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Report No. 31626

PROJECT PERFORMANCE ASSESSMENT REPORT

ALBANIA

DURRES WATER AND SANITATION REHABILITATION PROJECT
CREDIT 2610-ALB

AND

WATER SUPPLY URGENT REHABILITATION PROJECT
CREDIT 3322-ALB

February 14, 2005

Sector, Thematic and Global Evaluation Group
Operations Evaluation Department

Currency Equivalents (annual averages)

Currency Unit = Lek

1993	US$1.00	Lek 105.63
2000	US$1.00	Lek 149.95
2004 (August)	US$1.00	Lek 101.62

Abbreviations and Acronyms

DDSW	Durres District Sewerage Works
DDWW	Durres District Water Works
DWSR	Durres Water and Sanitation Rehabilitation (project)
DWW	Directorate of Water and Wastewater
GOA	Government of Albania
ICR	Implementation Completion Report
IDA	International Development Association
MPW	Ministry of Public Works, Territory Adjustment, and Tourism
OED	Operations Evaluation Department
PAD	Project Appraisal Document
PCR	Project Completion Report
PIU	Project Implementation Unit
PMR	project Management Report
PMST	Project Management Support Team
PPAR	Project Performance Assessment Report
PPF	Project Preparation Facility
PSP	Private Sector Participation
SAR	Staff Appraisal Report
TA	Technical Assistance
UfW	Unaccounted-for Water
WSUR	Water Supply Urgent rehabilitation (project)

Fiscal Year

Government: January 1 – December 31

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OED Mission: Enhancing development effectiveness through excellence and independence in evaluation.

About this Report

The Operations Evaluation Department assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, OED annually assesses about 25 percent of the Bank's lending operations. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons. The projects, topics, and analytical approaches selected for assessment support larger evaluation studies.

A Project Performance Assessment Report (PPAR) is based on a review of the Implementation Completion Report (a self-evaluation by the responsible Bank department) and fieldwork conducted by OED. To prepare PPARs, OED staff examine project files and other documents, interview operational staff, and in most cases visit the borrowing country for onsite discussions with project staff and beneficiaries. The PPAR thereby seeks to validate and augment the information provided in the ICR, as well as examine issues of special interest to broader OED studies.

Each PPAR is subject to a peer review process and OED management approval. Once cleared internally, the PPAR is reviewed by the responsible Bank department and amended as necessary. The completed PPAR is then sent to the borrower for review; the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the OED Rating System

The time-tested evaluation methods used by OED are suited to the broad range of the World Bank's work. The methods offer both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. OED evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (more information is available on the OED website: http://worldbank.org/oed/eta-mainpage.html).

Relevance of Objectives: The extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). *Possible ratings:* High, Substantial, Modest, Negligible.

Efficacy: The extent to which the project's objectives were achieved, or expected to be achieved, taking into account their relative importance. *Possible ratings:* High, Substantial, Modest, Negligible.

Efficiency: The extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. *Possible ratings:* High, Substantial, Modest, Negligible. This rating is not generally applied to adjustment operations.

Sustainability: The resilience to risk of net benefits flows over time. *Possible ratings:* Highly Likely, Likely, Unlikely, Highly Unlikely, Not Evaluable.

Institutional Development Impact: The extent to which a project improves the ability of a country or region to make more efficient, equitable and sustainable use of its human, financial, and natural resources through: (a) better definition, stability, transparency, enforceability, and predictability of institutional arrangements and/or (b) better alignment of the mission and capacity of an organization with its mandate, which derives from these institutional arrangements. Institutional Development Impact includes both intended and unintended effects of a project. *Possible ratings:* High, Substantial, Modest, Negligible.

Outcome: The extent to which the project's major relevant objectives were achieved, or are expected to be achieved, efficiently. *Possible ratings:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Bank Performance: The extent to which services provided by the Bank ensured quality at entry and supported implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of the project). *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

Borrower Performance: The extent to which the borrower assumed ownership and responsibility to ensure quality of preparation and implementation, and complied with covenants and agreements, towards the achievement of development objectives and sustainability. Possible ratings: Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

Contents

This report was prepared by Tauno K. Skytta, Consultant, who assessed the project in June 2004. The report was edited by William Hurlbut. Soon-Won Pak provided administrative support.

Principal Ratings

	ICR	*ICR Review**	*PPAR*
Durres Water and Sanitation Rehabilitation Project (Credit 2610-ALB)			
Outcome	Unsatisfactory	Unsatisfactory	Unsatisfactory
Sustainability	Unlikely	Highly unlikely	Likely
Institutional Development Impact	Modest	Negligible	Negligible
Bank Performance	Unsatisfactory	Unsatisfactory	Unsatisfactory
Borrower Performance	Unsatisfactory	Unsatisfactory	Unsatisfactory
Water Supply Urgent Rehabilitation Project (Credit 3322-ALB)			
Outcome	Satisfactory	Satisfactory	Satisfactory
Sustainability	Likely	Likely	Likely
Institutional Development Impact	Modest	Modest	Modest
Bank Performance	Satisfactory	Satisfactory	Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Satisfactory

* The Implementation Completion Report (ICR) is a self-evaluation by the responsible operational division of the Bank. The ICR Review is an intermediate Operations Evaluation Department (OED) product that seeks to independently verify the findings of the ICR.

Key Staff Responsible

Project	*Task Manager/Leader*	*Division Chief/ Sector Director*	*Country Director*
Durres Water and Sanitation Rehabilitation Project (Credit 2610-ALB)			
Appraisal	Richard MacEwen	Rory O'Sullivan	Kemal Dervis
Completion	Andreas Rohde	Ricardo Halperin	Christiaan J. Poortman
Water Supply Urgent Rehabilitation Project (Credit 3322			
Appraisal	Augusta Dianderas	Walter A. Stottmann	Arntraud Hartmann
Completion	Andreas Rohde	Sumter Lee Travers	Nadir Mohammed

Preface

This is the Project Performance Assessment Report (PPAR) on the Durres Water and Sanitation Rehabilitation Project and on the Water Supply Urgent Rehabilitation Project.

The Durres Water and Sanitation Rehabilitation Project, estimated at appraisal to cost US$19.5 million, was approved in May 1994 for an IDA credit of US$11.6 million of which US$11.4 million was disbursed (the difference was due to exchange rate fluctuations). The project closed in October 2000 at the Bank's request to terminate the credit 14 months ahead of its scheduled closing date. Total project costs at completion were US$17.2 million of which the Government of Albania provided US$5.5 million or 32 percent. Durres District Water Works failed to provide its share of US$2.0 million. USAID provided cofinancing of US$0.3 million.

The Water Supply Urgent Rehabilitation Project, estimated at appraisal to cost US$14.6 million, was approved in February 2000 for an IDA credit of US$10.0 million of which US$9.9 million was disbursed (the difference was due to exchange rate fluctuations). The Government of Albania contributed US$4.6 million or 31 percent of total costs. The project closed in March 2004 one year behind schedule.

This report is based on the review of the Implementation Completion Reports for these two projects (Report No. 22207 dated June 15, 2001 and Report No. 29687 dated August 24, 2004), both prepared by the Infrastructure Sector Unit of the Europe and Central Asia Region. This was supplemented by the respective Memoranda and Recommendations of the President, Staff Appraisal Report and Project Appraisal Document, credit and legal documents, project files at the World Bank's headquarters and in its Tirana country office, and discussions with Bank staff. An Operations Evaluation Department (OED) mission visited Albania in June 2004 to discuss the effectiveness of the Bank's assistance with the Government, development partners, and representatives of project participating/implementing water companies and other relevant organizations. The cooperation and assistance of central government officials, management and staff of visited water companies, and other parties concerned are gratefully acknowledged.

This PPAR is part of a regional assessment of several water and sanitation projects that have included similar projects in Bosnia and Herzegovina, Bulgaria, Croatia and the Baltic States. It provides an assessment of the outcome of the Bank's assistance that sought to enable Albania to reform water and wastewater utilities and improve environmental conditions in urban areas.

Following standard OED procedures, copies of the draft PPAR was sent to government officials and agencies for their review and comments. The set of comments received from the Mayor of Durres are attached (Annex C).

Summary

The Albania Durres Water and Sanitation Rehabilitation Project was approved in 1994 and closed in 2000. It was followed in 2000 by the Water Supply Urgent Rehabilitation Project that closed in 2004. Both projects focused primarily on the rehabilitation of the existing water supply facilities to eliminate water shortages and associated health risks, the first focusing on Durres with a population of 220,000, the second expanding rehabilitation improvements to benefit 140,000 people in Fier, Lezha, and Saranda. While the Durres project aimed to establish a strong local institutional framework to ensure the sustainability of water services, the Urgent Rehabilitation project was more of a stop-gap operation linked to the Kosovo refugee crisis and the preparation of the follow-on Municipal Water and Wastewater Project approved in January 2003. As such, the Urgent Rehabilitation project continued to reinstate the most vulnerable parts of the water supply systems and supported basic operational improvements.

The assessed projects were prepared and implemented at a time when major economic and political changes took place in Albania. The Durres project's institutional objective was overly optimistic in the light of time available and misjudged borrower ownership, thus its relevance was modest. Conversely, the physical objectives of both projects were highly relevant because urgent rehabilitation was essential to ensure the continuity of vital water supply and sewerage services and to pave the way for subsequent commercialization of the water and sewerage utilities.

The Durres project achieved most of its physical objectives to salvage the supply network from further deterioration but the expected improvements in operations and water sales were not achieved. Achievements of institutional objectives fell short of the targeted reforms. The outcome is rated as unsatisfactory and institutional development impact is rated as negligible. Sustainability of project benefits is rated as likely primarily because of rejuvenated government ownership, subsequent introduction of sound sector policies, and the continued support of external development partners.

The Urgent Rehabilitation project achieved its physical objectives with few shortcomings. Overall, the deterioration of service quality was halted and operational improvements led to slightly better and more reliable service delivery. The outcome is rated as satisfactory, institutional development impact is rated as modest, and the sustainability of project benefits is likely.

Bank and Borrower performance are rated as unsatisfactory for the Durres project and as satisfactory for the Urgent Rehabilitation project.

This project performance assessment supports three lessons for broader application:

Lesson 1. *It is important to exercise flexibility when a project faces implementation problems in a seriously difficult situation.*

The primary focus of these two projects on physical rehabilitation was appropriate given government's preoccupation with political reform and civil unrest. It also provided time to nurture on institutional reform agenda and build borrower buy-in. This subsequently made it possible to help the government cope with the urgent issues ongoing from the 1999 crisis caused by the influx of refugees from Kosovo.

Lesson 2. *Sequencing of demanding reform activities and major rehabilitation efforts, as well as the timeframe for their implementation, need to be adequately analyzed to take full account of practical priorities and the available implementation capacity.*

Too many demanding activities at one time may over-tax the implementation capacity of utilities – a thorough evaluation of local capacity is essential. The Bank also needs to take the time to ensure that there is a firm commitment among stakeholders to accomplish sector reforms. In the evaluated projects, the need for institutional reform only became clear to many stakeholders when investment in infrastructure improvement alone failed to improve significantly service delivery and operational indicators.

Lesson 3. *The early establishment of a benchmarking system is important for facilitating appropriate monitoring of progress and evaluation of impact of activities.*

The Urgent Rehabilitation project initiated the benchmarking of sector activities. Reliable data on sector and project performance is now at last enabling comparison and analysis of factors affecting utility performance.

Gregory K. Ingram
Director-General
Operations Evaluation

1. Background

1. When Albania started the transition from central planning to a market economy, it was the poorest and most isolated and backward country in Europe. For centuries, Albania had been largely unknown and inaccessible, and, from 1945 to 1985, its isolation was compounded by the rigid communist dictatorship of Enver Hoxha, which eliminated almost all forms of private property and virtually cut off the country from outside influences and information. When transition began in 1991, the country had been reduced to desperate poverty, and the vast majority of its population was unfamiliar with market institutions and practices.

2. Although subsequent growth has been impressive, GDP per capita almost tripling from US$610 to US$1,740 over the period1994-2003, Albania remains one of the poorest countries in Europe.[1] Macroeconomic stabilization, structural reforms, and improved allocation of resources to more productive activities have been the main engines of the economic growth. Even so, since 1990, about 20 percent of the total population has emigrated, Greece and Italy being the two principal recipient countries. Remittances from migrants are currently the largest source of foreign exchange. Balancing this emigration, Albania was inundated by refugees from the Kosovo crisis. Poverty, however, remains high and pervasive both in monetary terms and in the lack of access to basic services such as water, health, and education. A quarter of the population is below the poverty line.

3. The economy is bolstered by remittances from abroad of $400-$600 million annually, mostly from Greece and Italy. Overseas development assistance is about US$300 million a year, main bilateral partners being Italy, the EU and Germany. Agriculture, which accounts for one-half of GDP, is drought prone and suffers from insecure irrigation because of failing infrastructure. Small land holdings and lack of capital make modernization of agriculture difficult. Severe energy shortages allied with antiquated and inadequate infrastructure make it difficult to attract foreign investment and sustain growth.

4. At the time of appraisal of the Durres Water Supply Rehabilitation Project in 1994, Albania's population was about 3.2 million, but had fallen to about 3.1 million by 2000 when the Water Supply Urgent Rehabilitation Project was being initiated. Together, the projects aimed to improve water services and sewerage for almost 13 percent of the national population. Durres is the largest of the towns covered under these two projects. With a population of about 220,000 (that swells to 300,00 during the summer due to its sandy beaches), Durres is the second largest city in Albania and the country's main port. Of the other towns covered, Fier is the largest with a population of about 93,000, Saranda and Lezha have populations of 25,000 and 22,000, respectively.

