#### Sessions proposal Topic 5.2

Proposal for Session 1, Topic 5.2

TITLE: "Pricing Water 101: Overcoming myths and conflicts"

Expected length: 2hrs.

Why such a session?

The key question wants to be provocative: do we talk at cross-purposes when discussing water pricing issues? Is this why the debate is so polarized? And how can a more serene setting for the debate be built?

Having understood from the organizers that the session will take place in succession, and having taken the work of topic 1.1 as a guidance (they see the sessions as a logical sequence), this short session is intended as a way to "set the stage" for the more detailed discussions that will take place in the following sessions of topic 5.2. The main aim is to build consensus on the way in which the questions addressed by the following session are framed and to reduce/eliminate misunderstandings on key concepts.

Its objectives and format respond to the Forum organizers' strong suggestion that sessions should build a bridge between experts, policy-makers and the general public, and enhance mutual understanding. As the media are expected to play an important role in disseminating the Forum messages, it is paramount to make sure that these messages and the language used to express them are understood by all.

### Broader Issue/Context

#### A polarized debate

Who should pay for water? And how much? The debate on these issues has become increasingly polarized. This is in part due to the coexistence of different conceptions and some confusion on key concepts such as the value of water and its link with the price of water, the different objectives pursued by policy-makers, equity vs. fairness, affordability, sustainable cost recovery, etc..

Different stakeholders have a different understanding of what "pricing water" or "pricing water services" entails. People generally understand that water services have a cost that should be covered. However, they disagree on which cost components should be covered through the price (how much to pay) and how these costs should be allocated (who should pay).

On the other hand, people seem to have more difficulties accepting pricing of water resources. While most agree that water is a scarce and vulnerable resource, and that it is indeed "valuable", the translation of this concept into "water as an economic good" is not immediate for most, nor is the link between the idea of the *value* of water and the need to introduce a *price* on water. In addition, not all agree on the objectives that the introduction of charges on water resources should be given (guiding water allocation? raising funds for investments of public interest?).

While some of these issues will addressed in depth by the other sessions, ensuring a productive dialogue on them requires that a common understanding is established regarding at least a few basic concepts. Different views need to be respected and brought to the table.

#### Communicating the answers and building support

The views and language of experts need to be adapted to ensure that all stakeholders have a clear appreciation of the implications of their opinions. Policy-makers and managers often indicate that they do not receive the information they need, experts are frustrated when their advice is not implemented, and ultimately, communities are the ones who suffer from the lack of access to affordable and

	sustainable services. A bridge needs to be built between these groups.					
Key Question	Do we understand each other when discuss water pricing or do we need a new, clearer and shared language?					
Session Development Description/ Outline	An interactive format is preferred, e.g. successive, short (5min.), staged role-playing between two speakers mimicking a heated discussion on the following topics (considerable) additional ones) marred by mutual misunderstanding, followed by a facilitated discussion by participants of what went wrong and on how to find a common ground One should take care not to unfairly create caricature arguments while setting our apparently incompatible positions. It would probably be best to quote actual source rather than invent/attribute them, in order to avoid accusations of bad faith					
	Issues to be addressed.					
	1. Why put a price on "water"?					
	The session could start by tackling the first stumbling block in the debate: the different views about whether a price tag should be put on water at all.					
	<ul> <li>Why is it so difficult to move from a generally accepted view of water as a scarce and valuable resource to the acceptance that access to it may come at a price? Has the "water as an economic good" concept harmed the debate?</li> </ul>					
	<ul> <li>What are the differences of putting a price on water resources vs. on w services?</li> </ul>					
	2. Why is it so difficult to put a price on water? Reconciling multiple objectives					
	Next, the session could help clarify the multiple objectives policy-makers face when designing pricing policies and the possible trade-offs between them					
	Can all agree that policy-makers face the following 4 objectives? <u>Financial Sustainability</u> : contribute to closing the financing gap to ensure good service quality, maintain infrastructure and invest as needed over the long term <u>Social Sustainability</u> : promote universal access to water services and achieve fairness between various categories of water-users <u>Economic Sustainability</u> : provide incentives for efficient water allocation and use <u>Environmental Sustainability</u> : ensure the preservation of basic ecological functions of the water resource base for current and future generations					
	Can we agree on the key trade-offs between them? (e.g. is it possible to ensure affordability for the poorest while financing the sector as a whole? What other instruments can be brought to bear eg social security systems, legal measures against over-abstraction Some of these will be further addressed in the technical sessions.)					
	What are the implications of the different objectives for pricing strategies?					
	<ul> <li>3. Role of pricing strategies: Can they help strike a balance between different objectives? The definition of an "appropriate" pricing strategy will depend on (i) a prior decision by policy-makers, based on a democratic process, on what constitutes an "acceptable" trade-off between policy objectives, (ii) an understanding of how pricing mechanisms can help meet each separate sustainability objective, and (iii) an analysis of how pricing strategies can be designed to meet a multiple objectives or strike the desired balance between them </li> <li>How can stakeholders be meaningfully involved in defining the acceptable</li> </ul>					
	balance between policy objectives? (e.g. role of beneficiary assessments –					

