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# Independent terminal evaluation

# Identification, evaluation and prioritization of pollution "hot-spots" in the basins of transborder reservoirs and transfer of environmentally sound technologies

Project Number: US/RUS/10/003 - SAP 104122

# **RUSSIAN FEDERATION**





### UNIDO OFFICE FOR INDEPENDENT EVALUATION

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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION Vienna, 2015

Distr. GENERAL ODG/EVA/15/R.6

July 2015

Original: English
This evaluation was
managed by the
responsible UNIDO project
manager with quality
assurance by the Office for
Independent Evaluation

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The views and opinions of the team do not necessarily reflect the views of the involved Governments and of UNIDO.

This document has not been formally edited.

# **Acknowledgements**

The Evaluation Team acknowledges and thanks the support and information provided by numerous individuals interviewed and officials from the Russian Government and UNIDO's project stakeholders who were of great help during the evaluation mission.

Likewise, the evaluation team extends its thanks to representatives of associations, companies and community based organizations in Kazan for their time, feedback and contributions that were essential for this report.

Last but not least, the evaluators would like to express their deep appreciation for the strong support provided by UNIDO field staff in the Russian Federation.

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# **Acronyms and abbreviations**

AGR Agri-Business

BIT Business, Investment and Technology Services

CBS Competitiveness Benchmarking System

CDM Clean Development Mechanism

CFC Chlorofluorocarbons
COP Codes of Practices
CP Country Programme

CSR Corporate Social Responsibility

CTA Chief Technical Advisor

DaO Delivering as One

DPR Detailed Project Reports
EC European Commission

ECC Energy and Climate Change

EMB Environmental Management Branch

ET Evaluation Team
EU European Union

FAO Food and Agriculture Organization

FO Field Office

GoR Government of the Russian Federation

GDP Gross Domestic Product
GEF Global Environment Facility

GF Global Forum

GIZ Deutsche Gesellschaft fuer Internationale Zusammenarbeit

(German International Cooperation)

HACCP Hazard Analysis Critical Control Point

HCFC Hydro chlorofluorocarbons

ICT Information and Communication Technology

ILO International Labour Organization

IP Integrated Programme

IPAS Industrial Property Automation System

IPR Intellectual Property Rights

ISO International Organization for Standardization

ITC International Trade Centre

ITE Institute of Technical Education

JICA Japan International Cooperation Agency

JP Joint Programme

MDGs Millennium Development Goals

MP Montreal Protocol
MTR Mid-term Review

ODA Official Development Assistance

ODG/EVA UNIDO Office for Independent Evaluation

ODS Ozone-depleting Substances
PAD Project Allotment Document

PMO Programme Management Office
PRSP Poverty Reduction Strategy Paper

PSD Private Sector Development

PSC Project support cost

PSC Programme Steering Committee

R&D Research and Development

SME Small and Medium Enterprises

SMEDA Small and Medium Enterprise Development Authority

TC Technical Cooperation
TCB Trade Capacity Building

TEST Transfer of environmentally sound technology

ToR Terms of Reference

TRTA Trade Related Technical Assistance Programme

UNCT UN Country Team

UNDAF United Nations Development Assistance Framework
UNIDO United Nations Industrial Development Organization
USAID United States Agency for International Development

UR UNIDO Representative

WB World Bank

WIPO World Intellectual Property Organization

WTO World Trade Organization

USD United States Dollar

# Glossary of evaluation terms

Term	Definition
Baseline	The situation, prior to an intervention, against which progress can be assessed.
Effect	Intended or unintended change due directly or indirectly to an intervention.
Effectiveness	The extent to which the objectives of a development intervention were or are expected to be achieved.
Efficiency	A measure of how economically inputs (through activities) are converted into outputs.
Impact	Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention.
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention.
Intervention	An external action to assist a national effort to achieve specific development goals.
Lessons learned	Generalizations based on evaluation experiences that abstract from specific to broader circumstances.
Logframe (logical framework approach)	Management tool used to guide the planning, implementation and evaluation of an intervention. System based on MBO (management by objectives) also called RBM (results based management) principles.
Outcome	The achieved or likely effects of an intervention's outputs.
Outputs	The products in terms of physical and human capacities that result from an intervention.
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donor's policies.
Risks	Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives.
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed
Target groups	The specific individuals or organizations for whose benefit an intervention is undertaken.

# **Executive summary**

### Introduction

The project on identification, evaluation and prioritization of pollution "hot-spots" in the basins of trans-border reservoirs and transfer of environmentally sound technologies (TEST) was approved by the Russian Government and financed through its Industrial Development Fund. The project was launched in June 2010 and the first phase was successfully completed end of 2012. However, due to reasons beyond the scope of this evaluation, the project experienced an 18-month break in funding, which significantly delayed the implementation of the second phase. This started in mid-2014 and is to be finalized in May 2015.

The objective of the project is to reduce the industrial discharges and improve the water quality of the Volga River through the implementation of the TEST methodology at selected enterprises representing pollution "hot-spots".

The independent terminal evaluation (ITE) was conducted between February and May 2015. The Evaluation Team (ET) was comprised of an international expert (Team leader) and a national expert. The methodology used was primarily qualitative and was based on a combination of desk review, semi-structured interviews with stakeholders, field observations and data collection methods and analyses to investigate the relevance, effectiveness, efficiency and sustainability of the project. The Logical Framework was used to determine the performance indicators relevant to each of the objectives agreed in the Project Document, and to determine appropriate questions to assess whether the performance indicators had been met.

In this report, the evaluators have provided quantitative information, wherever possible based on the status of the outputs in the project at the time of the evaluation. The evaluation report is as evidence-based as possible within the time available in order to substantiate the findings and, moreover, to enable practical recommendations to be proposed on the basis of these findings

### Key findings and conclusions

The design was assessed as adequate and the project as highly relevant. The overall project goal fully meets the demand for improvement of the environmental situation in industrial areas and, in particular, of surface water quality. The combination of "hot spot" and TEST approaches is innovative for the Russian Federation and proved to be an effective tool for environmental improvements through the work with targeted enterprises. The implementation of the project had clear support from authorities at all levels and this support was notably strong from the Government of Tatarstan. The results of the project elicited positive reactions and generated interest both at the regional and central levels and this is considered to be a good starting point for further dissemination of the "hot spot"/TEST approach, both in Tatarstan and other regions of the Russian Federation.

The implementation of the project also delivered "side effects" such as the creation of effective monitoring, research and dissemination tools such as the Geographic Information System (GIS) electronic platform and the Volga International Cleaner Production Centre/National Cleaner Production Centre

(VINPC/NCPC), which are already used in other areas of environmental improvement work.

#### Relevance

Relevance of the Hotspots project is high, in particular given the significant industrial pollution challenges faced by the country. The project is also highly relevant to the objectives of international priorities, in particular the Millennium Development Goals (MDGs).

However the TEST approach has yet to begin active piloting – hence the project missed an opportunity to obtain/demonstrate early results as the broader relevance of the project's approach can only be secured through replication to other regions of the Russian Federation.

#### **Effectiveness**

The ET considers the effectiveness of the project as Satisfactory, which is notable when taking into consideration the fact that an 18-month hiatus occurred between the first and second stages.

The outputs delivered are considered effective and of high quality. However significant up scaling would be required to "improve the water quality of the Volga River"

### **Efficiency**

The project was implemented with no significant delays; and the main project infrastructure was established on time. Stakeholders consider efficiency to be highly satisfactory.

### Sustainability and impact

The ET considers that the sustainability of project outcomes is Likely to Highly Likely.

UNIDO has built strong relations with the regional government of the Russian federation (GoR), where there is evident support for improving environmental management and reducing industrial pollution. However, sustainability of results at a broader level requires the up scaling of the TEST program to other regions - and industries - to achieve a measurable impact on reduction of water pollution.

# **Key recommendations**

In order to achieve the higher-level impact of the project UNIDO should strongly consider the additional support of TEST activities in the region. These should, in particular, be aimed towards the reduction of pollution to improve water quality (the overarching expected impact) through replication of the demonstration pilots and backed up by continued awareness raising and advocacy efforts, both targeting the Government of Russian Federation (GoR) and enterprises.

In particular:

 UNIDO should consider up-scaling the application of the TEST methodology in other geographical areas and sectors, prioritizing those where a major impact on pollution can be achieved;

- UNIDO should continue to work with the private sector through demonstrations and present clear business case examples showing economic / financial benefits of improved environmental management, in order to stimulate dialogue and cooperation;
- UNIDO should consider addressing the challenge of service provision to companies through an appropriate local partner organization (such as the option to partner with the Volga International Cleaner Production Centre (VICPC));
- UNIDO should continue to predominantly use national experts to design and implement projects;
- UNIDO should continue the provision of support as/if required by the GOR, in preparation of a comprehensive legislative framework.

#### Lessons learned

In retrospect the project would have required a more realistic set of goals - and/or appropriate funding levels - to achieve the planned objectives and eventual impact.

Specifically the following lessons were retained as noteworthy:

- In order to replicate a project's approach and introduce policy measures, projects should be able to deliver end-of-pipe results;
- Resourcing difficulties (finance, staff, equipment, other) associated with delayed outputs must be identified and resolved as early as possible;
- Periodic consultations with stakeholders increase the opportunity of making use of their skills, experience and knowledge.

# Introduction and background

### 1.1 Introduction

This report presents the findings of the Independent terminal Evaluation (ITE) of one of UNIDO's interventions in Russia, the Identification, evaluation and priorization of "pollution hot-spots" in the basins of trans-border reservoirs and transfer of environmentally sound technologies (TEST). It assesses the implementation and results of this project from 2010 to date.

The Evaluation Team (ET) was comprised of Mr. Cristóbal Vignal, International evaluation consultant, and Team leader and, Mr. Aleksander Knorre, National evaluation consultant.

### 1.1.1 Rationale and objectives

As outlined in the Terms of Reference (ToR), included as Annex A, the ITE was undertaken as a forward-looking exercise to identify best practices, areas for improvement and lessons to be incorporated in future UNIDO interventions in Russia and in other UNIDO programmes and projects, as/if applicable.

The overarching objective of this ITE was to assess in a systematic and objective manner this UNIDO intervention from 2010 up to date, to enable the Government, donor, counterparts, UNIDO and other stakeholders to:

- Assess the relevance, efficiency, effectiveness, impact, and sustainability of the project by providing an analysis of project objectives, delivery and completion of project outputs/activities, and outcome/impact based on selected indicators. Although gender dimensions were not specifically described in the project document, aspects of gender mainstreaming were also assessed.
- Assess from an environmental perspective whether (i) gains to the individual companies were measured and reported upon, (ii) priority was given to preventive approaches wherever possible, and (iii) social and/or economic effects of environmental interventions were taken into considerations and/or measured; and,
- Enhance similar on-going or future projects by proposing a set of recommendations.

The key users of this evaluation are UNIDO management and staff at Headquarters and the UNIDO Country Office in Russia, UNIDO experts, the Government of Russia, counterpart agencies and other organizations in the country cooperating with UNIDO, donors, members of the UN Country Team (UNCT) and project beneficiaries.

The evaluation findings and recommendations are expected to provide key inputs for the planning and continual improvement of future cooperation activities.

### 1.1.2 Scope and methodology

The scope of this ITE was from 2010 to date and the evaluation field mission took place in March of 2015. The field visits allowed the Evaluation Team (ET) to visit all three of the Pilot sites, and meet with relevant stakeholders.

The methodology applied included a review of written documentation and other sources of information, interviews with project managers at UNIDO HQ, CO staff and in-country stakeholders, including beneficiaries and government representatives both in Tatarstan (Kazan, Mamadysh, Zelenodolsk) and Moscow.

The documentation review was carried out during February and April of 2015 and included project related documents, available evaluations (including the 2013 Country Evaluation), monitoring reports, and also contextual documents on GoR policies and recent economic and social development in the Russian Federation.

Initial interviews were conducted with UNIDO HQ project manager and other relevant staff members in February 2015, prior to the evaluation mission, and served to obtain more information on project design and implementation. These interviews were semi-structured and focused on origins of the project, inputs from GoR and other stakeholders, institutional arrangements for implementation, achieved and expected results, strengths and weaknesses difficulties encountered and missed opportunities.

The interviews were semi-structured and qualitative to allow new lines of questioning to be followed if/when necessary, particularly with regard to reconstructing the history of the project (from beneficiaries perspectives). The interviews were conducted in presence of the two evaluators and notes taken and analysis were triangulated against documentary evidence. While maintaining the independence of the evaluation, the approach was participatory and open in order to facilitate cordial and constructive dialogue with all stakeholders.

The ET was comprised an International evaluation consultant, and Team leader and a National evaluation consultant. UNIDO Office for Independent Evaluation was responsible for the quality control of the evaluation process and report. The evaluators and the responsible project manager kept the ODG/EVA informed and shared correspondence and draft documents for review.

The evaluation consultants were contracted by UNIDO and their tasks are specified in the job descriptions attached to these terms of reference. The members of the evaluation team were not directly involved in the design and/or implementation of the project.

# 1.1.3 Information availability and sources and, validity of the findings

Through the documentary information and the information collected in the field, the evaluators consider that there was sufficient evidence to allow them to establish a baseline for the project; sources of information were sufficient to verify and document the progress and constraints encountered during the assessment; data and information derived from interviews were qualitatively satisfactory and this was verified through comparison of figures from different sources and

through crosschecked interviews with relevant actors in an independent way, showing that respondents views and contributions were in full agreement.

In addition, the information obtained allowed the ET to verify that progress to date corresponds to the activities, outputs and outcomes set out in the logical framework of the project and that they are measured by the indicators defined in the logical framework.

