

Twinning Cooperation between Riga Water Company and Stockholm Water Company

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Eastern Europe**

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Sida Evaluation 00/7

**Department for Central and
Eastern Europe**

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Foreword

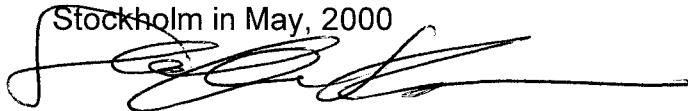
This report is based on a review of the twinning agreement between Stockholm Water Company and Riga Water Company, over the years 1995 to 1999. The twinning is a part of the Riga Water and Environment Project, one of several investment projects in the water sector in the Baltic Sea region that Sida co-finances.

Sida routinely commissions independent evaluation specialists, to review support to projects, draw conclusions and present recommendations. A review serves as one of several inputs both when monitoring and assessing projects and when planning and initiating new efforts.

The authors, Martti Lariola, Sven Öhlund, Bengt Håkansson and Indulis Emsis, have reviewed the results from activities of the twinning partners. Further, they have provided Sida with ideas for twinning and institutional development in future projects. The views and interpretations expressed in the report are, however, the responsibility of the authors.

We wish to thank the evaluation team, the twinning partners and the co-financiers for their work and participation in the review process.

Stockholm in May, 2000

A handwritten signature in black ink, appearing to read 'Staffan Herrström', written over a horizontal line.

Staffan Herrström

Head of Department for Central and Eastern Europe

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List of Abbreviations

AG	Aktien Gesellschaft
A/S	Joint Stock Company
BITS	Swedish Technical Assistance Agency
BOD	Biological Oxygen Demand
BOT	Build-Operate-Transfer
CDP	Corporate Development Plan
CV	Curriculum Vitae
EBRD	European Bank for Reconstruction and Development
ECU	European Currency Unit
EIB	European Investment Bank
EU/Phare	Technical Assistance Programme of the European Union
FIM	Finnish Markka
FOFEA	Swiss Federal Office of Foreign Economic Affairs
GmbH	Gesellschaft mit beschänkter Haftung
HELCOM	Helsinki Commission for Baltic Sea Environmental Management
HO	Head Office
IBRD	International Bank for Reconstruction and Development
IFC	International Finance Corporation
ISPA	EU Environmental financing facility for pre-accession countries
L/c/d	litres per person per day
LVL	Latvian Lat
NEFCO	Nordic Environment Finance Corporation
NIB	Nordic Investment Bank
PIU	Project Implementation Unit
RW	Riga Water Company
RWEP	Riga Water and Environment Project
SEK	Swedish Krona
SS	Suspended Solids
SIA	Limited Liability Company
Sida	Swedish International Development Cooperation Agency
SWC	Stockholm Water Company
SWD	Swedish Water Development
TA	Technical Assistance
TOR	Terms of Reference
USD	United States Dollar
WWTP	Waste Water Treatment Plant

Summary, Conclusions and recommendations

Summary

- Riga, the capital of Latvia with a population of 800,000 is the largest City in the Baltic countries. The City of Riga generates about 60% of the total municipal wastewater load of the country. Until the late 1980's, all wastewater was discharged directly to the Daugava River close to its outlet in the Gulf of Riga. The investment project has made an important contribution to the reduction of discharges and the improvement of the environment of the Baltic Sea.
- Before 1995, wastewater collected from Central Riga, representing a population of 200,000, was not connected to any of the existing wastewater treatment plants. About 60% of the distribution network is reported to be in bad condition. The water was treated at three wastewater treatment plants in Riga. The fairly recently constructed Daugavpils wastewater treatment plant, was in need of comprehensive rehabilitation.
- The total Swedish Grant for the implementation of Riga Water Environment Project (RWEPP) amounted to SEK 37.1 million (approximately 5.3 million USD at 1996 exchange rate). SEK 20.3 million was allocated for the wastewater treatment plant investments, and the rest (SEK 16.8 million) for project management (twinning and tender documentation). The total project cost is about USD 104.7 million.
- The overall objective of the twinning arrangement is to enhance water and wastewater management practices to achieve sustainable effects through the investment project. The long-term objective of the twinning concept is that the co-operation and exchange of information and support will continue on a collegial basis after that the formal twinning agreement has expired.
- Stockholm Water Company (SWC) and Riga Water (RW) initially started collaboration in 1992 within the framework of Nordic-Baltic cooperation in the water sector (there was earlier collaboration between Riga and Stockholm Cities for corporate development). The first phase of the twinning agreement (6 months in 1995–1996) with a budget of SEK 3 million was intended to support RW in project preparation and in the mobilisation of international loans from the European Bank for Reconstruction and Development (EBRD) and the European Investment Bank (EIB), and grants from the Swedish, Swiss and Finnish Governments, in addition to local financing.
- The budget for the second phase of twinning was SEK 16.8 million (approximately USD 2.4 million at 1996 exchange rate). It was divided into support for a Priority Investment Programme and for an Institutional Development Programme. Since 1992, SEK 24.8 million of grant financing has been allocated for preparatory technical assistance and twinning cooperation between SWC and RW.
- The planned input from SWC for RW within the Twinning Agreement (Phase II) framework was 142 man-months (Table 2). The actual input, estimated until the end of 1999 will be 93 man-months. In 1996 the actual input was 33% above the plan, but in 1997–1999 the actual input has been 53%–69% of the plan.

Conclusions

Corporate Governance

- The governance structure of RW has been reformed during the twinning period. SWC has actively participated in this process and influenced both RW's top management and Riga's municipal decision-makers in modernising the governance structure and practices.
- The Regulatory Unit, set up in 1997, still has to consolidate its role and professional independence, and resist excessive political interference. The regulatory function could have been adopted by RW's Supervisory Council until the eventual of privatisation of municipal infrastructure.
- A new governance framework at RW has not been fully implemented. RW's symbiosis with the municipal administration still continues despite the establishment of the Supervisory Council and the Regulatory Unit. Close monitoring of RW by a municipal committee is not in line with modern corporate governance.

Corporate Development Plan

- The installation and consolidation of the corporate planning process at RW is a major achievement. The RW management and staff are now able to manage the planning process independently, with supervisory assistance from SWC only.
- A Corporate Development Plan (CDP) was rightly chosen as the principal tool for comprehensive utility transformation. The current version of the CDP fails to present specific, measurable performance targets in various functional areas, as requested by the TOR. The Long-Term Investment Programme is not included, yet. The overall quality of the plan needs to be essentially improved in terms of structure, contents, and readability.
- The contribution of SWC to the corporate planning process, in terms of practical help and quality control could have been more pronounced. SWC's twinning experience in Kaunas proved to be very useful at RW.

Management Development

- The Finance Department of RW is well organised. The basic budgeting, planning and financial reporting systems are in place and producing relevant information. The financiers and other stakeholders are very satisfied with the quality of information. The key persons in the Finance Department deserve to be commended for their work.
- SWC's contribution to the development of financial and management accounting systems was below expectations. The RW financial staff benefited most through direct contacts with SWC financial experts.
- The Department Managers had received some assistance from the long-term experts in their development work. The most valuable contribution, however, originated from their counterparts at SWC during visits to Stockholm, or vice versa, during their counterparts' visits to Riga.
- The Sales Department and the Customer Services Department have only recently been reorganised. The new customer database software is gradually being installed. SWC helped RW to identify the need for modern customer relations, including reliable metering and meter reading, computerised billing and effective bill collection.

- RW water benefited decisively from the SWC's short term expert in the revision of metering policies and practices, and in the purchasing and installation of 5,600 new (master) meters.
- The results of efforts made to reduce staff numbers have so far been not too impressive. Cost comparisons of outside vs. in-house services should be further developed and applied. More input would be required in assisting RW to achieve substantial reduction in O & M costs.
- Their public relations policy of RW seems to be well developed. It covers various current and potential customer groups, including schoolchildren, in order to increase their awareness of effective demand management and sanitary standards.

Advisory and Training Input

- Direct contacts between RW and SWC staff members have proven to be the most valuable form of twinning. These contacts have been co-ordinated by the Water Utility Management Adviser. In addition to connecting people in the two organisations he has been active in many areas of RW operations, and provided useful support to RW's staff members in day-to-day management issues.
- According to the original work plan, the share of long-term advisors was expected to be 65% of the total advisory input. The actual share has been close to 70%. The RW staff almost unanimously prefers short-term advisors and direct contacts with SWC staff.
- With the exception of the current Management Advisor, the other three long-term advisors were recruited from outside SWC. They had neither former experience in the water sector nor relevant exposure to transition issues in the Baltic countries. Their contribution remained substantially below the requirements of the TOR and the expectations of RW staff. As their share was 47% of all advisory input (man-months), it also had a decisive impact on the overall efficiency of twinning.
- The various twinning modules have included training components. Study tours to SWC, and on-the-job training provided by SWC experts, have been the most useful form of training. The usefulness of long-term advisors in training has been limited. Transfer of know-how has taken place on a wide front. The twinning agreement between RW and SWC has been instrumental in this process.
- Although the centre of activity in the twinning arrangement is very much in the field, an efficient Home Office support is necessary for coordination, project administration and reporting. Successful twinning also requires an in-house core staff.

Overall Assessment

- The twinning arrangement has essentially stimulated and supported the process of transforming RW into an autonomous, self-financing and self-governing enterprise. There is a better understanding and appreciation on political level of the requirements for arriving at a administratively and financially independent water company. RW currently complies with all the covenants of the financiers. Although RW's performance has improved in all key areas of institutional development and management, much work remains to be done.
- The implementation of the Priority Investment Programme has proceeded well. The PIU is well organised with a qualified staff. However, there are significant delays in the implementation of several procurement contracts (up to 23 months; average delay about one year). The initial changes in twinning staff, and the delay in recruiting a PIU advisor, may have contrib-

uted to the delays. The overall completion date of RWEP (by the end of 2000) is still expected to be realistic.

- RW's management and staff have benefited from the expertise provided by SWC. Direct contacts between RW and SWC staff have proven to be more valuable than the presence of long-term advisors in Riga. A high level resident advisor, who knows both organisations thoroughly, is very necessary and highly valued. Other long-term advisors have had a more limited impact on management and staff development than expected. RW staff prefers study tours to Stockholm and contacts with their respective counterparts.
- The twinning agreements are still far away from management contracts and other forms of public-private partnership agreements in terms of specific performance targets. In practice, the number of Swedish water utilities that are both willing and competent to commit themselves to such detailed contractual obligations is very limited.
- RW is still behind international benchmarks of institutional, technical, financial and environmental efficiency. The progress towards decentralised management and delegated decision-making requires continued joint efforts by RW and SWC during the remaining twinning period.
- RW is very satisfied with the twinning arrangement and wishes to continue close cooperation with SWC beyond the current twinning agreement.
- The Project Steering Committee members highly value SWC's readiness for trouble-shooting and willingness to assist in the interaction between RW and the stakeholders throughout the project preparation and implementation process.

