

PART I: PROJECT INFORMATION

| Project Title: Pilot project on the development of mercury inventory in the Russian Federation (RF) | | | | |
|---|---|---------------------------|-----------|--|
| Country(ies): | Russian Federation | GEF Project ID:2 | | |
| GEF Agency(ies): | UNEP | GEF Agency Project ID: | 01008 | |
| Other Executing Partner(s): | Ministry of Natural Resources and Environment of the Russian Federation | Submission Date: | 11.12.12 | |
| GEF Focal Area (s): | Persistent Organic Pollutants / chemicals | Project Duration (Months) | 24 months | |
| Name of Parent Program (if applicable): For SFM/REDD+ | | Agency Fee (\$): | 100,000 | |

A. FOCAL AREA STRATEGY FRAMEWORK³

| Focal Area Objectives | Expected FA Outcomes | Expected FA Outputs | Trust Fund | Grant Amount (\$) | Co- financing (\$) |
|--------------------------------------|--|---|---------------|-------------------------|--------------------------|
| СНЕМ-3 | Strengthen Russian Federation's capacity for identification of mercury sources and priority actions to address mercury issues under a future global convention Country capacity built to to manage mercury in priority sectors | Development and implementation of management plans for persistent toxic substances and other chemicals of global concern, in particular with respect to mercury, on a pilot basis | GEF TF | 911,000 | 3,036,809 |
| Subtotal | | | | 911,000 | 3,036,809 |
| Project management cost ⁴ | | | | 89,000 | 382,160 |
| Total project co | osts | | | 1,000,000 | 3,418,969 |

B. PROJECT FRAMEWORK

 $^{^{\}mathrm{1}}$ It is important to consult the GEF Preparation Guidelines when completing this template

² Project ID number will be assigned by GEFSEC.

³ Refer to the <u>Focal Area/LDCF/SCCF Results Framework</u> when filling up the table in item A.

⁴ GEF will finance management cost that is solely linked to GEF financing of the project. PMC should be charged proportionately to focal areas based on focal area project grant amount.

Project Objective: Strengthen Russian Federation's capacity for identification of mercury sources, quantification, monitoring of mercury releases and priority actions to address mercury issues under a future global convention

| Project Component | Grant Type | Expected Outcomes | Expected Outputs | Trust Fund | Grant Amount (\$) | Confirmed Co-financing (\$) |
|--|---------------|---|---|---------------|----------------------|-----------------------------------|
| Component 1 Identification of initial guidance on Hg management | TA | Information needs identified | Translated UNEP Toolkit into Russian ⁵ Basic information on mercury management in Russian Federation available to relevant stakeholders | GEF TF | 110,500 | 1,794,429 |
| Component 2 Development of mercury inventories by industrial sector | TA | Comprehensive information on mercury sources and releases (the inventories) and current control measures enable a better understanding of mercury risks to human health and the environment in Russia | Comprehensive overview of mercury management in the key industrial sectors in Russian Federation developed. Quantitative and qualitative data on mercury releases available: development of a detailed inventory for the RF | GEF TF | 216,000 | 430,000 |
| Component 3 Assessment of existing capacity on mercury analysis in the environment, including humans, and strengthening of capacity on measuring mercury in emissions. | TA | Improved knowledge of mercury in the environment and the capacity of Russian laboratories regarding mercury analysis and measurements guides Russia to develop targeted mercury reduction strategies | Report on national capacity for mercury analysis and database of laboratories able to perform mercury analysis (at least 10 laboratories assessed) Available data of good quality on mercury in the environment, including biota and humans, and on mercury in emissions from key sectors in the Russian Federation Record of laboratories participation available including mercury sampling, analysis and measurements. | GEF TF | 199,500 | 727,500 |

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⁵ UNEP 2012, UNEP Toolkit for Identification and Quantification of Mercury Releases, Geneva, Switzerland, (being updated in 2012). GEF5 CEO Endorsement-Approval-November 2011.doc

| Component 4 Prioritization, based on criteria to be developed, of mercury sources, mercury management gap analysis and development of national action plan. | TA | Enhanced understanding of priority sources and capacity for mercury management through the development of a national action plan, including identification of management gaps and monitoring needs | Scheme of criteria for ranking mercury sources available through the Ministry of Natural Resources and Environment website Report on management gaps identified, including proposals to address these gaps. National plan developed for future monitoring of mercury levels in the environment including in humans, and for mercury in emissions. Action plan developed for the Russian Federation on medium and long term measures to decrease mercury emissions in prioritized sectors. | GEF TF | 155,500 | 0 |
|---|----|--|--|--------|-----------|-----------|
| Component 5 Lessons learned, final report, and strategies for needs to reduce mercury agreed | TA | Better practices used in future projects | Draft report on lessons learned and good practices including recommendations on mercury management, inventory taking and initial action plan for Russian Federation Final lessons learned and recommendations requested in other Federal subjects and countries Suggestions for dissemination implemented and report disseminated through UNEPs and MNREs web site Monitoring and evaluation plan fully implemented assess rate of project's success | GEF TF | 229,500 | 84,880 |
| Subtotal | | | | | 911,000 | 3,036,809 |
| Project management Cost ⁶ | | | | | 89,000 | 382,160 |
| Total project cost | S | | | | 1,000,000 | 3,418,969 |

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

⁶ Same as footnote #4.

| Sources of Co- financing | Name of Co-financier (source) | Type of Co- financing | Co-financing Amount (\$) |
|-----------------------------|---|--------------------------|-----------------------------|
| National Government | Russian Federation | In-kind | 962,000 |
| GEF Agency | UNEP | In-Kind | 227,229 |
| GEF Agency | UNEP | Grant | 219,500 |
| National Government | SRI Atmosphere | In-kind | 402,640 |
| Research Institute | SRI Atmosphere | Grant | 134,400 |
| Private Sector | Scientific and Production Association FINGO | In-Kind | 153,000 |
| Private Sector | RusChlor Association of chlorine industry | In-Kind | 436,000 |
| Private Sector | EP Mercuriy | In-Kind | 473,000 |
| Others | Eco-Accord | In-Kind | 65,500 |
| Bilateral Donor | United States Environmental Protection Agency | In-Kind | 317,000 |
| Bilateral Donor | EPA Swedish | In-kind | 28,700 |
| Total Co-financing | | | 3,418,969 |

D. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

| | Type of | | Country Name/ | | (in \$) | |
|-------------|-----------------------|------------|--------------------|---------------------|--------------------------------|-----------------------|
| GEF Agency | Trust Fund | Focal Area | Global | Grant Amount (a) | Agency Fee (b) ² | Total c=a+b |
| UNEP | GEF TF | Chemicals | Russian Federation | 1,000,000 | 100,000 | 1,100,000 |
| Total Grant | Total Grant Resources | | | | 100.000 | 1,100,000 |

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

| Component | Estimated Person Weeks | Grant Amount(\$) | Co-financing (\$) | Project Total (\$) |
|----------------------------|---------------------------|------------------|-------------------|--------------------|
| Local consultants* | 34.4+158.4 | 43'000 | 198'000 | 241'000 |
| International consultants* | 6+141.1 | 15'000 | 176'429 | 191'429 |
| Total | | 58'000 | 374'429 | 432'429 |

^{*}Details to be provided in Annex C.

F. PROJECT MANAGEMENT COST

| Cost Items | Total Estimated Person Weeks/Months | Grant Amount (\$) | Co-financing (\$) | Project Total (\$) |
|--|---|----------------------|-------------------|-----------------------|
| Local consultants* | 631 | 60'000 | 258'800 | 318'800 |
| International consultants* | | | | 0 |
| Office facilities, equipment, vehicles and communications* | | 19'000 | 93'360 | 112'360 |
| Travel* | | 10'000 | 30'000 | 40'000 |
| Others** | Specify "Others" (1) | | | 0 |
| Others | Specify "Others" (2) | | | 0 |
| Total | | 89'000 | 382'160 | 471'160 |

^{*}Details to be provided in Annex C

^{**}For others, to be clearly specified by overwriting fields *(1) and *(2)

G. Does the project include a "non-grant" instrument? No

(If non-grant instruments are used, provide in Annex E an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

NA

H. DESCRIBE THE BUDGETED MONTORING &EVALUATION PLAN:

Day-to-day management and monitoring of the project activities will be the responsibility of the executing agency, the Ministry of Natural Resources and Environment of the Russian Federation (MNRE). MNRE will submit half-yearly reports to UNEP and a Project Implementation Report (PIR) once a year. MNRE will be responsible for the recruitment of local/international staff and consultants and the execution of the activities in according with the work plan and expected outcomes.