tools to ascertain consumer preference but also a kind of education tool indicating the kind of decisions that need to be made and the financial consequences)

- Can policy-makers design and implement pricing strategies that achieve the agreed-upon balance between different policy objectives? Is there a danger of loading too many goals onto the single device of price?
- How does the answer differ for pricing water resources vs. water services?
- 4. What is "sustainable cost recovery"?
  - Can we agree that the cost of service provision needs to be recovered?
  - What are the alternative means to achieve this? And what should be the role
    of tariffs in this context?
- 5. What is an "affordable" tariff? Is it the same as a "fair" tariff? And are these the same as an "equitable" tariff?

Affordability concerns the <u>level</u> of household bills (more on this in session 2). Concepts of fairness and equity are broader, as they are better related with the tariff <u>structure</u>, i.e., with the way in which the desired level of cost recovered through tariffs is allocated across consumer groups.

Fairness is a historically and culturally determined concept, based on a societal consensus on what constitutes social justice. Thus, "fairness" is the result of complex arbitrations of political nature that are the responsibility of public authorities (not of service providers). An example of such arbitration is the decision on whether to finance expansion of the system through the water tariff (paid by the population connected to the network), or through connection fees (paid by unserved households in exchange of their access)

Equity, on the other hand, appears easier to pinpoint, as it should translate into "treating equals equally". However, the question remains of choosing with respect to what characteristics we define "equals". Should we treat all users imposing the same cost of service provision equally (i.e. charging the same tariff irrespective of income levels)? Or should people be sorted into classes depending on income levels or some other criteria.

Only once these concepts are defined in a specific context will it be possible to determine whether a pricing strategy is "affordable, fair and equitable".

#### **Affected Stakeholders**

- (1) Policy-makers, regulators at national and local level: the people who have to face the political consequences of their decisions concerning conflicting policy objectives to understand public concerns, to understand the advice of experts, to translate this into solutions that can be easily communicated to the public
- (2) Service providers –to effectively communicate with their clients and other stakeholders (e.g. regulators)
- (3) Different user categories to understand
- (4) Donors / international organizations to improve communication of their message to clients, policy-makers and the public
- (5) Researchers –to understand (i) how to communicate their arguments in the most effective manner and (ii) what aspects of the debate could benefit from clarification

Stakeholder engagement: see next steps

#### Possible Outcomes (do we need this? Not in template, but topic 1.1 had it)

♦ A Guidance document for policy-makers to understand and address the trade-

	<ul> <li>offs between the goals they face when designing / implementing pricing policies</li> <li>An accepted glossary of key concepts, e.g. "sustainable cost recovery", "equity", "fairness", "affordability", "financial sustainability", "economic efficiency"</li> <li>Communication plans to build public understanding about the key concepts and policy trade-offs, as well as support for pricing strategies that respond to them</li> </ul>				
(Types of ) Organizations to be involved in session development	National/local authorities, Regulators Providers Consumer groups / Representatives of large users Civil society representatives Donors / IFIs / International Organizations Experts, including representative of academia				
What is being bridged here?	The divide between different conceptions of water pricing and other key concepts. Such conceptions differ among experts, between experts and policy-makers, between experts and the general public, between policy-makers and water managers, between policy-makers and their voters, between different user groups				
Next steps and timeline	Direct consultations of topic consortium and consultation group (ongoing) – Conf call in mid June  Members of consortium and consultation group disseminate and collect reactions from own networks  Internet platform provided by Forum organizers  Aug.2008: Stockholm World Water Week (i) seminar, (ii) closed meeting of coordinator, (iii) consultation of civil society  Dec.2008: OECD GSFD on Water Pricing and Financing				
Contact information for coordination of this session	Name:, Monica Scatasta, Robin Simpson, Maurice Bernard Organisation: OECD, Consumers International (tbc), AfD Country: E-mail: Tel:				

#### Proposal for Session 2, Topic 5.2

# TITLE - Pricing water and sanitation services: Is there a real trade-off between financial sustainability and affordability?

