



THE TWINNING CONCEPT OF STOCKHOLM WATER COMPANY

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1 The Nordic twinning model - Resume

The Stockholm Water Company has over the last decade developed a successful model for twinning arrangements between public water companies, mainly around the Baltic Sea. The model provides comprehensive *Corporate Development* and *Project Implementation* assistance in parallel.

This particular twinning concept focuses on financial, operational and environmental enhancement and the introduction of sustainable management practices enabling the local twinning partners to develop long-lasting solutions and changes for both new and existing installations and operations. The model also compass establishment of professional networks and cooperation forums between the water companies in the area and their foreign twinning partners.

The twinning arrangements consist typically of two phases, one year of project preparation and three to four years of implementation. The full potential of Stockholm Water Company's knowledge and experience of modern water and wastewater management and operations are put at the disposal of the twinning partners. Both long-term and short term specialists are assigned to the local partner sites and extensive training and know-how transfer programmes are carried out locally and in Sweden. Mutual trust, respect and understanding of our different working environments are basic features of the collaboration.

Further, Project Implementation Units (PIU) are organised in the companies to carry out the Investment Projects, often up to some USD 100 million each, and the partner's organisations are trimmed and developed to run these new facilities according to Nordic and European standards. Suitable ownership models are developed providing for the water companies to run their operations autonomously under specific service agreement with its public owners.

Major twinning arrangement were implemented in Kaunas, Lithuania, and Riga, Latvia, and supported wholeheartedly by International Finance Institutions such as the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Nordic Environment Finance Corporation (NEFCO), the Swedish International Development Cooperation Agency (Sida), the Finnish and Swiss governments and the local twinning partner's municipal owners and governments.

The water companies in Kaunas and Riga stands today as successful role models for twinning arrangements between public water entities, where goals were met timely and within budget. The companies are now implementing their second major investment projects without twinning assistance and the financiers are very satisfied with the enhanced and sustainable capacity of these companies.

2 Main objectives of the twinning projects

The overall objectives set out by the International Finance Institutions were:

- To promote environmentally sustainable management and development of municipal infrastructure
- To improve quality and reliability of water supply and wastewater services in the area
- To enhance financial performance through improved management, operational efficiency, full cost recovery and institutional development, transforming the local twinning partner into an autonomous, self-financing and self-governing company without municipal or government subsidies in the future
- To improve environmental conditions in the water intakes and recipients in the area by reducing environmental impact of effluents from the local cities.
- To assist the local twinning partner in complying with the various financial, operational and other conditions included in the financing agreements related to the investment Projects.

3 Twinning phase 1 – preparation

The first phase of the twinning arrangements was used to prepare the respective Investment Projects for financing and to initiate Institutional Capacity Building and Development of the local partners.

Priority Investment Programmes with Procurement Planning and Implementation Schedules were established and approved based on Feasibility Studies provided by the Financiers through other Consultants.

New ownership models and By-laws for the companies were developed enabling the companies to operate under augmented self-management and self-financing. Also draft Supply and Service Agreements was prepared and political owners and company management were involved in joint training sessions.

Institutional development was initiated within areas of legal, financial, managerial and operational development and Project Implementation Units were established and trained. Project management systems were initiated and several Terms of References were produced for design and tender document preparations.

4 Twinning phase 2 – implementation

The second phase of the twinning arrangements was aimed at giving a wide-ranging assistance to the twinning partners involving vital corporate development activities that would support the company in its implementation of the investment projects and the future operations in a sustainable manner. The programmes encompassed the following main activities:

4.1 *Corporate Development*

The corporate development programme included Institutional Capacity Building, Ownership Support and the establishment of a Corporate Development Plan (CDP).

Stockholm Water Company assisted in preparing the first 3-5 years CDP. Thereafter, the partners themselves updated and developed the plan year-by-year in a rolling scheme.

The CDP was comprehensive and encompassed all strategies and actions to be taken in order to transform the twinning partners into autonomous, self-financing and self-governing enterprises. The plan covered issues such as:

- Corporate aims and objectives
- Strategic Planning
- Internal and external working conditions
- Organisational issues and Human Resources Development
- Financial Performance
 - Information Technology Strategy
 - Management Information System (MIS)
 - Budgeting and Accounting systems
 - Billing and Collection systems
 - Tariff structure and Regulatory Unit
 - Assets Management
- Operational Performance
- Environmental Performance
- Public Information and Awareness
- Skills transfer and formal training
- Investment Project Implementation
- Long-term Investment Programme
- Budgets and Work plans

A SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) was carried out in order to identify and focus on key strategic areas.

4.2 Organisational issues and Human Resources Development

New Company structures were developed enabling the management to focus on strategic issues in stead of day-to-day technical issues. The workforce was reduced gradually by a split-up in core- and non-core business and organized retirement of pensioners.

A Human Resource Development Programme for staff and management was developed to support the organizational changes. A Human Resource Policy was formulated and a Replacement and Recruiting Programme initiated.