The half-yearly reports will include progress in implementation of the project, financial report, a work plan and expected expenditures for the next reporting period. When necessary, it will discuss the obstacles that occurred during the implementation period and the steps taken to overcome them. The PIR will be prepared on an annual basis with the first report due one year after the start of project implementation according to GEF rules. It will be submitted by MNRE to the UNEP task manager.

The National Coordination Group will be kept small but efficient and include the directly concerned stakeholders at the national level. It will meet regularly and will coordinate national activities.

The Project Steering Committee will comprise UNEP DTIE Chemicals, MNRE and the involved bilateral donors. The Project Steering Committee will meet back-to-back with the technical meetings, i.e., inception workshop and final workshop. The Project Steering Committee will meet physically at least twice during the project implementation and once through teleconference. The Project Steering Committee will monitor the progress of the project and give advice as to implementation issues.

TABLE: MONITORING AND EVALUATION BUDGET

| M&E activity | Purpose | Responsible Party | Budget (US\$)*1 | Time-frame |
|--|--|-------------------------------------|-----------------|---|
| Inception workshop | Awareness raising, building stakeholder engagement, detailed work planning with key groups | MNRE | 0 | Within two months of project start |
| Inception report | Provides implementation plan for progress monitoring | Project coordinator | 0 | Immediately following Inception Workshop |
| Project Review by Project Steering Committee | Assesses progress, effectiveness of operations and technical outputs; Recommends adaptation where necessary and confirms implementation plan. | MNRE | 0 | Month 1, 12 (TC) and 24 |
| Project Implementation Review – Mid term review | Progress and effectiveness review for the GEF, provision of lessons learned. This will be organized by MNRE, in close consultation with UNEP. Draft report will be forwarded to UNEP for its approval. | MNRE + Independent consultant | 10,000 | Month 12 |

| M&E activity | Purpose | Responsible Party | Budget (US\$)*1 | Time-frame |
|---------------------------------------|---|--|-----------------|--|
| Terminal report | Reviews effectiveness against implementation plan Highlights technical outputs Identifies lessons learned and likely design approaches for future projects, assesses likelihood of achieving design outcomes | MNRE | 0 | At the end of project implementation |
| Independent Terminal evaluation | Reviews effectiveness, efficiency and timeliness of project implementation, coordination mechanisms and outputs Identifies lessons learned and likely remedial actions for future projects Highlights technical achievements and assesses against prevailing benchmarks | UNEP, Independent external consultant | 25,000 | At end of project implementation |
| Independent Financial Audit | Reviews use of project funds against budget and assesses probity of expenditure and transactions | MNRE | 5,000 | At the end of project implementation |
| Total indicative M | onitoring &Evaluation cost*1 | | 40,000 | |

^{*}Project steering committee meetings (3) inception workshop and mid-term review will be carried out back to back with other technical meetings, such as the lessons learned (2) and planning meeting (1), therefore cost will be considered as "zero".

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1. The <u>GEF focal area/LDCF/SCCF strategies/NPIF Initiative</u>:

This project is in line with GEF Focal Area Strategy CHEM-3: Pilot sound chemicals management and mercury reduction.

In the Russian Federation, nearly all of the ten categories and 44 sub-categories indicated in the UNEP *Toolkit for Identification and Quantification of Mercury Releases* are present. Between 2003-2005 the Arctic Council Action Plan to Eliminate Pollution of the Arctic (ACAP), a working group under the Arctic Council⁷, conducted an assessment of Mercury releases from the Russian Federation. This assessment, published in 2005, indicates that in 2001/2002 the Chlor-Alkali industry is the sector that uses the most mercury (103 tons/year) while the coal industry remains the sector with the highest emissions to the air (8 tons/year). Other important categories in the Russian Federation include:, mining, manufacture of steel and nonferrous metals, oil processing and use of petroleum products, cement, chemicals, and waste disposal.

At the international level, UNEP Governing Council decision 25/5, adopted in February 2009, requests UNEP Executive Director to convene an intergovernmental negotiating committee (INC) with the mandate to prepare a global legally binding instrument on mercury. GC Decision 25/5 mandates the INC to develop a comprehensive and suitable approach to mercury, including provisions to increase knowledge through awareness-raising and scientific information exchange and to specify arrangements for capacity building and technical and financial assistance. Furthermore, GC Decision 25/5 requests UNEP Executive Director to coordinate, inter-alia, the enhancement of national inventories on mercury and to raising public awareness and support risk communication.

Four sessions of the INC have been held to date, in Stockholm (June 2010), in Chiba, Japan (January 2011), in Nairobi (October/November 2011) and in Punta del Este, Uruguay (June/July 2012) It has been recognized in these discussions that effective implementation of some legally binding obligations within a global legally binding instrument would require capacity building and technical and financial assistance. The fifth session of the INC will be held in Geneva in January 2013.

This project will provide: a) the first full national inventory on mercury in the Russian Federation, using the updated *UNEP Toolkit for identification and quantification of mercury releases (2012)*; and b) the first national action plan on mercury management with specific action plans for key sectors, based on the results of the inventory.

The initial assessment conducted by ACAP in 2005 and a study of the coal-fired power sector (UNEP 2011)⁸ will be used as a baseline to develop the mercury inventory. The project will also perform measurements in key productive sectors. The measurement data will be used to enhance the national inventory and will constitute a good basis for the development of a sound national action plan on mercury management in the Russian Federation.

- A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities: N/A
- A.1.3 For projects funded from NPIF, relevant eligibility criteria and priorities of the Fund: N/A
- A.2. National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:

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⁽ACAP) (2005), "Assessment of Mercury Releases from the Russian Federation", Arctic Council Action Plan to Eliminate Pollution of the Arctic.

⁸ UNEP 2011, "Reducing mercury emissions from coal combustion in the energy sector of the Russian Federation" (report including a characterization of the sector and an emissions inventory for the sector)

Consistency with national priorities or plans

Mercury is toxic in all its forms, exhibiting adverse health and environmental effects depending on the chemical species, dose received, and exposure route and duration. It is a potent neurotoxin and may result in nervous system disorders, reproductive and developmental problems, kidney and liver damage, and other health effects. Once released into the environment, mercury becomes part of a biogeochemical cycle contaminating soil, air, groundwater and surface water where it accumulates and moves up the food chain. In many countries, the average level of mercury in the atmosphere has increased several folds since the initial measurements, which is largely due to human activities. Therefore, to protect human health and the environment, mercury waste and waste containing mercury must be managed in an environmentally sound manner.

There is an established link between poverty and increased risk of exposure to mercury and other toxic and hazardous chemicals. Exposure of poor people to toxic chemicals is often strongly correlated to geography. In urban settings, low-income or minority populations typically reside in neighborhoods located in areas adjacent to industrial zones, such as factories, incinerators, landfill sites and hazardous waste dumps (UNDP, 2011)⁹

The Russian Federation is taking part in the ongoing negotiations for a legally binding instrument on mercury and is a bureau member of the INC.

The Russian government has taken a series of effective and practical actions to reduce mercury use and emission. In September 2010 the Ministry of Natural Resources and Environment (MNRE) of the Russian Federation held inter-agency consultations to assess the current level of knowledge in issues of mercury pollution in Russia and initiated development of the national dialogue on ways forward, particularly in light of the work of the Intergovernmental Negotiating Committee to prepare a global legally binding instrument on mercury. Consultations resulted in a set of decisions calling for assessment of available national data on mercury releases into the environment and establishment of an information system of data on mercury-related issues to be developed by the Ministry of Natural Resources and Environment in cooperation with the Ministry of Energy, the Ministry of Industry and Trade, the Ministry of Health and Social Development, the State Statistics Service and the Federal Customs Service. Following these consultations, the federal ministries and services have significantly improved their understanding of the mercury issues and have become more active in collaboration with MNRE in terms of preparation of the national position within the INC process. Also, review of existing information has shown significant gaps in knowledge and understanding of mercury pollution and related issues at the national level, although a number of research efforts made by scientists nationally as well as internationally supported project initiatives enable rough assessment of the scale of the mercury problems in Russia.