The list of interviews carried out satisfactorily (See Annexes) ensured that the views and experiences of all relevant stakeholder categories (men/women, project/programme staff and project/programme participants, beneficiaries and non-beneficiaries) were appropriately included.

### 1.1.4 Limitations of the evaluation

The major limitation the ET was faced with regarded the difficulty to obtain the original documents for the second phase (approved work plans and budget). For a period of approximately 18 months a funding break occurred (spring 2013 – fall 2014) and during this time, a number of draft project iterations and budget proposals for funding were issued but were never officially approved. The only official document provided, which approved funding for the second phase, is a letter from the Russian Ministry of Foreign Affairs to UNIDO, which earmarks the use of USD 360,000 for the TEST project out of the GoRs instalment.

As well, the UNIDO SAP Infobase only provides access to information that was last updated on 20 December 2012.

# 2. Country and project background

### 2.1 Socioeconomic overview

The Russian Federation is the largest country in the world with respect to area. It possesses many different natural resources, including large amounts of oil, natural gas, coal, and many strategic minerals, reserves of rare earth elements and timber. However, due to climate and terrain features, a large amount of the natural resources cannot be exploited. Owing to the same reasons, most of the land cannot be used for agriculture. Main agricultural products are grain, sugar beets, sunflower seed, vegetables, fruits, beef and milk.

The Russian Federation has a population over 143 million. It is the 9th most populated country in the world. It had an estimated negative population growth rate for 2012 (- 0.01%) and life expectancy at birth of the total population is 66.46 years. Health expenditure is around 5.1% of GDP (world ranking 136). Expenditure on military is 3.9% of GDP (world ranking 25). Expenditure on education is 4.1% of GDP (world ranking 110). Russia spans 9 time zones.

The Russian Federation has a GDP of 2.097 trillion USD (2014) - which is among the top-10 GDP's in the world - and a GDP per capita of USD 14,612. The rate of growth of GDP has been 4% for the years 2011 - 2012. However, starting for the second part of 2013 the general economic trend has changed and downside tendencies started to prevail. Slowly declining oil prices over the past few years and difficulty attracting foreign direct investment have contributed to a noticeable slowdown in GDP growth rates.

In late 2013, the Russian Economic Development Ministry reduced its growth forecast through 2030 to an average of only 2.5% per year, down from its previous forecast of 4.0 to 4.2%. Negative changes in international relations in combination with the dramatic drop of oil prices in 2014 led to an almost two fold devaluation of local currency.

The GDP growth in 2014 is estimated at 0.2%. Prospects for economic growth declined further, with expectations that GDP growth could drop into negative values with the decrease of  $3-5\,\%$  in the year 2015. The expected inflation rate is expected to reach 12%, compared with 5.1% in 2012.

#### GDP and labor force (75.6 million people) composition by sector

	GDP	Labor force
Agriculture:	3.9%	7.9%
Industry:	36%	27.4%
Services:	60.1% (2012 est.)	64.7% (2011)

Youth unemployment is 18.3% (15-24 years age) and ranks 67 in world comparison. Total unemployment rate is 5.7%. 12.7% of population lives below the poverty line.

Both, electricity production and consumption rank 4 in the world, after China, the United States of America and the EU.

### Total installed electricity production capacity, per source

Fossil fuels 67.7%

Nuclear fuels 17.2%

Hydroelectric plants 15.1%

Other renewable sources 0%

In 2011, the Russian Federation became the world's leading oil producer, surpassing Saudi Arabia; Russia is the second-largest producer of natural gas; Russia holds the world's largest natural gas reserves, the second-largest coal reserves, and the eighth-largest crude oil reserves. Russia is also a top exporter of metals such as steel and primary aluminium. Russia's reliance on commodity exports makes it vulnerable to boom and bust cycles that follow the volatile swings in global prices. The Government since 2007 has embarked on an ambitious program to reduce this dependency and build up the country's high technology sectors, but with few visible results so far.

The Russian Federation has a reputation for being a difficult country to start and run a business in. According the World Bank / IFC 'Doing Business Report' Russia ranks 112 out of 185 countries overall in 2013 which is worse than some of the neighbouring countries including Kazakhstan (rank: 47) and China (rank: 91). Areas which businesses reported as being particularly problematic included access to electricity (rank: 184); dealing with construction permits (rank: 178); access to credit (rank: 104) and protecting investors (rank: 117). This said, the time required to register and start business declined from 29 days in 2012 to 18 days in 2013.

Despite the challenges, the strengths of the Russian economy include a well-educated workforce, with many holding tertiary qualifications, and strong scientific and technological base, fairly good infrastructure, and its large domestic market (ranked: 8in the world) which continues to make it attractive for internal and foreign investors.

The Russian Federation is endowed with a significant array of natural resources including some of the largest forest and water reserves in the world, however the country has numerous environmental challenges, such as serious air, soil and water pollution, much of which originates from poor policy and investment choices made during the Soviet period, at a time when officials placed little emphasis on controlling industrial pollution. As a result about 30 - 40% of the Russian territory had experienced environmental stress by the mid-1990s.

The Republic of Tatarstan – of particular importance for this project - is located in the center of the Russian Federation, in the middle of its large industrial zone. It lays 800 km East of Moscow at the confluence of the Volga and Kama rivers. With a population of 3.8 million, the Republic covers a territory of 68,000 km<sup>2</sup> and is administratively subdivided into 43 municipalities.

The Republic of Tatarstan is one of the most economically developed and industrialized regions in the Russian Federation. It ranks in Russia's top 10 regions in terms of the Gross Regional Product (GRP) the unit of industrial output per ha. The Republic of Tatarstan GRP has been steadily growing since the end of 1990s contributing up to 2,3 % to Russia's total GDP. The current structure of

Tatarstan's economy is a legacy of Soviet policy of industrialization with an emphasis on heavy energy intensive industry.

The region's industrial policy is based on industry clustering and creation of industrial production zones. The main industrial sectors are: the large petrochemical complex (energy extraction, production of synthetic rubber, tires, polyethylene and a wide range of refined petroleum products), metallurgy and heavy engineering (heavy trucks, helicopters, airplanes and aircraft engines, compressors and oil and gas pumping equipment, river and sea vessels, commercial and passenger cars), as well as power engineering and light industries

The Republic is the 3<sup>rd</sup>largest oil-producing region accounting for 7% of oil produced in the Russian Federation. It also contributes 100% of the Russian manufacture of neonol, 97% of polyether's, 50% polystyrene, 40% of synthetic rubber, 30% of car tires, 30% of trucks and 4,7% of the total agricultural output.

Historically the process of intensive industrialization and extensive raw materials extraction was undertaken without due regard to resources efficiency and ecological consequences. It has resulted in the high carbon intensity of Tatarstan's economy and places enormous anthropogenic pressure on the regional and global environment including wide spread pollution, deforestation, and significant GHG emissions. In recent years the government of Republic of Tatarstan has placed a high priority on reversing the unsustainable patterns of economic growth.

Presently the Republic of Tatarstan is one of the leading regions in the Russian Federation with regards to environmental decision making and implementation, which has been manifested through initiation and financing of a number of innovative programmes and projects (The Earth Charter Project; the Geo-portal (a Republic-wide GIS based environmental database), e-governance projects). The regional environmental policy aims to ensure sustainable natural resources use, increased energy efficiency and transition to cleaner resource efficient industrial production.

### 2.2 Policy and legal framework

The post-Soviet period has seen some improvements in environmental policy and regulation, but their effectiveness has been undermined by lax enforcement and implementation, hence resource depletion such as illegal logging, industrial pollution, and the slowly degrading quality of its natural environment have remained as serious challenges for the country.

The Russian Federation has no economic development plan or industrialization policy, unlike many other countries where UNIDO has operations, and hence TC operations are not grounded in a structured government determined policy framework in that area. However, as most UNIDO's TC assistance is associated with environmental issues, it does relate to GOR energy and environmental strategies and policies.

Environmental policy and regulation in the Russian Federation has been somewhat fragmented and has generally been eclipsed by the need to maintain economic growth. Another problem is that fines for violation of environmental laws and permit conditions are too low, and enforcement is frequently minimal or ignored. In 2010, President Medvedev called for a 'improved and consolidated

environmental policy to ensure observance [of the law] becomes standard practice'.

In April 2012, GoR approved the "Principles of State policy in the area of environmental development of the Russian Federation for the period up to the year 2030". Notably the principles acknowledged global challenges such as biodiversity loss, climate change and environmental pollution and also the high impact of economic activities on the country with the key objective of providing a broad framework for more sustainable development.

The principles broadly outline the following actions: (a) improvement in public authority powers to regulate environmental protection and safety; (b) improvements in environmental management and supervision; (c) establishment of more coherent laws; (d) introduction of Strategic Environmental Assessment for plans and programmes; (e) increased liabilities for violation of environmental regulations; (f) introducing innovative environmental technologies; and (g) gradual abolition of temporary excess emission and discharges of pollutants into the environment.

One of the most significant recent events in the area of environmental legislation was adoption in the mid-2014 of amendments to the Federal law on environmental protection. The new Federal law introduces the concept of "best available technology", which is understood as the technology of production of products (goods), works and services, determined on the basis of modern science and technology, and the best combination of criteria to achieve environmental objectives, subject to availability of technical possibility of its application.

The federal Law specifies the provisions of legislation concerning standardization in the field of environmental protection, in particular, the possibility of establishing technological and technical standards. The federal Law contains provisions relating to the procedure for establishing and collecting fees for negative impact on the environment, as well as the entities required to collect such charges.

### 2.3 Sector specific issues of concern

An unexpected development prompted by the recent economic situation concerns the increased demands from the business sector to remove regulations. In particular in mid-February the heads of the largest Russian oil companies wrote the President of the Russian Federation requesting the elimination of the "excessive environmental regulations" imposed on the industry and, proposed to postpone entry into force of the new stringent requirements by a period of 2-3 years.

They also reiterated the need to maintain a license amnesty: to set a moratorium on the implementation of existing orders by the Rosprirodnadzor (Federal Environmental Control Agency) to remedy violations of licenses and, to delay the issue of the new ones.

The moratorium proposed would cover the period required for the <u>Ministry of Natural resources and Environment (MNRE) to update the license requirements,</u> as part of the approved government plans to ensure sustainable economic development and social stability in 2015. It looks quite likely that in the context of a deepening economic crisis, the flow of such requests to governmental structures, both at the federal and regional levels, will increase.

# 3. Project summary

# 3.1 Project fact sheet

dentification, evaluation and priorization of "pollution not-spots" in the basins of trans-border reservoirs and ransfer of environmentally sound technologies (TEST)
DE12 and EAE
Russian Federation (Middle and lower Volga River Basin)
Addresses MDG 7 - Ensure environmental sustainability  Contribution to Target 10 – halve by 2015 the proportion of people without sustainable access to safe drinking water
mprovement of water quality and reduction of negative egional and transboundary impact from industrial activities hrough introduction of TEST
Regional governments, local industries (in particular SMEs)
Federal Ministry of Natural Resources and Environment
24 months (extended by 18 months)
Financed from the 2009 voluntary contribution of the Russian Federation to the UNIDO IDF (Industrial Development Fund)
JNIDO input USD 1,310,000 Support costs USD 170,300 Grand total USD 1,480,300 Counterpart income in kind
R A Comment of the R Co

# 3.2 Project description

### 3.2.1 Overview

The project's objective is to improve water quality and reduce negative regional and transboundary impact from industrial activities within the middle and lower Volga River basin through the introduction of UNIDO's integrated approach for the transfer of environmentally sound technology (TEST) aimed at increasing environmental performance of polluting enterprises.

The main outcome will be increased capacity of the local Government to take a decision on mitigation measures to reduce man-made pressure on the water basin. The Government will receive a set of policy and technical recommendations to invest in a project aiming at reducing pollution discharge from industries with high transboundary impact. Local industries ("hot-spots") will develop TEST capacities necessary to prepare their investments in BAT/BEP and identity possible funding sources<sup>1</sup>.

The project consists of two main elements, one covering identification, assessment and priorization of pollution "hot spots" as major sources of Volga river contamination. The second covers introduction of UNIDOs integrated approach for the transfer of environmentally sound technologies (TEST) aimed at improving the environmental performance of enterprise-polluters. The second stage of the project is built on the successfully completed work conducted in 2010-2013.

Activities in this stage aimed to develop the results of the detailed in-depth work with a limited number of enterprises to receive a coach through BAT/BEP identification prioritization and feasibility studies as well as plant demonstration; to develop more detailed indicators to monitor the impact of the TEST methodology in participating companies; and to further improve the dissemination activities to share project results. In particular this would focus on the development of a portfolio of investment projects for the implementation of best environmental technologies in three selected enterprises in the Republic of Tatarstan.

The results of the project will significantly reduce the environmental impact of the enterprises, serving as the basis for policy advice and development of demand based incentives. The integrated best practice solutions would have great potential for replication in other companies of similar profile, which will also make a significant contribution to the development of Russian regions and targeted industries.

# 3.2.2 Project goal

The project aims to achieve better water quality, and efficient and ecologically sound utilization of water resources by regional industries, coupled with due consideration of the interests of the surrounding population (transboundary impacts).

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<sup>&</sup>lt;sup>1</sup> UNIDO SAP Infobase

### 3.2.3 Project objective

The main project objective is to improve water quality and reduce negative regional and transboundary impact from industrial activities within the middle and lower Volga River basin through introduction of UNIDOs integrated approach for the transfer of Environmentally Sound technology (TEST) aimed at increasing environmental performance of polluting enterprises.

