

**ENVIRONMENT DIRECTORATE
ENVIRONMENT POLICY COMMITTEE**

Working Party on Global and Structural Policies

OUTLINE OF PROPOSED FINAL REPORTS FOR THE 2009-10 HORIZONTAL WATER PROGRAMME

**17-18 November 2009
OECD Headquarters, Paris**

This paper provides outlines of the major reports under the 2009-10 Horizontal Water Programme.

Action required: Delegates are requested to discuss the outlines and provide feedback on their direction and content.

For further information, please contact Anthony Cox, Environment and Economy Integration Division, Environment Directorate, Tel: +33 (0)1 45 24 98 70; Anthony.Cox@oecd.org

JT03273762



NOTE BY THE SECRETARIAT

The purpose of this paper is to provide Delegates with detailed outlines of the final products scheduled for completion under the 2009-10 Horizontal Water Programme (HWP2). This is intended to ensure a common understanding of the scope and content of each of the outputs, encourage feedback on the direction and content of the products, and provide a broad perspective on the HWP2 as a whole.

As detailed in the overview document [ENV/EPOC/GSP(2009)4] discussed at the April 2009 meeting of the WPGSP, the HWP2 focuses on three main outputs:

- Dissemination of earlier work done under the 2007-08 Horizontal Water Programme to the 5th World Water Forum in Istanbul in March 2009.
- A synthesis report on water supply and sanitation (see Annex 1).
- A number of reports dealing with the theme of integrated water resources management, covering:
 - a) Financing integrated water management (see Annex 2);
 - b) Implications of climate change for financing integrated water resources management;
 - c) Improving the information base to guide better water management decision making (see Annex 3);
 - d) Governance across levels of government: water resources management, including linkages with water service provision (see Annex 4); and
 - e) Improving policy coherence for water management (see Annex 5).

The first of these outputs has been successfully completed with the release of the *Water for All* flagship publication. The Annexes to this paper provides the detailed outlines of the reports that will be delivered during 2010. Delegates should note that:

- The report under item (b) above will be included as a chapter in a larger report on climate change and is therefore not included in the Annexes;
- The report under item (c) will be in the form of a workshop as outlined in Annex 3, with a report to follow on the workshop outcomes.

ACTION REQUIRED: Delegates are requested to discuss and provide feedback on the outlines in the Annex.

ANNEX 1 - HORIZONTAL WATER PROGRAMME OUTPUT N°2

SYNTHESIS REPORT ON IMPLEMENTING EFFECTIVE POLICIES FOR WATER SUPPLY AND SANITATION: TOOLS AND APPROACHES

Draft Annotated Outline

This report would provide a synthetic overview of key issues relating to the financing of water and sanitation in OECD and developing countries and present the results that have been achieved through the application of a number of tools and approaches that OECD developed to assist policy makers and practitioners in this area. In doing so, the report would draw on both previous and ongoing OECD work in the water area. The value added of this report is that for the first time it will provide a comprehensive overview of key issues in the financing of water and sanitation, by adding discussions of the benefits of water and sanitation and of repayable market-based financing instruments, which had not been covered in previous work. The report will also present a set of tools that can be used to support policy dialogue and build capacity and discuss key lessons learnt from their use. Some of these tools have been developed in a regional context and have not been disseminated widely, others are only being applied in pilot projects now and the lessons from these exercises will be reflected in the report.

The paper would be structured into an “overview” part that would discuss the background and rationale of the work and a “toolbox” part which would briefly present each of the tools.

Foreword

Executive Summary

Part I (30 pages) – Financing Water and Sanitation - Key Issues

1. What is the current state of the water supply and sanitation sector?

This section will discuss the current state of water supply and sanitation, drawing on recent global assessments such as the UN’s Joint Monitoring Programme, the GLAAS report and the World Water Development Report.

2. What are the potential benefits of water and sanitation?

This section will discuss the benefits that water supply and sanitation services can generate and make the case for water as a good investment to achieve economic, social and environmental development objectives. This will mostly draw on an OECD paper surveying the literature on water and sanitation benefits that is currently under preparation.

3. Why is more investment into water and sanitation needed and what is the financing gap?

This section will discuss the financial challenge that the water sector is facing in both OECD and developing countries. For this it will draw on previous OECD publications, as well as number of country-specific strategic financial plans and the work carried-out in the framework of the Un-Water Global Annual Assessment of Sanitation and Drinking Water (GLAAS) report of which an updated version is planned to be released in early 2010.