Expected length: 3hrs.

### Broader Issue/Context

Essential to achieving the water and sanitation (WATSAN) targets under the Millennium Development Goals is ensuring sustainable financing to operate, maintain, expand, and upgrade infrastructure for service provision. Filling the financing gap can ultimately be achieved only from three sources: tariffs from users, taxation/transfers from government or ODA. Other sources of finance can help bridge the gap when these sources are insufficient, but they will have to be repaid.

As a costly infrastructural service, WATSAN should be kept financially viable over time and have the capacity to attract capital, skills and technology by adequately compensating them. The key objectives in this area are (i) <u>from the point of view of operators</u>: maintaining the viability of service provision, (ii) <u>from the point of view of national or local governments</u>: attracting funds for investment, and (iii) <u>from the regulatory perspective</u>: avoiding monopoly rents and protecting consumers, with a special focus on vulnerable groups.

Within the now developed countries, water and sewerage networks have been partly funded though long term national tax based subsidies. In most countries, these services have now reached "universal coverage" and a "full cost recovery" status, meaning that they are now globally financed in a sustained way only from user payments (which may include cross-subsidization mechanisms), but the "blending" of tariffs with national or local public funds continues in a number of countries, particularly to finance investment. In poor countries similar tax-based mechanisms are necessary in many cases to fund at least part of the investment.

Consumer tariffs for water and sanitation services play a crucial role as a first building block of a sound financing strategy, but <u>as was seen in session 1</u>- policymakers face the challenge of reconciling revenue sufficiency with other policy objectives, particularly with ensuring access to and affordability of services for all.

As a social right, acceptable levels of WATSAN services should be accessible to and affordable for all, while water resource allocation criteria should be equitable and decisions should not be affected by concentration of economic power

The perceived trade-off between financial sustainability and access to/affordability of services is at the core of polarized debates regarding water and sanitation strategies. The session aims at moving beyond the contraposition between the two objectives, showing that pricing strategies can be designed to achieve both and that issues other than price are as relevant in striking a balance between them.

#### **Key Question**

#### Is there a real trade-off between financial sustainability and affordability?

# Session Development Description/ Outline

#### Issues to be addressed.

#### Financial Sustainability:

In 2003 the Camdessus report formalised the concept of Sustainable Cost-Recovery through which user payments are combined with tax-based subsidies to fund the water service in a financial mix that is organised over a period of time that is long enough to allows the water utility to anticipate needs and to invest. Therefore, the key question is to what extent tariffs should contribute to help the service provider move along a path of increasing financial sustainability (see Baietti and Curiel, 2005). The following questions arise:

- What constitutes "sustainable" cost recovery? Should revenue requirements be fully recovered through water tariffs?
- Should full cost recovery be a long term goal? And if so, how can one ensure financial sustainability in the short run, i.e.
- And how can the appropriate level of cost recovery through tariff be determined?

These questions cannot be answered in isolation. As discussed in session 1, policy-makers need to balance different objectives when defining tariff policies. Here we focus on the trade-off between financial and social objectives.

<u>Social Sustainability</u>: The level of costs to be recovered through tariffs can only be determined after taking into consideration the willingness and capacity to pay of different groups in the population and different user groups.

- How can we determine if a certain tariff level is affordable?
- As discussed in session 1, the concept of "affordability" seems easy to quantify. The idea that WATSAN bills should not exceed a certain percentage of disposable household income or expenditure is widely used. But:
  - How should affordability thresholds be determined?
  - What do we do in the absence of good data in income and water use?
  - And what is the difference between social and political affordability?

Two issues need to be dealt with separately here.

- The "macro-affordability problem": HOW MUCH SHOULD WE PAY THROUGH
   <u>TARIFFS?</u> Macro-affordability relates national or regional average household
   water charges to either average household income (disposable or gross) or
   average household aggregate
  - NOTE: Macro-affordability questions are crucially linked with the overall level of cost of services in a specific area, and with the assessment of whether these are "appropriate", i.e. with considerations of efficiency in investment planning and service provision. **These issues will be addressed in session 3 and partly in session 5.1.2**.
- 2. The "micro-affordability" problem: WHO SHOULD PAY FOR WHAT? Once appropriate costs have been identified, the next question is how to allocate these costs across different groups. Micro-affordability" indicators disaggregate macro-affordability one by income groups, family types or smaller geographical units.
  - How should costs be allocated between users within the area and others?
     I.e., How much of the appropriate costs should be recovered through tariffs from users within that area?

