



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FSP

TYPE OF TRUST FUND: GEFTF

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PART I: PROJECT INFORMATION

Project Title:	Transfer of Environmentally Sound Technologies for industrial climate change mitigation in the Republic of Tatarstan, Russian Federation		
Country(ies):	Russian Federation	GEF Project ID: ¹	5072
GEF Agency(ies):	UNIDO (select) (select)	GEF Agency Project ID:	SAP ID 120348
Other Executing Partner(s):	Ministry of Ecology of the Republic of Tatarstan, Ministry of Forestry of the Republic of Tatarstan, Centre for International Industrial Cooperation in the Russian Federation, Volga International Cleaner Production Centre	Submission Date:	2012/13/08
GEF Focal Area (s):	Climate Change	Project Duration (Months)	60
Name of parent program (if applicable): • For SFM/REDD+ <input type="checkbox"/> • For SGP <input type="checkbox"/>		Agency Fee (\$):	926,325

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK²:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
CCM-2 (select)	GEFTF	5,250,500	21,783,000
CCM-5 (select)	GEFTF	5,042,000	35,263,250
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
Total Project Cost		10,292,500	57,046,250

B. INDICATIVE PROJECT FRAMEWORK

Project Objective: The objective of this project is the mitigation of the Russian Federation's contribution to anthropogenic climate change by improving the resource efficiency and reducing the GHG emissions of key manufacturing industries operating in the Republic of Tatarstan as well as by enabling the agro-forestry industry's capacities to produce planting material required by the Ministry of Forestry for climate change mitigating carbon sink enhancement.						
Project Component	Grant Type ³	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Abatement of anthropogenic climate change by reducing resource consumption and GHG emissions of key manufacturing industries operating in	TA INV	1.1. Key industry clusters (mainly chemistry, food and metal processing) in Tatarstan realize the potential economic benefits of energy and	1.1. Completion of republic wide detailed assessment of energy consumption and GHG emissions loads of manufacturing industries (building up	GEFTF	4,160,381	2,800,000
				GEFTF	0	15,603,000

¹ Project ID number will be assigned by GEFSEC.

² Refer to the reference attached on the [Focal Area Results Framework](#) when completing Table A.

³ TA includes capacity building, and research and development.

<p>the Republic of Tatarstan</p>		<p>resource efficient cleaner production patters and apply resource efficient cleaner production methods in their production processes</p> <p>1.2. Key industry clusters operating in a conducive environment, realize the economic returns that can be achieved by investments in energy and resource efficient cleaner production technologies (Environmentally Sound Technologies) and effect investments in the application of these technologies in their production processes</p> <p>1.3.The implementation of economic and regulatory policy instruments incentivizing resource efficient cleaner production processes systems are implemented resulting in continuous resource efficiency improvements and in continuous reductions of greenhouse gas emissions per unit of output produced.by key manufacturing industries.</p> <p>1.4 Key manufacturing industries in Tatarstan are fully enabled to access existing financial instruments for investments in energy efficiency improvements</p>	<p>on existing data and the preliminary baseline assessment to be carried out in the PPG phase)</p> <p>1.2 Completion of detailed republic wide identification, assessment and prioritization of GHG emission and energy consumption hot spots of manufacturing industry clusters (building up on existing data and the preliminary baseline assessment to be carried out in the PPG phase) including the assessment of readiness to receive technical assistance for the application of the integrated UNIDO TEST (Transfer of Environmentally Sound Technology) methodology and the identification of potential barriers.</p> <p>1.3. Provision of technical assistance to and training of technical plant managers, environmental managers, accountants and owners in hot spot manufacturing industries in the application of integrated TEST approach (including cleaner production, environmental management systems, environmental management accounting, environmental auditing, identification of investment opportunities into Environmentally Sound Technologies,</p>			
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			<p>determination of Return on Investments in EST, Corporate Social Responsibility strategies)</p> <p>1.4 Establishment of linkages between manufacturing industries and cost efficient providers of Environmentally Sound Technologies through UNIDO's network of Investment Promotion and Technology Promotion Offices (ITPO).</p> <p>1.5 Provision of technical assistance for the implementation of economic and regulatory policy instruments incentivizing resource efficiency in manufacturing industries</p> <p>1.6 Removal of know-how and competence barriers to catalyze acces to venture capital for investment in Environmentally Sound Technologies from existing financial instruments for energy efficiency improvements</p> <p>1.7 Dissemination of the results of the project at regional and national level and design of roadmaps for regional and national uptake and upscale</p>			
2.Mitigation of anthropogenic Climate Change by up-scaling the capacity of Tatarstan's agro forest industry to produce planting material (containerized closed root system seedlings)	TA	2.1. Agro forest industries in Tatarstan have the know-how and institutional capacities to produce ecologically appropriate and locally resilient planting material (containerized closed root system	2.1.Provision of technical assistance to the Ministry of Forestry by international (WWF) and national experts for the identification of the best appropriate autochthon plant	GEFTF	481,000	1,500,000

<p>for carbon sink enhancement in an energy efficient way</p>		<p>seedlings) in a state of the art energy efficient way at an industrial scale as it is required by the Ministry of Forestry for the afforestation of multi-purpose riverbank/floodplain protective forests with autochthon plants for sink enhancement</p>	<p>species mix for the afforestation of multi-purpose riverbank/floodplain protective forests based on silvo-ecological modeling techniques considering climatic variability and change as well as flood resistance</p> <p>2.2. Provision of technical assistance to the Ministry of Forestry for the identification of suppliers of Best Available Technology (BAT) for the energy efficient industrial scale production of autochthon planting material (containerized closed root system seedlings) required by the Ministry for the annual afforestation of 10,000 ha riverbank/floodplain protective forests with maximum carbon storage benefits.</p> <p>2.3. Institutional capacities of at least 2 industrial nurseries to produce high quality planting material (containerized closed root system seedlings) in an energy efficient way as required by the Ministry of Forestry for the annual afforestation of 10,000 ha of riverbank protective forests built through technical assistance, know how transfer and vocational training to improve resource efficiency and to maximize carbon sink enhancement</p> <p>2.4. Dissemination of the results of the</p>			
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			project at national and federal level for replication			
	Inv	<p>2.2. Agro forest industries in Tatarstan have the production capacities and dispose of the technology to produce ecologically appropriate and locally resilient planting material (containerized closed root system seedlings) in a state of the art energy efficient way at an industrial scale as it is required by the Ministry of Forestry for the afforestation of multi-purpose riverbank/floodplain protective forests with autochthon plants for sink enhancement</p> <p>2.2. Carbon sequestered by multipurpose riverbank/floodplain protective forests</p>	2.3. Best Appropriate Technology for energy efficient state of the art industrial production of autochthon planting material required by the Ministry of Forestry for the annual afforestation of 10,000 ha riverbank/floodplain protective forests is transferred to and fully operational in at least 2 state owned industrial nurseries	GEFTF	3,500,000	30,370,000
3. Building of institutional capacities to enhance compliance with and implementation of federal legislative frameworks and to catalyze the development and implementation of economic and regulatory policy instruments for mainstreaming resource efficient cleaner production patterns in manufacturing industries	TA	<p>3.1 Federal laws and regulations on Energy Saving and Increasing Energy Efficiency are effectively implemented in the Republic of Tatarstan by key government institutions trained in the development and implementation of by laws, regulatory and economic policy instruments to promote energy savings, energy efficiency and GHG emission abatement in industrial manufacturing processes</p> <p>3.2 Key government institutions and cleaner production centres fully enabled to establish linkages and connectivity between manufacturing industries and financial</p>	<p>3.1 75 experts from key governmental institutions trained in the application and effective implementation of federal laws, regulations and the development and implementation of by laws, implementation decrees, regulatory and economic policy instruments for the promotion of resource efficient cleaner production</p> <p>3.2 75 experts in key government institutions and Cleaner Production Centres are fully aware of existing financial instruments at all level, enabled to advice manufacturing industries on existing credit lines and</p>	GEFTF	1,661,000	4,123,250

		<p>institutions at various levels offering financial instruments and credit lines for cleaner resource efficient production</p> <p>3.3 Key government institutions and Cleaner Production Centres in the Republic of Tatarstan continue to provide technical assistance to manufacturing industries for the compliance with relevant ISO norms and the implementation of environmental management systems resulting in industrial climate change mitigation beyond the lifespan of the project</p> <p>3.4 CSOs and educational institutions active in the Republic of Tatarstan in the field of public engagement for environmental conservation and awareness fully involved and capacitated to mainstream climate change and mitigation into their outreach and awareness building campaigns</p>	<p>maintain an updated data base on these instruments accessible through web-portals</p> <p>3.3 75 experts in in the Ministry of Ecology and in the Volga International Cleaner Production Centre trained in the provision of technical assistance for ISO certification and environmental management systems and a concept for the sustainable coverage of industry training needs beyond project implementation through the Volga International Cleaner Production Centre developed based upon a cost recovery scheme agreed upon with private and public stakeholders</p> <p>3.4 at least 4 key CSO and educational institutions are empowered to engage with and pro-actively involve local civil society through awareness building campaigns and the development of outreach/educational material that underscores the importance of energy efficiency and reducing GHG emissions in the manufacturing sector as well as of sink enhancement to complement community driven climate change mitigation in order to fully integrate environmental conservation and climate change</p>			
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			mitigation into Tatarstan's cultural identity			
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
Subtotal						9,802,381 54,396,250
Project Management Cost (PMC) ⁴				GEFTF	490,119	2,650,000
Total Project Cost						10,292,500 57,046,250

