ESA/STAT/AC.217
UNCEEA/5/27/Bk

DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION
UNITED NATIONS

Fifth Meeting of the UN Committee of Experts on Environmental-Economic Accounting
New York, 23-25 June 2010
North Lawn Building, Conference Room E

CONCLUSIONS AND RECOMMENDATIONS FOR OECD WORKING PARTIES FROM THE WORKSHOP ON IMPROVING THE INFORMATION BASE TO BETTER GUIDE WATER MANAGEMENT DECISION MAKING

Paper prepared by Organisation for Economic Cooperation and Development

*Background document**

* Document providing the report of the OECD Workshop in Zaragoza, Spain on 4-7 May 2010, submitted for the 30th session of the Joint Working Party on Agriculture and the Environment (28-30 June 2010).

For Official Use **ENV/EPOC/GSP(2010)18**

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development **11-Jun-2010**

English text only

ENVIRONMENT DIRECTORATE
ENVIRONMENT POLICY COMMITTEE

ENV/EPOC/GSP(2010)18
For Official Use

Working Party on Global and Structural Policies

CONCLUSIONS AND RECOMMENDATIONS FOR OECD WORKING PARTIES FROM THE WORKSHOP ON IMPROVING THE INFORMATION BASE TO BETTER GUIDE WATER MANAGEMENT DECISION MAKING

28-30 June 2010
OECD Conference Centre
Paris, France

This document provides the Conclusions and Recommendations for OECD Working Parties of the Workshop which took place in Zaragoza, Spain on 4-7 May 2010. The Workshop is an input into the second phase (2009-10) of the Horizontal Water Programme, and was organised under the responsibility of the Working Party on Global and Structural Policies.
The document is submitted for INFORMATION and DISCUSSION under Item 6b) of the Draft Agenda of the 30th session of the Joint Working Party on Agriculture and the Environment (28-30 June)

Contact person:
Kevin PARRIS
Email: kevin.parris@oecd.org

JT03285392

English text only

NOTE BY THE SECRETARIAT

This document provides the Report on the **OECD Workshop** ***Improving the Information Base to Better Inform Water Resource Management Decision Making,*** which was hosted by the Government of Aragon, Spain, between 4th – 7th May 2010, at the International Centre for Water and Environment (CIAMA), Zaragoza, Spain. The Workshop assembled world class experts across a mix of disciplines, representing some 80 participants from 16 OECD Countries, EU Commission, Estonia, Israel, South Africa, 13 International Organisations and the private sector.

The main objectives of the Workshop were to:

- identify decision makers priorities for policy relevant water data and information;
- review recent national and international experiences and future plans for water information systems; and,
- provide recommendations to help countries, the OECD and other water system stakeholders to develop water information systems to support more efficient and effective delivery of sustainable water resource management and policies.

The origins of the Workshop stem from the OECD (2009) report *Managing Water for All: An OECD perspective on pricing and financing*, which notes that gaps in knowledge remain, and that institutional structures to generate and organise water data are less well developed than have been advances in water policies across many countries. This disconnect risks undermining policy decision making, and impeding efforts to monitor and evaluate water policies.

The Workshop is an input into the second phase (2009-2010) of the ***Horizontal Water Programme,*** and was organised under the responsibility of the *Working Party on Global and Structural Policies.* The document will also be submitted to the *Working Group on Environmental Information and Outlooks* at its next meeting 23-25 November, 2010. The Workshop documentation is available on the website: www.oecd.org/water/workshop2010

The preparation of the Workshop Report was the combined efforts of the OECD Directorates for Environment (Myriam Linster and Roberto Martin-Hurtado), Public Governance and Territorial Development (Aziza Akhmouch), and Trade and Agriculture (Kevin Parris). The principal author of the Report and OECD Secretariat Workshop organiser was Kevin Parris (Trade and Agriculture Directorate).

The OECD Secretariat wishes to acknowledge the excellent input and comments provided on earlier drafts of the Report by many Workshop participants. The Workshop was expertly hosted by the Government of Aragon which also generously provided a voluntary contribution for consultants and OECD Secretariat attendance at the Workshop. Carlos Franco Uliaque and Raquel Diez (International Centre for Water and Environment) provided highly professional logistical support for the Workshop in Zaragoza.

ACTION REQUIRED: Delegates are provided the Report for INFORMATION and DISCUSSION to consider the Workshop recommendations in the discussion on the ongoing work in the JWPAE on water and on agri-environmental indicators.

REPORT ON THE OECD WORKSHOP ON IMPROVING THE INFORMATION BASE TO BETTER GUIDE WATER RESOURCE MANAGEMENT DECISION MAKING

HIGHLIGHTS

The main messages from the Workshop include:

- With the rapid development in water policy reforms this has created in many countries an information imbalance, with implementation of water policy initiatives often supported by little data and information.
- As stress and demands on water systems increase and water becomes a more valued resource, this tends to increase the value of water information, but many countries report that the capacity to collect water information is being undermined by a lack of resources and the loss of expertise to collect, analyse and interpret water data.
- Many international and national water information systems (WIS) are maintained without sufficiently addressing the policy relevance of the data and information being regularly collected.
- Data concerning the economic and institutional aspects of water systems are much less developed than physical data and are only partially covered in the regular updates of most national and international WIS.
- Despite limitations of WIS, progress is being made to upgrade water monitoring and data collection systems by, for example, use of new information technologies, but fiscal constraints threaten this progress in many nations.

***The Workshop's key recommendations suggest the need to*:**

- Elevate the overall political value of water and water policy issues from being a low to a high political priority that requires the attention of Heads of State and relevant Ministers, taking into account long term considerations, especially climate change.
- Conduct a cost-benefit analysis of existing WIS at local, regional, national and international levels, to determine how current water information and data are collected (or not collected) and used (or not used) by policy makers, and the costs and benefits of collecting, analysing and communicating this information.
- Adopt a more flexible and pragmatic approach to implement a System of Environmental and Economic Accounts for Water (SEEAW) to: respond to varying waterbasin, country and international policy needs; allow feedback from experiences in using SEEAW; improve coverage of social data; and focus on robust data sets for SEEAW.
- Undertake a substantial effort to improve the understanding and science of hydrological systems to better guide WIS data collection efforts, for example, improving knowledge of the connections between groundwater and surface water, and determining sustainable environmental flows in the context of climate change.
- Consider establishing a high level group of experts to advance work on national and international WIS through forming a small group of stakeholders covering data providers, users (governments, business, NGOs) and researchers, including interaction with players, such as the UN World Water Assessment Programme.
- Encourage innovations in physical, economic, financial and institutional water data collection, such as using new technologies, voluntary initiatives to collect data, while public agencies may regulate, finance or charge for data collection, maintenance and analysis, taking into account that data can vary from a private to a public good.
- Increase efforts to communicate messages from the reporting and analysis of water data to policy advisors and the wider public, and not just among the research community.
- Strengthen the overall WIS economic and financial information database, which is underdeveloped compared to physical water data, and clearly define the purpose of collecting and analysing economic and financial information to inform policy makers, including improving the understanding and measurement of the value of water.
- Assess institutional obstacles and opportunities for effective governance of WIS by: identifying areas of institutional overlap and synergies in water data collection; mobilising local stakeholders in designing WIS; fostering coordination between data producers and users; encouraging multi-discipline approaches in WIS; and supporting improved water information in aid statistics to advance water management in developing countries.

The Workshop also examined the ***virtual water and water footprint concepts and indicators*** as tools for decision makers. The Workshop consensus was that these concepts and indicators have raised awareness of water scarcity and allocation issues, and gained broad appeal. But these indicators have limits as policy tools, as they do not take into account the: opportunity cost of water in production; other inputs used in production (e.g. labour); distinction between the management of water resources and water quality; and by only focusing on water do not consider broader policy goals, such as reducing poverty, stimulating economic development and ensuring high employment.

1. WHY THE WORKSHOP

1. The OECD (2009) report ***Managing Water for All: An OECD perspective on pricing and financing***, (www.oecd.org/water), recognises that the knowledge, science and monitoring of hydrology, environmental and water resource management linkages is less well developed than have been the advances in water policies in many countries. The continuation of this disconnect runs the risk that decision makers are poorly informed and that policies are inadequately implemented and evaluated.

2. These gaps in knowledge, science and monitoring are compounded as water resource management enters an era of uncertainty, greater variability and higher risks as a result of climate change, population pressures, increasing demand to meet environmental needs and other drivers.

3. Against this background it was agreed as part of the OECD's *2nd Horizontal Water Programme* (2009-2010) that OECD should organise a Workshop on *Improving the Information Base to Better Inform Water Resource Management Decision Making.* An offer was made by the Government of Aragon to host the Workshop, which was held between 4th – 7th May 2010 at the International Centre for Water and Environment (CIAMA), Zaragoza, Spain.

4. This report: describes the Workshop objectives, agenda and participation (*Section 2*); outlines the OECD context of work on water data and information to meet policy needs (*Section 3*); summarises the key messages that came from the Workshop papers and discussion (*Section 4*); sets out the recommendations that emerged from the Workshop consensus (*Section 5*); and finally, provides the next steps and key dates following the Workshop (*Section 6*). Two annexes provide the Workshop Agenda (*Annex 1*) and List of Participants (*Annex 2*). For the complete Workshop documentation, including papers and powerpoints, background reports and weblinks, the reader is referred to the dedicated OECD website at: www.oecd.org/water/workshop2010

2. WORKSHOP OBJECTIVES, AGENDA AND PARTICIPATION

2.1. Objectives

5. The objectives of the Workshop were to:

- identify decision makers' priorities for developing and using policy relevant water resource management data and information;
- review the extent to which the current work in OECD and non-OECD countries in developing water resource management data and other related information meets the needs of decision makers;
- discuss possible areas of improvement in water resource management datasets and information, that can serve the future needs of decision makers; and,
- outline key ways forward for countries, the OECD Secretariat and other water system stakeholders that will be needed in order to make progress in future water resource management data collection and dissemination.

6. So as to ensure the focus and manageability of the Workshop over three days of discussion, the emphasis was on water resource management, rather than data needs related to water services (e.g. water quality, water treatment and sanitation). Moreover, while the Workshop largely concentrated on the national and international level aspects of water resource management information needs, consideration was also given in some presentations to implications at the sub-national and especially waterbasin levels.

