

Operation Evaluation

# Vologda Municipal Water Services Russia

(A technical cooperation operation)

November 12

Evaluation Department (EvD)



**European Bank**  
for Reconstruction and Development

**Vologda Municipal Water Services, Russia**

November 12

Operation Evaluations are a key element of EvD's work, involving deeper selective analysis of individual operations to produce findings that are operationally useful and more widely applicable. Operations are selected for an Operation Evaluation in consultation with Management with a view to their potential for insights of wider operational use, or to help illuminate higher-level issues or specific challenges for Board, Management and clients. They maybe operations which elicited particular concerns at the time of Board approval, operations that are especially complex, with particular policy or operational concerns, or previously evaluated operations where a "second-look" might yield insights about longer term effects. This evaluation is one of 10 Operation Evaluations scheduled for completion as part of the 2012 Work Programme.

Report prepared by: Hiromi Sakurai, Principal Evaluation Manager

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### Abbreviations

CDP	Corporate development plan
EBRD	European Bank for Reconstruction and Development
EvD	Evaluation Department
FOPIP	Financial and operational improvement programme
F/S	Feasibility study
IFI	International financial institution
km	Kilometre
MEI	Municipal and environmental infrastructure
NDEP	Northern Dimension Environmental Partnership
NFHR	National Foundation for Housing Reform
OE	Operation Evaluation
PIU	Project implementation unit
RUB	Russian rouble
TC	Technical cooperation
USD	United States dollar
WB	The World Bank
WTP	Water supply treatment plant
WWTP	Wastewater treatment plant

### Defined terms

City	Vologda city in Vologda Oblast
City administration	The government officials of Vologda city government
City government	Vologda city government
FOPIP consultants	The consultants' team, which carried out FOPIP for Vodokanal
F/S consultants	The consultants' team, which conducted the feasibility study for the Project
Oblast	Vologda Oblast
Oblast government	Vologda Oblast government
Loan	A RUB 367 million senior loan to Vodokanal supported by the City government and financially guaranteed by the Oblast government
The OE team	Staff of the Evaluation department who carried out the post-evaluation
The Operation team	The staff in the Banking department and other respective departments within the EBRD responsible for the Project appraisal, negotiation and monitoring, including the XMR
The Project	Vologda Municipal Water Services Project, of which the total cost was estimated at RUB 532 million (about €20 million) for the improvement of water supply and wastewater infrastructure in Vologda

## Vologda Municipal Water Services, Russia

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<b>Vodokanal</b>		Vologda Municipal Unitary Enterprise Vodokana
<b>WB project</b>		US\$ 122.5 million loan to the Russian government for a municipal water and wastewater project
<b>The TC Operation</b>		Three TCs financed from the government of Finland for the Project
<b>Engineering consultants</b>	<b>support</b>	The consultants' team, which conducted preliminary design, design supervision and tendering support in technical specifications

## Project data

<b>Operation code</b>	30324, 30318, 30320
<b>Location</b>	Russia
<b>Operation</b>	Vologda Municipal Water Services Project
<b>Sector</b>	Water and sewerage
<b>Type</b>	Technical Cooperation
<b>Facilitators</b>	Finland, EU
<b>Bank unit</b>	Municipal and Environmental Infrastructure

### A. Funding

	Commitment number	Commitment title	Amount (EUR) [utilised]
TC1	EMIS-2005-11-07	Vologda IFRS Audit	48,830 [44,215]
TC2	FTCF-2006-01-01	Vologda Municipal Water Services Project – Feasibility Study	298,155 [284,475]
TC3	FIN-2007-02-01	Vologda Water FOPIP	275,000 [273,234]
TC4	FIN-2007-11-04	Vologda Water Project Engineer	300,000 [300,000]
TC5	FTCF-2007-11-03	Vologda Municipal Water Services Project – Design and Contracts Supervision	99,500 [99,500]

