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## Synthesis Report

Evaluation of EIB financing of water and sanitation projects outside the European Union

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### NOTICE

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## Executive Summary

### Introduction

This ex-post evaluation of water and sanitation projects outside the European Union covers the period 1.1.1993 – 31.12.2007. The evaluation assessed the projects against the EV standard evaluation criteria. One methodological feature of this evaluation is the application of the Economic and Social Impact Assessment Framework (ESIAF).

Since 1993, the Bank has signed 110 water and sanitation investments in 41 partner countries outside the EU 27 for a total amount of EUR 4.0 billion. Geographically, the majority of projects were signed in Mediterranean (55%) and ACP countries (13%). In terms of sub-sectors, 40% of the projects were concentrated on water supply and 34% in sanitation. Since 1993, EU and EIB water policies have experienced significant changes, which have also been considered in this evaluation.

Based on a portfolio review analysing EIB financing trends and taking into account previous evaluations, eleven projects, for which Project Completion Reports were available, signed between 1993 and 2000, were selected for individual evaluation (four sanitation, five water supply, two mixed) of which 6 in ACP countries, 3 in Mediterranean countries and 2 in Turkey. As a consequence of the long implementation periods of the projects (average 7 years) and in order to extend the scope of this sample and to include also newer projects, supplementary reviews were performed to include also more recent projects: a) an analysis of eleven previously evaluated projects, b) a review of project completion reports, c) an extended analysis of implementation issues for a large sample signed between 1996 and 2007. Consequently, this evaluation is a synthesis of the findings of the individual evaluations and the complementary analysis, and considers more than 70 projects for its conclusions.

### Relevance

Until the turn of the last century, **EU** policy outside the European Union had no specific focus on water and sanitation and the EIB external mandates reflect the priority given towards environmental and social improvements in Partner Countries. The loans for the projects evaluated were provided under the Euromed mandates and the Lomé IV convention.

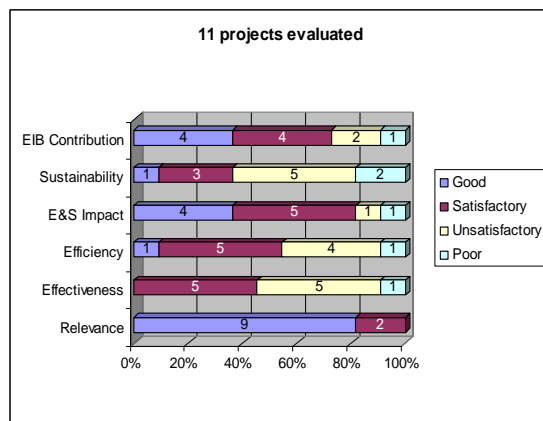
Improvements in the water and sanitation sector continue to be important policy objectives in all **Partner Countries** considered in this evaluation. The utilisation of interest rate subsidies was often decided by the countries, and priority with regard to EIB loans was often given to the sanitation sector and not the water sector.

In September 2000 world leaders came together to adopt the United Nations Millennium Declaration, committing their countries to a new global partnership to reduce extreme poverty and setting out the **Millennium Development Goals** (MDGs). While all eight MDGs are indirectly related to water issues, Goal 7 - under the heading of “environmental sustainability” - explicitly formulates water supply and sanitation related targets. At the 2002 World Summit for Sustainable Development (WSSD), the European Union launched a Water Initiative (EUWI), which is conceived as a catalyst to trigger action to achieve the MDGs.

Environmental Protection and Sustainable Development are key operational priorities for the **EIB**. Water projects also constitute an important component to support environmental protection and sustainable communities, one of the key lending objectives. For a long time water and sanitation have been important for EIB involvement, however no specific sector policy was formulated. This was only done during the course of this evaluation (07.2008). The evaluation confirms the projects’ coherence with the new EIB water sector lending strategy.

All 11 projects evaluated were consistent with EU development objectives and in most cases made an important contribution towards achieving the MDGs. They were in line with partner country priorities and also fully in line with EIB mandates and policy objectives. The evaluation results demonstrate the strong coherence between the operations financed by the Bank and EU policies translated in the Bank’s strategy. Hence, all projects are rated Satisfactory or better for the Relevance criterion.

## Project Performance



The **Effectiveness** criterion has been the single most important factor for a negative rating of the projects in reference. Poor implementation, implying cost overruns and delays, and only partial achievement of the specific outputs and outcomes have led to negative ratings for the majority of projects evaluated.

The majority of projects had a satisfactory or better rating for the **Efficiency** criterion. Water demand development, tariff policy and operational efficiency have improved, impacting positively on these projects' performance.

For the other projects, the economic impact was lower than anticipated, due to low implementation performance, institutional weaknesses, non-reduction of inefficiencies and unsatisfactory tariff increases.

The results regarding the **Environmental and Social Performance** criterion are positive in most projects, which is a reflection that (i) where required by national legislation, environmental impact studies have been done; and (ii) beyond appropriate measures to minimise, mitigate and/or compensate environmental impacts, many projects display positive environmental externalities. They clearly contribute to achieving MDGs by improving the population's access to drinking water and sanitation. Nevertheless, two water supply projects stand out, since these have not achieved acceptable environmental performance.

Water and waste water network services are basic infrastructures, which deliver public goods or services and/or operate in an at least partially regulated environment. Consequently, it can be almost implicitly assumed that financial sustainability will be given, since in most of the cases evaluated governments will continue to support their utility. However, should governmental funding be constrained for any reason, the financial resources to ensure proper maintenance and replacement of critical network components might be endangered. A number of projects also reveal problems with regard to their physical sustainability. The overall rating for the **Sustainability** criterion is unsatisfactory or worse for the majority of projects.

Overall, the evaluation criterion results for **EIB contribution** are positive: of the 11 projects evaluated, 64% received a rating of significant or high. The EIB's contribution is mostly financial through long loan maturity and grace periods, as well as through low interest rates. In general, EIB loan terms were appreciated by all promoters. All but one project benefited from an interest rate subsidy in line with the specific mandates. For a number of projects, EIB funding was critical and/or acted as a catalyst for other financing. Thanks to its experience and expertise, the Bank has at times the ability to provide important additional contributions beyond the pure financial aspects. In recent years, the EIB has increased its provision of technical assistance measures to support promoters in project definition, preparation and implementation.

The Bank's performance in the **project cycle management** is in most cases satisfactory or better (73%). The Bank's appraisal skills often improved the overall project quality and highlighted a number of imminent factors to be overcome for successful project implementation. While in a number of countries, a pipeline of water and sanitation projects has been developed, other countries or regions were served on a more opportunistic "one-off" approach. The degree of donor coordination and complementarity varied in the projects evaluated.

## Results

The main results of the **extended scope analysis** (69 projects) can be summarised as follows: a) project implementation time often ranges from five to seven years; one third of all projects have implementation times of more than eight years; b) loan cancellation after signature is relatively rare, c) delays are significant. This supports the findings from the in-depth evaluations on those issues.

The combined results of 22 evaluated projects show that almost 60% of these projects were rated satisfactory or better.

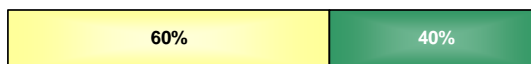
All projects evaluated so far in Mediterranean countries have received a satisfactory or better rating with a similarly positive outcome for Turkey with 80% of all projects rated positively. These good sub-regional results might reflect more support by the Bank through appropriate technical assistance, better project preparation (METAP), more regular follow up and presence than in other regions. In addition, appropriate coordination and cooperation with other IFI's have often contributed to good project results. For ACP countries, the evaluation outcome is more negative, since for the overall sample of 8 projects, 75% of them were rated unsatisfactory or worse. Disaggregating this region, it appears that all three projects in the Caribbean evaluated so far and 60% (3) of all projects in other ACP countries were rated negatively. This again appears to be a reflection of more complicated follow up in remote areas, where a regular presence can not be guaranteed.

The majority of the 22 projects evaluated have benefited from both technical assistance and appropriate coordination and cooperation with other IFI's and showed better project performance. 75% of all projects, where TA (either by EIB or others) and donor coordination was provided yielding positive results, while this share drops to 40%, where either TA or coordination or neither were provided.

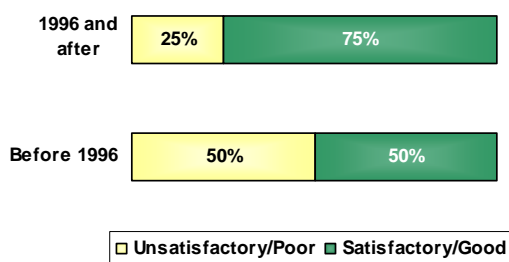
**Project Performance & TA AND Coordination**



**Other projects**



**Project Performance & Date of Signature**

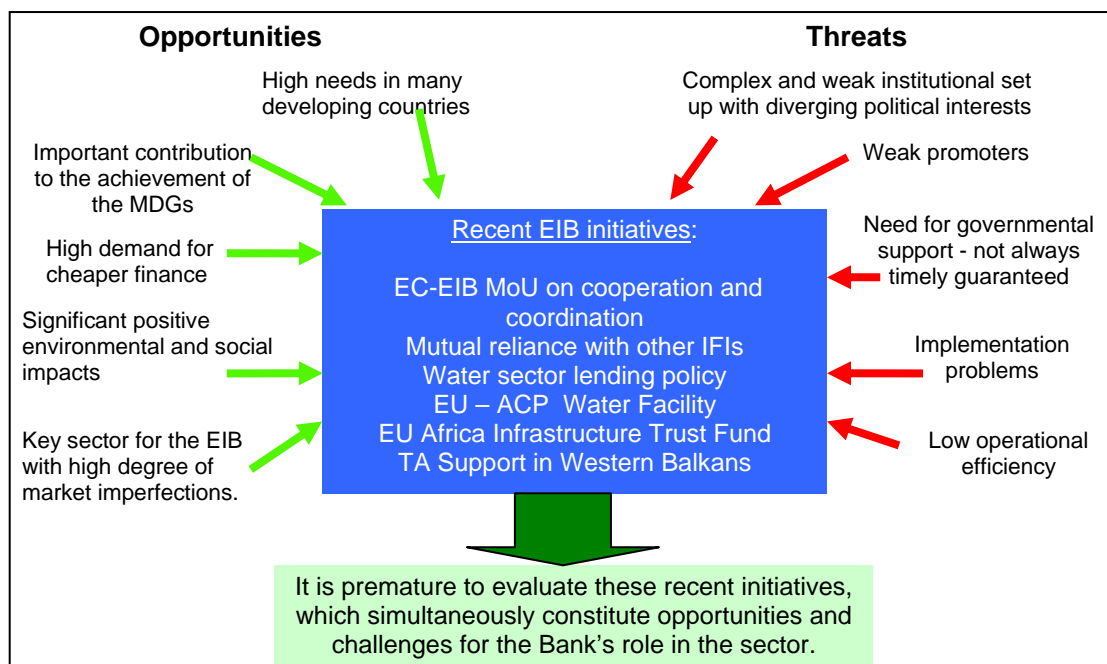


When comparing signature date and hence EIB appraisal period with project ratings for the wider sample of 22 projects, it can be noticed that 75+% of projects signed after 1996 were rated satisfactory or better, while this share drops to 50% for signature dates of 1995 or before.

### Conclusions

EIB evaluation results from water and sanitation projects outside the EU have been mixed, which is also confirmed through the EV's project implementation review, which also demonstrates some problems for ongoing projects.

The Bank's presence in the sector is strongly required given the socio-economic importance of the sector, but water and sanitation projects demonstrate that regular presence, support and follow-up are essential for project success. The EIB plays an important role by way of its financial contribution, but to remedy the difficulties in the sector the Bank has to bring or facilitate a significant non-financial contribution, ideally through technical assistance combined with good donor cooperation and coordination.





## Response of the Management Committee

The Management Committee has taken careful note of the EV Synthesis Report of the evaluation of EIB financing of water and sanitation projects outside the European Union and confirms the importance it attaches to its conclusions. The EV Report confirms substantially the conclusions drawn by the Bank's services on the occasion of Project Completion Reports. Its recommendations are welcome and are essentially in line with action already taken or in progress. The Report recognises that there is a very significant quality improvement for projects signed after 1996, due to the long implementation period, it is not yet possible to evaluate the considerable work done and changes made as the result of lessons learned from the projects financed in the early 90s.

There has been a series of changes in the Bank's approach to the water and sanitation sector which culminated in the Water Sector Lending Policy which was approved by the Board of Directors in 2008. Its main elements are an integrated sector view, the development of viable utilities, the strict application of water efficiency criteria and the careful consideration of appropriate financing terms. The policy includes as well a chapter on "regional priorities and focus" that details inter alia the EIB approach to water sector projects outside EU. The gradual change of practice that already started long before the approval of the water sector lending policy has led to a substantial improvement of the success rate of projects over time, which is also confirmed by the EV Report.

The Management Committee welcomes that the high degree of relevance of all projects and their consistency with EU development objectives is confirmed. Moreover, and despite the fact that the projects were appraised by the EIB in the 90s, the report highlights that in most cases the projects made an important contribution towards achieving the MDGs set in the 2000 UN Millennium Declaration for water and extended in 2002 for sanitation during the World Summit for Sustainable Development (WSSD). According to the report, the evaluation confirms the projects' overall coherence with the 2008 EIB water sector lending policy.

The results of the evaluation indicate that all projects evaluated in the Mediterranean region, where EIB support to the water sector is predominant, have received a satisfactory or better rating, with a similar positive outcome for Turkey with 80% of all projects rated positively. The report indicates the availability of TA funds (METAP) for project preparation as a major reason for the good performance of the Mediterranean projects. The EIB support to the water sector in the Mediterranean region continues to benefit from various TA facilities for project preparation and implementation as well as project upstream work (FEMIP Support Fund, FEMIP Trust Fund and NIF).

The major causes contributing to a negative project rating are: i) promoters' weaknesses leading to a long implementation period and cost overrun; ii) low affordability and political resistance to increase tariffs required to ensure the financial sustainability of the projects. These are common water sector problems in many countries, well known by all donors/financiers that impact negatively on the "effectiveness" and "sustainability" criteria used by EV. It is noted that often such shortcomings are beyond the control of the borrower and of the financier. The choice has been whether to undertake a worthwhile project in difficult circumstances, or to decline to participate at all. In this situation, the decision to act was thought the better option.