2.2. Agenda

7. Taking into account the Workshop objectives outlined above, the Agenda over the first two days of the Workshop was organised around six themes (divided into nine Sessions, leaving aside the *Introductory Session 1*) as follows (see Annex 1 for the full Workshop Agenda):

4th – 5th May

- **Theme 1** (Session 2) *Overview and international perspectives and initiatives towards improving water information systems:* Presentations providing perspectives from the: private sector (McKinsey, Aquafed, BIAC), statisticians (UN, Eurostat, Australian Bureau of Statistics) and research community (Wits University, South Africa).
- **Theme 2** (Sessions 3 – 5) *Reviewing recent national and international experiences and future plans for water information systems:* Examination of a range of OECD countries; OECD Accession country (Israel); the European Union; International Governmental Organisations (e.g. UN, UNEP), and International Non-governmental Organisations (e.g. International Office for Water, IWMI).
- **Theme 3** (Session 6) *Developing the economic and financial data sets needed for water resource management:* Discussion of the range, scope and future plans for economic and financial information collection and reporting (e.g. water pricing, cost recovery, revenues and expenditures).
- **Theme 4** (Session 7) *The virtual water and water footprint indicators as tools for water resource management decision makers:* Examination of the extent to which the virtual water and water footprint tools can provide useful information to guide water resource decision makers.
- **Theme 5** (Session 8) *Meeting the information needs for agricultural water resource management:* Presentations examining a range of short and long term tools for monitoring water resource use in agriculture as supports for irrigation management decision systems.
- **Theme 6** (Session 9) *Meeting information needs of water resource decision makers through improving institutional coherence and management:* Discussion of the institutional and governance challenges for capacity building in data administration to support national transboundary water resource management.

6th May: ***Field Trip***

- A field trip was held on the 3rd day of the Workshop to Ordesa and Monte Perdido National Park in the High Aragon region. This was followed by a visit to the Irius vineyard of Aragon.

7th May

- **Session 10** *Concluding discussion, recommendations and closing addresses:* The final session included the discussion of four Rapporteur Reports covering Sessions 2 – 9. The discussion of these Reports were summarised into a set of Workshop Key Messages and Recommendations, as outlined in this Report, to be considered by water resource decision makers across OECD countries, non-member countries, international organisations and relevant OECD Working Parties.

2.3. Participation

8. The Workshop was attended by around 80 participants covering: 16 OECD Member countries, two OECD Accession countries – Estonia and Israel - and South Africa. Also, the EU was represented by the Commission and Eurostat, and there were 12 International Governmental Organisations (e.g. UN, FAO, UNEP) and Non-Governmental Organisations (e.g. Global Water Partnership, IWMI, WWF, Aquafed); and private companies (McKinsey). The Workshop participants encompassed a range of expertise from policy decision makers, statisticians, engineers, research scientists and economists, and representatives of the private sector and environmental groups (see Annex 2 for the list of participants).

3. THE OECD CONTEXT TO WATER DATA AND INFORMATION

9. A key role of the OECD is to provide economic and policy advice to support government efforts to improve the domestic and international performance of their policies, underpinned by comparative datasets and information. This is also reflected more specifically, in the area of OECD's water policy analysis and evaluation, which now extends over several decades and is supported by a multi-dimensional, multi-country, time series database.

10. ***The OECD's water information and database*** has both a benchmarking and policy analysis role across three main areas of OECD activities:[1]

1. *Country reviews*, with an environmental, economic, agricultural and institutional focus.
2. *Water policy reports*, such as those concerning water pricing, water sanitation and financing and the sustainable management of water in agriculture.
3. *Multi-topic reports*, for example, the *Environment Outlook* and work on the *Green Growth Strategy*.

11. The collection of water data and information essentially involves two strategies:

1. ***Regular data collection***, covering[2]:
   i. *Physical data*: use of water resources; wastewater and pollution loads, and water quality data.
   ii. *Economic and financial data*: pollution and abatement and control expenditures; environmental taxes; and Official Development Assistance (ODA) flows.
   iii. *Institutional information and data*: allocation of roles and responsibilities in water policy-making (design and implementation) at central and subnational government level.[3]
2. ***Project based data and information collection***, including:
   i. *Ad hoc data collection*, such as for water pricing across urban and agricultural water users.
   ii. *Questionnaires*, which can be both quantitative and qualitative, including those recently conducted on water resource management in agriculture[4] and also on water institutional and governance arrangements.

12. ***The plans for current and future OECD work*** on water data and information are to:

1. Improve the quality of regular data collection: physical, economic, financial and institutional data and information.
2. Expand the coverage of regular data collection, especially for economic data (e.g. water pricing and cost recovery rates) and financial expenditures (e.g. on flood protection, ecosystem management).
3. Complement regular data and information collection, such as estimating the costs of achieving water policy objectives, and the benefits of ecosystem services.

1. For an overview of recent OECD policy reports related to water see www.oecd.org/water

2. To see the OECD range of environmental datasets covering water see www.oecd.org/env

3. To see the OECD work on institutional and governance indicators see www.oecd.org/gov/water

4. The OECD agricultural water resources questionnaire is located at: www.oecd.org/agr/env

4. KEY MESSAGES FROM THE WORKSHOP

13. ***Across many countries water information systems (WIS) are impacted by four key drivers***:

- Technical based (supply) policy paths to improving the economic, social and environmental efficiency and effectiveness of water resource management (WRM), are being complemented with greater emphasis on demand side economic and institutional and governance policy solutions.
- Some countries have undertaken major changes in their waterbasin through to national WRM policies or are in early stages of reform programmes, most often in response to water stress or crisis. In many cases there is a legal requirement, as part of the package of water policy reforms, that requires the maintenance and improvements in water data collection and reporting. Lessons are being learned from these policy reform experiences (both successes and failures), which will be useful for other countries attempting to proactively reduce exposure to their own water risks and vulnerabilities.
- With the rapid development in water policy reforms in many situations and growing emphasis on demand side policy solutions to WRM this has created an information imbalance. This imbalance can be characterised in terms of an inverted pyramid with implementation of many water policy initiatives supported by little data and information, especially related to economic and financial elements, to help guide decision makers toward more effective and efficient WRM strategies.
- As stress and demands on water systems increase and water becomes a more valued resource, this tends to increase the value of water information both for water providers and users. But many countries are reporting that the capacity to collect water information is being undermined by a lack of resources, while expertise to collect, analyse and interpret water data for decision makers is being loss.
- The impact of climate change on hydrological regimes is a key potential stress on water systems. This issue could be the catalyst for adapting policies to provide more efficient and effective use and management of water resources and advance institutional and governance reforms in the water sector.

14. ***The linkages between WIS and needs of decision makers are complex***, but can be encapsulated in a *Driving Force* (Policy Needs) – *Monitoring – Data Management – Reporting* framework (Figure 1). WIS also operate from the global down to the national and local (waterbasin to an individual property) levels (Figure 2), involving a complex web of governance and institutional structures, including:

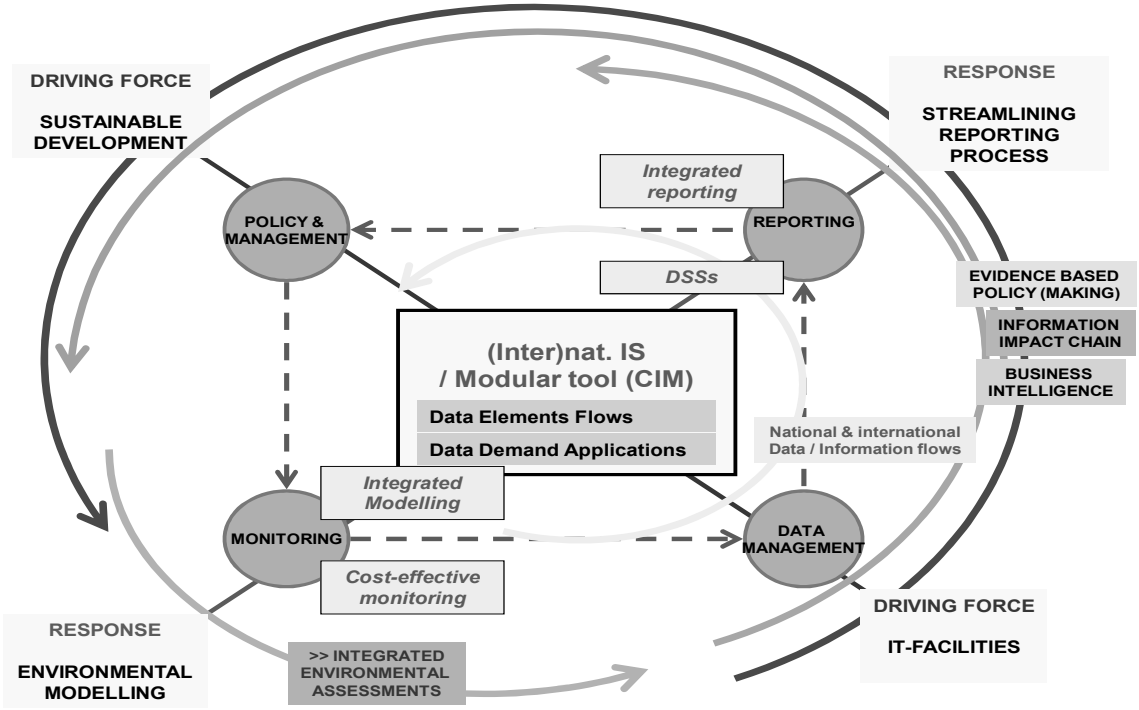
1. many international organisations, with around 26 UN bodies and many other international agencies involved with water issues;
2. multiple national and sub-national Ministries and government bodies; and,
3. a large community of business interests (Aquafed [The International Federation of Private Water Operators], the OECD Business and Industry Advisory Committee [BIAC], the World Business Council for Sustainable Development], McKinsey); non-governmental organisations (Global Water Partnership, WWF, IMWI); and other water system stakeholders (e.g. researchers).

15. ***The demand for water data and information*** comes from water system users and operators, resource managers, environmental agencies and public officials. WIS support efforts to understand, manage, allocate, utilise and protect water resources, in particular, to:

1. enhance scientific knowledge and technical understanding of water systems, stocks and flows;
2. promote the physical, environmental and economic productivity of water use;
3. improve water allocation (and its quality) decision-making between competing uses (e.g. urban, industry, agriculture) and for environmental needs;
4. address social, governance and institutional issues, paying particular attention that national and regional approaches have local relevance for efficient water policies; and to,

5. contribute to long term anticipatory yet flexible planning (e.g. climate change and development scenarios) to guide future policies and priorities for water security and sustainable use, especially considering climate change and altering hydrological regimes.