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
GEF Agency	UNIDO	Grant	60,000
GEF Agency	UNIDO	In-kind	2,886,250
National Government	Federal Program "Ecological safety of Russia"	In-kind	500,000
Local Government	Federal State Enterprise 'Sredvolgavodhoz'	Grant	300,000
Local Government	Federal State Enterprise 'Sredvolgavodhoz'	In-kind	2,140,000
National Government	Russian Forest Agency	In-kind	160,000
National Government	Federal Programme of the Russian Federation "Development of Forestry in 2012-2020 sub programme reforestation"	Grant	4,800,000
National Government	All Russian Research Institute for Nature Conservation	In-kind	300,000
National Government	Research Institute for Forestry	In-kind	300,000
Local Government	Kazan State Power Engineering University	In-kind	300,000
Local Government	Ministry of Ecology, Republic of Tatarstan	Grant	8,297,000
Local Government	Ministry of Ecology, Republic of Tatarstan	In-kind	600,000
Local Government	Ministry of Forestry, Republic of Tatarstan	Grant	20,200,000
Local Government	Ministry of Forestry, Republic of Tatarstan	In-kind	600,000
Private Sector	The Private Sector will be mainly represented by companies in the chemistry, food processing and metal processing industries. A preliminary list of industries private sector companies and interest groups to be involved in the project will be identified during the PPG phase as part of the preliminary hot	Grant	15,603,000

⁴ To be calculated as percent of subtotal.

	spot analysis		
Total Cofinancing			57,046,250

D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b) ²	Total (\$) c=a+b
UNIDO	GEFTF	Climate Change	Russian Federation	10,292,500	926,325	11,218,825
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total Grant Resources				10,292,500	926,325	11,228,825

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

² Indicate fees related to this project.

E. PROJECT PREPARATION GRANT (PPG)⁵

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$)⁶</u>
• No PPG required.	-- 0--	--0--
• (upto) \$50k for projects up to & including \$1 million	_____	_____
• (upto)\$100k for projects up to & including \$3 million	_____	_____
• (upto)\$150k for projects up to & including \$6 million	_____	_____
• (upto)\$200k for projects up to & including \$10 million	_____	_____
• (upto)\$300k for projects above \$10 million	262,500	23,625

PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF ROJECT ONLY

Trust Fund	GEF Agency	Focal Area	Country Name/Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b
GEF TF	UNIDO	Climate Change	Russian Federation	262,500	23,625	286,125
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total PPG Amount				262,500	23,625	286,125

MFA: Multi-focal area projects; MTF: Multi-Trust Fund projects.

⁵ On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

⁶ PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

PART II: PROJECT JUSTIFICATION⁷

A. PROJECT OVERVIEW

A.1. Project Description. Briefly describe the project, including ; 1) the global environmental problems, root causes and barriers that need to be addressed; 2) the baseline scenario and any associated baseline projects, 3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project, 4) incremental cost reasoning and expected contributions from the baseline , the GEFTF, LDCF/SCCF and co-financing; 5) global environmental benefits (GEFTF, NPIF) and adaptation benefits (LDCF/SCCF); 6) innovativeness, sustainability and potential for scaling up

1) global environmental problems, root causes and barriers that need to be addressed:

The Republic of Tatarstan is one of the most economically developed regions in the Russian Federation. The Republic is highly industrialized, and ranks second only to Samara Oblast in terms of industrial production per km². Tatarstan consists of three distinguished industrial regions. The northwestern part is an old industrial region where engineering, chemical and light industry dominate. In the new industrial Northeast region with its core in the Nabarezhnye Chelny-Nizhnekamsk agglomeration, major industries are automobile construction, chemical industry, and power engineering. The Southeast region has oil production with engineering under development. Yet, Tatarstan's historical development path was not sustainable and past economic and industrial development took place at the detriment of the environment and the Republic's natural resources. Consequently the high degree of industrialization has resulted in extremely high environmental pressures.

Unsustainable industrial development patterns in combination with inefficient use of natural resources have resulted in environmental pollution, disproportionately high emissions of greenhouse gases, ecosystem degradation, deforestation and desertification. Steppe forests were cleared to provide raw materials for the no longer significant pulp and paper industry as well as to make room for large scale agro industrial operations implemented through combinats under the Soviet Union's planned economy. Whilst this unsustainable development pattern has contributed to anthropogenic climate change, the impacts of climate change will further aggravate the situation and contribute to increased environmental stress on a global level as well as on vulnerable steppe ecosystems.

On one hand emissions and effluents from manufacturing industries (mainly chemical, metal processing, food processing) operating with outdated and inefficient technologies constitute the main contribution to disproportionately high amounts of green house gas emissions causing anthropogenic climate change. These industries lack the awareness that a switch to resource efficient cleaner production methods cannot only result in reduced environmental burdens but also in considerable direct costs savings for the industries

Until 2009, there was a lack of a clear policy framework for the support of Energy Efficiency and Renewable Energy Sources as well as a lack of clear responsibilities for policy implementation and monitoring of progress and this clearly constituted a significant legal and institutional barrier. However, the new Law on Energy Saving and on Increasing Energy Efficiency, approved at the end of 2009, sets ambitious goals to reverse this situation, by the set up of federal, regional and local energy efficiency authorities and by the definition of clear deadlines for implementation of the comprehensive mandatory provisions. However, the effective implementation of the new Law is highly dependent of the relative bylaws and implementation decrees which still need to be developed and approved.

The energy supply capacity of the Russian Federation far exceeds domestic demand. Until recently the Russian Federation provided some of the largest subsidies for fossil fuels in the

⁷ Part II should not be longer than 5 pages.

world. Both gas and electricity are sold within Russia at average prices that are well below international market prices. The Government of Russia recognizes the negative impacts of subsidies and in parallel with approving the new Law on Energy Saving and on Increasing Energy Efficiency has embarked on a program of bringing gas and electricity prices up to market levels. Energy prices are being gradually increased towards the prices charged to European importers.

While energy prices have constantly increased over the past years in the Republic of Tatarstan (e.g. natural gas from 2 rub/m³ in 2008 to 4 rub/m³ in 2012, over the same prices for hot water have gone up from 1000 to 1800 rub per Gcal supplied and for liquefied gas from 9,48 rub/kg to 24 rub/kg) the current prices are still too low to send price signals to manufacturing industries which are strong enough to trigger a switch to cleaner more resource efficient production patterns. As stressed in the 5th National Communication of the Russian Federation, economic and regulatory instruments incentivizing the industrial sector to adapt cleaner more resource efficient production have still to be developed. Lack of know how about resource efficient cleaner production processes, lack of awareness of the economic returns that can be achieved by adapting resource efficient cleaner production methods and by investing into Environmentally Sound Technologies and lack of access to venture capital for investments in resource efficient cleaner production have been identified as the main barriers to allow the manufacturing industries operating in the Republic of Tatarstan to mitigate their climate change impacts through the application of resource efficient and environmentally sound production patterns.

Some financial instruments for investments in energy efficiency have been established e.g. credit lines by the EBRD for large and small scale industries as well as the World Bank lending/sustainable financing mechanisms for energy efficiency improvements. The majority of manufacturing industries in Tatarstan do not know about the existence and/or lack the know-how to access these instruments.

On the other hand unsustainable operations of agro-forest industries have contributed to severe natural resource degradation. Forest coverage has been reduced to 17% only in Tatarstan and in the process to dam the Volga, floodplain/riverbank forests have been destroyed in the most riparian areas. Agro-forest industries do lack access to technology to produce planting material (containerized closed root system seedlings) for carbon sequestration through sink enhancement in an energy efficient way at an industrial scale. Without this technology for industrial scale production of planting planting material the Ministry of Forestry will not be able to implement its ambitious plans to annually afforest 10,000 ha of protective floodplain/riverbank forests. During the Soviet era, all technology transfers were conducted through the Ministry of Foreign Trade and controlled by central planning authorities. Thus enterprise managers were far removed from foreign markets and had little experience in

⁸ The UNIDO manual “Identification, assessment and prioritization of Pollution Hotspots” defines hot spots as a source of concentrated emissions. Identifying these hot spots serves to address concentrated sources of emission where the largest marginal emission reduction can be achieved with the lowest marginal costs.

⁹ 2012 GHG inventory submission of the Russian Federation. Available at <http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/6598.php>.

¹⁰ With costs of 0.09 \$/kWh in Tunisia, 0.042 \$/kWh in Egypt and 0,094 \$/kWh in Morocco electricity is cheaper than the upper price range for electricity in Tatarstan of 0.13 \$/kWh (the exact price depends on the category group of consumer, time of consumption and voltage range)

¹¹ IPCC Guidelines for National Greenhouse Inventories, Volume 4, Agriculture, Forestry and other Land Use, 2006.

