project outcomes and be engaged in possible other activities. 56 PCM members (65%) responded within the stipulated two week period. Annex 3 provides the outcome of the PCM survey.

⁴ The term was used in compliance with GEF terminology, although the exercise was a Mid-Term Evaluation, as it was carried out under the responsibility of FAO Office of Evaluation.

⁵ FAO project GCP/GLO/277/GFF; GEF ID 3726. The full name of the project is Groundwater Governance: A Framework for Country Action. In the GEF evaluation system, a mid-term review of a Full-Size Project corresponds to an FAO mid-term evaluation.

⁶ This list of PCM members is growing.

8. The draft Terms of Reference and report were circulated to FAO internal stakeholders for comments and suggestions, as well as to the Project Steering Committee. The comments and suggestions received were incorporated, as considered appropriate by the team, into the final report.

3 Context of the project

3.1 *Background: the importance of groundwater in a global context*

9. In the words of one of the key note presentations the Groundwater Governance Project is undertaken because ‘the governance of subsurface water remains largely uncharted in spite of the large and increasing importance of groundwater use.’

10. Groundwater is not as visible as surface water, but plays a much larger role than often realized in irrigation and urban and rural water supplies and in sustaining ecological services, including the base flows of rivers. Some facts – partly from the thematic papers prepared under the project – illustrate this:

- Globally, of the 301 million ha of farmland equipped for irrigation, 38% are primarily served by groundwater. Actual use of groundwater in irrigation is even higher 43% (Siebert et al 2010). In the Arab Peninsula as much as 98% of the irrigation water comes from groundwater.
- 40% of total industrial water withdrawals and 50% of total municipal water withdrawals globally is estimated to come from groundwater (Zekster and Everett, 2004).
- Important wetlands are dependent on sub surface flows.

11. In several instances the intense use of groundwater has become problematic, for example:

- The largest groundwater consumers in absolute numbers (India, China and the USA in that order) are faced with over extraction in important parts of their countries. The same is true for the Middle East and North Africa where all but one country have a negative balance.
- 110 of the 660 largest cities in China face severe (ground) water shortage– often manifest in land subsidence.
- There is still tremendous scope to improve groundwater availability by systematic recharge but there are also states in India where almost the entire area now is covered by ‘watershed programmes’ and the maximum appears could be reached.
- There are serious concerns regarding the irreversible degradation of groundwater quality:
 - High concentrations of nitrate – well above the 45 to 50 mg/L limit for drinking water – can be found in aquifers in many agricultural areas, including in Europe, which precludes the use of these sources for drinking water
 - Seawater intrusion into aquifers and upconing in coastal areas – where global population is concentrated – has been observed in many parts of the world: Brazil, Spain, Tunisia India, Pakistan, Yemen, Bangladesh, among others.
 - Due to uncontrolled pumping naturally occurring radioactivity has spread in the groundwater system in the Middle East.

- In China, 90% of aquifers experience various degrees of industrial contamination.

12. There are a number of developments and trends that are likely to further increase groundwater use:

- Globally, food production is expected to increase by 70% in 2050 (base year 2010); a large part (89%) of this increase has to come from intensification on existing land, including more double cropping (FAO 2010). Intensification and double cropping is often sustained by supplementary irrigation from groundwater.
- Demand for horticultural crops will grow faster than for other crop types. Because of the need for precision water delivery horticulture depends disproportionately on groundwater. In addition there is the preference for the use of relatively unpolluted groundwater for regulated urban quality food markets will also increase the demand for groundwater.
- In Africa groundwater for productive use is as yet uncommon but it is set to increase as can be witnessed in parts of Kenya, Nigeria and Ethiopia
- Climate change is predicted to bring more variability in spatial and temporal water availability, making the use of buffer systems such as groundwater more likely.
- By 2050, urban populations are expected to have reached 6.3 billion people. In a business as usual scenario, urbanised lifestyles and the associated high contamination loads will exert huge pressure on the vital aquifer systems located near metropolitan areas.

3.2 *The Groundwater Governance Project in a global context*

13. The Project was prepared at the request of the GEF Secretariat and following recommendations of the GEF Scientific and Technical Advisory Panel, (in response to the emerging global concerns over increasingly unsustainable use of groundwater and degradation of aquifers and the absence of management thereof. 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. 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).

4 Project concept and relevance

4.1 *Project design and theory of change*

14. The objective of the project has been formulated in the Project Document as follows: “to influence political decision making by achieving a significantly increased level of awareness of the paramount importance of sustainable groundwater resources management in averting the impending water crisis.” This will contribute to the GEF’s objectives in the GEF international focal area and address Millennium Development Goal 7: to ensure environmental sustainability.

15. The objective and impact of the project also emphasize ‘political action’ and ‘involvement of new set of players’, beyond groundwater specialists: *“the project will attempt to involve and influence a new set of players and researchers and set of beneficiaries that will have had limited exposure to groundwater governance issues – municipalities, agricultural agencies, environmental agencies”*.

16. The ProDoc also identified three principles to guide its implementation, namely:

- i. Building on Existing Knowledge-Base and Initiatives;
- ii. Strengthening Partnerships;
- iii. Mainstreaming Groundwater in the GEF Programs and Projects.

17. The principles are coherent and meaningful, with the first two principles creating the basis for the third principle of mainstreaming groundwater in the GEF Programs and Projects – in particular through engagement and a well-planned Vision and Framework Process. It is however the assessment of the mid-term review that in reality the impact of the project goes beyond the programming at GEF. It also concerns the portfolio development of other lending organizations, especially (but not exclusively) the World Bank that is a partner in the project. Moreover the Project has the ability – partly already manifest in the previous period – to trigger many new initiatives on groundwater governance by a large number of players.

18. Under the project also a definition of groundwater governance was agreed: “Groundwater governance is the process by which groundwater is managed through the application of responsibility, participation, information availability, transparency, custom, and rule of law. It is the art of coordinating administrative actions and decision making between and among different jurisdictional levels—one of which may be global.” There is much merit in a jointly agreed definition, but it needs to be observed that it emphasizes the process over the results and that it is formulated in very normative terms, that are not necessarily at par with political realities everywhere.

19. At the conceptualization of the project, the World Bank was envisaged to implement the project on behalf of the five organizations; but this role was shifted to FAO because of the knowledge and process intensive nature of the project (outside the immediate scope of a loan portfolio) and FAO’s well-known ‘normative’ role and because of the link with agriculture as the largest groundwater consumer.

4.2 Project relevance

20. Section 3 outlined the main challenges faced with respect to global groundwater resources, and how the Groundwater Governance project was designed in this context. Since 2000, (integrated) water resources management has come onto the global agenda, but groundwater has been relatively invisible. For example, groundwater was absent from two international sets of guidelines on river basin management. More important, on the ground there is often little management of groundwater and no linkage of groundwater to larger planning processes.