Recommendations

Sida

- Should encourage competition among potential Swedish twinning partners
- Should include in Terms of References pre-determined, measurable targets in technical, environmental, financial and institutional performance
- Should request from short-listed twinning candidates proposals, which include a detailed description of approach, tasks, participating experts, time schedules, outcomes and budgets
- Should request fewer, shorter, but more informative reports
- Should promote twinning based on in-house, short-term advisors supported by a highly competent management advisor/coordinator and a well-organised home office support

Stockholm Water Company (SWC)

- Should build twinning cooperation on in-house resources, and strengthen the home-office support function
- Should have one experienced resident management advisor/coordinator at the target utility from the preparatory period onwards
- Should establish direct "counterpart" contacts between the twinning organisations and allocate majority of the total twinning resources to short-term experts, on-the-job-training and study tours

- Should provide incentives (financial and non-financial) for experts participating in twinning arrangements
- Should make an audit of the training courses to ascertain that topics and substance are relevant, appropriate and commensurate with the new philosophies and methodologies being introduced at RW
- Should reduce the quantity and increase the quality of reporting and review reporting practices. The reports should compare actual results with original plans, preferably in numerical terms.
- Should support RW to edit the Corporate Development Plan to emphasise the objectives and targets of the organisation as a whole (financial and administrative) with specific numerical targets set for the different parameters of importance for the operations
- Should prepare a detailed Work Plan with measurable objectives, scope of work, resource plan, time schedule and budget for the remaining twinning period

RW

- Should voluntarily adopt a limited liability or joint stock company status, and make the required revisions to statutes and governance structures
- Should further improve the Corporate Development Plan to become the key management tool, ensuring the consistency of functional plans and investment projects with financial projections
- Should reduce staff and intensify systematic cost savings through efficiency improvements, outsourcing, divestments and generation of additional income
- Should focus the remaining twinning resources on priority tasks defined below (page vii) and propose cooperation with SWC to continue beyond the year 2000, with internal financing

Riga Municipality

- Should discontinue the monitoring of RW by the Committee of Communal and Apartment Issues, and delegate this function to RW's Supervisory Council.
- Should facilitate RW's transformation into a limited liability or joint stock company, and adopt owner's role in a modern corporate governance environment
- Should investigate public-private partnership options in the water sector

Donors and Financial Institutions

- Should further develop the Corporate Development Plan framework for twinning
- Should base twinning contracts on pre-determined performance objectives
- Should encourage competitive bids for twinning, and closely monitor the selection of key resources
- Should consider private sector participation options as alternatives to twinning
- Should simplify reporting requirements and the quantity of paperwork in general

Twinning Focus for the Year 2000

Institutional Development Programme

- Assist in the transformation of RW into a limited liability or joint stock company, revision of statutes and governance structures
- Revise the Corporate Development Plan with focus on performance objectives, cost savings, strategic investments, financial projections, and on implementation
- Design a Long-term Investment Programme (including ISPA financing for 4 projects) and incorporate it into the CDP
- Further development of Long-term Assets Rehabilitation Programme
- Revision of the tariff formula (based on recovered subsidies and new water sales prognosis)
- Support the installation of the new customer database and billing software

Priority Investment Programme

- Assist with design of by-pass at WWTP
- Assist in sludge treatment project
- Monitor Leakage and Networks Rehabilitation Programme

1. Introduction

1.1 Programme context¹

Institution building is essential in improving efficiency of local water utilities, introducing modern utility management and administration and the adoption of full cost recovery principles. Twinning arrangements between Baltic and Swedish water utilities have been established in several projects.

The Swedish International Development Cooperation Agency (Sida) supports institutional strengthening through twinning in seven Baltic water and wastewater projects. Five of them are World Bank-financed projects (Daugavpils, Haapsalu, Klaipeda, Liepaja and Siauliai) and two are EBRD-financed projects (Kaunas and Riga).

The overall goal of twinning is to support the Baltic water utilities in the process of transforming them into independent, well-managed, financially self-sustaining municipal companies through twinning co-operation with Nordic water utilities, and thus promote sustainable environmental management around the Baltic Sea.

Riga is situated on the Daugava River near its outlet into the Gulf of Riga. The twinning cooperation between Riga Water and Stockholm Water Company is a part of the Riga Water and Environment Project, one of several projects in the water sector in the Baltic Sea region that Sida co-finances.

The investment programme now under way includes rehabilitation and expansion of the water supply system, improvements in wastewater treatment and the creation of an efficient, financially self-sufficient water and wastewater company in Riga. Sida is providing SEK 37.1 million (USD 4.6 million at current exchange rate) in project financing to expand the wastewater treatment plant and for the cooperation agreement between Riga Water and Stockholm Water. The total project cost is USD 104.7 million. Other financiers are the EBRD, the EIB, the Finnish Ministry of Environment, the Government of Switzerland, the Latvian Government, the City of Riga and Riga Water.

The overall objective of the twinning is to introduce sustainable water and wastewater management practices to achieve sustainable effects of the investment project. The twinning arrangement is divided into an Institutional Development Programme where Stockholm Water Company shall support Riga Water in improving and strengthening its overall performance, and in a Priority Investment Programme, where Stockholm Water Company shall support the Project Implementation Unit that has been established within the Riga Water organisation in order to implement the Investment Project.

The budget for the twinning cooperation (Phases I and II) in Riga amounts to SEK 19.8 million – approximately 2,7% of the total project budget and a substantial share of the total Swedish support. The twinning arrangement with Stockholm Water in Kaunas, Lithuania – another investment project where EBRD is the main financier and lead agent – is of the same scale. In Riga and also in Kaunas, twinning comprises institutional strengthening and support to the PIU as part of the investment project. Twinning in other water and environment projects with the World Bank as lead agent are less extensive and do not include grant support to the PIU. Supervision of twinning is more keen in the World Bank projects.

¹ As expressed in the Terms of Reference

In order to assess Sida's support and assist the planning for the remaining period of twinning a specific evaluation of the cooperation between Riga Water and Stockholm Water is necessary. The purpose of this review is to assess Sida's support to the twinning arrangement and the results achieved until now, and to assist the planning and implementation of the remaining period of twinning. The evaluation process should provide a base for dialogue and discussion among the stakeholders, regarding twinning as a tool for institutional development, capacity building and policy change; operational improvements; and quality of the implementation of the investment programme. Suggestions for changes and improvements in the ongoing twinning cooperation should be put forward. Possible improvements concerning the objectives, methodology and allocation of resources should be discussed.

1.2 Project history

Within the framework of the Helsinki Commission (HELCOM) the Baltic Sea Environmental Action Programme was endorsed at a ministerial conference of the Baltic Sea countries in 1992. The objective of the Programme is to address the environmental problems and restore the ecological balance of the Baltic Sea. During the period 1989-98 the Swedish Government has allocated SEK 1,031.5 million to different environmental projects within the Programme. Projects aiming at improved water supply and wastewater treatment have been of high priority.

In the Baltic region, Sida has financed or decided to finance 13 projects within the water supply and waste water sector to a total amount of SEK 327 million. Some of them have already been implemented or are under implementation (Liepaja, Daugavpils, the 800+ programme for five smaller townships and the present Riga Water and Environment Project in Latvia, Klaipeda, Kaunas and Siauliai in Lithuania and Haapsalu in Estonia). Other projects are under preparation. In Estonia feasibility studies are under way for a wastewater treatment plant for the city of Narva and for a Water and Waste Water Accession Programme for 17 smaller townships. In Latvia feasibility studies are under preparation covering the water and sewage systems for five smaller townships and for the city of Jurmala outside Riga. Further support is envisaged for the Siauliai programme in Lithuania. Also in Poland (Bydgoszcz and Poznan) and Russia (St Petersburg and Kaliningrad) are projects under preparation aiming at improved water supply and wastewater treatment.

The Stockholm Water Company (SWC) began co-operation with the Riga Water Company (Riga Water) in 1992 with the aim of improving the operations of Riga Water. In 1994 the Riga Water and Environment Project (RWEP) was defined with the following overall objectives:

- 1) to improve the water and waste water services of the City of Riga, and
- 2) to improve the environment of the Daugava River and the Baltic Sea.

A Project Feasibility Study was prepared by Riga Water with the assistance of SWC and the Swiss Federal Office of Foreign Economic Affairs (FOFEA) and presented in December 1994. The Study concluded in a recommendation of a project with total investment costs of about USD 100 million.

After having received positive indications from potential financiers of the project (EBRD, EIB, the Governments of Finland, Sweden and Switzerland, etc.) it was decided to go ahead with detailed project preparations bringing the project up to a stage where it was ready for financing and implementation. Riga Water turned to SWC and FOFEA for further assistance in this task and on 4 September 1995 an agreement was signed between the three parties on a Project Preparation Assistance Programme (Phase I of the Twinning Programme). The objectives of Phase I of the Programme were the following:

- 1) to propose activities for improvements in the institutional, legal and financial performance of Riga Water, and
- 2) to propose an investment programme for improving the technical performance of the operations.

The Agreement was financed by Sida and FOFEA.

The Project preparation work was ready in March 1996 with a recommended investment programme with a total cost of USD 104.7 million. Financing of the Programme was secured through EBRD and EIB (39%), the City of Riga and Riga Water (46%) with remaining portions coming from the Governments of Latvia, Finland, Sweden and Switzerland. Sweden, through Sida, agreed in a Grant Agreement of October 1996 to finance (i) the Twinning Agreement Phase 2 between Riga Water and SWC, (ii) equipment for rehabilitation and extension of the aeration system and the new by-pass of the biological treatment unit and (iii) consultancy services for the preparation of tender documents for the waste water treatment plant. The total grant was SEK 37.1 million of which SEK 16.8 million was allocated to the Twinning Agreement and for the preparation of tender documents.

In November 1996 a Twinning Agreement was signed between Riga Water and SWC with the objectives of:

- promoting environmentally sustainable management and development of municipal infrastructure;
- improving the quality and reliability of the water supply and waste water services in Riga;
- enhancing the financial performance through improved management, operational efficiency, cost recovery and institutional development transforming Riga Water into an autonomous, self-financing and self-governing enterprise;
- improving the environmental conditions in the lower reaches of Daugava River, the Gulf of Riga and the Baltic Sea by reducing the environmental impact of effluents from the City of Riga.

The objectives should be achieved by SWC 1) providing support to the Riga Water Management in organisational, managerial, administrative and operational procedures and systems, 2) supporting the Project Implementation Unit to be set for project investments and 3) training of Riga Water Management and Staff.

1.3 Methodology and implementation

There is no widely accepted methodology to review the impact of twinning for the technical, financial, environmental and institutional performance of a water utility. The impact of twinning is embodied in project quality, policy change, institutional development, training and similar outputs. It is not possible to compare with/without scenarios of individual project components, especially in the transition economies. Therefore, the chosen evaluation methodology in this report is essentially qualitative, based on over 30 in-depth interviews with the primary sources of information.

The Consultant has reviewed the documentation listed in Annex 3. Additional documentation, including the annual reports and latest financial data has been received and used as supporting information.

During the visit to Riga the Consultant interviewed key Board members and management representatives at RW, and the Resident Management Advisor of SWC. Additional interviews were organised in Stockholm with Sida and with SWC. The principal financiers were contacted by personal interviews and by e-mail.

The results of the review are presented in this Draft Report that documents the relevant findings, conclusions and recommendations of the Consultant. The Final Report will incorporate corrections and comments suggested by Sida, and by other stakeholders. The results will also be presented to the Steering Committee of the investment project.

Sida commissioned LarCon Oy (Consultant) to review the twinning arrangement between Riga Water (RW and Stockholm Water Company (SWC) in August 1999. The LarCon team comprised the following members:

- Mr. Martti Lariola, LarCon Oy, Team Leader
- Mr. Bengt Håkansson, Technical Expert
- Mr. Sven Öhlund, Devfin Advisers AB, Institutional Expert
- Mr. Indulis Emsis, Euroconsulting, Advisor

During the course of the review the consultants assessed relevant documents from Sida, RW and SWC, and contacted the key stakeholders. The Consultant visited RW from October 11 to 14, 1999, interviewed key managers and visited the project sites. The Consultant also conducted interviews at Sida and at SWC. The Draft Report was submitted to Sida on October 31, 1999. The Terms of Reference of this assignment is included as Annex 1. A complete list of interviews is included as Annex 2.