The under-arching objective is to help the regional Governments in the Russian Federation make decisions on measures (both policy and technical) to be undertaken towards reduction of man-made pollution in the water basins and their transboundary impacts.

### 3.2.4 Expected outcomes

There are two main expected outcomes:

Enhanced knowledge and capacity of the counterparts in the Russian Federation for reversing man-made pollution of the middle-lower Volga River through application of innovative approaches and technologies;

Harmonized policy reforms in line with the Russian federal and regional programmes on water.

### 3.2.5 Budget

In 2009 the Russian Federation and UNIDO signed an agreement for a special purpose contribution to the Industrial Development Fund (IDF). The project is financed by the GoR, from this voluntary contribution to the UNIDO IDF.

The budget for the first stage is of USD 1.310.000

The budget for the second stage is of USD 360,000

# 3.3 Project implementation

Initially the project was planned for 2 years. However at the final stage of the planned implementation (second half of 2012) UNIDO proposed the revision of the project in order to expand the application of the TEST methodology and to have more in-depth work on the limited number of enterprises, which led to the extension of the project for 12 months.

This extension period in some documents is also called Phase II<sup>2</sup>. Originally this extension proposed the increase of the project budget for \$ 400,000. Due to reasons outside of the scope of this evaluation, the discussion on the additional funding took 18 months and final approval by GOR on additional funding from the Russian Federation for an amount of USD 360,000 was given in November 2013.

Although the project was initially designed to be implemented as a continuous suite of activities starting from project approval in 2010, the involuntary 18 month break resulted in significant changes in the project implementation and further

<sup>&</sup>lt;sup>2</sup> It is also described as a project with two "components".

budget reductions (down to USD 240,000) strictly limited activities of TEST pilot cases and dissemination of results.

The first stage of the project covered the identification, assessment and prioritization of pollution "hot spots" as major sources of contamination along the middle and lower Volga River. This was started in 2010 and was successfully completed by the end of 2012, resulting in participating enterprises having been prepared for the transfer of best environmental technologies through training and, introduction of the TEST methodology. The proposed recommendations resulting from this phase were approved by the management of the companies and integrated into their investment plans. On 4 December 2012 the SC approved these results and recommended that the project proceed<sup>3</sup>.

The second stage facilitated the introduction of UNIDO's integrated approach for the (TEST), aimed at increasing environmental performance of enterprise-polluters and, ultimately reducing regional and transboundary pollution within the Volga River basin. This was carried out from 2014 to June 2015 (Ongoing at the time of preparation of this report).

Specifically stage 2 focused on the development of a portfolio of investment projects for the implementation of best environmental technologies in three selected enterprises in the Republic of Tatarstan. Based on the in-depth assessments prepared during the previous stage, the enterprises -with support from a coach- were guided through BAT/BEP identification prioritization and feasibility studies, as well as plant demonstrations. Detailed indicators to monitor the impact of the TEST methodology in participating companies were developed, and the dissemination activities to share project results were also further improved.

### 3.4 Positioning of the UNIDO project

UNIDO has developed extensive expertise in identification, assessment and prioritization of pollution hot spots, as well as in the transfer of environmentally sound technologies (TEST). Both of these methodologies have been successfully applied in a number of countries and UNIDO has the capacity to replicate them. Historically, the first TEST pilot program was launched in the Danube River Basin (2001-2004). This successful initiative has since been replicated worldwide and examples can be found in the TEST MED project, as a component of the "Strategic Partnership for the Mediterranean Large Marine Ecosystem" (2008), America and Cambodia and in projects in Latin (2013)www.unido.org/watermanagement).

The current project has specifically been requested by the GoR as one of the priority areas.

### 3.5 Counterpart organization(s)

Counterpart organizations are the Federal Ministry of Natural Resources and Environment. National counterparts provided local support to address priorities of national government in the selection of the project sites. UNIDO CIIC office in

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<sup>&</sup>lt;sup>3</sup>Volga TEST Final Report March 6, 2013

Moscow will coordinate part of the national activities and communication with government counterparts.

# 4. Assessment

### 4.1 Design and relevance

The design of the project was assessed as adequate, and the relevance as **Highly Satisfactory**, as detailed below.

UNIDO, as a GEF Executing Agency, implemented the "Preparation of the Strategic Action Plan for the Dnieper River Basin" project. Within the scope of this project UNIDO proposed a new and successfully applied quantitative methodology for identification of pollution "hot-spots". The methodology resulted in the preparation of a priority investment portfolio for industrial and municipal enterprises. The successful experience of the TEST Danube project was the basis for designing global level replication projects supporting governments in effectively implementing national strategies for reducing industrial discharges arising from industrial hot spots.

The design of the current project, and its implementation, follow the abovementioned approach and methodology on "Identification, assessment and prioritizations of pollution hot-spots" as well as on "Transfer of Environmentally Sound Technologies" developed by UNIDO for GEF-funded projects.

Interview data shows that the Federal Agency of Water Resources, further to bilateral discussions with UNIDO during a conference in Kazan (Tatarstan), officially conveyed the interest of the country in receiving support for TEST related activities from UNIDO. Following this, a team of international consultants that had developed a similar project in Ukraine was gathered in Russia to develop this TEST project, building on the previously mentioned experience.

The project was designed to identify, evaluate and prioritize pollution "hot-spots" in water basins, which have the most significant negative impact on water, and to recommend policy measures and technological solutions for pollution prevention/management. The approach not only contributes to the relevance of the project, but also enables the agencies involved to identify a manageable number of "hot-spots" for further priority action. In addition, during the evaluation, the ET was able to confirm from numerous sources that throughout the process there had been "strong participation" from the country, supporting not only the assessment of high relevance, but also of the high level of ownership of the project.

The project is also considered relevant to the new GoR 'principles for environmental development' which focus on development of best available technologies and cleaner production through partnerships with the private sector.

The relevance to the target group is also clear. Interviews and visits allowed the ET to gather ample evidence showing that in general project stakeholders demonstrated a good understanding of the advantages and savings that could be generated through the effective and complete application of the TEST methodology.

The TEST part of the project was designed to provide industries with an integrated model for improving their environmental and economic performance by introducing effective management techniques and cleaner technologies that should reduce impacts on water, energy and material resources. The geographical focus of the project on the Volga River Basin also contributes to relevance as the area contains a high concentration of agricultural and industrial units as well as many cities generating pollution and waste. And the project is also considered to be very relevant for the region where, for example the SredVolgaVodKHoz (Federal Agency for the Middle Volga River) where this project is implemented is in charge of monitoring water quality of this reservoir, whose storage capacity represents about 85 % of the drinking water for the entire region.

The choice of the Republic of Tatarstan is considered to reflect the high political and institutional support for the project approach, and although in absolute terms this is not the most polluted area within the Volga Basin, it is considered to include the necessary elements to test and develop best practices.

The June 2013 Independent UNIDO Country Evaluation of the projects conducted in the Russian Federation highlights the fact that "the project approach is relevant to industrial pollution challenges faced by the Russian Federation and the piloted approach in the Republic of Tatarstan has strong stakeholder support for the project".

The projects relevance is further supported by letters explicitly highlighting project achievements from the First Deputy Minister of Ecology and Natural Resources of the Republic of Tatarstan (2011) and from the Deputy Prime Minister of the Republic of Tatarstan (2013), addressed to the Director of the International Cooperation Department of the Ministry of Natural Resources and Ecology and to the Deputy Minister of Foreign Affairs, of the Russian Federation<sup>4</sup>.

Overall the duration and budget appear to be sufficient to achieve the expected outcome of increasing "capacities of counterparts", however there does not appear to be sufficient emphasis on dissemination of the results, which could have contributed to replication.

Some design flaws were identified by the ET as for example the budget was assessed as too limited to achieve the higher-level impact by the end of the project, and as a result, no systematic approach to ensure replication can actively be implemented.

As well, an exit / sustainability strategy and up-scaling of benefits were not clearly defined and it is noted that capacity of the counterparts alone is not sufficient to ensure the continuation of the benefits.

### 4.2 Effectiveness

The ET considers the effectiveness of the project as **Satisfactory**, based on the review of the activities carried out to complete the expected outputs, under the over-arching outcome of "achieving enhanced knowledge to address and reverse man made pollution" in a context of "harmonized policy reforms".

<sup>&</sup>lt;sup>4</sup> Volga TEST Progress Report, June 2014

This rating is notable in particular when taking into consideration the fact that an 18 month unplanned hiatus occurred between the first stage (2010 - 2012) and the second stage (2014 – June 2015), which could potentially have derailed the project.

For reference, the 6 main outputs assessed are those referenced in the Project Document:

- 1. Baseline Assessment Report
- 2. Identification, Assessment and Prioritization of Pollution Hot Spots
- 3. Identification of Policy Measures
- 4. Initial Training in TEST Integrated Approach
- Introduction of the TEST Integrated Approach at the Demonstration/Pilot Enterprises
- 6. Dissemination of the Results of the Project

As regards **Output 1**, the ET was informed that the baseline assessment of water quality was compiled by national experts, based on the complete list of discharges/point sources of contamination on existing contaminant loading records covered by the *State Statistical Reports on the Use of Water* from the Republic of Tatarstan, and the Ulyanovsk, Samara, Saratov, and Astrakhan Regions<sup>5</sup>.

For **Output 2**, the preliminary Identification, assessment and prioritization of "hot spots" started by ranking all of the identified hot spots based on the "effective mass of contaminant" derived for a discharge and used for the comparative assessment of the different contaminant discharges where multiple contaminants were involved. The hot spots with the highest "effective mass of contaminants" were retained for a more detailed evaluation. This approach brought down the number from more than 2,000 to 328 enterprises enterprises-polluters, registered in the middle and lower Volga River basin.

The subsequent detailed screening based on a review of data for: Water quality and human health; Pollution control; Environment and biodiversity; and, Economy resulted in the identification of 45 hot spots considered to be responsible for 95% of the total amount of pollutants discharged into surface water bodies. It was further agreed that 5 of these should be prioritized and assessed more in depth, to determine the measures and cost required to reduce emissions of pollutants, and mitigate negative impacts. Based on these results, 3 enterprises were selected as candidates for TEST implementation.

Under **Output 3**, a Draft Technical Report on Policy Measures proposed for introduction was issued in 2012, and at the time of the ITE the team of international and national experts was drafting the Final Policy Advice Report. As a result of the guidance provided by the SC, the Final Report will highlight a number of successful measures implemented locally as well as in other countries, best available tools and policies for Cleaner Production and, fund based restoration models.

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<sup>&</sup>lt;sup>5</sup>The methodology was developed by SNC Lavalin and applied to identify and prioritize "Hot spots". Of the 328 enterprises identified, 210 were shown to be discharging more than one conditional ton of pollutants per year into the Volga River

The Training activities on the integrated TEST methodology covered by **Output 4** were delivered to top management and personnel from the selected enterprises as well as local experts and government officials. The objective was to introduce them — and the enterprises employing them — to the tools supporting the integrated approach<sup>6</sup> applicable to the different levels of the management process. The approach importantly also aimed to implement energy efficiency audits and opportunity studies for cleaner technology and transfers and it is through a combination of these self-improvement instruments that enterprises were able to identify areas where environmental and economic efficiencies could be realized.

Under **Output 5**, the TEST Integrated Approach was introduced in 3 enterprises (POZIS (Refrigeration equipment manufacturer), KVART (rubber production for automotive industry) and Mamadysh dairy (cheese and butter production)) identified as having the highest improvement potential for the Demonstration/Pilot of the application of the tools of the TEST methodology<sup>7</sup> and, preparation of large investment projects aiming to significantly reduce the qualitative influence of hot spots and improve economic efficiency. The ET was informed that the feasibility studies for the Demonstration projects are under implementation, which includes selection of technologies according to BAT/BEP and that the proposed recommendations had been approved by management and integrated into the companies' investment plans.

The calculated potential of the saving opportunities identified reportedly will result in yearly financial and water savings of 47,553,000 Roubles and 324,969 m<sup>3</sup>, respectively) and CO<sub>2</sub>emissions reductions of 8,029 tones per year.

The work carried out under Output 5 is also directly aligned with one of the recommendations from the 2013 UNIDO Country Evaluation stating "the ongoing project must be concentrated on TEST pilots with enterprises and provide solid economic and financial analyses of the results in order to encourage replication".

As was mentioned above, the successful delivery of Output 5 in itself is considered an achievement given the fact that 18 months transpired between the completion of Output 4 and the initiation of Output 5. The ET was able to establish that this was only possible because of the dedication and perseverance of the project team, which developed and implemented no-cost creative solutions to ensure that the initial momentum generated by the trainings for TEST (and the project) was not permanently lost.

In order to facilitate the deployment of the identified Environmentally Sound Technologies (EST) in these enterprises, support was provided to identify and/or develop financial instruments. Discussions were organized with potential national and international funding partners (IFC, VTB, Gazprom bank, etc.).

Regarding Dissemination of the results, under **Output 6**, the ET was informed that brochures on case studies have been published and disseminated vie the

<sup>7</sup>This included a cleaner production assessment, energy and material flow audits, and introduction of a management system supported by the key performance indicators

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<sup>&</sup>lt;sup>6</sup>The integrated TEST approach also includes the introduction of tools to optimize the operational system and link the improvements with the management and business strategy systems, i.e. the Cleaner Production Assessment and the Environmentally Sound Technology Assessment

Internet, as well as distributed during meetings and conferences. In particular the project team has actively participated in international and national conferences presenting the projects recent achievements.