4. Where is the money going to come from?

a) Reducing costs, improving efficiency

This section will discuss the need to, and incentives for improving efficiency and reducing the costs of water systems as a prerequisite to accessing new and additional resources for the sector. This section will draw on a number

b) Finance to close the gap: The ultimate sources of funding, the 3Ts

This section will present the concept of the 3Ts, developed in a previous phase of work, and discuss each of the Ts in turn, including affordability considerations.

c) Finance to bridge the gap: Tapping repayable sources of funding

This section will discuss the role of repayable sources of finance and the difficulties that the sector has in accessing loan and bond financing to cope with large up-front investment costs. It will in particular focus on innovative financing mechanisms that are discussed in a recent OECD report.

d) The potential role of the private sector

This section would discuss the role of the private sector in financing water and sanitation, including its role in helping to improve efficiency and thereby reducing costs. It would discuss some of the key obstacles to private sector participation (PSP) drawing on a number of country assessments that are currently being developed against the OECD checklist for public action.

e) What are OECD countries doing to support developing countries and economies in transition?

This section will update previous work on aid for water and discuss the most recent trends, drawing upon data from the DAC Creditor Reporting System in this area.

f) What is the impact of the economic and financial crisis?

This section will discuss how the sector is being affected by the economic and financial crisis, and how this is affecting efforts to achieve financial sustainability.

Part II (20-30 pages) – A Toolbox to Support Effective Water and Sanitation Policies

This part would present the results of recent applications of six OECD tools and that have been used by water sector policy makers and practitioners to help address a number of reform challenges relating to the financing of the water sector.

1. How can the toolbox help Governments and water sector actors to improve policies and practices?

This section will provide a brief introduction to the toolbox.

2. The Toolbox

Each tool would be presented in a separate section of 3-4 pages and follow a similar structure:

- Background and rationale for developing the tool – why and how has the tool been developed?
- Description of the tool – what does it do, how is it structured?
- Where has the tool been used and what have been the results?
- Who should use the tool?
- Where can I find the tool?

The following tools would be presented:

1. Strategic Financial Planning at National or Regional level – the FEASIBLE tool
2. Financial Planning Tool for Water Utilities
3. Multi-year Investment Planning Tool for Municipalities
4. Guidelines for Performance-based contracts
5. Water Utility Performance Indicators
6. Private Sector Participation - Checklist for Public Action

ANNEX 2 - HORIZONTAL WATER PROGRAMME OUTPUT 3.1

FINANCING WATER RESOURCES MANAGEMENT

Draft Annotated Outline

Chapter 1. Setting the scene – key concepts around financing water resources management

1.1. Rationale, objectives, intended audience and structure of this report

This section will highlight that the OECD Environmental Outlook to 2030 identifies water scarcity as one of top four environmental issues for the next two decades. It will discuss how the world has enough water resources at an aggregate level, but it is struggling to manage their huge spatial and unpredictable temporal variability. Improving the management of water resources (including through water allocation and water development decisions) to protect the environment and sustain human and economic activities represents a common challenge for both OECD and developing countries.

It will highlight that many OECD countries face important problems related to financing water resources management. The cost of turning a variable resource into a reliably available one (whether through traditional infrastructure or emerging options such as desalination), the cost of achieving environmental targets (such as the targets in the EU Water Framework Directive), and the cost of water-related disasters are all increasing. Paying for those costs is becoming increasingly difficult, and there is a need for increasing the economic rationality in the management of water resources. While more active management of water resources (including through demand management) is placing increasing demands in the water management functions carried out by governments (such as monitoring water conditions or implementation of new policy instruments), it is not clear that those are always sufficiently funded. Developing countries also face these problems, and some of those countries are developing instructive approaches.

It will highlight that the report has three objectives:

- to provide a reference framework for examining the issue of financing water resources management
- to take stock of current experiences in financing water resources management
- to identify emerging challenges in financing water resources management

It will also discuss how the report is relevant to on-going discussions about the financial crisis and the need to ensure good management of public financial resources, the role of water management in promoting green growth, and the role of the water sector in adapting to climate change.

It will highlight that the intended audience of this report is senior policy-makers involved in decisions about financing water resources management, whether from the water policy area or from other policy areas, such as finance or territorial development.

1.2 Water resources management

This section will discuss the evolution of the concept of integrated water resources management and its relevance for this report, in particular for the financing of “integrating” functions.

It will provide a description of the water system. It will identify the different uses of water -- the protection of aquatic ecosystems, the provision of water services (drinking water supply, irrigation), hydropower, cooling, navigation and recreation. It will provide a map of the water system. This section will also highlight the need for policy coherence among different policy areas, highlighting that the water system provides services to the rest of the economic system, and discussing how decisions made in other parts of the economic system affect the demands upon the water system.

This section will explain that for the purposes of this report, water resources management is understood as a set of activities (or functions) aimed primarily at (i) ensuring that society has timely and reliable access to water resources of enough quality in the right location, (ii) protecting society from water-related risks (floods and droughts) and (iii) ensuring the protection of aquatic ecosystems and the environmental sustainability of water use.

It will discuss how this set of activities can be grouped in two broad camps: (i) governance of water, and (ii) development and management of infrastructure (including “ecological services”). It will discuss how those two groups of functions are closely related, and how the balance emphasis on governance vs infrastructure solutions (and the financial resources devoted to them) need to evolve with time.