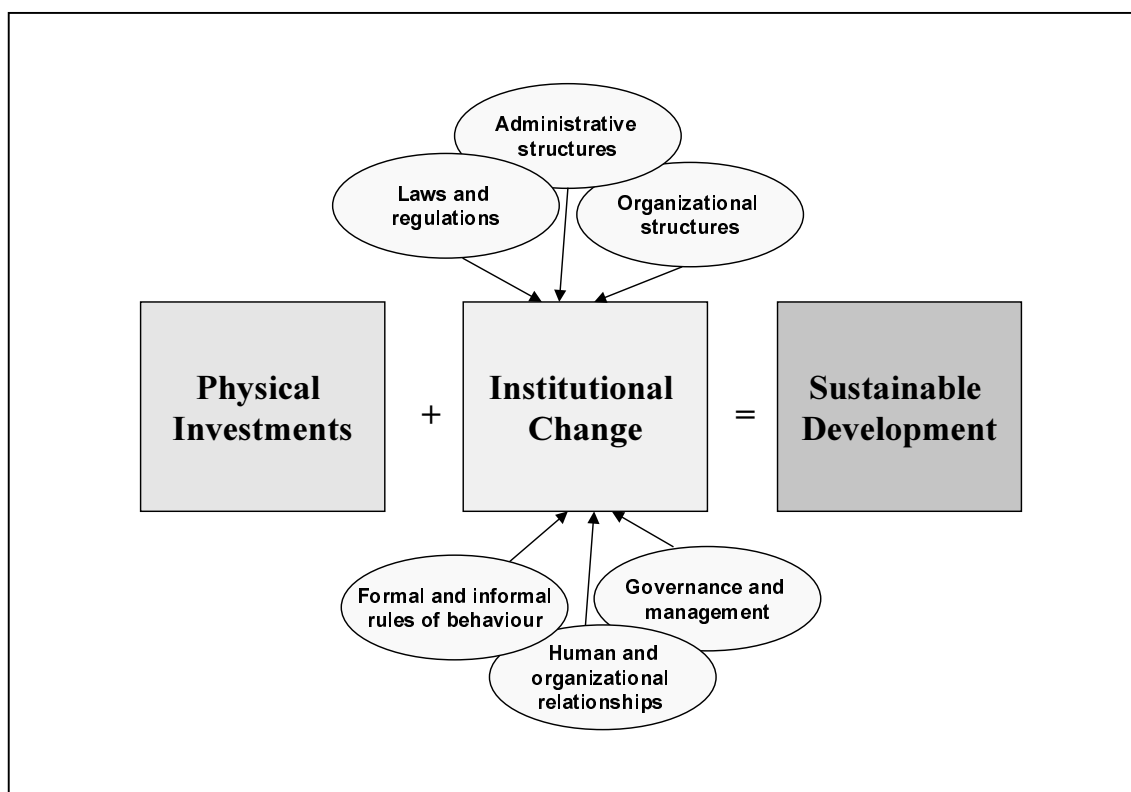
2. Approaches to institutional development

2.1 Sustainable development

A holistic approach to development requires a comprehensive framework that integrates physical investments with institutional change (Figure 1). It sees conducive legal and administrative structures, formal and informal rules of behaviour, local “ownership” of a project, and the participation of all stakeholders as critical preconditions for sustainable development. The stakeholders need to develop a collective, long-term vision of their organisation. Sustainable results can be achieved by combining structural, human, physical and sector dimensions of development.

Figure 1

Sustainable Development



Water utility investment projects in the transition economies require special measures for institutional development. The Soviet legacy of water utility management does not match with current western management principles. Money spent for technical improvements risks to be wasted without a simultaneous change in legislation, utility governance and management practices. An effective organisation providing water and wastewater services, and strong enabling institutions are central to holistic development.

Institutional change is overwhelmingly incremental. Societies and organisations react differently to the same institutional constraints due to the different evolutionary paths and cultural backgrounds. Common set of rules does not necessarily lead to common behaviour. The political process and

informal constraints influence the creation of efficient institutions and, ultimately, growth and development.

2.2 Public service providers vs. private sector participation²

With the exception of a few countries with strong public service traditions (like Sweden and the other Nordic countries), public water utilities have often performed poorly in terms of service reliability, productivity, customer service, financial management, and the planning and implementation of investment projects. These problems are particularly visible and acute in Central and Eastern Europe.

There are two options to rectify the observed deficiencies:

- 1) Improve the services within the public sector
- 2) Open water utilities for private sector participation

The public and the private sectors are in continuous interaction with each other. Business management concepts, like corporatisation, full cost-recovery, identification of core vs. non-core services, out-sourcing, and delegation of authority, have had increasingly visible, positive impact on the public utilities. Private sector operators have made successful inroads into provision of public infrastructure services and released scarce public funds for other purposes. The constraints for private sector participation are predominantly political.

Technical assistance for institutional strengthening could be provided through consulting services and through twinning. There is no universally accepted definition for organisational twinning. It normally means voluntary cooperation between “sister” utilities, which encourages adoption of new procedures, techniques and management systems. It builds on a long-term relationship between the institutions, and between individuals in corresponding positions. The long-term objective of the twinning concept is that the co-operation and exchange of information will continue on a collegial basis after the formal Twinning Agreement has expired.

Twinning has been experimented with mixed results in development co-operation, and more recently in the eastern European transition process. It favours gradual change with existing owners, organisation structures and employees and avoids “shock therapy”.

The realisation of the deeper cultural connections and practical limitations of institutional change on one hand, and the often disappointing results of twinning on the other, have prompted its sponsors to look for other ways to implement organisational and institutional change. However, twinning often remains the preferred choice by stakeholders, particularly as it normally includes financial support from the donor community.

Twinning is often presented as an alternative to hiring consultants. In practice, twinning partners seldom possess and are able to make available required resources for all the detailed tasks of institutional and management development. Particularly management and administrative issues have proven to be difficult areas for the twinning partners to cover. Therefore, the twinning partners often end up contracting outside specialists for specific tasks.

Management and engineering consultants participate in the preparation and implementation of water sector investment projects by preparing feasibility studies, by making detailed designs for

² Sida's policy as a government agency is to provide grant funding to public utilities only.

project components, and by carrying out specific tasks for institutional, management, financial, technical and environmental development. These services are available at short notice and they support both twinning and privatisation operations at water utilities. The international financial institutions are experienced users of consulting services both for technical assistance and for privatisation.

Institutional strengthening can be designed as a separate technical assistance component in an investment project. Alternatively, institutional development can take place within a public-private participation framework. Municipal water utilities are typical examples of public-private partnership arrangements. These options have been considered in Riga, but the political decision-makers have rejected them and opted for the “Nordic model” of publicly operated water utilities. A public-private partnership is still an available future option for Riga to implement major network investments, and to release municipal financial resources for other uses.

Globally, private sector participation has become increasingly popular in the development of water and wastewater services. The public sector has realised that it alone cannot meet the huge cost of providing clean water and necessary sanitation services. The private sector can help the public sector leverage financial resources. It can take care of operation and maintenance of utilities, and participate in the planning and implementation of investments and system rehabilitation.

3. The Setting of Riga twinning

3.1 Riga Water Environment Project (RWEP)

Riga, the capital of Latvia with a population of 800,000 is the largest City in the Baltic countries. The City of Riga generates about 60% of the total municipal wastewater load of the country. Until the late 1980's, all wastewater was discharged directly to the Daugava River close to its outlet in the Gulf of Riga. The investment project has made an important contribution to the reduction of discharges and the improvement of the environment of the Baltic Sea.

The main issues in Riga largely reflect those of the water and sewerage sector in the region: poor quality of services; environmental degradation; inadequate funding; inefficiency and low productivity. The water production in 1995 was 378,000m³/d (or 479 l/c/d³), a consumption level well above that of Western Europe. The water is supplied 60% from ground water and the rest surface water. The quality of the groundwater is met most of the time whereas the quality from the surface water is below national and international standards. Quality problems are mainly caused by high iron concentrations, micro-pollutants, and organic matter as well as infiltrated surface water. The poor condition of the water distribution network reduces the reliability of water services and increases the risk of contamination of drinking water from leaking sewers.

Before 1995, wastewater collected from Central Riga, representing a population of 200,000, was not connected to any of the existing wastewater treatment plants. About 60% of the distribution network is reported to be in bad condition. The water was treated at three wastewater treatment plants in Riga. The fairly recently constructed Daugavriwa wastewater treatment plant, was in need of comprehensive rehabilitation.

The objectives of the Riga Water and Environment Project are to improve the quality and reliability of the water supply and sewerage services in Riga and enhance the financial performance and autonomy of Riga Water through institutional development. A thorough analysis of projects has been carried out to identify the most cost-efficient investments yielding the highest significant financial, economic and environmental benefits. The project has been developed in conjunction with EBRD, EIB, Swiss and Finnish Governments, Sida, Riga Water, City of Riga and Ministry of Environmental Protection and Regional Development. The total project cost is estimated to USD 104,7 million including contingencies.

The Priority Investment Programme includes the following components:

- Rehabilitation and extension of Daugava water treatment plant
- Rehabilitation of ground water intakes and distribution stations
- Construction of new water mains
- Rehabilitation and extension of the water network
- Water metering programme
- Rehabilitation and extension of Daugavriwa waste water treatment plant
- Introduction of waste water collection from Central Riga
- Rehabilitation and extension of the waste water collection system

³ Litres per capita per day

To complement this, a performance and regulatory improvement programme will address the institutional deficiencies.

The Swedish financing of SEK 37.1 million (appr. USD 5.3 million⁴) was allocated for three main components:

- 1) Supply of equipment for rehabilitation and extension of the biological treatment unit in the Daugavriņa wastewater treatment plant (SEK 20.3 million). The treatment process shall remain as biological phosphorus removal process. After completion of the investments the effluent from the treatment plant will fulfil HELCOM standards.
- 2) Preparation of tender documents, and
- 3) Project management and twinning arrangement (SEK 16.8 million, including the preparation of tender documents) for the institutional strengthening and development between Riga Water and Stockholm Water. This includes strengthening the technical, operational, financial and managerial capacity of RW, and assistance in the preparation and implementation of the corporate development plans.

3.2 Twinning agreements

Preparatory Phase (1992–1995)

SWC and RW initiated their collaboration in 1992 within the framework of Nordic-Baltic cooperation in the water sector. The Swedish Ministry of Environment supported this activity with a budget of SEK 5 million. SWC assisted RW in the preparation of feasibility studies and by providing minor equipment (sludge handling centrifuge) to solve acute environmental problems.

In January 1995 SW applied for additional funds (SEK 11 million) from BITS for continued cooperation. This application was turned down. Instead, the Swedish authorities decided – in close consultation with EBRD – to direct technical assistance for the preparation and implementation of the planned investment project.

Twinning Agreement, Phase I (1995–1996)

The first phase of the twinning agreement (6 months in 1995 – 1996) was intended to support RW in project preparation and in the mobilisation of international loans from EBRD and EIB, and grants from the Swedish, Swiss and Finnish Governments, in addition to local financing. SWC assisted RW in meeting the conditions of effectiveness for loans and grants, and in the preparation of RWEP implementation. The budget (Swedish contribution only) for Twinning Phase I was SEK 3 million.

SWC contribution came mainly in the form of two long-term experts (Management Advisor and Financial Advisor) and four short-term experts.

Twinning Agreement, Phase II (1996–2000)

The total Swedish Grant for the implementation of RWEP amounted to SEK 37.1 million. SEK 20.3 million was allocated for the wastewater treatment plant investments. The budget for the second phase of twinning was SEK 16.8 million (approximately USD 2.4 million at 1996 exchange rate). It was divided into PIU support and to the actual twinning arrangement.

⁴ At 1996 exchange rate;

The Twinning Agreement for Phase II (1996–2000) covers the period of 11 November 1996 through 31 December 2000⁵. It provides support to RW in the implementation of the Riga Water and Environmental Project (RWEPP) and specifies briefly the Scope of Work, Reporting, the Administration of the Co-operation, the Contract Parties' respective Duties and Responsibilities, the Terms of Payment and a Timetable. Appended to the Agreement are a Procurement Plan for the RWEPP, Terms of Reference for SW and for the Project Implementation Unit (PIU), a general budget for the twinning arrangement and a general time chart for implementation of the Investment Project.

The Terms of Reference for the Twinning Agreement Phase II cover the Scope of Work for improvements in the management, organisational and administrative procedures and systems, operational support to the RW management team, support to the PIU. They further cover the provision of training and know-how transfer. The TOR also gives a brief description of the tasks and requirements of three long-term advisors and one short-term advisor.

An important element of the management and organisational support is the preparation of a long term Corporate Development Plan (CDP) for RW. The TOR specify the major components of the Plan and underlines the importance of establishing performance indicators against which progress can be measured in the years to come. Assistance in the preparation of the CDP was planned to be a major task for the Water Utility Management Advisor. He should also be the overall co-ordinator of the Project, assist the RW Management in administrative and operational issues and co-ordinate Programme implementation and the training Programme.

The second long term advisor, the Project Implementation Advisor, should primarily assist and advise the PIU in all matters relating to implementation of the Priority Investment Programme, including preparation of tender documents, procurement matters and contract negotiations.

The third long-term advisor, specified in the Terms of Reference, was the Finance Advisor. He was expected to assist the RW Management in the development of the finance function and the financial management of the Company. He was to look after the adherence to the financial covenants of the loan agreements and assist in developing an information strategy and in other areas of relevance to his profession.