One of the projects unintended results is the creation of a fully operational web based Geographic Information System (GIS) developed as a means to solve issues related to harmonization and comparability of the large volumes of data generated under Output 1 (also described to the ET as the "only possible way to make such a large amount of data comparable"). This GIS is available in Russian and English (to promote replication) and was demonstrated to the ET by the authorities of the Republic of Tatarstan. It is reportedly also being used in Samara, Astrakhan, Ulyanovsk, Saratov (regional governments), and other regions of Russia. As well, other Russian or English speaking countries could benefit from this open source GIS as their data on water use, discharges, intakes, etc. could simply be plugged into the database.

Another unforeseen benefit is the Volga International Cleaner Production Centre (VICPC) established under the project at no cost to UNIDO and which is now fully integrated in the existing activities of the NCPC (National Cleaner Production Centre) and platforms of knowledge dissemination (such as RECPnet, PREPARE, the Green Industry Platform, etc.). This further facilitates the dissemination of the TEST methodological approach - coupled and/or complemented by other UNIDO and leading international institutions' tools – within the Russian industrial sector. Finally, two complementary and fully operational websites (<a href="www.vicpc.ruand">www.vicpc.ruand</a> www.ncpc-russia.ru) serve as a knowledge platform to disseminate project results and methodologies available.

Finally, the water quality laboratory was upgraded. The equipment purchased provides the capacity for water sampling and analysis for wide ranges of contaminants both inland and water surface on different levels. The laboratory staff was trained in proper use of this equipment as well.

All together - GIS, Cleaner Production Center and laboratory should be considered as additional establishment of support service institutions, for collective use.

### 4.3 Efficiency

The efficiency of the project has been assessed by the evaluation team as being **Highly Satisfactory** given that project outputs were on target, and have been implemented in a cost-effective and efficient manner.

Overall, the project is assessed as having met its objectives at a reasonable cost.

However it should be mentioned that a significant reduction of the funding compared with the budget submitted in initial proposals for the second stage (\$ 240 k (Project Manager) instead of \$ \$400 k (interoffice memorandum of Dec 5,

<sup>&</sup>lt;sup>8</sup>At no cost to the project, as the effort was supported by the University of Kazan which was already working on GIS, with additional resources provided by the Government of Tatarstan

2012) led to the shortening of implementation times for the second stage. In particular it resulted in decreased use of international consultant services, reduced purchases of equipment and elimination of some trainings, which in turn, influenced implementation of outputs 5 and 6.

#### Overview of project expenses as at June 2015

	2010 - USD	2011 USD	2012 - USD	2013	2014	2015	Total Expenses
Inter'l expert		14,826	97,459	0	47,040	28,028	187,352
Travel - Project	4,090	44,881	16,536	1,396	16,663	25,142	108,709
Travel - Staff	5,473	315	3,063	0	10,102	5,157	24,110
National experts	69,209	335,715	124,021	137	130,534	39,136	698,750
Subcontracts	100,000	150,534	135,000				385,534
Training		110,997			-358		110,639
Meeting		1,110	-17			3,361	4,454
Equipment	7,424	69,395		0	112		76,931
Sundries	393	11,686	7,932		7,156	1,872	29,039
Total	186,589	739,459	383,993	1,533	211,249	102,696	1,625,519
Total Allotment =	1,628,584	Balance:	3,065				

Source: UNIDO

### 4.4 Sustainability of project outcomes

The ET considers that the sustainability of project outcomes is Likely to Highly Likely.

UNIDO has built strong relations with the regional government (GoR), where there is evident support for improving environmental management and reducing industrial pollution. However sustainability of results at a broader level requires the up-scaling of the TEST program to other regions - and industries - to achieve a measurable impact on reduction of water pollution, and incentives (not necessarily financial) for companies re investments into environmentally sound technology.

The main incentive for the players in the Russian Federation today is financial profit, not environmental or social benefits. UNIDO's engagement with the private sector has been based establishing and demonstrating the 'business case' for environmental management and in this sense, further work to provide more intense and productive dialog and cooperation with business is required.

This said, the project approach is considered to hold replication potential to other polluted regions of Russia (e.g., Komi, Western Siberia) and the results produced by the project have already prompted the Governments of the Republic of Tatarstan and of the Astrakhan region to approach the Ministry of Foreign Affairs of the Russian Federation with an offer to support the establishment of UNIDO offices in these regions and to identify Russian financing sources<sup>9</sup>.

The establishment of an NGO "Volga International Cleaner Production Centre" (VICPC – now the National Cleaner Production Centre - NCPC) to support the ongoing project and coordinate with local authorities and business is considered as a positive effort to provide capacity building and further sustainability of the project. Such a Center could be of support for UNIDO activities in the Volga River basin region, not only as a part of hotspots project.

In addition, the interest in the results of the "Hot spots/TEST" project and, readiness to consider possible cooperation were conveyed by the Republics of Belarus and Kirgizstan, in their letters to the UNIDO Moscow office.

Replication at the scale required to achieve impacts is considered Unlikely, although there are clear indications from the government (Federal and Oblast) regarding the intention of continuing to support TEST related activities

Questions also remain regarding the ability of the trained teams of the pilot enterprises to continue delivering TEST related improvements, without some level of external support.

### 4.5 Project management

Management was rated as Satisfactory. The Project's management, coordination and implementation were sufficient to ensure on-time delivery of most of the outputs. The stakeholders at all levels (from enterprises up to federal institutions) expressed their satisfaction with UNIDO coordination and management activities.

UNIDO quality control and technical inputs are assessed as having been efficient and effective. As a result, both level Ministries are very supportive of the hot spots and TEST Project. National experts were predominantly used to design and implement projects and this is considered positive, as national professionals tend to combine technical expertise with in-depth knowledge of the local context, which is vital in Russia.

UNIDO does not maintain a fully-fledged Regional Office, Country Office or UNIDO Desk in the Russian Federation. Instead, UNIDO has established the Centre for International Industrial Cooperation (CIIC) and the Investment and Technology Promotion Office (ITPO), both of which are headed by the same National Director who also assists in coordinating other activities related to UNIDO cooperation in the Russian Federation. For example, he is also a part of the UN Country Team (UNCT).

Federal and regional level ministries assess strategic cooperation with UNIDO very positively, with UNIDO seen as "providing innovative technologies and expertise" and the ministries facilitating business participation and ensuring strengthening and application of a legislative framework.

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<sup>&</sup>lt;sup>9</sup>Progress Report, June 2014 (EMSfinal)

Overall the ET documented positive feedback and all stakeholders and partners expressed satisfaction with UNIDO, and reportedly expectations were all fulfilled.

#### 4.6 Gender

This project falls into the second category of UNIDO projects and programmes, specifically those where there is limited or no attempted integration of gender.

The ET was able to verify during interviews and field visits that the demographics of the country are approximately reflected in the composition of the enterprises visited. As was described in the relevant chapter above, Russia's population is composed of approximately 56% women and 44% men, and this ratio is reflected in the workforce composition of the enterprises visited.

# 4.7 UNIDO procurement process

No procurement related issues were reported to the ET.

# 4.8 Ratings overview

Criterion	Evaluator's Summary Comments	ET Rating
Attainment of project objectives and results (overall rating)		s
Relevance	Considered highly relevant to all sectors	нѕ
Effectiveness	Considered effective in most cases	S
Efficiency	No evidence of deficiencies at this level	нѕ
Sustainability of project outcomes (overall rating)		ML
Economic dimension		L
Social dimension	Limited evidence of developed capabilities	ML
Environment dimension	The project has yet to demonstrate positive contributions	ML
Project Management		HS
National Management		HS
UNIDO Management		HS
Monitoring and self-evaluation		HS
Synergies		
UNIDO specific ratings		HS
Quality at entry	High level of project buy in and awareness	нѕ
Implementation approach	Remarkable as it demonstrated an outstanding level of adaptability	HS
Overall rating		s

#### **RATING OF PROJECT OBJECTIVES AND RESULTS**

- Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency;
- Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency;
- Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency;
- Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency;
- Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency;
- Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Please note: Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results may not be higher than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

#### **RATINGS ON SUSTAINABILITY**

Sustainability will be understood as the probability of continued long-term outcomes and impacts after the project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits beyond project completion. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes.

On each of the dimensions of sustainability of the project outcomes will be rated as follows.

- Likely (L): There are no risks affecting this dimension of sustainability.
- Moderately Likely (ML): There are moderate risks that affect this dimension of sustainability.
- Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability
- Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in either of the dimensions

then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

#### **RATINGS OF PROJECT MANAGEMENT**

The Project management will be rated as follows:

- Highly Satisfactory (HS): There were no shortcomings in the project management;
- Satisfactory (S): There were minor shortcomings in the project management;
- Moderately Satisfactory (MS): There were moderate shortcomings in the project management;
- Moderately Unsatisfactory (MU): There were significant shortcomings in the project management; and,
- Unsatisfactory (U): There were major shortcomings in the project management.

# 5. Conclusions, recommendations and lessons learned

#### 5.1 Conclusions

# 5.1.1 Design

The project as designed should have addressed the creation of capacity for identification and management of the most significant industrial pollution hot spots adequately. The Project Document was in principle clearly designed; it was thematically focused and clearly laid out the intentions and objectives of the Project. The combination of the "Hot Spot" and the (TEST) methodology is innovative for Russia and allows to systematically focus on major polluters, in order to achieve maximum environmental impact.

Duration and budget were sufficient to achieve the expected outcomes of increasing capacities of counterparts, but too limited to really achieve an impact at a broader level by the end of the project.

Exit or sustainability strategy and the way of up-scaling benefits were not clearly defined. The capacities of counterparts alone are not sufficient to ensure continuation of benefits.

Lack of detailed design for the second phase of the project and the significant delay and reduction of its funding may have negative impact on the further sustainability and dissemination.

#### 5.1.2 Relevance

Relevance of the Hotspots project is high given the significant industrial pollution challenges faced by the country. The project is also highly relevant to the objectives of international priorities, in particular to the Millennium Development Goals (MDGs).

The choice of Tatarstan reflected the high political and institutional support for the project approach, and whilst not the most polluted area within the Volga Basin, the region was a good choice to test and develop best practice. The project was also quite relevant to the new Government of the Russian Federation (GoR) 'principles for environmental development' with the focus on development of best available technologies and cleaner production through partnerships with the private sector. The project responded well to the needs of target enterprises.

However the TEST approach has yet to begin active piloting – hence the project missed an opportunity to obtain / demonstrate early results. So the broader relevance of the project approach can only be secured through replication to other regions of the Russian Federation.

#### 5.1.3 Effectiveness

The ET considers the effectiveness of the project as Satisfactory, particularly when taking into consideration the fact that an 18 month hiatus occurred between the first and second stages. The project delivered its initial outputs such as the baseline assessment of pollution hotspots and sources; it developed a Geographic Information System (GIS) database and atlas. The GIS system has the potential to be replicated and therefore applied to other areas. In addition the project facilitated the establishment of the Volga International Cleaner Production Centre (VICPC) aiming to support the project by facilitating the coordination between local authorities and beneficiary enterprises.

The outputs delivered are considered effective and of high quality. However significant up scaling would be required to "improve the water quality of the Volga River". Overall the project is seen as a good first step ("project was a good start").

# 5.1.4 Efficiency

The project was implemented with no significant delays; and the main project infrastructure was established on time. Stakeholders consider efficiency to be highly satisfactory.

# 5.1.5 Sustainability

Perspectives of sustainability of results are likely to highly likely. On the policy level the project gained strong support from the regional government of the Republic of Tatarstan. At the federal level the TEST project is considered as one of the priorities for the Ministry of Natural resources and Environment. At the company level, participating companies have established teams that expressed commitment to continuous improvement. It is however rather questionable whether they will be able to do so without further external support.

The establishment of an NGO "Volga International Cleaner Production Centre" (VICPC, now the National Cleaner Production Centre (NCPC)) to support ongoing project and coordinate it with local authorities and business could be considered as a good effort to provide capacity building and further sustainability of the project. Such a Center could be of support for UNIDO activities in the Volga River basin region (and/or other regions, including but not limited to CIS member states), and not only as a part of hotspots projects.

Sustainability of results at a broader level requires in addition a) up-scaling of the TEST project to other regions and industries to enhance impact on pollution in the Volga River basin; b) additional incentives for companies for investments into environmentally sound technology (e.g. tax deductions).

The project also offers potential replicability of its results in the long-term that will be ensured by benefits, including but not limited to experience and lessons learned through this project. At least one of the participants of the project (POZIS) already provides TEST skill sharing for some enterprises with a similar technological structure.

# 5.1.6 Project coordination and management

The Project's management, coordination and implementation were sufficient to ensure on-time delivery of most of the outputs. The stakeholders at all levels (from enterprises up to federal institutions) expressed their satisfaction with UNIDO coordination and management activities. UNIDO quality control and technical inputs are assessed as having been efficient and effective.

Generally, the project made economic use of resources (targeted practical capacity building rather than generic awareness raising). However the ET considers that an 18-month "break" between the first and second stages caused significant damage to the overall progress of the project and left evident uncertainty regarding the future steps of the implementation on the three pilot cases.

#### 5.2 Recommendations

In order to achieve the higher-level impact of the project UNIDO should strongly consider the additional support of TEST activities in the region, in particular aimed at reducing pollution to improve water quality through replication of the demonstration pilots and continued awareness raising and advocacy efforts both targeting the GOR and enterprises.

In particular:

- UNIDO should consider up-scaling the application of the TEST methodology in other geographical areas and sectors, prioritizing those where a major impact on pollution can be achieved
- UNIDO should continue to work with the private sector through demonstrations and present clear business case examples showing economic / financial benefits of improved environmental management, in order to stimulate dialogue and cooperation
- UNIDO should consider addressing the challenge of service provision to companies through an appropriate local partner organization (such as the option to partner with the "Volga International Cleaner Production Centre" (VICPC)).
- UNIDO should continue to predominantly use national experts to design and implement projects.
- UNIDO should continue the provision of support as/if required by the GOR, in preparation of a comprehensive legislative framework.