1.3 Financing water resources management

This section will explain that for the purposes of this report, financing water resources management refers to ensuring the financial sustainability of water resources management – that essential water resource management functions are funded so that they can be carried out effectively.

It will provide a brief historical overview of the treatment of financing issues in international discussion on water resources management.

It will explain that the report will investigate aspects of potential costs of managing water resources, ways of minimising those costs, actual expenditures incurred in water resources management, possible financing sources to pay for water resources management, and actual financial resources mobilised to pay for water resource management expenditures.

It will highlight that:

- the “financial requirements” for water resources management are not something static or absolute – they will depend on the evolution of the national economy, demographic changes, and the impact of climate change among other factors
- the increasing costs in securing water are driven by the increasing needs of the water system
- policy decisions made in other sectors having large financial implications for the management of water resources

- the fact that governance functions have much lower price-tags than infrastructure functions does not mean that governance functions are always the first to be implemented or that they are fully funded
- the “lumpy” nature of investments in water resources management infrastructure has important financial implications
- water resources management competes for public funds from other sectors of the economy (including water supply services) and public funds alone will not be able to meet all funding needs
- the different actors involved in water resources management (government, private sector, civil society organizations) have different roles to play in providing finance for water resources management
- the value generated in the water services provides opportunities to tap financial resources to pay for water resources management
- the financing of transboundary water resources management poses specific challenges, and would benefit from clearer arrangements from financing water resources management at national level

It will highlight that this represents only a part of the water resource economics agenda. For example, the economic valuation of the benefits of water resources management is beyond the scope of this report. And while economic instruments for water resources management will be discussed in the report, the discussion will be about their potential to raise revenues and to decrease costs for water resources management, not about their economic efficiency or environmental effectiveness per se. It will also highlight that financing water resources management represents just one angle to look at the need for policy reform in water resources management.

Chapter 2. The benefits of water resources management

2.1 The benefits of active water resource management

This section will highlight the benefits of water resources management in terms of its contribution to achieving national goals in terms of human well-being, economic development and environmental sustainability. It will highlight that the main contribution of water resources to sustainable development is to contribute to “decoupling” water use from economic development, so that water availability and variability are no longer a constraint to development. It will discuss that the main benefits of water resources management include the management of uncertainty, the achievement of efficiencies, and conflict reduction.

This section will argue the need to compare at the costs and benefits of active water resources management whenever possible. It will highlight that benefits are not always easy to value. It will also discuss the difference between financial costs of active water resources management (governance, infrastructure) and the opportunity costs of water use.

2.2. Water resource management functions and beneficiaries

This section will highlight that ensuring the financial sustainability of water resources management will require that the beneficiaries contribute to a larger extent its financing. In order to identify beneficiaries, it will provide a typology of individual functions, distinguishing between governance-related

functions (such as policy-making, intra-governmental coordination, international negotiations on shared waters, strategy and planning, stakeholder engagement, administration, and enforcement) and infrastructure related-functions (such as flood control, water storage, and water distribution). It will illustrate that in some cases excessive attention to governance functions has been wasteful (e.g. vicious cycle of planning-inaction-planning).

It will discuss the nature of the benefits of individual water resources management functions (it will not attempt to offer quantitative estimates of those benefits, although it may offer anecdotal evidence). It will then identify the key beneficiaries of those functions.

Chapter 3. Investing in water resources management

3.1 Tracking expenditures and evaluating the costs of improving water resources management

This section will argue the need of improving our understanding of the current level of water resources management expenditures. It will discuss the difficulties in tracking water resource management expenditures. It will discuss the need to look at both the expenditures by government actors and private actors. It will discuss what is known about current level of expenditures and unit costs in governance and infrastructure.

It will argue the need to evaluate to what extent expenditure in water resources management will need to increase to improve water resources management. It will discuss available estimates in the literature on financial needs for water resources management.

It will discuss the nature of the (administrative) cost of governance functions. It will offer available (anecdotal) evidence on the size of those costs and unit costs. It will discuss how those costs are likely to evolve over time. It will discuss also the “compliance costs” (whether direct financial costs or opportunity costs) of water policy implementation. It will discuss how those costs are likely to evolve over time.

It will discuss the nature of the costs of infrastructure functions (including “ecological services”). It will highlight the need to pay attention both to O&M and capital costs. It will offer available (anecdotal) evidence on the size of those costs. It will highlight that those costs are different for different locations (i.e. regions within a country). It will discuss who incurs those costs. It will discuss how those costs are likely to evolve over time (including how the composition of water infrastructure -- i.e. the share of water resources management infrastructure *viz-a-viz* water services infrastructure -- may need to evolve).

3.2 Managing costs: cost-effectiveness, flexibility and policy coherence

This section will highlight the need to make the most of limited financial resources. It will identify principles for improving the allocation of existing financial resources and the financial benefits of doing so. It will highlight the need for ensuring cost-effectiveness of water policies, and argue that flexibility in terms of policy objectives and implementation schedules will help to manage the financial problems that may appear.