Figure 1. The complexity of Water Information Systems in meeting policy demands



Source: Adapted from Rudy Vannevel, Flemish Environment Agency, Belgium

Figure 2. Multi-scale stakeholders in the Water Information System

Source: Adapted from Paul Haener, International Office for Water, France

16. ***Recent and planned changes in water policy settings, priorities and demands*** across many countries have highlighted that:

1. many international and national WIS are maintained without sufficiently addressing the policy relevance of the data and information being regularly collected;
2. deficiencies in the policy relevance of WIS applies not only to more highly structured systems (e.g. national and international systems of environmental and economic accounts for water), but also to those more pragmatic data collection efforts, such as those by OECD, Eurostat, Aquastat, many countries and non-governmental organisations (e.g. Water FootPrint Network); and that,
3. there is a need for clarity and determination of the fitness for purpose of the data and information generated by WIS.

17. ***The Workshop discussion of national and international WIS***: examined their purpose and objectives; discussed their current limitations and constraints; reviewed the progress being made to improve WIS; and outlined the challenges and opportunities for the future of WIS.

18. In most national cases the main ***purpose and objectives for WIS*** is to provide the data and information for monitoring, reporting, and evaluating national water policies (Figure 1). At the international agency level WIS usually provide a benchmarking and policy analysis role, as described in the case of the OECD, for example, in Section 3 above.

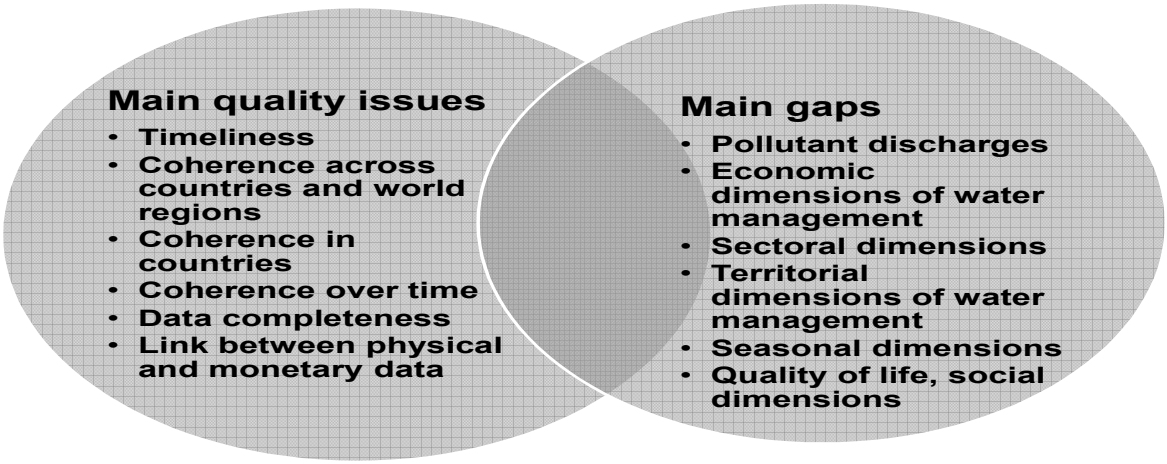
19. ***The limitations and constraints of WIS*** can be broadly summarized as follows:

1. Data concerning the economic and institutional aspects of water systems are much less developed than physical data and are only partially covered in the regular updates of most national and international WIS.
2. Current databases are not always adequate to support:
   i. integrated water management;
   ii. efficient design and implementation of water policies and related performance assessments;
   iii. economic analysis of integrated water management and related pricing policies; and,
   iv. international water policy monitoring, analysis and evaluation.
3. There is a need to highlight data gaps and identify deficiencies of data and data collection systems, especially with regard to the most pressing current and emerging policy issues.
4. The expertise to collect and analyse water data and information needs to be expanded.

20. Despite these limitations of WIS ***progress is being made*** in many countries to upgrade water monitoring systems and data collection efforts. These efforts are being supported, in part, through use of new information technologies, such as use of GPS, GIS, and web-based communication. However, recent severe fiscal constraints confronting many nations and international organisations pose a threat to the progress being made with improving WIS.

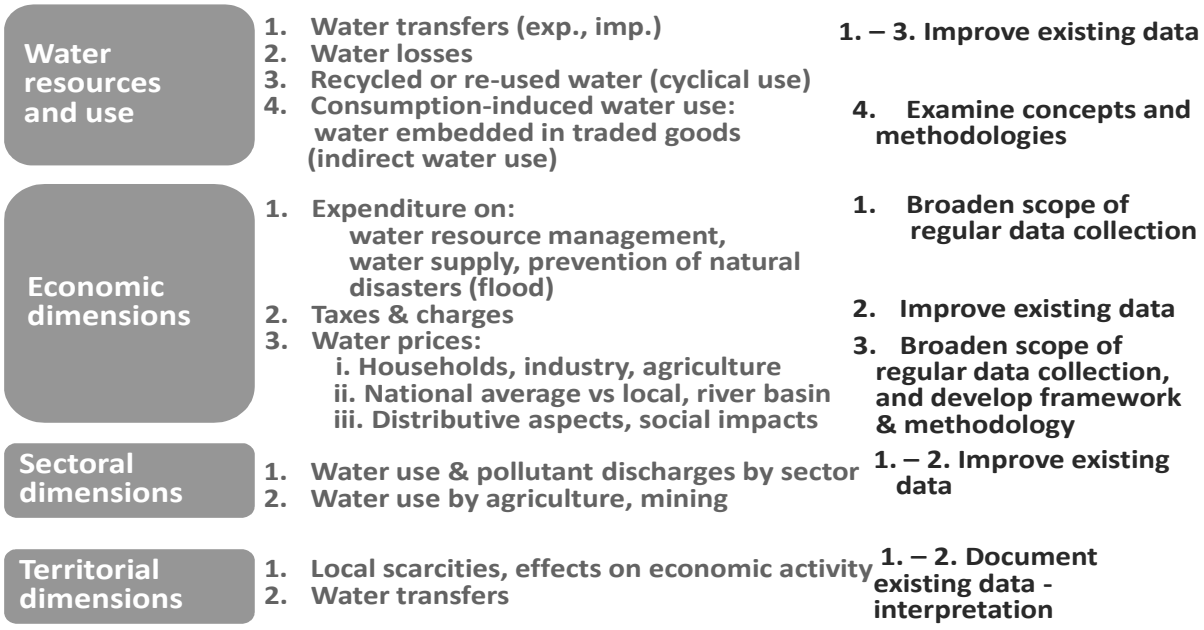
21. ***The key challenges and opportunities for WIS,*** which were recognized at the Workshop, are summarized in Figure 3, in terms of data quality issues, and in Figure 4 in relation to different dimensions of WIS. While from a statistical viewpoint the terms and definitions related to mainly physical dimensions of water have been largely harmonised (e.g. through the UN International Recommendations for Water Statistics), an important challenge identified in Figure 4 is to ensure precise definitions of the economic and financial dimensions of WIS (e.g. water prices) and also ensure that historic time series datasets are retained and continue to be developed where they are policy relevant.

Figure 3. Challenges to improve water data quality and address data gaps in Water Information Systems



Source: OECD Secretariat.

Figure 4. Challenges to improve concepts, methodologies and data across different dimensions of the Water Information System



Source: OECD Secretariat.

5. WORKSHOP RECOMMENDATIONS

22. The Workshop discussion led to a set of recommendations to be considered by water resource decision makers across OECD countries, non-member countries, international organisations and relevant OECD Working Parties.

5.1. Recommendations toward the overall improvement of Water Information Systems

23. The Workshop recognized that to make significant progress in improving WIS the overall political value of water and water policy issues must be elevated from a low to high political priority that requires the attention of Heads of State and relevant Ministers, taking into account longer term considerations, especially climate change. ***More specifically if WIS are to better meet the demands of decision makers the Workshop recommended*** the need to:

1. Improve the integration of social and economic dimensions with environmental data and indicators for policy guidance throughout the water sector.
2. Assist political priority setting for the water sector relative to other sectors by evaluating the costs and benefits of additional expenditure for water sector infrastructure investment, management and maintenance.
3. Assess how well current national WIS respond to policy needs, priorities and future plans as well as how they comply with existing statistical standards (e.g. the UN International Recommendations for Water Statistics) coupled with the identification of core water information and indicators common to all countries that would guide international water information and data collection efforts.
4. Undertake a cost-benefit analysis of existing WIS at both national and international levels, to determine how current water information and data are collected (or not collected) and used (or not used) by policy makers, and the costs and benefits of collecting, analysing and communicating this information.
5. Achieve greater flexibility of WIS to respond to evolving and long term water policy demands, for example, developing information on the extent of inherent levels of risks in a water basin (including different climate change scenarios) and using this in models to determine the impacts of extreme weather events (e.g. severe droughts, flood and storms) within a waterbasin on local communities, infrastructure, economic activities, and ecosystems.
6. Link the availability of improved WIS with strategic planning processes, such as "Strategic Financial Planning".

24. ***A System of Environmental and Economic Accounts for Water*** (SEEAW) can provide a useful organising framework for water data collection, using a common and consistent terminology and structure to organise data. Many countries are now developing a SEEAW, drawing on the United Nations general SEEAW framework and statistical standards for water under the *International Recommendations on Water Statistics* (IRWS). While the SEEAW provides a set of concepts, classifications and accounting tables for countries, the IRWS provides a list of data items and their definitions, guidance on data collection and links the data to the SEEAW, the FAO Aquastat, as well as other related water indicators. The Workshop recommendations as regards the SEEAW suggest the need to:

1. Adopt a flexible and pragmatic approach to implement SEEAW in response to the varying waterbasin, regional, country and international policy needs and concerns.
2. Foster more feedback from water basin, country and international experiences in using SEEAW, in an effort to seek further improvements in the SEEAW framework.

3. Focus on producing repeatable and enduring long term data sets that include physical, economic and financial information that will be helpful in populating SEEAW.

4. Improve the coverage and integration of social data (e.g. public values for cultural, landscapes, spiritual values linked to water) which are poorly (or not) represented in WIS, including SEEAW frameworks (the UN Statistical Commission will review in 2012 its SEEAW to ensure its consistency with the more general System of Environmental and Economic Accounts).

