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The EIB's Water Sector Lending Policy

Strengthening the EIB's Support
for EU Policy Objectives in the Sector
August 2008





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EXECUTIVE SUMMARY

I. Introduction

The availability of a safe and reliable supply of water and the protection of water resources are essential to support all aspects of human life as well as to support the health of ecosystems. However, the coverage and quality of water and wastewater services are often inadequate and water resources not managed in an integrated manner conducive to economic and environmental sustainability.

The importance of the water sector and its challenges have been reflected in the EU environment and development policies, with water being one of the most comprehensively regulated areas in the EU. The Water Framework Directive, the current flagship legislative instrument, requires Member States to provide within its river basins a "good status for all water" by 2015 and enshrines the polluter pays and cost recovery principles.

Policy developments in 2007 including (i) the publication of the Green Paper on "Adaptation to climate change in Europe" that will be developed into a White Paper in 2008, (ii) the European Commission's communication on "Addressing the challenge of water scarcity and droughts in the European Union", and (iii) the approval of the Directive on the assessment and management of floods, have increased the momentum to address the potential impacts that climate change may have on the availability and quality of water in the EU. In the Partner Countries, one of the central components of EU development policy is to support the achievement of the water and sanitation targets of the Millennium Development Goals.

II. EIB's Role and Lending Policy in the Water Sector

Water projects in all their forms constitute an important component to support environmental protection and sustainable communities, one of the EIB's six lending objectives inside the EU as per its Corporate Operational Plan 2008-10, and an increasing share of the EIB's activities in Partner Countries. The Bank's involvement adds significant value to water projects through project preparation, advisory and technical assistance activities. This is particularly the case in regions and countries where climate and other conditions increase even more the importance of the sector. The Bank's intervention will be predicated on maximizing value added, and priorities will be determined on this basis.

The EIB provides long-term loan financing to both public and private clients in the water sector, using a range of instruments. EIB financing has covered investments in all parts of the water cycle including water abstraction and supply (for household, industrial, and agricultural use), wastewater treatment and disposal, as well as coastal erosion, flood control and protection, and hydropower generation. In 2003-07, EIB direct lending to water related projects, excluding hydropower and irrigation, was around EUR 10bn. Of this, 88% was in the EU-27, making it the biggest lender to the water sector within the EU. The EIB has also been the largest source of loan financing to the global water sector to date, compared with other International Financing Institutions.

EU environment and development policies are key investment drivers for the EIB's support to the water sector. The Bank, in communication with relevant EU institutions, has been closely following new policy developments in recent years, especially those related to water scarcity and droughts, flood management, and adaptation to climate change. The lending policy takes into account these drivers to define a set of key policy aspects that warrant the focus of the Bank's action:

- **River basin approach:** in order to strengthen the link between water resources management and the provision of water services to users, the Bank will work more closely with water resource management entities, such as river basin authorities, to support regional initiatives and transboundary investment programmes that support the principles of IWRM.
- **Sector development:** the water sector often suffers from fragmented institutional structures with a large number of actors. This has constrained service providers to fulfil their public service obligations. In this context, the Bank will support sector consolidation, including the development of viable utilities and regional service providers, and seek ways to secure appropriate financing terms for such entities.

- **Climate change:** climate change and its impacts are a reality even though the scale and causes are still subject to further research. Therefore, the Bank will establish adaptation as key area of intervention, as has already been done for mitigation, and enhance its focus on adaptation to mitigate detrimental impacts of climate change notably on water resource availability and quality.
- **Water efficiency:** Water Efficiency (WE) has a key role to play in the efficient allocation of water resources, addressing water scarcity issues, ensuring the viability of service providers, and increasing the efficiency of their services. There are four efficiency measures that the Bank will consider: (i) efficiency of water use by the consumer (household, industry, agriculture, and hydropower); (ii) efficiency in allocation across different users; (iii) efficiency of the utility in managing the system and (iv) efficiency of the system itself.
- **Additional supply requirements:** Development of new water supply is often necessary to address imbalances between demand and supply and increase security of supply, particularly in water scarce regions. The Bank will support new water supply projects (e.g. water desalination plants and dams) if and when a number of conditions are met, including: a clear demonstration that water efficiency and demand side management have been adequately considered and implemented; an options analysis undertaken; and the projects are consistent with the Bank's environmental and social policy.
- **Wastewater and sanitation services:** The provision of wastewater collection, treatment and disposal services has dual environmental and public health hazard mitigation roles. The Bank will continue to support wastewater collection and treatment systems in the EU, in recognition of the significant investments required to comply with EU directives. Similarly and in line with the EIB mandates, the Bank will continue to support wastewater and sanitation projects in Partner Countries, with other financing institutions, national governments and local organisations.
- **Research and Innovation:** the Bank will support research and development of appropriate technologies and the use of research outputs in project preparation and implementation.

These aspects are closely linked and constitute a coherent whole. The lending policy will help the EIB consolidate and strengthen its role in the water sector, enhance the Bank's good track record, provide further leverage and increase its value added. The policy will be applied with due consideration of the specific needs of the regions concerned by individual projects or programmes, and will be periodically reviewed to keep track of developments in the water sector and beyond.

The EIB's Water Sector Lending Policy

Strengthening the EIB's Support to EU Policy Objectives in the Sector

1. Background

The availability of a reliable supply of water and the protection of water resources through adequate water management are essential to support all aspects of human life.