It will discuss opportunities and experiences for cost savings by:

- *increasing the operational efficiency* of water resource management infrastructure.
- *managing water demand*. It will discuss the role of market-based instruments (water pricing, water trading) in achieving cost savings through reduced demand (e.g Israel extraction levy); water reallocation (e.g. Australia, U.S., Spain), and relocation of water-intensive economic

activities (e.g. South Africa, Canada). It will discuss the role of other instruments (e.g. awareness raising) in containing costs through reduced consumption.

- *applying an integrated approach to infrastructure development and management.* It will discuss the opportunities and experiences of developing water resource infrastructure to meet the needs of multiple user sectors as well as protection of the natural resource ecosystems. It will explore the scope for cost savings through “industrial ecology” (e.g. low quality water from a wastewater treatment plan can be used for cooling by a power plant and for industrial processes).
- *reformulating water policy objectives.* Examples include: reducing the expected reliability of water resources for some sectors, adjusting quality objectives to different uses (e.g. Israel, Moldova), allowing “target trading”, and relaxing implementation schedules.
- *reforming policies in other sectors* (including the reallocation of financial resources) such as agriculture, energy, urban development or trade.

It will discuss the complementary nature of governance and infrastructure expenditures, highlighting that, in most cases, achieving those types of cost savings will require investing in stronger governance. It will highlight that the need to ensure that a level of governance capacity is in place that is effective but not burdensome.

It will attempt to provide examples of priority setting (i.e. mechanism for allocating financial resources within water resources management).

Chapter 4. Financing and paying for water resources management

4.1 Establishing a financing framework

This section will highlight the need to establish a clear framework for financing the management of water resources. Possible elements of such financing framework could include:

- *Identification of the ultimate sources of financial resources:* (i) contributions from users/beneficiaries, including partnerships with user groups to provide “in-kind” support for specific water resource management functions (such as data gathering); (ii) subsidies from general taxation; (iii) subsidies from external sources (solidarity).
- *Clarification of the role of commercial finance.* Given the “lumpy” nature of investments in water resource management infrastructure and the long-term nature of the benefits that it provides, commercial finance may usefully provide “bridging” finance.
- *Establishment of principles/rationale for using each financing source:* (i) public and merit goods to be funded from public resources; (ii) cost recovery; (iii) « user pays » principle – functions with clear beneficiaries should normally be funded by those beneficiaries; (iv) polluter pays principle, (v) clear and fair rules for the allocation of “financial burden” to different users.
- *Identification of appropriate sources of finance for specific functions* (including mixing sources of finance). Subsidies can be used to increase financial resources. Where multi-purpose infrastructure provides public or merit goods, mechanisms should be designed to make appropriate public financing available as part of the financial package.

- *Choice of instruments* to fund particular functions adapted to the likely availability of financial resources.
- Effectiveness of financing instruments.
- *Steps and components of the development of a financing strategy*. A financing framework may be operationalised through the development of a financing strategy.

4.2 Using a broader set of instruments for mobilising revenue

This section will highlight that many countries use a number of financing instruments (such as licensing fees, raw water tariffs and effluent charges) to financing certain aspects of water resources management. It will discuss the need to analyse the potential of those instruments to more fully extract the value that beneficiaries get from active water resources management.

It will discuss the need to analyse the potential of less traditional instruments to cover beneficiaries currently not contributing to financing water resources management. Examples of new mechanisms include water resource management charges (e.g. Australia, France, South Africa), payments for ecosystem services (e.g. Colombia) and property taxes (e.g. Netherlands).

It will discuss the need to analyse how public budgets from general taxation are channelled to pay for water resources management. Those channels include: public budgets from national taxes managed by central agencies, public budgets from national taxes managed by decentralised agencies and local governments, public budgets from local taxes. It will discuss the implications of using different mechanisms, such as “matching funds” (e.g. Germany).

It will discuss the need to analyse the potential of using external transfers to contribute to financing water resources management. It will highlight that external support may be particularly needed to establish the governance structures (e.g. Mozambique) and in particular the challenges posed by transboundary water resources management.

4.3 Undertaking the policy and institutional reforms that would allow to mobilise revenue (and reduce costs)

This section will discuss current policies and institutional settings around financing water resources management. It will highlight the need to undertake policy and institutional reforms (and fund them) as a pre-condition for being able to apply the different financing instruments and attract capital. It will also consider the implications of financing strategies for decisions about the phasing and sequencing of water resource management activities.