TC2-TC5: the subject of this evaluation report

### B. Procurement

	Mode	Nationality
TC1 (OPID 30318)	Direct appointment	Russian Federation
TC2 (OPID 30318)	Evaluation of proposals	Finland
TC3 (OPID 30320)	Evaluation of proposals	Finland
TC4 (OPID 30324)	Evaluation of proposals	Finland
TC5 (OPID 30324)	Continuation of TC4	Finland

### C. Visits

Type of visit	No. of visits	Person-days
EvD/OE	1	4

## Ratings summary

EvD ratings

Overall performance Successful  
 (Highly successful, successful, partly successful, unsuccessful)

### Project relevance

Additionality Fully verified  
 (Fully verified, largely verified, partly verified, not verified)

### Project effectiveness

Achievement of operation objectives Good  
 (Excellent, good, satisfactory, marginal, unsatisfactory, highly unsatisfactory)

Company financial performance Good  
 (Excellent, good, satisfactory, marginal, unsatisfactory, highly unsatisfactory)

### Project efficiency

Bank handling Good  
 (Excellent, good, satisfactory, marginal, unsatisfactory, highly unsatisfactory)

### Project impact and sustainability

Transition impact Good  
 (Excellent, good, satisfactory, marginal, unsatisfactory, highly unsatisfactory)

Environmental performance of the operation and the sponsor Good  
 (Excellent, good, satisfactory, marginal, unsatisfactory, highly unsatisfactory)

Extent of environmental change Some  
 (Outstanding, substantial, some, none/negative)

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### 1. The project

Founded in the 12th century, Vologda city is located on the crossroads of the inland waterways in the north-west region of Russia, some 400km from Moscow and has a population of 300,000. This ancient capital once prospered as a gateway to Europe during the period of Ivan the Terrible, but then began to decline. During the Soviet era, Vologda Oblast experienced rapid industrialisation. River pollution (Vologda River and Toshnya River) increased uncontrollably, very little investment was made in water infrastructure, and a backlog of maintenance needs accumulated.

In 2002, Vologda participated in the US\$ 122.5 million loan from the World Bank (WB) to the Russian government for a municipal water and wastewater project (WB Project). This project was intended to improve water and wastewater services in the participating cities and to strengthen management, finances and commercial practice in the water utility enterprises. Over four million water users in 13 cities benefited from this facility.

The WB Project was implemented in Vologda between 2003 and 2005 and achieved (i) the rehabilitation of booster pumping stations; (ii) the installation of flow meters and valves at the pumping stations; and (iii) the installation of the SCADA system (a computerised monitoring and control system for the network). It marked the beginning of the modernisation of water systems. Its greatest achievement was enabling Vologda Municipal Unitary Enterprise Vodokanal (Vodokanal) to measure water losses (that is, unaccounted water volume). This project was assessed Moderately satisfactory in the WB's completion report issued in 2009.

The European Bank for Reconstruction and Development (EBRD) started formulating a project for the same sector in Vologda in 2005. A series of technical cooperation due diligence operations were undertaken to prepare for the investment, including TC 1 (Vologda IFRS Audit). In October 2006, the EBRD approved the Vologda Municipal Water Services Project (the Project) and signed a loan agreement for Russian Rouble (RUB) 367 million (the Loan) (approximately €10.6 million) with Vodokanal. Vologda Oblast, whose short-term bonds were rated BB- by Standard and Poors (currently B+/ruA+)<sup>1</sup>, guaranteed the Loan and the Vologda municipal government (the City government) supported the Project. The Project was expected to significantly improve the quality of potable water and municipal wastewater discharging into the heavily polluted rivers.

The Project comprised; (i) water supply components (financed from the Loan and counterpart funds) and technical cooperation (TC) to support implementation (financed by the Government of Finland), and (ii) the modernisation of a wastewater treatment plant (WWTP), including associated consultancy services, financed by an investment grant from the Northern Dimension Environmental Partnership (NDEP).