21. In terms of governance the situation at the moment may be summarized in Box 2 below, based on the thematic papers and presentations at the project’s regional consultations. This shows that the project is highly relevant as there is very little groundwater management in reality with large gaps still there and that groundwater governance as a whole is largely

absent. There are several supplementary fact to corroborate this: there is no course at MSc level nationally or internationally on groundwater management – let alone groundwater governance. Neither is there a linkage between land use planning and groundwater, e.g. in protecting recharge zones, in planning land uses or in maximizing recharge and retention, or between road planning and water, even though the landscaping that goes with roads has a large impact on run-off. Some of the countries that are critically water scarce and are groundwater dependent have no effort at effective groundwater governance to speak off and continue to subsidize pumping if when the balance is negative (Yemen, India, Pakistan).

22. Box 2 also suggests a clear need to (1) have a broader and more implementable country groundwater governance arrangements (2) more systematic support to specific local groundwater challenges and (3) expanding the work in regional, transboundary aquifers – including work on the technical knowledge base. The premise under which the project was formulated remains intact hence – that groundwater governance is largely non-existent.

Box 2. Status of different levels of groundwater governance

Regional level	National level	Local level
Regional aquifers that actively managed are few. In many cases the nature of regional aquifers is not even known.	Policies and regulation exist, but mainly on regulating abstraction. Implementation of the regulations is the largest challenge.	This has not received much attention. There are a limited number of examples of local groundwater management – often around large cities – and more sporadically in agricultural areas.

Source: Various presentation at the four regional consultations, surveys among workshop attendants

23. The project is relevant 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 regulation and management of transboundary groundwater is part of the governance discussion – though the emphasis is on country action. One may validly argue however that transboundary groundwater management needs to be built on a modicum of country groundwater governance. The project is also relevant as one idea is to built up a larger portfolio of projects in this field and give guidance and ideas in this respect.

24. The project is also very relevant to FAO’s Functional Objective: “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; “Improved access to, and sharing of knowledge, for natural resource management”. As shown in Annex 3 and 4, knowledge sharing has been the most appreciated output of the project. The project is also highly relevant to water scarcity in agriculture: as stated above, at present 43% of irrigation water consumed derives from groundwater – and in large part of the world at an unsustainable rate.

5 Project implementation

5.1 Budget and expenditure

25. The allocated budget for the project is provided by the GEF. The four partners (FAO, IAH, UNESCO and the World Bank) provide in-kind contributions, the main part in the form of non-charged staff costs. In the budget a nominal amount is mentioned against these in-kind contributions. In the case of the World Bank, the in-kind contribution has been in the shape of a thematic paper and case studies; in the case of FAO it has been time of divisional staff; the same applies and probably even more so to UNESCO-IHP, where in addition to HQ staff, regional staff were deeply engaged in the preparation, including the logistics, of the regional events. In addition there have been considerable contributions of the countries hosting the regional consultations, paying for venue costs, local transport. A summary of the project budget is shown in Box 3.

26. In the case of FAO the contribution was as follows:

- Groundwater related work including preparation of the project document took 70% of a senior officer's time for 3 years, in addition to several consultancies by external experts
- Background study of groundwater in the Near East amounted to over US\$ 120K
- 4 FAO staff working part on the project since its start without compensation from the project
- The entire component 4 of the project has so far been supported by FAO, including external consultants for the project website, pamphlets, promotional products, etc.

Box 3. Project budget (in USD)

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
Total project budget	4,450,000

Source: Project Coordination Unit

27. By the end of 2012, USD 1,096,621 (62.6%) of the allocated budget (USD 1,750,000) had been spent. The largest expenditures from the allocated budget were for the consultation process (component 2). The expenditures for five consultations, including the last one, the production of thematic papers and the communication and management activities appear very reasonable.

Box 4. Expenditure per component (in USD)

Expenditure against GEF allocation	Amount (USD)
<i>Component 1</i>	269,884
<i>Component 2</i>	734,447
<i>Component 3</i>	0
<i>Component 4</i>	41,484
<i>Component 5</i>	50,806
Total	1,096,621

Source: Project Coordination Unit

5.2 Project management

28. The project is overseen by a Project Steering Committee in which all five organizations are represented. This Steering Committee has had three official meetings apart from two planning sessions.

29. The day to day management of the Project within FAO is with four staff who spend part of their time in support of the project alongside other, and sometimes pressing, assignments. Within UNESCO-IHP three persons are closely involved in the project – spending approximately 40% of their time on the work, very much the in-kind contribution to the project. In IAH support and liaison is with the Secretary General and the head of the IAH Secretariat. In the World Bank one senior water resource management within the Water Anchor operates the project whereas the previous FAO project manager has joined the World Bank as well as provides some distant support. In GEF the focal person for the International Waters supervises the project.

30. Project management has been adequate. Documentation is well kept both at FAO and UNESCO-IHP offices. All administrative reports have been submitted timely and completely. There have been changes in the key persons involved in this project, at FAO and the World Bank, however this has not resulted in discontinuity. A major challenge was the management of the in-kind contribution of the four main partners for which an indicative amount was included in the project document. It is unclear what contributions were made against this commitment by the partner organizations, but it was apparent that the actual allocations differ substantially between the four organizations. In 2012 UNESCO-IHP (organizing the consultations) and FAO (project management) bore a major burden while the contribution of the World Bank was lighter. In the planning of the follow up Vision and Framework for Action process, it would be important that the expected in-kind contribution of each of the four partners (FAO, IAH, UNESCO-IHP and World Bank) is made clearer.

31. The current arrangement was adequate for the process under the project so far, though the organization of a large number of regional consultations in a short period and grounded in country ownership, was a considerable ‘tour de force’, particularly for UNESCO-IHP (which was well accomplished). In the next Vision and Framework for Action stage of the project the complexity of an engagement with many initiatives also beyond the water sector, and the need to be present at several events and do high-level advocacy will mean that the work load will not become less. Partly this could be resolved by a dedicated writing team, that takes on board some of the linking activities. Still, there is a concern

whether within FAO-NRL the current management arrangement with key staff dividing team among many important projects, including this, is adequate.

32. Given the nature of the project, fully embedded in FAO's HQ and normative mandate, the issue of technical backstopping did not apply. FAO water experts posted in decentralized offices of the Organization attended the regional consultations and managed the entire FAO input in the Africa consultations. Several groundwater-related activities served as input, in particular eight country case studies on groundwater management in the Middle East that were made available during the preparatory phase and the presentation of the innovative farmer-managed groundwater systems project in India that was presented in the Asia consultation.