However, these issues are more relevant in projects in ACP as compared with other more developed countries as the EIB -as other IFIs- enters into loan agreements at an early stage of the project development. This approach allows the provision of funds for further project preparation that are not available to the promoters prior to signature. At the same time, it gives more leverage to the financier on the development and outcome of the projects. Therefore, procurement of project preparation services is undertaken after signature, and followed by other tenders for various works contracts before construction can start. As a result, implementation takes often longer than expected, increasing the risk of higher investment cost than initially estimated.

Another important aspect to be highlighted that hampered the performance of earlier projects was the unavailability of EIB TA funds for ACP projects at the time of signature and implementation as compared with the Mediterranean projects in the 1990s. As a consequence, project performance in ACP countries -that represent less than 15% of EIB activity in the water sector outside the EU, but 55% of the projects evaluated- was lower, thus affecting negatively the combined results of the evaluation. The EIB activity in the region today has access to TA funds, which is crucial to project success.

For ACP the turning point was the launching of the EU Water Initiative in 2002 during the WSSD. The EIB has been involved in the Initiative since its beginning creating a platform for co-operation with all the sector stakeholders including other financing partners in the Financing Working Group of the Initiative. This co-operation has been strengthened by MoUs signed with other financiers. The EU Water Facility launched in 2003/04 under the Initiative gave to the EIB the possibility to pool its loans with substantial grants provided by the Facility as well as funds from other financiers, namely the EDFs. It created also the opportunity to establish for the first time an EIB project preparation facility for water projects in the ACP countries strongly supported by the Facility. This initial step was followed by allocating subsidised funds under the Investment Facility that could be used for technical assistance.

The report recognises a positive trend on the performance of the evaluated projects -75% of a wider sample of projects signed after 1996 were rated satisfactorily or better as compared to 50% in 1995 or before-. Due to the long implementation period, it is not yet possible to evaluate the effect of the measures taken by the Bank in the last 7 years, namely regarding the availability of TA funds, the blending of loans and grants, the strengthening of co-operation with other financiers and the introduction of the water sector lending policy.

The above mentioned developments demonstrate the response of the Bank to the sector issues identified a number of years ago and highlighted in the EV report. These improvements are already impacting positively on the water sector investment financed by the EIB outside the EU, which hopefully will show in future evaluations when projects launched in the last years are completed and can be evaluated.

### Table of recommendations

<u>Observations &amp; Recommendations</u>	<u>Response of the Operational Directorates</u>
<p><b>1a</b></p> <p><b><u>SECTOR STRATEGY AND DEVELOPMENT</u></b>  <b>(see 3, 6.1, 6.5):</b></p> <p><b>Observation:</b>                      The water and sanitation sector is often characterised by weak promoters and complex institutional set ups. Successful project implementation requires a coordinated donor approach, institutional development and a stronger involvement of the partner concerned. EV acknowledges that sector strategies can not be implemented in all countries/regions and that the EIB 2008 Water Lending Strategy is a step towards the definition of a clearer approach. Nevertheless, for most of the projects evaluated, no coherent sector or country strategy could be identified.</p> <p><b>Recommendation</b>  <b>Country/regional sector orientations, ideally formulated together with EU planning cycles, could clarify the Bank’s sector approach and raise its sector profile, both internally and externally.</b></p>	<p>The EC has an institutional role to lead on upstream sector dialogues with countries, whereas EIB’s role is to finance projects. Demonstration projects can have a powerful role in leading sector reform through concrete examples. Over the past 5 years, the Bank has played an increasingly proactive role in donor coordination networks, The Bank seeks to influence project outcomes positively through practical issues such as tariffs using loan conditions and partnerships with other donors. Country/regional sector orientations are useful and have been applied by the services in the identification, selection and appraisal of projects in certain cases. However, this is not done routinely given the large number of countries where the Bank operates and need for regular updating. Where justified, and following the adoption in 2008 of the EIB Water Lending Policy, the relevant country sector strategy will be presented in the project appraisal and CA report, namely through the VA pillars, and will describe the coordinated approach agreed with the EU, other donors or IFIs.</p> <p>Building on the new Memorandum of Understanding of May 2008 with the EC in respect of cooperation and coordination outside the EU, EIB water sector activities and expertise could be more systematically integrated in the EC regional and national strategy documents,</p>
<p><b>1b</b></p> <p><b>EIB value added can be increased, where continued sector presence can be ensured. The Bank should not only focus on tangible assets, but to the extent possible define projects holistically and endeavour to incorporate institutional capacity building together with supply and sanitation aspects.</b></p>	<p>As is made clear in the Bank’s Water Sector Lending Policy approved in 2008, EIB’s approach to water sector projects now routinely focuses as much on the institutional context and promoter capacity as on the physical assets. In view of the EIB’s mandates and role in the EU policy framework towards partner countries, the Bank needs to rely on upstream work and institution building contributed by the Commission and other donors, notably the World Bank. The EIB makes every effort to ensure that, when it commits its financing, the minimum conditions for project success are in place. The approach followed until now, and to be continued is the</p>

<p>1c <b>More formal partnerships between the EIB and other financing partners have to be developed, particularly in remote areas. This should go further than a ‘Memorandum of Understanding’ and should entail concrete project by project coordination and division of labour.</b></p>	<p>development of co-operation and co-financing with others donors including division of labour. However, this approach does not always solve the problems of the projects, as evidenced by the fact that several poorly performing projects in this sample were led by other IFIs.</p> <p>In view of current discussions on division of labour between the European Commission, development agencies and other financing partners, the EIB will reinforce its cooperation and draw on lessons from the field.</p> <p>Agree. The EIB has a long tradition of strong cooperation with other financing partners in the water sector outside EU. This cooperation will be strengthened based on the recently signed cooperation agreements with other funders, including the EC, which entail project by project coordination and cooperation, including mutual reliance with other IFIs where possible. Enhanced project coordination and division of labour have already been adopted for the Mediterranean and ACP regions and are being extended to other regions.</p>
<p>2a <b>Realistic appraisal assumptions - in particular for achievable project objectives, implementation time are required. Specific performance indicators for the assessment of project results should be established.</b></p> <p>2b <b>Critical technology choices should be scrutinised carefully ex ante and post signature, even if these are outside the narrow EIB project definition. Appropriate sludge disposal for wastewater projects has to be addressed ex ante.</b></p>	<p><b>APPRAISAL (see § 3.3, 6.2, 6.3):</b>  <b>Observation:</b>  A number of important deficiencies in the appraisal need to be addressed:  <b>Recommendation:</b></p> <p>Agree. All of the issues raised in this report have already been addressed in the appraisal methodology applied to new projects. This is made clear in the Water Sector Lending Policy approved in 2008. Utility level performance indicators can be useful, but are challenging in terms of data collection. More conservative schedule assumptions could be considered at appraisal but would remove the pressure on the promoter to deliver the project. Getting involved with a project at an early stage allows the Bank to influence key issues such as project scope and procurement, but imply relatively long lead times from signature to completion.</p> <p>Agree. Technology choices are always assessed by the services, and recommendations for appropriate technologies are often the subject of lengthy discussions with the stakeholders. The importance of addressing the sludge disposal ex ante, which is often subject to a loan covenant, is noted, but problems arise mainly from lack of policy at national level – a task that is often outside the control of the promoter.</p>
<p>3 <b>A performing Technical assistance/Project management unit to increase institutional capacity building should be established in the countries concerned, whereby partners are to be fully involved. If it is only perceived as a</b></p>	<p><b>PROJECT IMPLEMENTATION (see §3, 4.2, 6.3):</b>  <b>Observation:</b>  The EIB has recently stepped up its technical assistance (TA) provision in the sector. Project management units and technical assistance measures are important instruments to ensure proper project implementation.  <b>Recommendation:</b></p> <p>The large majority (if not all) of projects evaluated under the current exercise were appraised at a time when the EIB had little or no soft funds to support TA/PMUs other than through the loan. However, in some projects the Bank was able to</p>

<p><b>temporary measure, its impact and sustainability are limited. PMUs have to be appropriately staffed and their institutional set up has to be appropriate.</b></p>	<p>mobilise other co-financiers to provide grants for that purpose. Water projects in the Mediterranean have benefited from FEMIP TA for some years, but in ACP only very recently are similar types of soft funds available. TA/PMU's are currently applied in a more systematic way in the projects financed by the Bank when judged necessary. However, PMU's should not be set up as a general rule, and should be considered only for weak project promoters. Care is needed in TA/PMU design to ensure promoter ownership of projects and that longer term implementation capacity is improved. Adequate internal staff resources are required to properly manage TA provided by external consultants.</p>
<p><b>PROJECT FINANCE AND CONDITIONS</b> <b>(see § 6.3, 6.5):</b></p> <p><b>Observation:</b> Although EIB loan terms were appreciated by many promoters, the results of the evaluation hint towards certain improvements.</p> <p><b>Recommendation:</b></p> <p><b>4a</b> <b>Grace period length should be reconsidered, due to implementation delays.</b></p> <p><b>4b</b> <b>Grant and loan finance should be blended to support promoters' relatively low cash flow generation capacity or to provide TA and recent efforts by the Bank are noted. A thorough assessment of a technical assistance facility, financed either through the loan or a formal agreement with a co-financing partner, should be an integral part of future operations - in particular in more remote areas where follow up is more difficult.</b></p> <p><b>4c</b> <b>Observation:</b> A general feature for a number of projects was the non or only partial fulfilment of project conditions and undertakings.</p> <p><b>Recommendation:</b> <b>The EIB should be careful to define a (too) high number of undertakings and conditions and they have to be enforced. They have to be addressed towards counterparts, who can fully influence and enforce them.</b></p>	<p>The services take note of the recommendation that grace period length should be reconsidered due to project implementation delays but points out that the profile of EIB financing operations, including loan tenors and grace periods are also governed by credit policy guidelines and operational procedures which may limit the degree of flexibility in this respect. In some cases, delays are caused by claims during the procurement process. Providing for a longer grace period from the outset could also lead to even longer implementation periods by reducing pressure on promoters.</p> <p>Agree that loan-grant blending and TA are particularly important in the water sector. Blending or pooling of grant and loan finance has become an option of the Bank in supporting water projects serving populations that have low affordability while ensuring cost recovery, but the amounts are limited. The success of the Bank in attracting grants from the EU ACP Water Facility and the EU Africa Infrastructure Trust Fund are good examples of this. In some areas (ALA), the blending of loans and grants is currently not possible.</p> <p>Agree. The number of conditions should be limited, feasible and have a leveraging effect. Some of the projects evaluated by EV indicate already good practice on this subject and more recent projects have already taken that into account. In recent years, a substantial improvement can be observed on the EIB enforcement of loan conditions as compared with the practice in the 90s when the large majority of the evaluated projects were launched. Nonetheless, the need for better targeted loan conditions and for a more systematic approach to following up and enforcing both project and</p>

		financial loan conditions is important.
5a	<p align="center"><b><u>MONITORING (see § 6.4):</u></b></p> <p><b>Observation:</b> Given the difficulties experienced in the sector, more supervision is recommended. Although monitoring resources have been increased in recent years, there still appears to be major bottlenecks.</p> <p><b>Recommendation:</b> <b>Appropriate resources for project cycle management, in particular monitoring, have to be allocated to ensure that it is carried out to the highest standards.</b></p>	<p>Agree. In line with its emphasis on value added the Bank is committed to best practice and high quality standards in its operational activities. Scarcity of internal human resources required to undertake all the tasks expected from the Bank's services will be mitigated to the extent possible by an increasing use of external resources (consultants and other IFIs under mutual reliance) to carry out missions and ensure the highest standards in appraisal, implementation and monitoring tasks. It is also important to enhance synergies between physical and financial monitoring.</p>
5b	<p><b>An intermediate review / workshop should be obligatorily foreseen in order to a) reassess main risk parameters, b) allow time to correct any inadequacies of the project definition and/or implementation, c) report and get appropriate approval from the Bank's management.</b></p>	<p>Mid-term reviews are already often applied but should not be obligatory. Another measure applied in water projects is phasing the project investments in a proper functional way and linking loan conditions and particular undertakings to the progress of each phase. Flexibility in the reaction to problems during implementation should be maintained.</p>
5c	<p><b>Major modifications to the original project scope and concept should be properly documented and approved, if necessary, by the Bank's services or management, and ultimately monitored accordingly.</b></p>	<p>This is a procedure that is already in force and thus not requiring any change of practice.</p>
6.	<p align="center"><b><u>ELECTRONIC DATA MANAGEMENT:</u></b></p> <p><b>Observation:</b> As already highlighted in a number of previous evaluations, this evaluation also found some inconsistencies in the electronic data management tools (Serapis /GED).</p> <p><b>Recommendation:</b> <b>The EIB internal data management and monitoring tools must be further improved to support efficient use by the staff.</b></p>	<p>Agree. Both systems and trained staff are needed to ensure data integrity. More routine quality control by the GED team or other central services to ensure that <u>all</u> key documents are stored in the right place would be welcome.</p>
7.	<p align="center"><b><u>ESIAF METHODOLOGY (see annex 1):</u></b></p> <p><b>Observation:</b> The Economic and Social Impact Assessment Framework (ESIAF) was adopted by the Bank in 2006. EV endeavoured to apply the ESIAF from an ex-post perspective for this evaluation</p> <p><b>Recommendation:</b> <b>ESIAF has to be consistently applied to be really useful throughout the project cycle. Detailed, updated guidelines (in particular for the aggregation of sub-ratings) have to be developed and appropriate training provided.</b></p>	<p>Agree. Services are looking at further improving quality control and training which may entail redeployment and/or additional resources. Refinements of the ESIAF methodology may be required in light of the revision of the Bank's Value-Added methodology applicable to operations in the EU, candidate and potential candidate countries.</p>

## 1. Introduction and Portfolio Presentation

### Background:

*“Water is essential to anything in life – food, energy, transportation, nature, leisure, identity, culture, social norms, and virtually all the products used on a daily basis. With population growth and economic development driving accelerated demand for everything, the full value of water is increasingly apparent to all. Therefore limited access to safe drinking water, as well as the decline in water quality affecting Europe and other regions of the world, is leading environmental and development problems”<sup>1</sup>.*

Water dominates the planet, but only 2.5% of it is fresh water, and most of it is difficult to use since it is trapped as snow and ice. Only about one-third is accessible fresh water. Although at first glance, global water availability does not seem to be problematic, its final availability for drinking water purposes, irrigation etc. is much smaller and there are huge regional disparities in water availability.