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1. "Albania: Sustaining Growth Beyond the Transition, A World Bank Country Economic Memorandum" (draft of June 15, 2004).

WATER SECTOR BACKGROUND

5. Albania's abundant water resources and piped supplies, high in comparison with other lower middle-income countries, serve 80 percent of the population. There were 250 water works throughout the country and all - except the six under the jurisdiction of the Ministry of Construction, Housing and Territory Adjustment - functioned as departments of local government with little autonomy except for operations and maintenance (O&M). Conversely, all of the 175 sewerage works were directly controlled by MOC. Universally, water and sewerage infrastructure was in poor condition due to central planning and long-term neglect of maintenance and cost recovery, and this led to low levels of service and unsafe supplies. Most urban water supplies were intermittent due to poor infrastructure and greatly increased demand. A nationally uniform and low water tariff provided no incentive to conserve water, and social changes arising from transition greatly increased the demand for urban water supplies.

6. The collapse of cooperative and irrigated agriculture following transition caused widespread migration to the peripheries of cities and a return to subsistence agriculture - a trend that accelerated rapidly in the late1990s. Peri-urban squatter settlers broke into the water mains to meet their water needs, while people with access to land also used mains water for irrigation. The resulting demand denuded supplies meant for the city centers causing great shortages. In Durres service area, for example, the 70 percent of the urban population connected to the mains had their supply limited to 2 or 3 hours and fewer than 50 liters of water per day, and the unaccounted-for water was believed to be over 50 percent.[2] Even in the better circumstances before transition, polluted water supplies were responsible for four typhoid epidemics over the period 1984-94. Thus improvements in water infrastructure and sanitation were seen as key to reducing risks to health, helping poverty alleviation and contributing to sustained economic growth.

7. The Government of Albania's priority in 1994 was to ensure water supplies for the most important commercial areas, and economies of scale led them to focus on Tirana, the capital and largest city, and the Durres District, which together contained almost 20 percent of Albania's population. As the Italian Government was already assisting the Tirana water utility, the Bank agreed that its first water sector operation would assist the Durres District water utility and help augment the water supply to the Kavaja District whose distribution system was simultaneously being upgraded by the Government of Germany (KfW).

THE PROJECTS

8. **The Durres Water Supply Rehabilitation Project** was designed to cover a minimum investment package focusing on rehabilitation of the existing facilities and initiation of a water audit (under the Bank's PPF funding) carried out in 1992-93. It was anticipated that a follow-on phase of new investments would support expansion of the system. Project objectives, components and costs are summarized in Table 1. A key

2. This was only a rough estimate at appraisal, due to inadequate metering. Subsequent monitoring shows that had been wildly optimistic as the true level was nearer 75 percent (para 31).

component was to improve institutional capacity (financial, information and maintenance management) under a twinning arrangement with a foreign utility.

9. **The Water Supply Urgent Rehabilitation Project** was designed to address the short-term priority needs in the four towns and bridge the gap between the Durres project and the start-up of the Municipal Water and Wastewater Project that would assist the same four towns and introduce private sector participation (PSP). The Urgent Rehabilitation project continued rehabilitation of vulnerable sections of the water supply system to prevent failure, and reduce health risks and/or the high costs of operations. Detailed objectives, components and costs are listed in Table 1. Although there were no specific objectives for improvement of operations and the policy environment, there would be pilot projects and studies to build the information base and facilitate PSP. A condition of disbursement for investment in all four cities was that a private operator had to be appointed by December 2000 - although this was later delayed (para 13).

10. **Implementation of the two projects**. The overall responsibility for project implementation rested with the Ministry of Public Works, Territory Adjustment and Tourism through its Directorate of Water and Wastewater (DWW). A project implementation unit (PIU) was established to implement the project in collaboration with the Durres District Water Works and the new Durres District Sewerage Works. The PIU was to be responsible for the overall project management, coordination and planning, including reporting to DWW. For the Urgent Rehabilitation Project, the PIU was renamed the "World Bank Water PIU" and was strengthened through engaging a consulting team that included qualified water system engineers, a procurement specialist, and financial assistants.

11. Albania was convulsed by the dramatic rise and collapse of several huge financial pyramid schemes during 1996-97 that led to uncontained rioting, the fall of government and a descent into near anarchy and civil war in which some 2,000 people were killed. At their peak the nominal value of the pyramid schemes' liabilities amounted to almost half of the country's GDP and about two-thirds of the population had invested in them. After the collapse, large parts of the country were no longer within the government's control, and revenues collapsed as customs posts and tax offices were burned. By the end of June 1996 the lek had depreciated against the dollar by 40 percent, and prices increased by 28 percent in the first half of 1997. Many industries temporarily ceased production, and trade was interrupted. Although the new government stabilized the economy from 1997, the social effects were profound. In addition to the loss of life, thousands of people were impoverished either by their unwise investments in the pyramid schemes or by the destruction of their property in the ensuing violence.[3] The influx of 300,000 refugees following the Kosovo Crisis in 1998-99 put even greater strain on Albania's infrastructure, particularly for water in the peri-urban areas.

3. Jarvis, Christopher. 1999. "The Rise and Fall of the Pyramid Schemes in Albania," IMF Working Paper 99/98. International Monetary Fund: Washington D.C.

Table 1: Objectives, Components and Costs (US$ million)

Objective	Components	Cost at Appraisal	Cost at Completion
Durres Water Supply Rehabilitation Project			
1. Eliminate water shortages and associated health risks to the existing population in the project area	❑ Improve and rehabilitate the district water supply and transmission system, replace well field pumps at Fushe Kruja, rehabilitate high lift pumping stations at Fushe Kuqe, Fushe Kruja and five small booster stations and construct a new 2000 m^3 water reservoir.	11.31	11.46
	❑ implement water loss reduction and demand management programs, install water meters at throughout the system and 20,000 consumer meters, convert billing system from flat rate to a fully metered/volume based billing, and implement a promotional program for water conservation and inspection of all consumer connections.	0.75	2.36
	❑ repair the sewerage system in the Durres district, replace damaged sections of sewers and construct a 1.5 km collector sewer, rehabilitate eight sewage pumping stations, and provide equipment for sewer cleaning.	0.57	0.57
2. Establish a strong local institutional framework for the provision of water supply and sewerage services so that the improvements will be sustainable	❑ restructure and strengthen the water and sewerage utilities through a twinning partner focusing on management of finance, information and maintenance. Update the water supply master plan and prepare a sewerage master plan and provide operation, maintenance and office equipment.		
	o Water supply	1.78	1.21
	o Sewerage	0.74	0.25
	❑ Project Preparation	1.77	1.37
	Contingencies	**2.61**	-
	Total Cost	**19.52**	**17.22**
Water Supply Urgent Rehabilitation Project			
1. Improve water supply services in the municipalities of Durres, Fier, Lezha, and Saranda.	❑ **Durres**: construct seven new wells at Fushe Kuqe and rehabilitate/upgrade pumps and piping at the main station and improve the transmission main.	2.74	5.38
	❑ Prepare a feasibility study and master plan for a new water supply system for rural villages along the transmission main in the Durres area.	0.62	0.16
	❑ **Fier**: rehabilitate well heads and replace pumping and electrical equipment, and rehabilite three feeder mains.	2.06	2.50
	❑ **Lezha**: reconstruct distribution mains, and rehabilitate Barbulloja well field , three pumping stations and replace mechanical and electrical equipment.	2.15	1.83
	❑ **Saranda**: reconstruct the gravity transmission main from Navarice spring and feeder mains to villages.	0.32	0.25
	❑ Overall management and provisions of consultants and support for the PIU.	3.08	2.73
	Contingencies	**3.67**	-
	Total Cost	**14.64**	**13.17**

12. These events adversely affected implementation of the Durres Project. All Bank activities were suspended in 1997 for nine months, slowing procurement and civil works. The lack of law and order – helped by weapons stolen from government's armories – increased the number of illegal connections and made collection of bills almost impossible. The three changes of government in the period 1995-2000 and preoccupation with survival and stabilization nullified attention to legal and regulatory reform of the water and sanitation utilities until 1998. As a result, the Bank dropped the twinning arrangement. Uncertain demographics made updating of the water plan, and preparation of a sewerage master plan, premature and these were also dropped.

13. By the time the Urgent Rehabilitation project started implementation in 2000, conditions had stabilized, although there were three changes of responsible Ministers (in a ten-month period) each of whom had different views on the project.[4] The Credit Agreement was amended twice: first, because appointment of the private sector contractor was delayed by 2½ years to June 2002, and second, to extend project closing by one year because essential repackaging of contacts caused delays in procurement. And a 20 percent devaluation of the US$ and SDR against the Euro in March 2002 caused partial completion of some components, the major shortfall being that only three-quarters of the new Lezha distribution main was completed.

3. Evaluation

Counterfactuals

14. In the absence of the Durres Project it was assumed that water sales would decline by 2.5 percent per annum until 1999 and stabilize thereafter. As a result, cash flows would be insufficient to ensure financial self-sufficiency and continued subsidies would be required. Poor operation and maintenance would continue and infrastructure would continue to deteriorate exacerbating unaccounted water losses and increasing water shortages in the supply area. Without institutional reform and attention to rehabilitation, the only alternative to ensure adequate water would be to increase water supplies at a minimum cost of US$17 million.

15. In the absence of the Urgent Rehabilitation Project it was assumed that excessive water losses from the supply and water transmission system would continue due to further system deterioration, leakage and illegal connections. This would increase the risks of systems failure and threats to public health. Not only would this continue the water shortage in the urban areas (and excessive mostly illegal consumption in the adjacent peri-urban and agricultural areas) it would also incur high costs because of lost water sales and wasted pumping costs. Institutionally, it was assumed the absence of this project would mean that emergency repairs and rehabilitation would be put on hold, further jeopardizing service delivery while a more comprehensive strategy for sustainable

4. For example, one minister discontinued the PIU staffs' contracts for five months while he considered replaced the staff – eventually they were retained.

development of the sector was being developed in cooperation with development partners (Italy, Germany, EU Phare, Austria, USAID, ECHO and Japan).

Expected Benefits and Risks

16. The Durres project was expected to provide improved services to about 155,000 people of whom 42 percent, including 19,000 poor, would receive substantially better service. About 45,000 consumers in Kavaja would have their supplies ensured but not improved. Improved sewerage services were expected to benefit 100,000 people. The main risks were that rehabilitation would not reduce losses enough to improve service, that there would be delays, and that the Durres District Water Works would not be able to finance its local costs. The borrower agreed to mitigate these risks by engaging expatriate consultants and the Bank through frequent missions and quarterly progress reports on the DDWW's finances.

17. The Urgent Rehabilitation Project's main benefits would be moving the water utilities towards financial self-sufficiency through water and electricity savings and increased water sales. The main risk, that urgent rehabilitation would not improve services, would be mitigated by close supervision and accelerated introduction of PSP.

Monitoring and Evaluation.

18. Both projects had robust arrangements for M&E of project impacts on the water utilities performance. Operational and performance indicators for water delivery, finances and management were clearly defined and agreed during each appraisal. The Urgent Rehabilitation Project identified, *inter alia*, four key output/impact indicators: (i) the proportion of the network meeting residual chlorine and bacteriological standards; (ii) ensuring at least 80 liters per capita per day (lcd) received by all customers; (iii) reduction of electricity consumption; and (iv) "the impact of water losses in parts of the network." The "impact" indicator under (iv) was a target figure for reduction of the volume of water loss in each city.

OUTCOME

19. The outcome of the Durres Water Supply Rehabilitation Project is rated by OED as unsatisfactory. All the anticipated risks (para 16) were realized. It failed to establish a strong local institutional framework for the provision of water supply and sewerage services and only partly met its second objective to eliminate water shortages.

20. Conversely, the Water Supply Urgent Rehabilitation Project substantially achieved its objective with few shortcomings and OED rates it as satisfactory. These ratings confirm the self-evaluation by the ECA region. Table 2 summarizes how these ratings are derived from the relative importance of project objectives, their relevance, and the efficacy and efficiency of their achievement. A more detailed discussion of project-specific evaluation findings follows.

RELEVANCE

21. Both projects were relevant at appraisal and remained so at completion. The Durres project was one the government's priority areas for infrastructure improvement. The 1993 Country Assistance Strategy emphasized rehabilitation of Albania's dilapidated infrastructure that was a disincentive to foreign investment and growth of the private sector, and the project also resonated with the CAS's intention to address poverty alleviation and environmental improvement. However, at the municipal level, the institutional objectives of the Durres project were less relevant because they were far too ambitious in terms of major institutional reform and capacity building envisaged given modest municipal ownership that was further weakened by the economic and political crisis of the late-1990s. Overall relevance of the Durres Project is thus rated as modest.

Table 2: Ratings for Achievement of Project Objectives

Objectives	Importance	Relevance	Efficacy	Efficiency	OUTCOME
Durres Water Supply Rehabilitation					
Physical					
1. Eliminate water shortages and associated health risks to the existing population in the project area	Substantial	High	Modest	Modest	Moderately Satisfactory
Institutional					
2. Establish a strong local institutional framework for the provision of water supply and sewerage services so that the improvements will be sustainable	High	Modest	Negligible	Not rated	Highly Unsatisfactory
Overall ratings	**-**	***Substantial***	***Negligible***	***Modest***	***Unsatisfactory***
Water Supply Urgent Rehabilitation					
Physical					
1. Improve water supply services in the municipalities of Durres, Fier, Lezha, and Saranda.	High	High	Substantial	Substantial	Satisfactory
Overall rating	**-**	***High***	***Substantial***	***Substantial***	***Satisfactory***

22. At appraisal, the Urgent Rehabilitation project's development objectives were consonant with the strategy endorsed by the consortium of development partners. This strategy saw infrastructure rehabilitation as a step towards sustainable management of Albania's water service and sanitation sectors that would successively evolve to corporatization, commercialization and eventually PSP. Avoidance of a direct institutional building component increased its relevance. The difficulties encountered in harvesting the fruits of infrastructure improvements under the project served only to highlight how important institutional development was to successful management of the sector thus paving the way for the follow-on Municipal Water and Wastewater Project that was approved in December 2002.