¹² Development of Forest Resources in the European Part of the Russian Federation, European Forest Institute 2001

¹³ global wood density database, <http://datadryad.org/repo/handle/10255/dryad.235>

¹⁴ t C / t dry matter, IPCC Guidelines for National Greenhouse Inventories, Volume 4, Agriculture, Forestry and other Land Use, 2006

¹⁵ (IPCC Good practice guidance for LULUCF)

evaluating, understanding, and selecting foreign technologies. This lack of experience remains the main barrier for the transfer of state of the art technology to the Russian Federation. This applies in particular to the agro-forestry sector which generally is rather conservative and slow in the up-take of new and innovative technologies. Especially notable is the lack of commercial knowhow and innovation experience in turning designs into reliable high-quality products and services. This barrier will be overcome by a training on the job approach. Decision makers in the Ministry of Forestry and managers of state owned nurseries will be closely involved through a participatory process in the identification of Best Appropriate Technologies for the industrial scale production of planting material, in the identification of potential suppliers of this technology, the preparation of bills of quantities and tender documents as well as the selection of the successful tenderer. In parallel with the technical assistance that will be provided to transfer the know how and built institutional capacities for the application of this technology based upon lending/sustainable financing mechanisms for energy efficiency improvements in multi year business plans, local ownership will be created. Closer cooperation with the managers of the state owned nurseries in the selection of BAT and the tender process will ensure that they have the well established business contacts with the suppliers of this technology as it will be required for the procurement of spareparts and/or for upgrades.

The combined effects have not only resulted in a disproportionate carbon intensity of Tatarstan's manufacturing industry and the inability of the agro-forest industry to mitigate climate change but have also resulted in a drastic reduction of the resilience of critical ecosystem components (water bodies, agricultural land and forests) to climate change impacts. Without significant efforts to reverse these trends future effects of climate change will furthermore exacerbate global environmental stress, valuable ecosystem services will be lost and ecosystem resilience will be further reduced.

2) baseline scenario and associated baseline projects:

Even after the collapse of Soviet-era smokestack industries over the past decade environmental pressures in the Republic of Tatarstan have remained high and have reached such a level and caused such high economic costs that they could no longer be ignored. Awareness for the urgent need to reverse the presently observed trends in greenhouse gas emissions, pollution and natural resource degradation by the industries operating in the Republic has been created at all levels of decision makers. The political will to change the historic trend of economic development at the detriment of the environment has been manifested through appropriate resolutions and implemented through concrete actions. On 27 April 2001, the State Council of the Republic of Tatarstan adopted the Resolution (No722) on the Earth Charter Project, according to which Tatarstan has become the world's first region for its practical application. From that moment on, the work has been started on the development of a large scale project titled: "Tatarstan, the territory of sustainable development and culture of peace" that enjoyed support of the Government, Parliament, ministries and departments, as well as of non-governmental organizations of the Republic. Today Tatarstan is considered to be the Republic with the highest environmental awareness in the Russian Federation and the Republic of Tatarstan is one of the leading regions of the Russian Federation in addressing environmental problems and to ensure a sustainable development path.

Tatarstan's environmental strategy prescribes that a solicitous attitude to natural resources, even considering decreasing volumes of GDP, is an essential condition for sustainable development. Manufacturing industries and industrial production are considered to be a key contributor to GDP while having a significant potential to contribute to climate change, pollution and natural resource degradation. Consequently while industrial production must be maintained or even increased to avoid further GDP decreases, the environmental impact of industries operating in the Republic must be reduced.

The Republic of Tatarstan has created the State Register of specially protected natural territories, developed and published, for the first time in Russia, a map of the environmental

situation in the Republic of Tatarstan, issued the Green and Red Books of the Republic of Tatarstan, implements - under the auspices of the president – the “Pure Water” state programme, implements the energy saving programme and has introduced the principles of cleaner production.

The 83 regions of the Russian Federation have a substantial degree of autonomy in the field of Energy Efficiency and Renewable Energy Source. They are allowed to develop their own energy efficiency and renewable energy sources legislative acts. Tatarstan was among the first regions to become active in energy efficiency activities and has even established its own regional Energy Efficiency programme.

In 2011 the Republic of Tatarstan has spent U\$ 40.5 mio in the implementation of this programme on energy saving and energy efficiency activities (Decree of the Cabinet of Ministers from 12 November 2011 No 2088-r) and the financial volume budgeted for 2012 and the following years is the same. These funds are primarily earmarked for energy saving measures and energy efficiency activities in public and residential buildings.

To fulfill the provision of the Forest Plan of the Republic of Tatarstan as a comprehensive element to mitigate climate change through LULUCF activities, the “Strategy of the Forest Sector Development in the Republic of Tatarstan until 2018” has been developed. The Strategy foresees to increase the forest coverage from presently 17% only. Tatarstan has earmarked annual budgets of U\$ 13.16 mio for the afforestation activities required implementation of the “Strategy of the Forest Sector Development in the Republic of Tatarstan until 2018”. As a holistic part of Tatarstan’s integrated approach to natural resource management and climate change mitigation, the Strategy determined the annual afforestation of 10,000 ha/year of multi-functional, close to nature floodplain/riverbank protective forests with autochthon species to be given utmost priority. While the Government of Tatarstan has made the budgetary provision for the implementation of this large scale afforestation activity and the Ministry of Forestry has well qualified human resources and logistics capacities to implement this task, the lack of knowhow and access to technology for state of the art energy efficient industrial scale production of closed root system planting material has been identified as the main bottleneck to achieve the Strategy’s goal. The capacities of the existing nurseries allow only for the production of planting material for the afforestation of some 1,000 ha/year of multifunctional protective floodplain/riverbank forests.

The Federal State Enterprise Sredvolgavodhoz who is in charge of the management of the state owned riparian buffer zones between water bodies and agricultural areas started a comprehensive programme to restore the ecological functionality of these buffer zones along the river Volga and its tributaries.

Tatarstan was the first Republic in the Russian Federation to apply the UNIDO TEST methodology to decouple industrial production from resource consumption and pollution in the Volga catchment area. The first phase of this project, with a budget of U\$ 1.5 mio, was launched in 2010. While the primary objective of this project is to improve water quality and reduce negative regional and transboundary impacts on water bodies resulting from industrial activities, the application of the integrated UNIDO TEST methodology has also resulted in the creating awareness amongst the decision makers in Tatarstan that this methodology can also be an effective approach to identify the significant potential of the manufacturing industries operating in Tatarstan for the reduction of energy consumption and GHG emissions.

Due to the success and results achieved by this initial project UNIDO will receive another grant of U\$ 2 mio from the Industrial Development Fund of the Russian Federation for the further provision of technical assistance for the implementation of the TEST methodology in the Volga catchment area. The focus of this second phase will also be on supporting water body polluting industries in the middle and lower Volga basin to apply cleaner production technologies and cost efficient end of pipe solutions as well as in the development of sustainable enterprise strategies to reduce water body pollution.

3) Proposed alternative scenario, expected outcomes and components of the project:

The proposed FSP will promote climate change mitigation in Tatarstan through a three-pronged approach – 1) through the provision of technical assistance for the application of the integrated UNIDO TEST methodology by priority manufacturing industry clusters for energy efficient and low GHG production patterns, 2) through the direct Transfer of Environmentally Sound Technologies to state owned nurseries for the energy efficient industrial scale production of planting material for carbon sequestration and 3) through building and strengthening of institutional capacities and support for the development of regulatory and economic instruments for the mainstreaming, up-scaling and roll out of the UNIDO TEST methodology for resource efficient cleaner production and GHG emission mitigation by manufacturing industries beyond the lifespan of the project.

The contribution of manufacturing industry clusters (chemical, food processing and metal processing) to anthropogenic climate change will be mitigated through the provision of Technical Assistance for the application of the UNIDO TEST methodology. While the UNIDO TEST methodology has originally been developed with a primary focus on water body related pollution, the provision of TA for the application of the integrated TEST methodology has the potential to identify and realize significant reductions in energy consumption as well as in GHG emissions loads. This does also apply for the TEST project implemented in the middle and lower Volga. Upon realizing that the provision of technical assistance for the application of the integrated TEST methodology can also result in significant GHG and energy consumption reductions the Government of Tatarstan has requested UNIDO to develop a project for the thematic up-scaling from a water body focused TEST limited to the Volga catchment area to a GHG emission focused TEST for the whole area of the Republic of Tatarstan. While the Russian financed TEST will continue to focus on water body pollution reduction the additional GEF financed TEST will focus exclusively on energy efficiency and GHG emission reductions.

Component 1 "Abatement of anthropogenic climate change by reducing resource consumption and GHG emissions of key manufacturing industries operating the the republic of Tatarstan": Under this component technical assistance will be provided to key manufacturing industry clusters (chemistry, food processing, metal processing) for the application of the UNIDO integrated TEST methodology to catalyze GHG emission reductions and resource efficient production. The institutional capacities of key government institutions will be strengthened and technical assistance will be provided for the implementation of economic and regulatory policy instruments as well as for the removal of barriers to access to existing financial instruments for investments in energy efficiency improvements.

This component will comprise the provision of technical assistance for the identification of hot spots⁸ and for the identification of inefficient production patterns, where changes in production patterns and/or investments in resource efficient Environmentally Sound Technologies will result in economic benefits for the industry clusters as well as in environmental benefits. The identification of hot spots will be effected based on data provided by the Institute of Global Climate and Ecology of Roshydromet which has the overall responsibility for the preparation⁹ and management of the GHG inventory and the compilation of the National Inventory Report⁹ in the Russian Federation. Where necessary data will be completed in line with the recommendations of the report of the in-depth review of the 5th national communication of the Russian Federation that the Russia is to improve the completeness of its reporting.

Assisting key manufacturing industry clusters in changing their production patterns and catalyzing investments into Environmentally Sound Technologies will mitigate the climate change impacts of these industries by reducing their resource consumption and emissions of green house gases.

