

UNEP GEMS/Water Programme
Second Technical Advisory Group (TAG) Meeting
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Vienna, Austria

Draft Minutes

Present

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Observers

Ali Al-Lami, Iraqi Marshland Project: National Coordinator UNEP-IETC, GEMS/Water Iraq
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Regrets

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The terms of reference for the Technical Advisory Group (TAG) were set by the Steering Committee in October 2002. The TAG is composed of representatives from the UN agencies on the SC and the implementing, assessment and capacity-building partners and other organizations as deemed necessary to provide effective technical leadership to GEMS/Water. These include, but are not limited to, GRDC, ILEC, NIES, BGS, UCC-Water, WWAP, GIWA, GPA, MA, UNDESA, GEO, AMAP, GWP, IGBP, MARC. The biannual meetings (odd numbered years) will permit group members to provide updates on their programmes, linkages with GEMS/Water, initiatives and activities, which have served to fulfill GEMS/Water's mandate and identify new opportunities for joint projects.

Recommendations and advice on such project proposals and specific technical issues will be provided to GEMS/Water for implementation. The TAG should ensure that GEMS projects are well managed and implemented.

The *Technical Advisory Paper No.2: Goals and Targets for Global Water Quality Assessment* had been prepared as a background information tool to guide the discussions. Specific technical advice resulting from the meeting is reflected in the final TAG Paper, in conjunction with these minutes.

1.0 Welcome and Introductory Remarks

Dr. Salif Diop chaired the meeting on behalf of Dr. Steve Lonergan, and began by welcoming the participants. His opening words were followed by Dr. Werner Burkhart, Deputy Secretary General, IAEA. Dr. Burkhart welcomed the group to Vienna, and presented a brief overview of evolution of IAEA, from nuclear safety to current role in scientific advancement and protection of natural resources. He stressed the need to strengthen water quality monitoring and better management of water resources, in the context of the international commitments on water and sanitation.

Much appreciation was expressed to Dr. Burkhart and to IAEA for their support and for hosting this meeting and the following indicators workshop.

2.0 Roundtable Introduction of Members

All participants introduced themselves, and briefly outlined their association, and organizational linkages with GEMS/Water. It was noted that the TAG can reinforce coordination, as members have been instrumental in evolution and results obtained thus far, and can help GEMS/Water move forward. From a GEMS/Water perspective, the first TAG proved extremely useful for bringing the network together and engaging stakeholders.

The loss of Dr. Vitaly Kimstach of AMAP was observed with much regret.

The meeting agenda was amended to include presentations by interested participants, and was then adopted. Discussion proceeded to share views on expectations and desired outcomes of the meeting.

3.0 Follow-up from Last Meeting

Draft minutes of the first TAG meeting had been distributed in early 2004, and again preceding the present meeting. The Group adopted the minutes as presented.

The *Technical Advisory Paper No. 1: Improving Global Water Quality Monitoring* had also been distributed previously. The Paper was reviewed and consulted for implementation, role and expectation clarification over the past 18 months. All the 15 major recommendations made, and new initiatives identified, at the last meeting, had been implemented. Details were provided in the context of core activities through the remainder of the meeting.

4.0 2002-2007 Strategic Business Plan Version 2

Dr. Robarts presented a briefing on the *2002-2007 Strategic Business Plan*, at mid-point of implementation. The Plan v.2 has been revised to reflect the international agenda, as well as to adjustments within internal priorities and activities. Linkages were outlined with water and sanitation of the Commission on Sustainable Development (CSD-12), the UN's targets in achieving the MDGs and the WSSD implementation plan.

GEMS/Water has achieved several successes over the past year. Key results include the launch of GEMStat online database, a new Operational Guide, Analytical Methods "dictionary" conclusion of

Laboratory Performance Evaluation Study No. 5, and contributions to assessment reports. At present, ongoing challenges and new opportunities influence programming activities. In the context of internationally agreed goals and targets, GEMS/Water has oriented itself to measuring performance and setting goals and targets for its own results. Forward planning and priorities provide a platform for interagency participation in fully implementing GEMS/Water's mandate.

The Group expressed support for the overall scientific directions that GEMS/Water has initiated.

5.0 Partnerships, Collaboration and Advice

Several members made brief presentations including organizational updated, new information and opportunities. These presentations highlight specific partnerships and ongoing activities. These included IAEA, BGS, GEMS/Water-Japan, IGRAC, GRDC and GEMS/Water-Belgium. These information overviews provided the context for technical recommendations and follow-up activities.