In addition the TOR foresee the need of a short-term advisor for customer awareness and public relations issues. Other unspecified short-term advisors were foreseen as well. The Terms of Reference were adequately detailed and clear for the Consultant to have guidance for the work to be performed.

3.3 Other agreements

Sida Grant Agreement

The Grant Agreement between Sida (Grantor), the Republic of Latvia (Recipient) and Riga Water (Performing Enterprise) is essentially a standard legal document that states the purpose of the grant and specifies the conditions of Swedish financial assistance. The covenants of the agreement specify the reporting requirements, access to information, notification, procurement procedures, auditing and other rules to be followed. It specifically rules out management contracts or other private sector participation arrangements without prior approval of Sida.

⁵ There was an interim period between the twinning phases I and II, sometimes called TA^{1/2} by SWC

EBRD Loan Agreement

The Loan Agreement between EBRD and Riga Water, signed on August 6, 1996, includes the implementation of the Twinning Agreement as a Project Covenant. This covers the establishment and support to the Project Implementation Unit (PIU). In terms of utility and project performance, the Agreement specifies key financial indicators (Reserve Account, tariff increases, Debt Service Coverage, Current Ratio). An attachment (Schedule 3) spells out an Action Programme for 1996 – 2000. This Programme is closely coordinated with the Terms of Reference of the twinning arrangement. It outlines comprehensive institutional, managerial, financial and operational actions in a Corporate Development Plan framework. It emphasises the identification of performance indicators and targets for RW.

Local agreements, EIB and Swiss agreements

RW's loan and grant agreements with the City of Riga, the Government of Latvia and with EIB and Swiss Governments have not been reviewed for the purposes of this twinning review.

3.4 Twinning partners

Riga Water, RW

The Municipal Enterprise “Riga Water” (RW) is an independent economic and legal unit, operating under the laws of the Republic of Latvia and wholly owned by the City of Riga. The Company performs its activities of water and wastewater management and services within the City of Riga and the Riga Regions serving residential, industrial and communal customers. Its turnover in 1998 was LVL 19.1 million (USD 33.5 million), and the average number of employees was 1,542. RW water production amounted to 98.5 million m³, and treated wastewater to 79.5 million m³. The sales volume has decreased by 9% from 1997 due to declining consumption and other factors.

The Swedish Water Company, SWC

SWC is owned by the City of Stockholm and by Huddinge Municipality and is responsible for water supply and waste water treatment within the boundaries of the city of Stockholm. According to the Annual Report of 1998, SWC had a total staff of 633 persons and a turnover of SEK 1,038 million. SWC has been nominated to represent Sweden and Stockholm City in the co-operation that began in 1992 among the capitals of the countries around the Baltic Sea in their joint efforts to improve the environmental situation of the Sea.

The formal co-operation between SWC and Riga Water began in 1992, although there were earlier contacts between Riga and Stockholm Cities. The first contacts included a dialogue with an exchange of information on administrative and operational matters. It was therefore natural that Riga Water turned to SWC in 1995 for assistance in the preparation and implementation of the present Water and Environment Project.

SWC's overall objective of the co-operation is to improve the environmental situation in the Baltic Sea. A secondary objective is the transformation of Riga Water into an effective and self-sustaining water supply and wastewater treatment company using administrative and operational technologies of high and appropriate standards. Profit making is not a primary objective of the co-operation but costs incurred have to be covered by external sources and should not be a burden for the domestic core business.

SWC has entered into two long-term twinning agreements. In 1994 an agreement was signed with the Kaunas Water Company of Lithuania and later in 1996 the present agreement with the Riga

Water Company. In addition SWC is providing technical assistance to water supply and wastewater treatment projects in St Petersburg in Russia and in Poland. The overall objective of SWC of its Baltic co-operation projects is to improve the environmental situation in the Baltic Sea. Financing of the Baltic projects have come from external sources, primarily from Sida for larger long term projects, from the Swedish Ministry for Environment and from the Baltic Sea Environmental Fund set up and capitalised by the City of Stockholm.

SWC sees some long term advantages from twinning co-operation of the present character between two organisations with the same basic objectives and with a similar governance structure. Both being owned by their respective cities it is easy to get access to political decision making. This is especially useful in relation to public services where many questions such as taxes, network extensions, etc. are politically sensitive issues.

3.5 Administrative arrangements

The international projects of SWC, including the Twinning projects, are handled as assignments by a staff function in the Office of the Director for the Operations and Technical Development Department. This activity essentially relies on one person (Steen Bjerggaard) and on his good knowledge and contacts within SWC. The Head Office is co-ordinating the technical inputs into projects. The Twinning Agreements also include important components for organisational and administrative tasks requiring inputs from other departments of the Company as well. Such inputs seem to be co-ordinated by the Project Co-ordinator in the field, the long term Water Utility Management Advisor. The present incumbent of the post has a profound knowledge of the SWC organisation and staff and can therefore turn directly to the relevant department director for drawing on short term expertise, exchange of study visits, etc. The short-term assignments for international projects are popular among SWC staff.

Recruitment of long-term experts has proved to be more difficult and SWC has had to recruit personnel from outside the Company. In order to broaden the recruitment base for expertise from the Swedish market a separate company, the Swedish Water Development (SWD), was established about three years ago. SWD is 25% owned by each of the Water Companies of Stockholm, Gothenburg and Malmö and to 25% by the Swedish Water and Wastewater Association, comprising most of the remaining communal water works and companies. The objective is that major international water and waste water project in the future shall be administered by SWD as contract party drawing on expertise from all participating Swedish companies.

3.6 Stakeholder roles and cooperation

There are no formal contractual relations between Sida and SWC. The formal channel for communication between Sida and SWC is through RW. Reports are prepared by RW with the assistance of SWC and forwarded to Sida and other stakeholders. SWC's invoices are sent to RW for verification and onward transmission to Sida for payment. For practical reasons, however, there is a direct (and informal) link between Sida and SWC for clarifications of invoices, reports, etc. In the beginning (starting in the Kaunas project) there were frequent misunderstandings about invoicing, reporting, etc. causing some tension in the co-operation. The situation has gradually improved and is today better than before, according to Sida. SWC still have some complaints about the reporting requirements in general, including those of Sida.

Several members of the Project Steering Committee expressed their satisfaction with SWC's readiness for trouble-shooting and willingness to assist in the interaction between RW and the stakeholders throughout the project preparation and implementation process.

3.7 Reporting

Sida's Grant Agreement specifies the following reports to be submitted:

- Quarterly Progress Reports
- Audited Annual Reports
- Quarterly Twinning Reports
- All Special Reports
- Completion Reports

The Annual Reports of twinning cooperation for the years 1996 and 1997 have been prepared, but there is no Annual Report of twinning for 1998.

The Quarterly Twinning Reports are essentially detailed, descriptive lists of activities. There is little reference to specific objectives, time schedules and costs. Reports should compare actual results with original plans. In general, SWC's invoicing routines have improved, but actual reporting has not become more fact/result-oriented.

4. Institutional development programme

4.1 Twinning agreement implementation

Key Resources

The Twinning Agreement (Phase II) became effective in November 1996 when all other agreements, including loan agreements, had become effective. SWC sent *the Water Utility Management Advisor* to take up the position in December 1995. Due to co-operation problems with the RW management, the Advisor left the Company already in May 1996. The CV of the first Management Advisor indicates that he has long experience in international project management, primarily in the construction sector. At the same time the CV shows little experience from work with administrative and organisational change and development which was the major task for this position. His experience in the Baltic or other countries in Eastern and Central Europe was limited. He was recruited from outside the SWC organisation.

As replacement for the first Management Advisor, SWC released the Advisor working with the Kaunas Twinning Programme to take up the position on part time basis for the remaining part of 1996 to assume full time responsibility in December 1996. He has been regularly in Riga since then and has developed a close, highly valued working relationship with RW Management. Before joining SWC in 1994, he worked in various positions in the technical sector of Swedish municipalities, and became thoroughly acquainted with water and wastewater issues as well as with municipality administration and management. His earlier career in international project business provided a strong background for the preparation and implementation of investment projects.

The *Project Implementation Advisor*⁶ had a long career in international project management and procurement, but no background in the water sector, or exposure to transition in eastern Europe. He was not employed by SWC before the assignment in Riga. He took up his position in mid-June 1997. This was about one and a half years after the other two long-term advisors joined the project. The crucial period from 1996 to mid-1997, the PIU was without a permanent advisor. Tender documents had to be prepared and sent out in accordance with the procurement regulations of the banks. In absence of the Advisor the staff had to work and learn on their own with the rules and regulations. Some assistance was given by the Finance Advisor who had taken up his position already by the end of 1995, and by the Management Advisors. The major assistance given by the Project Implementation Advisor was in setting contract terms and negotiations with suppliers and in project planning and management. He left his position as Advisor under the SW Twinning Agreement but remains at RWEF under the Swiss contract.

The *Finance Advisor* joined SWC twinning team in December 1995, and worked in Riga as resident advisor until November 1997. He had studied accounting and finance at the University of Stockholm. His track record included accounting and financial management positions in the private sector, and independent consultative activity. He was not employed by SWC before the assignment in Riga, and he didn't have experience in the water sector or earlier exposure to eastern Europe transition. The contribution of the Finance Advisor to the reform of the financial and management accounting systems of RW remained limited. However, he assisted the RW staff in many ways, also outside the scope of his Terms of Reference.

⁶ The Project Implementation Advisor was employed by consulting company ScanPro, which also provided short-term advisory services

The Twinning Agreement envisaged an input of 50 man-months from *Short-Term Advisors*. They were typically SWC staff members, who assisted RW “counterparts” in the implementation of specific technical and administrative tasks. Their input was considered highly professional and directly applicable to RW.

The total planned advisory resource input from SWC for RW within the Twinning Agreement (Phase II) framework was 142 man-months (Table 2). The actual input, estimated until the end of 1999 will be 93 man-months. In 1996 the actual input was 33% above the plan, but in 1997–1999 the actual input has been 53%–69% of the plan.

Table 2

SWC Advisory Resources for Twinning Phase II, 1996 – 2000 (man-months, %)

Advisor Resources	1996		1997		1998		1999		2000	
	Plan	Real	Plan	Real	Plan	Real	Plan	Real	Plan	Real
Long Term Advisors										
Water Utility Mgmt Advisor	3.0	7.5	10.0	8.4	10.0	5.9	5.0	4.5	5.0	
Finance Advisor	7.0	12.0	12.0	10.0	6.0		3.0		2.0	
PIU Advisor	2.0		12.0	6.0	6.0	10.5	3.0		2.0	
Customer Awareness A.			4.0							
Short Term Advisors	9.0	8.6	19.0	7.7	13.0	7.6	6.0	4.5	3.0	
Total Advisory Input	21.0	28.1	57.0	32.1	35.0	24.0	17.0	9.0	12.0	
Real % of Plan		133 %		56.3 %		68.6 %		52.9 %		

According to the original work plan, the share of long-term advisors was expected to be 65% of the total advisory input. The actual share has been close to 70%. The RW staff almost unanimously prefers short-term advisors (except the current Management Advisor) and direct contacts with SWC staff.

With the exception of the current Management Advisor, the three long-term advisors were recruited from outside SWC. They had neither former experience in the water sector nor relevant exposure to transition issues in the Baltic countries. This evidently was a crucial handicap, which was not compensated by their otherwise wide experience. The three advisors couldn’t effectively facilitate contacts between SWC and RW, because they didn’t know SWC’s organisation and staff well enough. SWC’s weak home office support function, characterised by frequent personnel changes, also complicated direct contacts between RW and SWC experts. On the other hand, the availability of specialised resources for water utility transition projects in eastern Europe was very limited in the mid-1990’s, and the nature of the problems unique.

Budget for technical assistance between SWC and RW

The technical assistance cooperation between SWC and RW started already in 1992, although the formal twinning arrangement, focused on supporting the RWEP preparation and implementation, only started in 1995. Since 1992, SEK 26 million has been allocated for preparatory technical assistance and twinning cooperation between SWC and RW (Table 3).