The answer to this question determines the needed average tariff in one area and the level of cross-subsidization between region in a country (e.g. if a uniform tariff is chosen and resources from it reallocated across regions based on needs, or if part of the costs are covered through transfers from a central or regional budget).

 And once the average tariff is set, how should costs be allocated between user groups?

This determines the view on cross-subsidization across different user groups (e.g. different sectors, different water use levels, different income levels)

Exploring experiences on all the issues above will help shed light on the key question that needs to be resolved:

A real or perceived trade-off? Is there a fundamental incompatibility between the

objectives of financial sustainability of service provision and social objectives?

Sometimes, pricing strategies are intended to pursue broader social policy objectives, i.e. to sustain the income of specific income groups or user categories. Their legitimacy and effectiveness in this arena has been recently challenged based on an assessment of their targeting effectiveness and actual impact on income of the poor (Komives et al., 2005)

- If cross-subsidization via the tariff is chosen, how do different tariff structures respond to micro-affordability considerations? How do they compare in targeting support to the intended population? We need evidence!
- Should consumption-based methods be abandoned in favor of access subsidies? And what is the current evidence on their targeting performance?
- Can non-tariff instruments be introduced to resolve micro-affordability problems?
- How can targeting performance of existing tariff and non-tariff mechanisms be improved? And what are the constraints (e.g. data availability, costs, acceptability) that may limit the introduction of better targeting?
- And more fundamentally, what is the legitimacy and effectiveness of WATSAN tariffs as a social policy instrument

#### **Format**

Opening remarks will reprise the debate in session 1 to pin down key concepts (policy trade-offs, sustainable cost-recovery, affordability), possibly in panel format.

Present country experiences and emerging trends:

- How have different objectives and trade-offs been identified? How have different stakeholders been involved in this process?
- How have pricing strategies been designed to achieve financial sustainability?
- How have social aspects been taken into account?
- What is the evidence on impacts? Have pricing strategies achieved the objectives that had been assigned to them?
- <u>Political economy of reform</u>: What have been the major difficulties in implementing pricing reforms?

Concluding remarks drawing lessons learned based on policy experiences

# (Types of ) Organizations to be involved in session development

National/local authorities, Regulators

**Providers** 

Consumer groups / Representatives of large users

Civil society representatives

Donors / IFIs / International Organizations

Private sector (beyond providers): financing institutions, technology providers (looking for innovative solutions to enhance efficiency)

Experts, including representative of academia

## What is being bridged here?

By further clarifying key concepts, presenting experiences in developed and developing countries and drawing lessons learned, the session should help highlight which policy instruments can help build a bridge between financial and social sustainability objectives of tariff strategies.

Next steps and timeline	Key events for topic development and consultation process As above
Contact information for coordination of this session	Name: Monica Scatasta, Niraj Shah, Jacques Labre, Nicolas Renard Organisation: OECD, EIB, Suez Env., Veolia Water/IWA Country: France, The Netherlands, Luxembourg, UK E-mail: Tel:

Proposal for Session 3, Topic 5.2

TITLE – Recovering what costs? The role of efficient system planning and service provision in ensuring affordable services.

Expected length: 3hrs.

#### Broader Issue/Context

As was discussed in session 2, water and sanitation service provision should be kept financially viable over time and have the capacity to attract resources by adequately compensating them. In addition to ensuring micro-affordability for specific user groups, investment and operational decisions should ensure macro-affordability at system level. This requires efficiency in service provision, both in terms of capital expenditure and in terms of operational efficiency.

When calling for sustainable cost recovery in water service tariffs, it is also crucial to address the issue of efficiency, as average tariff levels will be affected by (i) service objectives and the consequent requirements in terms of technical solutions, (ii) infrastructure planning decisions affecting CAPEX, (iii) operation decisions affecting OPEX and, (iv) financing options and their cost.

Information about costs needs to be available at local level so that appropriate service planning and budgetary allocation can be made. Particularly when planning service delivery for the poorest, an understanding of the costs of different alternatives, and their appropriate communication to future users, is paramount. In many countries, data on the cost of service provision are not easily available, making it difficult to come to any conclusion regarding the "appropriateness" of costs to be covered by tariffs. Data need to be collected regarding unit costs and lessons need to be learned regarding governments' and relevant sub-sovereign entities' capability to obtain relevant information that is needed to meaningfully regulate service provision under natural monopoly conditions.