The water supply components, estimated at RUB 532 million (approximately €14.2 million), included:

- the rehabilitation of a water treatment plant, specifically
  - the chemical dosage unit
  - the ultraviolet disinfection unit

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<sup>1</sup> Standard & Poor's downgraded the municipal bond in April 2011 due to revenue volatility and weak budgetary capacity. A stable outlook has been maintained while the risk hinges on debt management in the near future. In 2010 the Oblast breached the indebtedness indicator covenant due to weakening revenues. The EBRD waived the covenant and continues to closely monitor the 2011 performance.

- block 4 of the water treatment plant.
- the rehabilitation of a 12km section of the water supply network
- the rehabilitation of zonal pumping stations
- the installation of water meters for household users.

Project implementation was supported by TC operations for engineering design and supervision, and capacity building through the Financial and Operational Performance Improvement Programme (FOPIP). The subject of this evaluation report is the TCs (the TC operation) listed in Table 1 below, financed by Finland (Finnish Technical Cooperation Fund and Finnish Ministry of Trade and Industry Technical Cooperation Fund).

Table 1: Technical cooperation in the project

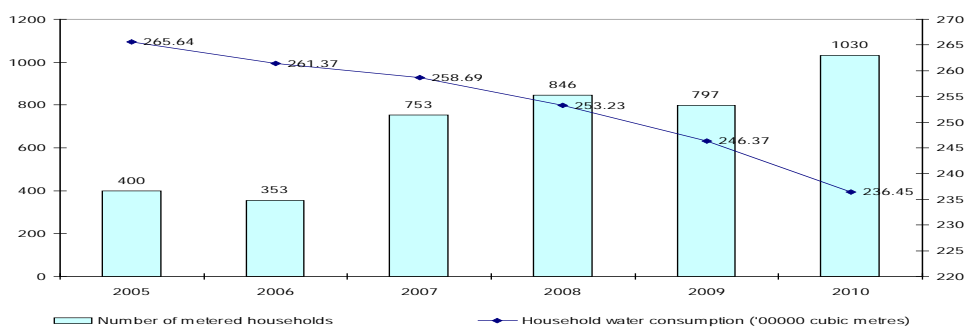
Purpose (preparation/implementation)	TC period	Assessment by the TC Operation Leader
Feasibility study (preparation)	04/2006-09/2006	Successful
Project engineer (implementation)	11/2007-05/2010	Successful
FOPIP (implementation)	03/2007-07/2008	Successful

In addition to the TC operation, the NDEP financed contracts amounting to €679,000 for consultancy services for design, procurement and contract supervision associated with its WWTP investment grant component. The total amount of NDEP finance was €5.2 million.<sup>2</sup>

The first disbursement was not made until two years after the Loan signing in 2006, due to the delay in approving the Oblast's financial guarantee, and the slow start of the tender preparation and design process. When the project works began, the financial crisis was already affecting Vologda. The EBRD extended the loan availability period by two years.

After the financial crisis, the bidding prices in 2009 appeared considerably higher than the cost estimated at appraisal. Given the size of the committed Loan, only the water supply treatment plant component was tendered, with the assistance of the TC consultants, and the implementation of the remainder (the network rehabilitation and the pumping station) was held back.

Chart 1: Household water consumption and the progress of meter installation



The installation of household meters has been conducted steadily from 2009 onward. By the end of 2012, a total of 907 meters will have been installed. Chart 1 above shows a downward trend in household water

<sup>2</sup> NDEP's grant agreement was signed in July 2008 for €3 million, which later increased by €1.5 million in 2010.

consumption, in conjunction with an increasing number of metered households. The diminishing consumption is mainly accounted for by (i) tariff increases and (ii) meter installation.<sup>3</sup>

Out of its own funds, Vodokanal replaced the 12km section of pipe that had suffered the worst deterioration, completing the works in 2010. However, Vodokanal is still seeking a financing source for the last project component (new zonal pumping stations).