In the European Union (EU), the use of water varies across Member States (due to differences in climate, consumption habits, economic development, and natural endowment), but the need to satisfy the water demand of households, industry and agriculture, balanced by the need for security and sustainability of supply and the requirement to protect the aquatic environment and support biodiversity, is common to all. Also common to many Member States is the growing imbalance between the availability and demand for water resources, particularly in the Mediterranean, and the need to improve water quality, particularly in the new Member States and Candidate Countries. These issues are further aggravated by macro-phenomena (e.g. economic growth, urbanisation, and seasonal migration) resulting in increased demand for water, increased competition over scarce water resources between sectors (e.g. water for irrigation vs. human consumption, or for biofuels vs. food production) and increased pollution. At the same time, climate change (e.g. changes in precipitation) may add to the pressures on water resources in Europe and aggravate natural disasters (e.g. as has been the case recently with floods in the UK and a number of countries in Central Europe, or droughts in Spain and Portugal).

Many of these issues are also relevant for regions outside the EU, e.g. the Mediterranean, Sub-Saharan Africa, Asia and Latin America. However, an even more pressing concern in many of these regions is the historic lack of access to a safe and sustainable water supply and sanitation. This lack of access has significant impacts on human health, livelihoods, productivity and on economic development and poverty alleviation.

The importance of the water sector and the issues highlighted above are clearly reflected in the EU's environment and development policies: water is one of the most comprehensively regulated areas of EU environmental legislation. The Directives that constitute the backbone of EU water legislation and that have been key investment drivers in the sector include:

- The Water Framework Directive (2000/60/EC - WFD) is the most substantial piece of EC water legislation to date. It is aimed at the water sector as a whole, encompassing all existing water directives and enshrining both the environmental goal of "good status for all water" and the principle of planning and managing water resources in an integrated way within a river basin context. The WFD requires EU Member States to ensure, by 2010, that water-pricing policies provide adequate incentives to use water resources efficiently and to recover the true costs of water services in an equitable manner.
- The Urban Wastewater Treatment Directive (91/271/EEC - UWWTD) concerns the collection, treatment and discharge of urban wastewater and the treatment and discharge of wastewater from certain industrial sectors. Its main objective is to protect the environment from the adverse effects of these discharges. As regards treatment it sets up limits for concentration (or percentages of reduction) for some pollutants in the discharged effluent as a function of the size of agglomerations and of the sensitivity of the receiving waters.
- The Drinking Water Directive (98/83/EC – DWD) requires that Member States take the measures necessary to ensure that water intended for human consumption is wholesome and clean, as defined through minimum requirements including microbiological and chemical parameters. In addition, Directive 75/440/EEC sets out requirements for the quality of surface water intended for abstraction of drinking water in the Member States.

Other EU water related Directives include the Groundwater Directive (2006/118/EC), the revised Bathing Water Directive (2006/7/EC) and the Marine Strategy Framework Directive (2008/EC).

Further important developments in 2007 include the publication of the Green Paper (and the forthcoming White Paper expected at the end of 2008) on "Adaptation to climate change in Europe" (March 2007), the European Commission's (EC) communication on "Addressing the challenge of water scarcity and droughts in the European Union" (July 2007), and the approval of the Directive on the assessment and management of floods (2007/60/EC), all of which have increased the momentum to address climate change issues within the context of the water sector in the EU.

In the Africa, Caribbean, and Pacific (ACP) regions and in the Asia and Latin America (ALA) regions, the central component of EU development policy is to support the achievement of the Millennium Development Goals (MDGs) as stated at the Johannesburg World Summit on Sustainable Development (WSSD) in 2000. While all eight MDGs are indirectly linked to water issues, Goal 7 on environmental sustainability addresses them directly with a target to halve the proportion of people without sustainable access to safe drinking water and sanitation by 2015.

2. The EIB's Role and Lending Policy in the Water Sector

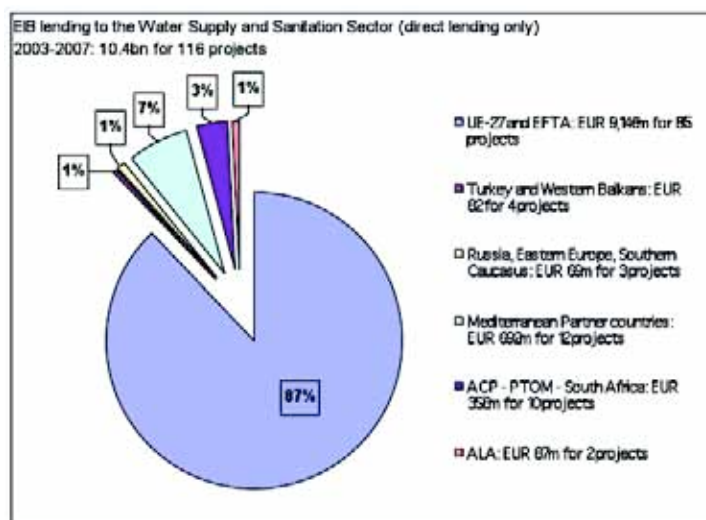
2.1 EIB is a major lender to the water sector

Since its inception in 1958, the EIB has provided long-term loan financing to both public and private clients in the water sector, using a range of instruments. EIB financing has covered investments in all parts of the water cycle including water abstraction, water supply (for household, industrial, and agricultural use), wastewater treatment and disposal, as well as coastal erosion, flood control and protection, and hydropower production.