Chapter 5. Looking ahead

5.1 Conclusions and recommendations

This section will identify conclusions and recommendations emerging from the previous analysis and the evidence gathered through the case studies. Some key messages that could be highlighted include:

- Addressing the water crisis requires active water resources management, comprising both demand and supply measures

- Need to see water resources as an economic problem, not an engineering problem – water interventions should be cost effective and should, whenever possible, undergo a benefit-cost test.
- Need to adopt a more strategic approach to financing water resources management, looking at a broad set of options to minimise costs, manage financial risk, improve effectiveness of existing financial resources and establishing a clear financing framework, as well as the right sequencing of policy measures
- Financing water resources management is closely linked to water services – water services can generate revenues for water resources management, and pricing of water services (through reduced demand) could decrease water resource management costs
- Need to integrate decision on water resources management into the overall economic strategy and non-water policies
- Need to pay increasing attention to the ecosystem management activities inherent in the integrated water resource management process and the implications for financing approaches
- Reducing infrastructure costs and increasing revenues requires larger “investments” in governance (modifying institutional arrangements and funding them)

5.2 Emerging issues in financing water resources management

This section will identify emerging issues in financing WRM and areas that may grant further investigation. Some emerging issues and areas for further work that could be highlighted include:

- *the information challenge*: incomplete data on water expenditures, data on overpriced investment costs, unknown cost of governance functions, unknown cost-effectiveness of ecosystem management measures, unreliability of past estimates of financial needs (e.g. because of climate change), lack of methodologies to value benefits such as increased reliability, reduced conflicts among users, and environmental benefits
- *the governance challenge*: the relationship between multilevel governance and financing water resources management, the need for coordinated plans of action and their implementation, the need to adjust institutional arrangements to help close the financing gap, the financial autonomy of water agencies
- *the technical challenge* : designing financial systems to support the management of multiple levels of uncertainty and variability while providing services to a variety of different users at different levels of reliability

ANNEX 3 - HORIZONTAL WATER PROGRAMME OUTPUT 3.3

IMPROVING THE INFORMATION BASE TO BETTER GUIDE WATER RESOURCE MANAGEMENT DECISION MAKING (ZARAGOZA, SPAIN, MAY 2010)

Draft Workshop Outline

1. BACKGROUND

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. The continuation of this disconnect runs the risk that decision makers are poorly informed and that policies are inadequately implemented and evaluated. These gaps in knowledge, science and monitoring are compounded as water resource management enter 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.

It is against this background that this project, as outlined in the May 2009 GSP document [ENV/EPOC/GSP(2009)4], would involve organising an *OECD Workshop on Improving the Information Base to Better Inform Water Resource Management Decision Making*. Details of the Workshop objectives and draft agenda (*Section 2*) and organisational details (*Section 3*) are outlined below, with the final *Section 4* inviting Delegations to discuss the proposals for the Workshop outlined in this document and, in particular, provide guidance and responses to a list of questions found in this *Section*.

2. WORKSHOP OBJECTIVES AND AGENDA

The proposed objectives of the Workshop are 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 particular, both "Accession" and "Enhanced Engagement" 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 and the OECD Secretariat that will be needed in order to make progress in future water resource management data collection and dissemination.

So as to ensure the focus and manageability of the Workshop over three days of discussion, the emphasis will be on water resource management, rather than data needs related to water services (e.g. water quality, water treatment and sanitation). Moreover, while the Workshop will largely concentrate on

the national and international level aspects of water resource management information needs, it will be important to give consideration to implications at the sub-national and especially waterbasin levels.

Taking into account the Workshop objectives outlined above it is proposed to organise the *Workshop Agenda* into five Sessions as follows:

DAYS 1 and 2

- **Session 1:** *Introduction and objectives for the Workshop*
- **Session 2:** *What are the needs of decision makers for improved water resource management data and information: From the watershed, national to international level?*

Presentations by invited speakers to set the scene and to cover the broad watershed, national and international level water resource management information demands, in the context of the current and future policy concerns for water resource managers.

- **Session 3:** *What has been achieved and what is planned in countries and organisations in developing water resource management information to meet the demands of decision makers?*

This session would examine OECD member country, non-member OECD countries and relevant international organisation recent experiences and future plans in providing water resource management information to meet the demands of decision makers, in particular, highlighting what are the present information gaps and future challenges. Workshop participants from countries and international organisations are invited to consider providing a paper for this session that would consider four key areas of importance to water resource management data and information needs:

- **Water balances**, for example, reviewing the linkages between physical balances and monetary water accounts; focus on the reliability of water balance calculations and their comparability across different national scales and between countries; issues related to estimating groundwater recharge and environmental flow needs; and data related to climate change, especially seasonality and variability of water balances and flows.
 - **Water pricing**, for example, examining the quality of (and gaps in) available data on water prices across the main users (i.e. agriculture, urban, industrial, mining, energy) including ways in which this data is aggregated from the waterbasin to national level and the extent to which it is comparable (e.g. comparing water prices paid by agriculture compared to urban users).
 - **Cost recovery**, for example, focusing on the extent to which this data set is regularly collected and for which water users, including how this information might be used for decisions related to water resource financing and allocation decisions.
 - **Water financing**, for example, discussing what are the existing data sets and gaps on public and private sector financing of water resource infrastructure.
 - **Water allocation**, for example, exploring the extent to which data is used to determine water resource allocation decisions across different users, including determining water allocation for environmental needs.
- **Session 4:** *What are the possible areas of improvement in water resource management datasets and information, that can serve the future needs of decision makers?*