#### 5.3 Lessons learned

In retrospect the project would have required a more realistic set of goals - and/or appropriate funding levels to achieve the planned objectives and eventual impact to "Improve water quality and reduce negative regional and transboundary impact from industrial activities".

In order to replicate the project approach and introduce policy measures, UNIDO projects should be able to deliver end-of-pipe results. These results would be the

basis for further promotion and argumentation for regional and federal bodies as well as industry to act.

The combination of the Hot Spot and TEST approach is innovative and allows for systematically focusing on major polluters, in order to achieve a maximum environmental impact.

Resourcing difficulties (finance, staff, equipment, other) associated with delayed outputs must be identified and resolved as early as possible, in order to build partnerships and a team approach that leads to overall project success.

Periodical consultations with stakeholders increase the opportunity to make use of their skills, experience and knowledge, as well as increase awareness.

# **Annex A: Terms of Reference**



#### UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

#### **TERMS OF REFERENCE**

# FINAL EVALUATION OF THE UNIDO PROJECT:

US/RUS/10/003 - SAP 104122

# **Volga TEST**

Identification, evaluation and prioritization of pollution "hot-spots" in the basins of trans-border reservoirs and transfer of environmentally sound technologies

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# 1 Project background and context

## 1.1 Project summary

The rapid economic and industrial development coupled with growing population pressure in Russia is degrading the environment at an increasing rate. Large Russian industries are located along the Volga river, one of the largest river in the Russian Federation and in the world. The integrity of the Volga river basin's ecology is vital to the social, cultural and economic well-being of a large part of the population. However, due to out-dated production processes and weak enforcement of environmental regulations, industrial discharges have caused a significant decrease on surface water quality. The project entitled "Identification, evaluation and prioritization of pollution "hot-spots" in the basins of trans-border reservoirs and transfer of environmentally sound technologies" in the Russian section of the Volga river basin was approved by the Russian Government and financed through the Industrial Development Fund of Russia.

The project combines two methodologies developed by UNIDO. Firstly, the Hot-Spot method is a tool to assess and prioritize major polluting sites that are discharging industrial effluents into a river basin. Secondly, the TEST integrated approach enables the improvement of the environmental performance in prioritized hot-spots while increasing their competitiveness through technological and knowledge transfers.

## 1.2 Project objective

The objective is to achieve better water quality, efficient and ecologically sound utilization of water resources coupled with due consideration of interests of surrounding population and regional industries. This is to be done by introduction of UNIDO's integrated approach for the transfer of environmentally sound technology (TEST) aimed at increasing of environmental performance of polluting industries; in addition, the project aims to help the regional Governments in Russia make decisions on measures (both policy and technical) to be undertaken towards reduction of man-made pollution in the water basins and its transboundary impacts.

To help the regional Governments in Russia make decisions on measures (both policy and technical) to be undertaken towards reduction of man-made pollution in the water basins and its transboundary impacts. Project aims to achieve better water quality, efficient and ecologically sound utilization of water resources coupled with due consideration of interests of surrounding population and regional industries.

More specifically, the capacity of the Russian counterpart for targeting major industrial polluters will be developed through training and joint implementation of the Hot-Spot methodology. In addition, capacity for reducing existing industrial emissions and discharges as well as preventing negative social and environmental impacts from industrial activities will be enhanced through trainings on management systems and strategic tools that comprise the TEST integrated approach. These tools include Environmental Management Accounting (EMA), Environmental Management System (EMS) and Corporate Social Responsibility (CSR). The benefits of the TEST integrated approach will be demonstrated at previously prioritized Hot-Spots.

Finally, the lessons learned during the project will be disseminated.

The logical framework of the project is attached in Annex 1.

## 1.3 Implementation status

The project is built on the successfully completed UNIDO project "Identification, evaluation and prioritization of pollution "hot-spots" in the basins of trans-border reservoirs and transfer of environmentally sound technologies" conducted in 2010-2013. The project results achieved by the end of 2012 has been reviewed and approved by the Cabinet of Ministers of the Republic of Tatarstan, Ministry of Ecology and Natural Resources of the Republic of Tatarstan and the Executive Committee of project. Three enterprises with highest improvement potential, namely POZIS, KVART and Mamadysh dairy, have been approved for the preparation of large investment projects aimed to significantly reduce the qualitative influence of hot spots and improve economic efficiency.

The project achievements have been explicitly highlighted in the letters from the First Deputy Minister of Ecology and Natural Resources of the Republic of Tatarstan Mr. Kamalov of 26.09.2011 to the Director of International Cooperation Department of the Ministry of Natural Resources and Ecology of the Russian Federation Mr. Inamov and to the Deputy Minister of Foreign Affairs of the Russian Federation Mr. Gatilov; and the letter from the Deputy Prime Minister of the Republic of Tatarstan Mr. Gafarov of 10.04.2013.

The activities of the project are to develop the results of the detailed in-depth work with a limited number of enterprises to receive a coach through BAT/BEP identification prioritization and feasibility studies as well as plant demonstration; develop more detailed indicators to monitor the impact of the TEST methodology in participating companies; further improve the dissemination activities to share project results.

Upcoming work will focus on the development of a portfolio of investment projects for the implementation of best environmental technologies on three selected enterprises in the Republic of Tatarstan.

Results of projects will significantly reduce environmental impact of the enterprises, serve as the basis for policy advice, development of demand based incentives; integrated best practice solutions would have great potential for replication in other companies of similar profile, which will make a significant contribution to the development of Russian regions and targeted industries.\

# 1.4 Budget information

The overall budget as in the approved Project Document is presented hereafter:

The following table presents the project's expenses by main cost categories at the end of 2012:

Activities	2010 - USD	2011 -USD	2012 - USD	2013	Total Expenses
International expert		14,825.72	97,458.67		112,284.39
Travel – Project staff	4,090.00	44,881.48	14,876.36		63,847.84
Travel - Staff	5,472.62	315.37	3,062.77		8,850.76
National experts	69,208.52	335,714.64	124,020.86		528,944.02

Subcontracts	100,000.00	150,534.00	135,000.00	385	5,534.00
Training		110,997.14		110	),997.14
Meeting		1,110.01		1,1	10.01
Equipment	7,424.00	69,394.77		76,	818.77
Sundries	393.40	11,685.74	7,932.10	20,	011.24
	186,588.54	739,458.87	382,350.76	\$1,	308,398.17

The following table presents the project's expenses by main cost categories from 01 January 2014 until 05 August 2014:

1100	International recrutiment	47 040,00
1500	Project Staff Travel	3 349,00
1600	Staff Travel	5 424,00
1700	National expert Recrutiment	122 794,00
5100	Other expenditure	3 545,00
	Total	182 152,00
	Balance available (04.08.14)	135 645,00
	Grand total	317 797,00

# 2 Objective and scope of the evaluation

The purpose of the final evaluation is to enable the Government, donor, counterparts, UNIDO and other stakeholders to:

- Assess the relevance, efficiency, effectiveness, impact, and sustainability of the project by providing an analysis of project objectives, delivery and completion of project outputs/activities, and outcome/impact based on selected indicators. Although gender dimensions were not specifically described in the project document, aspects of gender mainstreaming must also be assessed. Guidance on integrating gender is presented in Annex 2:
- Assess from an environmental perspective whether (i) gains to the individual companies were measured and reported upon, (ii) priority was given to preventive approaches wherever possible, and (iii) social and/or economic effects of environmental interventions were taken into considerations and/or measured; and,

Enhance similar on-going or future projects by proposing a set of recommendations.

# 3 Evaluation parameters and key evaluation questions

A rating system associated with the selected evaluation parameters, described in the following sections 3.1 to 3.5, will be presented in the form of a table with each category rated separately and a brief justification for the rating based on findings in the main analysis. An overall rating for the project should also be given. The proposed rating system is specified in Annex 3. The following is a list of guiding questions for the assessment of the different parameters.

## 3.1 Project design

The extent to which:

- The project had a clear thematically focused development objective and immediate outcome, the attainment of which can be determined by a set of verifiable indicators;
- The project was formulated based on the logical framework approach and was designed to include appropriate output and outcome indicators within a realistic timeframe;
- The outputs as formulated in the project document are relevant and sufficient to achieve the expected outcomes and objectives;
- The project was formulated with participation of the national counterpart and/or target beneficiaries; and,
- The project takes account of and reflects national and local priorities and strategies.

#### 3.2 Effectiveness

Assessment of:

- Outputs produced and how the target beneficiaries use the outputs; and,
- Achievement of outcomes or are these likely to be realized through utilization of outputs.

# 3.3 Efficiency

The extent to which:

- UNIDO and counterpart inputs have been provided as planned and were adequate to meet requirements; and,
- The quality of UNIDO inputs and services (expertise, training, methodologies, etc.) was as planned and led to the production of outputs.
- outputs were produced in a timely manner;

 procurement process/services were efficient (specific questions are provided as reference and guidance in the Annexe 6: UNIDO Procurement Services - Generic Approach and Assessment Framework).

# 3.4 Sustainability of project outcome

To capture long term developmental changes (economic, environmental, social) have occurred or are likely to occur as a result of the intervention, the following questions are asked to ensure project sustainability:

- Is the project likely to be replication? If not, what is needed for replication?
- Was any sustainability strategy formulated?
- What is the prospect for technical, organizational and financial sustainability?

# 3.5 Project management

The extent to which:

- National management and overall field coordination mechanisms of the project have been efficient and effective;
- UNIDO management, coordination, quality control and technical inputs have been efficient and effective;
- Monitoring and self-evaluation were carried out with indicators for outputs, outcomes and objectives and if that information was used for project and adaptive management;
- Synergistic relationships can be identified and beneficial connections established in relation to other UNIDO activities in country or elsewhere.

#### 4 Methodology

The evaluation will be carried out as an independent and in-depth assessment using a participatory approach. UNIDO staff associated with the projects will be kept informed and regularly consulted throughout the evaluation.

The methodology will be based on the following:

- 1. A desk review of project documents including, but not limited to:
  - a) The original project document, monitoring reports (such as progress reports), and relevant correspondence;
  - b) Notes from the meetings of committees involved in the project (e.g. approval and steering committees); and,
  - c) Other project-related material produced by the project.

- 2. The evaluation team will use available theory of change (or intervention logic) models for the intervention. The validity of selected theory of change models will be examined through specific questions in interviews and possibly through a survey of stakeholders;
- 3. Counterfactual information: In those cases where baseline information for relevant indicators is not available the evaluation team will aim at establishing a proxy-baseline through secondary information sources and proxy data;
- 4. Interviews with project management and technical support including staff and management at UNIDO HQ and in the field and if necessary staff associated with the project's financial administration and procurement.
- 5. Interviews with project partners including Government counterparts, and selected participating companies;
- 6. On-site observation of results achieved in demonstration projects, including interviews of actual and potential beneficiaries of improved technologies or management tools;
- 7. Interviews and telephone interviews with intended users for the project outputs and other stakeholders involved with this project will also be conducted. The evaluator shall determine whether to seek additional information and opinions from representatives of any donor agencies or other organizations;
- 8. Interviews with the relevant UNIDO Country Office and the project's management and PSC members dealing with project activities as necessary; and,
- 9. Other interviews, surveys or document reviews as deemed necessary by the evaluator and/or UNIDO EVA.

# 5 Evaluation team, timing and deliverables

#### **5.1 Team**

The evaluation team will be composed of one international evaluation consultant acting as team leader and one national evaluation consultant.

UNIDO (ODG/EVA) Office for Independent Evaluation will be responsible for the quality control of the evaluation process and report. The evaluators and the responsible project manager will keep the ODG/EVA informed and share correspondence and draft documents for review.

The evaluation consultants will be contracted by UNIDO. Their tasks are specified in the job descriptions attached to these terms of reference in Annex 4.

Members of the evaluation team must not have been directly involved in the design and/or implementation of the project.

# 5.2 Timing

The evaluation is scheduled to take place in the period 02 February 2015 to 02 May 2015. The field mission for the evaluation is scheduled for the working week of 16-20 February 2015.

After the field mission, the evaluation team leader will come to UNIDO HQ for debriefing. The draft evaluation report will be submitted 6 weeks after the debriefing at the latest.

#### 5.3 Deliverables

#### **INCEPTION REPORT**

These Terms of Reference provide some information on the evaluation methodology but this should not be regarded as exhaustive. After reviewing the project documentation and initial interviews with project manager the International Evaluation Consultant will prepare a short inception report that will operationalize the TOR relating evaluation questions to information on what type of and how the evidence/data will be collected (methodology). The Inception Report will focus on the following elements: preliminary project theory model(s); outline of the evaluation mission including interviews and site visits; division of work between the International Evaluation Consultant and National Consultant; and a reporting timetable 10.

#### **EVALUATION REPORT**

The evaluation report should be brief, to the point and easy to understand. It must explain the purpose of the evaluation, exactly what was evaluated and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, the places visited, who was involved and be presented in a way that makes the information accessible and comprehendible. The report also should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

Evidence, findings, conclusions and recommendations should be presented in a complete and balanced manner. The evaluation report shall be written in English; the Executive Summary shall be written also in English, and follow the outline given in Annex 5.

Review of the Draft Report: Draft reports are shared with the Project Officer for initial review and consultation. They may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. The consultation also seeks agreement on the findings and recommendations. The evaluators will take the comments into consideration in preparing the final version of the report.