The EIB adds value in the water sector by financing projects that contribute to the achievement of EU policy objectives and meet the Bank's priority strategic lending objectives, as laid down in its Corporate Operational Plan (2008-2010). These objectives include: "Support of Economic and Social Cohesion and Convergence in the enlarged Union" and "Environmental and Sustainable Communities" in EU and Candidate Countries; and "Infrastructure Development", "Environmental Protection and Improvements" and "Support of EU presence" in regions outside the EU in which the Bank operates.

EIB financed projects must qualify as being technically and economically sound as assessed by the Bank's services. The projects also need to be consistent with its environmental and social policy (as laid out in the 2008 Draft EIB Statement on Environmental and Social Principles and Standards) as well as with other EIB policies (e.g. the renewable energy, climate change and biodiversity strategies).

EIB loans to the water sector represent a significant part of its lending activity. During the last 5 years, EIB direct lending to water projects was around EUR 10 bn¹, of which 87% (see graph below) was in the EU-27, making it the largest lender to the sector within the EU. The EIB has also emerged as the largest source of finance for the water sector, amongst the International Financial Institutions (IFIs), by lending to both the developed and developing world². The Bank has also provided significant credit support for reconstruction and rehabilitation of flood-damaged infrastructure and is increasingly supporting the implementation of flood management strategies, mainly in the EU. However, support for investments in water supply for agriculture and for measures relating to Integrated Water Resources Management (IWRM) has traditionally been low.



¹ These figures exclude hydropower, irrigation and water components of multi-sector framework or global loans. Allocations for water and sanitation investments under multi-sector framework loans and global loans amounts to approx. EUR 0.5 bn annually.

² Owen, D. 2007. Financing Water and Wastewater to 2025: From Necessity to Sustainability. PFI Market Intelligence, London

2.2 Key characteristics of the EIB contribution to the water sector

The EIB has a number of key strengths that are reflected in its contribution to the water sector. These include:

- **Implementation of EU Policy:** the EIB works in close cooperation with the EC to help implement EU water policy in Member States and Candidate Countries by making financing available quickly and flexibly, in response to demands from projects that have been assessed by the Bank's experts.
- **Cooperation in non-EU regions:** the EIB successfully cooperates with the EC, International Finance Institutions (IFIs) and bilateral donors to provide financing for the water sector in the Mediterranean partner countries and in Eastern Europe, in support of the European Neighbourhood Policy (ENP), and in the ACP and ALA regions. EIB procedures are designed in a flexible way to allow maximum cooperation and harmonisation.
- **Transfer of Sector and Project Experience:** the EIB has significant experience of developing and implementing water projects throughout the EU and can draw upon this knowledge and experience when financing projects in other regions across the world, where the water sector is less mature. This is a unique feature among IFIs.
- **Capacity to Implement Technical Assistance (TA):** the EIB can provide funding and management expertise for project preparation activities leading directly to investments after careful consideration of the project needs and viability as well as for project implementation.
- **Expertise in Project Finance:** the EIB complements its global sector expertise with specific expertise on a range of project financing approaches including Private Sector Participation (PSP) and Public Private Partnerships (PPPs),
- **Responsiveness to Emerging Trends and Policies:** the EIB has the potential to be a first mover in implementing emerging policies such as the response to climate change and water scarcity, given its position as the prime financier to the EU's water industry, its well-established relationships with key actors in the sector, and the expertise of its staff.

The EIB is well suited to a water sector that serves a combination of public health, environmental, social and economic objectives. The EIB's public character serves to enhance its catalytic role as an independent broker at the nexus of a multilateral policy environment, project promoters (both public and private sector), and other sector stakeholders.

2.3 EIB's Water Sector Lending Policy

EU environment and development policies are key investment drivers for the EIB's support to the water sector. The Bank, in communication with relevant EU institutions, has been closely following new policy developments in 2007 and 2008, especially those related to water scarcity and droughts and flood management. The EIB's water lending policy takes into account these drivers to define a set of key policy aspects that the Bank will focus on. Although the EIB has significant experience of working in many of these policy areas in its operations in the sector, the lending policy reinforces their importance in the face of the new challenges faced by the sector. The policy will help consolidate and strengthen the role of the Bank in the sector, enhance the Bank's good track record, provide further leverage and increase its value added.

Moreover, the lending policy is a working document that will be periodically reviewed and updated to keep track of developments in the water sector.

2.3.1 Key Policy Areas and Actions

The EIB's water sector lending policy is premised on the need to implement the water-related EU policy within the Member States and development policy in other regions. The Water Framework Directive (WFD) introduces a regional and transboundary dimension. The principles for best practice and the technical and economic soundness of projects that apply within the EU also apply in other regions, albeit adapted to regional conditions and priorities, and where the focus is directed mainly towards a sound progression within the boundary of the Bank's environmental and social safeguards.

This section outlines the key policy areas that the EIB will focus on, in its role to support the implementation of EU policies objectives. It also presents a set of key actions that the EIB will consider in its lending decision making process, in line with regional priorities and focus, as explained in Section 4.

2.3.2 Integrated Water Resource Management

The EU Water Framework Directive (WFD) provides an overall setting for developing and synthesising concrete actions for IWRM. It is the framework for EU's evolving policies in the water sector, including climate change adaptation, flood prevention and water scarcity and droughts. It seeks to promote water management using the river basin as the key level of planning, instead of administrative or political boundaries. It also introduces two key principles in promoting the right level of investment in water infrastructure and sustainable water resource management: progression towards cost recovery and water pricing that promotes efficient use of water. Under the WFD principles, there is a need to strengthen the link between water resources management and the provision of water services for households, industry, agriculture (irrigation is responsible for more than half of the consumption in Southern Europe and Mediterranean region) and other uses.