Discussion in this Session would identify what are the key water resource management data and information improvements to meet the needs that decision makers will require in the future. Overarching this discussion will be the impact of climate change in altering data demands to address the new policy challenges arising for water resource managers. A mix of invited speakers and offers

from countries and international organisation could provide papers for this Session, with presentations perhaps addressing some of the following issues and questions (this is not an exhaustive list of issues or questions):

- ***Water balances and water allocation:*** What are the main gaps in terms of bio-physical water data, including seasonality of data, water balances, groundwater recharge, and environmental needs? What type of information is required to measure ecosystem services related to water resource management? What information do we need to improve water allocation decisions? Are information needs different if water is allocated through water markets rather than by governments?
- ***Water pricing:*** What information do we need to improve water pricing decisions? Do we have good enough information on water resource price-elasticities? Do we have adequate information on the results of using water pricing and developing water markets to achieve a more economically efficient and environmentally effective use of water resources?
- ***Cost recovery and water financing:*** What are the gaps in the estimates of the cost recovery of water supply infrastructure operation and maintenance and capital costs? Can we move any closer to estimating the environmental and resource (opportunity) costs of water resource use? What information do we need to improve financial resource allocation decisions? How can we improve our statistics on water related expenditure by different water users?
- ***Other water resource management data and information needs:*** Are there public/private impediments to retrieving water resource management information? Do indicators such as virtual water and water footprint indices provide a useful water resource management tool for decision makers? How can the data needs of projection models of national and international water resource supply and demand projections be better served? How can water resource information at different spatial scales be better integrated, such as overcoming differences in data reporting, quality and administrative versus waterbasin units? To what extent can information on the social aspects of water resource management be developed? How well are public institutions prepared to collect water resource management data?

DAY 3 FIELD TRIP

DAY 4 (including possibly some presentations from Session 4)

- **Session 5:** *Workshop key conclusions and recommendations for the future direction in developing data and information for water resource management*

The main objective of this final session is to examine the conclusions from Sessions 2-4, as a basis to prepare a document of the main recommendations from the Workshop which could be used in planning future water data and information development across countries, international organisations and the OECD Secretariat. These recommendations would be presented for information and discussion by relevant OECD Working Parties.

3. ORGANISATION OF THE WORKSHOP

Workshop Venue and Information: The Government of Aragon has formally accepted to host the OECD Workshop, in Zaragoza, Spain, and also offered some financial support toward funding invited speakers and OECD staff to the Workshop.

Workshop Participants: Given the proposed scope and focus of the Workshop, Delegations might wish to consider sending experts that are generating water resource management information, as well as

those experts using this information for decision making either in the public domain, private sector or non-governmental organisation and research community.

Workshop Presentations and Papers: Member and non-member countries and international organisations will be invited to provide presentations and/or papers for the Workshop, especially with regard to providing material for Sessions 3 and 4.

Resources and Costs: The Government of Aragon will cover the costs for the Workshop venue and the one day field trip, but participants are expected to cover their own travel, hotel and daily expenses. Delegations might wish to consider providing a Voluntary Contribution toward the event, especially to fund an expert that could contribute to Sessions 1 and 4.

Website: Information and progress on the Workshop will be made available through an OECD password-protected website to be made available with the circulation of invitations to the Workshop.

Timing: The key dates for the Workshop will be as follows:

2009

- **17-18 November:** Discussion of the Workshop proposal by the Working Party on Global and Structural Policies.
- **Early December:** Workshop Invitations sent to Member countries and International Organisations; and creation of the Workshop website.

2010

- **1st Quarter:** Finalisation of the Workshop Agenda and Organisation, partly depending on the response of participants contributed papers to the Workshop.
- **May** (date to be decided): Four day Workshop, including a 1 day field trip, to be hosted by the Government of Aragon, Zaragoza, Spain.
- **2nd-3rd Quarter:** Workshop Conclusions and Recommendations presented to the relevant OECD Working Parties: Working Party on Global and Structural Policies, Working Group on Environmental Information and Outlooks, Joint Working Party on Agriculture and the Environment, and the Working Group on Territorial Indicators.
- **Last Quarter:** Publication of the Workshop Proceedings

4. QUESTIONS DELEGATES MIGHT WISH TO ADDRESS CONCERNING THE WORKSHOP OBJECTIVES, AGENDA AND ORGANISATION

The Secretariat invites Delegations to discuss the proposals for the Workshop outlined in this document and, in particular, provide guidance and responses to the following questions:

- i. Do the broad objectives, structure and focus of the Workshop cover the main issues that should be addressed?
- ii. Might your delegation participate in the Workshop, and will you be able to offer a paper for one of the Workshop sessions?
- iii. Is your Delegation likely to provide a Voluntary Contribution toward the event, especially to fund an expert that could contribute to the Workshop?

- iv. Do you have any comments on the organisation and timing of the Workshop, including any suggestions on the kind of participant (including international organisations) the Workshop should aim to attract?