23. Although not included in the Bank's 1998 CAS, it was added to the 2001 CAS Progress Report because it would mitigate some of the problems caused by the Kosovo

Crisis. The Urgent Rehabilitation Project was also included in the 2002 CAS as it not only supported Albania's growth and Poverty Reduction Strategy but was relevant to the CAS's emphasis on improving natural resources management, poverty alleviation and building capacity of local institutions. Thus overall relevance is rated as high.

EFFICACY

The Durres Water Supply Rehabilitation Project

Objective 1: Elimination of water shortages and associated health risks was only partially achieved.

24. The Durres project substantially achieved its physical targets and within schedule despite the civil unrest – a remarkable achievement. The physical results ensured that the water service in Durres did not deteriorate further. The operation of the pumping stations at the well fields was improved and the system was partly rehabilitated. While it is possible that water shortages were reduced modestly because of higher rates of supply, there are no operational indicators to confirm the impact of the improvements because the relevant institutional components failed to deliver. Access to water (hours per day) showed negligible improvements (Table 3). Sewerage was rehabilitated as planned and untreated sewage is now discharged sufficiently far offshore to eliminate pollution of Durres's beaches. Although 60 percent of water samples showed residual Chlorine, and 92 percent of water samples met acceptable *coliform* standards, there was no baseline to allow improvements to be discerned.

25. Water meter installation only partially met targets and did not satisfy water conservation objectives. Some 60 percent of the proposed number of water meters was installed. In all, about half the installed meters (8,830) were used to measure customers' consumption, the balance being used to monitor system flows. Continued installation of customer meters under the Urgent Rehabilitation Project increased the total to11,052 by 2004 (Annex B).[5] Generally, the meters enabled accurate water billing in the inner city areas where the water supply was inadequate and led to decreased revenues.[6] It would have been better if meters had been installed in the high consumption peri-urban areas but civil disobedience precluded this (para 11).

Objective 2: A strong local institutional framework for the provision of water supply and sewerage services was not achieved.

26. The project fell seriously short of the expected achievements primarily because of the insecure working environment, and government's preoccupation with political stabilization. As a result, the institutional objective became unachievable and the agreed twinning arrangement with a foreign water utility, while negotiated, was not implemented. Project support was modest and limited to reconstruction and reorganization of the office space and the partial implementation of the computerized

5. The actual supply was higher than envisaged at project appraisal.

6. Under flat rate billing the assumption was 150 lcd, metering showed actual consumption was only 76 lcd and thus revenue from inner city metered areas was reduced by almost half.

billing system (under a USAID grant). While improved office space made financial management functions more effective, computerized billing only initiated a new system and relevant staff training. In addition, some equipment was supplied to make O&M more effective.

Water Supply Urgent Rehabilitation Project

Objective 1: Improvements of water supply services in the municipalities of Durres, Fier, Lezha, and Saranda were mixed.

27. The Urgent Rehabilitation Project substantially achieved its physical components but completion of several items was delayed to the following project.[7] Not all outcomes can be attributed to the Bank's project because the EU Phare Program was also active in Fier, Lezhe, and Saranda.

28. The main achievements of the project were further repairs and rehabilitation of source works and improvements to the transmission system to ensure that water was more evenly distributed to consumers. Over 1,200 major leaks were repaired. The installation of new pumping units, as well as the rehabilitation of some existing ones, reduced power consumption at several facilities by 35 million kwh a year but this was offset by increases in power tariffs.[8] Service reliability, however, especially in Fier and Saranda, was disrupted by power outages. The assessment mission was also informed that in towns where the supply hours are fewer than about 10 hours a day, customers have installed storage tanks (roof-tanks) and appropriate booster pumps to make service available at times when the mains are not pressurized. This indicates customers would be willing to pay more for uninterrupted water service to avoid this cost.

29. Water quality testing indicates that significant water quality improvements have been achieved (except in Lezha), Table 3, but there are no data to determine what impact these improvements have had on public health. Only Saranda shows any tangible improvement in the hours of service per day and a substantial coverage of sewerage. It should be noted that sewage is not treated at any of these localities. The data for 2000 were based on various reports and information provided during the interviews by the OED assessment mission in June 2004.[9] The data for 2004 are chiefly based on the first

7. Repairs to the break-pressure tank in the Durres supply pipeline were not carried out as it could be taken out of service for the length of time needed to repair it. Rehabilitation of the Fier well field was not implemented due to significant delays in replacement of pumps and construction of a new transmission main under parallel EU funding. Replacement of the gravity transmission main in Saranda was not implemented, but some immediate improvements in the water inflow to the distribution system were achieved by rearranging a number of connections to the main and through improved operational procedures.

8. Power tariffs were US$0.026/kwh at appraisal and rose to US$0.04/kwh at completion of the Durres Project.

9. The main report used in this respect is the "Benchmarking Baseline: Durres, Fier, Lecha, and Saranda" by RODECO Consulting GMBH, May 2004.

annual operations report by the private operator who runs the water and sewerage service in the four towns (Annex B).[10]

Table 3. Mixed Progress in Service Provision through 2004

Location/Utility	*Service reliability*		*Samples testing safe (%)* [c]				*Sewerage coverage*	
	Daily service hours [b]		*Residual Chlorine*		*Coliforms*			
	2001[a]	*2004*	*2000*	*2004*	*2000*	*2004*	*2000*	*2004*
Durres DWW	2.2	2.3	60	87	92	97	No data reliably available for 2000	50
Fier WW	8.0	7.3	29	93	96	96		70
Lezha WW	20.9	21.0	6	0	93	100[d]		50
Saranda WW	2.1	7.4	21	74	88	100		90

Notes:
a. monitoring covered only the latter part of 2001.
b. hours of service are monthly averages over Jan - May 2004.
c. % of samples testing safe, i.e. meeting Albanian standards; residual chlorine are from the RODECO report, coliform count data are monthly averages over Jan - May 2004.
d. there is only one record of test results, April -04 for Lezha.

30. While the average water consumption of all customers has increased by almost 20 percent or from 57 lcd to 68 lcd, Table 4, the project met targets to increase consumption in areas using less than 80 lcd. Specifically, 63 percent of the population (Durres and Saranda) increased their consumption by almost 50 percent. Water service is now safer, and no water-borne health incidents have been reported during the last few years.

Table 4: An increasing proportion of people get more water each day (lcd)

Location and Utility	*Consumers (2004)*	*2001/02*	*2004*
Durres	45,983	36	53
Saranda	4,893	44	74
Fier	26,748	84	84
Leche	4,677	97	97
Total or Average	**80,297**	**57**	**68**

Source: Berlin Wasser International AG and OED field assessment 2004.

EFFICIENCY

31. Operational improvements achieved through the projects, though important, are just a beginning, A major effort is still required to produce significant gains in operational efficiency. Combined actual project costs (US$30.4 million) were roughly 90 percent of the appraised costs (US$34.1 million). The reduction resulted from the scaled-down institutional components in the first project, and some changes in physical components in both projects. The average investment per capita was about US$84, based

10. Berlin Wasser International AG; the report covers its first year of operation, August 2003 -- July 2004, under its 5-year management contract under the World Bank supported "Municipal Water and Wastewater Project," a follow-on project to the Urgent Rehabilitation Project.

on the total served population. For a typical rehabilitation project, this is reasonable considering that the systems require a major overhaul that is yet to be completed under the ongoing follow-on project.[11]

32. **Durres Project.** Contrary to expectations at appraisal, overall production and water sales did not improve during the life of the Durres project. Production only marginally increased (6 percent) under the Urgent Rehabilitation Project while sales remained static. The major problem was that the demand forecasts at appraisal were based on faulty data, and assumptions about increasing industrial and commercial demand could not take into account the contraction of the economy and the cooling effect of the late 1990s political instability.[12] Unaccounted for water (UfW), instead of being 50 percent of production in 1994, was found to be 72 percent, and in Durres this increased to 74 percent in 2003/04, mainly because of the inability to bill an increasing number of water consumers. Water tariffs were increased but did not cover costs. In consequence, the Durres investment never produced the expected income, and the estimated economic rate of return (ERR) was estimated to be about 7 percent. Thus efficiency of the Durres Project is rated as modest.

33. **Urgent Rehabilitation Project.** Unlike the Durres Project, incremental water savings from urgent repairs and associated energy savings were closely monitored and provided a sound basis for ERR estimation. The average ERR weighted by investment costs was 35 percent and ranges from 11 percent for the Lazha distribution main improvements to 156 percent for the Saranda Navarice spring and transmission main (Annex B6). Efficiency is thus rated as substantial.

INSTITUTIONAL DEVELOPMENT

34. **Durres Project.** Compared with expectations, institutional development is rated as negligible as almost nothing was achieved (para 26). The security situation was unstable, industrial water consumption declined significantly, and Government actions to remove illegal connections and disconnect non-paying customers failed due to other more pressing political priorities. The lack of progress in meeting the respective institutional goals for the Durres Water was the reason for canceling the loan 14 months prior to the original closing date. A major factor contributing to this was that government required the PIU to report directly to the Ministry of Public Works rather then working directly with Durres Water as was intended

35. **Urgent Rehabilitation Project.** Overall institutional performance is rated as modest. Institutional development was not a project objective, although it was expected

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11. Durres Municipality observes (Annex C): "We see that the average investment per capita was US$84, which is a very low financing figure comparing with the financing rate done in the same sector by the other donors. For example KfW is financing an average more than US$300/capita in the other cities in Albania for the similar projects."

12. Industrial demand was project to increase from 4.0 million m3/year in 1994 to 12.1 m3/year million m3/year in 2010; actual demand was 0.4 m^3/year in 1994 and 0.3 m^3/year in 2000. Similarly institutional and commercial demand was projected to be 3.7 m^3/year million m^3/year in 1994 and 7.8 million m^3/year in 2000; actual demand was 1.0 million m^3/year in 1994 and 0.4 million m^3/year in 2000.

that the project would facilitate institutional improvements and help create an environment conducive to a private operator. A first step in this process was the merger of water and sewerage management in each of the four utilities, introducing sewage tariffs and increasing water tariffs. A Private Operator took over the management of the four water utilities in September 2003 and has introduced a new benchmarking system that is being routinely maintained as part of the follow-on project. Selected performance indicators, including financial indicators, demonstrate the extent of operational improvements as summarized in Table 5.

Table 5. Selected Performance Indicators for 2000 and 2003

Location/Utility	UfW (%)		Collection rate (%) [a]		Working ratio (%) [b]		Staff index [c]	
	2000	2003-04	2000	2003-04	2000	2003-04	2000	Jul-04
Durres DWW	73	74	34	64	No data reliably available for 2000	234	8.5	9.1
Fier WW	59	80	33	46		252	5.0	8.5
Lezha WW	61	60	33	50		228	13.0	20.5
Saranda WW	63	80	33	64		215	12.8	15.3

Notes:
- The data for 2000 is chiefly based on the RODECO report, also on the information from interviews.
- The 2003-04 is the first contract year of the private operator
a – ratio of receipts to billings
b – ratio of Total Cash Operating Costs divided by Total Collected Revenues
c – staff per 1000 connections (internationally accepted levels are 2 or 3)

36. The performance indicators show that despite efforts to reduce physical water losses, the UfW is still high in all project towns. In fact, the numbers indicate a worsening situation, especially in Fier and Saranda. It is believed, however, that the data are not fully comparable, i.e. the 2000 data are not as accurate as the most recent data.[13] Only recently, meaningful data has been established for recording financial performance indicators such as working ratio; the private operator has reported working ratios varying from 215 percent in Saranda to 252 percent in Fier. These indicators can now be used as a baseline for monitoring future progress toward the acceptable level of less than 100 percent. In general, the data on collection rate shows significant improvement, but the absolute level of collections is still far below the required range of 80 to 90 percent. The same applies to the data on staff index that are unacceptably high. Future targets should be in the order of 2 to 3 staff per thousand connections.

37. Overall, the performance of the water companies in the four project towns has not yet reached the targeted level. Even so, the Urgent Rehabilitation Project, as intended, enabled the water companies to maintain a reasonable level of service, kept the systems from collapsing, and helped to initiate some operations improvements, both physical and financial. And most importantly, for ongoing and future improvements, the benchmarking system established is likely to be expanded under the follow-on project.

13. UfW for 2000 was based on rough estimates; 2004 data is based on recorded water flow measurements at feeder points and, for the most part, on metered consumption of water.

SUSTAINABILITY

38. **Durres Project**. Even though the project was too ambitious given the situation in Albania, benefits generated were sustained or improved by the follow-on projects. Thus sustainability of the Durres project is rated as likely.

39. **Urgent Rehabilitation Project**. The efforts required just to maintain the *status quo* were demanding, let alone actions to bring about major institutional reforms and operations improvements in one go. However, the field assessment demonstrated that benefits generated by the project are being sustained, helped by the follow-on project that builds on achievements to date. The assessment mission was informed that, unfortunately, the private operator has encountered serious staffing problems that have delayed an effective start-up of the project. Fortunately, there is now considerable borrower support for the sector bolstered by a strong alliance of development partners, including the Bank, under the local coordination of EU Phare. Thus sustainability is rated as likely.