Quality Assessment of the Evaluation Report: All evaluations are subject to quality assessments in accordance with the quality criteria established by UNIDO Office for Independent Evaluation. The quality assessments are used as a tool for providing structured feedback to the evaluators. The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality (annex 6).

The draft report will be delivered to UNIDO and circulated to UNIDO staff associated with the project, including the UNIDO office as per terms of reference.

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<sup>&</sup>lt;sup>10</sup> The evaluator will be provided with a Guide on how to prepare an evaluation inception report prepared by the UNIDO Office for Independent Evaluation.

ANNEX 1 – Logical framework

UNIDO - Logical Framework				
Indicators	Means of verification	Important assumptions		
	-			
Reduction in the effective mass of	Evaluation survey			
contaminant discharged (to be compared to	Laboratory results			
data collected during the initial phase of the				
project)				
Innovative approaches implemented at the	Project evaluation report	Continual support of the		
enterprise level to decrease in the	Interviews with enterprise	government and enterprises		
concentration and/or volume of the selected	representative			
enterprises' discharges and increase of				
their profitability				
	<b>T</b>	4		
Enterprises prioritized on the basis of their	Assessment report of the	The national experts are		
contaminant discharges	Volga river hot spots	capable of conducting the		
		assessment		
At least 2 employees (process and finance)	Training attendance	Enterprises are willing to		
per demonstration plant are trained	record	train their employees		
# of low cost CP modifications performed	CP assessment reports	Entreprises are willing to		
•	-	apply the TEST methodology		
Amount of potential investment in CP				
Final workshop discominates the lessons	Workshop minutes			
<u> </u>	<u>-</u>			
pleamed and imal report is made available	OF Website			
	Reduction in the effective mass of contaminant discharged (to be compared to data collected during the initial phase of the project)  Innovative approaches implemented at the enterprise level to decrease in the concentration and/or volume of the selected enterprises' discharges and increase of their profitability  Enterprises prioritized on the basis of their contaminant discharges  At least 2 employees (process and finance) per demonstration plant are trained  # of low cost CP modifications performed # of EMS and EMA developped	Reduction in the effective mass of contaminant discharged (to be compared to data collected during the initial phase of the project)   Evaluation survey Laboratory results		

#### Key activities:

- Identification, assessment and prioritization of pollution hot spots
- Selection of enterprises and preparation of capacity building material
- Introduction of the TEST approach at the demonstration enterprises, including Cleaner Production assessment and development of Environmental Management System (EMS) and Accounting (EMA)
- Assessment of the benefits resulting form the application of the TEST approach
- Dissemination of the project results

#### ANNEX 2 - Guidance on integrating gender

Guidance on integrating gender in evaluations of UNIDO projects and programmes

#### I. Introduction

Gender equality is internationally recognized as a goal of development and is fundamental to sustainable growth and poverty reduction. The UNIDO <u>Policy on gender equality and the empowerment of women and its addendum</u>, issued respectively in April 2009 and May 2010 (UNIDO/DGB(M).110 and UNIDO/DGB(M).110/Add.1), provides the overall guidelines for establishing a gender mainstreaming strategy and action plans to guide the process of addressing gender issues in the Organization's industrial development interventions.

According to the UNIDO Policy on gender equality and the empowerment of women:

**Gender equality** refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not suggest that women and men become 'the same' but that women's and men's rights, responsibilities and opportunities do not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. It is therefore not a 'women's issues'. On the contrary, it concerns and should fully engage both men and women and is a precondition for, and an indicator of sustainable people-centered development.

**Empowerment of women** signifies women gaining power and control over their own lives. It involves awareness-raising, building of self-confidence, expansion of choices, increased access to and control over resources and actions to transform the structures and institutions which reinforce and perpetuate gender discriminations and inequality.

**Gender parity** signifies equal numbers of men and women at all levels of an institution or organization, particularly at senior and decision-making levels.

The UNIDO projects/programmes can be divided into two categories: i) those where promotion of gender equality is one of the key aspects of the project/programme; and ii) those where there is limited or no attempted integration of gender.

Evaluation managers/evaluators should select relevant questions depending on the type of interventions.

#### II. Gender responsive evaluation questions

The questions below will help evaluation managers/evaluators to mainstream gender issues in their evaluations.

#### 1. Design

- Is the project/programme in line with the UNIDO<sup>11</sup> and national policies on gender equality and the empowerment of women?
- Were gender issues identified at the design stage?
- Did the project/programme design adequately consider the gender dimensions in its interventions? If so, how?
- Were adequate resources (e.g., funds, staff time, methodology, experts) allocated to address gender concerns?
- To what extent were the needs and priorities of women, girls, boys and men reflected in the design?
- Was a gender analysis included in a baseline study or needs assessment (if any)?
- If the project/programme is people-centered, were target beneficiaries clearly identified and disaggregated by sex, age, race, ethnicity and socioeconomic group?
- If the project/programme promotes gender equality and/or women's empowerment, was gender equality reflected in its objective/s? To what extent are output/outcome indicators gender disaggregated?

#### 2. Implementation management

- Did project monitoring and self-evaluation collect and analyze gender disaggregated data? Were decisions and recommendations based on the analyses? If so, how?
- Were gender concerns reflected in the criteria to select beneficiaries? If so, how?
- How gender-balanced was the composition of the project management team, the Steering Committee, experts and consultants and the beneficiaries?
- If the project/programme promotes gender equality and/or women's empowerment, did the project/programme monitor, assess and report on its gender related objective/s?

#### 3. Results

Have women and men benefited equally from the project's interventions? Do the results affect women and men differently? If so, why and how?

<sup>&</sup>lt;sup>11</sup> Once the gender mainstreaming strategy and action plans to guide the process of addressing gender issues in industrial development interventions are developed, the project/programme should align to the strategy or action plans.

- How are the results likely to affect gender relations (e.g., division of labour, decision making authority)?
- In the case of a project/programme with gender related objective/s, to what extent has the project/programme achieved the objective/s? To what extent has the project/programme reduced gender disparities and enhanced women's empowerment?

#### ANNEX 3 – Rating criteria

Criterion	Evaluator's summary comments	Evaluator's rating
Attainment of project objectives and		
results (overall rating)		
Relevance		
Effectiveness		
Efficiency		
Sustainability of Project outcomes		
(overall rating)		
Economic dimension		
Social dimension		
Environmental dimension		
Project management		
National management		
UNIDO management		
Monitoring and self-evaluation		
Synergies		
UNIDO specific ratings		
Quality at entry		
Implementation approach		
Overall Rating		

#### **RATING OF PROJECT OBJECTIVES AND RESULTS**

- Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency;
- Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency;
- Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency;

- Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency;
- Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency;
- Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Please note: Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results may not be higher than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

#### **RATINGS ON SUSTAINABILITY**

Sustainability will be understood as the probability of continued long-term outcomes and impacts after the project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits beyond project completion. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes.

On each of the dimensions of sustainability of the project outcomes will be rated as follows.

- Likely (L): There are no risks affecting this dimension of sustainability.
- Moderately Likely (ML): There are moderate risks that affect this dimension of sustainability.
- Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability
- Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in either of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

#### **RATINGS OF PROJECT MANAGEMENT**

The Project management will be rated as follows:

- Highly Satisfactory (HS): There were no shortcomings in the project management;
- Satisfactory(S): There were minor shortcomings in the project management;
- Moderately Satisfactory (MS): There were moderate shortcomings in the project management;
- Moderately Unsatisfactory (MU): There were significant shortcomings in the project management; and,
- Unsatisfactory (U): There were major shortcomings in the project management.

#### ANNEX 4 – Job description

#### **JOB DESCRIPTION 1**

Post title International Evaluation Consultant

Duration 34 work days over a 3-month period

Started date \_\_\_\_ 2015

**Duty station** Home based and travel to Vienna, Moscow

Duties The consultant will evaluate the project according to the

Terms of Reference. S/he will act as leader of the evaluation team and will be responsible for preparing the draft and final evaluation report. S/he will perform the

following tasks:

Main duties	Duration/ location	Deliverables	
Review project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data); determine key data to collect in the field and prepare key instruments (questionnaires, logic models) to collect these data through interviews and/or surveys during and prior to the field missions	4 days Home based	List of detailed evaluation questions to be clarified; questionnaires/ interview guide; logic models; list of key data to collect, draft list of stakeholders to interview during the field missions	
Briefing with the UNIDO Office for Independent Evaluation, project managers and other key stakeholders at HQ	2 days home based (telephone interviews)	Interview notes, detailed evaluation schedule and list of stakeholders to interview during the field missions  Division of evaluation tasks with the National Consultant	
Conduct field mission	12 days (including travel days)	Presentations of the evaluation's initial findings, draft conclusions and recommendations to stakeholders in the country at the end of the mission.  Agreement with the National	
		Consultant on the structure and content of the evaluation report and the distribution of writing tasks	
Present overall findings and recommendations to the stakeholders at UNIDO HQ (incl. travel)	3 days Vienna	Presentation slides, feedback from stakeholders obtained and discussed	

Main duties	Duration/ location	Deliverables
Prepare the evaluation report according to TOR  Coordinate the inputs from the National Consultant and combine with her/his own inputs into the draft evaluation report	10 days Home based	Draft evaluation report
Revise the draft project evaluation reports based on comments from UNIDO Office for Independent Evaluation and stakeholders and edit the language and form of the final version according to UNIDO standards	3 days Home based	Final evaluation report
TOTAL	34 days	

#### Qualification:

- Master degree in environment science or related field:
- At least 3 years of experience in technical cooperation for industrial development including environmental management or equivalent;
- Professional experience in Russia or in a neighboring country;
- Experience in conducting evaluations; and,
- Familiarity with the goals and procedures of UN and international organizations.

#### **Absence of Conflict of Interest:**

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the project under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultant will not seek assignments with the manager in charge of the project before the completion of her/his contract with the Office for Independent Evaluation.

#### **Job Description 2**

Post title National Evaluation Consultant

**Duration** 32 work days spread over 3 months

Started date \_\_\_\_\_ 2015

**Duty station** Russia

**Duties** The consultant will evaluate the projects according to the

Terms of Reference. S/he will work under the supervision of the leader of the evaluation team and will be responsible for providing substantive inputs to the draft and final evaluation report. S/he will perform the following tasks:

Main duties	Duration/ location	Deliverables
Review project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data); in cooperation with Team Leader: determine key data to collect in the field and prepare key instruments (questionnaires, logic models) to collect these data through interviews and/or surveys during and prior to the field missions	4 days Home based	List of detailed evaluation questions to be clarified; questionnaires/interview guide; logic models; list of key data to collect, draft list of stakeholders to interview during the field missions
Briefing with the evaluation team leader, UNIDO project managers and other key stakeholders  Assist in setting up the evaluation mission agenda, coordinating meetings and site visits	4 days Home based (telephone interviews)	Interview notes, detailed evaluation schedule and list of stakeholders to interview during the field missions
Conduct field mission	10 days	Presentations of the evaluation's initial findings, draft conclusions and recommendations to stakeholders in the country at the end of the mission.
		Agreement with the International Consultant on the structure and content of the evaluation report and the distribution of writing tasks
Prepare inputs to the evaluation report according to TOR and as agreed with	10 days Home	Draft evaluation report

Main duties	Duration/ location	Deliverables
Team Leader	based	
Revise the draft project evaluation reports based on comments from UNIDO Office for Independent Evaluation and stakeholders and edit the language and form of the final version according to UNIDO standards	4 days Home based	Final evaluation report
TOTAL	32 days	

#### Qualification:

- Master degree in environment science or related field;
- Good knowledge of the context of environmental management in Russia;
- Experience in conducting evaluations; and,
- Familiarity with the goals and procedures of UN and international organizations.

#### **Absence of Conflict of Interest:**

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the Office for Independent Evaluation.

#### ANNEX 5 - Outline of an evaluation report

#### **Executive summary**

- Must provide a synopsis of the evaluation which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should not exceed 2-3 pages in length

#### I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

#### II. Country and project background

- Brief country context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Sector-specific issues of concern to the project<sup>12</sup> and important developments during the project implementation period
- Project summary:
  - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
  - o Brief description including history and previous cooperation
  - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
  - Positioning of the UNIDO project (other initiatives of government, other donors, private sector, etc.)
  - Counterpart organization(s)

#### III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the TOR. Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

- A. Design
- B. Relevance
- C. Effectiveness
- D. Efficiency
- E. Sustainability
- F. Project coordination and management
- G. Gender and Environmental sustainability

<sup>&</sup>lt;sup>12</sup> Explicit and implicit assumptions in the logical framework of the project can provide insights into key-issues of concern (e.g. relevant legislation, enforcement capacities, government initiatives, etc.)

At the end of this chapter, an overall project achievement rating should be developed as required in Annex 3. The overall rating table should be presented here.

#### IV. Conclusions, Recommendations and Lessons Learnt

This chapter can be divided into three sections:

#### A. Conclusions

This section should include a summary of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.

#### B. Recommendations

This section should be succinct and contain few key recommendations. They should:

- be based on evaluation findings;
- realistic and feasible within a project context;
- indicate institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible;
- be commensurate with the available capacities of project team and partners; and,
- take resource requirements into account.

Recommendations should be structured by addressees:

- UNIDO
- Drafting Group
- Counterpart Organizations

#### C. Lessons Learnt

- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation; and.
- For each lessons the context from which they are derived should be briefly stated.

**Annexes** should include the evaluation TOR, list of interviewees, documents reviewed, a summary of project identification and financial data, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex.