OECD Workshop contact: Kevin Parris, Trade and Agriculture Directorate, Paris, Email: Kevin.Parris@oecd.org

ANNEX 4 - HORIZONTAL WATER PROGRAMME OUTPUT 3.4

WATER AND MULTILEVEL GOVERNANCE CHALLENGES

Draft Annotated Outline

Chapter 1. “Water governance”: key definitions and debates

This chapter will provide for a conceptual framework on what is intended by “water governance”, i.e. the range of political, institutional, and administrative processes through which stakeholders articulate their interests and concerns, decisions are taken and implemented, and decision-makers are held accountable in the development and management of water. Thanks to key definitions and a review of literature debates on rules and practices for decision-making about water and their implementation, this preliminary chapter will distinguish *water governance* from *water management*, which refers to operational, on-the-ground activity to align water resources, supply, consumption and recycling.

Chapter 2. Governance challenges in the water sector

When addressing environmental and resources challenges, countries are faced with a need to manage interdependencies between different levels of government and agencies responsible for decision-making.

While in most cases water is perceived as a local concern, its sustainable provision and use requires a more integrated approach involving multiple stakeholders including those across and between levels of government. But in practice, some coordination gaps across levels of government hinder integrated policy development. There is therefore a need to take into account crucial multilevel governance challenges characterizing the water sector, whatever countries’ institutional settings and context.

This chapter will identify the most common governance obstacles that prevent an integrated approach to water policies. Based on case studies in 10 OECD countries, it will discuss and classify these “co-ordination gaps” between different levels of government around five categories:

- *Administrative gap*: geographical “mismatch” between hydrological boundaries and administrative ones
- *Information gap*: asymmetries of information between various authorities in charge of policy making or implementation of water (and between public and non-governmental actors).
- *Policy gap* : sectoral fragmentation of water-related tasks amongst government ministries and agencies which hinders integrated policy development
- *Capacity gap*: “Local” water management actors have insufficient capacity to effectively apply water policy in terms of scientific and technical competences, size and quality of infrastructure etc.

- *Funding gap*: Unstable or insufficient revenues undermine effective implementation of water responsibilities at sub national levels of government

Chapter 3. Tools and instruments to bridge “co-ordination gaps”

Managing relations between different levels of government is a necessity since almost all countries are decentralised to one degree or another, especially in the water sector. As central and subnational governments are mutually dependent, closing co-ordination gaps requires vertical policy processes to manage complex interactions.

This chapter will identify and analyse co-ordination mechanisms used in OECD and other countries to bridge the identified gaps and facilitate cooperation across levels of government in order to allow for an integrated approach to water policies. It will also figure out to what extent regulatory institutions and tools also contribute to multi-level co-ordination of water policies and identify what has been done to build local and regional capacity and facilitate water policy-making at subnational level, taking into account territorial specificities (rural, urban, metropolitan areas). Examples of such mechanisms include: agencies and river basin organisations, regulations, contractual arrangements between local and national administrations, financial transfers, the use of performance indicators, inter-sectoral collaboration, inter-municipal cooperation, databases and private sector participation including citizens and non-profit organisations. Specific national and subnational case studies on metropolitan and rural areas will provide for a more in depth approach of some of these mechanisms (for instance water agencies), while inserting them in the context of increasing involvement of supranational actors such as the EU and its Water Framework Directive.

Chapter 4. Guidelines for sustainable governance mechanisms for water

This chapter will assess to what extent existing co-ordination mechanism are able to bridge the identified gaps while analysing their pros and cons. It will highlight the need for a tailor-made approach since there is no universal optimal governance instrument and one fits-all size model. As very often a combination of several mechanisms will be required to bridge the co-ordination gaps, this chapter will provide for some guidelines in order to ensure the sustainability of water governance mechanisms.

ANNEX 5 - HORIZONTAL WATER PROGRAMME OUTPUT 3.5

ENHANCING POLICY COHERENCE FOR WATER MANAGEMENT

Draft Annotated Outline

Chapter 1. Introduction

This brief chapter will present the rationale, objectives, intended audience and structure of the report. It will discuss what is policy coherence, what is policy coherence around water, and why it is important. It will introduce the objectives of this report, namely (i) to highlight the importance of enhancing policy coherence around water, (ii) to identify institutional coordination mechanisms that may help to enhance policy coherence around water, and (iii) to analyse the scope for increasing coherence in the interface of water-energy policies and water-agriculture policies.

Chapter 2. Institutional mechanisms for enhancing policy coherence around water

2.1 Institutional gaps hindering policy coherence around water

This section will identify the main institutional gaps that hinder policy coherence around water. Based on institutional maps for some 10 OECD countries, it will discuss how roles and responsibilities are allocated across ministries, which other actors intervene in the design and implementation of water policies beyond such ministries, and how the different stakeholders interact at central level. It will classify the institutional gaps around six main dimensions: policy framework, allocation of roles and responsibilities, capacity resources, funding resources, time frame and evaluation/monitoring. It will also analyse the impact of those institutional gaps on water-related policies (conflicting interests, segmental methods, complex decision-making process, narrow sectoral perspectives, etc.).