The water supply plant component (except the aforementioned zonal pumping stations) was completed in September 2011 and underwent a commissioning test. The successful completion of the test marked the end of the EBRD-financed works. The NEDP-financed WWTP construction commenced in October 2011 and works scheduled for completion in August 2012 are underway.

## 2. Project rationale, relevance, additionality and compliance with country strategy and sector policies

Table 2: EvD assessment of additionality

<b>Additionality</b> (Fully verified, largely verified, partly verified, not verified)	Fully verified
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The rationale of the TC operation was to assist the borrower in implementing the investment in a comprehensive manner, and create a sustainable institutional capacity to operate and maintain its water infrastructure. The TC operation was vital, not only for the EBRD investment but also for NDEP's grant-financed wastewater facilities and the existing and future assets. The relevance of the TC operation is therefore considered *'high'*.

The Project was one of the EBRD's earlier interventions in the Russian municipal sector. The Board document emphasised the Project's consistency with (i) the country strategy [Strategy for the Russian Federation BDS/RF/06-1], particularly in relation to promoting decentralisation in Russia; and (ii) the Municipal and Environmental Infrastructure (MEI) Operations Policy [BDS 04/68F], in that the Project would facilitate commercialisation and institutional and financial sustainability. The TC operation constitutes a core element of the strategy and policy. One of the TCs (FOPIP) formed the EBRD's additionality in terms of design and functionality.

Additionality at appraisal is *'fully verified'*.

## 3. Achievement of objectives

Table 3: EvD assessment of achievement of objectives

<b>Achievement of objectives</b> (Excellent, good, satisfactory, marginal, unsatisfactory, highly unsatisfactory)	Good
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The achievement of the TC objectives is assessed according to the following criteria:

- Effectiveness (how the TC operation was conducive to the investment)

<sup>3</sup> The average consumption per household has not changed during the same period. This implies; (i) the number of household users in Vologda has reduced; and/or (ii) tariff increases did not have significant impact on users' consumption behaviours; and/or (iii) non-metered households were very likely to consume more than metered households.

- assessment of TC design, scope, the outputs of the consulting services and donor visibility
- Efficiency
  - assessment of TC inputs (the consultancy services provided and the contract value) and value for money.

Three TC operations have achieved their respective objectives. The achievement was possible thanks to the efforts of those involved in the Project, who overcame the following challenges: (i) the TC budget was not ample enough to cover all aspects of implementation, particularly for tender and procurement support. As a result, Vodokanal contributed from its own funds to finance an additional consultant who helped Vodokanal comply with the EBRD’s procurement rules and practices. This enabled the TC-funded consultants to focus on the tasks requiring high engineering standards; (ii) the consultancy firms had sufficient previous experience of similar assignments, but their expertise in the Russian municipal water infrastructure was limited. This resulted in some inefficiency in their handling of unanticipated events such as changes in regulations or the political climate. The NDEP-financed consultants assisted and cooperated with Vodokanal in the implementation of the EBRD-financed component; and (iii) there were gaps in the communication between the consultants and Vodokanal at the onset of the TC operations, which were resolved through a timely intervention by the TC operation team.

A good spirit of cooperation, flexibility and timely adjustments of the input-output spectrum in the TC operations resulted in the successful implementation of the Project. Details in each TC operation are provided at Annex 3 Implementation of the TC operations.

Given the quality of the outputs, the effectiveness is assessed as *‘good’*. The efficiency is considered *‘good’*, tending toward *‘excellent’* for the expected outcome from the limited inputs. Overall, the achievement is rated *‘good’*.

Donor visibility was ensured by the media highlighting the project at local events.