Table 3

Budget for Technical Assistance for SWC/RW cooperation, 1992–2000 (SEK,%)

Form of TA	Budget 1996 – 2000 (SEK)	Actual 6/1996 – 12/1998 (SEK)	Disbursed % of actual
Preparatory period 1992 – 1995	5,000,000	5,000,000 *	100%
Twinning, Phase I, 1995 – 1996	3,000,000	2,940,000	98%
Twinning, Phase II, 1996 – 2000	16,800,000	10,819,503	64%
Total	24,800,000	18,819,503	76%

* Assumed disbursements, actual figures not available

By the end of 1998, about 64% of the budget for Twinning Phase II had been utilised.

4.2 Management development

Commercial Law reform

The Latvian Parliament (Saima) is currently in the process of reducing the number of legal forms of enterprises in the context of a new commercial law. This reform will abolish the municipal enterprise as a distinct legal form. It is therefore expected that all current municipal enterprises, including RW, will be transformed into limited liability companies or joint-stock companies. All the municipal enterprises will have to be re-registered, and the Statutes (Charter) will have to be re-written.

The laws on Limited Liability Company (SIA) and Joint Stock Company (A/S) are both modern laws following the international practice, corresponding the German GmbH and AG. In both forms the companies are fully liable for their obligations to the amount of their assets. The liability of shareholders is limited to the share capital.

In the case of SIA, the minimum authorised capital is LVL 2,000. For A/S the initial basic capital is LVL 5,000, to be increased to LVL 25,000 (registered basic capital) within five years (different rules apply to insurance companies and publicly quoted companies).

Both laws allow, and require, a clearly structured system of governance. The SIA must have a member meeting, and an executive body (Board, Directorate, Administration and others). The A/S is governed by the General Meeting of Shareholders, the Supervisory Board and the Board of Directors. If a Joint Stock Company has fifty shareholders or less, it need not have a Supervisory Board.

In both laws, the general provisions, foundation of company, authorised capital and shares, governance and organisation, reporting and auditing, and liquidation procedures are clearly and specifically stated. Riga Municipality could, in principle, transform its municipal enterprises into either a SIA, or an A/S. In practice, the SIA form is somewhat more simple, and better applicable to small

companies. A SIA can be transformed into an A/S, if there is a need for wider ownership and operation.

The Law on Foreign Investments states the general rights and obligations of foreign investors, including rules of protection and available incentives. The Law allows foreign participation in both SIAs and A/Ss. The Law on Privatisation stipulates, among other things, the minimum share of foreign participation, which has become a stumbling block e.g. for NEFCO's participation in Latvian water utilities.

Utility governance and institutional framework

The governance structure of RW has been reformed during the twinning period. The SWC's Water Utility Management Advisor has actively participated in this process and influenced both RW's top management and Riga's municipal decision-makers in modernising the governance structure and practices. New statutes for the Municipal Enterprise Riga Water were approved by Riga City Council in 1996.

To delegate authority and to improve efficiency, an internal *Board of Directors*, consisting of 5 directors and the Corporate Lawyer, has been established. It is an advisory body and a forum for information and coordination. It does not vote. The individual directors remain responsible for decisions.

A newly created *Supervisory Council* consists of 6 non-executive members, who represent the political decision-makers of the municipality, and – indirectly – the consumers. It normally meets quarterly, and focuses on budgets, tariffs, investments and strategic planning.

The *Project Steering Committee*, representing the financiers of the Priority Investment Programme, monitors the implementation of investments, and the development of the utility as a whole.

One of the loan covenants of the EBRD required the establishment of a *Regulatory Unit* in Riga in order to “allow the utility to be run professionally, in a corporate setting without undue political intervention, but effectively regulated by local government”. This unit was consequently set up in 1997, staffed with 3–4 professionals. It reviews tariff applications, processes complaints from consumers, and acts as an interface between the consumers and the utility. It still has to consolidate its role, and professional independence, and resist excessive political interference.

A regulatory body would normally be required, if services were provided by privately owned or managed utilities. This is not likely to be the case in Riga in the foreseeable future. Therefore, the establishment of the Regulatory Unit was somewhat premature. The regulatory function could have been integrated in the Supervisory Council.

All municipal enterprises, including RW, report to the *Committee of Communal and Apartment Issues*, which is reviewing tariff proposals, budgets and other financial plans and reports of the enterprises. Close monitoring of corporatised utilities by municipal committees is not in line with modern corporate governance. RW and the City of Riga made –somewhat reluctantly – the necessary changes in utility governance, but did not fully implement them. The close symbiosis with the municipal administration still continues despite the establishment of the Supervisory Council and the Regulatory Unit. The monitoring function should be delegated to the Supervisory Council. This is all the more important after the transformation of RW into a Limited Liability Company (SIA) or a Joint-Stock Company (A/S).

Corporate Development Plan (CDP)

The first version of the Corporate Development Plan (CDP1) was completed in January 1998 (original deadline: October 1997). It was largely prepared and edited by SWC's Management Advisor, in close cooperation with RW's staff.

The CDP1 time span was 1–5 years, with emphasis on 3-year planning. This is somewhat short for a water utility, because the external environment is relatively stable and because the time horizon of major strategic investments is longer than 5 years, at least 10 years.

The CDP2 starts from “aims and objectives”, but does not present specific, measurable performance targets in any functional area, as requested by the TOR. This is partly due to the order of analysis and presentation. The past and current facts have not been presented and analysed in the beginning, which makes quantification of objectives difficult.

The core of a corporate development plan, the Long-Term Investment Programme is not presented at all, and the financial projections are therefore very tentative. Much of the material is more like training material than actual CDP material.

Efforts have been made (Goal Formulation Programme etc.) to set goals and objectives for RW's future development, and to specify performance indicators. This work has remained superficial and largely academic.

The logic of the CDP1 is uneven, varying from purely descriptive material to short term plans. The planned impact in terms of figures, expressed in the form of systematic tables, is largely missing. The financial projections are not consistent with all the plans. The key assumptions of the financial projections are not explicitly stated in CDP1.

The CDP1 included the following plans and reports:

- Organisational and Personnel Development Programme
- Information System and Development Plan
- Public Information Programme
- Ground Water Supply Study and Master Planning
- Water Savings Programme
- Leakage and Networks Rehabilitation Programme
- Industrial Effluent Load Reduction Plan
- Billing and Collection Plan

The listed plans were under varying stages of processing at the time of completion of CDP1. They were prepared either internally or with the assistance of outside experts (Ground Water Supply Study, Billing and Collection Plan). The Ground Water Supply Study was compiled by a team of RW staff, university representatives and other outside experts. The Billing and Collection Plan review was prepared by Arthur Anderson Consulting. The outside reports, and some of the internally prepared reports are of high quality, but many of them are still drafts.

The second version (annual update) of the Corporate Development Plan (CDP2) was completed in November 1998, almost on schedule (target date: October every year). The RW management and staff managed the planning process independently, with supervisory assistance from SWC. It is evident that the corporate planning process has been successfully installed and integrated in the overall management planning system. The Financial Director and her staff have co-ordinated this work. New studies and plans have been added, including the following:

- Training Programme
- Water and sewerage network construction and rehabilitation plan
- Finance and Procurement Plan
- Quality Programme

The installation and consolidation of the planning process is a major achievement. The contents of CDP2 is partially solid and well presented. Notwithstanding this, the overall quality of the plan needs to be essentially improved in terms of structure, contents, and readability. The principal areas requiring improvement are the following:

- The objectives are stated in qualitative terms, but have not been further processed into specific performance targets
- The actual performance and future plans in some key areas, e.g. personnel reduction and cost savings, are too modest.
- The long-term investment programme is still missing
- Financial forecasts require a concise, clear analysis in the text, and explicitly listed assumptions

The contribution of SWC to the corporate planning process, in terms of practical help and quality control could have been more pronounced. SWC's Financial Advisor lacked the necessary qualifications and background for strategic/business planning in Eastern Europe and in water utility environment. The Kaunas experience of SWC's Management Advisor proved to be very useful in Riga.

Financial accounting and planning

The Finance Department of RW is well organised. The basic budgeting, planning and financial reporting systems are in place and producing relevant information. The financiers and other stakeholders are very satisfied with the quality of information. The key persons in the Finance Department deserve to be commended for their work.

To upgrade its financial accounting system, RW purchased and successfully installed (1996) the CONCORDE accounting software. It is of Danish origin, but applied to Latvian accounting environment. New modules have been added and the software was upgraded into Windows in 1998. It now covers the General Ledger, Purchasing, Inventories, Fixed Assets and Payrolls (pilot phase). Arthur Anderson (Latvia) provided expert assistance during the critical installation period.

The RW Finance Department staff developed the budgeting and financial planning systems essentially on their own. The financial forecasting model (Excel application) provided by EBRD proved to be more useful than excel applications prepared with SWC assistance. RW experts also designed the new tariff formula.

SWC's contribution to the development of financial and management accounting systems was below RW's expectations. The Financial Advisor worked hard and was very co-operative, but lacked the essential water sector competence and background. The Management Advisor contributed to the CDP process by making his Kaunas experience available to RW. The CONCORDE accounting system was installed by RW's own resources with Arthur Andersen support, but SWC input was marginal. The RW financial staff benefited most through direct contacts with SWC financial experts.

Organisational and personnel development

The Organisational Chart of the Company is presented in the 1998 Annual Report. The Organisational Development Programme for the period 1998-2003 is presented in Annex 2 to the Corporate Development Plan. Implementation of the Programme is under way. The responsibilities of the different departments have been defined and codified in written instructions (the instructions for Finance & Economy are not yet finalised). Job descriptions for department heads are under preparation in consultation with respective department managers. This work will go on further down in the organisation. A staff evaluation programme has been initiated by which department managers in a dialogue with the staff will make an assessment of the qualifications of the staff in relation to the requirements of the position.

A staff reduction plan (Annex 2 of the CDP,) has been approved. The Plan aims at a reduction in the total number of staff from 1537 in 1998 to 1306 in year 2003. At the time of the evaluation visit (October 1999) the detailed plan was to have 1446 employees in the Company by the end of 1999 which is about 70 less than forecasted in the Plan. This includes 25–30 newly recruited staff chiefly because of new technologies introduced in the technical departments.

Studies are under way on possibilities to outsource non-core business, defined as activities, which could possibly be better performed by other actors in the market. A study has been made of the Transport and Workshop Department providing transport and repair and maintenance services for the different sections of the Company. The Department employs about 135 staff. An internal accounting has been introduced whereby the takers of the services are charged a fee according to an internal 'price list' made up giving the Transport Department full cost cover for their work. A preliminary conclusion is that it at present would be difficult to find providers of the services in the market at a price and with the efficiency offered by the Department. The situation will be kept under constant review.

Another area mentioned as being subject to studies on outsourcing possibilities is office cleaning and maintenance work. An assessment made shows that the present section is over-staffed with nearly 20 people. The possibility of hiring a cleaning company will be looked into. Security services are already hired from an external company.

A Personnel Training Programme for management and employees was started in 1998 (CDP, annex 3). The Programme covers at present two level with a third level planned to begin in year 2000. Over 250 staff members have already passed through the first level. During the first half of 1999 113 staff were participating in level 2 training.

The Department Managers had received some assistance from the long-term experts in their development work. The most valuable contribution was, however, in their opinion made by their counterparts in SW during visits to Stockholm or vice versa during their counterparts' visits to Riga.

Customer Relations

The Sales Department and the Customer Services Department have only recently been reorganised. The steps taken were the result of extensive preparatory work and discussions between SWC and RW. The service agreements with customers are being redrafted. Progress in customer relations is closely connected to improved metering and bill collection. In 1998 RW invested in a new U.S. customer database software (cost of software licence and installation USD 300,000). It is gradually being installed.

SWC helped RW to identify the need for modern customer relations, including reliable metering and meter reading, computerised billing and effective bill collection. With SWC's assistance RW

managed to persuade the municipality to establish a social support facility for the families and individuals, that cannot afford to pay for water. A visit to SWC inspired RW financial staff to implement the change.

Metering

RW water benefited decisively from the SWC's short term expert in the revision of metering policies and practices, and in the purchasing and installation of 5,600 new (master) meters. SWC was able to release its top expert in metering for several short-term visits to RW. He helped in the tender document preparation for the purchase of meters and a modern test bench. The Project Implementation Adviser contributed to the contract design. RW now has a state-of-the-art system for metering, meter testing and calibration.

4.3 Operational support to RW management

Direct contacts between RW and SWC staff members have proven to be the most valuable form of twinning. These contacts have been co-ordinated by the Water Utility Management Adviser. In addition to connecting people in the two organisations he has been active in many areas of RW operations, and provided useful support to RW's staff members in day-to-day management issues.