In April 2012 the President of the Russian Federation signed the presidential decree on the "Adoption of principles of state policy in the field of environmental development of the Russian Federation until 2030". This Decree is considered as a regulatory framework and will guide the Russian Government in the development and updating of new and existing environmental policy instruments for regulation of releases of harmful substances, including mercury, into the environment in the Russian Federation. Furthermore, it specifically points out the importance of active involvement of the Russian Federation in work on existing multilateral environmental agreements (MEAs) and negotiations on new MEAs, and underlines necessity of international cooperation on transboundary and global environmental issues.

Since 2000 the Russian Government has shown great interest in better understanding of mercury issues existing in the country. The first national study on mercury in Russia was performed in 2003-2005 by ACAP with active participation of federal agencies responsible for environmental supervision (ACAP, 2005).

The use of mercury in the health sector has been closely reviewed and a set of actions by competent federal authorities have been taken:

promotion of use of mercury-free vaccines, and

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⁹ UNDP, 2011, Chemicals and gender, UNDP Environment and Energy Group. GEF5 CEO Endorsement-Approval-November 2011.doc

• replacement of mercury-containing thermometers used in public institutions, including schools and universities, with mercury-free ones.

Additionally, periodic monitoring of mercury content in human tissues in cities over 1 million inhabitants has been undertaken to provide background information on the level of mercury in the population.

A comprehensive set of improvements to the national environmental legislation set out in the draft federal law titled "On amending certain legal acts of the Russian Federation concerning development of state environmental regulation framework and introduction of stimulating measures aimed at application of best available techniques by economic entities" is now being prepared. Amendments to be enacted through this federal law will introduce definitions of best available techniques for all industrial sectors based on international experience and practices. It would consequently lead to the principle change in regulations from standards and rules being focused on human health impacts calculated on the basis of emission dispersion into more complex approaches that will take into account concrete technology, respective emission standards and impacts on population and environment. Releases of toxic pollutants, including mercury, are of particular focus in this new legislation. This work is led and coordinated by MNRE in cooperation with relevant governmental agencies, industrial associations, civil society and other interested stakeholders.

Moreover, as Russia has strategic plans to develop the Arctic region in an environmentally friendly manner, respective efforts to preserve the Arctic environments are being planned. For these purposes remote monitoring of pollution, including mercury, in the Arctic has been carried out by the Russian Federal Service for Hydrometeorology and Environmental Monitoring. Latest data from the monitoring sites suggests that in 2009-2010 average concentration of mercury in air in Nents Region (Arctic region) was in range of 0.05-2.64 ng/m³. Environment-oriented actions in the Russian Arctic will continue to be developed incorporating mercury abatement strategies.

Sustainability

Russia is continually developing its understanding and related information that may support the negotiations and the implementation of the global legally binding instrument on mercury. Russia's political willingness to participate in international efforts to address mercury issues demonstrates the long-term nature and level of commitment of the Government with reference to its long-term engagement in the Arctic Council and its active participation in the INC work.

Furthermore, Russia is working on incorporating chemicals management, including mercury, and other persistent pollutants into its environmental policies with a focus on regulation, monitoring and pollution inventories. It will ensure the sustainability of this project at the national level. Further details are provided in the following section.

Russia's co-financing for this project and for the activities related to mercury management identified by this project added to the adoption of new regulatory elements towards a sound management of mercury demonstrates the commitment and sustainability required for the medium and long term.

B. Project Overview:

B.1. Describe the baseline project and the problem that it seeks to address:

Baseline analysis and gaps

Technical baseline analysis

The Russian Government has made meaningful efforts to prevent and control mercury pollution and promote alternative options for mercury-containing products, including improvements in the handling of mercury-containing waste, as well as transition to mercury-free thermometers and vaccines.

The Arctic Council Action Plan to Eliminate Pollution in the Arctic (ACAP) conducted the first extensive assessment of mercury releases in the Russian Federation in 2003-2005. This assessment includes a comprehensive analysis of all sources releasing mercury to air, land and water. Based on this assessment and other information, UNEP published in 2008 the Global Atmospheric Mercury Assessment: Sources, Emissions and Transport. The UNEP report indicates that the total amount of mercury released to the atmosphere in 2005 was 74 tonnes. The categories of sources that released the most were stationary coal-combustion, mainly coal-fired power generation, metal production sectors, including large scale gold production, chlor-alkali production and waste incineration. Both studies mentioned above leads to the conclusion that in the Russian Federation, nearly all of the ten categories and 44 sub-categories indicated in the Toolkit for Identification and Quantification of Mercury Releases of UNEP are present. The studies recommended further investigations to improve the results. The ACAP report also highlights the problem of mercury contamination from traditional gold mining in Russia, which is considered an urgent problem on which there is limited data. The assessments do not provide a comprehensive view of mercury releases in Russia since it is based on limited data. It recommended that a more comprehensive national inventory be developed to validate and update the release estimates.

Between 2004 and 2009, the chlor-alkali sector has made significant efforts to reduce the releases of mercury which resulted in a decrease of mercury releases from $3.94 \, \text{g/t}$ to 0.7- $0.9 \, \text{g/t}$ of chlorine, resulting in a reduction of the overall releases from this sector from $42.4 \, \text{tons}$ of mercury in $2004 \, \text{to}$ $19 \, \text{tons}$ of Hg in $2009.^{10}$

From 2009 to 2011 the Baltic Marine Environment Protection Commission (HELCOM) conducted the first phase of the project "Baltic Hazardous and Agricultural Releases Reduction (BALTHAZAR)"¹¹. This project was aimed at protecting the Baltic Sea from mainland-based threats; reducing agricultural nutrient loading and the risk posed by hazardous wastes. The project objective was to improve the management of hazardous and agricultural wastes focusing exclusively on St-Petersburg, Leningrad and the Kaliningrad Oblasts of the Russian Federation. Some pilot activities were conducted in the participating regions; for example, in Kaliningrad, the pilots contributed to enhancement of treatment of mercury containing wastes (fluorescent lamps), by collecting lamps from households in the municipality of Gusev and investing in the installation of a facility to treat mercury containing waste close to the city of Kaliningrad. This facility is considered to be the only treatment installation fulfilling Russian and EU environmental requirements.

In 2010 the Russian based NGO Eco-Accord Centre, at the request of the European Environmental Bureau and under the Zero Mercury Campaign, developed an assessment of mercury emission sources in Russia, a survey in six cities in the country (Moscow, Volgograd, Krasnodar, Cheyabinsk, Irkutsk and Magadan). The survey considered the following sources of emissions: a) Coal-fired power plants; b) Chlor-alkali production; c) Cement production; d) Production of copper and zinc; e) Incineration of solid household waste; and gold refining. This assessment focused on mercury air emissions. The study suggests that the energy sector has the largest contribution of mercury releases to air amounting to an estimated 39.0 tons/year in 2003. The study pays particular attention to the content of mercury in the fuel used in the above mentioned sectors.

Coal combustion is the major source of anthropogenic mercury releases worldwide and is also one of the main mercury release sources in Russia. In 2008 total installed thermal energy generation capacity in Russia was 155.1 GW with some 55.6 GW attributed to coal-firing power plants. Although the types of coal used for power generation in Russia have, in general, low mercury content (0.02-0.12 g/t), estimated emissions are significant, in the range of 6.7-18 tons per year. The high uncertainty in the emissions estimate indicated that further analysis is needed to improve understanding of the scale of the problem (Reducing mercury emissions from coal combustion in the energy sector of the Russian Federation. Project report (UNEP 2011)).

¹⁰ Eberill V., Yagud B., and Mironov P. "Outcomes of activities aimed at reduction of mercury consumption and emission at chlor-alkali plants in Russia in 2005-2010" (*in Russian*). Chemical Industry Today Journal, 1-2012, Moscow.

¹¹ Helsinki Commission, Baltic Marine Environment Protection Commission (2010). "Reducing Risks of Hazardous Waste in Russia: Balthazar Project 2009-2010". Baltic Marine Environment Protection Commission.