## 4. Transition impact

Table 4: EvD assessment of transition impact

<b>Risk to potential transition impact</b> (Excessive, high, medium, low)	Low
<b>Overall transition impact</b> (Excellent, good, satisfactory, marginal, unsatisfactory, highly unsatisfactory)	Good

The transition impact of the TC operation is assessed as *‘good’* resulting from the verified short-term positive impact and the strong long-term transition potential. As Vodokanal is a monopoly in the Oblast, its actions directly impact on the sector. Therefore, the transition goes beyond Vodokanal affecting the water users in Vologda. The transition impact is mainly derived from the higher corporate standards achieved (the corporate level) and the signing of the service agreement between the municipality and Vodokanal for standard services and new tariff policy and practice (the sector level).

#### 4.1. Baseline institutional capacity

Vodokanal is a relatively small but productive water and wastewater enterprise. Some 730 employees maintain a 585km water supply network and a 456km sewerage network. These networks have grown steadily every year. For the past five years, Vodokanal has built 30km in water supply and 60km in sewerage on its own.

To provide a comparison with a similar size of client city (with a population of about 300,000) in Russia, of equal technical calibre, Volzhsky Vodokanal in Volgograd Oblast maintains a water supply and wastewater network totalling 1,000 km with 1,100 employees.<sup>4</sup> It is also noted that there is a low incidence of burst pipes in Vologda (see also "Environmental impact").

Vodokanal's implementation capacity was built based on the steady and constant rehabilitation work. In addition, Vodokanal learned from the WB project how to manage and implement an IFI-financed project, while the primary beneficiary of the WB's institutional strengthening programme was not Vodokanal but the government body and the City administration officials. From the beginning, Vodokanal was attuned to the foreign exposure in the TC operation.

#### 4.2. Benefits from the TC operations

Vodokanal believed that it had robust technical capabilities and was able to thoroughly discuss the modern design and equipment specifications with the engineering support consultants. What Vodokanal gained from the TC operations was mainly "software", such as a modern way of planning and conducting business and management know-how (such as how to plan, formulate and project an investment for the mid- to long term), all of which is contained in the corporate development plan (CDP) as the major output. Also, the EBRD's procurement rules and practice quickly became a new standard for Vodokanal.

Secondly, as a technical aspect, Vodokanal appreciated the western solutions presented as an alternative to the conventional set of choices, although some of them were not readily applicable to the Russian water sector.

#### 4.3. The post-TC capacity as an outcome

While implementing the CDP and engaged in the service agreement, Vodokanal and the City administration have taken the following actions:

- in view of future corporatisation (from a limited liability municipal enterprise to an open joint-stock company), streamlined the organisation<sup>5</sup> for clearer corporate governance and decision making
- established the new budgeting, planning and budget monitoring department in 2008
- introduced an incentive system using key performance indicators and signed a new collective labour agreement with the City administration in November 2010

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<sup>4</sup> In 2010, Vodokanal's incidence of pipe bursts was 1.1 and 0.13 times per kilometre per year in water supply and wastewater networks, respectively. This compares with 9.8 and 20.9 in 2011 for 10 cities (including Volzhsky) participating in the WB's Housing and Communal Services Project for Russia. The 2008 baseline data for said WB project showed 30.4 and 19.2 incidences, which was much worse than Vodokanal's 0.9 and 0.2 in 2008. Vodokanal demonstrates a good and stable technical performance. The WB's implementation progress report in 2011 noted that three cities, including Volzhsky, are behind the other seven cities in terms of the required adoption of the reform programme.

<sup>5</sup> Especially by making the bloated Technical department and Legal department work on a functional basis and eliminating redundant reporting lines such as direct reporting from deputy level managers to the general manager.

- implemented an agreed environmental action plan and prepared Vodokanal's environmental policy
- adopted the regulation on its financial structure, divided the organisation according to financial responsibility (profit and cost centres, investment centre) and strengthened its financial management and budgetary function, introducing managerial accounting and a management information system
- tariff reforms have been undertaken, including:
  - a water supply investment surcharge, which was adopted from 2007 onward, representing an average 10 per cent increase in water supply revenues (for the impact, see "Company financials")
  - the new tariff policy, which was approved in 2009, setting out the cost recovery and financial viability principles and affordability consideration
  - the full elimination of the cross-subsidy between different user types in 2011.