#### **Key Question**

The nexus between efficiency and pricing: Can better knowledge about the cost of providing services help find a balance financial and social sustainability?

# Session Development Description/ Outline

#### Issues to be addressed.

- Do we have sufficient information about the costs of providing services in different service provision areas in a country?
- Are these costs "appropriate" or is it possible to reduce them through (i) better investment planning, (ii) improved efficiency in network operation?
- And once the relevant information is available, how do we use it?
  - Can unit costs contribute to improved planning, budgeting and coordination processes? (experiences from partners involved in WASHCost project)
  - Decision support tools which have been using unit costs: opportunities and challenges (IRC, WHO cost effectiveness)

Possible specific questions (a selection will be addressed):

Appropriateness of sector development objectives / cost effectiveness of investment decisions (questions 1-3 below to be coordinated with session 5.1.2)

Is it possible to reduce the cost of service provision for part of the population by

	<ul> <li>offering differentiated service levels at different prices? How can this be done so that the preferences of local populations are fully considered?</li> <li>Are legal requirements on technology or other technical specifications too stringent? (e.g. deep-burial of pipes where it may not be needed)</li> <li>Are environmental requirements appropriate to the environmental and economic context?</li> <li>How to avoid tariffs that provide distorted incentives leading to gold-plating?</li> <li>Cost-effectiveness of utility management: role of operational efficiency in reducing pricing requirements</li> <li>What is the potential impact of reducing technical losses? Does their reduction at different levels in the system have different implications on tariffs?</li> <li>What is the potential impact of improving billing and collection efficiency?</li> <li>And of reducing O&amp;M costs? (With a focus on energy efficiency?)</li> <li>Cost effectiveness of financing decisions/structure</li> <li>Access to and information regarding appropriate funding mechanisms and their effective combination (optimization of blending options,</li> <li>Responsibility and response often outside the realm of action of local policymakers – donor community</li> <li>Does the absence of a steady and sufficient revenue stream lead to higher costs later? (i.e., does the absence of an appropriate financing strategy for the sector lead to higher costs, thus widening the financing gap even further?)</li> </ul>			
	Format			
	As for session 2: reprise debate in session 1 to pin down key concepts (as participants may not be the same)			
	Present country experiences and emerging trends			
	Concluding remarks drawing lessons learned based on policy experiences			
(Types of )	National/local authorities, Regulators			
Organizations to	Providers			
be involved in session	Consumer groups / Representatives of large users			
development				
	Civil society representatives  Donors / IFIs / International Organizations			
	Private sector (beyond providers): financing institutions, technology providers			
	(looking for innovative solutions to enhance efficiency)			
	Experts, including representative of academia			
What is being bridged here?	The (real or apparent) dived between financial and social sustainability objectives of tariff strategies.			
Next steps and	Key events for topic development and consultation process			
timeline	As above			
Contact	Name: Catarina Fonseca, Laura Hucks (tbc), Niraj Shah,			
information for coordination of	Organisation: IRC, WaterAid (tbc), IWA (tbc), EIB			
this session	Country: The Netherlands, UK, Luxembourg,			
	E-mail:			

Tel:

#### Proposal for Session 4, Topic 5.2

#### TITLE - Pricing sanitation and wastewater management: The special challenges.

#### Expected length: 3hrs.

### Broader Issue/Context

In developed countries, investment in wastewater management are still substantial, due to the need to extend or upgrade wastewater treatment facilities to meet more stringent water quality targets or to the need to renew and replace aging networks. Filling the financing gap is thus not exclusively an MDG-related challenge.

In some countries, additional financing to the sector and private investment have been enticed to enter the sector by the establishment of specific "fees", particularly for wastewater management

Decentralized solutions, with the possibility of treated wastewater reuse, may be explored as a cost-effective alternative. New payment mechanisms need to be established in these cases and their definition and regulation may not be easy. In addition, regulations in some countries provide obstacles for such solutions.

In many developing countries, extending access to basic sanitation facilities is still a major challenge to be met. The disposal of waste from diffuse solutions or of wastewater when network solutions are adopted is often inappropriate. Treatment of wastewater is often non-existence. The OECD Environmethal outlook to 2030 Baseline forsees that by 2030 over 5 billion people in non-OECD countries will lack access to piped sewerage.