This component will build upon and benefit from the structures established in the first phase of the project "Identification, evaluation and prioritization of pollution hot-spots in the basins of

trans-border reservoirs and transfer of environmentally sound technologies” implemented by UNIDO. This first phase focused on the identification of water body relevant pollution hot spots in the middle and lower Volga catchment area. Under the PPG phase a preliminary assessment of green house gas emission hot spots will be carried out. Further synergies will be achieved with the activities to be implemented with the funds (U\$ 2 mio) UNIDO will receive from the Industrial Development Funds of the Russian Federation for the second phase of this project (technical assistance to water body polluting industries in the middle and lower Volga catchment area for the application of cleaner production technologies and cost efficient end of pipe solutions as well as for the development of sustainable enterprise strategies). While activities to be carried out under the Russian funded TEST project will focus on water body pollution abatement, activities to be carried out under this component of the FSP uniquely address energy consumption in manufacturing processes and mitigation of GHG emission from manufacturing industries. Applying the UNIDO test methodology technical assistance will be provided to manufacturing industries operating in the entire territory of the Republic of Tatarstan to reduce their resource consumption and their GHG emissions in order to mitigate their contribution to climate change.

The UNIDO integrated Hot Spot and TEST methodology provides a formal, systematic approach to addressing the large number of emission sources in Tatarstan based on their impacts and characteristics.

All three steps of the Hot Spot Methodology will be applied in the proposed project:

- Step 1 - Identification and Preliminary Screening of Hot Spots (this will be covered to a large extent under the PPG phase of this project based on Roshydromet data);
- Step 2 - Detailed Evaluation of Hot Spots (going beyond Preliminary Screening and completing Roshydromet data where necessary); and
- Step 3 - Prioritization of Hot Spots.

All three steps of the TEST Methodology will be applied in this GEF project:

- Step 1 - Good Management Practices and Process Optimization;
- Step 2 - Technology Change (EST): Cleaner Technologies and End-of-Pipe Solutions; and
- Step 3 - Evaluation and Sustainable Enterprise Strategy.

The TEST methodology constitutes an approach that introduces Cleaner Production Assessment (CPA), Environmental Management Systems (EMS) and Environmental Management Accounting (EMA) tools simultaneously. The TEST methodology identifies improvements ranging from better house-keeping and good management practices to comprehensive investments into the production processes and end of pipe solutions. The key element for the success of the application of the TEST methodology is that it demonstrates the industries which savings can be achieved by changing the production regime to resource efficient cleaner production or which Return On Investment (ROI) can be achieved by making investments (e.g. reduced energy costs, reduced water consumption) in environmentally sound technologies. By demonstrating to the industries that improved management can lead to considerable energy savings and associated financial savings for the manufacturer, TEST makes appeal to the utilitarian principle of profit maximization applied by any private sector industry. Furthermore by demonstrating manufacturing industries that investments in improved energy and resource efficiency in their production process can have Internal Rates of Return of 20% and above the application of the TEST methodology effectively leverages investments by the private sector. The application of the integrated TEST methodology allows enterprises to merge the two seemingly conflicting goals - that of reducing environmental impacts and increasing company competitiveness and profitability simultaneously. The result is a win-win situation in which companies applying resource efficient cleaner production methodologies and/or investing into Environmentally Sound Technologies become more profitable while at the same time reducing their detrimental environmental impacts.

An overview on existing financial instruments will be given to manufacturing industries through a series of consultative workshops that will be jointly organized with the financial institutions, which offer these instruments. A data base on existing instruments will be established that can be accessed through the web portals of the Volga International Cleaner Production Centre and the Ministry of Ecology. Trainings will be offered to manufacturing industries to enhance their capacities to effectively access these instruments in order to have access to low cost venture capital to effect investments in resource efficiency improvements. More generally, the barriers to access these instruments will be identified during the PPG and the project will include activities to remove these barriers.

The **key outcome of component 1** will be that key industry clusters (mainly chemistry, food and metal processing in Tatarstan realize the economic benefits they can reap from switching to resource and energy efficient cleaner production technologies and apply these resource efficient cleaner production methods and/or invest in Environmentally Sound Technologies. To catalyze these investments and to facilitate the access to cost efficient environmentally sound technologies the project will link manufacturing industries in Tatarstan to global suppliers through the UNIDO network of Investment and Technology Promotion Offices. By removing the knowledge and know how barriers of access to existing financial instruments and by supporting the implementation of economic and regulatory policy instruments to be developed as output 3.1 of this project, the mobilization of venture capital for investments in resource efficiency improvements and cleaner production technologies by private sector manufacturing industries will be further leveraged and catalyzed and a conducive environment for industrial energy efficiency improvements will be created. .

The creation of a conducive regulatory and economic environment, the introduction of resource efficient cleaner production patterns, the facilitation of technological change, innovations and the implementation of environmental management systems will result in a continuous improvement of resource efficiency in manufacturing processes and a continuous reduction of the industries' GHG emissions.

At this stage in the project cycle it is still impossible to exactly quantify the energy consumption and GHG emission reductions the provision of technical assistance to manufacturing industry clusters will actually result in. Nevertheless experiences gained from the application of the UNIDO TEST methodology in comparable projects can be used as a reference. With a total project budget of U\$ 2 mio provided by GEF and the Government of Italy for the provision of technical assistance for the application of the TEST methodology in the Mediterranean, this project has resulted in energy savings totaling to 263 GWH/yr. This project has leveraged U\$ 20 mio in terms of direct investments by manufacturing industries in Environmentally Sound Technologies resulting in economic savings of U\$ 17 mio/yr for the industries. With a budget of U\$ 4,3 mio for this component, comparable energy costs¹⁰ and taking into consideration that energy intensity per unit of GDP is eleven times higher in the Russian Federation than in Germany the economic and ecologic benefit of applying resource efficient clean technologies in Tatarstan's manufacturing industries should result in energy savings of at least 565 GWH/yr. For the estimation of the reduction in CO₂e it is assumed that 50% of these savings will stem from reduced use of thermal energy and 50% will stem from reduced use of electrical energy in manufacturing processes. With an average carbon intensity of 70.7 kg CO₂ emitted per GJ thermal energy produced, the annual CO₂e emissions avoided from reduced use of thermal energy can be estimated to be in the range of 71.868 t/yr. With an average carbon intensity of 815 g CO₂e per kWh of electrical energy produced, the annual CO₂e emissions avoided from reduced use of electrical energy can be estimated to be in the range of 230.425 t/yr. The estimated total reduction in CO₂e emissions from energy savings alone in manufacturing industries to be achieved under this component of the project will amount to 302.293 t/yr. Additional reductions in GHG emissions in the form of reduced emissions of HFCs, PFCs and SF₆ from industrial processes will be achieved.

Component 2 “Mitigation of anthropogenic Climate Change by up-scaling the capacity of Tatarstan’s agro-forest industry to produced planting material (containerized closed root system seedlings) for carbon sink enhancement in an energy efficient way:

Under this component the direct transfer of technology to state owned nurseries will be facilitated. In preparation of this technology transfer, best appropriate plant species required by the Ministry of Forestry for the afforestation of carbon sequestering close to nature multi-purpose riverbank/floodplain protective forests will be identified in a workshop with international climate change experts and forest experts from WWF, Russian climate change experts and silvicultural experts from the Ministry of Forestry of the Republic of Tatarstan, the Research Institute for Forestry, Sredvolgavodhoz and the Federal Russian Forest Agency based on plant ecological modeling and forecasted climate change impacts for Tatarstan. The capacity to resist flooding will be used as a further criterion for the selection of best appropriate plant species.

Potential suppliers of Best Available Technology (BAT) for the energy efficient industrial scale production of planting material (containerized closed root system seedlings) required by the Ministry of Forestry for the annual afforestation of 10,000 ha of close to nature riverbank/floodplain protective forests with autochthon plants will be identified on the global market. The direct transfer of technologies for the energy efficient industrial production of planting material to 2 state owned industrial nurseries will be facilitated and technical assistance will be provided to strengthen the institutional and operational capacities of the selected state owned nurseries to enable them to procure the technology and effectively use it to produce autochthon planting material (containerized closed root system seedlings) required by the Ministry of Forestry for the close to nature afforestation of 10,000 ha of multi-purpose riverbank/floodplain protective forests.

The growing of containerized seedlings with closed root system is the state of the art of modern greenhouse-nursery with high-technology equipment. Each seedling grows in a special pot-container (cassette) provided with the necessary amount of water and nutrients. This gives the best result while in shipment and further planting, as seedlings are taken from containers with a clod of soil and this excludes risk of hurting the root system. Seedlings grown from seeds in this ways, that are raised and hardened off according to the prevailing climatic conditions, show much higher establishment and survival rates. This method further allows making use of root growth in autumn and spring before shoot thus avoiding work peaks in spring. Seedlings develop a more active root system that is protected from seeding from the nursery to the planting side resulting in higher establishment/survival rates, faster growth and shorter production time.

Carbon sequestration will be enhanced by multi-purpose protective riverbank/floodplain forests the Ministry of Forestry will afforest. These riverbank/floodplain protective forests will furthermore contribute to reduce erosion and the input of nutrients into surface water bodies and thus have a transboundary effect with a positive contribution to reduce the overall nutrient input into the Volga and the Caspian Sea. The use of autochthon plants adapted to climate change will ensure that close to nature floodplain habitats with a significantly positive impact on Tatarstan’s biodiversity will be established.