Information shows that mercury issues are being addressed differently in listed sectors. The chloralkali production sector has made significant steps forward in terms of mercury release control, reduction of mercury losses, remediation of polluted sites and retrofitting technological equipment. Non-ferrous metal and cement production sectors have a history of tracking of mercury content in raw materials and, to some extent, in emissions, effluent waters and wastes. Least informed on mercury issues is still the coal-fired power generation sector. There are about 55GW of installed capacity nationwide, covering around 120 power plants, the largest of which – Reftinskaya GRES (3,9 GW) – emits about 1 ton of mercury annually, but does not account for these emissions due to gaps in regulations.

At present, there is no national consolidated data on mercury-containing products, use consumption and releases from each source and there is a lack of understanding of the sources of mercury releases and their consequences on human health and the environment. As a result, there is a big gap between Russia and developed countries in terms of overall prevention and control of mercury pollution. In addition to the need for an improved inventory of mercury releases, a national action plan to address the principal source categories and to decrease mercury releases has not been considered. Regulations are mostly developed to mitigate extraordinary (accidental) mercury releases and in a specific sector, with no integrated view of the problem.

Several relevant documents have been published by UNEP that will provide relevant information to this project: UNEP Toolkit for Identification and Quantification of Mercury Releases, Geneva, Switzerland (UNEP 2013 in prep¹²); UNEP Study on mercury sources, and emissions, and analysis of cost and effectiveness of control measures "UNEP Paragraph 29 study" (UNEP 2010); UNEP project "Mercury emissions from coal-fired power plants in Russia (2009-2012); Process Optimization Guidance for reducing mercury emissions from coal-fired power plants, (UNEP 2010); Guide for reducing major uses and releases of mercury (UNEP 2006); and the Global Atmospheric Mercury Assessment; Sources, Emissions and Transport (UNEP 2008).

Regulatory baseline analysis

The Russian Federation has ratified the Stockholm, Rotterdam and Basel conventions, demonstrating its high national commitment to sound management of chemicals.

Currently there are several mercury-related environmental standards in Russia mainly in environmental quality, medical products, food; however, the laws, regulations and standards related to mercury monitoring, production, consumption, disposal and pollution control are not integrated and not yet fully implemented.

In November 2006 the problems posed by mercury pollution of the environment and measures to address these problems was discussed by the Security Council (SC) of the Russian Federation at the session of the Inter-agency Commission on Environmental Security. The Security Council recommended the problem of mercury in Russia be addressed more actively with broader public involvement. Following the SC meeting, several constituents of the Russian Federation approved regional programmes of urgent actions to improve control over mercury waste management and releases into the environment. NGOs and education facilities were involved in awareness raising activities. Despite these efforts and long-term commitment to abate mercury pollution, mercury use reduction was limited and did not become a strategic issue of Russian environmental politics.

Background and context

This project is in line with GEF Focal Area Strategy CHEM-3: Pilot sound chemicals management and mercury reduction.

Russia will apply the UNEP Mercury Toolkit in an effort to improve its understanding of emissions and releases, building a more complete inventory than is currently available. Use of the toolkit will ensure that the information is comparable with that of other nations. Further, the Toolkit-generated results are a first step in prioritizing actions to control or reduce releases.

¹² UNEP 2013, UNEP Toolkit for Identification and Quantification of Mercury Releases, Geneva, Switzerland, (being updated in 2012). GEF5 CEO Endorsement-Approval-November 2011.doc

A very important aspect of the project is to facilitate the future implementation of the legally binding instrument on mercury, and to provide an accurate assessment of the mercury management in Russia. The mercury inventory will assess all potential sources, even if the activity is insignificant in the country. Releases to air, water and land from each source will be estimated. Uncertainty in data and major data gaps will be described. Together, this process will help in the interpretation of results and the prioritization of future actions.

This project is also in line with UNEP's Medium Term Strategy, especially focusing on priority 5 with the objective to minimize the impact of harmful substances and hazardous waste on the environment and human health. Russia is one of the largest emitter of mercury in the world; therefore dealing with mercury in Russia is considered as one of the world priorities. This project will provide the tools and means to integrate mercury in the environmental agenda in Russia and to design a sound programme for mercury release reduction. It will contribute to the implementation of the future mercury convention and will provide valuable information to UNEP's work to develop updated global inventories.

This project will:

- a) Develop a nationwide inventory of mercury sources and releases using the UNEP Mercury Toolkit¹³:
- b) Assess national capacity for the analysis of mercury in different media; air, biota, humans, waste, and emissions and the data management;
- c) Conduct measurement of mercury emissions from selected sources/sectors;
- d) Identify mercury sources/sectors that represent priorities for action considering the amount of releases and established criteria for the identification of priorities;
- e) Undertake an analysis of the gaps in mercury management and controls in key sectors, including identifying efficient mercury emission control techniques such as co-benefit, maintenance- and efficiency measures, and carry out a institutional assessment;
- f) Develop a national action plan for mercury reduction including medium- and long-term measures for sectors of concern;
- g) Summarize lessons learned from the work and disseminate results.

This project will produce the first national inventory and action plan of mercury in Russia. It will also improve Russia's capacity for management of mercury pollution.

Threat, root causes and barrier analysis

Mercury pollution is a serious concern in Russia although the risk of exposure to mercury to people and environment varies substantially across the country. In Russia, as elsewhere, mercury is still used in many products such as manometers, thermometers, electrical switches, fluorescent lamps, dental amalgam, batteries, and some pharmaceuticals. In Russia a number of key release source categories are recognized and form important elements of the economy. While Russia has made efforts to assess mercury emissions to air, mercury released directly to water and soil is less well quantified.

Mercury releases from all major industrial sectors have until recently not been regarded as a significant risk in Russia. Policy attention was focused on minimization and prevention of direct exposure of people to spills of elemental mercury and its vapours, particularly at facilities where mercury was used in industrial processes and in public entities, including educational institutions, where mercury thermometers were used. Current regulations and policies do not address mercury pollution from major sources, and mercury monitoring activities are restricted to remote area ambient air monitoring. There is little coordination among different stakeholders on mercury control issues with collaboration being limited mainly to exchange of basic information and mercury-related learning exercises. Exposure to mercury from releases has not been properly assessed, except for some cases, particularly at chlor-alkali plants where personnel are protected by

¹³ UNEP 2013, UNEP Toolkit for Identification and Quantification of Mercury Releases (being updated in 2012). GEF5 CEO Endorsement-Approval-November 2011.doc

the labour safety rules. This project will enhance national efforts on mercury management and will prepare a plan to reduce mercury releases in Russia. The work will support the implementation of the mercury convention.

In order to promote mercury pollution control, Russia will likely be taking active measures to deal with aspects of mercury management such as updating of national environmental standard systems, pollution control planning and implementation. However, there are still significant data gaps; inventories of releases need to be improved; and there is a lack of scientific data and regulatory frameworks related to mercury, etc.

Institutional, sectoral and policy context

In Russia, all issues related to releases of mercury are administrated by the *Ministry of Natural Resources and Environment of the Russian Federation (MNRE)*. MNRE will be the Executing Agency for this project. Sectorial ministries, federal agencies, industry associations, and individual companies of the power generation, chlor-alkali, cement production, ferrous and non-ferrous metallurgy, and mercury-added product manufacturing sectors will also be involved and will work closely with the different project's stakeholders. The Russian Federation has been actively participating at the mercury negotiations, furthermore, a representative from the Russian Federation also serves as a member of the Bureau of the INC.

In 2012 the President of the Russian Federation has signed the decree entitled "Adoption of Principles of State Policy in the Field of Environmental Development of the Russian Federation until 2030". This Decree is considered as a regulatory framework and will guide the Russian Government on development and updating of new and existing environmental policy instruments for regulation of releases of harmful substances, including mercury into the environment in the Russian Federation. Furthermore, the GEF project will complement the development of a national policy targeting mercury emissions reduction.

Under this project, a detailed and nation-wide assessment of mercury-relevant activities such as mercury releases from industries, e.g., coal-fired power plants, steel production, non-ferrous metal production (mining and smelters), cement production, chlor-alkali production, and releases from intentional use of mercury in products and processes will be developed. Activities under this project will also contribute to the continuing updating of the UNEP Mercury Toolkit and will serve as a reference to other countries in similar situations to this of Russia.