# ANNEX 6 - Checklist on evaluation report quality

Checklist on evaluation report quality:

# Independent Terminal Evaluation of the UNIDO Project "......" (Project Number: .....)

Evaluation team leader:  Quality review done by:	
Date:	

Report quality criteria	UNIDO Office for Independent Evaluation Assessment notes	Rating
Report Structure and quality of writing		
The report is written in clear language,		
correct grammar and use of evaluation		
terminology. The report is logically structured		
with clarity and coherence. It contains a		
concise executive summary and all other		
necessary elements as per TOR.		
Evaluation objective, scope and methodological	gy	
e evaluation objective is explained and the		
scope defined.		
e methods employed are explained and		
appropriate for answering the evaluation		
questions.		
e evaluation report gives a complete		
description of stakeholder's consultation		
process in the evaluation.		
e report describes the data sources and collection methods and their limitations.		
e evaluation report was delivered in a timely		
manner so that the evaluation objective (e.g.		
important deadlines for presentations) was		
not affected.		
Evaluation object		
e logic model and/or the expected results		
chain (inputs, outputs and outcomes) of the		
object is clearly described.		
e key social, political, economic, demographic,		
and institutional factors that have a direct		
bearing on the object are described.		
e key stakeholders involved in the object		
implementation, including the implementing		
agency(s) and partners, other key		
stakeholders and their roles are described.		
e report identifies the implementation status of		
the object, including its phase of		

implementation and any significant changes	
(e.g. plans, strategies, logical frameworks)	
that have occurred over time and explains	
the implications of those changes for the	
evaluation.	
Findings and conclusions	
The report is consistent and the evidence is	
•	
complete (covering all aspects defined in the	
TOR) and convincing.	
The report presents an assessment of	
relevant outcomes and achievement of	
project objectives.	
The report presents an assessment of	
relevant external factors (assumptions, risks,	
impact drivers) and how they influenced the	
evaluation object and the achievement of	
results.	
The report presents a sound assessment of	
sustainability of outcomes or it explains why	
this is not (yet) possible.	
The report analyses the budget and actual	
project costs.	
Findings respond directly to the evaluation	
criteria and questions detailed in the scope	
and objectives section of the report and are	
based on evidence derived from data	
collection and analysis methods described in	
the methodology section of the report.	
Reasons for accomplishments and failures,	
especially continuing constraints, are	
identified as much as possible.	
Conclusions are well substantiated by the	
evidence presented and are logically	
connected to evaluation findings.	
Relevant cross-cutting issues, such as	
gender, human rights, environment are	
appropriately covered.	
Recommendations and lessons learned	
The lessons and recommendations are	
based on the findings and conclusions	
presented in the report.	
The recommendations specify the actions	
necessary to correct existing conditions or	
improve operations ('who?' 'what?' 'where?'	
'when?)'.	
Recommendations are implementable and	
take resource implications into account.	
Lessons are readily applicable	
in other contexts and suggest prescriptive	
action.	 
Dating avatam for avality of avaluation reports	

Rating system for quality of evaluation reports

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1, and unable to assess = 0.

#### ANNEX 6 - Procurement assessment framework

# UNIDO Procurement Process -- Generic Approach and Assessment Framework

#### Introduction

This document outlines an approach and encompasses a framework for the assessment of UNIDO procurement processes, to be included as part of country evaluations as well as in technical cooperation (TC) projects/ programmes evaluations.

The procurement process assessment will review in a systematic manner the various aspects and stages of the procurement process being a key aspect of the technical cooperation (TC) delivery. These reviews aim to diagnose and identify areas of strength as well as where there is a need for improvement and lessons.

The framework will also serve as the basis for the "thematic evaluation of the procurement process efficiency" to be conducted in 2015 as part of the ODG/EVA work programme for 2014-15.

#### **Background**

Procurement is defined as the overall process of acquiring goods, works, and services, and includes all related functions such as planning, forecasting, supply chain management, identification of needs, sourcing and solicitation of offers, preparation and award of contract, as well as contract administration until the final discharge of all obligations as defined in the relevant contract(s). The procurement process covers activities necessary for the purchase, rental, lease or sale of goods, services, and other requirements such as works and property. Past project and country evaluations commissioned by ODG/EVA raised several issues related to procurement and often efficiency related issues. It also became obvious that there is a shared responsibility in the different stages of the procurement process which includes UNIDO staff, such as project managers, and staff of the procurement unit, government counterparts, suppliers, local partner agencies (i.e. UNDP), customs and transport agencies etc..

In July 2013, a new "UNIDO Procurement Manual" was introduced. This Procurement Manual provides principles, guidance and procedures for the Organization to attain specified standards in the procurement process. The Procurement Manual also establishes that "The principles of fairness, transparency, integrity, economy, efficiency and effectiveness must be applied for all procurement transactions, to be delivered with a high level of professionalism thus justifying UNIDO's involvement in and adding value to the implementation process".

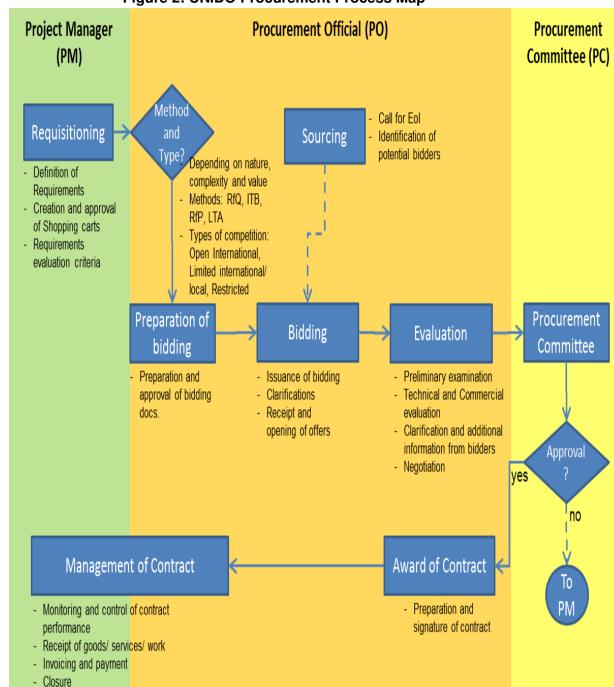
To reduce the risk of error, waste or wrongful acts and the risk of not detecting such problems, no single individual or team controls shall control all key stages of a transaction. Duties and responsibilities shall be assigned systemically to a number of individuals to ensure that effective checks and balances are in place.

In UNIDO, authorities, responsibilities and duties are segregated where incompatible. Related duties shall be subject to regular review and monitoring. Discrepancies, deviations and exceptions are properly regulated in the Financial Regulations and Rules and the Staff Regulations and Rules. Clear segregation of duties is maintained between programme/project management, procurement and supply chain management, risk management, financial management and accounting as well as auditing and internal oversight. Therefore, segregation of duties is an important basic principle of internal control and must be observed throughout the procurement process.

The different stages of the procurement process should be carried out, to the extent possible, by separate officials with the relevant competencies. As a minimum, two officials shall be involved in carrying out the procurement process. The functions are segregated among the officials belonging to the following functions:

- Procurement Services: For carrying out centralized procurement, including review of technical specifications, terms of reference, and scope of works, market research/surveys, sourcing/solicitation, commercial evaluation of offers, contract award, contract management;
- Substantive Office: For initiating procurement requests on the basis of well formulated technical specifications, terms of reference, scope of works, ensuring availability of funds, technical evaluation of offers; award recommendation; receipt of goods/services; supplier performance evaluation. In respect of decentralized procurement, the segregation of roles occurs between the Project Manager/Allotment Holder and his/her respective Line Manager. For Fast Track procurement, the segregate on occurs between the Project Manager/Allotment Holder and Financial Services:
- Financial Services: For processing payments.

Figure 2 below presents a preliminary "Procurement Process Map", showing the main stages, stakeholders and their respective roles and responsibilities. During 2014/2015, in preparation for the thematic evaluation of the procurement process in 2015, this process map/ workflow will be further refined and reviewed.



**Figure 2: UNIDO Procurement Process Map** 

#### **Purpose**

The purpose of the procurement process assessments is to diagnose and identify areas for possible improvement and to increase UNIDO's learning about strengths and weaknesses in the procurement process. It will also include an assessment of the adequacy of the 'Procurement Manual" as a guiding document.

The review is intended to be useful to managers and staff at UNIDO headquarters and in the field offices (project managers, procurement officers), who are the direct involved in procurement and to UNIDO management.

#### Scope and focus

Procurement process assessments will focus on the efficiency aspects of the procurement process, and hence it will mainly fall under the efficiency evaluation criterion. However, other criteria such as effectiveness will also be considered as needed.

These assessments are expected to be mainstreamed in all UNIDO country and project evaluations to the extent of its applicability in terms of inclusion of relevant procurement related budgets and activities.

A generic evaluation matrix has been developed and is found in Annex B. However questions should be customized for individual projects when needed.

### **Key Issues and Evaluation Questions**

Past evaluations and preliminary consultations have highlighted the following aspects or identified the following issues:

- Timeliness. Delays in the delivery of items to end-users.
- Bottlenecks. Points in the process where the process stops or considerably slows down.
- Procurement manual introduced, but still missing subsidiary templates and tools for its proper implementation and full use.
- Heavy workload of the procurement unit and limited resources and increasing "procurement demand".
- Lack of resources for initiating improvement and innovative approaches to procurement (such as Value for Money instead of lowest price only, Sustainable product lifecycle, environmental friendly procurement, etc.).
- The absence of efficiency parameters (procurement KPIs).

On this basis, the following evaluation questions have been developed <u>and would</u> be included as applicable in all project and country evaluations in 2014-2015:

- To what extent does the process provide adequate treatment to different types of procurement (e.g. by value, by category, by exception)?
- Was the procurement timely? How long did the procurement process take (e.g. by value, by category, by exception)?
- Did the good/item(s) arrive as planned or scheduled? If not, how long were the times gained or were the delays. If delay occurred, what was the reason(s)?
- Were the procured good(s) acquired at a reasonable price?

- To what extent were the procured goods of the expected/needed quality and quantity?
- Were the transportation costs reasonable and within budget. If not, please elaborate.
- Was the freight forwarding timely and within budget? If not, pleased elaborate.
- Who was responsible for the customs clearance? UNIDO FO? UNDP? Government? Other?
- Was the customs clearance handled professionally and in a timely manner? How long did it take?
- How long did it take to get approval from the government on import duty exemption?
- Which were the main bottlenecks / issues in the procurement process?
- What good practices have been identified?
- To what extent are roles and responsibilities of the different stakeholders in the different procurement stages established, adequate and clear?
- To what extent is an adequate segregation of duties across the procurement process and between the different roles and stakeholders in place?

#### **Evaluation Method and Tools**

These assessments will be based on a participatory approach, involving all relevant stakeholders (e.g. process owners, process users and clients).

The evaluation tools to be considered for use during the reviews are:

- Desk Review: Policy, Manuals and procedures related to the procurement process. Identification of new approaches being implemented in other UN or international organizations. Findings, recommendations and lessons from UNIDO Evaluation reports.
- **Interviews**: to analyze and discuss specific issues/topics with key process stakeholders
- **Survey to stakeholders**: To measure the satisfaction level and collect expectations, issues from process owners, user and clients
- **Process and Stakeholders Mapping**: To understand and identify the main phases the procurement process and sub-processes; and to identify the perspectives and expectations from the different stakeholders, as well as their respective roles and responsibilities
- **Historical Data analysis from IT procurement systems**: To collect empirical data and identify and measure to the extent possible different performance dimensions of the process, such as timeliness, re-works, complaints, etc.

An evaluation matrix is presented in below, presenting the main questions and data sources to be used in the project and country evaluations, as well as the

preliminary questions and data sources for the forthcoming thematic evaluation on Procurement process in 2015.

## **Evaluation Matrix for the Procurement Process**

No	Aros		Indicators <sup>13</sup>	Data Source(s)	
No.	Area	Evaluation question	indicators	Data Source(s) for country / project evaluations	Additional data Source(s) for thematic evaluation of procurement process in 2015
	Timeliness	Was the procurement timely? How long the procurement process takes (e.g. by value, by category, by exception)?	(Overall) Time to Procure (TTP)	Interviews with PMs, Government counterparts and beneficiaries	Procureme nt related documents review     SAP/Infoba se (queries related to procureme
		Did the good/item(s) arrive as planned or scheduled? If not, how long were the times gained or delays. If delayed, what was the reason(s)?	Time to Delivery (TTD)	Interviews with PM, procurement officers and Beneficiaries	nt volumes, categories, timing, issues)  • Evaluation Reports  • Survey to PMs, procureme nt officers,
		Was the freight forwarding timely and within budget? If not, please elaborate.			beneficiarie s, field local partners. Interviews with
		Was the customs clearance timely? How many days did it take?		Interviews with PMs, Government counterparts and beneficiaries	Procureme nt officers
		How long time did it take to get approval from the government on import duty exemption?	Time to Government Clearance (TTGC)	Interviews with beneficiaries	
	Roles and Responsibilities	To what extent roles and responsibilities of the different stakeholders in the different procurement stages are established, adequate and clear?	Level of clarity of roles and responsibilities	Procurement Manual     Interview with PMs	Procureme nt related documents review Evaluation Reports Survey to PMs, procureme nt officers, beneficiarie
		To what extent there is an adequate segregation of duties across the procurement process and between the different roles and stakeholders?		<ul> <li>Procurement Manual</li> <li>Interview with PMs</li> </ul>	s, field local partners.  Interviews with Procureme nt officers
		How was responsibility for the customs clearance		<ul><li>Procurement Manual</li><li>Interview to PMs</li><li>Interviews with</li></ul>	

<sup>&</sup>lt;sup>13</sup> These indicators are preliminary proposed here. They will be further defined and piloted during the Thematic Evaluation of UNIDO procurement process planned for 2015.