To guarantee sustainability of the investment and continuous resource efficient and sustainable operation of the state owned nurseries, they will be supported in the certification according to ISO standars for energy efficiency and environmental management as well as the development of business plans in line with the Government of Tatarstan’s demand for plating material and based upon the Government of Tatarstan’s intention to use these nurseries as regional centres of excellence to supply planting material for aforesation activities in neighbouring Republics. While the technology initially provided to the nurseries will be state of the art in terms of energy efficiency, training the managers of the nurseries in the implementation of environmental management systems, the implementation of energy audits and the developemnt

of business plans will enable the on-going cost and energy efficient production of planting material. During the PPG phase the feasibility to introduce and incentive system (bonuses for managers and staff upon achievement of production targets and reduction of specific production costs) will be assessed.

The **key outcome of component 2** will be that agro-forest industries in Tatarstan are equipped with the technology and have the know how and institutional capacities to sustainably produce ecologically appropriate and locally resilient planting material in a state of the art energy efficient way as it is required by the Ministry of Forestry for the afforestation of multi-purpose riverbank/floodplain protective forests with autochthon plans for CO₂ sink enhancement. These forests will be planted on the state owned riparian buffer zone between water bodies and adjacent agricultural areas. Presently these areas are not in use and can be considered as carbon neutral barren land.

A conservative estimation of the total amount of CO₂ that will be sequestered per ha of afforested floodplain / river bank protective forest can be based upon the values for stem wood carbon sequestered and the amount of time until the afforested flood plain/river bank forests will reach their climax stage (when net annual increment in wooden biomass starts to become more or less equal to the amount of annually decaying wooden biomass and carbon sequestered by annual increment becomes equal to carbon released from the decay of wooden biomass).

The amount of CO₂ sequestered per hectare and year until the afforestation reaches its climax phase can be calculated as follows¹¹: stem wood carbon sequestered [t CO₂/ha*yr] = net annual increment * average wood density * carbon share * C to CO₂ conversion factor.

With a net annual increment of 3.49 m³/ha/yr for the Volga-Vyatka District¹², an assumed average wood density of 0.513, an estimated carbon share of 0.514 and a C to CO₂ conversion factor of 3.6615 aboveground stem wood carbon sequestered can be calculated to be 3.19 t CO₂/ha*yr. Additional belowground stem wood carbon sequestered can be estimated to be 30% (IPCC Good practice guidance for LULUCF) of above ground stem wood carbon sequestered i.e. additional 0.96 CO₂/ha*yr. Thus in total the annual amount of CO₂ sequestered in the form of above and below ground stem wood carbon can be estimated to be 4.15 tons CO₂ per hectare and year.

Assuming that the afforested protective flood plain/river bank forests will reach their climax stage some 60 years after afforestation and taking into consideration that up to 50% of the established forest might be destroyed by fires, floods or human impacts before reaching climax stage it can be estimated that the afforestation of every hectare of multipurpose floodplain / riverbank protective forest will result in a total amount of CO₂ sequestered in the form of above and below ground stem wood of approximately 124,5 tons.

The Transfer of Environmentally Sound Technologies to state owned nurseries will enhance their capacities and allow them to produce the containerized closed root system seedlings required by the Ministry of Forestry for the afforestation of 10,000 ha of floodplain/riverbank forests per year. At present the state owned nurseries are only able to produce planting material for the afforestation of about 1,000 ha. The afforestation of 1.000 ha would result in the sequestration of 124,500 t CO₂. GEF incremental financing will catalyze and enable the additional afforestation of 9,000 ha of floodplain/riverbank protective forests per year. Over the time period until the floodplain forests reach their climax stage GEF incremental financing will catalyze the incremental sequestration of 1,120,500 t CO₂ for every year the Ministry of Forestry will implement the afforestation program in fulfillment of the Strategy for the Forest Sector Development in the Republic of Tatarstan until 2018. The direct Transfer of Environmentally Sound Technologies and provision of technical assistance will enable the state owned nurseries to supply the planting material required by the Ministry of Forestry from 2015 onwards. Thus during the implementation period for the Strategy for the Forest Sector Development in the Republic of Tatarstan until 2018 GEF incremental funding will catalyze the sequestration of additional 4,482,000 t of CO₂. A detailed forecast of the carbon benefits

will be made during the Project Preparation Period. Modeling tools developed under the GEF funded “The Carbon Benefits Project: Modeling, Measurement, and Monitoring” will be used in line with the outstanding decisions and recommendations from the joint STAP-UNEP workshop held in September 2012 on the applicability of these tools for GEF projects.

Component 3 "Building of institutional capacities to enhance compliance with the federal legislative framework and to catalyze the development and implementation of economic and regulatory policy instruments for mainstreaming resource efficient cleaner production patterns in manufacturing industries": Under this component the institutional

capacities of key government institutions, manufacturing industries as well as of cleaner production centers required for the mainstreaming of sustainable industrial climate change mitigation by manufacturing industries operating in the Republic of Tatarstan will be strengthened. While institutional capacities for the enforcement of federal laws, the development of bylaws and implementation decrees and to link manufacturing industries to financial institutions offering financial instruments for investments in resource efficient cleaner production will be strengthened, economic and regulatory policy instruments incentivizing resource efficient cleaner production will be developed by facilitating the close collaboration between the public and the private sector and by providing expert inputs.

During the PPG phase it will be identified, which mix of regulatory (command and control) policy instruments (bylaws and regulations, standards, codes of practice) and which economic policy instruments (tax relief, audit support, energy management support, investment subsidies, removal of subsidies, taxation, accelerated depreciation allowances etc.) will be required to effectively implement the Federal law on Energy Savings and Energy Efficiency and which combination will be best suited to improve the resource efficiency of Tatarstan's manufacturing industries.

Connectivity between manufacturing industries and financial institutions at various levels offering credit lines for cleaner resource efficient production will be strengthened through a series of collaborative workshops and expert consultations. A database on credit lines and subsidies targeting resource efficient cleaner production will be developed and made accessible to manufacturing industries through web portals to be established at the Volga International Cleaner Production Centre and the Ministry of Ecology of the Republic of Tatarstan.

The development and implementation of economic and regulatory policy instruments for the effective implementation of the federal laws on energy saving and energy efficiency at the level of the Republic and for the creation of an environment conducive for private sector investments in resource efficient cleaner production will be supported by the organization of tailor made trainings, the provision of technical assistance for the drafting of such policy instruments as well as for supporting the deliberative processes for the endorsement of these instruments by the Government of the Republic of Tatarstan. Technical assistance to support the implementation process will be provided to staff in the Ministry of Ecology as well as in the Volga International Cleaner Production Centre.

To guarantee the sustainability of the training needs delivery beyond project implementation curricula for the provision of training needs identified by manufacturing industries will be developed and institutional capacities of the Volga International Cleaner Production Centre will be further strengthened to fully enable the Centre to provide these trainings. During the PPG phase will be determined which cost recovery concept for the provision of services by the Volga International Cleaner Production Centre beyond project implementation (costs covered through government contributions, costs for specific services provided by the Centre covered by industries or a mix) will be developed as integral part of the project.

The UNIDO TEST methodology is an institutional and people centered approach whose success is contingent upon the involvement of and close cooperation of the private sector with key public sector institutions. Consequently the institutional capacities of the Ministry of

Ecology, of the Volga International Cleaner Production Centre, and in key manufacturing industry clusters will be strengthened through tailor made trainings as well as through training on the job to enable them to continue to achieve energy efficiency improvements and GHG emission reductions beyond the lifespan of the project. Supporting manufacturing industries in ISO certification will further contribute to achieve sustainable reductions in green house gas emissions since both the TEST methodology and the ISO approach result in a continuous monitoring of resource efficiency and environmental performance as the basis for the identification of efficiency improvement potentials. Thus climate change mitigating activities will be implemented well beyond the project implementation period.

To create awareness in Tatarstan's civil society on the importance of energy efficiency and GHG emission reductions and to create a strong bond to civil society at least 4 CSOs and/or educational institutes operating in the Republic of Tatarstan will be facilitated in the implementation of awareness building campaigns and the development of outreach/educational material that underscores the importance of the implementation of energy saving and energy efficiency campaigns at all levels as an integral component to mainstream climate change mitigation.

The **key outcomes of component 3** will be strengthened institutional capacities of key government institutions and cleaner production centers by training 215 experts in the enforcement of the federal legislative framework, the development and implementation of economic and regulatory policy instruments, bylaws and implementation decrees for the mainstreaming of resource efficient cleaner production. Furthermore CSOs and educational institutions will be capacitated to mainstream climate change and mitigation into their outreach and awareness building campaigns.

4) incremental costs reasoning and expected contributions from the baseline and co-financing

The proposed FSP will build up on and complement the efforts of the Republic of Tatarstan to reduce its GHG emissions and contribution to anthropogenic climate change. Building up on the achievements in energy savings and energy efficiency activities for residential and public buildings the FSP will provide incremental funding for the provision of technical assistance to manufacturing industries to reduce their energy and carbon intensity. Technical assistance for the application of the UNIDO TEST methodology will catalyze the up-take of resource efficient cleaner production methods resulting in a significant reduction in energy consumption and GHG emission by these from the manufacturing industries operating in Tatarstan.