IAEA Isotope Hydrology Section

IAEA is an active collaborator with GEMS/Water, particularly with Data Integrity (QA/QC) activities. IAEA-HIS contributed to the Analytical Methods guide, as well as provided funding and advice to the Laboratory Performance Evaluation study No. 5. IAEA is also interested in the issues of access to data and capacity building. Several proposals were given with regards to linkages IAEA database GIS programmes and collaboration with chemical-related projects and courses. IAEA also suggested that GEMS/Water become engaged with the UNDP Danube project, as a potential data source. GEMS/Water welcomes the enthusiasm and support of IAEA and agreed to a two-year cycle for collaboration.

World Bank

The World Bank considers itself as an important client of GEMS/Water, and is involved in surface and groundwater initiatives at many levels. Plans are underway for projects in cooperation with, IAEA, UNESCO, FAO, WHO, UNEP, IGRAC, GEMS/Water, and others. It was pointed out that the work of GEMS/Water will continue to gain prominence.

The Group expressed the view that while the primary focus of GEMS/Water has been to provide support to UN agencies for global reporting, it would be worthwhile to develop a supplementary objective of supporting specific interventions on the ground, that is at the local level.

Food and Agriculture Organization (FAO)

The FAO highlighted several national and regional projects, for example, river basin assessment and IWRM. FAO places particular emphasis on stakeholder benefits, multi-stakeholder dialogues, and needs-driven training. It was suggested that UNEP join with FAO Water and Agriculture project, in view of water quality data harmonization.

The FAO has a network of stations for water quantity monitoring in the Nile River basin and Mesopotamian marshlands; and expressed interest in initiating a water quality network to overlap. This activity could be undertaken with training provided by GEMS/Water.

The Global Runoff Data Centre (GRDC)

GRDC and GEMS/Water are counterparts with over 400 shared monitoring stations around the world. This network could be strengthened by both centres adopting standardized, geo-referenced metadata for co-located sampling sites. The WMO Core Metadata inventory, ISO19115, was cited as an example.

GRDC made several proposals with regards strengthening GEMS/Water by developing institutional linkages with GEOSS, Global Terrestrial Network for Hydrology, GTDR, and HyCOR. GRDC also expressed interest in collaborating with GEMS/Water regarding discharge data. Load balances can relate to biodiversity, which is an area in which GEMS/Water is increasingly engaged.

The British Geological Survey (BGS) – Groundwater

BGS presented an overview of monitoring and assessment of groundwater quality, identifying key technical contrasts and constraints compared to surface water quality monitoring and assessment. BGS has been an advocate for GEMS/Water's role in groundwater since 1995, and led in the development of a proposal for such a role to be realized, taking into consideration the need to complement, and not duplicate the role of IGRAC.

National Institute for Environmental Studies (NIES) GEMS/Water-Japan

GEMS/Water-Japan has been leading in regional development of the GEMS/Water Global Network. A series of presentations highlighted progress made through the Mekong River Initiative, and plans for a La Plata river basin management project for later this year.

A website is under construction for Japanese audiences with information about monitoring sites, results obtained and linkages with the GEMS/Water Programme. Its objective is to inform the public about GEMS/Water.

International Groundwater Resources Assessment Centre (IGRAC)

The main purpose of IGRAC, in collaboration with UNESCO and WMO, is to be a source of general groundwater information for planning and assessments. Since its inception two years ago, it has defined global groundwater regions, and an inventory of guidelines and protocols on groundwater assessment. Current limitations are due to primarily to funding restrictions. Feedback from participating organizations may help IGRAC to develop.

There should be a clear statement made to UNESCO, with respect to IGRAC and GEMSWater, and their respective roles in groundwater assessment. IGRAC provides a global overview of groundwater information and resources, while GEMSWater should house groundwater quality data. IGRAC and GEMS/Water should explore their potential areas of collaboration.

GEMS/Water-Iraq, UNEP Mesopotamian Wetlands National Coordinator

The main elements of the UNEP-led project on rehabilitation and restoration of marshlands in southern Iraq are underway. Funded largely by Japan, and planned over five years, the project covers environmentally sound technology, drinking water and wastewater treatment to marshland areas. Six sites in marshland areas have been selected to implement these technologies. Iraqi experts have been subcontracted to conduct a monitoring programme for these six sites (physical/chemical characteristics of water, sediments, and biodiversity). There is a capacity building component, in which six training courses have been held to date for about 200 Iraqi officials for management and technical aspects of IWRM; courses implemented in Japan, Egypt, and Jordan. Submission of water quality data generated by the marshlands project to GEMStat would constitute a significant step towards wetland water quality data coverage.