B. 2. <u>Incremental</u> /<u>Additional cost reasoning</u>: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated <u>global environmental benefits</u> (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

Incremental cost analysis

Several initiatives and studies on mercury releases in Russia have been developed and carried out, however, outcomes of these are mostly site-specific and results are not easily applicable on the national level due to administrative, financial and operational reasons. Moreover, existing information on different mercury-related aspects is often not easily available and as such has not been available for use in developing policies nor for public awareness purposes. The current project is seen as a joint effort of public and private entities, international organizations and civil society. Therefore, external funds are needed to support project activities and keep the momentum between interacting parties involved. Taking into account the area of Russia and substantial scales of focal industrial sectors significant additional funding, such as GEF funding, is required to cover critical issues and generate useful outcomes.

Without GEF support the ongoing efforts from Russia to decrease the releases of mercury will not be coordinated and the real dimension of the problem will remain unknown. By providing support, the GEF facilitates the development of a national standardized inventory of mercury releases and promotes attention that is coordinated within Russia and more easily benchmarked to internationally accepted and up-to-date methodologies and practices, that will have a positive effect

on mercury pollution identification and abatement in Russia Without a standardized methodology such as the *UNEP Toolkit for Identification and Quantification of Mercury Releases* and its application on the development of a national mercury inventory, Russia will not have a sound basis for a sound mercury reduction plan to be developed.

Global significance

Mercury is a metallic element and, as such, cannot be destroyed and permanently removed from the environment. It exists in different forms and exhibits characteristics such as persistence in the environment and biota, including humans, certain forms are bio-accumulative and can have a significant impact on human health and the environment. Mercury's inherent property of long-range transport makes mercury a global threat and a pollutant of global concern. The different applications of mercury require a coordinated effort to manage mercury nationally and internationally. Inadequate management of mercury releases may result in an elevated risk for human health and the environment around the world.

Russia's efforts to reduce its mercury releases should be analyzed in the context and effect it would have at the global scale. Russia's anthropogenic emissions to air are estimated to be 4% of the total global emissions. Therefore, significant reduction of mercury releases in Russia contribute to a significant reduction of mercury releases worldwide. Through this project Russia will develop an assessment of mercury releases and will develop a detailed action plan to decrease mercury releases in key sectors. This work will also allow Russia to incorporate mercury into appropriate national management systems, and provide basic data for decisions on further control measures.

This project will assist Russia to build capacity and to raise awareness towards the upcoming legally binding instrument on mercury. During INC-1, the request was made to the committee to report on the global situation of mercury management and to analyze the available data in relevant sectors (mercury source categories) at the national level. The development of a mercury inventory and action plan will assist Russia to comply with this request and to meet obligations under the new legally binding instrument on mercury currently being negotiated.

The results of this project will also allow Russia to prepare itself for ratification and ensure compliance with obligations of both the mercury treaty and the Heavy Metals Protocol to the UNECE Long-Range Transboundary Air Pollution Convention, of which Russia has been a party since 1980.

The project will also provide valuable information for UNEP in its continuing work to update of the UNEP Mercury Toolkit. Collected data and experience will assist UNEP in developing more accurate and practical calculation sheets improving the Toolkit's applicability to developing countries. The UNEP Toolkit is important to use globally to obtain standardized inventory data.

Project goal/objectives, components and expected results

The project has five components, which consist of the activities as indicated below. Each component includes information on outcomes and outputs or actors as well as expected results.

Component 1: Identification of initial guidance on mercury management

The strengthening of the baseline information is also an activity that will allow identification of any information gaps and what is needed for the project at the national and provincial level.

<u>Planned activities:</u>

Activity 1.1: Identify initial guidance materials including translation into Russian of the revised UNEP Toolkit (2013)

Expected Outcome:

Information needs identified

Expected Outputs:

- 1. Translated UNEP Toolkit
- 2. Basic information on mercury management in Russian Federation available to relevant stakeholders (listed on page 19)

Component 2: Development of mercury inventories by industrial sector

The mercury inventories will be built on initial information provided by ACAP 2005, the Balthazar project phase I 2009-2011, the Inventory of mercury releases from Coal-fired power sector developed in 2011, and inventory information from the updated Global Mercury Assessment (UNEP 2013, in preparation). The Russian Federation will use the UNEP Toolkit for identification and quantification of mercury releases (2012) to estimate the amount of mercury released to the environment from the main productive sectors. This project component will develop a detailed inventory of relevant source categories and quantify their mercury releases.

Planned activities:

Activity 2.1: Awareness workshops leading to at least 3 agreements with key industrial associations. Activity 2.2: Conduct and develop mercury inventory of relevant mercury sources and quantify their mercury releases through consultations and national workshops.

Expected Outcome:

Comprehensive information on mercury sources and releases (the inventories) and current control measures enables a better understanding of mercury risks to human health and the environment in Russia

Expected Outputs:

- 1. Agreements with key industrial associations.
- 2. Quantitative and qualitative data on mercury releases available: development of a detailed inventory for the Russian Federation

Component 3: Assessment and strengthening of existing analytical capacity for monitoring of mercury in the environment and humans

Monitoring of environmental and health impacts of mercury is crucial to understand the trends and historical impact of mercury in the population and the correlation between the use/release of mercury and the number of affected people and contaminated sites. These activities will assist the Russian Federation to better understand the local implications of mercury use and release. The project will: a) identify the laboratories with the capacity to carry out mercury analysis in the environment, including biota and humans, and mercury in emissions at the source according to internationally accepted methods; and b) collect data from ongoing and past research and surveys of mercury in the environment including biota and humans, and mercury in emissions at the source. The results available will be compiled and assessed in order to establish the trends in mercury releases and use and the impacts on the population and the environment. The project envisages buying an equipment to measure mercury emissions at the source. The modality of purchasing the equipment is still being evaluated, an analysis of the different modalities (leasing, purchasing, renting, etc) will take place during project implementation, as well as the selection of the provider.

A capacity building programme to reinforce the analytical capacity of measuring mercury in flue gasses (emissions) at the source includes a series of training modules, workshops and the purchase of an instrument to measure mercury emissions at the source. This equipment will be part of the training programme and will allow Russia to measure mercury in emissions on a regular basis (monitoring needs will be determined during the development of the action plan).

Planned activities:

Activity 3.1: Assessment of mercury laboratories in Russia able to analyse mercury in various media according to internationally recognized methods

Activity 3.2: Collection of available data of good quality on mercury in the environment including biota and humans, and on mercury in emissions from prioritized sectors from Russian Federation.

*Activity 3.*3 Development of a capacity building programme on measurements of mercury in emissions at the source to reinforce analytical capacity of local laboratories.

Expected Outcome:

Improved knowledge on mercury in the environment and the capacity of Russian laboratories

regarding mercury analysis and measurements guides the Russian Federation to develop targeted mercury reduction strategies.

Expected Outputs:

- 1. Report on national capacity for mercury analysis and overview of laboratories able to perform mercury analysis (at least 10 laboratories assessed)
- 2. Available data of good quality on mercury in the environment, including biota and humans, and on mercury in emissions from key sectors in the Russian Federation.
- 3. Record of laboratories participating including mercury sampling, analysis and measurements.

Component 4: Prioritization of mercury sources, mercury management gap analysis and development of initial national action plan.

As indicated in the ACAP report and in the UNEP report on global mercury emissions (UNEP 2008¹⁴), there are a number of key sectors that make an intensive use/ and or release mercury to the environment. The identification of these key sectors and the establishment of criteria to address mercury issues at these key sectors will greatly assist Russian Federation to develop detailed plans for mercury reduction. The work will include developing a comprehensive overview of mercury relevant management in the key industrial sectors. The action plan will identify short and long-term actions, as well as resources needed and players involved in order to reduce mercury emissions. The National Plan for future monitoring of mercury will identify actions and players needed to implement a mercury monitoring system in Russian Federation.

Planned activities:

Activity 4.1: Development of criteria for prioritization of mercury sources

Activity 4.2: Identification of mercury management gaps by sector and proposals to address these gaps

Activity 4.3: Identification of needs for environmental and human monitoring

Activity 4.4: Development of sector action plans for prioritized sectors

Expected Outcome:

Enhanced understanding of priority sources for mercury management through the development of a national action plan, including identification of management gaps and monitoring needs.