6 Results and contribution to stated objectives⁷

6.1 Outputs and outcomes

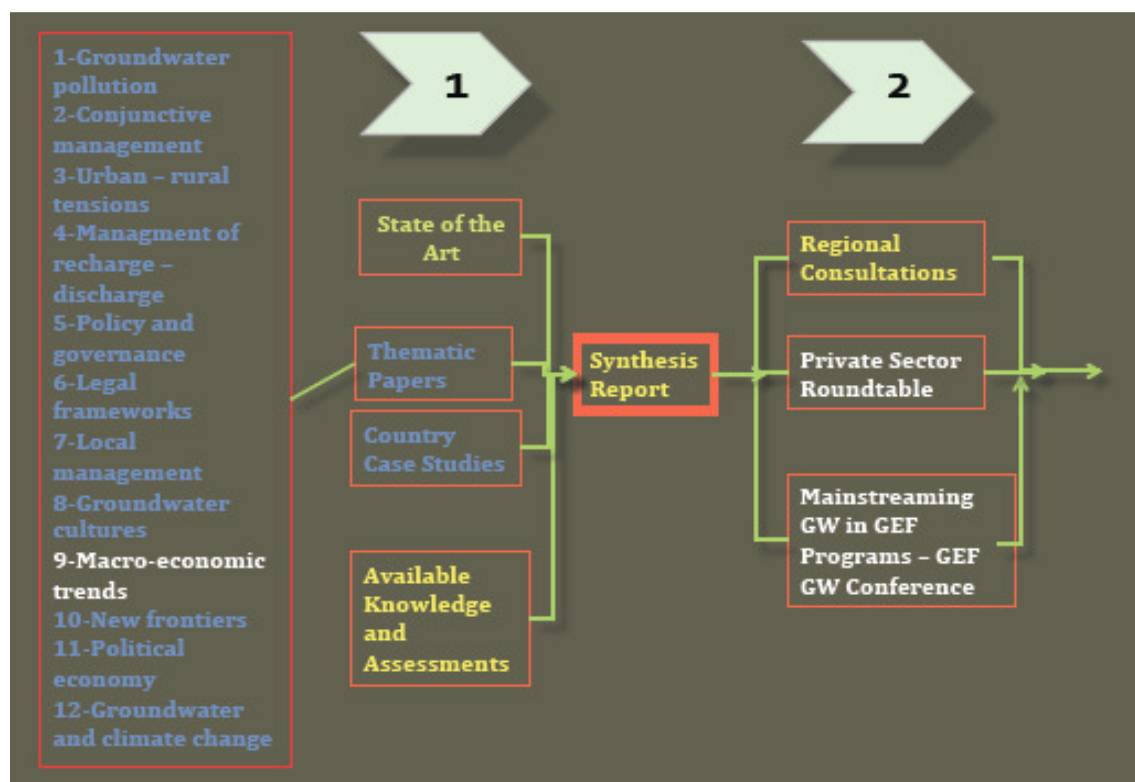
33. The diagram in Box 5 is a snap shot of the outcomes planned and achieved by the end of December 2012 under the Groundwater Governance Project. According to the project document, ten thematic papers would be prepared (later changed to twelve⁸) as well as a series of case studies. On the basis of this a synthesis report would be prepared that would be on the agenda for the five Regional Consultations to be organized in 2012 and the first part of 2013. Apart from the Regional Consultations, a Private Sector Roundtable would be organized and a GEF Conference with the aim to mainstream groundwater into GEF programs. The diagnostic summary of the Regional Consultations would then be an important input to the next stage of the project, i.e. the formulation of a Shared Vision and a Global Framework for Country Action.

34. By the end of December 2012 most of the deliverables under stage 1 and 2 were completed. Through www.groundwatergovernance.org a large part of the written outputs are placed in the public domain. Of the 12 thematic papers, 11 have been completed. A synthesis paper was prepared based on the early outputs. The four regional consultations were held as planned in 2012, which required a huge organizing effort.

⁷ The term 'results' includes outputs, outcomes and impact.

⁸ Thematic paper 12 was prepared just ahead of the start of the project.

Box 5. Summarized main achievements



Blue: completed; yellow: partly complete; white: to be done

35. Below the results for the five project components are described and assessed in more detail.

6.1.1 Component 1: Compilation of the state of groundwater governance

36. Eleven Thematic Papers were completed by the end of December 2012, with two of these still in final edit stage and the others already available on the website. The only Thematic Paper currently missing is the one on Mega Trends. The preparation of some of these papers, especially the ones by IAH came later than planned, in the latter case because they were all delivered at one time. Of FAO's prime themes, the Thematic Papers particularly address food security very prominently. Social inclusion and particularly gender does not have a central place in the documents, though inclusion is dealt with.

37. Country case studies were completed for India, Kenya and South Africa and provide useful (though slightly longish) overviews and they are on the website. The project document suggested a number of other documentation efforts (including GEF projects, other country cases) but this did not happen. However one may argue that this was compensated by the material that is embedded in the presentations from the regional consultations. In general the project has produced a very rich knowledge base and more country cases would not have added much value.

38. A Synthesis Paper was prepared in time for the regional consultations, using the material of those Thematic Papers ready by the first quarter of 2012. The Thematic Papers

that are completed are all lengthy and constitute important resource documents in their own right. Their size could stand in the way of their uptake but digests have been prepared of all Thematic Papers.

39. Apart from delivering a state of the art by several of the best-known writers on groundwater governance, the preparation of at least some of the Thematic Papers served to galvanize wider interest. The example is Thematic Paper 11 (Managing the Invisible) that engaged a large number of people in this case within the World Bank in the review process, serving to draw attention to the importance of groundwater governance.

6.1.2 Component 2: Make a global/regional diagnostic – through five regional consultations

40. Under this component four regional consultations have already been organized. All participants of the regional consultations were identified considering different groundwater governance stakeholder groups as approved during the Project Inception Meeting held in UNESCO-HQs, Paris from 6 to 7 September 2011. During this meeting the three day format of the consultations was agreed as well. The consultations organized so far were:

- Montevideo, Uruguay, for Latin America and the Caribbean, 18th to 20th April 2012;
- Nairobi, Kenya, for Sub-Saharan Africa, 29th to 31st May 2012;
- Amman, Jordan, for Arab Countries, 8th to 10th October 2012;
- Shijiazhuang City, China, Asia and Pacific, 3rd to 5th December 2012.

41. The fifth consultation for Europe, Central Asia, Caucasus and North America is planned in The Hague, the Netherlands from 19-21 March 2013. This last consultation will be combined with a Private Sector Roundtable.

42. The program for each consultation combined plenary sessions and break out discussions; the latter were intended, inter alia, to provide ideas for the future Vision and Framework for Action. Prior to the meetings, a questionnaire was also sent to the participants to solicit their ideas on the state of groundwater in their country and messages for the vision, which were presented in the meeting. As the consultations proceeded there were some modifications to the originally agreed program, in particular more emphasis on working group discussions and less on presentations. The overall format of the consultations was maintained to ensure a degree of consistency between them.