BANK PERFORMANCE

40. **Durres Project.** Project design was too ambitious and not well-founded in the institutional realities of Albania. Compounding this problem the project was poorly supervised and the Bank was slow to react when the performance turned out to be unacceptable and the project had to be terminated early. This action led to a complete change of strategy that recognized that more time was needed to build local ownership and capacity for sector and utility reform while infrastructure rehabilitation continued. At the completion of the Durres project, the Bank prepared an "intesive learning ICR", with substantive involvement by the borrower, including a workshop. Findings were helpful for implementation of the follow-on Urgent Rehabilitation Project and for appraisal of the Municipal Water and Wastewater Project. Even so, overall Bank performance – unsatisfactory appraisal and supervision – is rated as unsatisfactory

41. **Urgent Rehabilitation Project.** The Bank clearly learned a number of lessons from the Durres project that led to substantially improved performance. Project design was straightforward and focused on the physical essentials. Government's Policy Letter that laid out the principles and pathway to sector reform (see para 44, a conditions of negotiations) proved to be a successful guide to elaboration of a more coherent and phased sector reform program. Supervision was proactive and effective. Simultaneously, the Bank successfully worked with government, local authorities and external stakeholders to improve the policy environment for the follow-on project, a step at a time, building ownership in the process. Overall Bank performance is thus rated as satisfactory.

BORROWER PERFORMANCE

42. **Durres Project.** The PIU proved to be effective. Although the borrower firmly endorsed the sector reforms envisaged as part of the Durres project. This is proved to be more challenging than expected. Actual commitment by the government and participating municipalities indicated a poor understanding of the importance of reform, a situation not helped by frequent personnel changes in the Ministry of Public Works. And this lack of

commitment nullified implementation of the institutional components. Overall borrower performance on the Durres project is rated as unsatisfactory.

43. **Urgent Rehabilitation Project.** Effectively prepared by the PIU in only six months, the project was effectively implemented. The PIU was further strengthened through engaging a team of specialists to assist the local team in the preparation of detailed engineering designs, project supervision, and procurement. This was found to be an effective way of providing on-the-job training for members of the PIU. The assistance and training was also expanded to cover financial operations of the water works of the participating towns. Participating towns, local authorities, and the PIU all demonstrated sound commitment and keen interest in implementing the project in a timely fashion. Overall, the borrower performance is rated as satisfactory..

5. Outlook and Lessons

44. The assessed projects were prepared and implemented during a time of major political and economic changes in Albania. The projects successfully addressed urgent rehabilitation needs to ensure the continuity of the vital water supply and sewerage services with the main focus on the rehabilitation of the existing facilities. Performance was less successful on institutional issues although this improved under the Urgent Rehabilitation project. Generally, institutional objectives were too optimistic compared with a realistic timeframe to build a constituency and accomplish fundamental reforms.

45. A comprehensive approach to provision of water supplies is required to address competition for scarce water resources. Thus, sustainability of Durres water supply depends very not only on rehabilitating water infrastructure within the urban areas but also on addressing and regulating the water supply needs of adjacent rural areas.[14]

46. Since the Durres project, however, the government's water sector reform has gathered momentum and is developing along the principles outlined in the Policy Letter of 2000. Specifically, government agreed to strengthen its stewardship and management of water resources and water quality through appropriate laws and regulation, and devolve investment and decision-making on water and wastewater services to local governments. Government also agreed that water and wastewater utilities should become corporatized and autonomous entities operating on a commercial basis, and that water and wastewater tariffs should be allow to increase to cover all operating costs. To facilitate commercialization, private sector participation would be allowed, initially on management or lease contracts.

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14. The Mayor of Durres notes (Annex C): "Durres water supply system is composed by a main transmission of 45km long up to the distribution reservoir. There are connected around 40 villages along this main transmission. These villages do not have correct distribution networks, which make difficult the improvement of the water management in these areas. Representing only 40% of the population served, the rural area is consuming (and misusing) 60% of the water. It remains available for Durres city a quantity of the water corresponding to 70l/day/capita."

47. The Council of Ministers formally adopted a National Water Supply and Sanitation Strategy and a Rural Water and Sanitation Strategy in 2003 that translates the Policy Letter into Albanian legislation. Within the context of the NWSSS, government has defined an action plan to improve the performance of water utilities. The general Directorate of Water Supply and Sewerage will no longer have a service delivery function and instead focus on monitoring sector performance, defining capital and management needs and improving public service sector performance. Under the Law on Organization and Function of Local Government, ownership of water supply and sewerage infrastructure is transferred to local governments and with it the powers to set tariffs and manage utilities. A Water Utility Regulatory Commission has been set up to license water supply utilities and provide a methodology for transparent setting of tariffs.

48. New water tariff proposals were cleared by the Municipal Councils for Fier and Lezha in mid-2004 and submitted to the Water Regulatory Entity for final approval. In Durres and Saranda the issue of tariff increases has become politicized, as has the independence of the utilities from municipal interference. An ongoing public awareness program may help to mitigate some of these problems which are well-known problems in the transition to private and commercial management.

49. This project performance assessment supports three lessons for broader application:

Lesson 1. *It is important to exercise flexibility when a project faces implementation problems in a seriously difficult situation.*

Under these two projects, the Bank was flexible enough to terminate the first project and quickly move on to the next step, an interim operation to ensure the continuation of urgently needed rehabilitation of existing service facilities. With this arrangement, the Bank bought more time to prepare a firmer base for fundamental sector reforms. At the same time, this move made it possible to cope with even more urgent issues arising from the crisis caused by the influx of refugees from Kosovo.

Lesson 2. *Sequencing of demanding reform activities and major rehabilitation efforts, as well as the timeframe for their implementation, need to be adequately analyzed to take full account of practical priorities and the available implementation capacity.*

Too many demanding activities at one time may heavily over-tax the implementation capacity of utilities moving out of the public sector – a thorough evaluation of local capacity is essential. The Bank also needs to take the time to ensure a full understanding of the impact of reforms and the real political commitment among stakeholders to accomplish them. In the evaluated projects, the need for institutional reform only became clear to many stakeholders when investment in infrastructure improvement alone failed to significantly improve service delivery and operational indicators. Thus the ongoing Municipal Water and Wastewater Project, Credit 37300 approved in March 2003, has been able to give a much greater prominence to capacity building and institutional reform.

Lesson 3. *Establishment of a benchmarking system as early as possible in the sector support cycle is important for facilitating appropriate monitoring of progress and evaluation of impact of activities.*

The Urgent Rehabilitation project initiated the benchmarking of sector activities and it was not a moment too early. Reliable data on sector and project performance is enabling, for the first time, comparison and analysis of factors affecting utility performance. More comprehensive operational data will facilitate the introduction and scaling up of PSP in more utilities in Albania.

Annex A. Basic Data Sheet

ALBANIA: DURRES WATER AND SANITATION REHABILITATION PROJECT (CREDIT 2610-ALB)

Key Project Data *(amounts in US$ million)*

	Appraisal estimate	Actual or current estimate	Actual as % of appraisal estimate
Original commitment	11.61	11.43	98.4
Total cancellation	-	-	-
Total project cost	19.53	17.22	88.2
Cancellation	-	-	-

Project Dates

	Original	Actual
PCD	-	06/01/1992
Appraisal	-	05/11/1993
Board approval	-	05/10/1994
Effectiveness	-	01/04/1995
Closing date	12/31/2001	10/05/2000

Cumulative Estimated and Actual Disbursements

	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01
Appraisal estimate (US$M)	0.2	1.6	3.7	5.8	7.9	10.0	11.1	11.6
Actual (US$M)	0.0	1.3	2.4	5.0	7.2	8.1	9.9	11.5
Actual as % of appraisal	-	81	65	86	91	81	89	99
Date of final disbursement:		December 31, 2001						

Staff Inputs (staff weeks)

	Actual/Latest Estimate	
	N° Staff weeks	USUS('000)
Identification/Preparation	84.7	160
Appraisal/Negotiation	66.8	102
Supervision	115	271.9
ICR	13	56
Total	279	590

Mission Data

	Date (month/year)	No. of persons	Specializations represented	Performance rating	
				Implementation Progress	Development Objective
Identification/ Preparation	3/3/92	1	Sanitary Engineer		
Identification/ Preparation	6/15/92	1	Sanitary Engineer		
Identification/ Preparation	7/27/92	1	Environmental Consultant		
Identification/ Preparation	9/21/92	2	Sanitary Engineer, Environmental Consultant		
Identification/ Preparation	10/26/92	1	Environmental Consultant		
Identification/ Preparation	2/1/93	1	Sanitary Engineer		
Identification/ Preparation	3/15/93	2	Sanitary Engineer, Urban Financial Specialist		
Appraisal/ Negotiation	6/14/93	1	Sanitary Engineer		
Supervision	05/11/94	1	Sanitary Engineer		
Supervision	6/30/94	3	Financial Specialist (2), Sanitary Engineer		
Supervision	2/8/95	1	Sanitary Engineer	S	HS
Supervision	6/9/95	1	Sanitary Engineer	S	S
Supervision	4/24/96	6	Sanitary Engineer (2), Economist, Sr. Operations Officer, Assistance Project Officer, Financial Analyst	S	S
Supervision	12/96	1	Sanitary Engineer	S	S
Supervision	7/97	4	Sr. Operations Officer , Financial Analyst, Economist, Assistance Project Officer	S	S
Supervision	1/98	4	Sanitary Engineer (2), Economist, Assistance Project Officer	S	S
Supervision	12/98	4	Sanitary Engineer, Assistance Project Officer	S	U
Supervision	6/99	2	Sanitary Engineer, Assistance Project Officer	S	U
Supervision	12/99	2	Sanitary Engineer, Economist	S	U
Supervision	4/2000	2	Economist, Financial Analyst	S	U
Supervision	6/2000	2	Sanitary Engineer, Economist	S	U
Supervision	8/2000	2	Sanitary Engineer, Economist	S	U
ICR	01/2001	2	Sanitary Engineer, Economist		
ICR	03/2001	2	Sanitary Engineer, Economist		

Other Project Data

Borrower/Executing Agency:

FOLLOW-ON OPERATIONS

Operation	Credit no.	Amount (US$ million)	Board date
Municipal Water and Wastewater Project	3730-ALB	15.0	01/28/2003

ALBANIA: WATER SUPPLY URGENT REHABILITATION PROJECT (CREDIT 3322-ALB)

Key Project Data *(amounts in US$ million)*

	Appraisal Estimate	Actual or current estimate	Actual as % of appraisal estimate
Original commitment	10.00	9.93	99.3
Total cancellation	-	-	-
Total project cost	14.64	13.17	90.0
Cancellation	-	-	-

Project Dates

	Original	Actual
PCD	-	06/01/1999
Appraisal	-	11/09/1999
Board approval	02/24/2000	02/24/2000
Effectiveness	07/14/2000	07/14/2000
Closing date	03/01/2003	03/01/2004

Cumulative Estimated and Actual Disbursements

	FY01	FY02	FY03	FY04
Appraisal estimate (US$M)	2.0	6.9	9.9	9.9
Actual (US$M)	0.7	2.9	6.9	9.9
Actual as % of appraisal	35	42	70	100
Date of final disbursement:	March 1, 2004			

Staff Inputs (staff weeks)

	Actual/Latest Estimate	
	N° Staff weeks	USUS('000)
Identification/Preparation	-	113.0
Appraisal/Negotiation	-	83.0
Supervision	113.12	309.0
ICR	5.52	37.7
Total	118.64	542.7

Mission Data

Stage of project cycle		*No of persons and specialty*		*Performance ratings*	
	Month/year	*Count*	*Specialty*	*Imple. progress*	*Dev. objectives*
Identification/Preparation					
	06/1999	*1*	Senior Municipal Engineer		
	07/1999	*1*	Project Officer		
		1	Sanitary Engineer		
Appraisal/Negotiation					
	10/1999	*1*	Project Officer		
		1	Senior Municipal Engineer		
		1	Sanitary Engineer		
		1	Water and Sanitation Advisor		
Supervision					
	04/2000	*12*	SANITARY ENGINEER, ECONOMIST, PROCUREMENT SPEC., FIN. MGMT OFFICER, FIN MGMT SPEC. SR. DISB OFFICER, SR. COUNSEL, COUNSEL, SR. ENV SPECIALIST, WATER RESOURCES ECON, REG PROCUREMENT ADV., REG FIN. MGMT. ADVISER	S	S
	07/06/2000	*2*	SANITARY ENGR., OPERATIONS OFFICER (1)	S	S
	11/23/2000	*3*	PTL (1); PROJECT OFFICER (1); RURAL WATER SPECIALIST (1)	S	S
	01/24/2001	*3*	PROGRAM TEAM LEADER (1); PROJECT OFFICER (1); FINANC.MANAG. SPECIAL. (1)	S	S
	03/28/2001	*2*	PTL (1); LOCAL CONSULTANT (1)	S	S
	05/17/2001	*3*	SANITARY ENGINEER (1); ECONOMIST (1); RURAL WATER SPECIALIST (1)	S	S
	07/30/2001	*3*	PTL (1); PROCUREMENT SPECIALIST (1); PROJECT OFFICER (1)	S	S
	10/18/2001	*3*	PTL (1); CONSULTANT (2)	S	S
	04/25/2002	*5*	PTL (1); FINANCIAL ANALYST (1); CONSULTANT (3)	S	S
	08/02/2002	*3*	PTL (1); FINANCIAL ANALYST (1); CONSULTANT (1)	S	S
	01/15/2003	*5*	TEAM LEADER (1); PROJECT OFFICER (1); WATER AND SANITATION SPEC. (1); FIN MGMT SPEC (1); COMMUNICATION SPEC (1)	S	S
	07/12/2003	*6*	PROGRAM TEAM LEADER (1); CONSULTANT (3); SR. FINANCIAL ANALYST (1); ENGINEER (1)	S	S
	01/28/2004	*7*	PROGRAM TEAM LEADER (1); ENGINEER (2); SR PROCUREMENT SPEC. (1); CONSULTANT (2); PROJECT OFFICER (1)	S	S
ICR	05/2004	*1*	FIN/INST SPEC.,	S	S
	07/2004	*3*	TEAM LEADER, PROJ OFFICER, FIN/INST SPEC.	S	S