Across the world, around 1.1 billion people lack access to a safe and sustainable water supply and 2.6 billion suffer from the consequences of limited or no sanitation. In many regions, the imbalance between water availability and water demand is increasing.

Economic growth and urbanisation put increased pressure on water resources and aggravate water pollution. Furthermore, climate change effects are starting to become evident in many countries (e.g. frequency of floods and draughts). The improvement of water availability and water quality world wide, as well as the protection of water resources, are essential to support all aspects of human life and the health of ecosystems.

### Approach and methodology (see also Annex 2)

This evaluation is the second thematic evaluation<sup>2</sup> of water and sanitation projects. Several other individual projects in the sector have been evaluated in recent years. The comparison of ex-post results with the expectations and objectives at appraisal is the main basis for the evaluation of the operations; this was carried out by internal EV staff. In accordance with the Bank’s evaluation procedures, individual projects were rated in four categories: “Good”, “Satisfactory”, “Unsatisfactory” and “Poor”<sup>3</sup>.

One specific methodological feature of this evaluation is the application of the Economic and Social Impact Assessment Framework (ESIAF) framework from an ex-post perspective. Although it is impossible to clearly benchmark ex-post findings to a defined ex-ante scenario, since ESIAF has not been applied at the time of appraisal, attempts have nevertheless been made to highlight some salient aspects and to draw lessons from the ESIAF framework for possible feedback into the project cycle (see annex 1).

The following steps form the key elements of this evaluation:

- a) A comprehensive portfolio review analysing EIB financing trends and country as well as sector distributions between 1.1.1993 and 31.12.2007. This long reference period is justified, as highlighted in the report, due to the extensive implementation times experienced in most water and sanitation projects.
- b) In-depth evaluation:
  - During this step, detailed project analysis and field visits for the selected 11 projects have been conducted. Individual evaluation reports have been prepared and discussed with the operational staff associated with the project, and the main elements were provided to project promoters for their comments. As usual, the information contained in these reports is of a

<sup>1</sup> EIB in the water sector: financing water supply and sanitation, p.3.

<sup>2</sup> 1999 “Evaluation study of 17 water projects located around the Mediterranean financed by the EIB.

<sup>3</sup> “High”, “Significant”, “Moderate” and “Low” for EIB contribution.

confidential nature and availability is restricted to EIB staff. They will not be released to outside parties and the EIB will not approach promoters for their permission for a wider circulation.

The following table summarises the main features of the selected projects.

Region	#	Country	Sector	Signature Date	M EUR Signed	Date PCR
Candidate countries	1	Turkey	Sewerage	2000	80	2007
	2	Turkey	Sewerage	1998	32	2006
ACP Countries	3	Bahamas	Water Supply	1995	14	2003
	4	Barbados	Sewerage	1993	10	2004
	5	Botswana	Water Supply	1995	40	2005
	6	Guyana	Water Supply	1995	12	2004
	7	Mauritius	Supply and Sewerage	1993	12	2007
	8	Mauritius	Sewerage	1995	16	2004
Mediterranean countries	9	Jordan	Water Supply	1996/98	9/40	2006
	10	Jordan	Supply and Sewerage	1995	18	2004
	11	Morocco	Water Supply	1997	50	2004

- Analysis of previous evaluations – in recent years, water and sanitation projects outside the European Union have been evaluated on several occasions<sup>4</sup>. In order to widen the investigation base and to increase the relevance of the selected sample as well as the informational value of this evaluation, an analysis of the results of previously (between 2000 and 2007) evaluated water and sanitation projects (11) outside the European Union was performed. This did not comprise a re-evaluation of the individual projects and therefore any possible (positive or negative) variation of project performance since the time of the evaluation has not been considered.

- c) Following the observations made under b) it was decided to extend the analysis to implementation issues and on the EIB role for a sample of 69 water and sanitation projects outside the EU (signed after 1997). Specific project fiches have been created to analyse some salient features of the different projects, with the specific focus on reviewing project implementation issues and highlighting certain particularly EIB-relevant considerations (see in particular chapters 3.1 and 6.1).

This is complemented by a project completion report review - based on an analysis of 25 Project Completion Reports (PCRs) issued from 2004 to 2008 (see chapter 6.4).

- d) Synthesis: This evaluation report is a synthesis of the findings of the individual evaluations and of the extended analysis. Project sampling was done based on the available project completion reports (17) and taking into account earlier evaluations. Final sampling was done randomly. The full sample (steps a – c) provides, with more than 60%, a good representation of EIB projects signed over the last fifteen years.

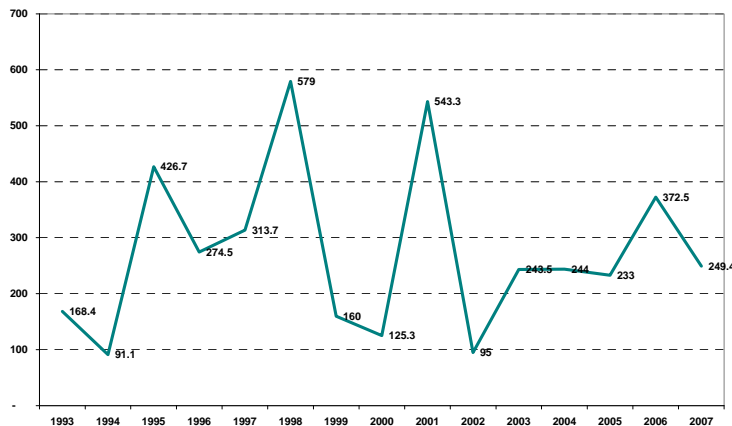
<sup>4</sup> The following thematic evaluations included water and sanitation projects : Evaluation of the projects financed by the EIB under the Asia and Latin America mandates (2004); EIB financing with own resources through individual loans under the Mediterranean mandates (2005), Evaluation of EIB financing through individual loans under the Lomé IV Convention (2006); Special Evaluation Report, joint EIB/EBRD Evaluation (2007). The conclusions of an earlier evaluation 1999 "Evaluation study of 17 water projects located around the Mediterranean financed by the EIB" have been considered in the overall synthesis.



### EIB water and sanitation portfolio (1.1.1993 – 31.12.2007)

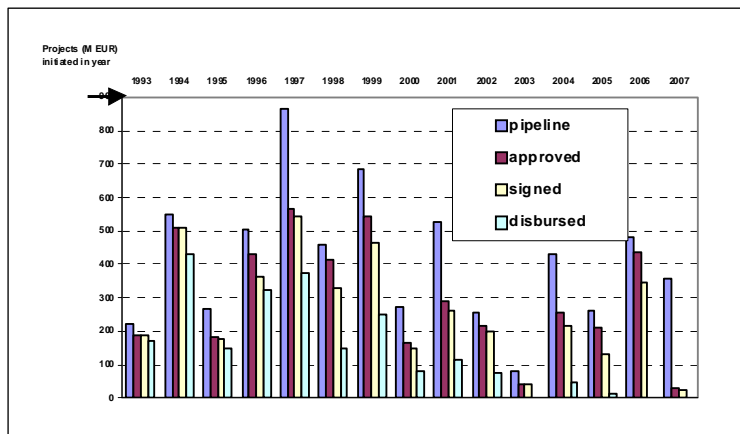
Since its creation, the Bank has lent some EUR 30 bn to water supply and sanitation projects, of which around EUR 5 bn were lent to partner countries. Between 1993 and end of 2007, the reference period for this portfolio review, 188 water and sanitation projects entered the Bank's pipeline outside the EU for a total investment cost of EUR 24 bn. At 31 December 2007, 120 of those potential water and sanitation projects entering the pipeline have been approved by the CA. Of a potential EUR 6.2 billion in signatures, EUR 4.0 billion has been signed (64%)<sup>5</sup>.

**Water and Sanitation Projects Signatures 1993 – 2007 (M EUR)**



Since 1993, the Bank has financed 110 water and sanitation investments in 41 countries outside the EU 27 for a total signed amount of EUR 4.0 billion. Out of this amount some 55% are disbursed, 14% were cancelled after signature and 30% have still to be disbursed.

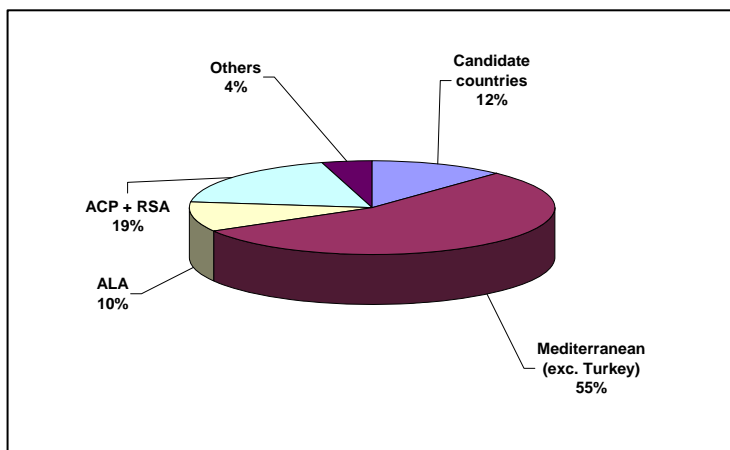
**Water and Sanitation Projects Conversion Entered Pipeline – Approved – Signed – Disbursed (M EUR)**



In order to extend the analysis, this graph shows the water and sanitation projects in year X, and the amounts that were eventually approved, signed and disbursed for these specific projects (no matter when). Thus, in 1997 for instance, large potential loan amounts were introduced into the pipeline, but only a significantly smaller amount was ultimately approved, reflecting the screening activity of the Bank.

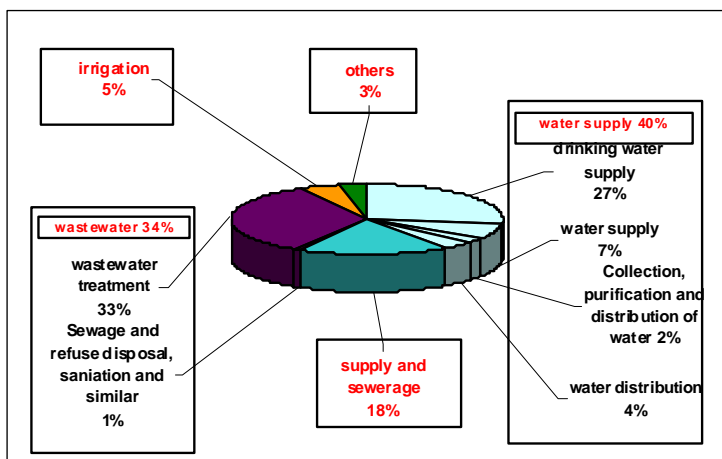
<sup>5</sup> In addition, the EIB also supports smaller scale projects carried out by local authorities via its lines of credit established for Banks or financial intermediaries.

### Geographical distribution (signatures %)



Geographically, the majority of projects were signed in Mediterranean countries (55% of the total signed loan volume), which is likely to be a reflection of the interest rate subsidy policy. ACP countries have received some 13% of total financing.

### Sector distribution (signatures %)



In terms of sub-sectors, 40% of water and sanitation projects financed outside the EU by the Bank were concentrated on water supply, 34% on sanitation, 18% on a mix of water supply and sanitation and 5% on irrigation projects.

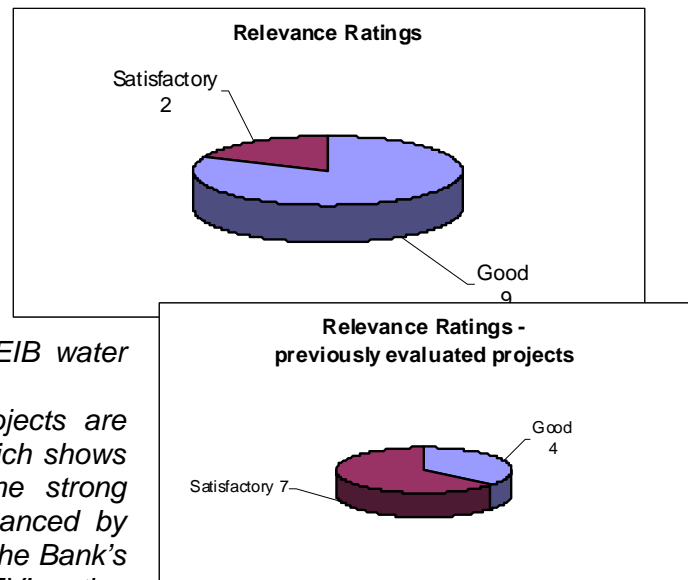
Geographically, in ACP countries the Bank focused more on water supply projects, whereas in the Mediterranean countries the Bank financed relatively more wastewater projects, again possibly a reflection of the interest rate subsidy policy (see chapter 2).

## 2. Policies and strategies - Relevance

**RELEVANCE** is the extent to which the project objectives are consistent with EU policies and the decisions of the EIB Governors, EIB policies (CA), as well as the partner country policies. The following chapter presents a brief overview about a) EU policies, mandates and partner country objectives, b) Millennium Development Goals (MDGs), and c) EIB water sector objectives.

The projects were consistent with EU development objectives and in most cases made a direct contribution towards achieving the MDGs. They were in line with partner country priorities and also fully in line with EIB mandates and policy objectives. A review of both the specifically evaluated projects and the extended portfolio of 69 projects also confirm their coherence with the new (2008) EIB water sector lending strategy.

The evaluation results for the 11 projects are depicted in the graph (above right), which shows a positive outcome, demonstrating the strong coherence between the operations financed by the Bank and EU policies translated in the Bank's strategy. Certain recent refinements in EV's rating procedures for the relevance criterion (in particular specific ESIAF considerations) have resulted in better ratings than in the past.



### 2.1. EU Policies / Mandates and Partner Country Objectives

Since the mid seventies legislation for the water sector within the **European Union** was characterised by a piecemeal approach, leading to the Drinking Water Directive (Council Directive 1998/83/EC of 3 November 1998). The Water Framework Directive 2000/60/EC finally established common objectives and principles for sustainable water resources management in the 21st Century, which is applicable both within and outside the EU.