43. The host countries provided facilitation and bore part of the cost for the consultations. The labour-intensive planning of these four regional consultations was done through the Regional Teams of UNESCO-IHP and the country committees of IHP. Participants from national governments, research institutes and international organization were strongly represented among the participants. There were comparatively few participants from civil society or from private sector (see Box 6). In the case of civil society, invitations were sent but the response was limited, apparently, in the assessment of the organizers of the conference, as stakeholders did not appreciate the importance of the topic. In case of the private sector it was difficult to locate it and define who would have to attend. This suggests that in the future an extra effort is required to engage these two stakeholder groups throughout the process.

44. The regional consultations were also combined with a press session at the start of the event. In some of the consultations, such as the one for the Asia and Pacific Region, there were also a large number of young people present, often students in this field), who were not registered as participants but were taking part in the meetings. There was hence a larger audience in the events than what the registrations show.

45. From the survey among the PCM (see box 9, also annex 4) the sharing of ideas and experiences that was largely achieved through these consultations has been the most significant output of the project so far.

Box 6. Participants at the regional consultations

Participants	Latin America and Caribbean	Sub-Saharan Africa	Arab States	Asia and the Pacific
<i>National Governments</i>	30	29	20	11
<i>Research Institute/University</i>	26	17	21	33
<i>International Organizations</i>	32	31	24	16 +12 proj. partners
<i>Private Company</i>	4	7	1	0
<i>NGO</i>	3	5	0	1
<i>Individual Expert/Consultant</i>	2	0	4	1
<i>News Agencies (radio, newspaper)</i>	2	16	0	0
<i>(Ground)water resources association/committee</i>	4	0	0	0
Total	103	105	70	74

Source: participants lists at www.groundwatergovernance.org

6.1.3 *Component 3: Development of a Shared Vision and Global Framework for Action*

46. The third component concerns the preparation of the Shared Vision and Framework for Action, which is to start soon, but has not yet begun. The thematic papers, case studies, regional consultation reports and presentations and the result of the questionnaires provide a rich starting point for the preparation of these documents. The importance of doing justice to the differences between different regions is clear from the outputs of the regional conferences, as seen for example in selected findings of the questionnaires (see Box 7 below). The slightly technical/ expert orientation of the participant is also reflected in the outcomes of these questionnaires.

Box 7. Some highlights from the questionnaires to conference participants

Aspect	Arab States	Asia and the Pacific	Sub-Saharan Africa	Latin America and the Caribbean
<i>Perceived prime challenges and barriers to groundwater governance</i>	Insufficient well trained staff Weak institutions Lack of enforcement of laws and policies Weak understanding of groundwater	Integration and implementation of policies Decentralisation of groundwater management Cultural practices Skills and capabilities	Lack of political support Weak institutional framework Lack of good definitions of groundwater resources and boundaries	Insufficient groundwater knowledge Lack of good groundwater users organizations Failure to update groundwater monitoring networks

	systems Lack of coordination between sectors	Insufficient data availability		
<i>Suggested main actions to establish a shared regional vision</i>	Shared regional databases and monitoring systems Establish a regional structure to coordinate	Collaboration between institutions Breakthrough sectionalism of administration	Awareness, visioning and institutional setup	Use agencies, programs and regional integration projects
<i>Suggested key message on groundwater governance</i>	Effective cooperation at all levels and between stakeholders is crucial	A comprehensive legislative base is required Important to set up networks of stakeholders	Need to raise awareness on the value of groundwater	More active role of civil society is needed Take jointly into account users, technicians and politicians

Source: synthesis from participants surveys at regional consultations

6.1.4 Component 4: Communication strategy

47. The communication component of the project is managed between FAO and UNESCO-IHP. At the start of the project a communication strategy was prepared in which the emphasis was on general awareness-raising for groundwater governance.

48. In the course of 2012, this orientation shifted and the communication and media efforts became more strongly linked to the project activities, especially the regional consultations. It was expected that, if well presented, these activities would generate attention for the main topic of the project, i.e. the need for effective groundwater governance. This translated among others into press sessions at the beginning of each consultation that yielded, inter alia, public statements of important persons on groundwater governance in national media. In addition short interviews, probably 10-15 per consultation, were collected during the consultations that are planned to be formatted into short clips as 'Groundwater Talks'.

49. In the second part of 2012 the website www.groundwatergovernance.org was overhauled and based on a new content management system. Since November 2012 the backlog was cleared and most project documents have been uploaded, largely edited in a similar look and feel, creating a rich resource site. The Web site is new and has not been promoted yet, which explains the still low number of visitors (1142) in December 2012, the first full month running of the site.

50. So far the two outreach mechanisms of the project, namely the Permanent Consultation Mechanism and the Community of Practice, are not used. The PCM is a group of groundwater experts and practitioners built up over the course of the project. Recently members were asked to register on the website, with 70% having done so. The PCM was not used so far but the more open and political activities ahead would require the PCM to be intensively used.

51. In UNESCO-IHP the project outreach is linked to the IW-Learn program, in particular the Community of Practice (CoP) on Groundwater. This is a facility whereby staff

involved in GEF projects and others can join in shared thematic discussions and information sharing (even beyond the Governance project). At this stage the CoP is not operational because a new platform is still to be put in place (outside UNESCO), which is delayed and may still take considerable time. It is therefore more opportune to activate the PCM in support of the Vision and Framework and use it as an alternative to the envisaged CoP platform. If the CoP comes on stream it can be one mechanism to support post-project activities.

52. There is scope for further engagement of PCM members in the project activities. They have expressed a strong interest in contributing to the future Vision and Framework for Action process, in particular in commenting on draft versions and forming groups to ensure follow up. It is planned to organize e-forums on specific topics for the PCM, right after the last regional consultation. The role of the PSC would be to provide technical guidance and inputs to the work on the Drafting Group, that would work independently

Box 8. Preference of PCM members (in % of total preferences) on participating in the Permanent Consultation Mechanism

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

Source: PCM Survey (annex 3)

6.2 Technical quality

53. The project so far has succeeded to capture a large diversity of experiences through the regional consultations and also to document important frontiers in groundwater governance through the thematic reports. The thematic reports all have important themes, many of which are relatively new or missing from the current debates. Examples of topics were groundwater governance in general; conjunctive use; urban-rural tension. The writers behind the reports belong to the thought-leaders in groundwater management and there is merit in them contributing to a shared output, apart from documenting the state of the art. The content of the thematic reports as well as the reporting from the regional sessions is sound.

54. The project has also contributed to unearthing and publicizing local experiences that are otherwise not widely known. These provide a good input to the next process, of developing the Vision and Framework for Action. The project identified at least 35 good practices that can serve as examples of solutions that have been tested. They range from joint committees, to systematic stakeholder engagement in monitoring, to regulating use by quota and pricing. Annex 4 summarizes these cases as they emerged from the consultation and documentation.

55. An assessment of the main thrust of the debate within the project was done by preparing word clouds – using ‘wordle’. The word clouds present the most frequently mentioned words in, with the size of the word in the word cloud corresponding to the frequency it is mentioned.