Other Project Data

Borrower/Executing Agency:

FOLLOW-ON OPERATIONS			
Operation	***Credit no.***	***Amount (US$ million)***	***Board date***
Municipal Water and Wastewater Project	3730-ALB	15.0	01/28/2003

Annex B. Key Performance Indicators

DURRES WATER SUPPLY REHABILITATION PROJECT

Project Targets and Monitoring Indicators

Year		1994		1995		1996		1997		1998		1999		2000	
Target / Indicators		Actual	SAR	Actual	SAR	Actual	SAR	Actual	SAR	Actual	SAR	Actual	SAR	Actual	SAR
Production	Mill. M3	25.4	24.9	25.4	27.0	25.4	27.0	25.4	27.0	25.4	27.0	25.4	27.0	25.7	27.0
Total Sales	Mill. M3	7	13.6	8.3	14.1	8.4	15	8.1	15.7	7.9	16.4	7.6	16.9	7	17.5
1)Domestic sales	Mill.M3	3.7	5.8	5.1	6.3	5.7	6.7	5.8	7.1	5.7	7.3	5.6	7.6	5.8	7.9
2)Industrial sales	Mill.M3	0.4	2.8	0.4	2.8	0.3	3.0	0.2	3.2	0.1	3.4	0.1	3.5	0.3	3.7
3)Government & Commercial sales	Mill.M3	1.0	3.0	0.9	3.0	0.8	3.1	0.5	3.2	0.6	3.3	0.6	3.4	0.4	3.5
4)Kavaja sales	Mill.M3	1.9	2.0	1.9	2.0	1.6	2.2	1.6	2.2	1.5	2.4	1.3	2.4	0.5	2.4
Non-revenue water	Mill.M3	18.4	11.3	17.1	12.9	17	12	17.3	11.3	17.5	10.6	17.8	10.1	18.7	9.5
Non-revenue water as %of production	%	72%	45%	67%	48%	67%	44%	68%	42%	69%	39%	70%	37%	73%	35%
Domestic accounts	No.000	25.386		28.200		33,015		33,421		35.757		31.585		34.623	
Metered	No.000							323		8903		8,338		8,220	
Non-metered	No.000	25.386		28.200		33.015		33.098		26.854		26.247		26.801	
Industrial accounts	No.000	104	44	100	70	89	103	66	108	53	108	37	112	28	117
metered	No.000	44	45	44	24	36	0	36	0	24	0	17	0	12	0
Non-metered	No.000	60		56		53		30		29		20		16	
Gov. & Commerc.	No.000	679		693		644		644		810		899		931	
Metered	No.000	60	60	60	110	86	157	207	172	650	186	578	215	598	215
Non-metered	No.000	619	69	636	28	558	0	437	0	150	0	321	0	333	0
Meters installed	No.000	104	0	104	80	122	700	566	900	9587	1300	15,942	1700	15.957	2600
meter read												8,338		8,338	
Domestic tariffs	US$/m3	0.05	0.05	0.05	0.05	0.05	0.06	0.15	0.062	0.15	0.064	0.25	0.066	0.25	0.068
Industrial tariffs	US$/m3	0.52	0.40	0.52	0.40	0.52	0.435	0.60	0.44	0.60	0.44	0.80	0.45	0.80	0.45
Govternment Tariffs	US$/m3	0.52	0.30	0.52	0.30	0.52	0.30	0.52	0.31	0.52	0.31	0.30	0.31	0.3	0.31
commercial tariff	US$/m3	0.52		0.52		0.52		0.6		0.6		0.8		0.8	
Kavaja tariff	US$/m3	0.03	0.07	0.07	0.075	0.07	0.08	0.07	0.085	0.07	0.09	0.15	0.095	0.15	0.1
Working Ratio	%		60	1.53	59.00	1.77	57	1.52	53	1.85	50	1.44	48		47
Bad Debts	000/US$	820	156	1,556	215	1,175	211	2,370	198	4,369	148	6,881	157	6,030	164
Internal investment	000/US$	262	50	30	50	164	50	-	50	61	50	271	50	66	180
Billings	000/US$	886	2,427	999	2,598	869	2,856	1,305	3,068	1,138	3,237	1,397	3,426	1,657	3,576
Total receivables	000/US$	100	1,001	293	1,409	236	1,421	449	1,534	400	1,457	567	1,542	504	1,491
Employees	No.	303	315	292	315	290	315	304	315	306	315	297	315	302	315
Wage& salary cost	000/US$	176	148	219	148	282	148	398	148	406	148	419	148	333	148
Electricity cost	000/US$	883	866	990	866	1,043	942	1,007	942	1,170	942	1,324	942		942
Electricity consumpt	mill./kwh	41.9	43.3	41.4	43.3	41.0	47.1	39.1	47.1	40.7	47.1	40.5	47.1	41.5	47.1
Debt repayment	000/US$														
Interest charges		-	166	-	546	-	826	-	1,001	-	1,095	-	1,136	-	1,134
Principal		-	-	-	-	-	-	-	-	-	-	-	-	-	718
Depreciation expens	000/US$	72	197	72	365	41	502	44	601	48	636	104	650	104	656
ER US$: Lek		100		92.8		104.5		148.9		150.8		137.7		142	

Note:
All values in US$ are estimated with ER of 1994

Table B2. Monthly Progress Report on Company Operations 2002-2003 Durres

Company Operations	Unit	31.08.2003	30.09.2003	31.10.2003	30.11.2003	31.12.2003	1/31/2004	2/28/2004	3/31/2004	4/30/2004	5/31/2004	6/30/2004	7/31/2004	Total 08/03-07/04
1. Water Production	m3	2,593,084	2,453,337	2,528,019	2,490,701	2,708,902	2,118,532	2,053,988	2,009,469	2,043,412	2,137,595	2,002,250	2,101,160	27,240,449
1.1 Water Billed	m3	639,970	629,729	592,826	582,503	571,390	577,841	599,794	582,627	592,735	584,404	597,559	585,175	7,136,553
1.2 Total Unaccounted for Water [1-1.1/1]	%	75%	74%	77%	77%	79%	73%	71%	71%	71%	73%	70%	72%	74%
1.2.1 Technical Losses [estimate]	%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	
1.2.2 Administrative Losses [1.2-1.2.1]	%	50%	49%	52%	52%	54%	48%	46%	46%	46%	48%	45%	47%	
2. Customers	Nr.	44,598	42,798	44,546	43,944	44,066	43,923	43,683	44,217	45,077	44,822	45,533	45,983	
2.1 Customer metered	Nr.	9,188	8,652	9,413	10,148	10,596	10,469	10,723	10,625	11,074	10,937	11,369	11,052	
2.1.1 Customer with functioning meters	Nr.						10,469	10,723	10,626	11,074	10,937	11,369	11,052	
2.1.2 Customer with non functioning meters	Nr.													
2.2 Customers not metered	Nr.	30,424	29,735	29,975	28,688	28,879	28,564	28,711	28,656	28,512	28,570	28,822	29,629	
2.3 Inactive Customers	Nr.	4,986	4,411	5,158	5,108	4,591	4,890	4,249	4,936	5,491	5,315	5,342	5,302	
3. New Customers	Nr.	643		270	179							531		1,623
3.1 No. of illegal connections disconnected/legalized	Nr.													
4. Revenues Invoiced	Lek	23,453,659	24,642,366	22,530,822	21,511,923	23,889,260	21,350,163	22,699,916	23,733,777	22,711,830	21,547,938	25,023,774	21,630,112	274,725,540
4.1 Water - domestic metered	Lek	2,865,065	2,707,180	2,835,980	3,064,250	2,825,900	2,811,165	3,049,760	3,095,575	2,896,460	3,069,780	3,106,005	2,805,670	35,132,790
4.2 Water - domestic unmetered	Lek	16,273,930	16,414,870	16,400,235	16,247,355	16,057,865	16,322,250	16,492,150	16,416,415	16,343,050	16,348,515	16,261,000	16,706,725	196,284,360
4.3 Water - industry and institutions	Lek	4,032,760	3,085,120	3,029,100	2,029,960	2,985,500	2,078,540	2,926,380	1,922,080	3,229,264	1,992,860	3,165,480	1,930,960	32,408,004
4.4 Water - bulk supply and other	Lek	3,200	125,840	24,560	29,440	17,920	0	0	0	960	0	60,600	44,480	307,000
4.5 Sewerage - domestic	Lek	0	2,129,004	0	0	1,765,408	0	0	2,169,392	0	0	2,167,961	0	8,231,765
4.6 Sewerage - industry and institutions	Lek	278,704	180,352	240,947	140,918	236,667	138,208	231,626	130,315	242,096	136,783	262,728	142,277	2,361,621
4.7 Total billed revenues	Lek	23,453,659	24,642,366	22,530,822	21,511,923	23,889,260	21,350,163	22,699,916	23,733,777	22,711,830	21,547,938	25,023,774	21,630,112	274,725,540
4.8 Collection Rate [4.9 / 4.7]	%	60%	59%	67%	63%	57%	65.70%	55.00%	64.10%	67.80%	78.70%	61.10%	74.90%	64%
4.9 Total collected revenues	Lek	13,977,374	14,513,603	15,028,683	13,526,264	13,617,788	14,027,180	12,484,925	15,222,929	15,409,940	16,968,276	15,279,696	16,195,599	176,252,257
5. Expenses														
5.1Electricity (+water before March 2003)	Lek	15,670,840	14,287,830	16,390,785	19,865,890	13,532,072	17,410,454	17,404,800	17,943,200	20,241,600	19,741,242	18,236,280	20,022,989	210,747,982
5.2 Personnel	Lek	10,790,439	10,836,638	11,244,821	10,894,182	18,216,988	11,198,892	10,153,154	11,307,797	11,326,520	10,444,528	10,851,450	11,350,855	138,616,264
5.3 Chemicals and materials	Lek	1,472,401	2,514,984	1,906,901	5,729,108	2,549,782	2,145,877	2,122,125	2,173,480	3,299,283	2,327,500	3,104,100	1,527,500	30,873,041
5.4 Repairs and maintenance	Lek	114,650	192,485	142,855	340,234	234,420	159,000	302,487	326,050	358,446	418,000	677,000	1,330,451	4,596,078
5.5 Other cash expenses	Lek	1,307,578	1,541,074	1,138,139	1,348,314	5,080,442	1,946,805	2,530,197	2,571,860	2,628,911	2,464,752	3,730,000	1,552,000	27,840,072
5.6 Total cash operating expenses	Lek	29,355,908	29,373,011	30,823,501	38,177,728	39,613,704	32,861,028	32,512,763	34,322,387	37,854,760	35,396,022	36,598,830	35,783,795	412,673,437
5.7 Depreciation	Lek	17,257,581	17,257,581	17,257,581	17,257,581	17,257,581	15,501,387	15,501,387	15,501,387	15,501,387	15,501,387	15,500,000	15,500,000	194,794,840
5.8 Provision for bad debt	Lek	n/a	n/a	n/a	n/a	n/a								0
5.9 Total operating expenses	Lek	46,613,489	46,630,592	48,081,082	55,435,309	56,871,285	48,362,415	48,014,150	49,823,774	53,356,147	50,897,409	52,098,830	51,283,795	
6. Subsidies	Lek											3,700,000	37,481,000	
6.1 Repair and Maintenance	Lek													0
6.2 Electricity	Lek			54,740,000		41,000,000						3,700,000	37,481,000	136,921,000
6.3 Personnel	Lek					450,000								450,000
6.4 Chemicals and materials	Lek					350,000								350,000
7. Operating margin [4.7 - 5.9]	Lek	-23,159,830	-21,988,226	-25,550,260	-33,923,386	-32,982,025	-27,012,252	-25,314,234	-26,089,997	-30,644,317	-29,349,471	-27,075,056	-29,653,683	-332,742,737
8. Cash operating deficit [4.9 - 5.6]	Lek	-15,378,534	-14,859,409	-15,794,819	-24,651,464	-25,995,916	-18,833,848	-20,027,838	-19,099,458	-22,444,820	-18,427,746	-21,319,134	-19,588,196	-236,421,180
9. Cash on Hand	Lek											45,920		
10. Working ratio [5.6/4.9]		2.1	2.02	2.05	2.82	2.91	2.34	2.6	2.25	2.46	2.09	2.4	2.21	2.34
11. Total current assets	Lek					740,254,522								
12. Total current liabilities	Lek					57,742,451								
13. Current ratio [11/12]						12.8								
14. Hours of Supply	Nr.	1.96	2.25	2.18	2.27	2.36	2.3	2.26	2.3	2.3	2.35			
15. % of total population with minimum supply (two hours daily)	%													
16. Staff/1000 Water and Sanitation Connections		9.6	10.0	9.6	9.8	9.5	9.8	9.8	9.7	9.5	9.5	9.4	9.1	
17. Samples complying with faecal coliform standards	%	98.92	96.02	96.2	96	97.3	96.6	96.5	96.4	96.8	97			
17.1 Residual Chlorine in samples	mg/l													
18. Operation & Maintenance														
18.1. Reported pipe breakages	Nr.													
18.2 Leaks repaired	Nr.													