The terms of Reference for twinning identifies the following areas for operational support:

- Staff awareness programmes
- Campaigns for cost reduction and productivity gains
- Reduction of unaccounted for water
- Customer debt control
- Water consumption reduction campaigns/customer awareness campaigns
- Operational advice
- Financial management advice

The twinning arrangement has covered all these areas to greater or lesser extent. More input would be required in assisting RW to achieve substantial reduction in O & M costs.

In addition, SWC contributed decisively to overall project management. In the beginning of the project intensive work was required to make the loans and grants effective. Many unexpected developments, not anticipated in the Terms of Reference, have absorbed much twinning resources, particularly from the Management Advisor.

4.4 Training and know-how transfer

The various twinning modules have included training components. Study tours to SWC, and on-the-job training provided by SWC experts, have been the most useful form of training. Transfer of know-how has taken place on a wide front. The twinning agreement between RW and SWC has been instrumental in this process.

5. Priority investment programme

5.1 Goals for the Priority Investment Programme

The general goals for the Priority Investment Programme are the following:

- Improved and guaranteed drinking water quality by increased treatment.
- Improved access to drinking water by improved reliability of networks and connection of an increased number of people.
- Improved Wastewater Treatment for 700.000 inhabitants.
- Increased and improved treatment with less impact on the river Daugava, Bay of Riga and the Baltic Sea.

Table 4 gives the objectives of the project in terms of environmental indicators.

Table 4

Environmental Objectives of the Priority Investment Programme

Pollutant	Present T/Y	Future T/Y	Reduction T/Y	Reduction %
BOD	6380	2290	4090	64
Nitrogen	2580	2350	230	9
Phosphorus	730	230	500	68

The Latvian law states that drinking standards must be comparable to European standards.

5.2 Project Implementation Unit (PIU)

Organisation

The Project Implementation Unit (PIU) was created in August 1995 in order to execute the Project Implementation Plan. SWC formulated a “Project Plan” together with ScanPro and it was delivered to Riga Water in November 1997 and a seminar was held. It led to an Organisation Plan for PIU.

At the end of 1996 6 persons were employed at PIU. In March 1999 PIU staff consists of 14 employees. The Unit consists of one Director, 4 Project Managers, one procurement officer, one Finance Economist, 2 Interpreters and 5 other officers.

A civil engineer was employed in November 1995 for handling procurement procedures. In 1995 she and two other PIU staff members attended a procurement seminar in Tallinn arranged by EBRD, which was very useful. EBRD organized another seminar in Riga for the PIU and RW staff in 1997. As EBRD has an office in Riga it is always easy to get support from there.

PIU is today well organised and everyone within the Unit seems to be qualified for its tasks.

The Steering Committee meets twice/year and gets information about the proceedings of the Project Implementation.

The objectives of PIU

PIU is responsible for designs, specifications, tender procedures, procurement, monitoring, and payments within the Project Implementation Programme. The project managers are responsible for tender documents. Consultants are used for assisting in international bids. The managers also announce tendering and make the evaluation. Bid evaluations have to be approved by the donors or the banks.

The Evaluation Committee is evaluating the bids. It consists of four persons from RW and 2 persons from Ministry of Environment. After tender documents have been produced and approved, 4 to 4½ months are required for tendering, evaluation and approval.

The State Construction Inspection Department within the Ministry of Environment must approve grants or loans for project financing. This takes about one month. Then construction or delivery of goods can start. The Swedish financed components will be purchased in Sweden in co-operation with Sida. Finland and Switzerland also have special conditions to their grants.

Present Situation

PIU is currently fully competent for handling the procurement for the investment projects. All personnel are highly qualified and the number of employees is adequate. PIU has gained much experience from SWC, and is now able to act independently in most fields. Today, there is little need for support from SWC.

Future of PIU

RW is preparing new investment plans for implementation. There is a 3-year investment programme of about 28 million Euro to be financed by ISPA funds. The PIU will obviously be busy for at least another 3-year period.

5.3 Project Implementation Plan

Programme background

Water supply and distribution

60% of produced water comes from the ground through wells and 40% is surface water. There are problems with high contents of organic material and organic chlorine in the raw water and the treatment process is inefficient. The ground water surface around Riga has sunk during the latest decades and there is an uncertainty about the future ground water quality.

Water production amounted in 1995 to 378.000 m³/d (479 l/c/d) while the billed amount was 216.000 m³/d. The difference indicates big leakage in the distribution network and unreliable measuring methods.

Roughly half of the network is in bad condition. It jeopardises the safety of water delivery and the risk of contamination is fairly high. Pressure in the mains cannot always be as high as needed under periods of high consumption and many mains are too small.

Wastewater collection and treatment

60% of the mains are reported to be in bad condition. One third of all pumping stations cannot function properly for more than another five years. Many of the other stations need rehabilitation. Most of the stations have a very high consumption of energy.

Wastewater was not at all treated before 1991. Everything went into Daugava River. Design for the Treatment Plant was made in Moscow in 1985. The plant was completed in 1991. Unfortunately there was an immediate need for reconstructing the plant. During the years 1992 to 1995 there was a lot of discussions with SWC about reconstruction of Treatment Works. It has to take care of wastewater from central Riga, which presently has no treatment at all.

Investment Programme

An Investment Programme has been formulated in order to improve the production and distribution of water and collection and treatment of wastewater. It consists of the following main parts:

A. WATER SUPPLY AND DISTRIBUTION

- Rehabilitation of the Daugava surface water treatment plant and the enhancement of the water treatment process.
- Rehabilitation of selected ground water pumping stations
- Upgrading of the transmission main from Baltezers and Daugava to the centre of Riga.
- Rehabilitation and extension of the water network
- Purchase and installation of water meters

B. WASTEWATER TREATMENT

- Rehabilitation and extension of the Daugavpils waste water treatment plant
- Rehabilitation of existing wastewater pumping stations
- Rehabilitation and extension of waste water networks

The Investment Programme is divided into 22 parts and there are about 100 contracts awarded in total.

Present Situation

General

A lot of delays compared to the original time schedule are observed within the project.

PIU has competent personnel but it took some time to employ suitable persons. The organisation might have been a little weak in the beginning, in the end of 1996 and in 1997. On the other hand it is natural that it takes time to find suitable people for this demanding task. The most plausible explanation to the delays is that the time schedule in the Twinning Agreement phase 2 was overly optimistic.

Water Treatment Plant

35% of total cost of total Investment Programme lies in the Water Treatment Plant.

The sludge treatment process will be delayed. A delay of three months after the deadline December 31 2000 is announced. The Ozonation sub-project will obviously not be affected.

EIB, City of Riga and RW are financing the construction of the Plant.

Ground Water Pumping Stations

This project has been changed and increased considerably since the Agreement was signed. A delay of 23 months is announced. Construction works might start in early 2000 and it will be difficult to have the project completed until end of 2000. Many contractors can be awarded for the different

parts. In this way it is possible to minimise the delay. EBRD and the City of Riga finance the project.

New Water Mains

Tender bids for purchasing the pipes will be opened in November 1999. Contractor for civil works will be appointed in the middle of March 2000. Construction works are planned to start in the middle of April 2000. They are complicated and a lot of disturbances might obstruct the project. According to actual plans the new water mains will be completed in May 2001.

Riga Water finances the civil engineering and EBRD finances the delivery of pipes.

Water Savings Programme

The programme is finished and approved by Riga Water in June 1998.

Waste Water Treatment Plant

The Daugavpils treatment plant was in need of rehabilitation despite its recent construction in 1991. The aeration system financed by Sida is under construction and almost complete. Sida, Finland, EBRD, Latvian Government and RW finance the project. The Latvian Government has approved additional financing from the Latvian Environmental Fund (not included in the Agreement). When tender bids were opened, it was obvious that the project couldn't be financed with funds available. After negotiations Finland promised an additional grant for the WWTP.

There are some delays noticed for different sub-projects compared to time schedule in the Agreement. The project will, however, be completed in October 2000. The first phase of the Project was inaugurated in August 1998.

Waste Water Pumping Stations

Pumping station no. 15 is under reconstruction. The station will be ready before the end of 1999 to receive effluent from central Riga. Thus from beginning of year 2000 waste water from 200,000 inhabitants in city centre will be connected to the extended Waste Water Treatment Plant via Pumping station no. 15. As part of Riga Water and Environment Project three small pumping stations should also be reconstructed. However, due to discrepancies in tender documents only two pumping stations were completed. After negotiations with the contractor a fee was paid according to the contract. The major part of the works will be completed in September 1999, and a sewer main will be completed in the middle of 2001. The sewer main is financed by RW.

Networks Rehabilitation and Extension

Rehabilitation of networks is needed to reduce leaks and to reduce amounts of accidents. The pipes are mainly of "black steel" and water is of low pH. Thus the pipes are eroded. The existing network was mainly constructed in the 1960's and in the 1970's. Their quality is low.

A Finnish Consultant has produced a computerised model of Riga Networks. Water leak detection equipment has been delivered in November 1998. Sewer cleaning vehicles have been delivered, but they did not fulfil the requirements. The vehicles were sent back to Italy for reconstruction. Today they are back in Riga and they function according to requirements.

Riga Water and City of Riga finance Rehabilitation and Extension of mains with a considerable amount of money. It is, however, obvious that Riga Water cannot finance its part of the Agreement before December 31, 2000. For financial reasons Riga Water has to extend its support for this part at least to year 2001. Riga Water needs to decide on how much of the annual budget is acceptable to invest in this area.

5.4 Achievement of objectives

Economy

Loans, Grants and contributions from the Government of Latvia, City of Riga and Riga Water must be dealt with in a proper way. PIU has elaborated a system together with SWC and consultants. The system can sort out all different contracts and disbursements from the banks (EBRD and EIB), donors (Finland, Switzerland and Sweden through Sida). The system seems to be well organised and suitable for its purpose. The system was ready mid 1998.

Sida has assigned SEK 3 million for Phase 1 of the Twinning Agreement. SEK 2,94 million has been spent. SEK 37 million has been assigned for the second phase (SEK 18 million for twinning and SEK 19 million for environmental investments). There are no indications of exceeding the budget.

The Projects financed by Finland, EBRD and EIB will also stay within their financial limits as far as can be observed now. City of Riga and RW are financing some projects, which might exceed the budget.

Time Schedule

Towards the end of year 1999 water mains of the length of 7,6 km and sewer mains of the length of 17,3 km are supposed to have been constructed or rehabilitated. According to the Agreement rehabilitation of 18 km of mains and construction of 8 km of new mains are supposed to be completed within the agreement period.

A lot of delays compared to the original time schedule are observed within the project.

The Water Treatment Plant will be delayed until end of March 2001. It will be difficult to have the Ground Water Pumping Stations completed until end of 2000. According to actual plans the new Water Mains will be completed in May 2001.

Riga Water and City of Riga are financing the rehabilitation and extension of mains with a considerable budget. It is, however, obvious that Riga Water cannot finance its part of the Agreement before end of December 2000. These delays might be explained by an overly optimistic time-schedule of the Phase II Twinning Agreement.

Transfer of knowledge

Short-term specialists were very much appreciated for their skill and competence. They work very effectively during their short stay at RW. Officers at PIU are today very competent in their tasks. The assistance from SWC has been of significant importance.

Reporting

PIU has produced quarterly reports to the financiers. SWC has actively assisted RW in formulating the reports. It is difficult to follow the proceedings by reading the Quarterly Reports. They are very extensive with a lot of details. What is required is stated in the Loan Agreement between EBRD and RW, Section 3.06. A good time-schedule is presented in Quarterly Report, PP22, "Networks rehabilitation and extension".

Goals

For the moment it is difficult to see if the goals for the Agreement will be fulfilled. Water quality will, of course, be better and access to drinking water will be highly improved after the different projects have been completed. However, it would be useful to see detailed performance figures indicating what has been achieved.

It is today clear that 200.000 inhabitants in the centre of Riga will be connected to the Waste Water Treatment Plant before the end of 1999. This is a great achievement. Improved wastewater treatment will lead to better conditions for the environment. The anticipated reduction of pollutants will most likely be achieved for BOD and for Phosphorus but not for Nitrogen. The Treatment Plant is not designed for reducing Nitrogen up to the anticipated level.