Given the staggering needs for funds in the sector, these challenges cannot be tackled at once and different payment mechanisms need to be devised to achieve the trade-off between financial sustainability of the services, social sustainability in terms of access to adequate sanitation facilities, and environmental syustainabiliy in terms of adequate protection of the water resources base.

#### **Key Question**

#### Pricing for sanitation: what are the special challenges?

# Session Development Description/ Outline

Among the key aspects that distinguish this area are the following:

- User's willingness to pay is generally lower than for drinking water, particularly for wastewater management services, while the investments requirements are often larger
- 2. The solidarity / fairness issue may include stakeholders other than the service users
- 3. The service may be provided by a different entity than the one providing drinking water

It is necessary to deal separately with the challenges for sanitation (water-based or not) and wastewater collection *vs.* those for wastewater treatment services.

With respect to the former, special difficulties when designing and implementing pricing / cost recovery strategies arise due to the following aspects:

- When diffuse solutions are chosen, the cost structure, entities in charge, base for pricing calculations and collection systems will generally be separate from the rest of the water/wastewater system. Special solutions will need to be devised.
  - How to compute users' contribution to the service?
  - Should cross-subsidization be linked with the use of the facility or of the

network (i.e. based on wastewater flow)?

- Should tariff structures mimic those of water structure? This is the case in many developing countries/
- 2. High costs of hardware for diffuse solution or high connection charges for network solutions that may discourage access to adequate sanitation solutions.
  - Should connections or hardware be subsidised?
  - And what to do when legal requirements identify connections as a private good to be covered solely by the user?

With regards to wastewater treatment, the main challenges are

- 1. The low willingness to pay for the service, coupled with often large investment requirements
- 2. The difficulty to revise investment costs that are often linked with legal requirements that affect technology choices
- 3. Its positive downstream impacts increase the set of "beneficiaries" for the service may go beyond those directly receiving the service (e.g., including population and water users downstream)

In some instances, government may decide that environmental objectives or other aspects linked with such public good nature are more important from a societal perspective than the attempt to minimize the cost of service provision. Imagine a case where users in a poorer upstream catchment area are required to adopt expensive wastewater treatment technologies to preserve water quality for downstream richer areas. In these circumstances,

Part of the question here reprises the issues of efficient choice of investment, discussed in previous sessions

- Who should pay for the higher treatment cost, when high environmental standards are sought?.
- How to reconcile environmental, social and financial sustainability?
- How to compute users' contribution to the service?
- Should cross-subsidization be linked with the use of the service (e.g. based on wastewater flow)?
- And can alternative payment mechanisms be identified, (i.e. involving beneficiaries of the quasi-public anter of the service

#### **Format**

Given the very different set of challenges facing developed vs. developing countries, the session could be split into two sub-session, with an opening (shorter) one devoted to the former.

The part devoted to developed country experiences would address (i) current challenges and possible solutions (including consideration for decentralised solutions including reuse), but also on presenting case studies that may and (ii)case studies presenting the development of current tariff systems / payment mechanisms, to draw lessons that could be of use to developing countries as well.

The format could be a panel discussion with description of key aspects of case studies limited to 5 minutes (with no PPT presentation, but with printed slides available for the audience), followed by a discussion by the panel of the main lessons and their applicabilty in other contexts.

(Types of ) Organizations to be involved in session development	National/local authorities, Regulators Providers Consumer groups / Representatives of large users Civil society representatives, including slum dwellers Donors / IFIs / International Organizations			
	Private sector (beyond providers): financing institutions, technology providers (looking for innovative solutions to enhance efficiency)  Experts, including representative of academia			
What is being bridged here?	The trade-offs between environmental protection, financial considerations and social considerations when making choices about wastewater management solutions and the financing thereof			
Next steps and timeline	As above			
Contact information for coordination of this session	Name: Christophe Le-Jallé, Organisation: psEau Country: France E-mail: Tel:			

#### Proposal for Session 5, Topic 5.2

## TITLE – Pricing for agriculture water use: Financing infrastructure and supporting sustainable water use

### Broader Issue/Context

The use and impact on water resources by agriculture involves complex trade-offs between economic, social and environmental demands under a wide range of institutional structures.

The growth in world demand for food, fibre and energy from agriculture cannot be met without irrigation. In addition, agriculture and land management can play a key, and most likely increasing, role in reducing the impacts of droughts and floods on the wider economy. Irrigated farming accounts for a major and growing share of farm production and rural employment in some countries, but overuse of often scarce water resources is an increasing concern.