Table B3. Monthly Progress Report on Company Operations 2002-2003 Fier

Company Operations	Unit	31.08.2003	30.09.2003	31.10.2003	30.11.2003	31.12.2003	1/31/2004	2/28/2004	3/31/2004	4/30/2004	5/31/2004	6/30/2004	7/31/2004	Total 08/03-07/04
1. Water Production	m3	1,712,100	1,712,100	1,729,300	1,721,600	1,714,900	1,812,100	1,802,200	1,812,200	1,712,700	1,712,700	1,712,700	1,712,700	20,867,300
1.1 Water Billed	m3	380,962	399,478	326,428	346,807	330,982	324,795	315,372	313,566	318,800	337,064	364,203	360,065	4,118,522
1.2 Total Unaccounted for Water [1-1.1/1]	%	78%	77%	81%	80%	81%	82%	83%	83%	81%	80%	79%	79%	80%
1.2.1 Technical Losses [estimate]	%													
1.2.2 Administrative Losses [1.2-1.2.1]	%	78%	77%	81%	80%	81%	82%	83%	83%	81%	80%	79%	79%	
2. Customers	Nr.	19,770	19,828	19,835	19,876	19,876	26,226	26,263	26,182	26,282	26,613	26,622	26,748	
2.1 Customer metered	Nr.	323	323	323	323	323	257	257	257	312	337	368	368	
2.1.1 Customer with functioning meters	Nr.						254	250	250	310	320	346	346	
2.1.2 Customer with non functioning meters	Nr.						3	7	7	11	17	22	22	
2.2 Customers not metered	Nr.	13,721	13,288	13,295	13,316	13,316	19,623	19,660	19,661	19,608	19,722	19,700	19,711	
2.3 Inactive Customers	Nr.	5,726	6,217	6,217	6,237	6,237	6,346	6,346	6,264	6,362	6,554	6,554	6,669	
3. New Customers	Nr.						22	37	1	11	130	9	11	221
3.1 No. of illegal connections disconnected/legalized	Nr.													
4. Revenues Invoiced	Lek	14,758,219	15,706,804	12,314,522	13,450,102	12,413,046	11,584,808	11,439,193	11,112,619	11,832,557	12,477,200	14,069,239	14,505,399	155,663,708
4.1 Water - domestic metered	Lek	2,705	2,705	2,705	2,705	2,705	70,860	58,605	47,370	71,475	95,100	95,355	60,295	512,585
4.2 Water - domestic unmetered	Lek	4,574,335	6,466,660	5,019,925	5,002,615	4,958,875	4,921,107	4,936,080	4,916,475	4,897,335	4,869,045	4,868,430	3,980,211	59,411,093
4.3 Water - industry and institutions	Lek	9,684,506	8,746,372	6,793,265	7,945,477	6,956,170	6,107,033	5,964,052	5,670,865	6,387,577	7,029,850	8,621,032	10,025,159	89,931,357
4.4 Water - bulk supply and other	Lek	0	0	0	0	0	0	0	0	0	0	0	0	0
4.5 Sewerage - domestic	Lek	392,839	388,621	387,939	386,611	382,814	381,750	379,773	375,869	375,580	375,929	375,883	358,105	4,561,712
4.6 Sewerage - industry and institutions	Lek	103,834	102,446	110,688	112,694	112,482	104,059	100,683	102,040	100,590	107,276	108,540	81,629	1,246,961
4.7 Total billed revenues	Lek	14,758,219	15,706,804	12,314,522	13,450,102	12,413,046	11,584,808	11,439,193	11,112,619	11,832,557	12,477,200	14,069,239	14,505,399	155,663,708
4.8 Collection Rate [4.9 / 4.7]	%	21%	35%	95%	106%	16%	23%	30%	41%	65%	29%	47%	45%	46%
4.9 Total collected revenues	Lek	3,067,947	5,432,099	11,735,933	14,210,364	2,029,025	2,672,612	3,407,093	4,571,623	7,747,374	3,611,428	6,678,127	6,517,153	71,680,777
5. Expenses														
5.1Electricity (+water before March 2003)	Lek	8,329,918	7,558,790	7,802,130	7,300,210	7,361,850	7,444,190	7,985,747	8,342,884	8,059,744	8,108,443	7,961,923	8,822,150	95,077,979
5.2 Personnel	Lek	4,762,926	5,296,408	5,275,526	4,866,340	8,599,902	5,183,264	5,227,595	5,429,873	5,240,765	5,036,366	4,809,870	4,751,787	64,480,622
5.3 Chemicals and materials	Lek	306,001	628,880	646,636	427,900	782,727	478,011	784,970	1,671,822	590,507	1,214,480	3,652,317	708,743	11,892,994
5.4 Repairs and maintenance	Lek	42,583	42,583	42,583	42,583	42,583	4,041,180	-	57,500	351,863	1,264,800	96,900	14,960	6,040,120
5.5 Other cash expenses	Lek	20,361	20,361	20,361	20,361	20,361	211,272	142,105	319,198	392,759	648,289	684,683	717,836	3,217,947
5.6 Total cash operating expenses	Lek	13,461,790	13,547,022	13,787,236	12,657,394	16,807,423	17,357,917	14,140,417	15,821,277	14,635,638	16,272,378	17,205,693	15,015,476	180,709,662
5.7 Depreciation	Lek	2,871,602	2,871,602	2,871,602	2,871,602	2,871,602					2,869,083	2,869,000	2,869,000	22,965,093
5.8 Provision for bad debt	Lek										0	0	0	0
5.9 Total operating expenses	Lek	16,333,392	16,418,624	16,658,838	15,528,996	19,679,025	17,357,917	14,140,417	15,821,277	14,635,638	19,141,461	20,074,693	17,884,476	221,559,231
6. Subsidies	Lek													
6.1 Repair and Maintenance	Lek											1,500,000		1,500,000
6.2 Electricity	Lek		13,283,657			3,500,000			12,257,000		0	15,943,000		44,983,657
6.3 Personnel	Lek										0	0		0
6.4 Chemicals and materials	Lek		2,200,000								1,602,000	1,602,000	110,000	5,514,000
7. Operating margin [4.7 - 5.9]	Lek	-1,575,173	-711,820	-4,344,316	-2,078,894	-7,265,979	-5,773,109	-2,701,225	-4,708,658	-2,803,081	-6,664,261	-6,005,454	-3,379,077	-48,011,047
8. Cash operating deficit [4.9 - 5.6]	Lek	10,393,842	-8,114,923	-2,051,304	1,552,969	-14,778,398	-14,685,305	-10,733,324	-11,249,655	-6,888,264	-12,660,950	-10,527,566	-8,498,323	109,028,884
9. Cash on Hand	Lek										206,845	199,509	238,796	
10. Working ratio [5.6/4.9]		4.39	2.49	1.17	0.89	8.28	6.49	4.15	3.46	1.89	4.51	2.58	2.3	2.52
11. Total current assets	Lek										55,331,139	63,863,321	71,392,338	
12. Total current liabilities	Lek										43,766,697	52,657,631	62,675,825	
13. Current ratio [11/12]						#DIV/0!					1.264	1.213	1.139	
14. Hours of Supply	Nr.	8.32	8.54	7.58	7.31	7.65	7.25	7.25	7.25	7.25	7.25			
15. % of total population with minimum supply (two hours daily)	%													
16. Staff/1000 Water and Sanitation Connections		11.5	11.5	11.4	11.4	11.7	9.3	8.7	8.7	8.6	8.5	8.5	8.5	
17. Samples complying with faecal coliform standards	%	95.8	93.9	94.6	95.4	95.3	93.8	94.2	99	98.1	96.4			
17.1 Residual Chlorine in samples	mg/l													
18. Operation & Maintenance														
18.1. Reported pipe breakages	Nr.													
18.2 Leaks repaired	Nr.													

Table B4. Monthly Progress Report on Company Operations 2002-2003 Lezhe

Company Operations	Unit	31.08.2003	30.09.2003	31.10.2003	30.11.2003	31.12.2003	1/31/2004	2/28/2004	3/31/2004	4/30/2004	5/31/2004	6/30/2004	7/31/2004	Total 08/03-07/04
1. Water Production	m3	218,000	218,000	218,000	218,000	218,000	218,000	218,000	218,000	218,000	218,000	327,000	273,000	2,780,000
1.1 Water Billed	m3	93,778	97,100	89,745	88,396	89,075	92,336	86,640	91,626	86,589	94,900	104,612	106,503	1,121,300
1.2 Total Unaccounted for Water [1-1.1/1]		57%	55%	59%	59%	59%	58%	60%	58%	60%	56%	68%	61%	60%
1.2.1 Technical Losses [estimate]	%						58%	60%	58%	60%	56%	68%	61%	
1.2.2 Administrative Losses [1.2-1.2.1]	%	57%	55%	59%	59%	59%								
2. Customers	Nr.	3,918	3,915	3,926	3,926	3,925	3,822	4,026	4,047	3,912	4,322	4,602	4,677	
2.1 Customer metered	Nr.	29	29	29	29	29	29	29	29	29	29	29	29	
2.1.1 Customer with functioning meters	Nr.	12	12	12	12	12	12	12	12	12	12	12	12	
2.1.2 Customer with non functioning meters	Nr.	17	17	17	17	17	17	17	17	17	17	17	17	
2.2 Customers not metered	Nr.	3,560	3,564	3,567	3,560	3,560	3,544	3,745	3,762	3,627	4,037	4,317	4,392	
2.3 Inactive Customers	Nr.	329	322	330	337	336	249	252	256	256	256	256	256	
3. New Customers	Nr.	4	12	4	0	3	115	12	62	12	208	280	75	787
3.1 No. of illegal connections disconnected/legalized	Nr.													
4. Revenues Invoiced	Lek	3,493,740	3,781,794	3,300,768	3,248,468	3,248,532	3,698,082	3,709,919	3,432,172	3,197,272	3,574,724	3,847,300	3,905,060	42,437,831
4.1 Water - domestic metered	Lek													0
4.2 Water - domestic unmetered	Lek	2,242,800	2,245,320	2,247,210	2,242,800	2,242,800	2,072,070	2,139,286	2,206,890	2,117,430	2,385,180	2,566,620	2,626,470	27,334,876
4.3 Water - industry and institutions	Lek	891,860	1,150,416	679,660	662,120	660,500	1,262,346	1,209,695	875,520	753,320	827,940	887,460	879,380	10,740,217
4.4 Water - bulk supply and other	Lek													0
4.5 Sewerage - domestic	Lek	263,200	264,330	290,408	264,044	264,044	233,386	240,956	259,222	248,714	275,808	301,476	308,506	3,214,094
4.6 Sewerage - industry and institutions	Lek	95,880	121,728	83,490	79,504	81,188	130,280	119,982	90,540	77,808	85,796	91,744	90,704	1,148,644
4.7 Total billed revenues	Lek	3,493,740	3,781,794	3,300,768	3,248,468	3,248,532	3,698,082	3,709,919	3,432,172	3,197,272	3,574,724	3,847,300	3,905,060	42,437,831
4.8 Collection Rate [4.9 / 4.7]	%	40%	32%	43%	71%	45%	46%	52%	65%	45%	69%	49%	49%	50%
4.9 Total collected revenues	Lek	1,381,356	1,226,899	1,403,964	2,314,852	1,473,284	1,701,118	1,804,376	2,242,385	1,431,672	2,455,115	1,889,382	1,930,653	21,255,056
5. Expenses														
5.1Electricity (+water before March 2003)	Lek	1,558,000	1,558,000	1,558,000	1,308,000	1,558,000	1,469,000	1,611,680	1,611,680	1,611,680	1,611,680	2,171,680	2,624,092	20,251,492
5.2 Personnel	Lek	1,531,000	1,591,002	1,612,377	2,022,322	2,332,725	1,833,965	1,828,182	1,757,254	1,798,574	2,076,796	1,811,179	1,794,872	21,990,248
5.3 Chemicals and materials	Lek	355,671	355,671	355,671	355,671	355,671	215,290	262,383	570,768	194602	194,234	81,466	393,200	3,690,296
5.4 Repairs and maintenance	Lek													0
5.5 Other cash expenses	Lek	327,963	327,963	327,963	327,963	327,963	52,954	106,714	96,285	105,700	136,768	221,777	75,180	2,435,194
5.6 Total cash operating expenses	Lek	3,772,634	3,832,636	3,854,011	4,013,956	4,574,359	3,571,209	3,808,959	4,035,987	3,710,556	4,019,478	4,286,102	4,887,344	48,367,229
5.7 Depreciation	Lek	1,315,564	1,315,564	1,315,564	1,315,564	1,315,564	1,333,000	1,333,000	1,333,000	1,333,000	1,333,000	1,333,000	1,333,000	15,908,820
5.8 Provision for bad debt	Lek													0
5.9 Total operating expenses	Lek	5,088,198	5,148,200	5,169,575	5,329,520	5,889,923	4,904,209	5,141,959	5,368,987	5,043,556	5,352,478	5,619,102	6,220,344	64,276,050
6. Subsidies	Lek													
6.1 Repair and Maintenance	Lek								4,500,000					4,500,000
6.2 Electricity	Lek			3,738,000		1,000,000			9,647,000			5,595,000		19,980,000
6.3 Personnel	Lek			228,000		1,000,000								1,228,000
6.4 Chemicals and materials	Lek								40,000					40,000
7. Operating margin [4.7 - 5.9]	Lek	-1,594,458	-1,366,406	-1,868,807	-2,081,052	-2,641,391	-1,206,127	-1,432,040	-1,936,815	-1,846,284	-1,777,754	-1,771,802	-2,315,284	-21,838,219
8. Cash operating deficit [4.9 - 5.6]	Lek	-2,391,278	-2,605,737	-2,450,047	-1,699,104	-3,101,075	-1,870,091	-2,004,583	-1,793,602	-2,278,884	-1,564,363	-2,396,720	-2,956,691	-27,112,173
9. Cash on Hand	Lek						25,705	3,365	19,440	26,267	18,061	19,009	22,081	
10. Working ratio [5.6/4.9]		2.73	3.12	2.75	1.73	3.1	2.1	2.11	1.8	2.59	1.64	2.27	2.53	2.28
11. Total current assets	Lek						104,257,581	106,256,276	107,684,020	109,802,740	111,146,270	113,495,771	115,865,060	
12. Total current liabilities	Lek						27,931,538	27,533,676	31,357,977	33,476,697	34,820,228	37,169,730	39,539,019	
13. Current ratio [11/12]						#DIV/0!	3.7	3.9	3.4	3.3	3.2	3.1	2.9	
14. Hours of Supply	Nr.	18.2	20.6	19.2	19.2	18	21	21	21	21	21			
15. % of total population with minimum supply (two hours daily)	%													
16. Staff/1000 Water and Sanitation Connections		24.0	24.3	23.7	23.4	23.7	24.9	23.6	23.7	24.5	22.0	20.9	20.5	
17. Samples complying with faecal coliform standards	%	100	100		100					100				
17.1 Residual Chlorine in samples	mg/l													
18. Operation & Maintenance														
18.1. Reported pipe breakages	Nr.													
18.2 Leaks repaired	Nr.													