25. ***Building a robust WIS requires a solid scientific basis and knowledge of water systems,*** and in this regard the Workshop recommended the need to:

1. Undertake a substantial effort to improve the understanding and science of hydrological systems to better guide WIS data collection efforts, for example, improving knowledge of the connections between groundwater and surface water, and determining sustainable environmental flows in the context of climate change.

2. Develop a ladder approach to water data and information which can provide the different steps for more complete WIS, from basic hydrology of water systems to their monitoring and higher value insights through analysis, assessment and forwarding looking perspectives.

3. Consider establishing an informal high level group of experts to advance work on national and international WIS, by building on the synergies at the Workshop through forming a small group of stakeholders including data providers, users (governments, business, NGOs) and researchers. If created the group could interact with players, such as the UN SEEAW and the UN World Water Assessment Programme (the programme, membership, funding, and other logistical details would need to be further discussed with interested parties).

26. ***The Workshop's consideration of data collection to support WIS*** led to the following recommendations, including the need to:

1. Improve the use of existing data and aim to decentralise data collection where appropriate to the point of use, for example, water meters on farms.

2. Examine the current collection of water data to identify areas of duplication and significant gaps, and their compliance, where appropriate, with international statistical standards.

3. Encourage innovations in physical, economic, financial and institutional water data collection. This may include using new technologies (e.g. remote sensing) and voluntary initiatives to collect data. Public agencies may also require those who generate economic rents through water use pay for data collection, maintenance and analysis. Agencies may also regulate or provide financial incentives to ensure that data are collected and maintained appropriately, taking into account that across different regions water data and information can vary from a private to a public good.

4. Harmonise data sets across international organisations (e.g. irrigated area) and across countries following international statistical standards where appropriate (e.g. variance in irrigation water application rates/ha irrigated) and continue to improve basic hydrological data by making a clearer distinction between information relevant for global water resource management and that data which is more locally relevant.

5. Consider developing poles of excellence across international organisations so as to concentrate effort on a part of the international WIS in view of increasingly restricted resources to support international WIS. For example, OECD could further develop and work on methodologies, standard definitions and data related to water pricing, economics and financing.

27. ***Effective communication of water data and information*** was recognized by the Workshop as essential and recommended that further efforts in this regard should:

1. Increase efforts to communicate messages from the reporting and analysis of water data to policy advisors and the wider public, and not just among the research community.

2. Improve communication by gaining wider acceptance and understanding of terminology related to water systems by policy makers and other stakeholders, for example, avoiding confusion and misunderstandings over terms such as water use, water abstractions, and water withdrawals.

3. Explore ways to use water databases to better express temporal and spatial diversity.

4. Facilitate transparency in public access to data across institutions, while accommodating the variety of forms of access required by users from primary water data for researchers to more aggregated generalised indicators for the wider public.

5. Involve all water system stakeholders in indicator development, which will build relevance, legitimacy and ownership of data. Current trends towards greater public engagement in local water basin management are more likely to result in responsive and effective local adaptations, leading to improvements at a larger scale.

5.2. Recommendations to enhance the economic and financial data sets needed for water resource management decision makers

28. Addressing the role for economic and financial information in effective water policy and management, the Workshop recommended the need to:

1. Strengthen the overall economic and financial information base of WIS (Figure 5), which remains relatively underdeveloped compared to physical water data, while also clearly defining the purpose of collecting and analysing this information to inform decision makers.

2. Express the economic values of water more clearly to improve water allocation decisions between competing uses and for environmental needs. This may include improving the understanding and measurement of the economic value of water from the perspective of society's water use needs (e.g. actual water uses, future opportunity costs) and the perspective of the environmental and social value of water to society (e.g. water as an ecological good or service, recreational values of water, value of waterscapes).

3. Develop methodologies, definitions and standards for economic and financial data and demonstrate the value of improving this information for water management and policy makers, building on efforts already completed in this area, such as the UN SEEAW and IRWS.

4. Identify priorities for benchmarking to guide regular data collection of economic and financial water data, according to their policy development, implementation and evaluation needs.

Figure 5. Scope of coverage to improve economic and financial data for use in monitoring and evaluating water policies and water management

To improve the current coverage of regular data collection processes	To expand the coverage of regular data collection	To complement regular data collection
PAC expenditures • Continuity of series • Reliability of aggregate data • Timeliness **Environmental taxes and charges** • Country coverage • Comprehensiveness of water levies **ODA flows** •Disaggregated data	**Expenditure** • Raw water supply infrastructure • Flood protection infrastructure • Ecosystem management • Water governance **Water pricing** • Pricing structures • Bill & collection rates • River-basin level • Use of revenues	**Costs** • Estimates of costs of achieving policy objectives **Benefits** • Economic benefits of sound water management

Source: OECD Secretariat.

5.3. Observations relevant to Virtual Water and Water Footprint concepts and indicators

29. In addressing whether the Virtual Water and Water Footprint concepts and indicators provide useful water resource management tools for decision makers and other stakeholders the participants of the Workshop observed that:

1. Concepts and indicators of virtual water and water footprints have been helpful in raising awareness of water scarcity and water allocation issues. These concepts have gained wide appeal with private citizens, public officials, and members of the media. Several private companies have also adopted strategies that reflect efforts to reduce water footprints in their production processes.

2. Virtual water and water footprints concepts and indicators, however, have limitations in a policy context, largely due to the narrow range of issues considered within these concepts. In particular, they do not take into account the:

   i. opportunity cost of water in production or the relative opportunity costs of water in alternative locations. Hence, neither virtual water or water footprints is analogous to the economic theory of comparative advantage;

   ii. other inputs used in production (e.g. agriculture), such as land, labour, energy, and capital, which means the indicators can lead to making sub-optimal policy and production decisions from a private or public perspective; while the concepts do not account for the,

   iii. distinction between the management of water resources and the management of water quality (pollution).

3. Optimal policies regarding agriculture, natural resources, and the environment will reflect careful consideration of several public goals, such as reducing poverty, enhancing food security, stimulating sustainable economic development and ensuring high levels of employment. The virtual water and water footprint perspectives, by only focusing on water endowments and water requirements, do not account for key variables that influence the achievement of these broader public objectives.

5.4. Recommendations toward improving the institutional coherence and governance of water information systems

30. In considering how to enhance the institutional coherence and governance of WIS toward more effective and efficient water management and policy decision making, the Workshop recommended the need to:

1. Encourage national and trans-boundary leadership and coordination to establish best practice principles, and where appropriate underpinned by legal arrangements, to support effective regional and local decision makers for sustainable long term water resource management.

2. Adopt policy performance management principles to monitor and evaluate long term water policies and to ensure baseline water planning arrangements balance social, economic and environmental needs. This takes into account that water governance needs to match long term planning cycles, both to avoid management by crisis (e.g. droughts and floods) and also to consider the impact of climate change.

3. Assess the institutional obstacles and opportunities for effective use of existing national or international WIS by policy makers. In particular, by identifying areas of possible institutional overlap in water data and information and possibilities for synergies to encourage the building of flexible, responsive and adaptive institutions, which work together to address present and future water resource management challenges.

4. Mobilise local stakeholders (river basin organisations, sub-national governments, etc.) in the design of information systems to enhance territorial and integrated water resource management approaches to water policies. The data must be comprehensible at a "place-based" scale, and for local, regional and national applications.

5. Foster dialogue and coordination between data producers and users and encouraging multi-discipline (e.g. economists, statisticians, engineers, ecologists, businesses) approaches in improving and developing WIS institutions and governance.

6. Support those collecting Overseas Development Assistance (ODA) statistics, including the OECD Development Assistance Committee, to improve water resource information in their data collection efforts in support of improved water management in developing countries, particularly those countries experiencing growing water stress.

31. ***The Workshop recognised the importance of addressing institutional water information and data "gaps" with a systematic approach***, and recommended the need to:

1. Identify the mutual interdependencies between different institutions involved in water policy-making at local, regional and central levels. This implies recognising the impediments to effective coordination of public and private actors at administrative, funding, knowledge, infrastructural, and policy levels in order to address water information and data "gaps" and encourage more effective and efficient institutional sharing of water data and information.

2. Develop work on "institutional information" to meet physical, social, economic and financial information needs, in terms of:

   i. Who does what at central and sub-national government levels in terms of water policy design and implementation?

   ii. Where are the key governance "gaps" both horizontally and vertically across institutions?

   iii. What are the major obstacles for effective coordination across ministries, other levels of government, and public and private water utilities?

   iv. What are the limitations and opportunities of existing governance mechanisms to make them more effective in delivering water policy reforms and managing water resources more efficiently?

32. The OECD Secretariat also invited countries to join the OECD water governance 2009-2010 survey.[5]

6. NEXT STEPS AND KEY DATES FOLLOWING THE WORKSHOP

33. The ***next steps*** in OECD work related to water data, indicators and information, are the following:

1. Water data and core indicators in the biennial OECD *Environmental Data Compendium* (next edition 2011).

2. 2nd edition of OECD *Environmental Performance of Agriculture: At a Glance* (mid-2011).

3. Survey of water governance across levels of OECD government, end-2010.

4. OECD Programme of Work for 2011-12 decided by last quarter 2010, with implications for work on water data and information, including:

   i. Continuing regular data collection and generation of indicators.

   ii. Using water data and information policy analysis, evaluation, monitoring and projections, including policy work on:

      a. Climate change and the OECD "*Green Growth Strategy*";

      b. Economics and financing, such as the proposed OECD project on "*The Economics of Water Security – Pathways to Reform*";

      c. Institutions and governance; and

      d. Country reviews, sectoral studies and projections, including the OECD *Environmental Outlook* (2012), which will have a special focus on water among other subjects.

5. The OECD water governance survey is available in four languages at: www.oecd.org/gov/water

34. The ***key dates*** following the Workshop are as follows:

- **20-21 May**: Oral Report provided to the OECD *Working Party on Global and Structural Policies, the Working Party* that manages the OECD *2nd Horizontal Water Programme*, including the Workshop.

- **28-30 June**: This Report will be circulated and discussed at the OECD *Joint Working Party on Agriculture and the Environment*.

- **23-25 November**: This Report will also be circulated and discussed at the OECD *Working Group on Environmental Information and Outlooks*.

- **3rd Quarter to last quarter 2010**: Deadline for papers (11th June) and preparation of the public release of the Workshop Proceedings, including the website.