Expected outputs:

- 1. Scheme of criteria for ranking of mercury sources developed and available through the Ministry of Natural Resources and Environment website
- 2. Report on management gaps identified including proposals to address these gaps.
- 3. National plan developed for future monitoring of mercury levels in the environment including in humans, and for mercury in emissions that will confirm mercury reduction in the environment and in humans
- 4. Action plan for the Russian Federation on medium and long term measures to decrease mercury emissions in prioritized sectors.

Component 5: Lessons learned, final report and strategies for needs to reduce mercury agreed

The "lessons learned" document will assist other industrial sectors and any of the 83 Russian Federal Subjects to develop customized and specific mercury action plans, according to their specific situations and needs. This experience will also be available to other countries in the world, and may be of particular interest for countries from the region, which may share similarities and may find very useful information in Russian. The results of this project and the lessons learned identified will be made available through UNEP's and MNRE websites. This project component will also diffuse the results mainly, but not restricted to, through national, regional and provincial workshops and through the internet and in compliance with a agreed dissemination strategy. Activity 5.2, development of a final report on lessons learned that will include: a) *mercury*

¹⁴ UNEP 2008, Global Atmospheric Mercury Assessment; Sources, Emissions and Transport. GEF5 CEO Endorsement-Approval-November 2011.doc

management practices at the national, sectoral level; b) inventory taking experiences from using the toolkit at the national level; b) experiences on mercury inventory taking; d) experiences on the development of action plans on mercury management at the source category and the national levels. The identification of lessons learned will require the organization of a number of consultation workshops (3) at the national level. The final outcome will be the production of a final lessons learned document that will include identification of good practices and recommendations on domestic approaches to improve inventories, in order to focus on key issues, and developing action plans based on the experience of the source categories selected and the national consultations in Russia. The development of the lessons learned report will require regular communications and consultations with key partners outside Russia, therefore translation services will be required, and this increases considerably the budget for communications. For the lessons learned work, the consultant will select the key players and places that are most significant for Russian's mercury emissions.

Planned activities:

Activity 5.1: Hold national workshops to discuss draft report, strategies and lessons learned

Activity 5.2: Development of a final report including lessons learned and future recommendations

Activity 5.3: Implement a Monitoring and Evaluation Plan

Expected Outcomes:

Better practices used in future projects

Expected outputs:

- 1. Draft report on good practices and lessons learned including recommendations on mercury management, inventory taking and initial action plan for Russian Federation
- 2. Final lessons learned and recommendations requested in other Federal subjects and countries
- 3. Suggestions for dissemination implemented and report disseminated through UNEPs and MNREs web site
- 4. Monitoring and evaluation plan fully implemented assess rate of project's success

Project Management and Supervision

The management of the GEF project will imply a high level of coordination among stakeholders. A National Coordination Group (NCG) will be established and will be in charge of project supervision and support for the project. It will be formed by MNRE, Ministry of Energy, Ministry of Industry and Trade, Ministry of Health and Social Development, State Statistics Committee, State Customs Service, Scientific Research Institute for Atmospheric Air Pollution (SRI Atmosphere), National Industries Associations (e.g the Chlor-alkali production), Academic Sector and NGOs. etc, as indicated in table 1. MNRE will provide Secretariat Services to the NCG and will assign a Project Team and Project Coordinator to fulfill this task.

B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF). As a background information, read <u>Mainstreaming Gender at the GEF."</u>:

Expected global environmental benefits

The project is focused on listed industrial sectors as major potential sources of mercury releases. It is expected that chlor-alkali industry will serve as an example of effective mercury release reduction and retrofitting of industrial processes. Such industrial sectors as cement, ferrous and non-ferrous production, and manufacture of mercury-added products will be thoroughly studied in order to generate actual and reliable information on the mercury cycles. The coal-fired power generation

sector will also be reviewed and checked for new and improved information and will complement the 2009-2011 study.

Thus, this project will generate significant local, regional and global benefits as follows:

- Local benefits: it will allow Russia to improve national data on releases of mercury, develop inventory survey methods tailored to local situations, define the mercury use and consumption in typical areas, provide technical and management support to the establishment of a pilot national action plan on mercury release reductions. It will allow replication of this experience on the regional level in the country, identifying good practices and replicable elements, including reducing local risks through releases reduction. It will also allow Russia to learn from international experiences and to assess which experiences can be applied nationally or which ones can be used as a reference. One of the first activities of this project will be to build a solid baseline in which international experiences will be gathered and made available nationally.
- **Global benefits**: According to the UNEP 2008 report on global mercury emissions, the total release of Hg in Russia is 79 metric tons per year .Thus, actions towards mercury release reduction in Russia will automatically have a global impact. The development of an inventory and further action plan on mercury management will pave the way towards mercury reduction both in Russia and in the world. It will also contribute to the work towards an international legally binding instrument on mercury, will identify lessons learned and share of information with countries with similar situations and will also contribute to the continuing updating of the UNEP *Toolkit for Identification and Quantification of Mercury Releases*.

In 2002, UNEP published the "Global Mercury Assessment" and therein compiled information on chemical and physical properties of mercury, toxicity, exposure, risk assessment and risk management options. Mercury is toxic in all its forms, exhibiting adverse health and environmental effects depending on the chemical species, dose received, and period of exposure. It is a potent neurotoxin and may result in nervous system disorders, reproductive and developmental problems, kidney damage, and other health effects. Once released into the environment, mercury becomes part of a biogeochemical cycle contaminating soil, air, groundwater and surface water where it accumulates and moves up the food chain. The adverse effects of mercury and the need to act, are today well recognized as agreed in the UNEP GC Decisions.

Reduction of mercury use will have a positive impact in poor populations. The financially disadvantaged (and specifically women and children) are often those most affected by these adverse impacts. Addressing the environmental and health hazards associated with mercury is therefore crucial to ensure that hard won development gains are not compromised.

In terms of equal participation of women in a participatory process, the project will advocate for a sound representation of women and affected groups. Criteria to identify key issues on mercury management will include vulnerable groups, groups at risk and intake from foods.

Pregnant women and children are also more susceptible to mercury and heavy metals in general. Communities nearby mercury sources are more vulnerable to contamination, the project will advocate for a national regulatory framework targeting the protection of these two vulnerable groups. Workers are also a vulnerable group; the project will include the active participation of workers associations and medical associations. Through these two important groups, the project will sensitize the general population and targets groups about the risks of mercury

B.4. Indicate risks, including climate change 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:

Risk analysis and risk management measures

A project including inventory of mercury releases in various sectors involves communication and negotiations at different levels and agreements or partnerships to ensure cooperation throughout

the project. It has obvious political risks. A good way to communicate (objectives, relevance of the project, activities) will be developed with the participation of different sectors. The project will work in close coordination with the relevant Ministries, regional authorities, industries, NGOs and other relevant stakeholders and with the UNEP (DTIE, Chemicals Branch).

Shipment of samples for mercury analysis from sources to laboratories may imply some risks, e.g. losing samples or contamination of samples. Appropriate standards or protocols regarding transportation of laboratory samples needs to be used.

The timeframe for this project may be ambitious. Russia has however experience with international projects (e.g. The UNEP Coal combustion project) and will utilize this experience to accelerate project procedures.