After the engineering support consultants left the site before work beginning, Vodokanal demonstrated its technical ability by managing the Project with minimal help from the NDEP-financed WWTP consultants.

Vodokanal bears a low institutional risk and consistently maintains accountability for the investments. It is quick to capitalise on skills and concepts and put the necessary changes into action. Although still substantially under the City administration's control, Vodokanal manages to maintain an arms-length relationship with it, which worked favourably for a series of actions in the CDP. The risk for transition potential is assessed as 'low'.

## 5. Company financials

Table 5: EvD assessment of company financial performance

<b>Company financial performance</b> (Excellent, good, satisfactory, marginal, unsatisfactory, highly unsatisfactory)	Good
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The Project generated a positive effect on Vodokanal's financials by (i) introducing an investment surcharge required in the Loan agreement; and (ii) delivering the new tariff policy and the service agreement as the outputs of the TC operations. Given the latter, the impact of the TC operation is assessed as 'good'.

### 5.1. Consumptions and revenues

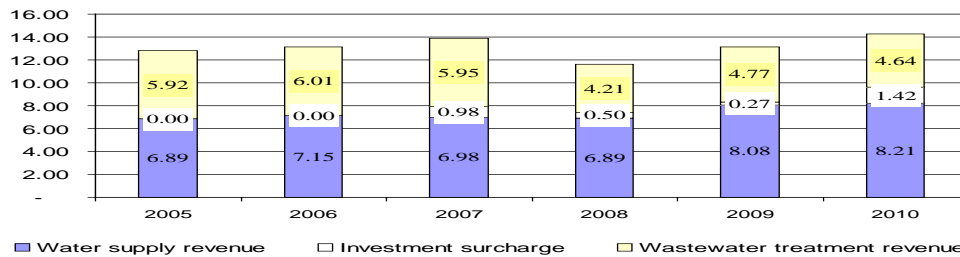
The consumption of water (production of wastewater) has been continuously declining due to general economic conditions, supply-side actions and demand-side control; (i) diminishing economic activities after the financial crisis; (ii) tariff increases as mentioned above; and (iii) the installation of water meters and the FOPIP-promoted water conservation campaign.

### 5.2. Project's impact

Despite the new tariff policy articulating a cost-recovery principle, the real-terms water revenue per cubic metre in 2010 remained only 20 per cent above the baseline (2005), due partly to the central

government's cap for affordability considerations. However, without the TC operations (namely FOPIP), the 2010 unit revenue could have been lower than that of 2005 in real terms, as happened to many other municipal water enterprises without the EBRD's involvement.

Chart 2: Unit water revenue in real terms



Unit: Rouble per cubic metre

## 6. Environmental impact

Table 6: EvD assessment of environmental impact

<b>Environmental performance of the operation and the sponsor</b> (Excellent, good, satisfactory, marginal, unsatisfactory, highly unsatisfactory)	Good
<b>Extent of environmental change</b> (Outstanding, substantial, some, none/negative)	Some

The TC operation's environmental impact is indirect and accounted for by (i) the selection of the project components, which would have maximised the investment's benefits; (ii) the quality of the design recommended by the TC consultants; and (iii) the actions prescribed in FOPIP for environmental, health and safety areas. Overall, the impact is rated 'good', realising 'some' positive changes in the environment.

The quality of treated water, which was the major investment objective, has reportedly improved after the commissioning of chemical dosage and UV-disinfection in November 2011. The treated water baseline data (before the Project) is included in Annex 4 Water supply baseline data. This should be compared with any data collected in future.