Under the programme for energy saving and energy efficiency activities with an annual budget of \$ 40,5 mio the Ministry of Ecology of the Republic of Tatarstan will contribute \$ 10.3 mio as grants and \$ 600.000 in kind to the efforts to make Tatarstan's manufacturing industries more energy efficient and to reduce its overall GHG emissions.

Kazan State Power Engineering University as the leading academic institution in Tatarstan in the field of electrical engineering and energy efficiency will contribute in kind through expertise with a value of \$300.000.

The efforts to make Tatarstan's manufacturing industries more energy efficient and to reduce their GHG emissions will also be co-financed by the Federal Program "Ecological safety of Russia (2012-2020) which aims at coordinating the efforts of science, government, business and society in implementing eco-efficient and energy-saving Russian technology, solving the accumulated environmental problems, as well as ensuring environmental safety. This program is of high relevance for the Republic of Tatarstan and \$ 500.000 have been set aside to provide expert inputs for the implementation of eco-efficient energy saving technology in the Republic of Tatarstan and the up-scaling of best practices at the federal level.

The manufacturing industries themselves will co-finance this project through investments amounting to at least \$ 1,8 mio. This figure is only a preliminary figure based upon the

contributions towards improved energy efficiency that could be identified as a spin off from the on-going TEST project in the middle and lower Volga funded by the Industrial Development Fund of the Russian Federation with focus on water body related pollution. The actual contribution from manufacturing industries will be much higher in project implementation. Experiences from comparable projects with a TA budget of \$ 2 mio have leveraged private sector investments which go by the factor of ten. A similar high leverage ratio can be expected from the provision of technical assistance for the application of the TEST methodology to Tatarstan's manufacturing industries, so that a leveraged investment in cleaner technology with a value between \$ 30 to \$ 45 mio can be expected to result from this component of the project.

Incremental costs will also occur for the transfer of state of the art energy efficient technology for the industrial scale production of containerized closed root system planting material in 2 state owned nurseries. This technology transfer will include the identification of best adapted planting material, the sourcing of best appropriate technology, the investment into this technology as well as technical assistance to the staff of the state owned nurseries in the use of this technology to fully enable them to produce that planting material required by the Ministry of Forestry in an energy efficient industrial scale. Only covering these incremental costs for the proposed investments will allow the Ministry of Forestry to meet its ambitious plan to afforest 10.000 ha of publicly owned riparian buffer zones with multipurpose carbon sequestering protective floodplain/riverbank forests. Out of the Ministry of Forestry's annual budget of \$ 13,16 mio for afforestation activities the afforestation of riparian buffer zones will be co-financed with a grant of \$ 18,2 mio and with in kind contributions of \$ 600.000.

For the identification of best appropriate plant varieties the Research Institute for Forestry will contribute expertise and provide facilities for meetings with a total value of \$ 300.000.

The All Russian Research Institute for Nature Conservation will contribute expertise for the adjustment of afforestation plans, expertise for plant establishment and for the country wide dissemination of results and up scaling.

The Russian Forest Agency will support this component with an in kind contribution of \$ 160.000 in the form of expertise for the up-scaling of the afforestation of floodplains/riverbanks in the neighboring regions up- and downstream of Tatarstan along the river Volga.

The Federal State Enterprise "Sredvolgavodhoz" who is in charge of the management of the state owned riparian buffer zones between water bodies and agricultural land will co-finance the afforestation of floodplain/riverbank protective forests with a grant of \$ 2,14 mio and with in kind contributions of \$ 300,000

Incremental costs will occur for the building of institutional capacities to enhance compliance with and implementation of federal legal frameworks and to catalyze the development of economic and regulatory instruments for the mainstreaming of resource efficient cleaner production patterns in manufacturing industries.

Implementation of the FSP will be co-financed by UNIDO by in kind (US\$ 2,886,250) as well by as in cash (\$ 60,000) contributions.

Implementation of the PPG phase will be co-financed by UNIDO through in kind contributions with a value of US\$ 45,000 and in cash with an amount of US\$ 60,000

Co-financing in kind of project implementation will be through the dedication of human resources and the mobilization of expertise for the preparation and implementation of the project in particular by the UNIDO Centre for International Industrial Cooperation in the Russian Federation and through support provided by key account experts with substance matter expertise in UNIDO's headquarters.

With an annual budget of US\$ 455,000 and 15 % of the resources of the UNIDO Centre for International Industrial Cooperation in the Russian Federation dedicated to the proposed FSP this in kind co-financing can be valued at US\$ 341,250 for the 5 year project implementation

period.

With average staff costs of US\$ 12,500 per man month and a forecasted input of 8 man month per year to be provided by various UNIDO substance matter experts, this in kind co-financing can be valued at US\$500,000 over the foreseen project implementation period of 60 months.

Building up on the success of the first phase of the project “Identification, evaluation and prioritization of pollution “hot-spots” in the basins of trans-border reservoirs and transfer of environmentally sound technologies” with a budget of US\$ 1,5 mio, UNIDO will mobilize another US\$ 2 mio for the Transfer of Environmentally Sound Technologies as co-financing for activities synergetic to the proposed FSP.

Thus in total UNIDO will contribute with a co-financing amounting to US\$ 2,946,250 to the preparation and implementation of this FSP.

5) global environmental benefits

This FSP will deliver global environmental benefits by supporting the Republic of Tatarstan in the transition towards a low-carbon development path. The project will contribute to reduced GHG emissions from the Russian Federation to the atmosphere by achieving avoided GHG emissions from manufacturing industries and by facilitating the transfer of environmentally sound technologies for the energy efficient industrial scale production of planting material for carbon sequestration in multi-purpose floodplain/riverbank protective forests in state owned riparian buffer zones. By reducing emissions from manufacturing industries by estimated 302.293 CO₂e t/yr and by catalyzing the sequestration of additional 8,966,926 t of CO₂ the project will contribute to the ultimate objective of the UNFCCC, which is to achieve “stabilization of GHG concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate change”.

6) innovativeness, sustainability and potential for scaling up

Sustainability of the investment into manufacturing industries will be achieved on one hand by facilitation the certification of industries under the relevant ISO and standards(ISO 14000 series and ISO 51000), which are based on a Plan-Do-Check-Act approach to continual improvement, which supports energy performance and environmental management improvement over time based on the best data available to the organization. On the other hand sustainability will be achieved by the creation of a regulatory and economic framework that incentivizes resource efficient cleaner production and by creating institutional capacities in key public institutions for the further application of the UNIDO TEST methodology and to enable them to efficiently link up manufacturing industries with financial institutions providing loans and grants for investments in resource efficient cleaner production.

Sustainability of the investment into technologies for the energy efficient industrial scale production of planting material for carbon sequestering afforestation will be achieved in line with the Government of Tatarstan’s strategy accorded with neighboring regions to establish Tatarstan as a regional hub and supplier for the energy efficient industrial scale production of planting material. With the provisions of the “Strategy of the Forest Sector Development in the Republic of Tatarstan until 2018” fulfilled the state owned nurseries will continue to produce planting material for afforestation activities in these neighboring regions. This is favored by the possibility to use the river Volga as a means for energy efficient transport of seedlings to up and downstream riparian regions.

The Government of Tatarstan intends to use this FSP as a showcase, how climate change related to manufacturing institutions can be effectively reduced in a win-win situation allowing industries to become more resource efficient, more profitable and in the same time reducing their energy consumption and GHG emissions and how climate change can be mitigated by enhancing carbon sequestration by restoring multi-purpose floodplain/riverbank protective forests. In the preparation of this project the Government of Tatarstan has secured the cooperation with relevant public, CSO and academic institutions at Federal level, which have

shown a high level of interest and will become involved in project implementation, dissemination of results and up-scaling.

A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

In a three layer stakeholder model, UNIDO with its Centre for International Industrial Cooperation in the Russian Federation, the Volga International Cleaner Production Centre, the line ministries at federal and republic level and the manufacturing industry clusters represented through the Chamber of Commerce of the Russian Federation and the Association of 'Business based in Russia' constitute the inner layer, since they are directly involved in project management through their participation in the Project Steering Committee.

Manufacturing industry clusters and state owned nurseries constitute the second layer. The manufacturing industry clusters will become the main recipient of technical assistance for the application of the UNIDO TEST methodology and will become involved as active partners in the Cleaner Production Assessment (CPA), Environmental Management Systems (EMS) and Environmental Management Accounting (EMA) to demonstrate to them the financial gains they can realize from applying resource efficient cleaner production patterns and by investing in Environmentally Sound Technologies. This will result in the application of resource efficient cleaner production methodologies and catalyze investments by manufacturing industries into Environmentally Sound Technologies.

State owned nurseries will benefit from the direct Transfer of Environmentally Sound Technologies as well as from vocational training and capacity building in the use of these technologies to enable them to produce the planting material (containerized closed root system seedlings) required by the Ministry of Forestry for the annual afforestation of 10,000 ha of multipurpose carbon sequestering floodplain/riverbank forests.

Civil society, national and international NGOs, national and international consultants as well as regional entities will constitute the third layer in this stakeholder model. They will become involved in project implementation in various roles ranging from partner to contractor in accordance to their mandates and roles and in order to best mobilize their comparative advantages and unique selling propositions for the best possible benefit of the Republic of Tatarstan.

UNIDO headquarters will assume project implementation responsibility.

The Volga International Cleaner Production Centre will become involved in project execution and provide the technical assistance required for the execution of this project.