ANNEX 1. AGENDA

(Names underlined are those providing that provided a presentation for multiple authored papers)

Day	Time	Session
Tuesday 4th May	09.00 – 10.00	**SESSION 1: WELCOME AND OPENING ADDRESSES** **Session held in public in the Convent of the International Center for Water and Environment (CIAMA)**
		➢ *Opening address on behalf of the Workshop participants* **Asit BISWAS,** Third World Centre for Water Management, Mexico ➢ *Opening address on behalf of the OECD Secretariat* **Kevin PARRIS,** Senior Agricultural Policy Analyst, Agricultural Policies and Environment Division, Organisation for Economic Cooperation and Development (OECD), Paris, France ➢ *Welcome address* **Alfredo BONÉ,** Minister for the Environment, Government of Aragon, Spain
	10.00-10.30	**BREAK**
Tuesday 4th May	**10.30 - 13.05**	**SESSION 2 – OVERVIEW AND INTERNATIONAL PERSPECTIVES AND INITIATIVES TOWARDS IMPROVING WATER INFORMATION SYSTEMS** Top floor of the Marqueses de Ayerbe's Palace, International Centre for Water and Environment (CIAMA)
	10.30 – 11.15	**Chair Session 2** **Peter Koefoed BJORNSEN,** Director of the UNEP-DHI (United Nations Environment Programme - Danish Hydraulic Institute) Collaborating Centre on Water and Environment, Denmark

Day	Time	Session
		➢ *OECD Secretariat Overview of the Workshop* **Kevin PARRIS,** Senior Agricultural Policy Analyst, Agricultural Policies and Environment Division, OECD, Paris, France ➢ *Charting Our Water Future Economic frameworks to inform decision-making* **Sudeep MAITRA,** McKinsey & Company, Inc, London, United Kingdom ➢ *The informational needs of operators of public water and wastewater systems* **Jack MOSS**, AquaFed and Chair Business and Industry Advisory Committee to the OECD (BIAC) Water Group, Paris, France ➢ *Considerations for developing integrated water information systems* **Michael VARDON**, Australian Bureau of Statistics, Centre of Environment and Energy Statistics, Canberra, Australia
	11.15 - 11.55	➢ **Discussion Opener**: **Rob VERTESSEY**, Deputy Director (Water), Bureau of Meteorology, Australia ➢ **General discussion**
	11.55 - 12.25	➢ *The challenges of informing global policy makers about water resources -* **Mike MULLER**, Visiting Professor, Graduate School of Public and Development Management, Wits University, South Africa ➢ *SEEA (System of Environmental and Economic accounts) -Water and IRWS (International Recommendations for Water Statistics) statistical standards for water information* **Alessandra ALFIERI**, Chief, Environmental-Economic Accounts Section, United Nations Statistics Division, New York, United States ➢ *Official European Water Statistics: State of play and future challenges* **Jürgen FÖRSTER**, Eurostat (EU Statistical Office), Luxembourg
	12.25 - 13.05	➢ **Discussion Opener**: **Paul HAENER**, International Office for Water (OIEAU), France **General discussion**
	13.05 - 14.30	**LUNCH** hosted by the International Centre for Water and Environment

Day	Time	Session
	14.30-16.20	**SESSION 3: EUROPEAN WATER INFORMATION SYSTEMS: MEETING THE INFORMATION NEEDS TO IMPLEMENT THE EUROPEAN UNION WATER FRAMEWORK DIRECTIVE**
	14.30 – 15.30	**Chair Session 3** **Rafael IZQUIERDO** The Aragon Water Institute, Zaragoza, Spain ➢ *A Blueprint to Safeguard European Waters – The future of EU water policy – and the information needed* **Henriette FAERGEMANN**, DG Environment, European Commission, Brussels, Belgium ➢ *Water resource management in Europe – accounting for what matters – use of information at River Basin scale for a European State of the water environment* **Beate WERNER**, Head of Water Group, European Environment Agency, Copenhagen, Denmark ➢ *The Spanish integrated water information system* **Ángel BARBERO MARTIN,** Adviser to Cabinet of the Secretary of State for Water and Rural Affairs, Ministry of Environment and Rural and Marine Affairs (MARM), Spain ➢ *Water Information System Austria (WISA)* **Stephan NEMETZ, Harald MARENT and Michael NAGY**, Austrian Environment Agency, Vienna, Austria ➢ *Developing harmonised national water information systems in the Mediterranean* **Eric MINO** (paper presented by **Paul HAENER**, International Office for Water (OIEAU), France), Manager of the EMWIS Technical Unit, Euro-Mediterranean Information System on Know-How in the Water Sector (SEMIDE/EMWIS), France ➢ *the mentality of river basins: What do we need to monitor and to describe for managing river basins in Southern Europe?* **Jochen FROEBRICH, Erik QUERNER and Joop HARMSEN,** Alterra, Wageningen UR, Netherlands
	15.30 – 16.20	➢ **Discussion Opener**: **Alberto GARRIDO**, Professor, Department of Agricultural and Resource Economics, Universidad Politécnica de Madrid, Spain ➢ **General discussion**
	16.20 - 16.50	**BREAK**

Day	Time	Session
Tuesday 4th May	**Time 16.50 – 18.30**	**SESSION 4: RECENT ACHIEVEMENTS AND FUTURE PLANS FOR NATIONAL WATER INFORMATION SYSTEMS IN OECD COUNTRIES**
	16.50 – 17.40	**Chair Session 4** **Alessandra ALFIERI**, Chief, Environmental-Economic Accounts Section, United Nations Statistics Division, New York, United States ➢ *Insight from Australia's water information* **Rob VERTESSY**, Deputy Director (Water), Bureau of Meteorology, Australia ➢ *New Zealand's policy responses to a growing demand for freshwater and the need to underpin policy development and decision making with collaborative and dependable environmental monitoring* **Chris ARBUCKLE** and **Grant KING**, Senior Policy Analysts | Natural Resources Group | Ministry of Agriculture and Forestry, *Te Manatu Ahuwhenua, Ngaherehere*, and **Tanya GRAY**, Senior Analyst - Statistics and Geospatial, Ministry for the Environment ,*Manatü Mö Te Taiao,* New Zealand ➢ *Water and Climate Research Supporting Water Management Decision Making* **Warwick McDONALD**[1], **Albert van DIJK**[1], **Luigi RENZULLO**[1], **QJ WANG**[2], **Tom PAGANO**[2], **Edward KING**[3]; [1]CSIRO Land and Water, Canberra, Australia; [2]CSIRO Land and Water, Highett VIC 3190 Australia; [3]CSIRO Marine and Atmospheric Research, Canberra, Australia ➢ *Changing roles in Canadian water management and decision making* **Darrell R. CORKAL**, Agriculture and Agri-Food Canada - Agri-Environment Services Branch, Saskatoon, **Harry DIAZ**, Canadian Plains Research Center, University of Regina
		➢ *Research Emphasis and Impacts on Water Availability and Quality in the United States* **Michael C. SHANNON**, USDA ARS National Program Leader, Water Resources, Natural Resources & Sustainable Agricultural Systems, US Department of Agriculture, Maryland, United States
		➢ **Discussion Opener**: **Mike MULLER**, Visiting Professor, Graduate School of Public and Development Management, Wits University, South Africa ➢ **General discussion**

Day	Time	Session
Wednesday 5th May	**09.00 – 10.35**	**SESSION 5: RECENT ACHIEVEMENTS AND FUTURE PLANS FOR NATIONAL WATER INFORMATION SYSTEMS IN OECD AND ACCESSION COUNTRIES**
	09.00 – 09.55	**Chair Session 5** **Mike SHANNON,** National Program Leader, Water Resources, Natural Resources & Sustainable Agricultural Systems, US Department of Agriculture, Maryland, United States ➢ *OECD Water Information: Facts and Figures for Policy Use* **Myriam LINSTER**, Principal Administrator, Environmental Information and Indicators, Environmental Performance and Information Division, Environment Directorate, OECD, Paris, France ➢ *Water information portal site for more efficient and sustainable water resources management* **Tomoyuki OKADA,** Deputy Director, River Planning Division, River Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan ➢ *Rural and agricultural water resource information system* **Jin-Hoon JO**, Team Leader of Water Resource Research, Rural Research Institute, Korea Rural Community Corporation ➢ *Mexico's National Water Information System* **Ricardo MARTINEZ LAGUNES**, National Water Commission (CONAGUA), Mexico ➢ *Increasing the relevance of water statistics in Israel: Water indicators and the water account* **Amit YAGUR-KROLL,** Environmental Statistics Division, Central Bureau of Statistics, Israel
	09.55 - 10.35	➢ **Discussion Opener**: **Jürgen FÖRSTER**, Eurostat (EU Statistical Office), Luxembourg (10 minutes) ➢ **General discussion** (30 minutes)
	10.35 – 11.00	**BREAK**

Day	Time	Session
Wednesday 5th May	**11.00 – 12.35**	**SESSION6: DEVELOPING THE ECONOMIC AND FINANCIAL DATA SETS NEEDED FOR WATER RESOURCE MANAGEMENT**
	11.00 – 11.55	**Chair Session 6** **Allan HALL** Global Water Partnership, Stockholm, Sweden ➢ *OECD Overview on Economic and Financial Data Needs* **Roberto MARTIN-HURTADO,** Economist, Environment Directorate, OECD, Paris, France ➢ *The role of information in assessing implementation of Australia's national water reform agenda* **Will FARGHER**, Acting General Manager, Water Markets and Efficiency Group, National Water Commission, Canberra, Australia ➢ *Drivers of Economic Information in River Basin Management Planning* **Josefina MAESTU**, Programme Director, Division of Sustainable Development, UN Department of Economic and Social Affairs, Zaragoza, Spain ➢ *The Information and Knowledge Component of Water Policies: The Case of Spain* **Jose ALBIAC**, Researcher at the Department of Agricultural Economics (CITA), Government of Aragon, Spain
	11.55 – 12.35	➢ **Discussion Opener**: **Cecilia TORTAJADA**, Third World Centre for Water Management , Mexico ➢ **General discussion**
	12.35 – 14.00	**LUNCH** hosted by the International Centre for Water and Environment