6. Impact of twinning

6.1 Overall assessment

SWC has assisted RW in the preparation and implementation of an investment programme (RWEF) for improving the city's water supply and wastewater treatment. The RWEF has promoted/will promote environmentally sustainable management and improved municipal infrastructure in the Baltic region. The effluent load from Riga to Daugava River, and further to the Baltic Sea has been essentially reduced. As a direct result of the project, the quality and reliability of water supply and wastewater services has improved in Riga

The twinning arrangement has essentially stimulated and supported the process of transforming RW into an autonomous, self-financing and self-governing enterprise. There is a better understanding and appreciation on political level of the requirements for arriving at a administratively and financially independent water company,

RW is very satisfied with the twinning arrangement and wishes to continue close cooperation with SWC beyond the current twinning agreement. RW currently complies with all the covenants of the financiers.

6.2 Governance

The close cooperation between SWC and RW since 1992 has decisively influenced the transformation of RW into a municipal enterprise with modern governance structures (Board of Directors and a Supervisory Board). The owner interest is now clearly separated from the management interest. SWC has also assisted in the work of the RWEF Steering Committee, and helped to sort out unexpected issues.

The remaining twinning period will assist RW in transforming the municipal enterprise into a limited liability or joint-stock company, as required by the new legislation, currently prepared by the Latvian Parliament. The statutes need to be rewritten and the company re-registered.

6.3 Personnel

RW's management and staff have benefited from the expertise provided by SWC. Direct contacts between RW and SWC staff have proven to be more valuable than the presence of long-term advisors in Riga. A high level resident advisor, who knows both organisations thoroughly, is very necessary and highly valued. Other long-term advisors have had a more limited impact on management and staff development than expected. RW staff prefers study tours to Stockholm and contacts with their respective counterparts.

6.4 Performance

The goals and objectives of the Twinning Arrangement are relevant, as they aim at a wide-ranging transformation of RW structures, management systems and operations into an autonomous, self-financing organisation. Although RW's performance has improved in all key areas of management,

much work remains to be done. The Corporate Development Plan (CDP) framework offers an excellent platform for business planning and strategic management. The quality of the latest CDP is uneven, and its upgrading requires a serious cooperative effort from the twinning partners. Management staff in RW have established contacts with their counterpart in SWC and thereby been given a reference point when questions arise within their specific sphere of interest.

The financial performance of RW has not been fully satisfactory, but fulfilment of objectives is likely, unless unprecedented development hinder progress. There is still much scope for efficiency and productivity improvements through cost savings and better management. RW is still behind international benchmarks of institutional, technical, financial and environmental efficiency. The progress towards decentralised management and delegated decision-making requires continued joint efforts by RW and SWC.

There are significant delays in the implementation of several procurement contracts (the average delay is approximately one year). The initial changes in twinning staff, and the delay in recruiting a PIU advisor, evidently contributed to the delays. The overall completion date of RWEPP (end of 2000) is still expected to be realistic.

7. Lessons learned

7.1 Twinning as a form of technical assistance

Twinning suits the Nordic and Baltic political environments, where public opinion supports municipally owned and operated water utilities. The various forms of private sector participation are not popular, and do not easily win the support of political decision-makers on either side of the Baltic Sea. Successful twinning arrangements lead to long-term cooperation between the organisations and between individuals.

The effectiveness of twinning cooperation largely depends on carefully-designed contractual arrangements, and a Terms of Reference that specifies the objectives and required actions in a concrete, time-based format. The CDP framework, introduced by the EBRD, is a major step in the right direction. Without the objectives and action programmes included in the loan agreements, twinning agreements are likely to deteriorate into “friendship city” type of cooperation.

The twinning agreements are still far away from management contracts and other forms of public-private partnership agreements in terms of specific performance targets. In twinning arrangements, the partners are expected to specify the performance objectives during the twinning process. In management agreements these objectives are specified in advance, and the financial compensation of the private sector operator depends on achievement of the performance objectives. This is the way to improve the effectiveness of twinning arrangements, too. In practice, the number of Swedish water utilities that are both willing and competent to commit themselves to such demanding contractual performance targets is very limited.

7.2 SWC as a twinning partner

Although the centre of activity in the twinning arrangement is very much in the field (Riga in this case), and *efficient Home Office* (HO) support is necessary for coordination, project administration and reporting. SWC has a small HO unit in the Operations Department. The frequent changes in the HO staff have affected continuity, and the HO support has not been very effective. This has been adversely reflected in the quality of systematic planning and reporting.

In addition to a well-organised Home Office, successful twinning clearly requires an *in-house core staff*. In Riga, the performance of long-term twinning advisors recruited from outside SWC was a disappointment in spite of good individuals and strong CVs. The combination of no SWC employment record, no water utility experience and no exposure to the transition processes in the Baltic countries led to disappointing results. Sub-contracted core resources contradict the original twinning idea.

The staff members of the utilities, particularly of the Swedish twinning partner, should be provided *incentives* (financial and non-financial) for participation in the twinning arrangement. Twinning gives an opportunity for Swedish utility experts to widen their horizons and apply their knowledge and experience new utility environments. They are required to work hard in difficult conditions, in addition to their duties at SWC. Twinning often means longer working hours to cope with both SWC duties and twinning responsibilities without additional compensation.

7.3 Short-term vs. long-term advisors

In principle the idea of sending a team of key resident advisors (Management Advisor, Finance Advisor and PIU Advisor) to support project implementation is good and corresponds to the private sector (e.g. management contract) practice. In reality, however, these resources have not been available at the partner organisation, but have been recruited from outside. The availability of highly qualified resources for long-term twinning assignments is very limited. Therefore, as long as SWC does not have a minimum number of highly qualified core team members for twinning operations, it would be advisable to have one experienced *in-house resident advisor* at the target utility (very much the professional profile and scope of work of the current Water Utility Management Advisor). He would concentrate on high level consultations with utility management, and on connecting the right people in the two organisations. The resource allocations between long-term and short-term advisers should consequently be reconsidered, depending of course on specific project requirements.

Annexes

1) Terms of Reference

2) List of interviews

3) Documentation reviewed

4) Project Implementation Status, June 1999

Annex 1: Terms of Reference

Terms of reference for the review of twinning cooperation between Riga Water and Stockholm Water Company

1. Background

With 800,000 inhabitants, Riga – capital of Latvia – is the largest city in the three Baltic countries. It is situated on the Daugava River near its outlet into the Gulf of Riga. The twinning cooperation between Riga Water and Stockholm Water Company is a part of the Riga Water and Environment Project, one of several projects in the water sector in the Baltic Sea region that Sida co-finances.

The investment programme now under way includes rehabilitation and expansion of the water supply system, improvements in wastewater treatment and the creation of an efficient, financially self-sufficient water and wastewater company in Riga. Sida is providing SEK 37 million (USD 4.6 million) in project financing to expand the wastewater treatment plant and for the cooperation agreement between Riga Water and Stockholm Water. The total project cost is about SEK 800 million (USD 100 million). Other financiers are the EBRD, the EIB, the Finnish Ministry of Environment, the Government of Switzerland, the Latvian Government, the city of Riga and Riga Water.

The overall objectives of the investment project are:

- To promote environmentally sustainable management and development of municipal infrastructure
- To improve the quality and reliability of the water supply and waste water services in Riga
- To enhance the financial performance through improved management, operational efficiency, cost recovery and institutional development transforming Riga Water into an autonomous, self-financing and self-governing enterprise
- To improve the environmental conditions in the lower reaches of Daugava River, the Gulf of Riga and the Baltic Sea by reducing the environmental impact of effluents from the City of Riga.

The overall objective of the twinning is to introduce sustainable water and wastewater management practices to achieve sustainable effects of the investment project. The twinning is divided into an Institutional Development Programme where Stockholm Water Company shall support Riga Water in improving and strengthening its overall performance, and in a Priority Investment Programme, where Stockholm Water Company shall support the Project Implementation Unit that has been established within the Riga Water organisation in order to implement the Investment Project.

Institution building is essential in improving efficiency in water utilities, introducing modern management and administration and the adoption of full cost recovery principles. Twinning arrangements with Swedish water utilities have been established in several other projects. These twinning arrangements have now been going on for several years, and some are in the process of being phased out.

The budget for the twinning cooperation in Riga amounts to 3,0 + 16,7 MSEK; approximately 2,5 % of the total project budget of 100 MUSD and a substantial share of the total Swedish support. Twinning with Stockholm Water in Kaunas, Lithuania, another investment project where EBRD is the main financier and lead agent, is of the same scale. In Riga and also in Kaunas, twinning comprises institutional strengthening and support to the PIU as part of the investment project. Twinning in other water and environment projects with the World Bank as lead agent are less extensive and do not include support to the PIU. They are also supported and monitored by an independent management consultant. The progress of work and the results achieved vary, as further described in evaluations of the twinning in Kaunas (Lariola 1998); a benchmarking review of twinning in World Bank financed water and environment projects in the Baltic countries (ongoing); and in an evaluation of Swedish support to environment projects in Haapsalu, Liepaja and Klaipeda (ongoing).

In order to assess Sida's support and assist the planning for the remaining period of twinning a specific evaluation of the cooperation between Riga Water and Stockholm Water is requested. The evaluation process shall also provide a base for dialogue and discussion between the stakeholders. To this end, Sida will now assign an independent team of evaluation specialists to review the Swedish support to these projects.

2. Purpose and Scope of the Review

The purpose of the review is to assess Sida's support to the twinning arrangement and the results achieved until now, and to assist the planning and implementation of the remaining period of twinning.

The evaluation process should provide a forum for discussion among the stakeholders, regarding twinning as a tool for institutional development, capacity building and policy change; operational improvements; and quality of the implementation of the investment programme.

Suggestions for changes and improvements in the ongoing twinning cooperation should be put forward. Possible improvements concerning the objectives, methodology and allocation of resources should be discussed.

The evaluation should account for future potential of continued efforts in this field.

3. The Assignment (issues to be covered in the evaluation)

- Overview of the twinning and the role of Swedish assistance. The basis for decision, co-operation with Latvian authorities, co-financiers and the utilities during project preparations and implementation should be discussed.
- Analysis of the projects in terms of the following criteria:

Evaluation criteria

Observations, comments and recommendations for the future should be presented for the following aspects:

Relevance

The relevance of the objectives and expectations of the twinning arrangement. The realism of the terms of reference vis-à-vis twin qualifications and competence. The issue should be addressed from

a development perspective (taking into account the overall developments in Latvia over the years the project have been going on)

Achievement of objectives

Achievement of the project goals as defined and documented in the twinning agreement, budgets and workplans. The effects of the support provided should be analysed according to its adequacy in terms of the forms of inputs, their timing and duration.

Sustainability

concerning transfer of knowledge and institutional strengthening, improvements in staff development and technical capability of the water utility. The evaluation should address improvements of the performance of Riga Water as a result of twinning cooperation. Aspects to be included and estimated are, e.g., increased cost recovery due to improvements in billing and collection systems, more efficient operation and management, lowered amounts of unaccounted-for water, lower number of staff per connected customer, etc.

Efficiency

An assessment of stakeholders' activities in the twinning arrangement. Efficiency of project management, the quality of work plans, budgets, and reporting routines for the twinning cooperation should be assessed. Sida's administration, project follow-up, and exchange of information with other financiers should also be considered.

Cost-effectiveness

An assessment of the cost-effectiveness of the twinning arrangement shall be made, considering the extent of funding, timing and use of resources.

Other criteria

The evaluation should take into account issues of public communication, information, and participation. Also, the evaluation should suggest steps in the cooperation to make gender aspects an integrated part of future projects.

4 Methodology, Evaluation Team and Time Schedule

Methodology

Desk study and preparations in Sweden

The evaluation team shall review the documentation listed in Annex 2. This includes the documentation forming the basis for the work ; e.g. project preparations, terms of references, agreement, work plans and annual reports.

Site visits and interviews

Key persons at Stockholm Water shall be interviewed. The evaluation team shall visit Riga Water, and conduct interviews with the water company and the twinning partner, the board and municipal representatives.

The evaluation team shall also be in contact with representatives for the co-financiers.

Reporting

The results from the desk study, site visits and interviews will be presented to Sida in a draft report in English, within two weeks of the field visits to Riga. Sida will then review the first draft report.