Until the turn of the century EU development policy was targeted towards poverty reduction, but its policy outside the European Union had no specific focus on the water and sanitation sectors. The role of the EU in the Lomé convention had a more global definition, dealing with political aspects (regional cooperation, role of law, stability and security of persons and transactions), economic aspects (private sector development, structural and sectoral reforms) and social aspects (education, equality of opportunity), as well as cultural and environmental aspects, with due regard for the specific features of each country.<sup>6</sup> For the Mediterranean region, a global EU policy was launched in 1995 with the Barcelona process.

For both regions (MED and ACP), EU policies have to be looked at in terms of the mandates given to the EIB. The external mandates of the European Investment Bank reflect the priority given to environmental and social improvements in Partner Countries. The loans for the projects evaluated were made available under the Euromed mandates and the Lomé IV convention.

In Mediterranean countries for instance, the Bank's mandate predominantly supports water and sanitation projects in order to provide an enabling environment for economic development. In the ACPs, the EIB has had a role under the Conventions since Yaoundé (1963), under which it was responsible for administering the special loans. In fact, the Bank provides loans to industry and "viable infrastructure" – i.e. where direct revenues are received for services provided; these include electricity, telecommunications, railways and **water**

<sup>6</sup> See EV Report 2006 – Evaluation of EIB Financing through Individual Loans under the Lomé IV Convention, annex 1, p.5.

supplies. Furthermore, Lomé IV specifically introduced environmental protection as one of its main objectives. The Cotonou Agreement then introduced wider changes than the successive Lomé Conventions. In fact, the priority aims are different – combating poverty and integrating ACP countries into the global economy by liberalising trade with a more comprehensive, multidimensional approach, with due regard for the specific features of each country.

In 1992, the regional Mediterranean off-protocol mandate given to the EIB included the possibility of providing an interest rate subsidy (maximum 3%) to support specific environmental operations. The application of this interest rate subsidy was delegated to the EIB, but beneficiary countries could decide on their prioritisation. This setup was integrated in the MEDA regulation (EC budget funding), in parallel to the introduction of the Euromed mandates (1997, revised in 2000).

Improvements in the water and sanitation sector were, and continue to be, important policy objectives in all **partner countries** considered in this evaluation. While the specific countries' objectives differ slightly, the main underlying driver was to enhance the population's living conditions. The implicit improvement of the countries' socio-economic development, by raising the standard of living, is a basis for sustained economic growth. In many countries, water and sanitation projects were included in the indicative programmes agreed between the partner countries and the EU. In some countries the projects formed part of a specific poverty reduction strategy, while in others the main reason was a more rational use of the water resources to increase the population's supply. In yet others, improvements to the sewage system were triggered by the requirements to limit the deterioration of the ground water resources, or provide the basis for continued development of the country's tourism industry.

The utilisation of the interest rate subsidies was decided together with the Partner countries, which, in many cases, prioritised the sanitation sector and not the water sector. This has possibly also impacted on the EIB portfolio, implying a higher partner interest for EIB financing in the waste water sector (see chapter 1).

## **2.2. Millennium Development Goals**

In September 2000 world leaders came together to adopt the United Nations Millennium Declaration, committing their countries to a new global partnership to reduce extreme poverty and setting out a series of time-bound targets - with a deadline of 2015 - that have become known as the Millennium Development Goals (MDGs).

While all eight MDGs are indirectly related to water issues, Goal 7, under the heading of "environmental sustainability", explicitly formulates water supply and sanitation related targets: "**Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation**".

At the 2002 World Summit for Sustainable Development in Johannesburg (WSSD), the European Union launched a Water Initiative (EUWI). The EUWI is conceived as a catalyst to trigger future action in achieving the water and sanitation MDGs. In fact, much of the underlying EU policy is rooted upon the contribution towards the achievement of these "ambitious" targets.

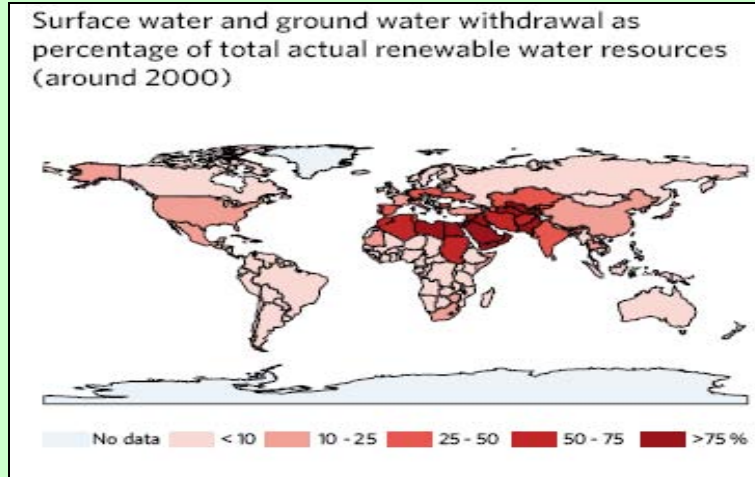
*"The EU's 'integrated water resources management' policy framework aims at ensuring a supply of sufficient, good quality drinking water, adequate sanitation and hygiene to every human being, in line with the MDGs. Furthermore, it aims at establishing a framework for long term protection of all water resources, preventing further deterioration and promoting sustainable water use.*

*The EU Water Initiative contributes to these policy objectives. Its key elements are to: reinforce political commitment to action; raise the profile of water and sanitation issues in the context of poverty reduction efforts and sustainable development; promote better water governance arrangements; encourage regional and sub-regional cooperation on water management issues; and catalyse additional funding."*<sup>7</sup>

<sup>7</sup> Joint statement by the Council and the Representatives of the Governments of the Member States Meeting within the Council, the European Parliament and the Commission (2005) – The European Consensus on Development.

### The Water and Sanitation MDG achievement

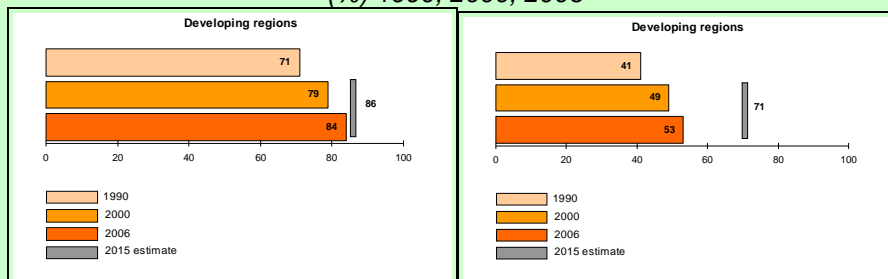
Water use has grown at double the rate of the population over the last century and some 2.8 billion people (more than 40% of the world's population) live in river basins with some sort of water scarcity. More than 1.2 billion live under conditions of physical water scarcity (withdrawal of more than 75% of river flows) and 1.6 billion people face economic water scarcity, where human, institutional and financial limitations hinder water accessibility, even if water is physically available.



#### Access to improved drinking water

More than 1.6 billion people have gained access to safe drinking water since 1990 and, at this growth rate, it is expected that the target of 89% of the population in developing regions use improved sources of drinking water by 2015 will be met. Nevertheless, still today nearly one billion people lack safe sources of drinking water. In 2006, most urban areas (96%) in developing countries had an improved drinking water supply, but only close to 80% in rural areas.

*Proportion of population using improved drinking water source and improved sanitation facilities (%) 1990, 2000, 2006*



#### Sanitation

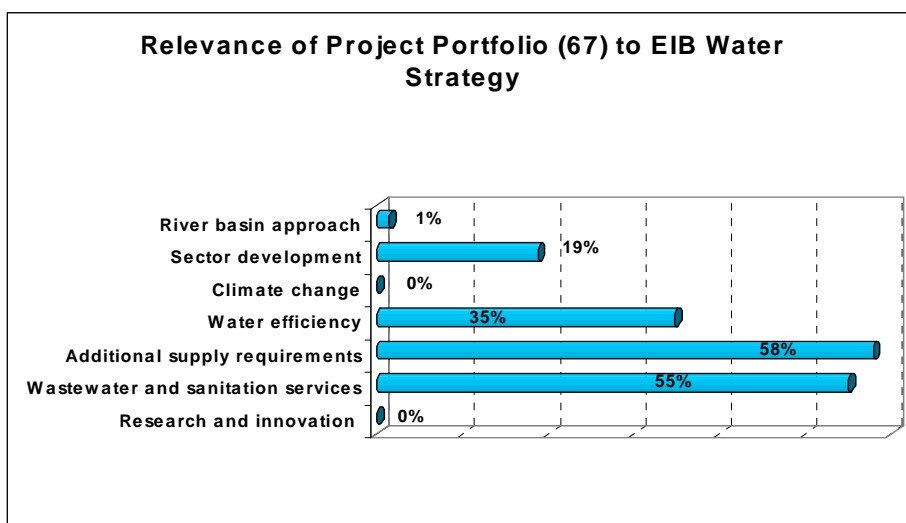
Some 1.1 billion people in developing regions used improved sanitation facilities when compared to 1990. Nevertheless, in order to meet the MDG sanitation target, the number of people must increase by about 1.6 billion and the growth rate of the nineties has to increase significantly. About 2.5 billion people remain without improved sanitation. In 2006, in 54 countries less than half of the population used improved sanitation facilities. About half of the world's population live in rural areas, but rural population accounts for more than 70% of the people without improved sanitation. Nevertheless, also in urban areas sanitation improvements have failed to keep pace with population growth.

Source: UN – The Millennium Development Goals Report 2008, p. 40 – 43.

**MDG achievement in the evaluated project sample:** The vast majority (82%) of projects analysed in depth had a satisfactory (27%) or good (55%) contribution to the MDGs (see chapter 3.3) by increasing access of the population to drinking water and improved sanitation. Two projects (3, 6) were considered to be unsatisfactory with regard to their MDG contribution, since despite increased water supply the provided water quality is still low.



The relevance analysis of the project portfolio to the new water strategy shows that, although the projects were approved much earlier than the strategy<sup>8</sup>, 54% of the projects address at least one key policy area and 42% address more than one (between two and four). There is a balance between water and sanitation projects and almost 20% of them have associated measures to improve the institutional framework (mainly private sector participation).



It is also interesting to note that:

Almost half of the projects involving the development of new water supplies also include measures to improve the efficiency of the water supply system. 35% of the projects involving the development of new water supplies also include measures to enhance the sanitation system.

Climate change adaptation, research and innovation (mainly within the EU) and Integrated Water Resource Management are new targets for EIB involvement in the sector.

Similar findings can be made when analysing the relevance of the in-depth project sample (11 projects) with regard to the new water strategy:

All projects analysed in-depth met at least one of the key focus areas of the new EIB water strategy (see table below). While the majority of sanitation projects only tackle one key criterion, most additional water supply projects also try to tackle, to a certain extent, institutional reform / sector development and/or water efficiency improvements.

	Projects										
	1	2	3	4	5	6	7	8	9	10	11
River basin approach											
Sector development			√			√			√		
Climate change											
Water efficiency			√			√			√	√	
Additional supply requirements			√		√	√	√		√		√
Wastewater and sanitation services	√	√		√				√		√	
Research and innovation											

<sup>8</sup> Two special operations were not directly in line with any of the seven priorities, and have not been considered in the analysis.

### 3. Project Performance

#### 3.1. Portfolio analysis – implementation issues

This section presents the results of an extended scope analysis of water and sanitation projects financed by the Bank over the period 1998-2007. During this period a total of 69 projects were financed and this detailed analysis (see graph below), based on specific project fiches established for each project, allowed to highlight some of the most common project implementation issues. The analysis is based on a consultation of the project-specific Bank's database, as well as the review of both ex-ante and ex-post documents for each project.

Implementation schedule

	< 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	>2014
1			S		FD			FR			LD								
2			S		FD			FR	LD										
3			S		FD		LD	FR											
4			S			FD					LD + FR								
5			S			FD	LD	FR											
6			S		FD			LD	FR										
7			S		FD		LD				FR								
8			S					FD + LD	FR										
9			S		FD + LD						FR								
10			S			FD		LD + FR											
11			S		FD					LD + FR									
12			S		FD				LD + FR										
13			S			FD		LD			FR								
14			S			FD			LD + FR										
15			S																
16			S		FD	LD + FR													
17			S																
18			S																
19			S		FD				LD	FR									
20			S		FD					FR		LD							
21			S		FD	LD	FR												
22			S			FD	LD	FR											
23			S				FD			LD	FR								
24			S		S	FD					LD	FR							
25					S + FD		LD			FR									
26						S + FD + LD				FR									
27						S			FD		LD			FR					
28						S				FD + LD		FD	LD	FR					
29						S					FD + LD						FR		
30						S		FD			LD	FR							
31						S	FD				LD			FR					
32						S		FD				FR	LD						
33						S	FD					LD + FR							
34						S													FR
35							S					FD + LD	FR						
36							S					FD	LD	FR					
37							S				FD		LD	FR					
38							S				FD		LD				FR		
39								S			FD	LD	FR						
40								S			FD		LD + FR						
41								S			FD	LD		FR					
42								S			FD + LD						FR		
43								S + FD	LD			FR							
44								S				FD + LD						FR	
45								S											
46								S	FD			LD		FR					
47								S											
48								S											
49								S			FD		LD					FR	
50								S			FD		LD		FR				
51								S											
52								S											
53									S										
54									S + FD				LD					FR	
55									S		FD	LD						FR	
56									S										
57										S									
58										S									
59										S		FD + LD						FR	
60										S									
61										S									
62										S									
63										S									
64											S + FD + LD			FR					
65											S								
66											S		FD + LD		FR				
67											S								
68											S								
69											S								

- No disbursement yet
- PCR available
- PCR not available
- Loan cancelled after signature
- S Signature
- FD First Disbursement
- LD Last Disbursement
- FR First Reimbursement
- FR First Reimbursement before or very close (less than six months) to Last Disbursement



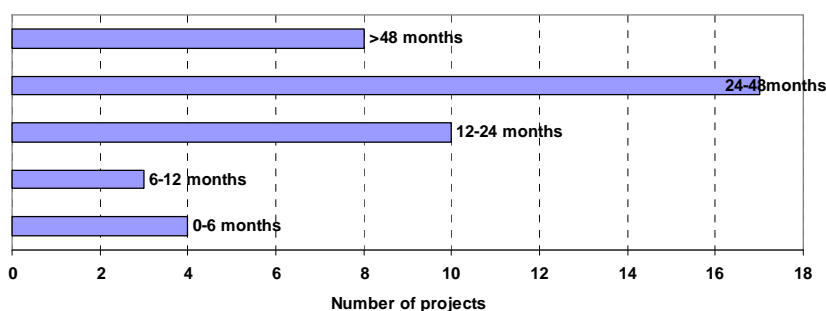
From the above graph, the following main conclusions can be drawn:

- In most cases, the signature of the contract took place in the early phases of project implementation. For 65% of the projects, the procurement process started after the approval by the EIB management.
- Implementation time (real or expected) for water and sanitation projects ranges between five to seven years in most cases (57%). While 14% of all projects have shorter implementation times, almost one third of all projects have implementation times of more than eight years (13% more than ten years).
- Loan cancellation after signature is relatively rare in the water and sanitation projects under review (three projects out of 69); 27% of all projects have not been disbursed yet.
- Looking in more detail at the disbursed project portfolio, it is to be noted that close to 50% (22 out of 48) were disbursed within one year of signature. For 40% of all projects, the first disbursement was made two or three years after contract signature and 15% of all projects required more than four years until first disbursement.
- In 27% of all disbursed projects, the first reimbursement was scheduled before or rather close (less than six months) to the final disbursement of the loan. In about 60% of all projects the first reimbursement of the loan was made during project implementation. Therefore, careful attention should be given to implementation timeframes at the time of appraisal.