Day	Time	Session
Wednesday 5th May	**14.00 – 15.20**	**SESSION 7: THE VIRTUAL WATER AND WATER FOOTPRINT INDICATORS AS TOOLS FOR WATER RESOURCE MANAGEMENT DECISION MAKERS**
	14.00 – 14.40	**Chair Session 7** **Ricardo MARTINEZ LAGUNES**, National Water Commission, (CONAGUA), Mexico ➢ *Water footprint as a tool for integrated water resources management* **Maite M. ALDAYA** and **A.Y. HOEKSTRA**, University of Twente, Netherlands and Water Footprint Network ➢ *Water footprint metrics for better decision making by private and public sectors* **Stuart ORR** and **Sergey MOROZ**, WWF ➢ *The Water Footprint and Virtual Water Trade in Spain* **Alberto GARRIDO[1]**, **M. Ramón LLAMAS[2]**, **Consuelo VARELA-ORTEGA[1]**, **Paula NOVO[1]**, **Roberto RODRIGUEZ-CASADO[1]**, **Maite M. ALDAYA[3],** 1. Professor, Department of Agricultural and Resource Economics, Universidad Politécnica de Madrid, Spain; 2. Department of Geodynamics, Complutense University, Madrid, Spain; 3. University of Twente, Netherlands ➢ *Do the Virtual Water and Water Footprint perspectives truly enhance policy discussion* **Dennis WICHELNS,** Principal Economist, International Water Management Institute, Columbo, Sri Lanka
	14.40 - 15.20	➢ **Discussion Opener**: **Rudy VANNEVEL**, Water Reporting Department, Flemish Environment Agency, Belgium ➢ **General discussion** (30 minutes)
	15.20 - 15.45	**BREAK**

Wednesday 5th May	**15.45 – 17.10**	**SESSION 8: MEETING THE INFORMATION NEEDS FOR AGRICULTURAL WATER RESOURCE MANAGEMENT**
	15.45 – 16.35	**Chair Session 8** **Karen FRENKEN,** Senior Water Resources Management Officer, AQUASTAT Programme Coordinator, Land and Water Division, FAO, Rome, Italy ➢ *Monitoring irrigation season – A support tool for water management and short-term actions* **Antonella PONTRANDOLFI**, Researcher, National Institute of Agricultural Economics (INEA), Italy ➢ *Sigrian as a decision support system for the economic evaluation of irrigation investments* **Carlo CAFIERO[1]**, **Antonio MASSARUTTO[2]**, **Raffaella ZUCARO[3],** 1. University of Naples Federico II; 2. University of Udine; 3. National Institute of Agricultural Economics (INEA) ➢ *Horizontal Aspects of Agricultural Water Use in Water-rich Monsoon Areas: Managing Information of Sectoral Demand in the Japanese Case* **Hiroaki KOBAYASHI[1]** and **Kazumi YAMAOKA[2]** ,[1]Wako University,[2] Japan International Research Center for Agricultural Sciences ➢ *Long term monitoring of agricultural dominated catchment - Experiences from the Norwegian Agricultural Monitoring programme (JOVA)* **Johannes DEELSTRA and Line MEINERT,** Rød. Bioforsk, Norway. ➢ *AQUASTAT, FAO's global information system on water and agriculture: Products and Challenges* **Karen FRENKEN,** Senior Water Resources Management Officer, AQUASTAT Programme Coordinator, Land and Water Division, FAO, Rome, Italy
	16.35 - 17.15	➢ **Discussion Opener**: **Darrell CORKALL**, Agriculture and Agri-Food Canada - Agri-Environment Services Branch, Saskatoon, Harry DIAZ, Canadian Plains Research Center, University of Regina Canada ➢ **General discussion**

Wednesday 5th May	**17.15 – 18.40**	**SESSION 9: MEETING INFORMATION NEEDS OF WATER RESOURCE DECISION MAKERS THROUGH IMPROVING INSTITUTIONAL COHERENCE AND MANAGEMENT**
	17.15 - 18.00	**Chair Session 9** **Jack MOSS,** AquaFed and Chair Business and Industry Advisory Committee to the OECD (BIAC) Water Group, Paris, France ➢ *Water institutions and information challenges: a preliminary OECD overview* **Aziza AKHMOUCH,** Policy Analyst, Multilevel Governance Unit, Regional Development Policy Division, Public Governance and Territorial Development Directorate, OECD, Paris, France ➢ *Capacity building in data administration to support national and transboundary water resources management: Some study cases and tools* **Paul HAENER**, International Office for Water (IOWater/OIEau), France ➢ *Consequences of an increasing environmental complexity on data and information flows* **Rudy VANNEVEL**, Water Reporting Department, Flemish Environment Agency, Belgium ➢ *Hydrometeorological data collection and sharing: The global challenge* **Vladimir SMAKHTIN** and **Dennis WICHELNS,** International Water Management Institute, Columbo, Sri Lanka
	18.00 – 18.40	➢ **Discussion Opener**: **René LALEMENT**, Director of Water Monitoring and Assessment, National Water Office (ONEMA), Vincennes, France ➢ **General discussion**
Thursday 6th May	**08.00 – 19.45**	**FIELD TRIP hosted by the Government of Aragon**

Friday 7th May	09.00 – 13.30	**SESSION 10: CONCLUDING DISCUSSION, RECOMMENDATIONS AND CLOSING ADDRESSES**
	09.00 – 11.10	**Chair Session 10:** **James HORNE,** Deputy Secretary, Department of the Environment, Water, Heritage and Arts, Canberra, Australia **REPORTS FROM RAPPORTEURS** ➢ ***Sessions 2 and 3 (International &EU Water Information Systems)*:** **Dennis WICHELNS,** Principal Economist, International Water Management Institute, Columbo, Sri Lanka • General Discussion ➢ ***Sessions 4 and 5 (National Water Information Systems):*** **Beate WERNER,** Head of Water Group, European Environment Agency, Copenhagen, Denmark • General Discussion ➢ ***Session 6 (Economics) and 7 (Virtual Water):*** **Will FARGHER**, Acting General Manager, Water Markets and Efficiency Group, National Water Commission, Canberra, Australia • General Discussion ➢ ***Session 8 (Agriculture) and 9 (Institutions):*** **Chris ARBUCKLE,** Senior Policy Analysts, Natural Resources Group , Ministry of Agriculture and Forestry, New Zealand • General Discussion ➢ **Chair's summing up**
	11.40 – 12.50	**RECOMMENDATIONS** ➢ *Recommendations for Consideration by OECD Working Parties* **Kevin PARRIS,** Agricultural Policies and Environment Division, OECD, Paris, France • General Discussion
	13.00-13.30	**CLOSING ADDRESSES** ➢ ***Chair Closing Address*** **James HORNE,** Deputy Secretary, Department of the Environment, Water, Heritage and Arts, Canberra, Australia ➢ ***OECD Secretariat Closing Address*** **Kevin PARRIS**, Agricultural Policies and Environment Division, OECD, Paris, France ➢ ***Host Closing Address*** **Rafael IZQUIERDO,** The Aragon Water Institute, Zaragoza, Spain

ANNEX 2. LIST OF PARTICIPANTS

AUSTRALIA

James HORNE
Deputy Secretary
Department of the Environment, Water, Heritage and Arts
GPO Box 787
Canberra ACT 2601
Tel: +61 2 6274 2300
Email: james.horne@environment.gov.au

Will FARGHER
A/g General Manager
Water Markets and Efficiency Group
National Water Commission
95 Northbourne Avenue,
Canberra ACT 2600
Tel.: +61 (0) 2 6102 6039
Mobile: +61 0402 336 614
Email: will.fargher@nwc.gov.au
Website: www.nwc.gov.au

Michael VARDON
Director
Centre of Environment and Energy Statistics
Australian Bureau of Statistics
ABS House
45 Benjamin Way
Belconnen ACT 2617
Tel: +61 (0)2 6252 7348
Mobile: +61 (0)447 825351
Email: michael.vardon@abs.gov.au

Rob VERTESSY
Deputy Director (Water)
Bureau of Meteorology
Office: Level 3, 14 Childers St, Civic
GPO Box 2334, Canberra ACT 2600
Tel: +61 (0)2 6232 3501
Mobile: +61 0417 702 424
Fax: +61 (0)2 6232 3535
Email: R.Vertessy@bom.gov.au

Warwick McDONALD
Director WIRADA (a Water Information R&D Alliance initiative between the Bureau of Meteorology and CSIRO)
CSIRO, Water for a Healthy Country Flagship, Canberra
Tel: +61 2 6246 5926
Mobile: +61 437 039 912
Email: warwick.mcdonald@csiro.au

AUSTRIA

Michael NAGY,
Head of Unit,
Data Management & Reporting
Environment Agency Austria,
Umweltbundesamt GmbH
Spittelauer Lände 5
1090 Wien
Tel.: +43-(0)1-313 04/3490
Mobile: +43-(0)664 621 03 46
Fax: +43-(0)1-313 04/3533
Email: michael.nagy@umweltbundesamt.at
Website: http://www.umweltbundesamt.at

BELGIUM

Rudy VANNEVEL
International Water Reporting, Water Reporting Department,
Flemish Environment Agency
Postal address: Vlaamse Milieumaatschappij (VMM),
A. Van De Maelestraat 96,
B-9320 Erembodegem , Belgium
Tel.: +32)(0)53.726.626
Fax: +32)(0)53.706.344
Email: r.vannevel@vmm.be

CANADA

Darrell R. CORKAL
A/Manager Water Quality
Senior Water Quality Engineer
Water Quality
Ag Water Directorate
Agri-Environment Services Branch
Agriculture and Agri-Food Canada
1011 - 11 Innovation Blvd.
Saskatoon, Saskatchewan S7N 3H5
Canada
Tel.: 306-975-6413
Fax: 306-975-4594
Email: Darrell.Corkal@AGR.GC.CA

FRANCE

René LALEMENT
Directeur de la connaissance et de l'information sur l'eau / Monitoring and Assessment Director
Office national de l'eau et des milieux aquatiques
5 square Félix Nadar
94300 Vincennes
Tel : +33 (0)1 45 14 07 44
Email : Rene.Lalement@onema.fr
Website: www.onema.fr ; www.eaufrance.fr

GERMANY

Simone RICHTER
Federal Environment Agency
Section "General Aspects of Water Quality and Management, Groundwater Protection"
Wörlitzer Platz 1
06844 Dessau
Tel: (0340) 2103-2725
Fax: (0340) 2104-2725
Email: simone.richter@uba.de

HUNGARY

Zoltán KÁRPÁTI
Environmental Policy Rapporteur
Ministry of Agriculture and Rural Development
Department for Rural Development
Agri-environmental Unit
1055 Budapest, Kossuth tér 11.
Tel.: +36/1/301-3533
Fax: +36/1/301-5949
Email: zoltan.karpati@fvm.gov.hu