The WFD also supports transboundary and regional cooperation within the EU, where river basins cross national boundaries or other common water bodies. Transboundary cooperation between countries around a common water body already exists for the Mediterranean Sea, the Black Sea, the Baltic Sea and several major European rivers. EU Member States have to produce River Basin Management Plans and Programmes of Measures for all European river basins, some of which extend significantly beyond the Union itself, by 2009, with the objective of achieving good status by 2015. Although the WFD is applicable to EU Member States and the Candidate Countries, the concept and the principles set in the WFD are being considered also outside the EU.

To respond to the challenges of **IWRM and transboundary cooperation**, the EIB will:

- (i) Work closely with newly emerging promoters in the EU such as river basin authorities and organisations managing transboundary waters to support cooperation over water resources management and investment opportunities.
- (ii) Support actions and investment in the EU, ACP, and other regions that will bring together IWRM with provision of water and sanitation services under the same programme or project. This approach can develop water and sanitation projects of regional interest that strengthen IWRM practices and can make the project / programme eligible for existing EIB funding mechanisms (e.g. the Africa Infrastructure Partnership Trust Fund).

2.3.3 Consolidation of Institutional Frameworks

The difficulties faced by fragmented or small water service providers, particularly in the new Member States and Candidate Countries, to fulfil their public service obligations, has increasingly put consolidation of the water sector on the political agenda. It is a process whereby smaller water service providers cooperate or are replaced by or associated with larger and stronger providers. Consolidation of water service providers promotes efficiency, sustainability as well as increases the adaptive capacity of the water sector to face future economic and climate related challenges. There are also more financial possibilities to be derived from the pooling of revenue streams. While the water sector will remain driven by local and regional government, central government has a key role to play in creating an enabling legal and financial environment.

Supporting sector consolidation will require the promotion of capable institutional or organisational structures that can plan, finance and execute robust and cost-effective measures to increase / improve water services and take advantage of economies of scale. In practice, this may imply cooperation between public entities under a variety of legal forms, without changing the inherently public nature of the service. The Bank has traditionally supported the investments of service providers who operate at regional or multi-municipal levels in the EU-15 (e.g. in the UK, Spain, Netherlands and more recently in Portugal and Belgium). In the new Member States, EC grants, often combined with loans from the EIB or other IFIs, have been used to support the creation of such regional water utilities with appropriate operating and financial frameworks and necessary tariff reforms.

To support the **consolidation of institutional frameworks** in the water sector, the EIB will:

- (i) Continue to actively support the formation and strengthening of viable utilities and regional water service providers or other institutional structures that foster inter-municipal cooperation or promote the integration of utilities for economies of scale and sustainable provision of services to the public.
- (ii) Explore ways to provide appropriate lending terms to such structures
- (iii) Support cost recovery to ensure that service providers are financially sustainable.

2.3.4 Adaptation to Climate Change

Climate change is already a reality even if the scale and causes are still subject to further research. One of the primary effects of climate change will be shifting and more variable hydrological regimes. Changes in precipitation can bring about changes not only in run-off magnitude and temporality, but also in frequency and intensity of floods and droughts. This will also affect the availability of water on a temporal and/or regional basis.

While it is difficult to predict the timing and extent of the change, there is a need to accelerate adaptation activities (including appropriate land management measures) in parallel with mitigation measures. Anticipatory and precautionary adaptation is more effective and less costly than forced, last-minute, emergency adaptation or post event reconstruction. The EC Green Paper³ states that adapting societies and economies to climate change can help reduce current or future damage and associated costs, and may even reap some potential benefits for innovative companies that may become early movers in developing adaptation strategies.

Promoting adaptation in practice, the EIB published a Flood Risk Management (FRM) guide in early 2008, prepared by consultants to support authorities in the preparation of FRM projects that could be co-funded by the EIB.

To respond quickly to the recommendations of the EC Green Paper (and the forthcoming White Paper) on **climate change adaptation**, the EIB will be prepared to:

- (i) Establish adaptation to climate change as an equally important intervention measure, to complement mitigation measures that have brought energy as a new priority lending objective for the EIB.
- (ii) Request promoters to consider cost effective climate change adaptation and mitigation measures in the master planning and design of water infrastructure, where applicable.
- (iii) Use existing TA mechanisms to support promoters to carry out integrated risk assessments, assessment of security of supply, and the preparation and integration of climate change adaptation measures (complementing mitigation investments) as components of water projects. It will be important to focus on areas where the EIB already has experience in (e.g. flood protection), and to make TA available for disseminating best practice.
- (iv) Include adaptation measures and promote Energy Efficiency (EE) in the water sector within the EIB Climate Change Strategy for accelerated action on climate change.
- (v) Continue to enhance climate change mitigation by capturing greenhouse gases from biological treatment and reduction in the use of energy (e.g. energy efficiency in water supply, methane reduction in sludge treatment of wastewater plants, and de-pollution of water bodies generating greenhouse gases).

³ EC Green Paper "Adapting to climate change in Europe – options for EU Action (2007/354)

2.3.5 Water Efficiency

By optimising the utility value of water, **Water Efficiency** (WE) has a key role to play in the efficient allocation of water resources across all sectors and reducing competition between different uses, relieving water scarcity, as well as ensuring the viability of service providers and the efficiency of service provision. There are four efficiency measures to consider: (i) efficiency of water use by the **consumer** (household, industry, agriculture, and hydropower); (ii) efficiency in **allocation** across different users; (iii) efficiency of the **utility** in managing the system and (iv) efficiency of the **system** itself.