Analysing some of the underlying disbursement conditions, it becomes apparent that establishing a technical assistance unit as well as signature of other loans were disbursement conditions for more than 50% of all loans. The other most important EIB disbursement conditions concerned (i) the implementation of specific environmental measures or studies (40%), (ii) tariff adjustments (40%), (iii) execution of a guarantee contract (39%) or on-lending agreements (29%) and (iv) implementation of other works or plans (27%). Land acquisition, resettlement, adjustments in the collection system or rate and the signature of a private management contract appear as conditions in a limited number of projects.

The analysis of the 42 projects, either completed or for which the completion date has been re-estimated after appraisal, indicates that overall implementation delays are significant. More than 60% of the projects suffered (or will suffer) delays of over two years and 20% were delayed (or will be delayed) by more than four years (see graph below).

*Delays in project completion (months)*



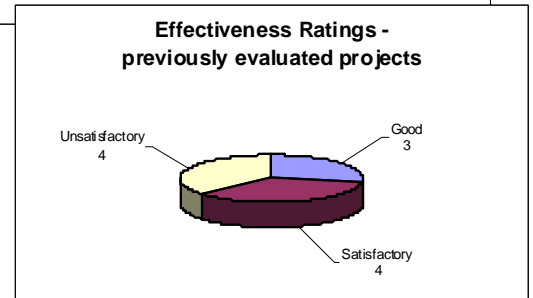
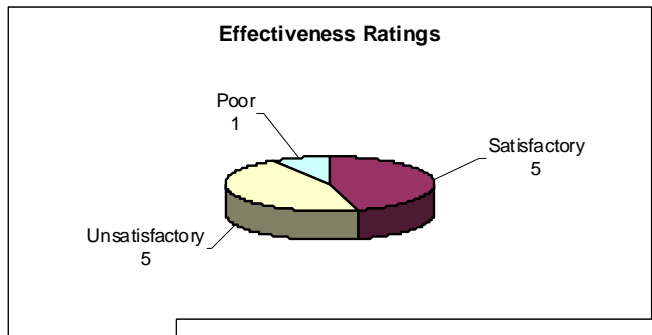
*Source: own elaboration*

At appraisal, the estimated duration of the 42 projects ranged between two and 8.5 years (55 months in average) and the delays represent up to over 300% of the total project duration (70% in average). These delays may be due to a late commencement of the project or a longer-than-expected implementation period. Mismatch with grace periods is then the rule (see § 6.3).

### 3.2. Effectiveness

*Project Effectiveness rates the extent to which project objectives have been achieved based on the parameters for implementation and operation, as well as the achievement of wider overarching project objectives and outcomes.*

*The effectiveness criterion has been the single most important and often triggering factor for a negative rating of the projects in reference. Not only poor implementation, implying cost overruns and delays, but also the only partial achievement of the specific outputs, and outcomes have led to negative ratings for the majority of projects (55%) evaluated. Successful projects are often linked to good institutional set-up, proper project preparation and follow-up and successful donor coordination.*



*The results for previously evaluated projects is better (36% rated unsatisfactory or poor) than the current project sample under evaluation, but also experienced significant problems (cost overrun, delays), hampering smooth project implementation.*

*All projects evaluated in the sample had encountered important implementation delays, ranging between two years to close to ten years, and all were not completed at the end of the grace period. Half of the projects encountered a cost overrun below 25% while for the other half a cost overrun of up to 88% could be observed. Project management support and technical assistance can be important instruments to facilitate and ensure smooth project implementation. However, technical assistance has only been partly used as a means for successful project management, although with some notable exceptions.*

*The physical project objectives were achieved for all projects, except one (6). In the majority of projects, physical implementation has been hampered by changes of certain project components at design or later post-appraisal stage with negative knock-on effects on timing and cost compliance.*

*The expected project outcomes in terms of wider environmental objectives, institutional reform etc. were not or were only partly achieved in a number of projects. In some cases, poor implementation or the selection of wrong piping material has caused the non-achievement of project objectives, while in other projects the wider national and regional objectives that go beyond the direct control and influence of the promoter, have not been met.*

#### 3.2.1. Implementation Performance

##### Physical implementation, time schedule, procurement and project cost

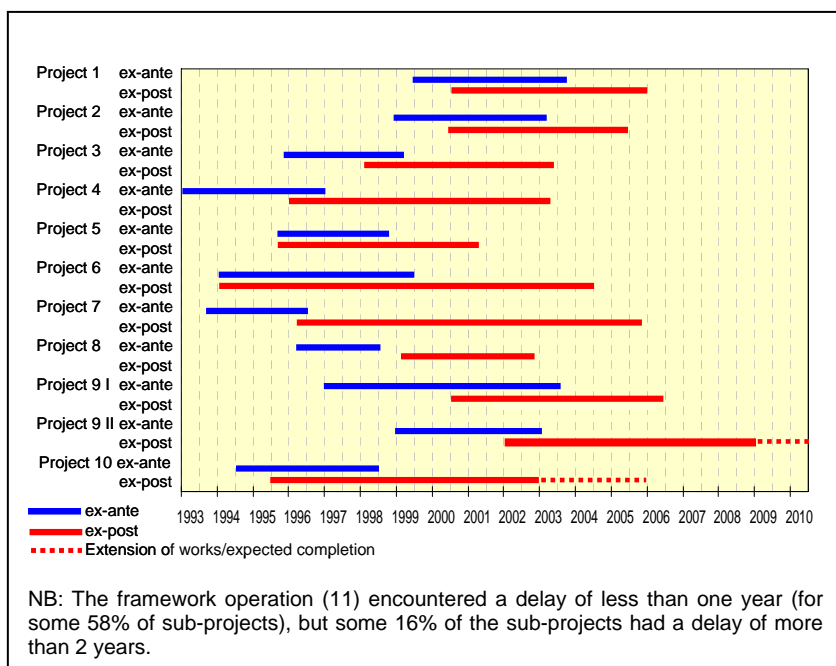
##### Physical implementation

*In the majority of projects, physical implementation has been hampered by significant changes of certain investment components at design or later post-appraisal stage with negative knock on effects on timing and cost compliance. Consequently, the original technical description only partially reflects reality, which from an ex-post perspective exacerbates output and outcome assessments.*

Deviations range from minor design or scope changes to significant alternations to the project scope: i.e. for water projects: drinking water production technology changes (project 3); change of the treatment plant location, additional works (7); additional rehabilitation works (9). In one water framework type operation, the original 22 medium to large schemes were replaced by 79 small dispersed projects. In the waste water sector, changes to the projects' scope included, inter alia, increased pipe laying (1, 2); reduction of the number of pumping stations (2, 8), modification to the number of house connections (2, 8), change of material for sea outfall (8); additional schemes (10).

Not all of these changes during project implementation have been properly documented and are sometimes difficult to follow up – in some cases no changes to the technical description have been made (see also chapter 6.3).

### Time schedule

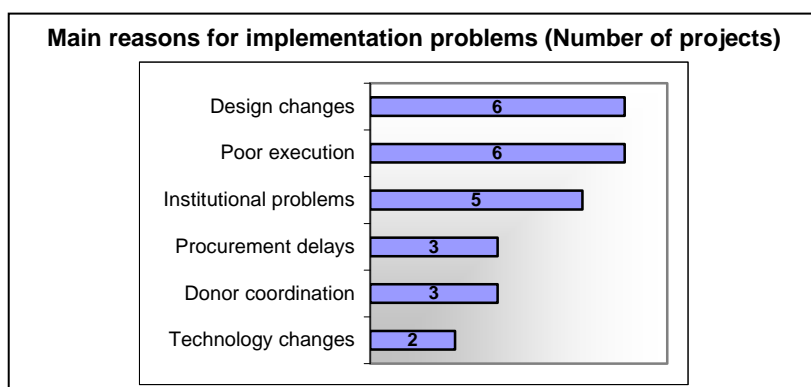


All projects evaluated in the sample encountered significant implementation delays, ranging between two years to close to ten years. This is also confirmed by the experiences of previous EIB evaluations, as well as other IFIs.

None of the projects were completed at the end of the grace period. For more than 60% of the projects, the repayment started between two and seven years before the end of the project implementation.

The graph above clearly highlights two evident facts: a) implementation time was underestimated; b) project implementation delays are often induced by a delayed project start.

During the evaluation the promoters gave a multitude of reasons and explanations for the delays (see graph below).



### Procurement

Procurement procedures for all EIB financed components followed the Bank's procurement guidelines. Some difficulties, besides some normal burdensome and lengthy procedures, have been reported in three operations (project 7 - court case; projects 9/10: the excessive



Appropriate training and hand over is important to allow fully independent and smooth operation of the facilities. In one project (2) for instance, the operating system for the wastewater plant was implemented by a professional foreign operator, who took responsibility to properly train the project's staff, allowing them to operate the facility on an independent basis.

### Achievement of project objectives

The effectiveness criterion also measures the extent to which both the specific, as well as the overarching project objectives have been achieved. The physical objectives have been achieved by all projects, except one (6). The expected project outcomes (i.e. wider environmental objectives, institutional reform) were not or only partly achieved in eight projects, which ultimately might have triggered a negative evaluation rating for the effectiveness criterion.

Optimistic project definitions and too wide project objectives, which were outside the promoters' sphere of influence, have hampered the achievement of project objectives. Institutional strengthening and reform were specifically included as objectives in three projects, but failed in two. Wider national or regional objectives, that go beyond the strict project boundaries, were not met for two projects, which raise the question of whether these should be included at all in EIB lending operations.

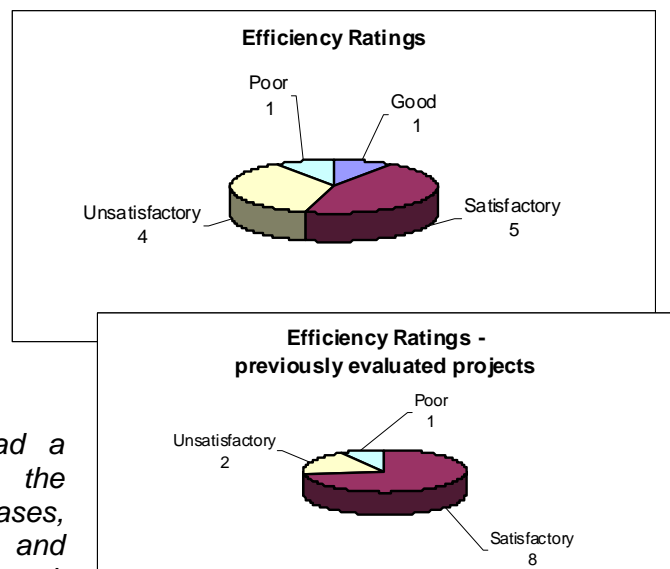
In both framework type operations, direct causal relationships between the various investment components financed by the EIB and the initial objectives set at appraisal can not be fully established. It is difficult to clearly attribute project achievements during a certain timeframe to one specific sub-project.

### 3.3. Efficiency

*Project Efficiency measures the extent to which project benefits/outputs are commensurate with resources and inputs. Here, the evaluation considered the following parameters: a) market/ demand aspects, including capacity utilisation and, for water projects specifically, non-revenue water aspects, b) operations, tariffs and operational efficiency, c) the financial/economic impact of the projects.*

*The majority of projects (55%) had a satisfactory or better rating for the Efficiency Criterion. In most of these cases, demand development, tariff policy and operational efficiency has improved, impacting positively on both the project's and the company's performance. In 45% of all projects, the economic impacts were lower than anticipated or even negative. This resulted from low implementation performance, which together with institutional weaknesses, the non-reduction of inefficiencies and unsatisfactory tariff increases, often exacerbated the performance of the projects.*

*The efficiency ratings for the review of previously evaluated projects are better than the findings of this evaluation (see graph), but to a large extent support the findings of this evaluation. The main problems encountered were failures in the institutional set-up, as well as difficulties in enforcing the necessary tariff increases to cover at least part of the O&M costs.*







considerations underpin the actions of the decision makers, often the political will to implement tariff increases, not only before or during electoral periods, is very limited.

One project exemplifies some of the problems encountered. In project (3), after a period of flat water and sewerage tariffs, the tariffs were increased following a disbursement suspension by the EIB. The increase was still insufficient to meet the financial conditions of the loan and governmental support had to be increased to an even higher level than at the start of the project. No further tariff increases have been implemented in the last 10 years and the Government continues to subsidise the utility, while at the same time requesting higher efficiencies from the utility. Since a large part of these inefficiencies stem from a lack of funds to reduce NRW levels, the utility finds itself in a vicious circle.

Cost recovery is a direct consequence of operating costs and tariff developments. One project covers all costs and six projects of the evaluated sample covered all operational costs (excluding depreciation). The others have a cost recovery ratio between 60-85%. The lack of full cost recovery has an impact on the required governmental support and might have negative repercussions for the continued maintenance and operation of these network services, when funds are not readily available by the promoter, who is dependent on outside financial sources, in particular governmental contributions (see also chapter 3.4).

Important service quality improvements have been observed in a number of projects (i.e. improved waste water services through reduced effluent levels, increased safe potable water provision reducing public health risks, water loss improvements). For some, non continuous water supply and water rationing is still an issue. Intermittent supply creates drawbacks with respect to the physical sustainability of the pipes and induces higher O&M costs and can have inherent potential negative public health impacts.