András SZALAI
Environmental Rapporteur
Ministry of Agriculture and Rural Development
Department for Rural Development
Agri-environmental Unit
1055 Budapest, Kossuth tér 11.
Tel.: +36/1/301-5945
Fax: +36/1/301-5949
Email: andras.szalai@fvm.gov.hu

Márta KONKOLY
Water management rapporteur
Ministry of Agriculture and Rural Development
Department of Natural Resources
Fishery and Water Management Unit
1055 Budapest, Kossuth tér 11.
Tel.: 0036/1/301-4751
Email: marta.konkoly@fvm.gov.hu

ITALY

Antonella PONTRANDOLFI
Environment Division
Environment and natural resource use for agriculture Service
National Institute for Agricultural Economics (INEA)
36, Via Barberini,
00187, Rome, Italy
Tel: +39 (06) 4744263
Email: pontrandolfi@inea.it

Raffaella ZUCARO
Water management Division
Environment and natural resource use for agriculture Service
National Institute for Agricultural Economics (INEA)
36, Via Barberini,
00187, Rome, Italy
Tel: +39 (06) 4744263
Email: zucaro@inea.it

JAPAN

Hiroaki KOBAYASHI
Professor
Department of Economics
Faculty of Economics and Business
Wako University
2160 Kanai-machi, Machida-shi,
Tokyo
Email: koba000@wako.ac.jp

Hideki FURIHATA
Deputy Director
Overseas Land Improvement Cooperation Office
Rural Development Bureau
Ministry of Agriculture, Forestry and Fisheries
1-2-1 Kasumigaseki, Chiyoda-ku,
Tokyo
Email: hideki_furihata@nm.maff.go.jp

Tomoyuki OKADA
Deputy Director
River Planning Division, River Bureau
Ministry of Land, Infrastructure, Transport and Tourism
Japan
Tel.: +81-3-5253-8444
Fax: +81-3-5253-1602
Email: okada-t2vd@mlit.go.jp

KOREA

Chan-Ki JUNG
Director
Office of Water Resource Management,
Korea Rural Community Corporation
Tel.: +82-31-420-3112, +82-10-3061-5807
Email: ckjoung@ekr.or.kr

Jin-Hoon JO
Team Leader of Water Resource Research
Rural Research Institute,
Korea Rural Community Corporation
Tel.: : +82-31-400-1725, +82-10-7238-9650
Email: jjhjo@ekr.or.kr

MEXICO

Oscar Javier LARA ARECHIGA
President of the Hidraulic Resources Comisión of the Mexican Congress
Parlamentary Group: Partido Revolucionario Institucional
Deputy, Chamber of Deputies
Tel.: +52(55)50360145
Email: olara51@terra.com.mx
carlos_es2010@yahoo.com.mx
comisión.rechidraulicos@congreso.gob.mx

José María VALENCIA BARAJAS
Secretary of the Hidraulic Resources Comisión
Parlamentary Group: Partido de la Revolución Democrática
Deputy, Chamber of Deputies
Tel.: +52(55)50360000 Ext. 56427, 3422
Email: Priscila_lud@hotmail.com
jose.valencia@congreso.gob.mx

Cora Cecilia PINEDO ALONSO
Secretary of the Hidraulic Resources Comisión
Parlamentary Group: Partido Nueva Alianza
Deputy, Chamber of Deputies
Tel.: +52(55)50360000 Ext. 53236
Email: cora.pinedo@congreso.gob.mx

Ramón MERINO LOÓ
Integrant of the Hidraulic Resources Comisión
Parlamentary Group: Partido Acción Nacional
Deputy, Chamber of Deputies
Tel.: +52(55)50360000 Ext. 51246
Email: ramón.merino@diputadospan.org.mx

Jose Antonio AYSA BERNAT
Integrant of the Hidraulic Resources Comisión
Parlamentary Group: Partido Revolucionario Institucional
Deputy, Chamber of Deputies
Tel.: +52(55)50360000 Ext. 56064
Email: jose.aysa@congreso.gob.mx

Alejandro del MAZO MAZA
Grupo Parlamentario del Partido Verde Ecologista de México
Deputy, Chamber of Deputies
Integrant of Climate Change Commission
Secretariat of Globe-Mexico
Tel.: +52(55)50360000 Ext 59137
Email: alejandrodelmazo@yahoo.com
Alejandro.delmazo@congreso.gob.mx
jashhh73@yahoo.com.mx

Ricardo MARTINEZ LAGUNES
Coordinador de Proyectos Transversales, Transparencia e Innovación
Subdirección General de Programación
Comisión Nacional del Agua (CONAGUA)
Av. Insurgentes Sur 2416 Piso 4 ala sur
México, D.F. 04340
Tel.: +52(55)5174-4480 and +52(55)5174-4481
Email: ricardo.martinez@conagua.gob.mx

Carlos PATIÑO GÓMEZ
Subcoordinador de Gestión Integrada del Agua
Coordinación de Hidrología
Instituto Mexicano de Tecnología del Agua
Paseo Cuauhnáhuac No. 8532, Progreso
C.P. 62550, Jiutepec, Morelos, México.
Tel. +52 (777)329-3628; +52 (777) 329-3600 ext 512
Fax.+52 (777)329-3685;
Email: carlos_patino@tlaloc.imta.mx

NETHERLANDS

Jochen FROEBRICH
Head Integrated Water Resources Management Team
Centre for Water and Climate
Alterra, Wageningen UR
Tel. +31 31 74 81 510
Email: jochen.froebrich@wur.nl

NEW ZEALAND

Chris ARBUCKLE
Senior Policy Analyst, Natural Resources Group,
Ministry of Agriculture and Forestry,
Te Manatu Ahuwhenua, Ngaherehere, Otago/Southland Regional Office,
PO Box 5648, Cnr Strathallen St & Portsmouth Drive,
Dunedin 9058
New Zealand
Tel.: +64-3-9514724
Fax: +64-3-9514713
Cell: 029 951 4724
Email: chris.arbuckle@maf.govt.nz
Website: www.maf.govt.nz

NORWAY

Johannes DEELSTRA
Bioforsk – Soil and Environment
Fred. A. Dahls vei 20
1432 Ås
Tel: +47 926 99 501
Email: Johannes.Deelstra@bioforsk.no
Website: www.bioforsk.no

SPAIN

Alfredo BONÉ PUEYO
Ministry for the Environment of the Government of Aragón
Pº María Agustín, 36. Edificio Pignatelli
50071 Zaragoza

Rafael IZQUIERDO
Instituto Aragonés del Agua
c) Capitán Portolés, Nº 1, 3 y 5
50071 Zaragoza
Email: rizquierdoa@aragon.es

José ALBIAC
Centro de Investigación y Tecnología Agroalimentaria de Aragón
Avda. Montañana 930
50059 Zaragoza
Email: maella@unizar.es

José RAMÓN LASUÉN
Presidente de Lasuén Asociados, S.A.
c) Zorrilla, 2-4ºB
28014 Madrid
Email: JRLCRO@terra.es

Angel BARBERO
Adviser,
Cabinet of the Secretary of State for Rural and Water Affairs,
Ministry of Environment and Rural and Marine Affairs,
Pza. San Juan de la Cruz S/N Despacho A502.1 28071 Madrid
Tel.: +34 91 597 58 33
Tel.: +34 680113465
Fax: +34 91 597 59 97
Email: abarbero@mapa.es

Alberto GARRIDO
Departamento de Economía y Ciencias Sociales Agrarias
Escuela Técnica Superior de Ingenieros Agrónomos
Universidad Politéchnica de Madrid
Avda Complutense s/n
28040 Madrid
Email: alberto.garrido@upm.es

Lydia GÁLVEZ BARDAJI
Técnico Federación De Regantes De La Cuenca Del Ebro
Avenida América nº 1, planta 1ª,
50007 Zaragoza
Tel.: 976259520
Email: ferebro@ferebro.org
Web: http:// www.ferebro.org

Carlos FRANCO ULIAQUE
Centro Internacional del Agua y el Medio Ambiente, (CIAMA).
Departamento de Medio Ambiente. Gobierno de Aragón.
International Centre of Water and Environment, (CIAMA).
Regional Ministry for the Environment. Government of Aragón.
Finca de la Alfranca.
50195 Pastriz, Zaragoza
Tel.: +34 976 10 58 40
Fax: +34 976 10 58 41
Email: cfrancoul@aragon.es
Website: www.aragon.es

Rosa PINO
Director for the Environment Institute of the Faculty of Health Sciences of the San Jorge University
San Jorge University
Autov. A-23 Zaragoza-Huesca, km. 510
50.830 Villanueva de Gállego,
Zaragoza
Tel. (34) 976 060 100
Mobile: 676 227 990
Email: rpino@usj.es
Website: http://www.usj.es/sitio/usj/index.php?idi=i

Miguel Angel GIL SANCHO
Vocal de la junta de dirección de CREA
Avenida de Ranillas, 20
50015 Zaragoza
Tel.: (34) 976460066
Email: secretariageneral@crea.es
Website: www.crea.es

Manuel OMEDAS MARGELÍ
Head of the Office of Water Planning.
Ebro Hydrographic Confederation
Paseo Sagasta 26-24
50071 Zaragoza
Tel.: (34) 976 71 10 00
Email: momedas@chebro.es
Website: www.chebro.es

Raquel DÍEZ
Technical Expert, International Affairs Division
CIAMA - International Centre for Water and Environment
Ministry for the Environment, Government of Aragon (Spain).
Finca de la Alfranca s/n
50195 Pastriz, Zaragoza, Spain
Tel. +34 976 105840
Fax: +34 976 105841
Email: rdiez@sodemasa.com

Fernando CELESTINO REY
Chief of Unit of water statistics and water accounts at the Spanish Statistical Office
National Statistics Institute
Paseo de la Castellana nº 183
Planta 8 . Despacho 848
28071 - Madrid
Tel.: 0034-91-5839514
Email: fcrey@ine.es
Website: www.ine.es/

Marisa FERNÁNDEZ SOLER
Directora Proyectos Demostrativos
Fundación Ecología y Desarrollo
Plaza San Bruno, 9-1º oficinas
50001 Zaragoza-España
Tel. +34 976 298282 ext. 145 Fax +34 976 203092
www.ecodes.org
www.zaragozaconelagua.org
www.agua-dulce.org
www.elfaro2008.org