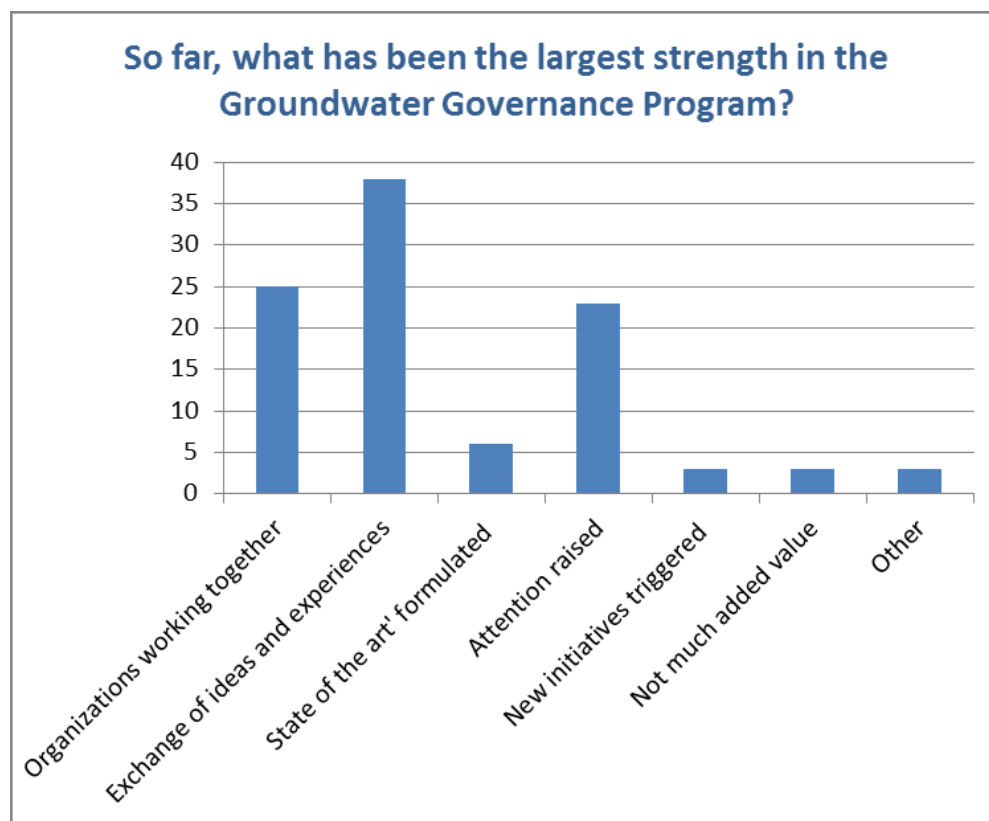
56. The word clouds for several main documents are given in annex 5 in particular: the Project Document; the Synthesis Paper: Thematic Paper 11 and the reports of the four regional consultations. There appears a strong orientation on groundwater management and less on the ‘world at large’, where decision affect groundwater and groundwater forms an important but threatened asset. Key features that emerged from the exercise were as follows:

- ‘Word such as ‘policies’, ‘capacity’ and ‘information’ figure very frequently in the documents;
- Politics and politicians or related terms are not much mentioned;
- Land management or basin management do not get much reference;
- In general there appears to be more emphasis on demand management (regulation) than on recharge;
- Economic topics, including agriculture or urban supplies, are not mentioned.

6.3 Early outcomes

57. An emerging important and very useful outcome of the project is the strengthening of links within the community of persons concerned about groundwater management, through the cooperation of the main project partners and the exchange of experiences and ideas, at the regional consultations. This is exemplified in the results of the survey among the PCM members: the exchange of ideas in the regional consultation ranked most frequently as the main achievement so far; the cooperation between different organizations and the larger profile of groundwater governance were also emphasised as important achievements (see Box 9).

Box 9. Participants' perception of the achievements of the Groundwater Governance Programs, in percentage of total answers



Source: PCM Survey (annex 3)

58. The formulation of the 'state of the art' is not so frequently mentioned, as part of the total number of replies as a main outcome nor the catalysing of new initiatives for which it is probably too early. In spite of the latter, the process however already helped to catalyse a number of new initiatives in the wake of country hosting of the regional conferences, in particular:

- Proposal by the Government of Uruguay for a Category 2 UNESCO Regional Centre on Groundwater Management;
- Proposal by the Government of China for a Category 2 UNESCO Centre on Groundwater and Climate Change.

59. PCM members were also asked to point the main element missing so far in the project. The responses are tabulated in Annex 3. Items that stand out are partly related to the current consultative phase of the project but also partly concern a reflection about what still needs to be done:

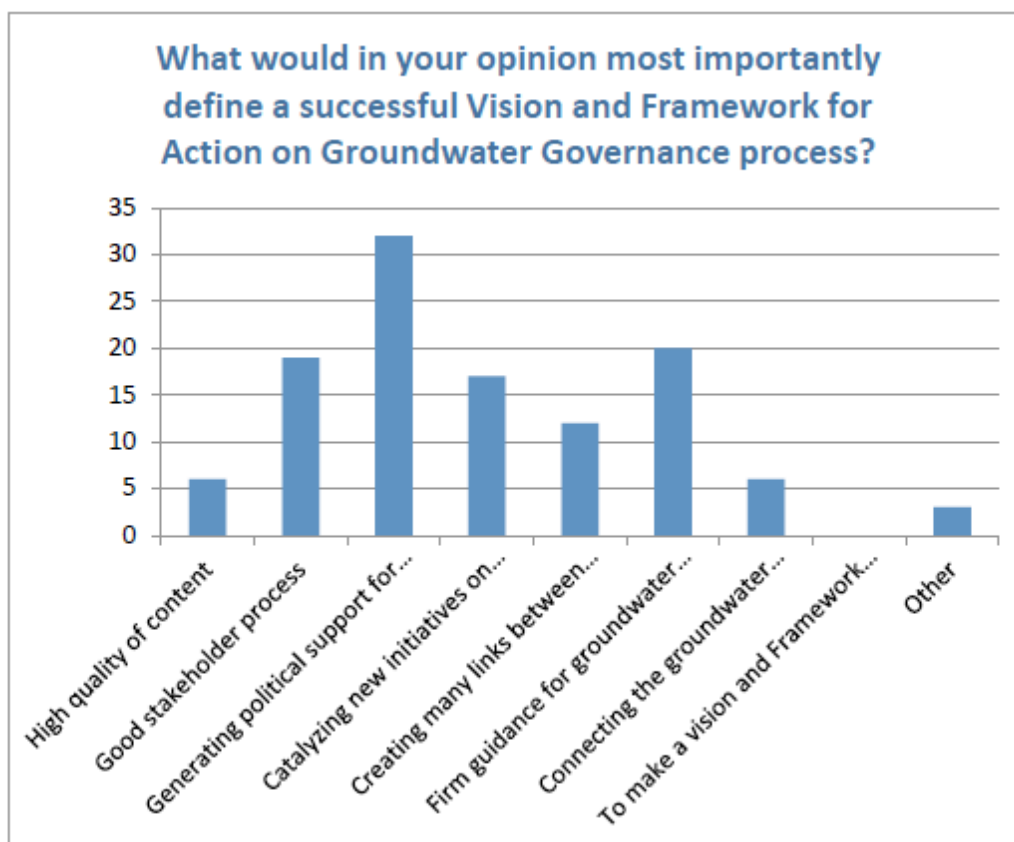
- More outreach in the media in general, including use of social media, visual outputs and languages other than English
- Clarity about the outcomes of the program
- Need for more engagement of political decision makers
- Need for more cross-sector interaction, engagement of missing stakeholders such as mining companies and energy sectors and capacity building organizations and in general dissemination to a larger group

- Importance of meaningful, focused stakeholder engagement
- Larger emphasis on actions, visible results and real life experiences, instead of reports and meetings.