No.	Area	Evaluation question	Indicators <sup>13</sup>	Data Source(s) for country / project evaluations	Additional data Source(s) for thematic evaluation of procurement
					process in 2015
		arranged? UNIDO FO? UNDP? Government? Other?		local partners	2015
		To what extent were suppliers delivering products/ services as required?	Level of satisfaction with Suppliers	Interviews with PMs	
	Costs	Were the transportation costs reasonable and within budget. If no, pleased elaborate.		Interviews with PMs	Evaluation     Reports     Survey to     PMs,     procureme     nt officers,     beneficiarie
		Were the procured goods/services within the expected/planned costs? If no, please elaborate	Costs vs budget	Interview with PMs	s, field local partners. Interviews with Procureme nt officers
	Quality of Products	To what extent the process provides adequate treatment to different types of procurement (e.g. by value, by category, by exception)?		Interview with PMs	Evaluation Reports     Survey to PMs, procureme nt officers, beneficiarie s, field local partners.
		To what extent were the procured goods of the expected/needed quality and quantity?	Level of satisfaction with products/services	Survey to PMs and beneficiaries     Observation in project site	Interviews     with     Procureme     nt officers
	Process / workflow	To what extent the procurement process if fit for purpose?	Level of satisfaction with the procurement process	Interviews with PMs, Government counterparts and beneficiaries	Procureme     nt related     documents     review     Evaluation
		Which are the main bottlenecks / issues in the procurement process?		Interviews with PMs, Government counterparts and beneficiaries	Reports Survey to PMs, procureme nt officers,
		Which part(s) of the procurement process can be streamlined or simplified?		Interview with PMs	beneficiarie s, field local partners. • Procureme nt related documents review • Evaluation Reports • Survey to PMs, procureme nt officers, beneficiarie s, field local

No.	Area	Evaluation question	Indicators <sup>13</sup>	Data Source(s) for country / project evaluations	Additional data Source(s) for thematic evaluation of procurement process in 2015
					partners. Interviews with Procureme nt officers

#### Annex B - Reference documents

Economist Intelligence Unit documents: country profile and country reports

Back-to-office reports of project managers

Project progress reports and self-assessments

Project documents of individual TC projects

Progress Report of the project covering (from to) 01.01.2012 – 31.12.2012

VICPC Technical report 2012

VICPC Final report (draft) 2013

Final Report June 2010 - March 2013, 23/07/2013

Independent UNIDO Country Evaluation RUSSIAN FEDERATION 2013

UNIDO Briefing Note - Russian Federation. 2013

Electronic magazine "Oil Expert" (2014 – 2015)

Federal Law on Environmental Protection No 7-FZ January 10, 2002

Federal Law on Amendments to the FL 7 – FZ, No 219-F3 July 29, 2014

Order of the President of the Russian Federation following the meeting of the Presidium of the State Council on Environmental Safety 9 June 2011 the Government of the Russian Federation;

Order of the President of the Russian Federation of 06.07.2011 № Pr - 1923 "List of Orders of the President of the Russian Federation Following the Meeting of the Commission under the President of the Russian Federation on Modernization and Technological Development of Economy of Russia June 27, 2011"

World Bank Group (2014) Doing Business 2015: Going Beyond Efficiency

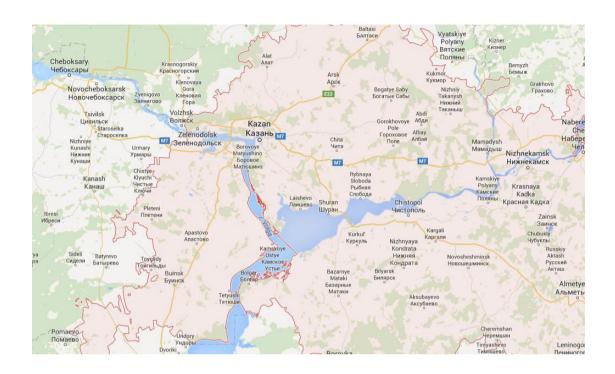
World Bank Group (2014) Doing Business Economy Profile 2015: Russian Federation

World Bank (2014) Russia Economic Report, No. 32, September 2014: Policy Uncertainty Clouds Medium-Term Prospects

National project on Identification, evaluation and prioritization of pollution "hot-spots" in the basins of trans-border reservoirs and transfer of environmentally sound technologies SREDVOLGA VODKHOZ" 2011

POZIS progress report on the work in 2012 – 2014 on "Identification, evaluation and prioritization of pollution "hot-spots" in the basins of trans-border reservoirs and transfer of environmentally sound technologies TEST".

## Annex C: Map of the Republic of Tatarstan (partial)



Annex D: Organizations visited and persons met

Organization	Job title	Name
SREDVOLGAVODKHOZ (Federal Agency for Middle Volga River)	Deputy director	Irek FATKHULLIN
	Associate professor of Kazan State Energy Institute	Anatoly SCHLYCHKOV
POZIS	Director	Radik KHASSANOV
	Chief engineer	lgor DRAGUNSKIH
	Chief Power Engineer	Dmitry PERSHIN
KVART	Director	Rafael GALIMOV
	Chief engineer	Aliya AZIZOVA
	Chief environmental engineer	Aygul MUNIROVA
Mamadyshsky cheese and butter factory	Director	Maksut AKHMETSHIN
	Chief engineer	llsyr KHASANOV
	Chief environmental engineer	Ayrat GAIYNOV
Ministry of Ecology and Natural Resources of the Republic of Tatarstan	Deputy Minister	Ildar KAMALOV
Ministry of Natural Resources and Ecology of the Russian Federation	Deputy director of International department	Irina FOMINIKH
	Deputy International organizations unit chief	Yuliya KOVTUN
UNIDO ITPO-CIIC Moscow	Director	Sergey KOROTKOV
	National Project Coordinator (Hotspots)	Boris MELNICHUK
	National Project Coordinator (Volga TEST)	Maxim ELISEEV

# Annex D: Organizations visited and persons met

## **Annex E: Evaluation Matrix and Interview Guidelines**

Evaluation Criteria	Guiding evaluation questions	S	ourc	e of Ir	nform	atio	n	Evaluation Tools					
		Counterpart	Donor	Project Manager	Beneficiaries	Experts		Doc Review	Interview	Field Obs.			
Relevance	How is the project aligned to a national development priority?	x		x		•		х	x				
	Why/how were government agency and/or company selected to partner with UNIDO?	x	x	x					x				
	<ul> <li>To what extent are the problems that originated the project still relevant today?</li> <li>Have there been changes in the context that affected the project significantly?</li> </ul>	x		x	х	x			х	x			
	To what extent the project is relevant to intended target groups/beneficiaries?	x		x	х				х	х			
	<ul> <li>IMPACT: To what extent is the project contributing to international development priorities (Medium term development framework, MDGs, UNDAF, DaO)?</li> <li>IMPACT: How these contributions (if any) can be measured?</li> </ul>	x	x	x				х	х	x			
Effectiveness	What are the main results of the project so far? (for on-going)	x		х	х	х		х	х	х			

Evaluation Criteria	Guiding evaluation questions	S	ourc	e of Ir	nform	natio	n	Evaluation To					
		Counterpart	Donor	Project Manager	Beneficiaries	Experts		Doc Review	Interview	Field Obs.			
	projects)		<u> </u>										
	To what extent outputs established in the project document are delivered?			x	x	x			x	х			
	<ul> <li>To what extent outcomes established in the project document are being achieved (or likely to be)?</li> </ul>			х	x	x			х	х			
	To what extent outputs are/were sufficient to achieve the outcome?			x		x		x	X	x			
	<ul> <li>To what extent were SMART performance indicators established and measured?</li> </ul>			х		х		х	x	х			
	To what extent has the project reached the intended beneficiaries?			x	х	х			х	х			
Efficiency	To what extend UNIDO services were adequate (expertise, training, equipment, methodologies)?	x			х	х			x	х			
	<ul> <li>To what extend were resources/inputs converted into outputs in a timely and cost-effective way?</li> </ul>			х	х	x			х	х			
	What were the main factors influencing the delivery of outputs? (Issues / context that facilitated implementation?)			х	x	x			x	х			

Evaluation Criteria	Guiding evaluation questions	S	ourc	e of Ir	nform	natio	n	Evaluation Too					
		Counterpart	Donor	Project Manager	Beneficiaries	Experts		Doc Review	Interview	Field Obs.			
	<ul> <li>What were the main barriers, if any, encountered during project implementation?</li> </ul>	x	,	x	x	x			х	х			
	How has the project management addressed barriers / challenges?			х	x	х			х	х			
	How was the project monitoring conducted?			х		х		х	х	х			
	<ul> <li>To what extent were project progress reports updated/recorded systematically?</li> </ul>	x	x	x				х	х	х			
	<ul> <li>Has the in-country presence improved project monitoring and supervision?</li> </ul>	x	x	x		х			х	х			
	<ul> <li>To what extent is the UR involved in supervising and monitoring projects?</li> </ul>	x		х					х	х			
Sustainability/ Ownership	<ul> <li>To what extent were government counterparts and key stakeholders involved in the project design?</li> </ul>	x	x	x	x	х			х	х			
	What is the level of local/national funding/financing?	x	х	х				х	х				
	What has been the involvement of government counterparts / private sector in implementation?	x		x					x	x			

Evaluation Criteria	Guiding evaluation questions	S	ourc	e of Ir	nform	natio	n	Evaluation Tools						
		Counterpart	Donor	Project Manager	Beneficiaries	Experts		Doc Review	Interview	Field Obs.				
	<ul> <li>Are the main stakeholders taking effective leadership in the project implementation? Why or why not?</li> </ul>	x	x	x	x	x			х	х				
	<ul> <li>What plans have been made to ensure sustainability of project results / benefits?</li> </ul>	x		х	x			x	x	х				
Project Design Process	What do you see as strengths / weaknesses of the project design?		x	x	x			х	х	х				
(Situation, gap, problem analysis,	How was the consultation process during the project design?	X	x	x	X				х	х				
objectives analysis, formulation	<ul> <li>What would you change of the project design if you had the chance of starting all over again?</li> </ul>	x	x	x	x				х	х				
process, LFA and RBM approach)	To what extent project has been designed using the LFA?	x	x	х	x			х	x					
пын арргоаоп,	<ul> <li>To what extent have evaluations been used and drawn on in the design of projects and / or to learn lessons?</li> </ul>	x	x	x	x			x	x	х				
	<ul> <li>Overall quality of project design (clarity, consistency and logic. Results chain, SMART indicators, Realistic and meaningful outputs and outcome)</li> </ul>							x						
Overall / Cross-	What have been in your view the strengths and weaknesses of	x	x	x	x	x			x	х				

Evaluation Criteria	Guiding evaluation questions	S	ourc	e of Ir	nform	natio	n	Evaluation Tools					
		Counterpart	Donor	Project Manager	Beneficiaries	Experts		Doc Review	Interview	Field Obs.			
cutting	UNIDO with respect to this project?												
	To what extent the project has contributed to empowerment of women and gender equality?	x	x	x	x	x		x	x	х			
	To what extent the project has contributed (positively or negatively) to environmental sustainability?;	x	x	x	x	x		x	x	х			
	How this project contributed to the One UN Programme objectives. (for DaO projects)	x	X	x	x	x		X	x	x			
	How was coordination/synergies among UNIDO activities at the national level, including TC projects, and GF activities?	x		x	x				x	x			
	<ul> <li>How projects/programmes were integrated/coordinated with other UN project/programmes?. Have synergies with other initiatives been developed and exploited by UNIDO?</li> </ul>	x	X	x	x			x	x	x			
	What could be learned from the experiences of other UN agencies in the country?	x	x	x	x				x	x			
	To what extent UNIDO financing or co-funding was part of the budget and what the UNIDO financing was used for?	x	x	x	x			x	x	x			

Evaluation Criteria	Guiding evaluation questions	S	ourc	e of Ir	nform	1	<b>Evaluation Tools</b>					
		Counterpart	Donor	Project Manager	Beneficiaries	Experts		Doc Review	Interview	Field Obs.		
	<ul> <li>To what extent has the management structure and procedures adequate (structure, information flows, decision making, procurement) and contributed to generate the planned outputs and achievement of outcome?</li> </ul>	x		x	x	x		x	х	x		
	What could be improved (if any) on UNIDO's model of intervention?	x	х	x	х	х			x	х		
	<ul> <li>To what extent UNIDO GF activities nurtured national knowledge and dialogue globally and with regard to industrial development in the country?</li> </ul>	x	х	x	x	x		х	x	x		
IP XX	To what extent to which UNIDO's Field Office supported coordination, implementation and monitoring of the programme?	x	x	x	х			х	х	х		
	<ul> <li>To what extent UNIDO HQ management; coordination and monitoring have been efficient and effective?</li> </ul>	x	x	x	x			x	x	x		
	<ul> <li>How effective were coordination arrangements with other development partners?</li> </ul>	x	x	x	x				х	х		
	To what extent UNIDO contributed to the One UN and other UN coordination mechanisms?	x	x	x	х			х	x	x		

Evaluation Criteria	Guiding evaluation questions	S	ourc	e of Ir	form	atio	n	Evaluation Tools					
		Counterpart	Donor	Project Manager	Beneficiaries	Experts		Doc Review	Interview	Field Obs.			
	To what extent the IP design and implementation had government ownership, alignment with government strategies, results orientation, use of country systems, tracking results, and accountability?.	x	x	x	x			x	x	x			
UNIDO Field Office	(As per Field Office Assessment Framework)	x	x	х	х			х	х	х			
Additional Comments / Observations	e.g. project sites, contacts, issues												