A key factor to achieve WE is demand side management (DSM) using regulation, economic instruments, and/or behavioural change by consumers (household, industry, or agriculture). DSM can defer the need for new capital works and reduce operating costs significantly, as well as support the phasing of investments. Tailored metering programmes and water pricing are increasingly being used as demand management tools. The general education and provision of information to water users are also important parts of initiatives encouraging more rational water use.

Although the financial and technical capacity of public utilities and municipalities to effectively and efficiently deliver services has improved in recent years, there still remains much work to be done, for instance with TA support. Improving water service providers' financial viability can lead to improvements in service quality and increased coverage. This can be achieved through measures such as improving revenue collection, ensuring competent management and staffing, introducing management and financial information systems, improving consumer relations and reforming the tariff and taxation system to improve cost recovery. In some EU countries, losses in water distribution networks can reach high percentages of the volume introduced. This is mainly due to a significant backlog of investments in modernisation and upgrading of systems. As the cumulated investment needs are very high, some local authorities may not have the financial capacity to invest sufficiently in upgrading the infrastructure. This underlines maintenance and network renewal as one of the main elements of any systems efficiency policy. There is also scope for optimising the operations of networks. Many efficiency-oriented measures constitute no-regret solutions⁴ that can be implemented quickly and are often associated with short financial pay back periods. There are also clear synergies between water and energy efficiency, taking into account the energy intensity of water services provision, either through the transport and treatment of water and wastewater or indirectly via the use of chemicals in advanced processes.

Recently, the EC communication of July 2007 stated the need to move the sector towards a **water-efficient and water-saving economy** similar to the move in the energy sector in order to address drought and scarcity issues in the EU. The communication also supports the use of market-based instruments, especially water pricing as a way to promote efficient water allocation and use⁵.

⁴ "No regret" solutions are measures with a positive IRR/ERR over a wide range of economic and climatic scenarios, e.g. water savings efficiency, productivity-enhancing initiatives, phased or flexible designs etc.

⁵ This is consistent with the Green Paper on market-based instruments for environment and related policy purposes – COM(2007) 140

In order to promote **Water Efficiency** pro-actively, the EIB will:

- (i) Use available TA mechanisms to support promoters to assess and identify water efficiency measures that may be incorporated as project components.
- (ii) Support water efficiency measures to improve the management and systems efficiency of water service providers, where this is needed. This could include a water utility turnaround package for distressed utilities that includes soft (financial and technical capacity building) and hard (systems improvement) measures and urgent repair works. The use of global and framework loans to support WE including water saving measures in buildings and rainwater harvesting in EU Member States will be pursued. Measures to promote the efficient use of water by consumers will also be supported.
- (iii) In well justified cases and in line with the provisions agreed in the context of the CA document (CA/414/08 dated 11 March 2008), consider allowing for an EIB funding ceiling up to 75% for water efficiency projects with a clear link to climate change, if and when the project can show a genuine acceleration in implementation; there is a scarcity of suitable alternative sources of suitable financing; and/or the administrative burden of complicated financing for small projects is high.
- (iv) Support private sector participation (PSP) and public-public partnerships as tools to improve service coverage, efficiency and quality, provided that: a) the decision is based on a strong commitment from relevant stakeholders; b) incentives will promote greater efficiency in both capital investments and/or operations; c) contracts provide for fair and balanced risk sharing or there is a robust regulatory framework; and d) tariffs will remain affordable to users.
- (v) Promote the principle of cost recovery as a key element of being able to maintain efficiency, in line with the objectives of the WFD. The EIB acknowledges that costs need to reflect service levels and efficiency of service provision, and that their recovery should be set against affordability. Water pricing should be designed and applied in a transparent manner to achieve the multiple sector policy objectives of financial, social, economic and environmental sustainability.
- (vi) Consider partnerships with and support to industries that aim to improve their water use in the production of goods and services ("Water Footprint").

2.3.6 Development of new water supply

The development of new water supply is an option to be considered when demand side management (DSM) options have been explored and the imbalance between supply and demand cannot be covered in a way that provides acceptable security of supply, particularly in water scarce regions (e.g. Southern Europe) that are under significant pressure to adapt to the effects of climate change and rapid economic developments.

Large water supply projects can yield a number of environmental and social issues that need to be assessed properly. For example, although desalination plants draw upon an unlimited supply of water, they are highly energy intensive, and although large dams may provide large storage for water and have multiple benefits, including flood control and power generation, they intervene in natural hydrological regimes and transform landscapes with impacts on habitats and populations.

Another method to address imbalances between demand and supply is through the collection and treatment of wastewater for reuse. The treatment levels and therefore the associated costs depend on the nature of use of the treated wastewater (e.g. water for domestic consumption would require a high degree of treatment, whereas that for landscape irrigation, agricultural uses and industrial applications may require relatively less). Public acceptance, mitigation of health risks, and the price of alternative sources of water are major issues for any wastewater reuse project.

The EIB will continue to support new water supply projects that consider demand side management and the efficient allocation of water as a first resort measure. In this context, a pragmatic but coherent and systematic approach towards appraising major **new water supply** projects that includes an option analysis will be undertaken.

The EIB will support projects that are consistent with its environmental and social policy (as laid out in the 2008 Draft EIB Statement on Environmental and Social Principles and Standards), namely:

Desalination plants:

- (i) When it has been demonstrated that (i) the demand-supply-gap (DSG) is not met, (ii) there are pressing water scarcity, security, and adaptation issues, (iii) desalination plants are the least cost options and (iv) measures to promote water efficiency and demand side management have been looked at and implemented in the first instance and are deemed to be insufficient .
- (ii) By encouraging promoters to source a substantial part of the project's energy requirements from renewable energy.