60. In the survey among the PCM members, the question about what would constitute a successful Vision and Framework for Action, was most frequently responded by ‘generating political support’, ‘provide guidance for country action’ and ‘catalysing new initiatives’. Thus, rather than high quality content, a good stakeholder process was considered very important.

61. Furthermore, respondents suggested several ingredients for a successful Vision and Framework for Action process. These are listed here below and graphically represented in Box 10:

- Have tangible outputs and follow up at local level, even as national action plans or integrated groundwater projects in each critical country;
- Embed the outcomes within ongoing and upcoming global and national initiatives;
- Make a connection with global monitoring efforts and with capacity building;
- Use good cases as ‘lighthouses’;
- Link the Vision and Framework for Action to activities in all five regions and avoid the ‘one size fits all’ approach.

Box 10. Priorities for success of V/FFA process

Source: PCM Survey (Annex 3)

7 GEF and FAO evaluation criteria

62. As per the GEF evaluation requirements, the project was also scored against a standard rating system. Box 11 shows the results.

Box 11. Scoring of the Groundwater Governance project against the GEF criteria

Criteria	Assessment	Rating
<i>Achievement of objectives</i>	In the objective as first formulated there was much emphasis on triggering political action; this has now been reformulated to a more realistic statement. There is a need in due time in the process to make the link to political spheres. There is a need for a proper process in the remaining project period to live up to expectations and potential of the project and avoid it becoming only a paper exercise (section 5.1).	Satisfactory
<i>Attainment of outputs and activities</i>	After a delayed start the project is on schedule (section 4.3). Some of the outputs – especially the Thematic Papers – were delayed and could not be used in the Regional Consultations; however this was corrected by alternative action.	Satisfactory
<i>Progress towards meeting GEF-4</i>	The program is relevant to the GEF-4 focal area: at present the international groundwater portfolio in GEF is limited yet would benefit	Highly satisfactory

focal area priorities/objectives	from (1) widely agreed consensus on the way forward (2) improved groundwater governance at local and country level providing foundation for transnational governance The	
Cost-effectiveness	The project has also raised additional in-kind resources (for the regional consultations) from the host countries. In general the outputs so far seems to be reasonable for the expenditures involved.	Satisfactory
Impact	It is too early to assess the impact. As this stage the activities are best described as setting the stage. The project has nevertheless already catalyzed two initiatives.	Moderately satisfactory
Risk and risk management	The risks of this project were (1) relation between partners suffering setbacks (2) outputs relating to papers and meetings only (2) no or ill-timed political engagement. These risks so far under control and have been well managed	Satisfactory
Sustainability	First ideas on how to carry on the governance process beyond 2014 are already tabled but need to crystallize. The project has a large potential to sustainably contribute to having groundwater on the development agenda	Satisfactory
Stakeholder participation	The project has engaged with a wide range of stakeholders during the regional consultations. Some stakeholder groups have been harder to reach, notably the private sector, politicians and civil society. Some efforts have been made to engage with the private sector through the Private Sector Roundtable planned for 2013.	Satisfactory
Country ownership	The nature of the project was not to engage in country-level activities. There has nonetheless been good country ownership from the four countries hosting the consultation events.	Moderately satisfactory
Implementation approach	A strong point of the project is the grand alliance of five organizations under a common Steering Committee. Roles of different partners in the project changed from the original assumption but in spite of this working relation between partners have remained good which is commendable. The project has chosen an approach of first creating a solid base in terms of state of the art knowledge and strong relation. This has given legitimacy to the next more critical stage – of making a Vision and Framework for Action, for which detailed planning still needs to be done	Satisfactory
Financial planning	The financial planning of the project has a ‘dark horse’ element – in that it counts on non-specified in-kind contribution that are relatively hard to manage. The financial planning does not seem to be problematic but detailed planning and budgeting (incl in kind contribution) is a pressing priority now	Moderately satisfactory
Replicability	The project is unique and not meant to be replicated	Not applicable
Monitoring and evaluation	Reporting has been adequate	Satisfactory
Overall		Satisfactory

Source: MTR

63. Also FAO Office of Evaluation has specific evaluation criteria, namely extent of integration of gender equality aspects in the projects and capacity development. As stated above, the project did not include an explicit gender perspective in its thematic papers and has not integrated this aspect in its work so far. This could become a missed opportunity if it was to carry over into the preparation of a Diagnostic, Vision and Framework for Action.

64. Insofar Capacity development was concerned, this has also not been an explicit objective of the project. The exchange of ideas during the consultations has been a form of high level capacity building though. There is also an argument to ‘do more’ with the thematic papers, case studies and presentation of the consultations and feed these – after some re-tailoring - into capacity building programs on groundwater management, such as are being

developed by for instance BGR and Cap-Net. This could be one spin-off from the Vision and Framework for Action process.

8 Conclusions and recommendations

65. Overall, the project is highly relevant and very timely. Groundwater use is a large, increasing and often forgotten component in water management, but also in economic development and ecological services. Groundwater governance in most countries is weakly developed and is generally invisible on political agendas. This is in spite of worrying facts and figures some of which are of global significance (affecting global food prices for instance). The Groundwater Governance Project hence is very much the right activity at the right time.

66. The project so far has managed to bring together five very important organizations - FAO, IAH, GEF, UNESCO-IHP and the World Bank - around the theme of groundwater governance in a program for which they take joint responsibility. The four regional consultations have been well implemented and engaged groundwater experts and practitioners, although the private sector, civil society, decision-makers from other sectors and politicians were thinly represented. The consultations have generated good interest. They have yielded rich material, have linked people, especially professionals, from different countries and have highlighted the urgency of improving groundwater governance. They had attendance of young people and media and served already to launch new initiatives such as UNESCO Groundwater Centres in Uruguay and China.

67. The thematic papers and the case studies, combined with the outcomes of the regional consultations, provide a solid knowledge base. In doing so, it fully complied with the first of its implementation principles. The thematic papers have raised some new dimensions and the presentations from the consultation also have unearthed little known experiences in groundwater governance. From a text analysis a main challenge remains to keep the strong links between groundwater governance, land use planning, urban development and economic development in the picture.