### **3.3.3. Financial and/or Economic Impact of the Projects**

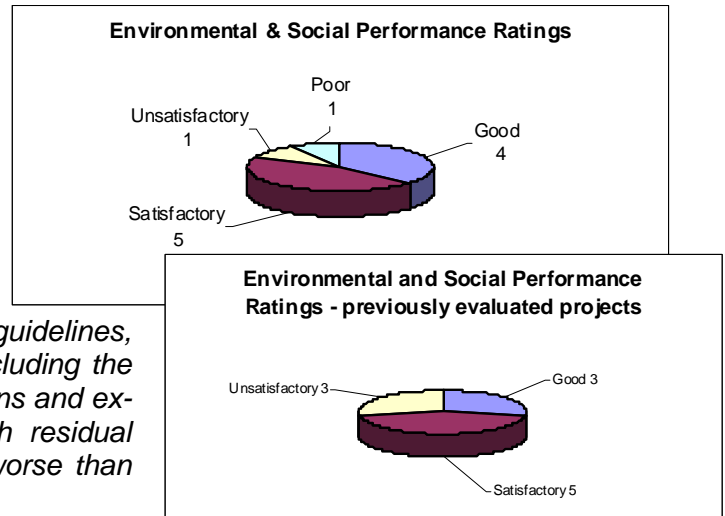
The ex-ante economic viability of EIB funded water and sewage projects is usually based on cost benefit analysis, but often the economic analysis of infrastructure projects is limited to a cost effectiveness (least cost solution) analysis, and a discussion of affordability considerations based on current and future expected tariff developments. In some projects, the consumer willingness-to-pay concept is used to establish the economic benefits, which are then compared in a reverse analysis with the project's long run marginal cost.

With one exception (9), no ex-post profitability calculations were made, since in most cases the available underlying data and assumptions could not be established. For a large number of projects, the anticipated financial and economic impacts could be derived from the implementation performance (e.g. level of delays, cost overruns as well as their level of goal achievement and service delivery improvement). In six projects, the financial and economic results (see also annex 2) were in line or above ex-ante expectation, while for five projects the results were below, and in two cases even a negative economic rate of return can be anticipated. The utility's financial performance is closely linked to its sustainability and will be assessed in detail in chapter 3.4.



### 3.4. Environmental and Social Performance

Beyond the traditional evaluation criteria for Project Performance (effectiveness, efficiency, sustainability), EV systematically highlights and rates the Environmental and Social Impact of the projects. The ex-post rating system specifically considers two categories: (a) compliance with guidelines, including EU and/or national as well as Bank guidelines, and (b) environmental performance, including the relationship between ex-ante expectations and ex-post findings, and the extent to which residual impacts are broadly similar, better or worse than anticipated.



The findings regarding the Environmental and Social Performance criterion are positive in most cases, which is a reflection that (i) where required by national legislation, environmental impact studies have been done, and (ii) beyond appropriate measures to minimise, mitigate and/or compensate environmental impacts, many projects display positive environmental externalities. They clearly contribute to achieving MDGs.

However, two water supply projects stand out negatively, since these have clearly not achieved acceptable environmental performance (3, 6).

These results mirror the findings of the previously evaluated projects. The environmental ratings for almost three quarters of all water and sanitation projects were satisfactory or good, but 27% were rated as unsatisfactory. In general, the effects of the water and sanitation projects are better when considering not only physical environmental effects but also social and health effects.

Environment, the improvement of basic water and sanitation needs and the sustainable management of natural resources are key priorities for the EU, its Member States and the EIB. They are clearly spelled out in the EU's commitment to reach MDGs by 2015 (as outlined in chapter 2.1).

#### Compliance with EIA guidelines

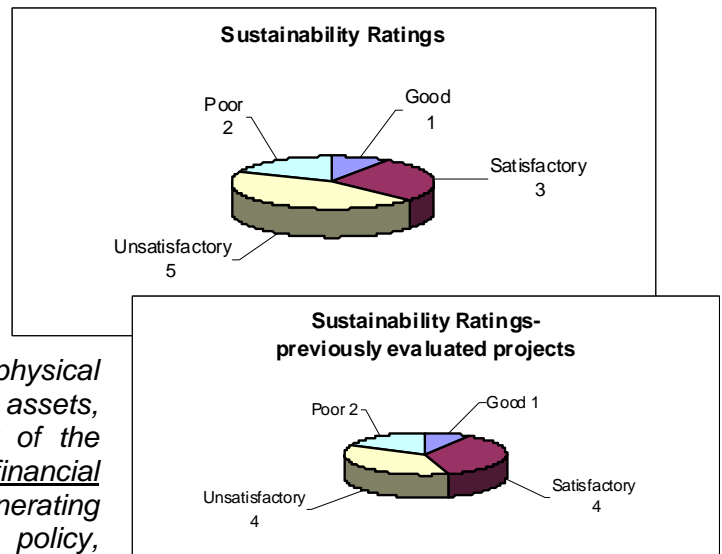
Since a vast number of projects were approved prior to the Bank's official environmental policy statements to be applied outside the European Union, environmental studies were performed without public consultation for the five waste water projects. If these projects were to be approved nowadays, they would have to undergo a full EIA procedure.

Whether or not a water supply project would require an EIA specifically depends on the details of the project. In general, smaller rehabilitation projects, such as projects 10 and 11, would probably not require an EIA, while large water transfer or major rehabilitation projects (5, 9) have in the past and would still require a fully fledged EIA.



### 3.5. Sustainability

The sustainability criterion assesses the probability that the resources are appropriate and sufficient to maintain the outcome achieved over the economic life-time of the project, and that any risks can be managed adequately. In this evaluation, sustainability was analysed under (a) physical and operational sustainability, including the likelihood of reaching the physical and economic lives of the underlying assets, the long-term operational competency of the promoter/project operator, etc. and (b) financial sustainability, including revenue generating capacity through concessions, tariff policy, budgetary allocations, profitability trends, etc.



Only 36% of the projects were rated satisfactory or better. Water and waste water network services are basic infrastructures, which deliver some form of public good or service and/or operate in an at least partially regulated environment. Consequently, it can be almost implicitly assumed that financial sustainability will be given since, in most of the cases evaluated, governments will continue to support their utility. However, should governmental funding be constrained for any reason, the financial resources to ensure the proper maintenance and replacement of critical network components might be endangered, which then triggered a negative rating. Some projects even reveal problems with regard to the physical sustainability.

The sustainability ratings for the previously evaluated projects mirrors the results of this evaluation, with the majority of project rated unsatisfactory or poor. The main problems highlighted at evaluation stage were the financial situation of the relevant companies, as well as the further need for investments.

#### 3.5.1. Physical/Operational Sustainability

Most of the projects achieved their physical sustainability, and whilst small problems remain apparent, they are expected to be managed competently. Four projects reveal major problems in this regard, through either a quantum leap in technology, insufficient promoters' capacities or the choice of the pipe material.

The managerial capabilities of the utilities and promoters in the different countries vary significantly. Four utilities are well managed and have the technical and managerial skills to ensure that the projects are achieving their full economic life. In other projects, although the promoter's overall capacity is adequate, design mistakes have caused problems for satisfactory operational efficiency. Operational inefficiencies, through the high amount of non revenue water for instance, negatively impacts on the financial situation and capacities to properly maintain and operate the facilities in six projects. In addition, frequent staff rotation, or the inability to retain competent personnel, had negative consequences for five projects. The technical and operational performance of some promoters is relatively weak and technical assistance provision (focusing on Institutional Capacity Building) is required to ensure operational sustainability and to strengthen the promoters' capacities.

Therefore, no significant risks to reach the end of the operational lifetime are expected for the majority of projects, but there are a number of cases where this is not entirely ensured.

### 3.5.2. Financial Sustainability

Water and waste water are network services delivering public goods or facilities and often operate in regulated environments. Financial sustainability is therefore almost guaranteed, since governments will continue to support their utility. Consequently it is often a reflection of the country’s willingness and ability to pay for water and sanitation projects. However, should governmental funding be reduced, proper maintenance might be endangered (see chapter 3.2).

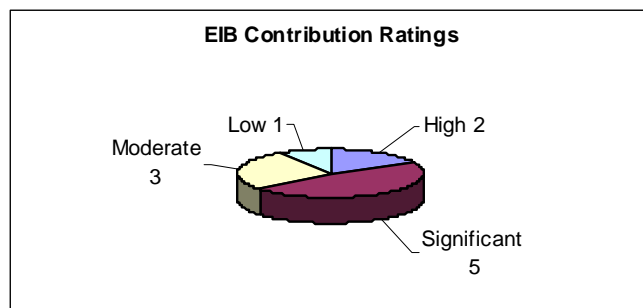
Many of the water and sanitation promoters face institutional weaknesses and as a result are often also in a relatively weaker financial situation. Ensuring that the poorer population can afford the cost of basic services, such as water, is important in any country, but service subsidisation often also leads to service deterioration.

A couple of projects stand out to a certain extent and merit a more detailed reflection. On the positive side, the involvement of a private company through a management contract resulted in significantly improved finances, and even though the utility was in a very weak financial situation, the Government fully supported it and covered debt service for the IFIs. In one project, the company’s financial situation is worsening due to its obligation to embark on investments in loss-making sectors (services in rural areas) and the non automatic revision of tariffs. Two projects continue to be faced with a situation of a very serious financial crisis, whereby the promoters’ creditworthiness declined and the government has failed to step in.

## 4. EIB Contribution

*EIB contribution assesses the Bank’s added value to the projects. The ex-post rating system (high, significant, moderate, low) follows the Bank’s “Third Pillar of Value Added” and considers two categories: (a) the Bank’s financial contribution, including any funding advantage over alternative sources, terms and conditions, etc. and (b) other contributions, which include any non-financial impact the Bank’s presence might have.*

*Overall, the results of the evaluation are positive: the majority of projects (64%) received a rating of significant or high, while 36% of the projects received a moderate or low rating. The EIB contribution is mostly financial through long loan maturity and grace periods, as well as low interest rates.*



*In general, EIB loan terms were appreciated by all the promoters, who stressed in particular: the long tenure, the relatively low interest rates, which are vital for financially weak public utilities, and the fact that the Bank did not charge commitment fees. Loan duration ranged between 18 and 30 years, while grace periods varied between 5-7 years. All but one project benefited from an interest rate subsidy in line with the specific mandates. For a number of projects, EIB funding was critical and/or acted as a catalyst for other financing.*

*Thanks to its experience and expertise, the Bank has at times provided important additional contributions beyond the pure financial aspects. The evaluations found several instances where this additional contribution was important and welcomed by the promoter.*

*In recent years, the EIB has significantly stepped up its provision of technical assistance measures to support promoters in project definition, preparation and implementation.*

## 4.1. Financial Contribution

EIB loan volumes per project vary from EUR 9.2 m to EUR 80 m, ranging from 11% to 49% of project cost. In one case, although being part of a wider project, the EIB project definition and the underlying appraisal were almost exclusively geared towards the EIB project and, consequently, the Bank ended up financing 100% of this project.

The financing schemes followed traditional EIB external lending procedures in most of the projects evaluated, with the borrower and guarantor being the Sovereign State, who then on-lent to the implementing public utility. The underlying on-lending schemes vary: in four projects the government on-lends in local currency and assumes the exchange rate risk, while in another case the exchange risk is transferred to the final promoter.

Loan duration ranged between 18 and 30 years for the projects reviewed, while grace periods varied between 5-7 years. As shown in chapter 3.1.1, these grace periods were not sufficient in all projects evaluated, since project implementation took longer than foreseen. For more than 60% of all projects repayment started before the end of project implementation. Consequently, certain promoters have expressed the wish towards a possible extension of grace periods, to be in line with the completion schedules.

All but one project (11) benefited from an interest rate subsidy (2-4%) according to the specific mandates.<sup>10</sup> Such subsidies are **important in this sector with relatively financially weak promoters**. It is interesting to note that in project 2 for instance, the lending operation benefited from a 3% interest subsidy made available for environmental (and not social) projects. This led to the waste water part of the utility being the sole focus of EIB financing, while similar investment needs existed for the utility's drinking water efficiency improvements. The decision of where to allocate interest rate subsidies remains with the Governments. In one particular case (11), the promoter would have liked to benefit from local currency lending, subsidy and/or grant elements. In fact, a wastewater operation with the same promoter could receive an interest subsidy, but not the drinking water projects. Nowadays, the focus for interest subsidies (or other forms of grant support) would almost certainly comprise also social components.

In general, EIB loan terms were appreciated by all promoters, who stressed in particular the long tenure, the relatively low interest rates, which are vital for many financially relatively weak public utilities, and the fact that the Bank did not charge commitment fees. While the definition and monitoring of framework-type operations pose challenges for both parties, it enlarges the flexibility for the promoter, which was appreciated. In one country grants or soft loans were available, which made EIB financing comparatively more expensive. Some promoters had to pay fees for the sovereign guarantee, increasing the total cost of external funding from bi- or multilateral financing institutions. In these countries, the increased availability of local currency lending by local banks, without a state guarantee, is an attractive option due to lower guarantee costs and no foreign exchange risk.

EIB funding was critical and/or acted as a catalyst for other financing in a number of cases. For projects 1 and 10, the EIB, as the sole funding agency, provided highly critical financial input. In fact, for project 10, works for one sub projects were interrupted due to lack of funds and only restarted when EIB funds were available. In project 5, EIB appraisal was the basis for another financial institution to enter into the financing arrangement, once a financing gap became apparent. Another promoter (11), who has significant external financing needs, maintains relationships with most of the international donor and financing agencies. According to the promoter, the EIB project contributed to the financial closure of certain projects.

## 4.2. Other Contribution

Thanks to its experience and expertise on multiple levels (sector, environment, procurement issues etc.), the Bank has the ability to provide important additional contributions beyond the purely financial aspects. The evaluation found several instances where this additional contribution was important and welcomed by the promoter (see also chapter 6.5).

<sup>10</sup> Interest subsidies are grant financed either from EC budget or from Member States resources.