Agricultural production support and subsidies for variable inputs, especially for water and energy, continue to misalign farmer incentives and aggravate overuse and pollution of water across in many countries. In some regions the private and social costs of sustaining and managing water resources in agriculture exceed the benefits. The major challenge is to ensure that water resources used by agriculture are best allocated among competing demands to efficiently produce food and fibre, minimise pollution and support ecosystems, while meeting social aspirations under different property right arrangements and institutional systems and structures.

Countries are at different stages in reforming their policies for the management of water in agriculture, partly reflecting the varying importance of water related issues in agriculture and current systems of property rights and management structures. The cost of achieving sustainable water management in agriculture varies within and between countries according to local climatic conditions, resource endowments, the economic structure of agriculture, institutional and property right settings, and social and environmental preferences.

Policies and actions are beginning to shift toward more sustainable agricultural water management in some countries (e.g. OECD area) as policy makers are giving higher priority to water issues in agriculture and are using a mix of market-based, voluntary and regulatory approaches to address these issues.

There is a widespread recognition of the need for greater use of market based instruments, such as better pricing structures and tradable permits, accompanied by government regulations, as well as cooperative efforts among water users. On the other hand, there is often insufficient recognition of the integrated nature of water resources and the effects of one land and water user/manager on another. These impacts also raise complex equity issues and important efficiency questions of how unintended consequences might best be addressed.

#### **Key Question**

<u>Water Pricing in Agriculture</u>: What objectives can be assigned to water pricing in agriculture? What are the conditions for a fair and sustainable allocation of costs between farmers and taxpayers?

#### Session Development Description/ Outline

<u>Water pricing in agriculture</u>: What objectives can be assigned to water pricing in agriculture? What are the conditions for a fair and sustainable allocation of costs between farmers and taxpayers?

- Is there a chance of improving demand management in irrigation schemes if appropriate pricing mechanisms are not set up?
- What are the investments required for the improvement of the efficiency of irrigation infrastructure (in terms of water savings, but also of manpower requirements)?
- And is technical efficiency always the right answer from a systemic (watershed) perspective? Or are there situation where increased efficiency may lead to increased abstractions?
- How can investment needs be financed (both in terms of extending irrigated areas in developing countries and increasing efficiency)? How can the appropriate level of farmers' contribution be determined?
- And what is the evidence in terms of impacts of appropriate pricing mechanisms, where these exist?

NOTE: Growing skepticism is being expressed in the literature and by experts regarding the capacity of using pricing of water as a water allocation tool (e.g. Molle and Berkoff, 2008, Massarutto, 2007).

 How does the issue of balance between the economic and social aspects of water pricing differ in agriculture?

Irrigation water is an input for an economic production. Hence, the social side of the problem cannot be presented in terms of affordability for an essential service, but rather in terms of income distribution impacts, employment, fair remuneration, conservation of "way of life, etc.

- What other policy "ingredients" are needed to get the "policy mix" right?

  Among the issues to be discussed are: the establishment of clear lines of responsibility in the institutional framework for water resources management; the definition of property rights/permits for water withdrawals, discharges and provision of ecosystem services; non water-specific policies that affect the set of incentives faced by farmers (e.g. energy pricing policies, agricultural support policies); the need to strengthen the capacity of stakeholders
- And what are the specific aspects of the political economy of reform for irrigation water pricing?
- Finally, what are the knowledge gaps that are hindering the capacity to provide policy guidance in this area?

Many of the functions of water systems are well understood (e.g. support for agricultural production), but for others the science is poorly developed (e.g. groundwater recharge and flows). In addition, while the economic valuation of some water system functions are established, many of the externalities and public goods associated with water systems are inherently difficult to value (e.g. support for wildlife, amenity and cultural values). Gaps in the science and data concerning the linkages between agriculture and water resources are an impediment to the flow of information to help improve policy decision making and actions at various spatial levels from the watershed, regional, national to international levels