68. Though some components were delayed, by now there is a strong basis for the second stage of the project. This second stage - the preparation of a Diagnostic, Vision and Framework for Action – is crucial as it will serve to capitalize on the solid knowledge basis developed and the relations established. It is important that the follow up Vision and Framework for Action process is well prepared and has a gravitational pull of people wanting to be associated with it and initiatives wanting to be linked. This Vision and Framework Process can have a number of very tangible outputs, has the potential to catalyse more initiatives and make groundwater governance a limelight issue. In planning this work, it is imperative to avoid working only within the professional groundwater circle: there must be a strong link to other professions, be it urban planners, agricultural agencies or economic planners, and to political leaders, as was the original plan of the project.

69. It is important for the project to be open and action oriented. There is a strong link between land use, surface water, soil moisture and groundwater use. This is addressed by the project, but could be stronger. In general it is important not to be myopic on groundwater only and to keep in mind the bigger picture, which is the essence of governance. The

definition that is used in the project for Groundwater Governance is very normative and care should be taken that this does not get in the way of other approaches that in the end work to create sustainable resource systems.

70. In relation to fulfilling the second implementation principle, on strengthening partnerships around and for sustainable groundwater governance, so far the project has been able to forge strong links between professionals in different organizations who share a large and long-standing concern in groundwater governance, but the connection with other fields has not been very strong nor has a bridge been made to political decision making (many of the country representatives that participated to regional consultations were actually decision-makers). The project however is only at mid-term and particular political engagement is better placed in the process of vision and making plans for country actions.

71. At this stage the project has a large potential but at the same time it has also the risk of remaining an in-house exercise, producing documents but not creating empathy in the larger political world or at least outside the circle of groundwater experts. If this were to happen the cause of groundwater governance would be served badly. The challenge is to create a process with a magnetic pull, to capitalize on the knowledge bank created, the relations that have developed and the structures and communication mechanisms set in place. The main and larger challenge is to make the Vision and Framework Process something essential, creating the energy to set in place a number of activities that will lead to better groundwater governance, raise large interest beyond the expert group and trigger political action. From the Mid Term Review it appears that the organizations and concerned teams leading the Project are capable to manage such a process, but detailed planning and resourcing is required, which has not been done yet.

72. The third implementation principle of the project would be to feed a pipeline of activities for GEF programming. This has not happened yet, nor was it envisaged at this stage of the project. There is positive interest within GEF to give more prominence to groundwater related projects both in the International Waters Project and in the Adaptation Funds it administers. To capitalize on this interest it is important that in the coming stage of the project outputs are delivered such as the outline for country guidelines and examples of groundwater governance projects and also that 'clients' (GEF recipient governments and key staff). The same applies for the portfolio development within the World Bank. The project results are expected to be presented at a GEF Conference so as to promote greater interest and follow-up to implement of the project recommendations.

73. Based on the MTR findings and conclusions three main recommendations are proposed, each referring to a set of actions. It is suggested that these recommendations are discussed with some sense of urgency prior to the last Regional Consultation and the Private Sector Roundtable in March 2013: this will allow timely and important decision-making, such as the timetable of events, the content of the Framework of Action, the writing /support group to set in motion the Vision and the Framework for Action preparation process.

Recommendation 1: To the Project, on its Vision and Framework Process

Make the Vision and Framework Process widely-connected by scheduling it alongside and linked into other activities
--

74. The detailed plan of work suggested for implementing Recommendation 1 is contained in Box 12 below.

Box 12. Plan of work for implementing Recommendation 1

<p>a) Make an early start on the Vision and Framework Process preferably at the March 2013 Regional Conference.</p> <p>i. Present the process (including time-table and calendar of events); if feasible draft Diagnostic (main messages to larger world so far⁹) and expected outcomes of the Framework for Action (FFA) (see 3c);</p> <p>ii. Use some of the discussion to explicitly contribute to the Vision (or have ingredients of a draft Vision);</p> <p>iii. Orient the Roundtable for the Private Sector to a meeting of champions – involving large private sector enterprises in tangible actions (for instance data sharing), but maybe also municipal users that are often the first champions for better groundwater governance and management.</p>
<p>b) Schedule events alongside other water development and food security meetings where specific steps in the Vision and Framework for Action process are discussed, promoted or launched; for example:¹⁰</p> <p>i. Giving the Stockholm Water Week (or another event) the ‘privilege’ of hosting the launching of the draft Vision (and Diagnostic) on Groundwater Governance;</p> <p>ii. Presentation of Vision/FFA and follow up at the IW GEF Conference 2013 in October 2013;</p> <p>iii. Organizing a special event around World Water Day 2014 to launch the FFA</p> <p>iv. Launching of FFA at Intergovernmental Council of the UNESCO International Hydrological Programme (IHP) at its 21st session in July 2014 , so that all Member States can buy in and commit to follow up steps;</p> <p>v. Identify other events – such as Africa Water Week, Asia Water Week and also very importantly non-water events (e.g. in urban management, mining, food security) – where drafting team and core members can have side-events or presentations;</p>
<p>c) Make sure that groundwater governance (including suggestions for a future Code of Conduct) is discussed as part of the Country Dialogues on Water Governance organized by OECD;</p>
<p>d) Engage in the GEF Replenishment Process in which new priorities will be established that will take place in 2013 (will start in January/ February) by briefings to the Technical Committee on the Diagnostic, Vision and Framework for Action;</p>
<p>e) Develop a special issue of the IAH Publications Series or Hydrogeology Journal on Groundwater Governance (in order to reach 3000 plus groundwater specialists¹¹) – making use of selected presentations at the Regional Consultations and work done as part of the Thematic Papers – consider the same for other more general journals;</p>
<p>f) Consider to link to the formulation of the new Sustainable Development Goals, which are currently under preparation – establishing contact with the drafting team and</p>

⁹ The full Diagnostic can be prepared only when the report of the last regional consultation is ready in order for it to be comprehensive.

¹⁰ It is important to be selective given time and resources and avoid mega-events where the groundwater message is drowned in a sea of competing topics.

¹¹ The reason is that in this important target group better sharing of ideas on groundwater governance alongside technical hydrogeological excellence will be helpful.

issuing a position statements (based on the Diagnostic and Vision) on how groundwater governance can be linked to the SDGs, having groundwater governance at least mentioned in an SDG on Water Resources Management;
g) Enlarge the support group – keeping intact the core project team of FAO, GEF, IAH, UNESCO-IHP and the World Bank – but have a larger number of organizations involved, endorsing the outcomes (and even adding their logos) of the next steps.