Table 1: Summary of risks and mitigation measures

| Risks | Mitigation measures |
|---|--|
| Prioritized industrial sectors not willing to be involved in this project Low risk | This project will develop a suitable methodology for the mercury inventory survey in key sectors based on the UNEP Toolkit. Partnerships will represent a good foundation for the development of a participating plan for the application of mercury inventory toolkit. |
| UNEP mercury inventory toolkit (default factors) not considered appropriate for Russia Medium risk | This project will provide new national data (e.g. input factors, output factors) for some sectors to be used in the calculation of releases and thus improving the accuracy of the inventory. These data and lessons learned will be useful in the ongoing update of the UNEP Toolkit and thus also for other countries participating in the mercury negotiations. |
| Timeframe too short to deliver expected outputs Medium risk | Timeframe for this project will be managed with special attention. National stakeholders and partners participating in this project have sufficient experience in bilateral and multilateral projects and will make everything possible to avoid delays. However, unexpected events may happen and national priorities may switch. |
| Cases of mercury contamination increased during project executing leading to undesirable communities reaction Low risk | The project will deploy an intensive campaign to disseminate its activities and objectives to the population and to target groups. Understanding the problem and the importance of taking simple measures to prevent mercury contamination will be prioritized. Safe handling of mercury will be the main message to populations. |
| Government political support changes and mercury is not considered a national priority Low risk | The project has already a strong political support and has the commitment of the Russian Federation to fully implement it. Change on national agenda will most likely not affect the project, since commitment to it will be obtained very early in the project. |

B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:

Stakeholders mapping and analysis

Relevant domestic stakeholders, international intergovernmental agencies, as well as potential bilateral donors, private sectors, NGOs, etc., will be informed about this project, and will be invited to review the project, and will be encouraged to be involved and co-fund some of the activities. They will be briefed on its implementation progress and impacts through a Project Steering Committee established during project implementation. In addition, MNRE will work closely with relevant ministries and agencies, regional governments, relevant domestic associations and institutes to

integrate the project into the relevant policies, programs and investments activities. All these measures will ensure adequate and effective coordination as well as continuous information exchange among Implementing Agencies (IAs), Executing Agencies (EAs), donors, and domestic stakeholders in Russia and to link to the broader national chemicals management agenda. Table 2 below shows domestic stakeholders in Russia.

Table 2: Stakeholders' Analysis

| Nama | Pating | Responsibility/expertise | | |
|--|---|--|--|--|
| Name | Rating | kesponsionity/expertise | | |
| Ministry of Natural Resources and Environment (MNRE) | High level of interest, Medium decision making power | As national executive organization for implementation of international environmental convention, MNRE is responsible for coordinating the day-to-day management of the future Mercury Convention implementation in Russia. MNRE is the national entity in charge of upgrading the national environmental legislation concerning mercury management and other chemicals. MNRE will be the Executing Agency (EA) of the project. | | |
| Ministry of Energy | Medium level of interest, High decision making power | The Ministry of Energy oversees the technical operation and performance of thermal power plants throughout the country. It actively participated in the UNEP project "Mercury from coal-fired power plants in Russia" in 2009-2011 and is willing to receive up to date information on potential releases of mercury from the energy sector. | | |
| Ministry of Industry and Trade | Medium level of interest, High decision making power | Ministry regulates operations of non-ferrous, chlor-alkali and cement manufacturers, deals with issues of secondary mercury production and trade, coordinate policies on mercury-added products (import/export) | | |
| Ministry of Health and Social Development | High level of interest, High decision making power | Develop and execute sanitary regulations, monitor mercury content in human tissues, assess mercury impacts on human health, assessment of soil quality in residential and public buildings. The Ministry of Health will provide the data and information related to presence of mercury in humans and will assist with the development of a programme for mercury monitoring in humans. | | |
| National Laboratories | High level of interest, low decision making power | National laboratories able to analyse mercury in air and biota will provide information on the data generated regarding mercury levels in the environment and will reinforce their capacities to support the activities following to the adoption of the future mercury convention. | | |
| State Statistics Committee | Medium level of interest, Low decision making power | Collects and aggregates national statistical information on production of metals, cement, energy, products, on fuel and raw material use etc. | | |
| State Customs Service | Medium level of interest, Medium decision | Maintains information on export/import of goods and materials (potential source of information) | | |

| Name | Rating | Responsibility/expertise |
|--|--|---|
| | making power | |
| Scientific Research Institute for atmospheric air pollution (SRI Atmosphere) | High level of interest, Non-decision making organization | Provides methodological support to relevant national institutions in terms of air quality management and pollution abatement. Played the role of the National Executive Agency for the UNEP project "Mercury from coal-fired power plants in Russia" in 2009-2011. |
| National industries associations | High level of interest, Non-decision making organization | National industry associations such as RusChlor (Russian chlor-alkali production), Russian Cement association and others will be the important supporters of work on inventory survey and related activities; will assist in leasing with companies involved in focal sectors. |
| NGOs | High level of interest, Non-decision making organization | NGOs will be invited to actively participate in the project implementation. Some NGOs such as Eco-Accord (Russian branch of IPEN) plays a significant role in public awareness rising on mercury issues, including emissions from industries, mercury in products and waste. Eco-Accord has also developed a report on the analysis of mercury management in six cities in Russia. |

B.6. Explain how cost-effectiveness is reflected in the project design:

Project cost effectiveness

This project will make sure that the outputs obtained can be replicated in other countries with similar situations. The application and verification of mercury methodology by this project, the inventory work and experiences gained by industries, the mercury inventory developed, the input and output factors developed and the monitoring developed will be shared with interested countries and will be disseminated, to the extent possible, in international fora. This project will be cost effective by:

- Enhancing an effective communication through the establishment of the National Coordination Group and the Project Team;
- Encouraging innovation through the development of mercury inventory taking into account local characteristics and key players involved in mercury management and;
- Developing lessons learned from the work in Russia would be relevant for other countries of the Commonwealth of Independent States (CIS) with similar industrial and socioeconomic contexts as in Russia;
- Developing input and output (release) factors for the estimation of releases of mercury that can be used by other countries.

This project will make appropriate use of the existing infrastructure (laboratories with appropriate capacity needed, current coordination mechanisms, etc) and will consider previous work done regarding mercury. It will also coordinate closely with UNEP to make the appropriate linkages in case another similar project is taking place in the Central and Eastern Europe or another region.

Replication

The work will build capacity in Russia on inventory work and in developing actions on mercury reductions. The results will serve as a basis for further studies or work in Russia involving mercury releases and mercury pollution control.

This project will result in sharing Russia's experiences in using the mercury inventory toolkit with other countries, as the information, lessons learned and good practices identified, and recommendations developed will be presented in available reports to countries and to UNEP and GEF. Project outcomes will be presented in workshops organised by UNEP or GEF Secretariat and possibly the Intergovernmental Negotiating Committee.

B.7. Outline the coordination with other related initiatives:

Linkages with GEF and non-GEF interventions

The uptated version of the UNEP Toolkit for Identification and Quantification of Mercury Releases, under preparation, (expected to be ready by 2013) will be used to develop a detailed inventory of industry sectors, as well as in carrying out surveys on mercury distribution and use. Benefits from the inventories will not be restricted to prioritization of sources and options for pollutant reduction, but also provide a baseline for national mercury releases and as such a first step in long term statistics on this issue as well as on monitoring data. Inventory results will provide the basis for science-based management of the mercury issue and policy decision-making. On return, the experiences on the application of the Toolkit in Russia will feed into the improvement and updating of the UNEP Toolkit, which is in line with the overall strategic thinking of GEF on Global mercury releases and control.

This project is the first GEF supported intervention on mercury in Russia. The project will, however, take into account a number of bilateral/multilateral activities that Russia has undertaken with its partners and integrate work of national institutions.

This project will make strong linkages with the UNEP-Russia project on "Mercury emissions from coal-fired power plants in Russia" (2009-2012). The project aims to assist Russia to evaluate its current mercury emissions from coal combustion, the effectiveness of multi-pollutant control techniques and the opportunities to achieve multi-pollutant emission reductions with associated benefits for reduction in mercury emissions. The focus is on co-benefits of other/multi-pollutant techniques with regard to mercury reductions rather than mercury specific techniques due to the cost of introducing new and mercury specific technology. In that project, data on coal and coal-fired power plants have been collected. Mercury measurements in flue gas at two coal-fired power plants were carried out in May 2010. A report characterizing the coal-fired power sector, including coal analysis; mercury emissions measurements; description of pollution controls; and an inventory of Hg emissions from the sector; has been developed (posted on UNEP's website). A workshop on the POG has been held (December 2009) and a seminar to present collected information has been arranged (December 2010). Two demonstration projects on optimizing mercury control technologies are being carried out at the Cherepetskaya power plant near Moscow and at the Toliatti power plant in the province of Samara. One of the sites for the demonstration project was visited in February 2011. The demonstrations are expected to be finalized by the end of 2012, and reports will be posted on the UNEP's website. The results from this project will be included and taken into consideration in the GEF supported project.