At federal level the Ministry of Natural Resources and Environment of the Russian Federation will become the entry point for this project. Together with the relevant ministries at the level of the Republic the federal ministry will be a member in the project steering committee which will direct the activities of the FSP and provide overall and strategic management direction to the FSP implementation.

At the level of the Republic of Tatarstan the Ministry of Ecology and Natural Resources, the Ministry of Forestry, the Ministry of Industry and Trade and the private sector (industries operating in the area of the Republic of Tatarstan) will be the key stake holders. The Ministry of Ecology, the Ministry of Forestry and the Ministry of Industry and Trade will become members in the project steering committee.

The main role of the Ministry of Ecology will be to partner up with the Volga International Cleaner Production Centre in the facilitation of the Transfer of Environmentally Sound Technologies to the manufacturing industries operating in the territory of the Republic of Tatarstan to mitigate the manufacturing industries' contribution to climate change and environmental pollution. Another key role of the Ministry will be the provision of statistical data and the monitoring of the efficiency of the application of Environmentally Sound Technologies in emission and pollution reduction.

The main role of the Ministry of Forestry will be to partner up with the Volga International Cleaner Production Centre in the facilitation of the direct Transfer of Environmentally Sound Technologies to

state owned nurseries to enable them to produce the autochthon planting material required by the Ministry of Forestry for the afforestation of 10,000 ha per year of carbon sequestering multipurpose floodplain/riverbank protective forests. All afforestation activities will be implemented by the Ministry of Forestry in coordination with Sredvolgavodhoz who is in charge of the managing state owned riparian land serving as a buffer zone between water bodies and agricultural areas.

While the Project Steering Committee will direct the FSP implementation, the line ministries will provide guidance and ensure coordination with a wide range of institutions and organizations at the level of the Republic directly or indirectly affected by the FSP. The Volga International Cleaner Production Centre will serve as Secretary to the Project Steering Committee.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Risk	Risk rating	Risk mitigation strategy
Manufacturing industries are not prepared to switch to resource efficient cleaner production methods and/or make the necessary investments into Environmentally Sound Technologies	low	Experiences gained in the implementation of the TEST methodology in the Danube, the Dniepr and the Mediterranean have shown that industries are prepared to adopt resource efficient cleaner production and to invest in EST as soon as they see the economic benefits and the high Internal Rate of Return their investment in EST can result in. The overall aim of UNIDO's TEST programme is to demonstrate that environmental strategies can actually result in considerable competitive advantages and can reveal significant potential to reduce costs. Environmental Management Accounting which focuses on the optimization of production and products by tracking all environmental costs back to their sources is one of the key elements of the UNIDO TEST methodology. By demonstrating the industries which costs are related to inefficient production methods, by supporting them in the application of more efficient production patterns and by demonstrating to them which Return On Investment they can achieve by investing in EST, TEST appeals to the core principle of any private sector company which is to minimize costs and maximize profits. In light of steadily increasing utility prices and waste management costs in Tatarstan all the industries involved in the hot spot analysis during the ongoing phase one of the project "Identification, evaluation and prioritization of pollution "hot-spots" in the basins of trans-border reservoirs and transfer of environmentally sound technologies" implemented by UNIDO have signaled their strong interest in resource efficient cleaner production and their readiness to make investments as long as they will result in a financial return making the companies more profitable. In addition industries that lack the venture capital to make the necessary investments in EST are supported in gaining access to grants and/or subsidized loans provided by national or multinational relevant financial institutions and environmental funds.
Absence of a market for industrially produced autochthon planting material (containerized closed root system seedlings)	low	In the budget of the Ministry of Forestry Republic of Tatarstan provisions have been made to cover the costs to carry out the afforestation of 10,000 ha of floodplain/riverbank protective forests and the Ministry has the necessary manpower and logistical capacities to actually implement the afforestation of 10,000 ha per year. Lacking capacities and knowhow of nurseries to produce autochthon planting material an industrial scale in sufficient quantity and quality has been identified to be the sole bottleneck, which does not allow the Ministry of Forestry to meet the annual afforestation target. In line with the Ministry of Forestry's plans with the goals of the "Strategy of the Forest Sector Development in the Republic of Tatarstan until 2018" ad accomplished, planting material will be delivered via the Volga to up- and downstream riparian regions.

Impacts of climate change might reach an unknown threshold and trigger unforeseeable chain reactions.	low	Implementation of the FSP will help to maintain the natural resilience of the Republic of Tatarstan to withstand changes in the global climate, such as floods, storms, heat waves and droughts. Both Tatarstan's Ministries of Ecology and Forestry closely cooperate via the Federal Ministry of Natural Resources and the IPCC on the prediction of the impacts on climate change. Plant material will be chosen in line with the outcomes of the technical assistance to be provided by international (WWF) experts and national experts based on silvo-ecological modeling considering climatic variability and change as well as flood resistance. This will allow anticipating climate changes and selecting adapted planting material for the industrial scale production of seedlings.
Low establishment/survival rate of seedlings once transplanted from the nursery to the floodplains/riverbanks	low	The achievement of considerably higher establishment/survival rates is considered to be one of the key advantages of growing seedlings in containerized closed root systems. Seedlings grown from seeds in this way develop a more active root system that is protected from seeding from the nursery to the planting site resulting in higher establishment/survival rates, faster growth and shorter production time.
Lack of political and budgetary support during project implementation	low	Today the Republic of Tatarstan is recognized to be the region with the highest environmental awareness in the Russian Federation. Tatarstan is heavily committed to the implementation of the large scale project titled: "Tatarstan, the territory of sustainable development and culture of peace". The proposed project has been endorsed at the highest political level and enjoys the direct support of the President of the Republic. To assure visibility and thus assure the ongoing political support by key decision makers, the project will demonstrate through dissemination of targeted information and the production of public relations and awareness creation materials how it can contribute to Tatarstan's vision of a sustainable development path. Furthermore in line with the TEST methodology "low hanging fruits" will be picked first. By disseminating information that significant cost savings and environmental benefits can be achieved by low cost investments the project will create momentum for larger scale investments and secure on-going political support at all levels.
Lack of sustainability of the intervention beyond project implementation period	low	The strengthening of institutional capacities in the public and private sector is a key element of the integrated UNIDO TEST methodology. In the context of the proposed project particular attention will be paid to build and strengthen the institutional capacities of the Volga International Cleaner Production Centre, the Ministry of Ecology as well as in the industrial sector to assure that on-going support for application of the UNIDO TEST methodology will be provided to Tatarstan's manufacturing industries which will result in perpetuated efforts to make these industries more energy and resource efficient, more profitable and to continuously reduce the industries' impacts on the environment.

A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:

The proposed FSP complies with several key international conventions and agreements (e.g. UNFCCC, WSSD, UNCED, etc.) which support sustainable development, resource sustainability, the mitigation of anthropogenic drivers of climate change, the decarbonisation of economies and the decoupling of economic growth from emissions and resource consumption.

To avoid redundancy and maximize complementarity with on-going GEF projects, the proposed project will be implemented in close coordination with the GEF project EBRD/UNIDO Market

Transformation Programme on Energy Efficiency in GHG intensive industries in the Russian Federation. Building up on the experience and modules developed for training, and for the support of energy efficiency auditing provided under this project the proposed project will allow an indepth application to promote resource efficient production by Tatarstan's manufacturing industries. Further synergies will be achieved by facilitating the access of manufacturing industries operating in Tatarstan to the credit lines established by the EBRD under this project for investments in energy efficiency by large scale and small scale energy intensive industries.

The proposed project will furthermore build up on the results achieved and complement the World Bank implemented GEF project: "Russia Energy Efficiency Financing" by linking Tatarstan's manufacturing industries to the lending/sustainable financing mechanisms for energy efficiency improvements established with the support by the World Bank under this project.

Synergies to be achieved by linking industries with credit lines and lending/sustainable financing mechanisms provided under these two GEF funded projects will be elaborated in detail at GEF CEO endorsement stage.

The proposed FSP is complementing the EuropeAid project "support to climate change mitigation and adaptation in Russia and Eastern Neighbourhood countries" (EuropAid/132127/C/SER/Multi) which supports Eastern Neighbourhood countries and Russia in drafting and implementing of climate change laws and policies in the mitigation and adaptation field. The proposed FSP will support the implementation of laws and policies at the level of the Republic of Tatarstan and will provide bottom-up feed-back experiences gained at the level of the Republic of Tatarstan for the incorporation into laws and policies at federal level.

The proposed FSP is furthermore complementing the EBRD/IBRD implemented GEF FSP 'Improving Urban Housing Efficiency in the Russian Federation' which aims at integrating energy efficiency concerns into all phases of municipal housing, from planning to refurbishment and maintenance and maximize the energy and climate benefits of the Russian Municipal Housing Reform Fund.

The FSP will establish linkages with these activities to ensure that lessons learned and experienced gained in the implementation of the FSP in the Republic of Tatarstan will be shared with other climate change mitigation activities in the Russian Federation and the project webpage will make the results and experiences gained in the implementation of the FSP freely available to any interested party.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:

This project is highly consistent with the commitments of the Russian Federation as an Annex 1 member of the United Nations Framework Convention on Climate Change (UNFCCC), and it reflects national priorities that are expressed in Russia's policies and legislation on energy, climate change mitigation, economic development, and innovation in science and technology.