2.2 Existing institutional mechanisms aimed at bridging the institutional gaps

This section will identify coordination mechanisms that are being used in OECD and other countries to bridge inter-sectoral institutional gaps. Examples of coordination mechanisms include frameworks for combining tools, funds and organizations; inter-agency coordination groups; multi-stakeholder coordination committees; *ad hoc* high-level inter-ministerial commissions / committees; or the creation of Ministries of Water. This section will analyse questions such as what kind of horizontal partnerships are used to foster inter-departmental and inter-ministerial coordination, which institutions take on the role of stimulating and co-ordinating formal agreements among several sectors of public administration, what kind of incentives have been set up to stimulate horizontal partnerships among several agencies, and to what extent the creation of a Ministry of Water can help to solve the problem of inter-sectoral coordination.

2.3 Assessment of institutional coordination mechanisms and emerging challenges

This section will assess to what extent existing institutional mechanisms are able to bridge the institutional gaps that hinder policy coherence around water. It will analyse the most frequent obstacles to effective co-ordination between different administrative bodies at the central level, and to what extent these tools contribute to share information and competences and to build a common agenda. It will highlight that there is no universal optimal coordination mechanism, and that very often a mix of mechanisms will be required to bridge the institutional gaps.

Chapter 3. Increasing coherence between energy and water policies

3.1 Links between energy, water and the environment

This section will identify the impacts of energy production and distribution on water resources (hydropower demands, power plant cooling, irrigation demands of biofuels, water pollution from oil operations) and highlight the dependency of energy outcomes on the availability of water resources in a context of increasing competition for water resources (including for environmental purposes). It will also identify the impacts of water production, distribution and use on energy demand (energy intensity of alternative water sources, energy efficiency of water operations, energy intensity of hot water use in households). It will discuss how those different impacts affect the preservation of aquatic ecosystems and the achievement of other environmental goals.

3.2 Recent experiences in enhancing coherence between water and energy policies

This section will discuss how policies that improve water efficiency also contribute to achieving energy policy objectives, and how policies that improve energy efficiency also contribute to achieving water policy objectives. It will identify policy options that are likely to generate significant “double dividend” in terms of achieving water and energy policy objectives -- possible examples could include:

- the phasing out of irrigation and energy subsidies that promote wasteful use of water and energy in agriculture
- the promotion of labelling of appliances as regards both their water and energy efficiency
- the promotion of the use of alternative water sources (reclaimed, saline) for power plant cooling
- the inclusion of reduction of water demand targets in energy R&D programmes (including biofuels)

It will discuss the current degree of coherence between water and energy policies, with illustrations from selected OECD countries.

3.3 Institutional reforms for enhancing coherence between water and energy policies

Building on the general framework presented in chapter 2, this section will discuss (i) the main institutional gaps hindering coherence between water and energy policies, (ii) existing coordination mechanisms aimed at bridging those institutional gaps, and (iii) to what extent those mechanisms are able to bridge the institutional gaps that hinder coherence between water and energy policies.

Chapter 4. Increasing coherence between agriculture and water policies

4.1 Links between agriculture, water and the environment

This opening section examines the linkages between agriculture, water and the environment. Discussion will cover the linkages between agriculture and the management of water resources, mainly for irrigated agriculture, and water quality, largely relating to pollution of water bodies as a result of farming activities. The section ends with a discussion of the outlook for water and agriculture over the next 10-20 years, including discussion of the linkages between climate change, agriculture and water.

4.2 Recent experiences in the coherence between agricultural and water policies

In this section assessment is made of recent policy and institutional experiences, mainly in OECD countries, of moving toward greater coherence between agriculture, water and environmental policies. While policy makers are seeking to limit the economic and environmental tradeoffs between competing agriculture, water and environmental policy objectives, they are also trying to achieve greater coherence between these policy domains and develop co-benefits. This section examines the extent to which policy trade-offs and co-benefits have been experienced across OECD countries, which may have inadvertently (or deliberately) led to damaging (beneficial) environmental outcomes. For example, farmers might limit manure spreading on fields to meet water pollution policy targets, but this can lead to higher air emissions from manure storage (tradeoffs) or a policy to establish riparian buffers to limit pollutant run-off can provide wildlife habitats (co-benefits).

4.3 Institutional reform toward improving coherence between water and agricultural policies

Building on the general framework presented in chapter 2, this final section explores the institutional and policy impediments to achieving greater coherence between agriculture, water and environmental policies. The section also outlines approaches most likely to achieve greater institutional and policy coherence between competing agricultural, water and environmental policy objectives so as to improve the environmental effectiveness and economic efficiency of policies and market approaches.

Chapter 5. Conclusions

This brief chapter will provide conclusions stemming from the analysis carried out in the previous chapters. It will attempt to identify priorities and options for improving policy coherence around water, as well as emerging issues.