Annex B

Table B5. Monthly Progress Report on Company Operations 2002-2003 Saranda

Company Operations	Unit	31.08.2003	30.09.2003	31.10.2003	30.11.2003	31.12.2003	1/31/2004	2/28/2004	3/31/2004	4/30/2004	5/31/2004	6/30/2004	7/31/2004	Total 08/03-07/04
1. Water Production	m3	350,000	290,000	280,000	310,000	290,000	300,000	200,000	192,970	243,900	197,850	291,960	323,620	3,270,300
1.1 Water Billed	m3	59,677	46,510	45,920	50,186	48,308	45,757	58,513	50,856	51,559	58,525	58,965	64,577	639,353
1.2 Total Unaccounted for Water [1-1.1/1]	%	83%	84%	84%	84%	83%	85%	71%	74%	79%	70%	80%	80%	80%
1.2.1 Technical Losses [estimate]	%	20%	20%	20%	20%	20%	20%	20%	20%	30%	30%	30%	30%	
1.2.2 Administrative Losses [1.2-1.2.1]	%	63%	64%	64%	64%	63%	65%	51%	54%	49%	40%	50%	50%	
2. Customers	Nr.	5,727	5,827	5,847	5,794	5,795	5,310	5,361	5,938	5,417	4,813	4,814	4,893	
2.1 Customer metered	Nr.	110	110	110	110	110	110	110	110	100	100	105	105	
2.1.1 Customer with functioning meters	Nr.	110	110	110	110	110	110	110	110	100	100	105	105	
2.1.2 Customer with non functioning meters	Nr.													
2.2 Customers not metered	Nr.	3,377	3,477	3,497	3,444	3,445	2,960	3,011	3,588	3,675	3,835	3,831	3,910	
2.3 Inactive Customers	Nr.	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	1,642	878	878	878	
3. New Customers	Nr.													0
3.1 No. of illegal connections disconnected/legalized	Nr.													
4. Revenues Invoiced	Lek	2,659,493	2,017,244	1,933,124	2,041,071	1,888,611	1,907,000	2,196,000	2,035,882	2,051,026	2,339,000	2,555,758	3,106,940	26,731,149
4.1 Water - domestic metered	Lek													0
4.2 Water - domestic unmetered	Lek	1,134,141	909,757	912,863	1,064,317	1,027,210	900,000	1,284,000	1,081,483	1,085,014	1,268,990	1,144,141	1,145,940	12,957,856
4.3 Water - industry and institutions	Lek	1,201,100	866,784	787,146	728,367	629,840	780,332	633,450	720,494	212,333	285,087	956,486	1,469,056	9,270,475
4.4 Water - bulk supply and other	Lek	0	0	0	0	0	0	0	0	499,438	476,645	160,000	153,000	1,289,083
4.5 Sewerage - domestic	Lek	173,556	138,620	140,336	160,200	157,964	136,000	198,000	150,190	167,072	170,010	176,360	168,000	1,936,308
4.6 Sewerage - industry and institutions	Lek	150,696	102,083	92,779	88,187	73,597	90,668	80,550	83,715	87,169	138,268	118,771	170,944	1,277,427
4.7 Total billed revenues	Lek	2,659,493	2,017,244	1,933,124	2,041,071	1,888,611	1,907,000	2,196,000	2,035,882	2,051,026	2,339,000	2,555,758	3,106,940	26,731,149
4.8 Collection Rate [4.9 / 4.7]	%	51%	73%	69%	70%	65%	47%	90%	49%	63%	74%	83%	38%	64%
4.9 Total collected revenues	Lek	1,351,000	1,474,000	1,327,000	1,432,000	1,222,000	902,000	1,968,000	993,779	1,287,080	1,731,314	2,128,293	1,190,110	17,006,576
5. Expenses														
5.1Electricity (+water before March 2003)	Lek	1,036,310	1,383,400	1,102,050	1,303,300	1,877,372	1,160,715	877,017	756,832	645,952	1,204,127	883,597	1,487,272	13,717,944
5.2 Personnel	Lek	1,308,907	1,338,732	1,346,331	1,253,805	2,569,508	1,380,651	1,361,299	1,416,555	1,429,122	1,424,643	1,597,086	1,602,157	18,028,796
5.3 Chemicals and materials	Lek	158,950	158,950	158,950	158,950	158,950	197,500	202,000	310,000	197,450	183,000	184,500	260,300	2,329,500
5.4 Repairs and maintenance	Lek	42,391	42,391	42,391	42,389	42,391	3,000	63,750	0	14,500		15,000	55,880	364,083
5.5 Other cash expenses	Lek	132,139	132,139	132,139	132,139	132,139	118,190	32,820	79,300	350,790	226,210	475,676	199,870	2,143,551
5.6 Total cash operating expenses	Lek	2,678,697	3,055,612	2,781,861	2,890,583	4,780,360	2,860,056	2,536,886	2,562,687	2,637,814	3,037,980	3,155,859	3,605,479	36,583,874
5.7 Depreciation	Lek	740,194	740,194	740,194	740,194	740,194	375,000	375,000	375,000	1,000,000	1,000,000	2,000,000	1,000,000	9,825,972
5.8 Provision for bad debt	Lek													0
5.9 Total operating expenses	Lek	3,418,891	3,795,806	3,522,055	3,630,777	5,520,554	3,235,056	2,911,886	2,937,687	3,637,814	4,037,980	5,155,859	4,605,479	46,409,846
6. Subsidies	Lek	0	6,000,000	2,600,000	0	150,000	0	0	8,435,000	0	0	8,311,000	0	25,496,000
6.1 Repair and Maintenance	Lek													0
6.2 Electricity	Lek			2,280,000					8,435,000			8,311,000		19,026,000
6.3 Personnel	Lek		6,000,000	320,000		150,000								6,470,000
6.4 Chemicals and materials	Lek													0
7. Operating margin [4.7 - 5.9]	Lek	-759,398	-1,778,562	-1,588,931	-1,589,706	-3,631,943	-1,328,056	-715,886	-901,805	-1,586,788	-1,698,980	-2,600,101	-1,498,539	-19,678,697
8. Cash operating deficit [4.9 - 5.6]	Lek	-1,327,697	-1,581,612	-1,454,861	-1,458,583	-3,558,360	-1,958,056	-568,886	-1,568,908	-1,350,734	-1,306,666	-1,027,566	-2,415,369	-19,577,298
9. Cash on Hand	Lek									1,172,345	1,350,193	2,183,459	1,103,914	
10. Working ratio [5.6/4.9]		1.98	2.07	2.1	2.02	3.91	3.17	1.29	2.58	2.05	1.75	1.48	3.03	2.15
11. Total current assets	Lek											4,556,104		
12. Total current liabilities	Lek											255,758		
13. Current ratio [11/12]						#DIV/0!						17.81412116		
14. Hours of Supply	Nr.	7.2	8.6	8.6	7.8	9.5	9	7	7	7	7			
15. % of total population with minimum supply (two hours daily)	%													
16. Staff/1000 Water and Sanitation Connections		12.9	12.5	12.1	12.3	12.3	13.7	13.4	12.5	13.7	16.2	15.4	15.3	
17. Samples complying with faecal coliform standards	%	100	100	95.5	100	100	100	100	100	100	100			
17.1 Residual Chlorine in samples	mg/l													
18. Operation & Maintenance														
18.1. Reported pipe breakages	Nr.													
18.2 Leaks repaired	Nr.													
Ratio Waste water / water population														

Table B6. Water Supply Urgent Rehabilitation Project
Net Present Value/Economic Rate of Return

Component	Economic Rate of Return		Net Present Value	
	At completion	Appraisal	At completion	Appraisal
Durres Well Field, Pumping Station and Pressure Break Chamber Component (Capital cost: 248.09 million Lek)	12%	35%	22.38 million Lek	1,202.72 million Lek
Durres Transmission Main (Capital cost: 236.94 million Lek)	46%	53%	474.70 million Lek	101.55 million Lek
Fier Distribution Main (Capital cost: 330.33 million Lek)	20%	8%	226.93 million Lek	-6.27 million Lek
Lezha Distribution Main (Capital cost: 60.96 million Lek)	11%	29%	4.12 million Lek	31.06 million Lek
Lezha Rehabilitation of Wells and Pumping Stations (Capital cost: 104.03 million Lek)	82%	10%	284.52 million Lek	-1.28 million Lek
Saranda Navarice Spring and Transmission Main (Capital cost: 22.12 million Lek)	156%	11%	122.09 million Lek	3.16 million Lek
Total			**1,134.74 million Lek**	**1,330.94 million Lek**

Annex C. Comments from the Borrower

REPUBLIKA E SHQIPERISE

BASHKIA DURRES
e-mail:BashkiaDurres@atnet.com.al
Sheshi "Liria" , tel & fax +355 52 234 54 /223 10

Nr.extra Prot. Durres , 9th February, 2005

To: The World Bank
1818 H Street N.W.
Washington, D.C. 20433
U.S.A.

At the Kind attention of: Mr. **Alain Barbu,**
Manager Sector, Thematic and Global Evaluation Group
Operations Evaluation Department

Dear Mr. Barbu,

Re: ***Albania – Durres Water and Sanitation Rehabilitation (Credit 2610-ALB) and Water Supply Urgent Rehabilitation Project (Credit 3322-ALB) Projects. Comments on Draft Project Performance Assessment Report.***

I received the draft Project Performance Assessment Report compiled by OED regarding to - Durres Water and Sanitation Rehabilitation (Credit 2610-ALB) and Water Supply Urgent Rehabilitation Projects. Before giving my comments on them, 1 am taking advantage of this opportunity for thanking the World Bank for its contribution in water and other sectors for Durres town.

The first project is closed on October 2000, while the second is closed on March 2004. In the meantime is ongoing the Municipal Water and Wastewater Project, approved in December 2002.

The assessment of two aforementioned projects is linked with the ongoing Municipality Water and Wastewater Project (MWWP), with the strategy in the sector followed up by the Albanian government supported from the World Bank and other foreign donors.

We agree in general with the assessment of the projects made by your department and the ratings for the achievement of project objectives. In details I have the following comments for the two (in fact for the three) projects:

1 We are conscious regarding the development of the events during the execution time of the first project (1997), which had a big negative impact in the performance of the institutional reforms in the waterworks company and in achievement of the project objectives.

2 Taking into consideration that the transition period in Albania was right in the start, the reel investment needs in Durres water supply system, the project outputs foreseen in DWSR project were to much optimistic, which made more difficult the final expected achievements of the project.

3 Efficiency assessment (page 10)

We see that the average investment per capita was US$84, which is a very low financing figure comparing with the financing rate done in the same sector by the other donors. For ex. KfW is financing an average more than US$300/capita in the other cities in Albania for the similar projects. This is not only a difference of numbers, but we think that the projects need more funds for the physical investments. Without neglecting the importance for the reinforcement of the institutional aspects (illegal connections, water using for irrigation, low tariff collection rate, monitoring and financial management etc), for which we are paying more and more attention, here below we are briefly arguing the necessity of increasing the physicals investment amount for Durres.

Durres water supply system is composed by a main transmission of 45km long up to the distribution reservoir. There are connected around 40 villages along this main transmission. These villages do not have correct distribution networks, which make difficult the improvement of the water management in these areas. Representing only 40% of the population served, the rural area is consuming (and misusing) 60% of the water. It remains available for Durres city a quantity of the water corresponding to 70l/day/capita. In the last year the city population is doubled by the

internal immigration from the northeastern part of the country. The target immigration areas, as: ex-swampy, Spitalla, Porto Romano, beach, have very poor or not at all water and sewage networks. These areas need a complete new distribution networks. The MWWP covers only the operation investment costs, while the capital investment funds are foreseen to be covered by the coming projects financed by other donors (??). In few words, the improvement of the situation in the system is closely linked with considerable financing of the correct distribution networks in the rural area and in the areas subject of the immigration.

4 We are known with the coming project Integrated Coastal Management and Clean Up Program financed by the World Bank (it is expected around US$50 mio), but Durres it is not included on it.

Durres city, with its modern commercial & tourist harbor and beautiful beaches, is the second city in Albania with a relevant weight of the country's GDP. In the summer time, Durres sandy beaches are receiving around 40% of the tourists' country flux. The promotion of tourist area of Durres gulf can not be developed and promoted without a correct infrastructure, which actually is missing or very poor. The sewage networks are completely missing in these areas, and the non appropriate septic tanks used are a continuous risk for public health.