# (Types of ) Organizations to be involved in session

National/local authorities, Regulators

**Providers** 

Water users association

development	Farmers' associations					
	Donors / IFIs / International Organizations (FAO, IFPRI, IWMI)					
	Private sector (beyond providers): financing institutions, technology providers (looking for innovative solutions to enhance efficiency)					
	Experts, including representatives of academia					
What is being bridged here?	The need to provide sufficient water for food production and other agricultural uses, while ensuring the sustainable use of water resources					
Next steps and timeline	Thematic coordinator to discuss with thematic coordinators for Theme 2, Topic 2 (Water and Food for Ending Poverty and Hunger) or Theme 3, topic 3.2 (Ensuring Adequate Water Resources and Storage Infrastructure to Meet Agricultural, Enemand Urban Needs)					
	Forum Committee to decide on this session.					
	OECD has significant input to provide for the session					
Contact	Name:					
information for coordination of this session	Organisation:					
	Country:					
	E-mail:					
Tel:						

#### Proposal for Session 6, Topic 5.2

# TITLE: Pricing water for efficient allocation and use: Making hard choices in water resources management

Broader Issue/Context	

The OECD Environmental Outlook to 2030 (2008) baseline scenario indicates that in 2005, 2.8 billion people were living in areas under severe water stress and this number is expected to increase to 3.9 billion by 2030, of which the majority (2.3 billion) will be located in the BRICs (Brazil, China, India, Indonesia, South Africa).

Water scarcity is not just a physical phenomenon, but rather a governance issue. It depends on the ability (or lack thereof) to manage demand at the regional level so that it remains in line with water availability. When looking at pricing for water resources management, policy-makers need to balance primarily the following two objectives:

Ecological sustainability: As a scarce and vulnerable natural resource, water should be allocated so as to ensure basic ecological functions and their preservation for the next generations. The natural asset base is correctly used if its functions are not depleted (unless they can be compensated by man-made capital). What is at stake is not the resource *per se*, but rather its continuous capacity to provide the desired ecological functions over time.

Economic sustainability: As a valuable economic good, water should be allocated to the most productive uses in order to maximize the value added created by society. In addition, efficiency in use by each user would reduce pressure on the resource and, when possible, avoid unnecessary investment in supply expansion.

The effectiveness of management systems is crucial in determining whether a solution can be found. The institutional setting is the constraint to which governance issues can be solved in the short-medium term (Saleth and Dinar, 2004). The institutional setup for water resources management is at very different stages of development in different countries, and the entities in charge of such activities often need strengthening and more stable sources of financing.

Thus, financial sustainability consideration are also relevant. And so are social sustainability objectives, as the decisions to reallocated water across uses will produce winners and losers, so that the social fairness of the decision need to be considered.

#### **Key Question**

What is the role of water pricing and other economic instruments in supporting water resources management? What is their effectiveness in promoting efficient and sustainable water use?

# Session Development Description/ Outline

#### Setting the stage:

- How are the 4 objectives of financial, social, economic and environmental sustainability relevant for the use of economic instruments in water resources management?
- What are the main trade-offs between them in this context?
- Should pricing strategies be called upon to reconcile these?
- Is marginal cost pricing our only guide? What are the difficulties in estimating the appropriate levels of abstraction and pollution charges?
- How to

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	Present country experiences and emerging trends:			
	- How have different objectives and trade-offs been identified?			
	- Have raw water charges been designed to achieve efficient allocation or for other objectives (e.g. raising funds for management agencies)?			
	- How have social aspects been taken into account?			
	- What is the potential role of charges for funding WRM activities and attracting investment in large infrastructure or for the provision of public goods			
	<ul> <li>What is the evidence on impacts? Have pricing strategies achieved the objectives that had been assigned to them?</li> </ul>			
	<ul> <li>Political economy of reform: What have been the major difficulties in designing and implementing the use of economic instruments for water resources management?</li> </ul>			
	Concluding remarks drawing lessons learned based on policy experiences			
(Types of )	National/local authorities, Regulators (for WRM, environment, but also services)			
Organizations to be involved in	River basin committees/agencies			
session	Consumer groups / Representatives of large users			
development	Civil society representatives			
	Donors / IFIs / International Organizations			
	Private sector (beyond providers): financing institutions, technology providers (looking for innovative solutions to enhance efficiency)			
	Experts, including representatives of academia			
What is being bridged here?				
Next steps and timeline	Thematic coordinator to discuss with thematic coordinators for Theme 4, Topic 4.4 (Institutional arrangements for efficient and effective water management) for possible			
	Forum Committee to decide on this session.			
Contact	Name: Alan Hall & Martin Walshe / Benedito Braga (topic coordinators 4.4)			
information for	Organisation: GWP / ANA (coordinators of topic 4.5)			
coordination of this session	Country: Sweden / Brazil			
	E-mail:			
	Tel:			