Wastewater reuse projects:

- (i) If the risk and impact of wastewater reuse, in particular to human health, have been adequately assessed.
- (ii) By possibly using TA to improve regulatory and institutional frameworks for wastewater reuse in countries where there is a considerable potential for it.
- (iii) By promoting the inclusion of safe wastewater reuse in the DSM options, in particular in water stressed regions.

Other water sources:

- (i) By supporting dam projects, when the EIB guidelines for lending to dam projects have been respected, in particular: implementation of demand-side management measures in parallel to any supply-side approach; identification of environmental and social impacts including cumulative impacts and development of appropriate mitigation and enhancement measures; engaging in free, prior and informed consultation with all affected groups at all stages of the project, especially to seek acceptance on mitigation measures; and independent monitoring.
- (ii) By considering inter-river basin transfers in the options assessment of water augmentation, when DSM options have been explored and sustainable environmental and social conditions set, following an obligatory EIA.
- (iii) By considering non-renewable groundwater resources (groundwater that is no longer being replenished), when other sources are not viable from the technical, financial, economic and environmental and social point of view.

2.3.7 Wastewater and sanitation services

The provision of wastewater collection, treatment and disposal services have dual environmental and public health hazard mitigation roles: the discharge of untreated wastewater (household and industrial wastewater and polluted stormwater) can pollute water ecosystems, contaminate water supplies and also detrimentally affect the health of people. Therefore, water and wastewater services need to be developed in coordinated fashion in order to be effective and properly designed. Particular attention should be made to operational cost-implications and skill requirements of new infrastructure, as well as affordability to the population.

The EU's Urban Waste Water Treatment Directive (UWWTD) has led national governments, local authorities and industry to invest significantly in measures to control water pollution. Nevertheless, some urban areas in the EU-15 still lack wastewater treatment facilities. In addition, the 12 new Member States, starting from a lower compliance base, all have large investment needs to enable them to comply with the UWWTD. It is estimated that another EUR 200 billion will be needed to achieve the full treatment of Europe's urban water pollution in the EU⁶. The EIB is expected to complement the efforts made by the EC in supporting the use of structural funds through co-financing investments in networks and treatment facilities in the new Member States. The large investment to be implemented, coupled with the interest of the new Member States in making the best use of the substantial amount of grants available within a short period, is a challenge that carries the risk of poor design and construction.

⁶ Figures concern EU-25 (Bulgaria and Romania not included) as indicated by the European Regional Committee, 2006. European Regional Document: Europe, Water and the World. 4th World Water Forum

In the Neighbourhood and Partner Countries there is a large deficit of wastewater treatment facilities. Where there are treatment facilities, the efficiency is often low and the capacity inadequate. Furthermore, with rapid population increases and urbanisation, the need for investments to upgrade and expand facilities will be high. The sanitation deficit is particularly high in the ACP and ALA regions, where there needs to be a greater focus on the use of appropriate technology solutions and on-site sanitation (e.g. condominal sewerage systems, septic tanks, latrines, etc.), complemented by urban wastewater facilities when appropriate and affordable.

It is also important to assess the need, expectations and the willingness to pay of the beneficiaries before deciding on a system. As it may be difficult to recover the full costs of wastewater services in developing countries from household tariffs, (due to high investment costs, low number of users and external environmental and public health benefits), the use of targeted subsidies to support investment in wastewater services is important as is currently occurring in the EU.

The use of alternative wastewater management processes such as those that use anaerobic digestion to reduce organic content in a controlled environment can reduce the amount of methane emissions to the atmosphere. The biogas produced can be burnt to produce electricity that can offset a significant proportion of the grid fed electricity currently used at the plant. Such a system can be used to leverage carbon credits that can be sold on the carbon market.

In recognition of **2008 as the “Year of Sanitation”** and in acknowledgment of the investment backlog in the sub-sector as compared with the availability of water supply facilities, the EIB will continue to:

- (i) Work with the EC, to finance wastewater collection and treatment systems in the EU, to complement the funding of water supply, i.e. promote water & wastewater projects.
- (ii) Work with the EC, IFIs, bilateral donors and partner countries, to identify pollution reduction investment projects for a common pipeline under Horizon 2020 in the Mediterranean region.
- (iii) Work with other IFIs, national governments and local organisations in the ACP region, to integrate pro-poor urban and peri-urban household sanitation components into water and wastewater projects, using appropriate technology and levels of services based on user need and blend available grant based co-financing with loan instruments, to contribute to the achievement of the MDGs on sanitation in the region.
- (iv) Support to wastewater projects that contribute to the protection of the environment and climate change mitigation in the ALA regions.
- (v) Identify ways to leverage carbon credits through appropriate wastewater treatment processes.

2.3.8 Research & innovation

The development and deployment of new technologies has an important role in addressing increased pressures on the world's water resources, climate change and the need to extend water services to populations currently unserved. The continuing evolution of technologies in the fields of metering and systems operations has enhanced the ability to manage demand and optimise service provision. Rapid improvements in treatment technologies such as membranes are having a positive influence on what can be considered feasible from a technical and economic point of view, with the potential to reduce the pressure on scarce water sources. A key driver is the need to enhance operational performance and to overcome cost-barriers, such as improving the energy efficiency of these technologies, minimising costs and the carbon footprint.