A report on Gender issues was produced in Riga Water.

Finally, the Workers Safety and Health Programmes were improved and annually reports issued to the financiers.

4.3 Financial performance

Urgent measures were taken to develop the financial management of the companies and improve the billing and collection procedures and thereby raise the cash collection rates. Simultaneous, a new tariff structure was agreed in order to reach full cost recovery – without state or municipal subsidies – during the project period. The tariff and service levels were confirmed in Supply and Service Agreements signed with the political owners of the companies.

Thereafter, a comprehensive IT-strategy was formulated and new or updated budgeting, accounting and cost control systems were introduced according to International Accounting Standards (IAS), including improved assets management.

Management by Objectives requires good reporting and control systems and thus a Management Information System (MIS) was introduced and implemented.

To monitor and verify the operations and the fulfillment of objectives a set of financial and technical Performance Indicators were defined.

Annual financial reports were produced and audited by international auditors according to IAS.

Comprehensive Quarterly reports to the financiers were developed, covering all aspects of the Projects.

Separate systems and reporting procedures for financial and technical follow-up on capital investments were introduced and implemented by the PIU.

4.4 Operational performance

Stockholm Water Company's long-term advisors became involved heavily in the day-to-day work of the partner's management team and provided valuable assistance to its managerial work, whereas the short-term advisors mainly provided operational assistance to the technical staff.

Workgroups were formed between the twinning partner's staff covering issues such as:

- Water savings programme and campaigns, leakage reduction programmes, a programme for installation of water meters in all apartments and the establishment of water meter laboratories with test benches.
- Operational advises to the Water Treatment Plants, including certain reorganization
- Operational advises to the Waste Water Treatment Plant staff. The plant in Riga was upgraded and a totally new plant was constructed in Kaunas. The assistance included support in the procurement process, document assessments and advice on processes and techniques, computer simulations of the biological process, studies of reject water and heat pumps, etc.
- Reconstruction of most of the pumping stations
- Networks planning and rehabilitation and connection of new population areas. Establishment of hydraulic studies in the water and waste water networks as well as introduction of CCTV inspection and procurement of sewer cleaning vehicles. Presentation of trenchless renovations methods for pipelines.
- Improved collection of operational data.

Many study and workgroup visits were made to Stockholm, Kaunas and Riga, respectively, as part of a general training programme.

4.5 Environmental performance

The Stockholm Water Company's operations and management system meets the requirements of the ISO 9001 and ISO 14001 standards. These systems were introduced to our twinning partners and partly adopted in their organizations.

Annual Environmental and Workers Health Reports were developed and forwarded to local authorities and the financiers. Effluent norms, sampling and analysis methods, as well as sanctions for non fulfillment were discussed and agreed with the relevant authorities.

Programmes for control and reduction of industrial pollution to the wastewater system or direct to the water recipients were developed and enforced.

A major objective of the Investment Projects was of course to improve environmental conditions in the rivers passing through Kaunas and Riga, respectively, the Gulf of Riga and the Baltic Sea by reducing the environmental impact of effluents from the two Cities.

The projects have in general been implemented according to plan, and the process enhancement and equipment rehabilitation have produced the envisaged environmental impact in relation to applicable norms and HELCOM standards.

The reliability and quality of the water supply and the wastewater services has improved notably, the water fulfilling even the EU water directive.

A substantial reduction of the environmental load could be registered in the vicinity of the wastewater treatment plants, but it will still take years before the improvement can be registered in the Baltic Sea in general due to the low rate of water exchange in the Sea.

4.6 The Investment Projects

The Investment Projects covered all activities of a water utility, such as

- Rehabilitation and Development of Water Supply Services
- Rehabilitation of Water and Waste Water Networks
- Upgrading of Pumping Stations
- Extension or Construction of New Waste Water Treatment Plants

Fully staffed Project Implementation Units (PIU) were set up and trained thoroughly in procurement and project management. All needed systems for managing a big scale investment project were established, including time planning, cost control, quality and quantity control as well as human resource management.

Special procurement seminars were arranged and standard procurement documents were produced.

The foreign contracts for services and goods had to follow the rules of the various financiers, and Stockholm Water Company assisted the PIU in formulating or reviewing such contracts. Stockholm Water also assisted the PIU in clarifying all local and international legal frameworks influencing the project implementation.

The advisors assisted the PIU in preparation and implementation of all procurement items, including the production of a waste amount of documents and actions such as:

- Redistribution of financial funds and regrouping of the Procurement Plan items
- Procurement notifications
- Elaboration of pre-qualification documents

- Elaboration of short-lists
- Design verifications
- Technical discussion and visits by the advisors
- Production and review of Technical specifications
- Elaboration and review of tender documents
- Site visits for the tendering companies
- Producing responses to the tendering companies' questions
- Participation in tender committee meetings
- Evaluation of tenders and contract negotiations
- Insurance issues
- Tax and customs issues
- Contract monitoring and supervision
- Meetings with the contractors
- Inspections
- Claims handling
- Invoicing and payment
- Reporting systems and Cost control
- Document handling and filing systems

A lot of reports were designed and issued by the twinning partners and many studies and programmes were produced in connection with the investment projects.