D. Juan Ramon CASTILLO SUÁREZ
Director of the University Institute of Environmental Sciences
University of Zaragoza,
Pedro Cerbuna nº 12;
50009 Zaragoza
Tel.: 976761000;
Email: rector@unizar.es
Website: http://www.unizar.es

D. José María CUADRAT PRATS
Deputy of the University Institute of Environmental Science
University of Zaragoza,
Pedro Cerbuna nº 12;
50009 Zaragoza
Tel.: 976761000;
Email: rector@unizar.es
Website: http://www.unizar.es

Victor BUENO BERNAL
Agencia de Medio Ambiente y Sostenibilidad
Ayuntamiento de Zaragoza
Casa Jimenez, 5
50004 Zaragoza
Tel.:+ 34 976 72 42 19
Email: vbueno@zaragoza.es

UNITED STATES

Michael C. SHANNON
USDA ARS National Program Leader, Water Resources
Natural Resources & Sustainable Agricultural Systems
5601 Sunnyside Ave., Room 4-2280
Beltsville, MD 20705-5140
Tel: +1 (301) 504-6246
Fax: +1 (301) 504-6231
Email: mike.shannon@ars.usda.gov

EUROPEAN UNION (EU)

- **European Commission/ Commission Européenne**

http://ec.europa.eu/index_en.htm

Henriette FAERGEMANN
Policy Officer - Water Scarcity & Droughts
European Commission, DG Environment, Unit D1 - Water and Adaptation to Climate Change
Mail address: Commission européenne,
B-1049 Bruxelles
Office: Av. De Beaulieu 9 3/064, 1160 Bruxelles
Tel.: +32 22960435; GSM: +32477625866
Email: Henriette.Faergemann@ec.europa.eu

- **Eurostat**

http://epp.eurostat.ec.europa.eu

Jürgen FÖRSTER
Unit E3 – Environment,
Eurostat,
Commission Européenne,
Rue Alcide de Gasperi
L-2920 Luxembourg
Email: Juergen.FOERSTER@ec.europa.eu
Website: http://epp.eurostat.ec.europa.eu

NON-MEMBER COUNTRIES

ESTONIA

Andre ZAHHAROV
Environmental Information
Water Bureau
Head of Bureau
Tel: +372 6736616
Email: andre.zahharov@keskkonnainfo.ee
Website: www.keskkonnainfo.ee

ISRAEL

Amit YAGUR-KROLL
Senior Coordinator Environmental Statistics Division
Central Bureau of Statistics
ISRAEL
Tel: 972-2-6592104
Fax: 972-2-6592103
Email: amitk@cbs.gov.il

SOUTH AFRICA	Mike MULLER Visiting Professor Graduate School of Public and Development Management Wits University, South Africa Email: mikemuller1949@gmail.com

INTERNATIONAL ORGANISATIONS

AquaFed (THE INTERNATIONAL FEDERATION OF PRIVATE WATER OPERATORS) www.aquafed.org	Jack MOSS Senior Water Advisor, AquaFed - The International Federation of Private Water Operators and Chair of the OECD BIAC Water Group, 54 avenue Hoche, 75008 Paris, France Tel: +33 1 56 60 50 04 Fax: +33 1 56 6056 50 Email: jack.moss@aquafed.org
EUROPEAN ENVIRONMENT AGENCY www.eea.europa.eu	Beate WERNER Water - Head of Group European Environment Agency Kongens Nytorv 6 1050 Copenhagen Tel: + 45 3336 7155 Mobile: +45 2368 3674 Fax: +45 3336 7151 Email: beate.werner@eea.europa.eu Philippe CROUZET Head of group "Land" Project manager for hydrosystems Programme "natural systems and vulnerabilities" European Environment Agency Kongens Nytorv 6 DK 1050 Copenhagen K Tel.: +45 33 36 7191 Fax: +45 33 36 72 93 Mobile: +45 2364 6450 Email: philippe.crouzet@eea.europa.eu
FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO) www.fao.org	Karen FRENKEN Senior Water Resources Management Officer AQUASTAT Programme Coordinator Land and Water Division Food and Agriculture Organization of the United Nations (FAO) Viale delle Terme di Caracalla 00153 Rome, Italy Email: Karen.Frenken@fao.org Website: http://www.fao.org/nr/aquastat

Amit KOHLI
AQUASTAT Consultant
Land and Water Division
FAO
Email: amit.kohli@fao.org

GLOBAL WATER PARTNERSHIP
www.gwpforum.org

Alan HALL
Global Water Partnership
Drottninggatan 33
11151 Stockholm
Sweden.
Tel: +46 8522 12630
Email: alanhall@hotmail.co.uk

INTERNATIONAL OFFICE FOR WATER (OIEAU)
www.iowater.org

Paul HAENER
Manager of the "Water information System division"
International cooperation Direction
International Office for Water
Place Sophie Laffitte
BP 75
06902 Sophia Antipolis - France
Tél. : 33 (0) 4 92 94 58 00
Fax : 33 (0) 4 93 65 44 02
Skype: phaeneroie
Email: p.haener@oieau.fr

INTERNATIONAL WATER MANAGEMENT INSTITUTE (IWMI)
www.**iwmi**.cgiar.org

Dennis WICHELNS
Principal Economist
International Water Management Institute
Colombo, Sri Lanka
Tel.: 812-292 6357
Email: dwichelns@csufresno.edu

THIRD WORLD CENTRE FOR WATER MANAGEMENT
www.thirdworldcentre.org

Asit K. BISWAS
President & Academician
Third World Centre for Water Management
Avenida Manantial Oriente No. 27
Los Clubes, Atizapan, Estado de Mexico,
52958, MEXICO
Tel. 52-55-5379-5429, Fax: 52-55-5379-5439
Emails: akbiswas@cablevision.net.mx , akbiswas@thirdworldcentre.org

Cecilia TORTAJADA
Third World Centre for Water Management
Avenida Manantial Oriente No. 27
Los Clubes, Atizapan, Estado de Mexico,
52958, MEXICO
Tel. 52-55-5379-5429, Fax: 52-55-5379-5439
Email: ctortajada@thirdworldcentre.org

UN CONVENTION TO COMBAT DESERTIFICATION (UNCCD) www.unccd.int	Emmanuel CHINYAMAKOBVU Secretariat of the United Nations Convention to Combat Desertification (UNCCD) P O Box 260129 D53153 Bonn Langen Eugen, Hermann-Ehlers- St. 10 D53113 Bonn, Germany Tel: +49-228 815 2819 Fax: +49-228 815 2898/9 Email: echinyamakobvu@unccd.int
UN ENVIRONMENT PROGRAM – DHI (UNEP-DHI) CENTRE FOR WATER AND ENVIRONMENT www.unepdhi.org	Peter Koefoed BJORNSEN, Director, UNEP-DHI Centre for Water and Environment Agern Allé 5 DK-2970 Hørsholm Denmark Tel: +45 4516 9200 Direct: +45 4516 9073 Fax: +45 4516 9292 Email: pkb@dhigroup.com
UN OFFICE TO SUPPORT THE INTERNATIONAL DECADE FOR ACTION 'WATER FOR LIFE' 2005-2015 www.un.org/waterforlifedecade	Josefina MAESTU Coordinator/Director United Nations Office to Support the International Decade for Action 'Water for Life' 2005-2015 UN-Water, Decade Programme on Advocacy and Communication, Casa Solans - Avda. Cataluña, 60 - 50014 Zaragoza, Spain Tel: +34 976 478 346/7 Fax: +34 976 478 349 Email: maestu@un.org
UN STATISTICAL OFFICE http://unstats.un.org/unsd	Alessandra ALFIERI Chief, Environmental-Economic Accounts Section, United Nations Statistics Division New York, 10017 Tel.: (212) 963-4590 Fax:(212) 963-1374 Email: alfieri@un.org
WATER FOOTPRINT NETWORK www.waterfootprint.org/	Maite M. ALDAYA Water Footprint Network and University of Twente Horst Building 7500 AE Enschede The Netherlands Tel. : +31 53 4894464 Fax: +31 53 4895377 Email: m.m.aldaya@ctw.utwente.nl

WORLD WILDLIFE FUND (WWF)
www.**panda**.org

Sergey MOROZ
Water Policy Officer
WWF European Policy Office (EPO)
WWF European Policy Office
168 avenue de Tervurenlaan Box 20
1150 Brussels, Belgium
Tel. Direct: +32 2 740 09 23 Switchboard: +32 2 743 88 00
Fax: +32 2 743 8819
Email: SMoroz@wwfepo.org

OTHER PARTICIPANTS

McKINSEY AND COMPANY INC.
www.mckinsey.com/clientservice/Water/

Sudeep MAITRA
McKinsey & Co
1 Jermyn Street
London SW1Y 4UH
United Kingdom
Tel. : +44 20 7961 6020
Mobile: +44 78258 32296
Fax +44 20 7339 6195
Email: sudeep_maitra@mckinsey.com

OECD SECRETARIAT
www.oecd.org/water

Kevin PARRIS
Senior Agricultural Policy Analyst
Agricultural Policies and Environment Division
OECD
Marshall Building 4235
2 rue André-Pascal
75775 Paris CEDEX 16, France
France
Tel: +33 1 45 24 95 68
Fax: +33 1 44 30 61 02
Email: Kevin.PARRIS@oecd.org

Myriam LINSTER
Principal Administrator Environmental Information and Indicators
Environmental Performance and Information Division,
Environment Directorate
OECD,
2 Rue André-Pascal
75775 Paris CEDEX 16, France
Tel: +33 1 45 24 97 44
Fax +33 1 44 30 61 81
Email: myriam.linster@oecd.org

Roberto MARTIN-HURTADO
Economist
Environment Directorate
OECD,
2 Rue André-Pascal
75775 Paris CEDEX 16, France
Tel: +33 1 45 24 14 27
Fax +33 1 44 30 61 83
Email: roberto.martin-hurtado@oecd.org

Aziza AKHMOUCH
Policy Analyst
Multilevel Governance Unit
Regional Development Policy Division
Public Governance and Territorial Development Directorate
OECD,
2 Rue André-Pascal
75775 Paris CEDEX 16, France
Tel: +33 1 45 24 79 30
Email: aziza.AKHMOUCH@oecd.org

Barbara AIELLO
Principal Assistant
Environment Directorate
OECD
2, rue André-Pascal,
75775 Paris CEDEX 16
France
Tel +33 1 45 24 81 85
Fax+33 1 44 30 61 79
Email: barbara.aiello@oecd.org