The proposed project is synergetic and complementary to the activities undertaken by the Russian Federation to implement the UNFCCC as reported by the Russian Federation in its 5th National Communication. In particular this FSP complies with the policies and measures (PaMs) for industrial processes and the forest sector which address improving industrial energy efficiency and enhancing the removal of GHGs by sinks. According to the NC5, policies to promote energy efficiency are the key ones in the overall climate policy framework because of their large mitigation potential and their potential to deliver multiple co-benefits to economy and society, such as a reduction in air pollution or a decrease in the

energy consumption and related energy bills of households, public buildings and industry. Supporting the implementation of the federal legal framework and the development of by laws and implementation regulations at the level of the Republic of Tatarstan the proposed FSP is also fully in line with all aspects of NC5 concerning the legislative framework which is reported to be put in place in place in recent years but so far only initial steps towards its implementation have been made. Aiming at improving the energy efficiency of manufacturing industries the proposed FSP is full aligned with the NC5 which states that the Russian Federation has significant opportunities to improve energy efficiency and reduce related emissions. The promotion of energy efficiency, which was long overlooked owing to a lack of economic incentives to save abundant and cheap energy resources, was set as a top priority in NC5.

Enhancing carbon sequestration through afforestation of floodplain/riparian forests is also fully aligned with the Forest Policy the Russian Federation adopted in 2012 that is aimed at conserving and expanding forest resources, promoting the development of the forestry sector and ensuring sustainable access to forest resources. The policy is based on the principles of conservation of forests as an important natural habitat for biodiversity and climate stabilizing systems and the rational sustainable continuous use of forest resources. This new Forest Policy was reported to the Expert Review Team as an element contributing to NC5 during the review.

The proposed FSP is fully in line with the Russian Federation's Energy Strategy until 2020, the Climate Change Doctrine for the period until 2020, adopted in 2009 and the Comprehensive Plan of Implementing the Russian Federation's Climate Doctrine for the Period until 2020, introduced by a government decree of April 25, 2011.

The proposed FSP is fully aligned with the Energy Strategy document of the Russian Federation, which sets out the policy for the period up to 2020. In 2000 the Russian government approved the main provisions of the Russian Energy Strategy to 2020, and in 2003 the new Russian Energy Strategy was confirmed by the government. The Energy Strategy document outlines several main priorities: an increase in energy efficiency, reducing industrial impact on the environment, sustainable development, energy development and technological development, as well as improved effectiveness and competitiveness.

The FSP is also fully aligned with "The Concept for long-term Socioeconomic Development of the Russian Federation", which the Ministry of Economic Development and Trade published in 2007, and which has established energy efficiency and a rational model of resource consumption as the first of five strategic directions for the modernization of the Russian economy.

The FSP is furthermore in line with the objectives of the Russian Federation's targeted Programme "Environmental Safety", which was launched in 2011 and will be fully implemented throughout 2012 and 2013.

By promoting energy efficiency in manufacturing industries and in state of the art greenhouse nurseries the project is in full support of the decree of the President of the Russian Federation "On Measures to Increase the Energy and Environmental Efficiency of the Russian Economy", which was adopted in 2008 and envisages an energy intensity target reduction of 40% by 2020.

B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:

The Project aims at the greening of Tatarstan's industries by mitigating the contribution of manufacturing industry clusters to climate change and by increasing their resource efficiency in production processes as well as by enhancing the agro-forestry industry's capacities to produce planting material (containerized closed root system seedlings) at an industrial scale. This planting material is required by the Ministry of Forestry for the annual afforestation of 10,000 ha of multipurpose carbon sequestering floodplain/riverbank protective forests.

By decoupling industrial production from resource consumption and pollution the project is fully consistent with the GEF Climate Change overall objective to support economies in transition towards a low carbon development path.

The UNIDO TEST methodology is a well established approach to help manufacturing industries identify investment opportunities in energy and resource efficiency which result both in economic benefits for the industries as well as in a reduction of the industries' environmental impacts. By demonstrating to the industries that these investments have an internal rate of return of 20% and above, the application of the UNIDO TEST methodology has proven in various other projects that it effectively and efficiently leverages significant investments by the industries into energy efficient, low carbon and low pollution technologies. Thus by mobilizing investments by the industrial sector and by strengthening the institutional capacities for the establishment of sustainable and operational financial and delivery mechanisms, the project is fully compliant with the GEF Climate Change Focal Area Strategy Objective 2 to promote market transformation for energy efficiency in industry and the building sector.

By facilitating the Transfer of Environmentally Sound Technologies to agro-forestry industries and state owned nurseries for the industrial scale production of planting material (containerized closed root system seedlings) required by the Ministry of Forestry for the afforestation of multi-purpose riverbank/floodplain protective forests to enhance carbon sinks, the project is fully aligned with the GEF Climate Change Focal Area Strategy Objective 5 to promote conservation and enhancement of carbon stocks.

B.3 The GEF Agency's comparative advantage for implementing this project:

UNIDO's broad programmatic objectives and priorities are defined in the Long Term Strategic Vision Statement (2005-2015) and the Medium Term Programme Framework (2010-2013). In line with its mandate to promote and accelerate sustainable industrial development in developing countries and economies in transition, UNIDO focuses its resources and expertise on three thematic priorities

- Poverty Reduction through Productive Activities
- Trade Capacity-Building
- Environment and Energy

As the leading service provider for improved industrial efficiency and sustainability in productive processes, UNIDO assists developing countries and economies in transition in reaching their economic and environmental goals while simultaneously implementing multilateral environmental agreements.

UNIDO's Green Industry Policy provides the cross-cutting framework for all technical assistance provided by the organization. Greening of industries is about promoting sustainable patterns of production and consumption. Such patterns are less resources consuming, energy efficient, non polluting and low waste. The greening of industries is about decoupling the consumption of material and energy from production and economic growth and essentially "producing more with less and with drastically reduced environmental impacts".

Through UNIDO's Green Industry Initiative for a low carbon future UNIDO supports her partners in the preparation green industries policies and guidelines, the preparation of country status reports on eco-efficiency, the initiation of green industry policy programmes and reduction of the environmental footprint of industries (low-carbon, low-water, low-pollution and low material inputs) along the value added chain.

To minimize detrimental environmental impacts of industrial production processes UNIDO supports her partners in the identification and clean-up of pollution hot spots, Transfer of Environmentally Sound Technologies (TEST) and cost efficient end of pipe solutions to mitigate industrial pollution as well as to support the development of policies and regulatory frameworks required for the greening of industries. UNIDO supports her partners in the implementation of the Stockholm Convention in the development of National Implementation Plans for the phase out from Persistent Organic Pollutants (POPs) and the clean-up of contaminated sites.

UNIDO has well established structures in the Russian Federation that will become involved in and support project implementation as well as a long standing and sound track record in implementing projects to improve industrial efficiency and reduce the industries' detrimental environmental impacts in the Russian Federation. UNIDO's Centre for International Industrial Cooperation in the Russian Federation was established in 1989 upon request and with full support of the Government of the Russian Federation. With the Centre's activities mostly concentrated on investment promotion and technology transfer the centre, with support provided by UNIDO headquarters, constitutes the ideal platform for the implementation of this project. While the centre employs on average some 60 highly qualified professional staff with in depth expertise in the fields of cleaner production, resource efficiency, Transfer of Environmentally Sound Technologies and climate change mitigation, the centre also has a vast network of highly qualified and specialized experts, which can be mobilized to support the implementation of this project. Furthermore UNIDO is closely cooperating with the Volga International Cleaner Production Centre which has been established with support provided by UNEP and UNIDO and which is foreseen to assume responsibility for project execution.


UNIDO has successfully completed a multimillion US\$ portfolio of projects in the Russian Federation in the field of improving industrial efficiency and reducing environmental pollution related to industrial processes ranging from phase out of HCFCs and promotion of HFC-free energy efficient refrigeration and air-conditioning systems; establishment of Best Available Technology (BAT)/Best Environmental Practice (BAP) centre for environmentally safe disposal of potentially hazardous consumer products and industrial wastes; market transformation programme on energy efficiency in GHG-intensive industries in Russia; identification, assessment and development of "Atlas" and the data base of water related Best Available Technologies (BAT); facilitating international market access for manufacturing suppliers in the automotive component industry in the Samara region of Russia; support to competitive and innovative industrial development; business approaches for cleaner production in Russia; development of methodologies of ICT statistics for Russia; extension of the programme for strengthening of the North-Western cleaner production and environmental management centre in St. Petersburg; Country Service Framework (CSF) for the Russian Federation; support to the implementation of industrial policy for the Republic of Mordovia; restructuring agro-industrial complexes in Moscow region; support to the integrated programme of Komi Republic; support to the integrated programme of Bashkortostan Republic; integrated programme to support sustainable development of industrial sector of the Russian Federation economy; assistance for the small business development with particular emphasis on business women in the Russian Federation; regional assistance for the restructuring and revitalization of industries in Kaliningrad; integrated support to the Russian Federation in promoting innovations; to a programme on environmental protection from oil and hydrocarbon pollution using advanced technologies.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

- A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Rinat Gizatulin	Deputy Minister, GEF Operational Focal Point	Ministry of Natural Resources and Environment of the Russian Federation	28.04.2012

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Dmitri PISKOUNOV, Managing Director, Programme Development and Technical Cooperation Division, UNIDO GEF FOCAL POINT		08/13/2012	Christian Susan Industrial Development Officer	+43 1 26026 3541	c.susan@unido.org