5 Outlook and Lessons (page 15, point 47)

In this paragraph is mentioned:

Quota

..... *In Durres and Saranda the issue of tariff increases has become politicized, as has the independence of the utility from municipal interference.*

Regarding this point we have the following comments:

Durres Municipality compounds more than 60% of the customers of Durres waterworks utility and it is the main actor in supporting institutionally the reforms to be undertaken by the Privat Operator (Berlinwasser International Company) under the Management Contract.

The Operator's performance and the fulfillment of their contractual obligations has been several times subject of hard discussions between Durres Municipality and the Operator's representatives. Our reluctance (or better non supporting behavior) of the request for the tariff increase made from the Operator it was not politicized. Our view is the water and wastewater

tariff increase needs to be applied step by step and in parallel with the improvement of the services for the customers. In the meantime, it is very difficult for us to support the tariff increase in front of the Municipality Council (organ for approval of the new tariff), if our citizens are not seeing reel and visible improvement of the services.

Shortly these were my comments regarding your assessment report, which perhaps need a more deep discussion in the future.

Sincerely yours

Lefter KOKA

Durres Mayor

REPUBLIC OF ALBANIA
MINISTRY OF FINANCE
DEBT DEPARTMENT

No. 212/1 Prot. Tirana, on February 9 ,2005

TO: **Mr. Alain BARBU**
Manager, Sector, Thematic and Global Evaluation Group
Operations Evaluation Department
World Bank, Washington

Subject: **Comments on Draft Project Performance Assessment Report**
Water Supply Urgent Rehabilitation (credit no. 3322 ALB)
Durres Water and Sanitation Rehabilitation (credit no. 2610 ALB)

Dear Sirs,

On behalf of the Ministry of Finance, I would like to thank you for the contribution given by the World Bank team working for the implementation of the projects: (i) Water Supply Urgent Rehabilitation and (ii) Durres Water and Sanitation Rehabilitation, which were of utmost importance for the Albanian Government.

After receiving the draft project performance assessment report on the said projects and discussing it with the specialists from the Ministry of Territory Adjustment and Tourism, we agree to its content.

We thank you for the up to date cooperation and hope the same spirit will also extend to other projects.

Sincerely,

Dritan SHANO

DEPUTY MINISTER

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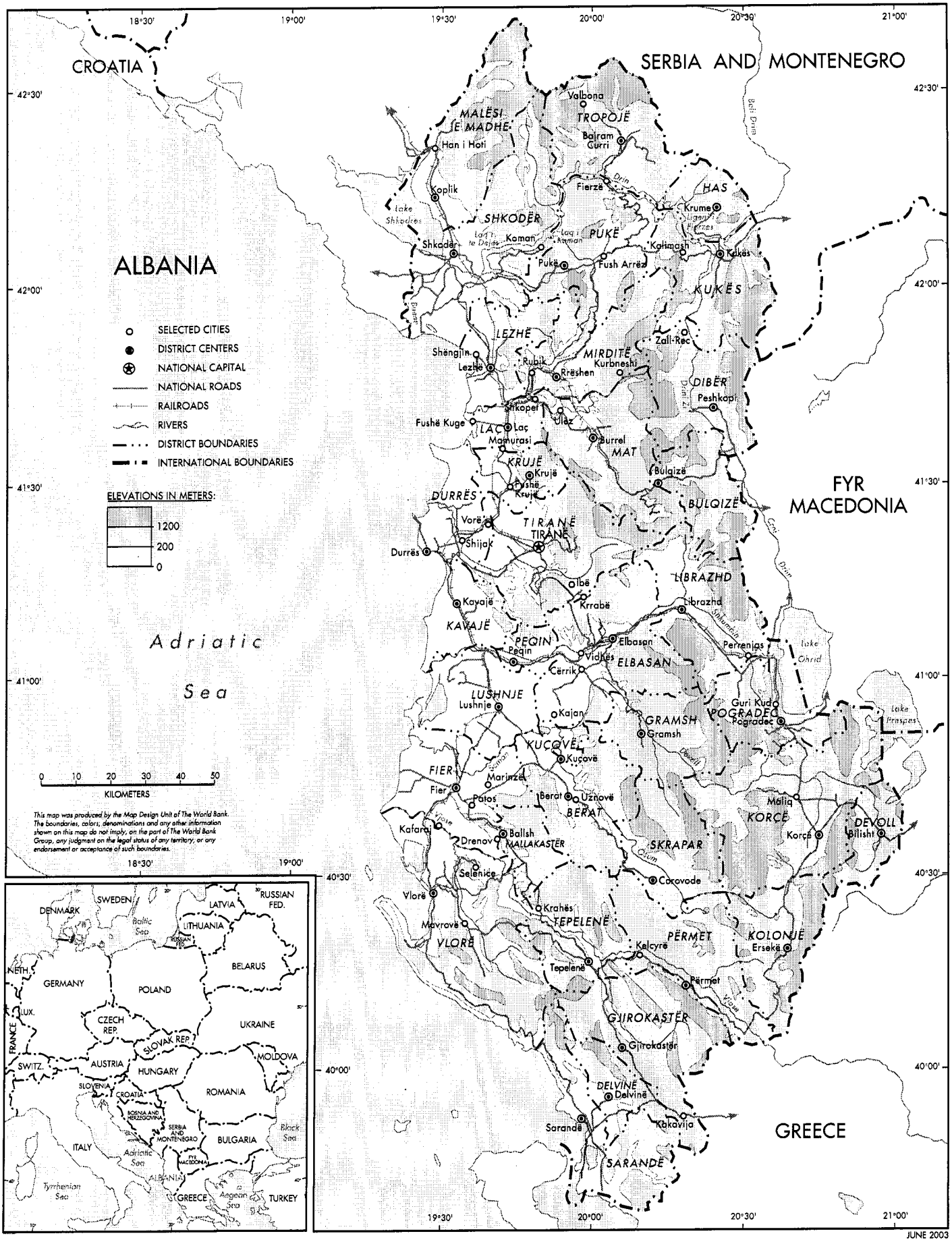
e-mail: mfole@minfin.gov.al


CROATIA
SERBIA AND MONTENEGRO
FYR MACEDONIA
GREECE
ALBANIA
Adriatic Sea
18°30'
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Valbona
TROPOJË
MALËSI E MADHE
Han i Hoti
Bajram Curri
Fierzë
HAS
Krumë
Koplik
Lake Shkodres
SHKODËR
Shkodër
Koman
PUKË
Pukë
Fush Arrëz
Kolsh
Kukës
KUKËS
LEZHË
Shëngjin
Lezhë
Rubik
Rrëshen
Kurbneshi
MIRDITË
Zall-Reç
DIBËR
Peshkopi
Shkopet
Ulëz
Fushë Kuqe
LAÇ
Laç
Mamurasi
Burrel
MAT
KRUJË
Krujë
Fushë Krujë
Bulgizë
DURRËS
Vorë
TIRANË
TIRANË
Shijak
Durrës
BULQIZË
LIBRAZHD
Librazhd
Elbë
Krrabë
Kavajë
KAVAJË
PEQIN
Peqin
Elbasan
Perrenjas
Lake Ohrid
Vidhës
ELBASAN
Cërrik
LUSHNJE
Lushnje
Kajan
GRAMSH
Gramsh
Guri Kuq
POGRADEC
Pogradec
Lake Prespes
KUÇOVË
Kuçovë
FIER
Marinzë
Fier
Patos
Berat
Uznovë
BERAT
Maliq
KORÇË
DEVOLL
Bilisht
Korçë
Kafarr
Drenovë
Ballsh
MALLAKASTËR
SKRAPAR
Selenicë
Corovode
Vlorë
Krahës
TEPELENË
Mavrovë
VLORË
PËRMET
Kelcyrë
KOLONJË
Ersekë
Tepelenë
Përmet
GJIROKASTËR
Gjirokastër
DELVINË
Delvinë
Sarandë
Kakavija
SARANDË
0 10 20 30 40 50
KILOMETERS
ELEVATIONS IN METERS:
1200
200
0
SELECTED CITIES
DISTRICT CENTERS
NATIONAL CAPITAL
NATIONAL ROADS
RAILROADS
RIVERS
DISTRICT BOUNDARIES
INTERNATIONAL BOUNDARIES
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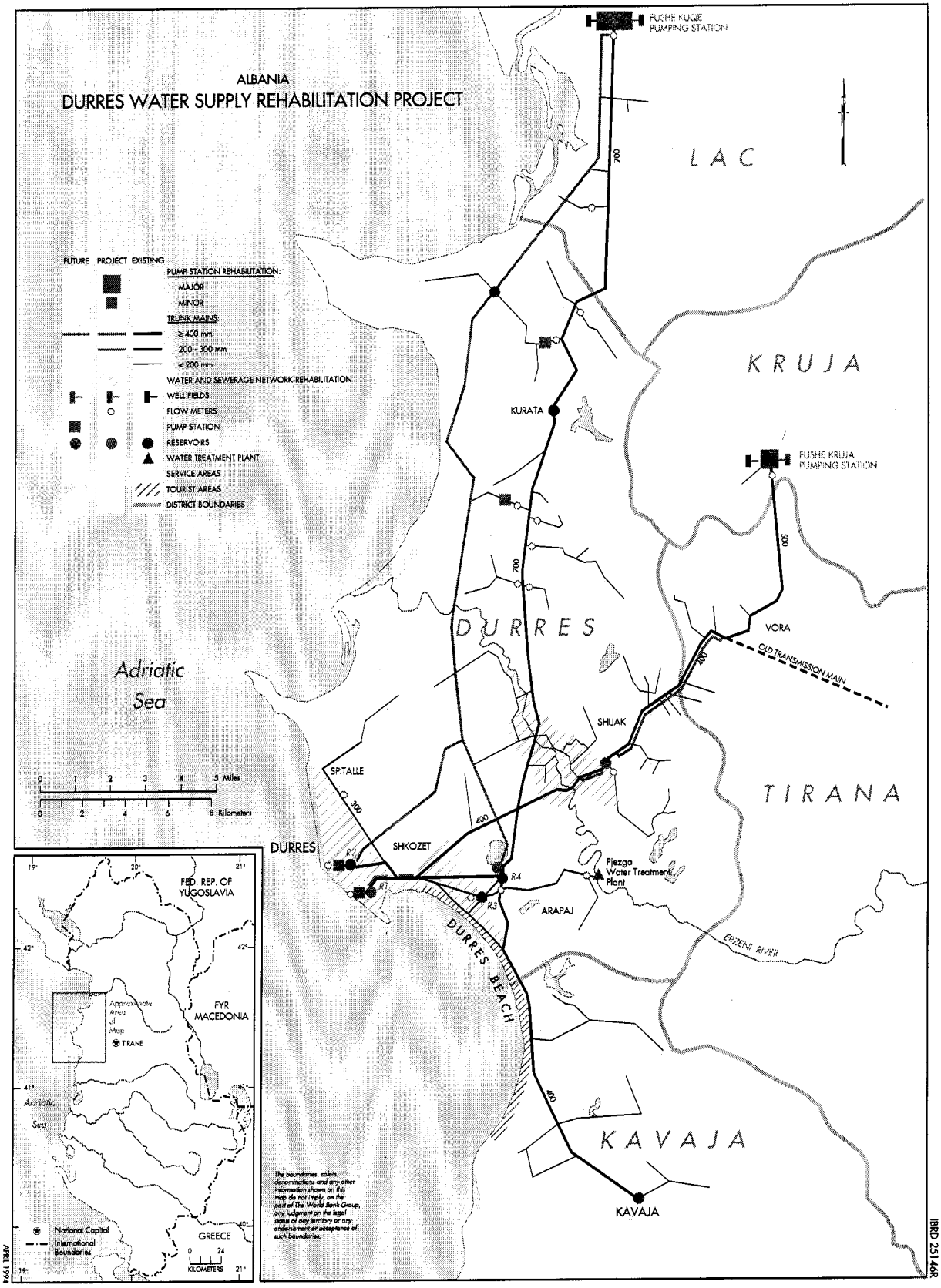
FRANCE
CZECH REP.
UKRAINE
SLOVAK REP.
SWITZ.
AUSTRIA
HUNGARY
MOLDOVA
SLOVENIA
CROATIA
ROMANIA
BOSNIA AND HERZEGOVINA
SERBIA AND MONTENEGRO
BULGARIA
Black Sea
ITALY
Adriatic Sea
FYR MACEDONIA
ALBANIA
GREECE
Aegean Sea
TURKEY
Tyrrhenian Sea

JUNE 2003


ALBANIA
DURRES WATER SUPPLY REHABILITATION PROJECT
FUTURE PROJECT EXISTING
PUMP STATION REHABILITATION:
MAJOR
MINOR
TRUNK MAINS:
≥ 400 mm
200 - 300 mm
< 200 mm
WATER AND SEWERAGE NETWORK REHABILITATION
WELL FIELDS
FLOW METERS
PUMP STATION
RESERVOIRS
WATER TREATMENT PLANT
SERVICE AREAS
TOURIST AREAS
DISTRICT BOUNDARIES
FUSHE KUQE PUMPING STATION
LAC
KRUJA
KURATA
FUSHE KRUJA PUMPING STATION
DURRES
VORA
OLD TRANSMISSION MAIN
SHIJAK
SPITALLE
TIRANA
SHKOZET
R1
R2
R3
R4
Piezga Water Treatment Plant
ARAPAJ
ERZENI RIVER
DURRES BEACH
KAVAJA
Adriatic Sea
0 1 2 3 4 5 Miles
0 2 4 6 8 Kilometers
FED. REP. OF YUGOSLAVIA
FYR MACEDONIA
TIRANE
GREECE
Approximate Area of Map
National Capital
International Boundaries
0 24 KILOMETERS
The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries.
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