The EIB will consider supporting measures to support the development and deployment of emerging technologies as well as the adaptation of technologies to local conditions, in cooperation with national stakeholders, utilities, the private sector and academic institutions. The EIB Universities Action Scheme could be used to support academic research on key areas of the water sector relevant to the appraisal and lending of projects by the EIB. The EIB will look at using existing instruments to support such measures (e.g. Risk Sharing Finance Facility).

3 Existing Technical Assistance available from the EIB

The EIB may provide Technical Assistance (TA) support to assist promoters, both within and outside the EU, to define, prepare and/or implement their projects. The EIB recognises that TA can bring significant value-added through improvements to project quality, development impact and enhanced EIB business and disbursement activity. At the same time, the Bank recognizes that ownership by beneficiaries is crucial to successful TA and builds this consideration into the process. EIB TA is funded from EC and EU Member States budgetary resources as well as from internal annual budgetary allocations. Existing EIB TA relevant for the water sector includes:

- In the EU, the EIB is entrusted with the management of JASPERS (Joint Assistance to Support Projects in European Region) initiative. This is an important source of high value-added TA to assist new Member States prepare major infrastructure projects accessing the EU Structural and Cohesion Funds over the planning period 2007-2013.
- For the Western Balkans (including Croatia), the EIB has already approved an amount of EUR 1m for urgent TA requirements.
- In the Mediterranean Neighbourhood countries, most of the EIB's TA activity comes under the Facility for Euro-Mediterranean Investment and Partnership (FEMIP) Support and Trust Funds. FEMIP plays an important role in the economic and financial partnership between Europe and the Mediterranean, including the improvement and protection of the environment.
- In the ACP region, the EIB has the ability to provide TA through the Investment Facility (IF) and EU Africa Infrastructure Trust Fund. In 2008, the EIB also launched a EUR 3 million ACP Water Project Preparation Facility (WPPF) co-financed by the EU Water Facility to provide TA support for upstream project preparation activities for water and sanitation investments.
- Further TA support for both project preparation and implementation may be provided by the Bank on a case-by-case basis.

4 Regional priorities and focus

This section outlines the regional priorities and focus of the EIB in the sector. The Bank in its operations will selectively adapt its activity to the specific needs of the geographical areas concerned.

4.1 EU Countries: Compliance with EC Directives and cofinancing with potentially available EC grants

The EC directives will continue to drive investment and funding needs in the next decade. The cost of the compliance with the WFD in the EU-27 will be substantial, and will have to be borne across several sectors, including agriculture. For the new EU Member States, this comes on top of high investments that need to be undertaken to improve drinking water quality, and to put in place urban wastewater infrastructure within a relatively short period as mandated by the *acquis communautaire*. There is a danger that the pressure to deliver projects on time and to absorb EC grant funds may impact on the quality of design and construction and also detract attention from equally pressing needs to increase the efficiency of water supply in the Member States. In this context, the role of JASPERS is very important. Investment will also be driven by the new water policy on adaptation to climate change (floods and droughts prevention and risk management) and related water efficiency projects. The WFD will put cost recovery progressively on users' contribution under the polluter-pays principle. The EIB will continue its support for regional initiatives, as it has done for instance for the depollution of the Baltic Sea, the catchment area for which extends significantly inland.

4.2 EU Candidate and Potential Candidate Countries: Future Compliance with EC Directives

The Western Balkans comprises a heterogeneous group of Candidate and potential Candidate countries with different time perspectives on EU integration. The region is generally subject to highly variable water availability, although water resources as such are not scarce. A significant part of the population does not have access to satisfactory central water systems, with collection and treatment of wastewater lagging even further behind. Water resources are highly interconnected and often polluted by wastewater, most of which is discharged without treatment, as well as a legacy of heavy industry and mining. Water tariffs and collection rates are low and water systems generally have excessive technical losses. Rapid decentralisation and recent conflict has left the water sector fragmented and subject to political capture. Primarily there is a need for stronger enforcement of service, public health and environmental obligations of local authorities and industry and to increase public awareness, in parallel with a reconsolidation of water services in order to meet the substantial investment challenge. There is also a need to restore water management and irrigation infrastructure to previous levels. The availability of TA is increasing and a modest amount of pre-accession funding is available for the water and environment sector, which the EIB will be able to co-finance. However, significant funding needs to be mobilised from users together with possible support from the state and other donors in order to make an impact.

Turkey is a large and geographically diverse country, with most of its land mass situated in a semi-arid region. Turkey as a whole is rich in water resources but the natural distribution of water resources does not always match the location of water demand from densely populated urban areas. The increasing demand for water resources due to economic growth and population increases combined with Turkey's exposure to drought and climate variability is making water resource management and water efficiency a clear priority for Turkey. Turkey needs water storage facilities and other water management infrastructure in order to provide adequate water supplies for all sectors and to prevent flooding. Just as importantly it needs to promote water efficiency in irrigation and in public consumption in order to maintain its economic growth in a sustainable way. The challenges to increase efficiency include the need for more structured IWRM and overcoming the fragmented nature of the public water utility sector. Turkey is eligible for the Instrument for Pre-accession, which the EIB could co-finance. However, the needs are high and there will be demand for further EIB support.