Generally Vodokanal's environmental performance is good and has improved physically and institutionally after the Project. The number of pipe bursts in water supply and sewerage has been decreasing since 2005. In 2005, a burst occurred for every 0.67km of water supply and 3.2km of sewerage. During 2010, the incidence indicator has improved to 1km and 7.6km, respectively. However, water unaccounted for has been continuously upward because the pipe deterioration is at all times faster than the replacement. Vodokanal continues to tackle the replacement as a priority work.

## 7. Bank handling

Table 7: EvD assessment of bank handling

<b>Bank handling</b> (Excellent, good, satisfactory, marginal, unsatisfactory, highly unsatisfactory)	Good
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Bank handling of the TC operation is assessed as *'good'*.

Formulating a comprehensive TC operation involving technical, engineering, project monitoring and capacity building within the TC budget is a challenging task. It was more so as the Project was one of the first round of Russian water sector investments for medium-sized cities.

The TC operation team was proactive and facilitated communications between the consultants and the first-time borrower. Their actions were effective when a communication gap occurred between them at the onset of the TC operations.

The scope and tasks of the engineering support were broad and of vital importance to the physical facilities to be built. Furthermore, the absence of a water supply network map was an unexpected surprise and the preparation of such was performed by the engineering support consultant, which made their work even more overstretched. It was during the period affected by the crisis and their assignment was extended to deliver the critical work. In this challenging situation, the TC operation team's timely manoeuvre in scoping critical engineering tasks, and mobilising and reallocating them, led to the investment being successfully implemented within the limited time and resources.

Monitoring and the Project report quality were found to be *'good'*.

## 8. Overall assessment, issues and lessons

### 8.1. Overall assessment

The TC operation is rated *'successful'* for helping a first-time borrower in the midst of a financial crisis to deliver critical improvements in water infrastructure. There is still one component (pumping station upgrades) to be completed pending a new financing source. Other components have been completed satisfactorily. FOPIP marked the very beginning of institutional changes.

After the WB paved the way,<sup>6</sup> the EBRD's activity in this sector picked up in the first half of the 2000s in the thrust of decentralisation. That period marked the first wave of transition in the municipal utilities and the Project was one of the EBRD's earliest involvements in the water sector. Given this background, the additionality of the TC operation is *'fully verified'*.

The achievement of the TC objectives is rated *'good'*. Those who were involved in the TC operations were united in their determination for the investment to be successful, and managed to overcome difficulties during implementations. The transition impact of the TC operation is assessed *'good'*. FOPIP performed an ongoing task to hold lengthy discussions and convince the municipal council and key officials of the

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<sup>6</sup> The US\$ 200 million loan to Russia was approved by the WB in February 2008 for the implementation agency, Ministry of Regional Development. The WB's counterpart in this project was NFHR and Rosstroj (the State Committee for Housing and Construction Policy). The latter succeeded Gostroj in the Soviet era, and carried out the function of constructing and maintaining residential infrastructure and utility services. It was abolished in 2008 to enhance decentralisation.

water service framework change. The timing of FOPIP proved to be good as it led to the real-terms increase of tariffs early on, without which Vodokanal's financial viability could have significantly weakened as post-crisis tariff increases are politically difficult. The financial benefit of the TC operations is considered *'good'*. Vodokanal has received the CDP positively, incorporating it as routine practice by the time of the investment completion. The outputs of the feasibility study and the technical support ensured the quality of the completed facilities. The environmental impact of the TC operation is rated *'good'*, making *'some'* changes to the environment in an indirect manner. The TC operation team acted aptly in arranging extra funding and enlarging the scope of the contract with the NDEP consultants, thereby filling the gap between the required inputs and the expected outputs. This led to the successful completion of the EBRD-financed WTP component as an outcome. Bank handling is assessed as *'good'*.