Recommendation 2: To the Project, on resources and plans

Adequately resource and plan the organization of the Vision and Framework for Action Process

75. The detailed plan of work suggested for implementing Recommendation 2 is contained in Box 13 below.

Box 13. Plan of work for implementing Recommendation 2

h) Extend the closing date of the project to September 2014 - as also requested by the Steering Committee in its last meeting; and develop a detailed implementation plan including clarifying the remaining in-kind contributions of the project partners and assessing the financial resources at hand and those that can be mobilized from others;
<p>i) Following the extension of project closing date, set a time table for activities as follows:</p> <ul style="list-style-type: none"> i. Key messages from diagnostic – March 2013 ii. Consultation on different topics – April-July 2013 iii. Draft Vision – August 2013 iv. Final Vision and Draft Framework for Action – January 2014 v. Final Framework for Action – March 2014;
j) Have clearly dedicated staff at FAO NRLW to coordinate the process. It is noted that the core team here is engaged in several time-competing activities. Where required, mobilize additional resources from the WPP Program of the World Bank, the Policy Support Program of BGR or others;
<p>k) Select as a priority a Vision / FFA support /drafting team with members (not more than 5) selected by the different project partners – with members having good listening skills and writing skills, but would work independently. The writing team will:</p> <ul style="list-style-type: none"> i. Make preparations at international events and be involved in the preparations of special sessions; ii. Prepare drafts versions of the key documents: Diagnostic, Vision and Framework; iii. Engage in systematic discussion with stakeholders (prepare a plan)– to get ideas and inputs but also trigger actions and new activities; iv. Keep contact and ask for input of the World Groundwater Panel (see f) and the Steering Committee.
<p>l) Align the communication activities of UNESCO-IHP and FAO NRLW, and make it very much useful for the Vision and Framework for Action process, among others by:</p> <ul style="list-style-type: none"> i. Directing attention to the activities and early outputs of the V/FFA process and create the momentum (through regular newsflashes and statements on groundwater

<p>issues and solutions) to help give the V/FFA a magnetic pull;</p> <ul style="list-style-type: none"> ii. Clarifying (and possibly activating) the role of the Community of Practice – combining it with the platform for the PMC and setting up a number of thematic discussions; iii. set up the Ground Water Talks as planned and extend to other champions and persons working on groundwater governance ; iv. Target outputs from the Diagnostic (especially the key messages) to a larger media and explore developing media partnerships and making use of journalist networks; v. Use www.groundwatergovernance.org to post consultation documents and make set up links to other groundwater websites – making it the prime portal and link to for instance: <ul style="list-style-type: none"> • SIWI • IWMI • TheWaterChannel • Water Observatory • BGR/BGS • OECD • Etc.
<p>m) Rename the Advisory Committee as the World Groundwater Panel and:</p> <ul style="list-style-type: none"> i. consider having an iconic figurehead for it (ex-president, television personality), for instance from a country that is a major groundwater user (India, China) so as to help the political process in these high impact countries; ii. extending membership (now 7) to have more regional representation; iii. define role as reviewers and ambassadors/ spokespersons;
<p>n) Actively engage the Permanent Consultation Mechanism by asking its members to:</p> <ul style="list-style-type: none"> i. Provide comments on draft versions of the document by email; ii. Join/ organize debate on specific topics through skype conference, webinar or others (making use also of the IHP National Committees and IAH discussion groups or IW Learn Community of Practice if these would become available); iii. Forming teams or committees that work on the follow up of the outcomes of the FFA; iv. Generally help promote and raise publicity for the Vision and Framework for Action and for better groundwater governance in general – using information packages and statements drafted by the communication team;
<p>o) Create a large mailing list and make good use of constituencies (IAH members; FAO Regional Offices; World Bank TTLs; UNESCO-IHP committees) with special efforts to engage with ‘people on the ground’– getting engagement by asking comments and contributions to the V/FFA – particularly from individuals who do not necessarily have a water background.</p>

Recommendation 3: To the Project, on contents

Agree on content of the Diagnostic, the Vision and Framework for Action document, make sure they have ‘teeth’ and weight and communicate the expected heavy output and spin-off widely.

76. The detailed contents suggested for implementing Recommendation 3 is contained in Box 14 below.

Box 14. Plan of work for implementing Recommendation 2

<p>p) Diagnostic. This should capture the main messages from the Consultations, Case Studies and Thematic Papers. It is an alert to main issues and not a long technical document that will take much time to complete. For the latter purpose, it is better to have the existing Synthesis updated and elaborated (as a sort of ‘State of the World in Groundwater’). The Diagnostic will bridge the analytical stage to the visionary stage. It is proposed that the Diagnostic is produced rapidly and is used to convey a message to a larger media and community, and hence also generate more excitement for the process, with a range of messages that show the urgency, regional variations and some solutions – for instance (taken from discussions so far):</p> <ul style="list-style-type: none"> i. In Europe the top aquifer is gone; ii. Small island states live on ever thinner slivers of groundwater; iii. Two-third of Asia’s megacities are overusing and uncontrollably polluting the aquifer they primarily depend on for their water supply; iv. In one third of India, groundwater resources on which its Green Revolution relied are in peril; v. Bangkok was subsiding due to groundwater abstraction but is now ‘back from the brink’.
<p>q) Vision. This should be a short document that sets out the need for better management of groundwater resources, but particularly linking groundwater governance with larger processes – economic development, ecological functions and land use planning – so that many non-water stakeholders can relate to it.</p>
<p>r) Framework for Action. This should be a document endorsed by the project partners and possibly other support organizations (OECD, UNEP, WHO, WBCSD, INBO, GWP, WWC, etc.) that outlines the actions required – doing justice to the variety of socio-economic and geographical –contexts – to achieve the Vision on Groundwater – including a number of tangibles such as:</p> <ul style="list-style-type: none"> i. Formulation of a Code of Conduct on Groundwater Governance for countries along the lines of the Voluntary Guidelines for Land Tenure prepared – following a two year consultation process – by FAO. The Framework for Action could also include a working sets of ideas for this code of conduct; ii. Pipeline of GEF-supported projects that will promote Transboundary Groundwater Governance – probably combined with special exchange and learning events and mirrored in a new emphasis in the GEF International Waters programme; iii. Set of project templates promoting local groundwater governance and improved food security and access to water, to be used in the portfolios of the World Bank as well as the GEF Adaptation Fund, the GEF SSCF and SLDF. These would be based on good practices as identified among others in the consultation or the framework process such as Bangkok Groundwater Management or Andhra Pradesh Farmer Managed Groundwater Systems and many others (see also annex 4 to this report) that can serve as examples for such templates; iv. Other possible actions that are being considered but not yet connected to the larger Framework – such as creating ‘hydrogeology of the future’ curricula – addressing challenges of groundwater management with the help of CAPNET/BGR.

- s) Define and start to prepare the activities to take place **beyond 2014** – such as possible International Year of Groundwater, continuation of World Groundwater Panel, continuation of the website (as broad groundwater portal) , formulation of a Code of Conduct, stock taking events at WWF7 and IW GEF Conference 2015, workings of follow up groups, etc.