4.3 Neighbourhood Countries and Russia

Water and sanitation as well as improved water management remain a key priority for the countries of the European Neighbourhood Countries and Russia. A number of initiatives have been launched to address these issues, such as the EU Water Initiative (EUWI) or basin-wide approaches for water bodies of key European importance, for which the EIB has an important role to play. However, they can only be successful if the Bank has the adequate tools, i.e. the targeted TA, pre-allocated interest subsidies and loan intervention rates that may in some instances go beyond usual levels. This will allow a tailored blending of loans and grants to be offered to the countries and promoters that have to bear the costs of such measures. In as far as the water sector is covered in the relevant country action plans, a key tool for this will be the Neighbourhood Investment Facility (NIF). At national level, the European Neighbourhood Policy Instrument (ENPI) will potentially have an important role to play.

4.3.1 Mediterranean Neighbourhood Countries: Safeguarding Sustainable Economic Development

The region is predominately arid and suffering the stress of demographic pressures and unmitigated pollution, which has a severe impact on the Mediterranean Sea. Significant institutional challenges need to be overcome in order to achieve sustainable water services. It is also key region for the application of innovative approaches in water treatment, water reuse and aquifer management. Adaptation and water-efficiency projects and measures will also be part of the new investment needs.

There are significant challenges in balancing the needs of different sectors. Water for irrigation is by far the largest user of water in the region and remains an important source of economic development. There are also significant transboundary challenges over shared water bodies in the region.

The Bank's mandate supports investment in water and environment in order to provide an enabling environment for economic development. The EC, EIB and UNEP are cooperating closely under the Horizon 2020 initiative in order to provide new impetus to efforts for the depollution of the Mediterranean Sea in cooperation with key IFIs and donors, capitalising on the success of FEMIP. The EUWI is offering the basis for dialogue in the field of Integrated Water Resource Management.

4.3.2 Eastern Neighbourhood Countries and Russia: Projects of significant interest to the EU

These countries have inherited water infrastructure that was based on low or zero cost energy, is oversized and has been badly maintained for decades. There is also a significant legacy of pollution. Most of the infrastructure base is beyond its economic life and strategic facilities are often on the brink of physical collapse. Breaking a vicious circle of deterioration is a key priority for the sector. Revenues are too low, losses are too high and pumping is too inefficient for utilities to be viable. In addition, collapsing water demand further threatens the precarious financial situation. A phased approach is necessary in order not to invest in over-sized facilities for the future and difficult choices have to be made on account of the magnitude of the problems and the need to restore financial viability.

The EIB's focus is on projects of significant interest to the EU, including investments relevant to shared water bodies, such as the Black Sea and the Baltic Sea. Access to suitable financing to address urgent needs is important for general European policies in the region, such as the Black Sea Synergy. The use of efficient and targeted TA for project preparation and implementation as extensively applied in the Mediterranean region in recent years could be extended to these countries, in partnership with local expertise. Cooperation with the EC and other IFIs and donors is taking place in the Black Sea region under the DABLAS initiative, which also ties in with activities in the entire Danube river basin that drains into the Black Sea, and ultimately also affects the Mediterranean.

An important framework for EIB activity in the Russian water sector is the Northern Dimension Environmental Partnership (NDEP). In Russia, as well as the Eastern Neighbourhood, the EIB's activities remain within the remit of the tripartite Memorandum of Understanding (MoU) between the EC, EIB and European Bank for Reconstruction and Development (EBRD).

4.4 Africa, Caribbean, Pacific (ACP): Achieving the Millennium Development Goals

The efforts of the donor community need to be substantially increased to support countries to achieve the water and sanitation MDG goals of halving the percentage of people without access to safe drinking water and to sanitation by 2015⁷. In this context, it is important to co-operate closely with donors like EC and bilateral aid agencies and to blend loans with grants for water and sanitation projects. Cooperation with other IFIs will allow resource sharing with higher leveraging effects and value added to the development of the sector. The EIB's role in ACP has been substantially enhanced through the successful co-operation with the EC in the framework of the EU Water Initiative and its investment arm, the ACP Water Facility. As a direct result, the Bank has significantly increased its ACP water and sanitation portfolio (though this remains only marginal compared to the sector needs in the region); the new EUR 3m ACP Water Project Preparation Facility will provide TA to prepare water and wastewater projects in ACP. Projects of regional interest could be developed to benefit from the support of the Africa Infrastructure Partnership Trust Fund managed by the Bank. Available TA may also benefit project implementation. Innovative financing (lending in local currency, guarantees etc) using available Investment Facility (IF) tools should be applied to test and replicate in countries with better conditions for success. The EIB is also keen to partner with NGOs and community based organisations in the ACP region, in its efforts to finance pro-poor water and sanitation projects (as was recently the case in Malawi).

⁷ Across the world, around 1.1 billion people lack access to a safe and sustainable water supply and 2.6 billion to adequate sanitation. The Water and Sanitation Programme (WSP), using a simple cost analysis, has estimated that the total WSS expenditure requirements to meet the MDG targets in SSA annually are US\$ 6.7 billion (Mehta et al. 2005). The Asian Development Bank has estimated the annual requirement in the Asia and Pacific region to be approximately US\$ 8.1 billion (as reported in Toubkiss 2006). Both these estimates take into account operating and maintenance, replacement, and support costs and are by far the most realistic

4.5 Asia and Latin America (ALA): Environment & including climate change

Although the achievement of the water and sanitation MDGs is a main investment driver in the region, the mandate of the Bank for ALA refers to the support for environment protection (including climate change). Therefore, the role of the Bank in supporting the water sector in the region could prioritise funding of investments that promote (i) sanitation services (with a dual environmental and public health hazard mitigation role) and (ii) mitigation and adaptation to climate change including water-efficiency projects that could also improve environmental conditions.

The EIB's Water Sector Lending Policy



European Investment Bank • European Investment Bank



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