## 8.2. Issues and lessons

### 8.2.1. *Managing the TC input-output process*

Earlier this year, the Evaluation department circulated the Operation Evaluation Report for the Sakha (Yakutia) Republican Municipal Services Development Programme Technical Cooperation [PE11-514T], which underscored an adequate budget for the first-time borrower, particularly for implementation and capacity building TC operations, and how the design of a TC operation could be effectively enhanced. The TC operations in Vologda highlighted the opposite case, more specifically how to effectively formulate and implement a TC operation when the budget is tight but a broad range of critical tasks needs to be performed. Both TC operations addressed the importance of managing the TC input-output spectrum, which has a direct implication for a value-for-money TC operation.

An adequate set of inputs is supposed to generate satisfactory outputs to achieve the TC objectives. However, creating this input-output equilibrium would sometimes require extra efforts from the TC stakeholders.

When the TC is donor funded and tied in to consultant recruitment, the range of consulting firms who may bid is generally limited. In one of the TC operations for the Project, the TC operation team negotiated with the sole bidder to refine the consultancy agreement in order for them to perform the best for the Project. The professional standards of the selected consultants were valued by the client and the TC operation team.

When the TC budget is small for the required tasks, a proactive approach must be taken towards resource allocation by tapping additional funding sources and prioritising the tasks. The Operation team assigned the technically difficult high-value tasks to the international consultants funded from the TC and Vodokanal agreed to pay a procurement support consultant until additional TC funding was made available. Without this measure, the delay could have been longer and the crisis impact on the tender prices could have been even more serious.

The TC beneficiary's capacity could require more input or result in less output. However, the time constraint at project inception does not always allow the TC operation team to accurately fathom the institutional capacity of a client before designing the TC. And when the client has little experience in implementing EBRD projects, it could compound uncertain factors, sometimes resulting in a prolonged investment implementation period. This TC operation was greatly assisted by the client's capacity and its strong ownership of the Project.

## Lesson

The input-output formulation and management for an implementation TC operation is critically important to the investment operation as it could affect the implementation time and costs, and the quality of the project facilities. A proactive approach and high awareness of available and potential resources are required for the TC operation team to effectively manage this aspect, particularly when the TC funding is constrained.

### *8.2.2. Timing of the FOPIP consulting services*

Since late 1990s, FOPIP has been used as the EBRD's conventional transition tool in the MEI sector. Its achievement varies from one municipality to another in eastern and central Europe and its success was still uncertain in the Russian MEI sector when the Project was formulated. Despite being extended by a year, FOPIP in the TC operation delivered certain results, namely the service agreement for the sector and the CDP for Vodokanal. The timing of the implementation and a realistic (except for the financial projections), actionable and beneficiary-specific CDP helped FOPIP to result in a successful outcome.

## Lesson

For the best results, FOPIP should be conducted at an early stage of implementation as it will facilitate not only institutional strengthening but also sector reforms. Generally a counterpart's commitment to a TC operation and the investment is usually stronger at the beginning of a project. Therefore, any challenging transition agenda in FOPIP is more likely to be accepted. Early implementation of FOPIP could also mitigate the negative impact of unanticipated or exogenous events such as the financial crisis. The timing could overlap with PIU support for tendering and procurement, thus making PIU busy and preoccupied. However, on the positive side, learning effects could be amplified. Therefore, close coordination between the FOPIP and procurement support consultants should be strongly encouraged.

## Annex 1: Contacts

Title	Name	Organisation	Job title
Ms	Natalia Alexandrovna Semenikhina	MUP VologdaGorVodokanal, Water and Sewerage Department of Municipal Unitary Enterprise	Director Finance Department, Acting Director General of Vodokanal
Mr	Nikolai Gennadiyevich Usatsev	MUP VologdaGorVodokanal, Water and Sewerage Department of Municipal Unitary Enterprise	Director, Technical Department
Mr	Evgeny Guriyevich Volykov	MUP VologdaGorVodokanal, Water and Sewerage Department of Municipal Unitary Enterprise	Director
Ms	Margarita Petrova	MUP VologdaGorVodokanal, Water and Sewerage Department of Municipal Unitary Enterprise	PIU
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