GEMS-Water-Belgium

Reporting, from Belgium's perspective, involves exchange of information between policy and management and monitoring. Because of multiple international reporting requirements, Belgium has been promoting harmonization of questionnaires and methods for data submission to the various reports. There is a need to gain certainty of both the quality of GEMS/Water data, and data use. Belgium is playing a lead role with other intergovernmental agencies, such as the UNSD, on harmonization of data reporting.

GEMS/Water-South Africa

South Africa should be commended for developing a comprehensive and active water quality monitoring network, and participating in the GEMS/Water network. Its experience can serve as an example to other Southern African countries.

GEMS/Water-Zimbabwe

GEMS/Water welcomes Zimbabwe to the global network, and encourages active involvement. Zimbabwe suggests that GEMS/Water explore making connection with the Southern African Development Community SADC-HYCOS Project of WMO, and engaging other countries in the SADC region.

GEMS/Water-South Africa and GEMS/Water-Zimbabwe proposed a meeting, possibly also inviting GEMS/Water-Zambia to strengthen their involvement in the GEMS/Water Global Network.

World Health Organization (WHO) by email

The WHO expressed an interest in ensuring that from their perspective, GEMS/Water continues to be considered as interagency programme of the United Nations system, housed under UNEP. A status report was provided on joint publications: first, the Water Quality Assessments 3rd edition is at an advanced stage, while Water Quality Monitoring 2nd edition is expected in 2006.

6.0 Technical Recommendations and Initiatives

The scientific and technical aspects of the Programme were raised in the context of the five core activity areas: a) global water quality data, b) assessments, c) data integrity (QA/QC), d) building water quality capacity, and e) measuring performance cross-cutting function. The Group spent considerable time discussing key aspects of these activity areas, within the broader context of interagency linkages and opportunities. Many concrete recommendations on key topics were made for improving GEMS/Water results, and can be summarized as follows:

Strengthening the value/incentive of countries to participate could be achieved through linkages with IWRM, trust building with Focal Points, and focusing more on reporting and assessments. Communication to Focal Points should include the message that their data contributions will yield them access to the entire global database.

The annual report should be distributed as widely as possible, including at fora such as the Governing Council, CSD, and CBD.

Regional and global meetings of NFPs could strengthen the network. One avenue could be on the margins of the Governing Council of UNEP. This would also strengthen countries internal political coordination.

More effort should be placed on assessments and products, to balance between data collection activities.

It was generally agreed that the most meaningful assessments are at regional or global levels; time series and trends analyses more than state. Focal points should have access to assessments so that they can provide input.

There is a need to ensure that parameters can be compared among countries, for example, nutrients (P, NO_x) pesticides; and there could be a call for global data on drinking water sources, after which an analysis could be undertaken.

Establishing linkages with the WHO/UNICEF Joint Monitoring Programme would be strategic, as focusing on water quality can contribute to the Millennium and WSSD goals. The WHO/UNICEF is very important in groundwater monitoring regions, which would help fill gaps in Northern Africa and West Asia.

Data sources should be identified in GEMStat, for example, pollution boards versus environment ministries.

Understanding groundwater quality is vital for the world's water resources. Groundwater quality sampling should be approached by selecting representative aquifers or basins, then superimposing typical human land use on groundwater regions, then sampling intensively in those basins from regional or national organizations. Another approach could be to build an experts group, including for example, IGRAC and European Geological Surveys.

It was recommended and accepted by the meeting that the PE studies should run every two years rather than annually as is current practice. This would allow for adequate time for participating laboratories to analyze the samples, and for GEMS/Water to analyze the results. It would also give adequate time for laboratories to make changes as per their performance results.

It was recommended that GEMS/Water should encourage a UN standard for water information collection.

The development of a Global Data Quality Index could be modeled on the EEA's index of data quality, taking into consideration the capacity differences around the world.

The Participants enjoyed a tour of IAEA laboratories after the meeting closure.

7.0 Conclusions and Report (TAG Paper No.2)

Members of GEMS/Water TAG were satisfied at the way the meeting was organized. GEMS/Water Programme received valuable advice from TAG members with many suggestions offered for it to effectively achieve the activities given in its business plan. It was clear that the GEMS/Water Programme has made significant efforts in achieving its work plan.

Once the Technical Advisory Paper No.2 is completed, it will take into full consideration the discussions and recommendations for action that were raised during the course of the meeting. Other follow-up actions could result from the proceedings.

The Group was heartily thanked for their continued commitment to, participation in, and support for, GEMS/Water. Such international recognition is vital to the success of the programme.

9.0 Next Meeting

The Technical Advisory Group is designed to convene every eighteen months to two years. The Group agreed that the next meeting should be tentatively scheduled for autumn 2006, at a location to be determined.