After revisions, a second draft report shall be submitted to Sida two weeks after Sida has commented on the first version. Sida will distribute the second draft report to the involved parties for comments. The evaluation team shall also present their findings at a seminar with key persons at Sida and the twinning organisations, and other interested parties (co-financiers). The final version of the evaluation report shall be submitted to Sida, two weeks after Sida has commented upon it, in 10 copies and on diskette. Subject to decision by Sida, the report will be published and distributed as a publication within the Sida Evaluations series.

The evaluation report shall not exceed 50 pages, excluding annexes. Format and outline of the report shall follow the guidelines in *Sida Evaluation Report – a Standardized Format* (see Annex 3). The evaluation report shall be written in Word 6.0 for Windows (or in a compatible format) and should be presented in a way that enables publication without further editing.

Composition of Team

The team who will perform the evaluation shall have comprehensive international working experience, preferably in the transition countries in the Baltic region or eastern Europe, and have relevant knowledge of the management/ organisational and financial issues. Experience of international development cooperation is a requirement. At least one of the team members must be able to read and communicate in Swedish.

Time Schedule

The assignment is expected to take the evaluation team 6-8 weeks effective time in total, including preparations at home office, interviews in Sweden and Latvia, report writing and presentations. The assignment will end with the submission of the final version of the evaluation report, in 1999.

5. Undertakings

Sida will inform the involved parties of the review and forthcoming visits by the evaluation team. The evaluation team will be responsible for practical arrangements in conjunction with the mission to Riga. If interviews cannot be carried out in Swedish/Scandinavian or English, interpreters shall be hired and costs reimbursed by Sida.

The evaluation team will be responsible for visits and arrangement in Sweden.

Sida will ensure that all written material listed in Annex 1 will be made available.

The evaluation team will during all phases of the review be assisted by Sida.

Annex 2: List of interviews

Name	Position	Organisation
Mr. Agris Auce	Director	Riga Water
Mr. Uldis Bambe	General Director	Riga Water
Ms. Raisa Bashkina,	Project Manager	Riga Water
Ms. Dace Betkere	Company Lawyer	Riga Water
Mr. Aleksandrs Bronfmans,	Director of Supply	Riga Water
Mr. Janis Bumbieris	Project Manager	Riga Water
Mr. Marcis Cepuritis	Project Manager	Riga Water
Mr. Raimonds Erts	Finance Economist	Riga Water
Ms. Edite Heimane	Manager	Riga Water
Mr. Viktors Juhna	Production Director	Riga Water
Ms. Inguna Kalnina	Manager	Riga Water
Ms. Ella Khamidova	Procurement Officer	Riga Water
Ms. Raisa Kreitina,	Manager	Riga Water
Mr. Valentins Kucers	Chief Electrical Specialist	Riga Water
Mr. Rainis Matiss	Chief Mechanical Specialist	Riga Water
Mr. Gints Muskars	Manager	Riga Water
Mr. Nikolajs Nalivaiko	Manager	Riga Water
Ms. Silvija Pastare	Manager	Riga Water
Mr. Aigars Rekis	Project Manager	Riga Water
Ms. Daina Silina	Chief Accountant	Riga Water
Mr. Jurijs Shestakovs	Manager	Riga Water
Mr. Nikolajs Stasjukevics	Deputy Manager	Riga Water
Ms. Daiga Steina	Finance Director	Riga Water
Ms. Ieva Viganta	Press Secretary	Riga Water
Mr. Aivars Zants	Director	Riga Water
Ms. Gunilla Brattberg	Dep. Managing Director	Stockholm Water
Mr. Steen Bjerggaard	Director	Stockholm Water
Mr. Sven-Eric Skogsfors	Managing Director (retired)	Stockholm Water
Mr. Allan Unestrand	PIU Advisor	Stockholm Water
Ms. Olita Berzina	Senior Analyst	European Bank
Ms. Maija Rubina	Committee Chairman	Riga City Council
Ms. Indra Samite	Chairman of the Board, RW	
Ms. Magdalena Svensson	Project Manager	Sida
Ms. Marianne Tegman	Division Chief	Sida

Annex 3: Documentation Reviewed

1. Phase I: Sida's decision (Öst 47/96)
2. Phase II: Sida's decision (Öst 253/96), dated 8 October 1996
3. Terms of Reference for Phase I Twinning Programme: Project Preparation Assistance Programme
4. Twinning Agreement, Phase II between Riga Water and Stockholm Water Company, November 1996
5. Terms of Reference for Twinning Programme (Phase II) between Stockholm Water Company and Riga Water
6. Final Report for Twinning Programme Phase I for the Riga Water and Environment Project
7. Detailed Budget and Workprogramme for Phase II
8. Grant Agreement between Sida, The Republic of Latvia, and Riga Water, dated 9 October 1996
9. Loan Agreement between EBRD and Riga Water, dated 6 August 1996
10. Quarterly Reports No 1–11 (selected parts: Institutional Progress; Administrative, Company Development Progress; Twinning Programme)
11. Quaterly Twinning Reports
12. Bi-annual twinning reports to the Project Steering Committee
13. RW Corporate Development Plan for 1998–2002 (February 1998) with Annexes
14. RW Corporate Development Plan; Implementation, Changes and Additions (October 1998)
15. Riga Water Annual Reports 1996–1998

Annex 4: Project implementation Status, June 1999

General

The plan is divided into 23 parts called PP1 to PP23.

It is difficult to follow the proceedings by reading the Quarterly Report. It is very extensive with a lot of details. What is needed is the following:

- Actual time-schedule for every activity should be compared to the time schedule in the Agreement Phase 2. Actual disbursements should be compared to what was planned.
- When these facts are known it is fairly easy to make a prognosis for the project. Out of these comparisons it should be easy to find out if the project is under control according to time and expenditure. These are figures interesting to banks, grantors and other financiers.
- There should also be some comments on how any delays will affect the anticipated goals.
- If any changes are accepted by the Steering Committee this should be noted and changes be made in the time schedule or in the disbursement plan.

Water Treatment Plant (PP1 – 4)

PP1. Tender documents

New Filters Building. Implementation 3 weeks delayed

Filtration and Sludge Treatment Contract lot 1 and 2 delayed approximately 5 months

Contract for Process Control and Automation 4 months delay

Chemical Dosage Equipment Control – tender delayed by 4 months

Optimisation of Raw water pumps – contract not finalised. Problems with contractor?

PP2. Local Contracts

New Filters Building 3 weeks delay

Design for Sludge Treatment Building not started yet.

Modification of Mixing Chambers, tender delayed for 8 months

PP3. Supply contracts

Filtration and Sludge Treatment Contract. Sludge treatment design delayed by 6 months

PP4. Ozonation

It is obvious that the sludge treatment process will be delayed. A delay of three months for the project is announced.

Ground Water Pumping Stations (PP5 – 7)

PP5. Tender documents

The scope of works has increased considerably since 1996 by introducing a reservoir for stabilising the flow of water pumped. A delay of 23 months is announced.

PP6. Supply contract for goods

Tender documents are close to completion

PP7. Civil and installations works

Ground Water Stations might not be completed in time. Originally it was planned to be ready in first quarter of the year 2000. Obviously the project will not be finished until the end of the year 2001.

New Water Mains (PP8 – 10)

PP8. Network Computer modelling

No problems.

PP9. Supply contract for pipes and valves

A delay of 14 months is announced. PP9 might be finished in the beginning of 2001.

PP10. Civil and Installation works

The revised time schedule indicates that the project will be completed in May 2001.

Water Savings Programme (PP11 – 12)

PP11. Supply contracts for Water meters

No problems.

PP12. Installation of Water meters

No problems

Waste Water Treatment Plant (PP13 – 16)

PP13. Tender documents

Total delay 19 months

PP14. Supply contract no.1, aeration and more (financed by Sida and Finland)

The aeration system is taken over and in function. Total delay 14 months.

PP15. Supply contract no. 2, Mostly sludge handling equipment

Total delay 19 months. Contract is signed with a supplier.

PP16. Civil and installation works

Delay caused by PP14 and 15.

The actual time-schedule indicates that the Waste Water Treatment Plant will be completed before the end of year 2000.

Waste Water Pumping Stations (PP17 – 18)**PP17. Supply contract for goods**

The main part of supply is 10 months delayed.

PP18. Civil and installation works

Pumping station no. 15 is under reconstruction. Before the end of year 1999 the station is ready of receiving effluent from central Riga. Thus from beginning of year 2000 waste water from 200.000 inhabitants in city centre will be connected to the extended Waste Water Works. As part of Riga Water and Environment Project 3 small pumping stations should also be reconstructed. However, due to discrepancies in tender documents only two pumping stations were completed. After negotiations with the contractor a fee was paid according to the contract.

The major part of the works will be completed in September 1999 and the station is ready of receiving effluent from central Riga.

A sewer main (addition to the original agreement?) will be completed in the middle of 2001.

Networks rehabilitation and extension (PP19 – 22)**PP19. Leakage and rehabilitation studies**

No delays

PP20. Supply contract for leak detection studies

Continuously problems with sewer cleaning vehicles. They have been sent to Italy for reconstruction and today they are back fully functioning.

PP21. Networks rehabilitation and extension, (Design and Tender documents)**PP22. Networks rehabilitation and extension, (Purchase of goods and civil and installation works)**

For the second half of 1999 and for 2000 4,5 million Lats are supposed to be spent on this item out of the pocket of RW. During 1996, 1997 and 1998 113.000 Lats, 355.000 Lats and 227.000 Lats respectively were spent. It isn't realistic to believe that RW can be able to invest 4,5 million Lats during one year and a half.

Riga Water and City of Riga finance Rehabilitation and Extension of mains with a considerable amount of money. It is, however, obvious that Riga Water cannot finance its part of the Agreement before end of December 2000. For financial reasons Riga Water has to extend its support for this part to the year 2001 and maybe even in 2002.

Project Management

PP23, Twinning Agreement

No problems.

Conclusions

- A lot of delays compared to the original time schedule are observed.
- PIU has competent personnel but it took some time to employ suitable persons. The organisation might have been a little weak in the beginning that is end of 1996 and in 1997. On the other hand it is natural that you need time to find people suitable for this advanced task.
- SW also had some weaknesses during the same period.
- The most plausible explanation is that the time schedule in the Twinning Agreement phase 2 was overly optimistic. Maybe the Agreement should have been extended to the end of 2001 from the very beginning.

Recent Sida Evaluations

- 99/30 Support to the Micro-finance Sector in Bolivia. Lars-Olof Hellgren, Leonel Roland
Department for Infrastructure and Economic Cooperation
- 99/31 Proyecto VNU Promotores del la Paz en Guatemala. Kristina Boman, Eberto de León
Department for Latin America
- 99/32 Programme Assistance to Mozambique. A joint donors review. Grayson Clarke, Jens Claussen, Rolf Kappel, Jytte Laursen, Stefan Sjölander
Department for Africa
- 99/33 Technical Assistance to the Ministry of Planning and Finance in Mozambique. Dag Aarnes, Svein Jörgensen
Department for Africa
- 99/34 Integrated Basic Services Program in Nicaragua. Elisabeth Lewin, Kristina Boman, Marta Medina
Department for Latin America
- 99/35 The Regional Water and Sanitation Group for Eastern and Southern Africa. Åke Nilsson, Knust Samset, Ron Titus, Mark Mujwahu, Björn Brandberg
Department for Natural Resources and the Environment
- 99/36 Support to Collaboration between Universities. An evaluation of the collaboration between MOI University, Kenya, and Linköping University, Sweden. Beht Maina Ahlberg, Eva Johansson, Hans Rosling
Department for Democracy and Social Development
- 99/37 Support to Education and Training Unit in South Africa. Annica Lysén
Department for Africa
- 00/1 Swedish Support to Local Self Governance in Mongolia. Nils Öström, Lennart Lundquist
Department for Infrastructure and Economic Cooperation
- 00/2 Reaching out to Children in Poverty. The integrated child development services in Tamil Nadu, India. Ted Greiner, Lillemor Andersson- Brolin, Madhavi Mittal, Amrita Puri
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- 00/3 PROMESHA. Evaluacion del Programa de Capacitacion para el Mejoramiento Socio Habitacional. Ronaldo Ramirez, Patrick Wakely
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