In particular, the Bank’s technical input in procurement and environmental monitoring was mentioned in six projects. In one project (5), the Bank introduced appropriate conditions in the finance contract to reinforce one of the project’s objectives - the institutional strengthening of the promoter. In project 9, EIB has had a particular impact on its environmental aspects and procedures. Here, the EIB also contributed to the success of the project by advising on the best way to allocate EU funds and through the establishment of an efficient PMU in collaboration with the EU. This PMU allowed a degree of private involvement in the sector and has been described as “the bright side of the capital investment” during the mission.

**Project partners have to be full partners in the provision of any TA**, since without it, not only the specific project TA might be only superficial, but even more importantly, the sustainability of any new structure is not ensured. If TA is only perceived as a temporary measure to facilitate loan administration, TA impact and sustainability are limited – often one has to start from scratch in any new project.

In recent years, the EIB has increased its provision of technical assistance measures to support promoters in project definition, preparation and implementation. Existing TA facilities for water and sanitation projects outside the EU include, for instance, specific TA facilities under the Facility for Euro-Mediterranean Investment and Partnership (FEMIP) Support and Trust Fund, specific urgent TA support for the Western Balkans, as well as recent new initiatives for the ACP countries (see box).

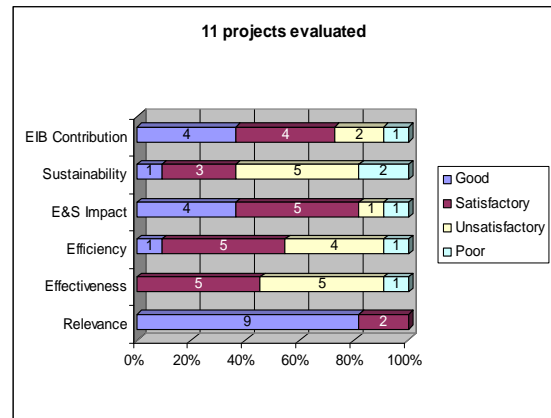
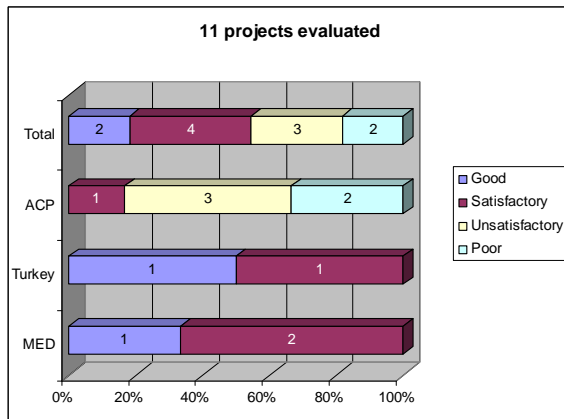
<p><b><u>Facility for Euro-Mediterranean Investment and Partnership (FEMIP)</u></b></p> <p><b>FEMIP Support Fund:</b> EUR 105 m – of which 25% has been used for water projects – using EC grants in support of EIB-financed projects to assist promoters throughout the project cycle.</p> <p><b>FEMIP Trust Fund:</b> funded by the EU Member States and the EC, is more specifically used for upstream activities such as support for institutional reform, sector development strategies and training.</p> <p style="text-align: center;"><b><u>Recent Technical Assistance (TA) facilities for the ACP region:</u></b></p> <p><b>THE ACP-EU Water Facility:</b> The financial dimension of the EU water Initiative (EUR 0.5 bn) was launched in 2004 as a water dedicated instrument for ACP countries. It freed up TA funds and should allow for more effective co-financing with EU grants and EIB financing instruments. It represents a shift in paradigm through an effective and close collaboration with the EU Commission.</p> <p><b>EU Africa Infrastructure Trust Fund:</b> In the context of the 2005 Gleneagles Declaration and the establishment of an EU Strategy for Africa, the European Union and African counterparts established a Partnership for African Infrastructure. The EU-Africa Infrastructure Trust Fund is a new financial instrument launched in 2007 supporting the implementation of the Partnership. The Trust Fund benefits cross-border and regional infrastructure projects in sub-Saharan Africa. It channels grant resources from the Commission and Member States in such a way that they can be blended with the lending capacity of the EIB and Member State development financiers. The target infrastructure sectors are energy, water, transport and telecommunications</p> <p><b>Water Project Preparation Facility (WPPF),</b> co-financed by the EU Water Facility to provide TA support for upstream project preparation activities for water and sanitation projects.</p>
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## 5. Project Results

The ratings on relevance, project performance and EIB contribution reflect the EIB’s three pillars of value added. As outlined in the introduction, the 11 operations were evaluated on the basis of the internationally accepted evaluation criteria of Relevance, Effectiveness, Efficiency and Sustainability). In addition, EV considers a specific rating for the Environmental and Social Impact of the projects evaluated. This forms the basis for the aggregated project rating in this evaluation.

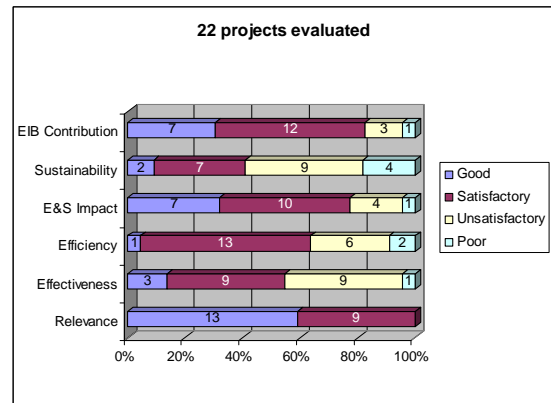
Annex 1 presents the findings from the Economic and Social Impact Assessment test application for the eleven projects evaluated.

The results for this evaluation are depicted in the graph below. 55% of the projects have received a satisfactory or good rating (see graphs below).



Sectorially, it appears that water projects seem to encounter more problems than waste water projects, and consequently receive relatively poorer ratings.

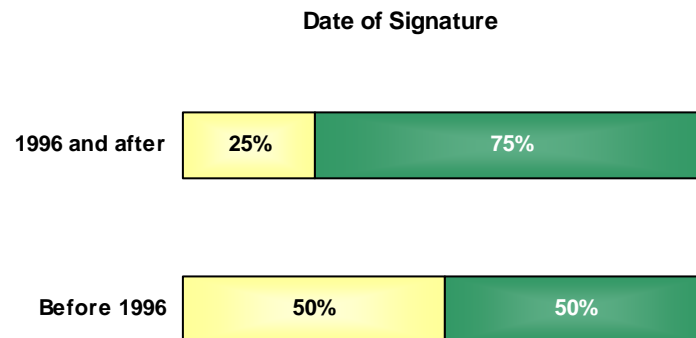
In order to extend the representativeness of the global results, the next graph combines the results of the 11 operations evaluated in this evaluation with the 11 previously evaluated water and sanitation operations outside the EU. This strengthens the findings of this evaluation.



Conclusions:

- More than two third of 22 projects were rated satisfactory or good, while about one third received a negative rating.
- All projects evaluated so far in Mediterranean countries have received a satisfactory or better rating with a similarly positive outcome for Turkey with 80% of all projects rated positively. These good sub- regional results might reflect more support by the Bank through appropriate technical assistance, better project preparation (METAP), more regular follow up and presence. In addition, appropriate coordination and cooperation with other IFI's have often contributed to good project results (see also chapter 4.2 and 6.5).
- For ACP countries, the evaluation outcome is more negative, since for the overall sample of 22 projects, 75% of them were rated unsatisfactory or worse. Disaggregating the region into Caribbean and other ACP countries, it appears that all three projects in the Caribbean evaluated so far and 60% (3) of all projects in other ACP countries were rated negatively. 40% (2) of the ACP projects received a positive rating. This again appears to be a reflection of more complicated follow up in remote areas, where a regular follow up can not be guaranteed.
- Two projects in ALA were evaluated in the past and have received at the time a negative rating<sup>11</sup>.

The comparison of signature date and hence EIB appraisal period with project ratings is presented in the following table for the wider sample (22 projects):



75% of projects signed after 1996 were rated satisfactory or better, while this share drops to 50% for signature dates of 1995 or before.

The evaluation of 17 water projects in the Mediterranean (1999)<sup>12</sup> has not been considered for this aggregation, due to changes in the EV rating system over time, but one conclusion from this older evaluation is striking and is in line with findings from the current analysis: “*The performance of this group of projects has to be regarded as poor*”. For some 25 water and sanitation operations evaluated so far, the performance is often unsatisfactory, which is reinforced through the project implementation review (see chapter 3).

<sup>11</sup> The past projects were not re-evaluated and any possible (positive or negative) variation of project performance since the time of the evaluation has not been considered.

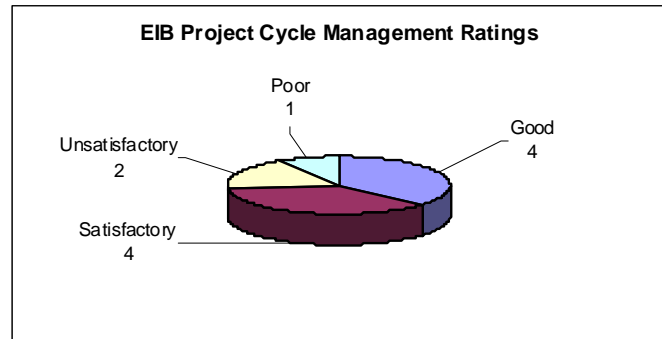
<sup>12</sup> Of which nine were outside the European Union.



## 6. EIB Project Cycle Management

*Most of the projects were identified either through repeat operations or jointly with other IFIs. In a number of cases, the Bank's technical and financial appraisal skills improved the overall quality of the project and highlighted a number of imminent factors to be overcome for successful project implementation. In general, the project appraisal was both appreciated by the promoters and relatively fast.*

*The Bank's performance in the project cycle management was in most cases satisfactory or better (73%). In some cases deficiencies in the internal project management are apparent.*



*In a number of countries, a pipeline of water and sanitation projects has been developed, while in other country or regions were served on a more opportunistic "one-off" approach. Donor coordination and complementarity varied in the projects evaluated, ranging from almost none (3) or limited ex-ante collaboration (4, 6, 10), to very high levels of cooperation and complementarity (2, 5, 8, 9). EV has formulated a number of specific recommendations to further improve the EIB's project cycle management.*

### 6.1. Project identification and pre-appraisal

For the projects evaluated, EIB project identification and selection was made through three main channels, or a mixture thereof: a) repeat operations with the same promoter (3, 5, 9, 10, 11), b) joint identification with, or based on, documentation available from other IFIs (4, 6, 7), c) by the promoter directly approaching the EIB (1, 2).

Once identified, the projects went through the internal screening process with the emphasis placed largely on the projects' bankability. Initial screening prior to entering of projects into the EIB project cycle is an important activity performed by the Bank reducing resource input at later stages (see chapter 1).

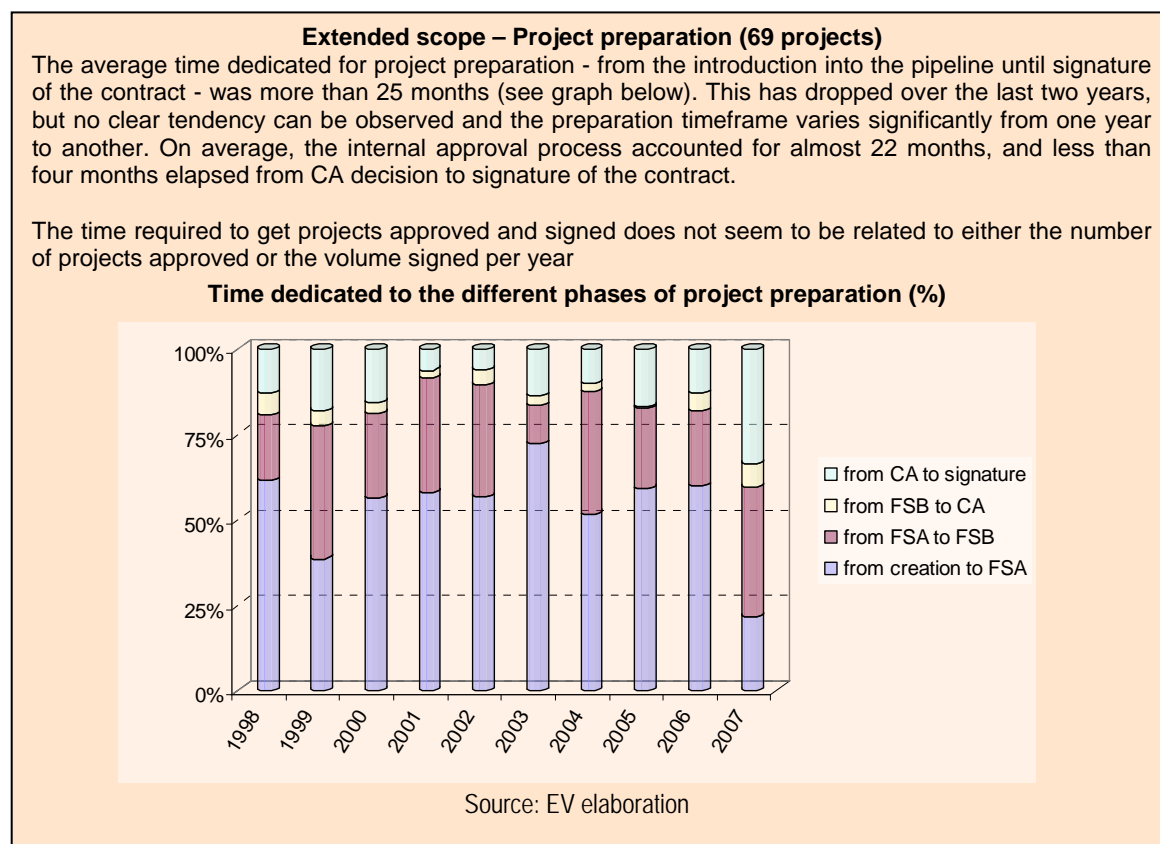
With few exceptions, no real coherent sector approach could be identified for most of the projects evaluated. They were often individually driven, rather than representing a coherent overall EIB approach.

A similar issue can be raised with regard to the timing of the EIB's involvement in the sector. While the benefits of early involvement can be multiple and beneficial, as some of the projects have shown, it can also lead to premature participation. This might be acceptable in regions where a continuous follow-up is/can be ensured, but seriously hampers the Bank's capabilities to implement projects satisfactorily in regions where there are less monitoring opportunities.