The PIU demonstrated successfully their capacity to plan and implement major investments according to the requirements of the international financiers.

4.7 Public Information and awareness

A Public Information Programme aimed at customers, end-consumers, owners, and other stakeholders was established in order to improve the general image of the twinning partner and his operations. The strategy was to highlight the environmental engagement, the important investment project attracting foreign financing and the relatively low tariff for the existing services.

A journalist and a public relations company were engaged for development and implementation of a Public Information Programme that included the use of all available media via articles, press releases, TV footage, brochures and meetings, etc.

Special public awareness activities were carried out in order to engage the water users in the work, including campaigns for water saving and energy conservation.

4.8 Training and know-how transfer

Many training sessions, workshops, study visits and other dedicated training activities were arranged throughout the project according to an agreed general training programme.

The training sessions were tailored to the needs of political owners, top and middle management as well as various staff levels.

As a supplement to the structured programmes, permanent workgroups were established for ad-hoc training and a significant impact was obtained during the twinning process.

5 Resources and costs

Stockholm Water Company delivered some 15 man years of assistance to the Kaunas twinning arrangements, including 80 man months for three resident long-term advisors and some 100 man months for 8 short-term experts. Sida financed the Kaunas twinning arrangements with SEK 15 million. Costs were kept within budget.

The Kaunas Water and Environment Project had a total cost of USD 104 million.

Stockholm Water Company further delivered some 9 man years of assistance to the Riga twinning arrangements, including 75 man months for three resident long-term advisors and 34 man months for 16 short-term experts. The Riga twinning arrangements were also financed by Sida with SEK 16.8 million, including some SEK 4 million for design and ToR. Costs were kept well within budget.

The Riga Water and Environment Project had a total cost of USD 115 million.

The involvement of long-term advisors was a key factor to the success of the Projects and the Companies' development. The short-term advisors were highly appreciated in the established working groups for technical assistance.

6 Lessons learned and recommendations

In the Riga and Kaunas twinning collaborations, the financiers sponsored a comprehensive support model covering both institutional and technical assistance as well as support to the Project implementation.

Taking into consideration the existing structures in need of strengthening and development in many water companies, the applied twinning or corporate development model provided changes in a form that could be accepted by all parties involved.

The model showed very effective and successful and offered the framework for passing on all the managerial, financial, operational and project management know-how possessed by Stockholm Water Company. Also Stockholm Water Company and its staff benefited from a number of motivating and interesting tasks under very different conditions from those at home.

Several of the International Finance Institutions have expressed their satisfaction with the institutional and operational capacity improvements obtained in these two twinning

arrangement, and have indicated that Riga and Kaunas are in compliance with all loan covenants and some of the best projects performed in the region.

It is Stockholm Water Company's experience that twinning programmes are best arranged between public water companies knowing each other and understanding the way of operating a water utility. Such collaboration, based on close relations and mutual understanding, certainly improves the chances for success and is a very strong option compared to privatisation schemes or consultancy contracts procured in competition.

This twinning model, where long-term advisors stayed at site and became involved in all day-to-day issues during 2-3 years, may not be seen as a speedy and cost-effective support. On the other hand, the very good results obtained in Riga and Kaunas makes it evident that the money and resources donated by the financiers to these two projects were well invested.

Finally, a twinning agreement is most often new to at least one of the twinning partners and the result will to a very large extent depend of the dedication, capability and flexibility of the local twinning partner and his owner to cope with the task.

It is therefore advisable that the financiers together with the corporate development partner arrange training support in corporate development and ownership for the beneficiary owner and twinning partner at an early stage in the project.

7 Short reference list

- Riga Water and Environment Project, Riga, Latvia
Technical Cooperation and Twinning Arrangement, Phase I and II (prolonged)
1992-2001
- Kaunas Water and Environment Project, Kaunas, Lithuania
Technical Cooperation and Twinning Arrangement, Phase I and II
1994-1999
- Corporate Development Support Programme, Vodokanal St Petersburg, Russia
Institutional capacity building and institutional development assistance
1998-2002
- Performance-oriented Institutional Strengthening of five towns: Ainazi, Limbazi, Salacgriva, Saulkrasti and Sigulda, Latvia
Institutional capacity building and Corporate Development assistance
1999-2002
- Kaliningrad Water and Environmental Services Rehabilitation Project, Kaliningrad, Russia
Corporate Development Assistance
2000-2003
- Environment Minded Wastewater Management Strategy, Vodokanal St Petersburg, Russia
Development of Strategy and action plan for wastewater management
2000-2003
- **Multiple training programmes and other projects in Africa, Asia and Europe.**
1991 to present.