More value added can be generated by EIB intervention where a **continued presence in the sector can be ensured**, which could trigger specific donor conferences with follow up investment projects, or imply changes in the Bank's strategy.

In some cases, the Bank's inherently project oriented approach resulted in one off actions, which, combined with their relative remoteness, failed. In fact, the Bank has only recently formulated an explicit water lending strategy. However, in the discussions with the Bank's staff, a more arbitrary approach for project selection became apparent, i.e. "take the projects as they come" without a clear sector development strategy for regions or countries. In most regions, close cooperation with the European Commission and other donors is a prerequisite for successful sector development and subsequent project identification.

**Country/regional sector orientations, ideally formulated in conjunction with EU planning cycles, could clarify the Bank’s sector approach and raise its sector profile, both internally and externally.** A focus on certain countries might be required.



## 6.2. Appraisal

Most of the projects were appraised more than 10 years ago and appraisal standards and level of detail have improved over time, which is evidenced by the review of more recent water and sanitation projects (see chapter 6.4). In a number of cases, the Bank’s technical and financial appraisal skills improved the overall quality of the project and highlighted a number of imminent factors to be overcome for successful project implementation. In general, the project appraisal was appreciated by the promoters and not felt to be too burdensome. The appraisal process for most of the projects in the evaluated sample was fast, perhaps sometimes even too fast. In some cases, the evaluation perceived that the loan was “rushed through the system” to achieve approval/signature targets, without taking the full time required to assess all factors of the operation (2, 7, 8). In project 2 for instance, while the needs for repair of the network were vital, the project was signed before the detailed feasibility study was completed.

Given the length of time elapsed since the appraisal of the projects in reference, the following paragraphs only present some of the most important lessons learnt from the appraisal process and which, from EV’s point of view, still require continued attention by the Bank.

Project definition and objectives: **Realistic appraisal assumptions are required**, since in six cases project definition and the specific as well as the broader objectives were far too ambitious and therefore not achievable. The latter raises the question of to what extent broader national and regional objectives, which go well beyond the direct control and influence of the promoter, should be incorporated into EIB lending operations. In one project the material choice was wrong, which demonstrates that the **Bank should also take an active role in project components not financed by the Bank** if these are of particular importance for the overall project success.

**Performance indicators can be important tools to allow proper monitoring and ex-post evaluation** in water and sanitation projects. As a general remark, to a large extent this has been neglected for the projects in reference, which made a proper assessment difficult. Performance indicators for the assessment of a project's results (output, outcomes and objectives) should be established consistently at appraisal, be measurable and, where possible, supported by baseline data and a project financed process of data collection in order to allow the real assessment of project achievements. Apart from the more directly related financial indicators, there is often little data on the health and social aspects to which the water and waste water sectors are closely related and have a significant impact.

### 6.3. Project Implementation/Financing Arrangements

Most of the projects' promoters were satisfied with EIB procedures to support project implementation. Disbursement flexibility and handling were in most cases adequate and no major problems were reported from the promoters.

For seven projects in this evaluation, project conditions and undertakings were only partly or not fulfilled, with no or limited impact on disbursements. **The EIB should take care not to define a (too) high number of undertakings and conditions** and, in some cases, it may be preferable to issue a negative opinion for a given project if the problems cannot be settled ex-ante.

**Conditions are important to structure and impact on sector or operator performance and can, for instance, induce tariff increases, but they have to be addressed towards counterparts, who can actually fully influence and enforce them.** If specific financial performance indicators, and in particular tariff increases, are to be achieved during project implementation, a clear road map and commitment is needed as to how these targets should be achieved and what resources would be required to make it possible. In some projects too much emphasis was given to tariff increases, in a way that the increase became a goal in itself rather than addressing the inefficiencies that cause the high operating and maintenance cost and ultimately revenue losses.

As shown earlier, grace periods were not sufficient for all the projects evaluated, since project implementation took significantly longer than foreseen. For more than 60% of all projects, repayment started significantly before the end of project. **Grace period length should be reconsidered for projects showing significant implementation delays.**

Project management units (PMUs), together with specific technical assistance provisions, can be important instruments to support institutional capacity building and to facilitate and ensure adequate and smooth project implementation (see chapter 3.1.1). **A thorough assessment of a technical assistance facility, financed either through the loan or a formal agreement with a co-financing partner, should be an integral part of future operations - in particular in more remote areas where follow-up is more difficult.**

## 6.4. Monitoring

### Changes in project scope

For seven of the projects the promoters' progress reporting was relatively poor and in contrast to the contractual requirements fixed at appraisal. Close attention is needed to ensure proper reporting from the promoter.

This situation had a very significant impact for five projects, since the Bank seemed to be unaware of some of the (partly) very important changes to the projects' scope during implementation. In some cases the Bank accepted significant changes to the project post approval, with neither a documented reassessment of the project's quality nor appropriate reporting to and approval from the Bank's management. **Major modifications to the original project scope and concept should be properly documented, approved if necessary by the Bank, and ultimately they should be monitored.**

As already highlighted in a number of previous evaluations, this evaluation also found some inconsistencies in the Bank's electronic data management tools, which have been reported separately to the Bank's services. This not only creates problems for ex-post evaluation, but obviously renders project monitoring very difficult. Consequently, the **EIB internal data management and monitoring tools must be further improved.**

### Intermediate Review

Considering the long implementation delays in the sector, an **Intermediate Review (IR) is considered to be a powerful tool for reviewing and assessing project implementation and should be used regularly by the Bank.** Given the difficulties experienced in the sector, normal monitoring does not seem to be sufficient and a full intermediate assessment of the projects may be required. An intermediate review/workshop should be conducted (by the IFIs – in the case of significant co-financing) in order to a) correct, in time, any inadequacies of the project definition and/or implementation aspects and b) report and get approval from the Bank's management, if justified.

### Staff resources

Monitoring resources within the Bank have been increased recently, but it remains to be seen whether this will be sufficient for the sector requirements. The involvement and diligence of EIB staff in the regular monitoring of the projects varied from high EIB input with important contributions (projects 1, 5, 8, 11) to a hands-off "laissez faire" approach. In one of the framework operations (11) a complex approval mechanism for the sub-projects was initiated; due to the changed scope the large number of small sub-projects had very important resource impacts, since the services of the Bank had to devote significant time and resources to get the operation up and running.

**PJ monitoring requirements for projects approved for the period 1.1.2006 – 01.07.2008**

In an attempt to quantify monitoring requirements (only from PJ staff), EV has analysed all EIB approved projects in the water and sanitation sectors (75 – 56 OPSA, 19 OPSB) between 1.1.2006 and 31.7.2008 and examined the staff requirement for monitoring as estimated by PJ at appraisal. The results are given in the table below, which shows that, for the year 2009 for instance, almost 3 PJ staff members will be fully occupied to only monitor these projects. This obviously does not take into account the identification and appraisal of any new operation and/or the monitoring of any “old” projects that still require high monitoring input.

	2007	2008	2009	2010	2011	2012	2013	2014	2015
OPSA									
2006	74.5	74.5	69	56.5	47	28	4	4	14
2007	129	125	125	125	104	60	35	35	35
2008	42.5	65	65	55	51	51	41.5	33	33
Sub-Total	246	264.5	259	236.5	202	139	80.5	72	82
OPSB									
2006	81.5	81.5	81.5	81.5	35	10	0	0	0
2007	68	50.5	50.5	50.5	45.5	45.5	0	0	0
2008	6	26	146	56	96	36	20	0	0
Sub-Total	155.5	158	278	188	176.5	91.5	20	0	0
<b>TOTAL</b>	<b>401.5</b>	<b>422.5</b>	<b>537</b>	<b>424.5</b>	<b>378.5</b>	<b>230.5</b>	<b>100.5</b>	<b>72</b>	<b>82</b>
Man years	1.9	2.0	2.6	2.0	1.8	1.1	0.5	0.3	0.4
210 man days p.a. excl. holidays									

**The importance and internal acceptance of monitoring has to be raised further.** In this sector, and in particular in more remote areas, a proactive approach is required (either directly by the EIB or in close cooperation with other IFIs – see § 6.5). Continued presence in the sector and positive experiences with the EIB can trigger new projects in other areas of the country. If the Bank accepts the challenge of supporting such projects, which given their high visibility and significant environmental and social contribution seems justified, **appropriate resources have to be allocated to ensure that project appraisal, implementation monitoring (both physical and financial) and project completion reporting is done to the highest standards.**

**Project Completion Reports (PCRs)**

Completed PCRs were analysed for the in depth sample. In most cases the quality of the self evaluation process was acceptable and could be mostly confirmed ex post (except projects 5, 7, 10). In three projects (4, 6, 11) VA pillar 1 was not rated and in general the ratings for pillar 1 tended to be slightly lower. In most cases no ex ante ratings for the environmental category was introduced. At PCR stage, seven projects were rated B 1 – (“acceptable with minor residual impacts”) or A – (“acceptable without reservations in environmental terms), which was confirmed ex post for these projects. For the results of EV’s self-evaluation analysis for the water and sanitation sector, see box below.

**Extended Scope: Survey of Self Evaluation Procedure through  
Project Completion Reports (PCRs) for Water and Sanitation projects outside the EU-27**

PJ issued 25 PCRs between 2004 and 2008 for water and sanitation projects outside the EU-27 (4 in the Accession countries, 9 in the ACP countries, 2 in the EFTA countries and 10 in the Mediterranean countries).

The sub-sectoral project split is as follows: 10 water supply, 10 sanitation, 3 combination of water and sanitation and 2 irrigation projects.

**Key Findings:**

- A majority of the 25 water and sanitation projects (60%) were deemed to contribute “highly” to EU objectives.
- While more than 75% of the projects reviewed were considered “satisfactory” or better from a project quality/soundness perspective, less than one quarter were considered “unsatisfactory”.  
The main problems reported were related to the implementation time and the expected final cost.
  - The average delay in implementation was 3.4 years. Only 4 projects were completed within a 1-year delay or earlier than planned. 11 projects were implemented within a delay longer than 3 years (2 of them with 9 year-delay).
  - The final cost of 18 out of the 25 projects was within the range +/- 15% of the initial cost. Two extreme cases were reported (-48% -- +56 % of the ex-ante project cost).
- The findings are somehow better than the results of this specific in-depth project evaluation, but also hint towards significant problems during implementation with ultimate negative repercussions on the project’s soundness.
- Finally, the Bank’s self-evaluation procedure is a key step in the institutional learning process and internal dissemination should be improved.

**- Value Added Pillar 1 Ratings -**

The contribution to EU objectives was considered “high” in 58% of the present desk review portfolio, “medium” in 13%, and as “moderate” in 8% of the projects in the sample. 21% of the PCRs did not receive any rating for VA Pillar 1.

Region (# countries)	Number of PCRs	High	Medium	Moderate	Low	Blank
Turkey (1)	4	4	0	0	0	0
ACP States (8)	9	3	2	1	0	3
Mediterranean countries (5)	10	6	1	1	0	2
EFTA (1)	2	2	0	0	0	0
<b>TOTAL</b>	<b>25 (100%)</b>	<b>15 (60%)</b>	<b>3 (12%)</b>	<b>2 (8%)</b>	<b>0</b>	<b>5 (20%)</b>

**- Value Added Pillar 2 Ratings-**

The results of the self evaluation process for the projects’ quality and soundness were satisfactory or better for 76%. Unsatisfactory ratings were observed in ACP (22% - both projects in the Caribbean) and Mediterranean countries (40%), while sectorally they were split between water supply (2), sanitation (2), water supply and sanitation (1) and irrigation (1).

Region (# countries)	Number of PCRs	Good	Satisfactory	Unsatisfactory	Low	Blank
Turkey (1)	4	2	2	0	0	0
ACP Countries (8)	9	0	7	2	0	0
Mediterranean Countries (5)	10	2	4	4	0	0
EFTA (1)	2	1	1	0	0	0
<b>TOTAL</b>	<b>25 (100%)</b>	<b>5 (20%)</b>	<b>14 (56%)</b>	<b>6 (24%)</b>	<b>0</b>	<b>0</b>

**- Value Added Pillar 3 Ratings**

“Financial benefits obtained by use of EIB funds” were reported in only three of the PCRs analysed (where a qualitative assessment was offered). 2 of them were rated as good and 1 as satisfactory. Recently, the Bank has initiated steps towards clearer procedures regarding the VA Pillar 3 self-evaluation process.













In 1995, Operations Evaluation (EV) was established with the aim of undertaking ex-post evaluations both inside and outside the Union.

Within EV, evaluation is carried out according to established international practice, and takes account of the generally accepted criteria of relevance, efficacy, efficiency and sustainability. EV makes recommendations based on its findings from ex-post evaluation. The lessons learned should improve operational performance, accountability and transparency.

Each evaluation involves an in-depth evaluation of selected investments, the findings of which are then summarized in a synthesis report.

The following thematic ex-post evaluations are published on the EIB Website:

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4. Evaluation of Industrial Projects Financed by the European Investment Bank under the Objective of Regional Development (1998 - available in English, French and German)
5. An Evaluation Study of 17 Water Projects located around the Mediterranean (1999 - available in English, French, German, Italian and Spanish).
6. The impact of EIB Borrowing Operations on the Integration of New Capital Markets. (1999 – available in English, French and German).
7. EIB Contribution to Regional Development A synthesis report on the regional development impact of EIB funding on 17 projects in Portugal and Italy (2001 – available in English (original version), French, German, Italian and Portuguese (translations from the original version)).
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14. EIB Financing of Urban Development Projects in the EU (2003 – available in English (original version), French and German (translations from the original version)).
15. Evaluation of the Projects Financed by the EIB under the Asia and Latin America Mandates (2004 – available in English (original version), French, German and Spanish).
16. Evaluation of EIB Financing of Airlines (2004 – available in English (original version) French and German)

17. Evaluation of EIB Financing of Air Infrastructure (2005 - available in English (original version) German and French)
18. EIB financing with own resources through global loans under Mediterranean mandates (2005 - available in English (original version) German and French.)
19. Evaluation of EIB Financing of Railway Projects in the European Union (2005 - available in English (original version) German and French.)
20. Evaluation of PPP projects financed by the EIB (2005 - available in English (original version) German and French).
21. Evaluation of SME Global Loans in the Enlarged Union (2005 - available in English (original version) and German and French.)
22. EIB financing with own resources through individual loans under Mediterranean mandates (2005 - available in English (original version) and German and French.)
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