Other related initiatives to be considered in the project:

Bilateral activities:

- Joint project of the International Science and Technology Center (ISTC) and the Russian Federation (All-Russia Thermal Engineering Institute VTI);
- Joint project of the Arctic Council and the Russian Federation "Assessment of Mercury Releases from the Russian Federation", 2005 (implemented by the Russian Federal Service for Environmental, Technological and Atomic Supervision, Danish Environmental Protection Agency in cooperation with the COWI Group, a Danish Consulting Company).
- Phase II (2012) of the Balthazar project (HELCOM) to promote the protection of the Baltic Sea from hazardous wastes and agricultural nutrient loading, including mercury. Phase II of the

project will include the further development of treatment of mercury containing mercury in Kaliningrad. It will extend the collection of wastes from households in three additional pilot municipalities.

National research:

- A number of studies on mercury releases from different industrial sectors, implemented by the Russian Academy of Science between 1997-2004. Studies covered cement, chlor-alkali, battery production and natural mercury emissions from soils;
- Assessment of mercury content in energy coals in the Russian Federation (2009). All-Russian Thermal Institute VTI.

This GEF project will also contribute to support the implementation of the future mercury instrument currently under negotiation by the Intergovernmental Negotiating Committee (INC).

C. GEF AGENCY INFORMATION:

C.1. Confirm the co-financing amount the GEF agency brings to the project:

UNEP confirms a co-finance of 446,729 USD. Out of this, 219,500 USD will be provided as a project grant and 227,229 USD is provided as in-kind.

C.2. How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:

In view of the limited United Nations Country Team (UNCT) presence and resources in the Russian Federation, the UNCT adopted a decision to start, in consultation with the Russian government, with a UNCT paper built on the Common Country Assessment (CCA) priorities and outlining joint approaches and outcomes, rather than to go for a full-fledged UNDAF process. However the Russian Federation has identified Poverty Reduction and Economic Development Issues as the main national priorities. The issues identified are:

- 1. Engaging Russian Business in Global Compact Driven Sustainable Development project
- 2. Development of public-private partnership in Russia Project
- 3. Mainstreaming Human Development in Russia Project (ongoing)

Issue 3 will complement the work done under issue 1 by providing the necessary elements and baseline information to assist companies and business to minimize social and environmental impact. This project will also seek for public-private collaboration with industries willing to participate. The chlor–alkali industry has already expressed its interest to participate in the project.

All GEF proposed interventions in GEF V, whether POPs, mercury, chemicals or Ozone, are complementary to UNEP's Subprogram 5 (Harmful Substances and Hazardous Waste), executed by UNEP DTIE OzonAction and Chemicals Branches, for the years 2010 – 2013. The Mid Term Strategy for the years 2014-2017 is currently under development and will include the Subprogram 5 on Harmful Substances and Hazardous Waste. Russia is one of the largest emitters of mercury in the world; therefore dealing with mercury in Russia is considered as a priority with the potential to have significant global impact.

Taking into account the important role of Russia as a partner in international environmental cooperation, UNEP opened its office in Moscow in 2000. The key goals of the UNEP Moscow Office include developing policy dialogue with the Russian Federation authorities responsible for the elaboration and conduct of national and international environmental policy; facilitating promotion of UNEP programmes and assisting the Russian Federation in identifying and developing projects, including under the framework of the Global Environment Facility, developing cooperation with state, scientific and non-governmental organizations and business. In this project the UNEP Moscow office will facilitate the dialogue with National authorities and will ensure that the project results will contribute to strengthen the national chemicals management agenda.

In December 2012 UNEP and the Russian Federation government will sign a long-term bilateral framework agreement that will represent the cooperation framework between UNEP and the government of Russia to address strategic priorities on environmental sustainability. Areas of cooperation include "the regulation of the use of chemicals, utilization and processing the wastes, including hazardous".

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. INSTITUTIONAL ARRANGEMENT:

In Russia, all issues related to releases of mercury are administrated by the *Ministry of Natural Resources and Environment of the Russian Federation (MNRE)*. MNRE will be the Executing Agency for this project and as such will coordinate the project activities with different key stakeholders. Sectorial ministries, federal agencies, industry associations, and individual companies of the power generation, chlor-alkali, cement production, ferrous and non-ferrous metallurgy, and mercury-added product sectors will also be involved and will work closely with the different project's stakeholders.

The participation of key industry sectors in the project will be made possible through the respective ministries and the Industries associations. The *Ministry of Energy* will play a key role in engaging the active participation of the thermal power plants. This Ministry is willing to receive information on potential releases of mercury from the energy sector.

The *Ministry of Industry* and Trade plays an important role in regulating the operations of non-ferrous, chlor-alkali and cement manufacturers, and also deals with issues of secondary mercury production and trade.

In 2012 the President of the Russian Federation signed the decree entitled "Adoption of principles of state policy in the field of environmental development of the Russian Federation until 2030". This Decree is considered as a regulatory framework and will guide the Russian Government in the development and updating of new and existing environmental policy instruments for regulation of releases of harmful substances, including mercury into the environment in the Russian Federation. Furthermore, the GEF project will complement the development of a national policy targeting mercury emissions reduction.

B. PROIECT IMPLEMENTATION ARRANGEMENT:

This project will be implemented by UNEP and executed by the Ministry of Natural Resources and Environment of the Russian Federation (MNRE).

As Implementing Agency, UNEP is responsible for overall project supervision, overseeing the project progress through the monitoring and evaluation of project activities and progress reports, including technical issues. UNEP will work in close collaboration with the Executing Agency (EA).

As executing agency, MNRE will execute, manage and be responsible for the project and its activities on a day-to-day basis. It will establish the necessary managerial and technical teams to execute the project. It will search for and hire any consultants necessary for technical activities and supervise their work. It will acquire equipment and monitor the project; in addition, it will organize independent audits in order to guarantee the proper use of GEF funds. Financial transactions, audits and reports will be carried out in accordance with national regulations and UNEP procedures. MNRE will provide regular administrative, progress and financial reports to UNEP

A Project Steering Committee (PSC) will be created and will meet at the beginning, mid-point and end of the project. This committee will be formed by donors, executing and implementation organisms (UNEP DTIE Chemicals, MNRE, Ministry of Industry and trade, Ministry of Energy, National Industries Associations, Scientific research Institute for Atmospheric air pollution (SRI Atmosphere), Ministry of Health, donors), NGOs and other GEF implementation organisms. This committee will evaluate the progress of the project and will take the necessary measures to guarantee the fulfillment of the goals and objectives. It will meet twice during the project execution,

at the beginning and at the end of the project. The meetings of the Steering Committee will be carried out in Russian and English.

A Project Team (PT) and Project Coordinator will be established within the Executing Agency; this team will be in charge of the execution and management of the project and it will report to UNEP and to the Project Steering Committee; also, it will be composed by the expert from Ministry of Civil Affairs, the Project Coordinator, Technical Assistant and Management Assistant. MNRE, the executing agency, will be supported by UNEP and the national experts identified in the project.

The National Coordination Group (NCG) will assist the Project Team and will assess the progress made in the project. This Team will be composed of key national partners participating in the project and will meet regularly to properly take specific responsibilities over the project activities and to provide technical and administrative support to perform the project activities.

The activities under this project will be facilitated by internal project communication with national and local government counterparts regarding the implementation of activities both at the national and local levels. The Ministry of Foreign Affairs will be included in communication, ensuring coordination with the international negotiation process and inform the INC about progress. UNEP DTIE Chemicals Branch will be copied to ensure they are aware of activities being undertaken within the project and assist in technical matters if requested. UNEP will actively communicate with project partners on the progress of the project.

| N/A | |
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PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF

PART V: 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) |
|---|--------------------------------|---|----------------------|
| Mr. Rinat GIZATULIN Deputy Minister, Ministry of Natural Resources and Environment Moscow Russian Federation | GEF Operational Focal Point | Ministry of Natural Resources and Environment | 05.12.2012 |

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 CEO endorsement/approval of project.

| Agency Coordinator, Agency Name | Signature | Date (Month, day, year) | Project Contact Person | Telephone | Email Address |
|---|----------------|--------------------------------------|------------------------------|---------------|----------------------|
| Maryam NIAMIR- FULLER | W. Main Falle, | 12/11/2012 | Jorge OCAÑA | +41 22 917 81 | jorge.ocana@unep.org |
| Director, UNEP GEF Coordination Office | | | CORREA Task Manager | 95 | jorgordana Carregion |

ANNEX A: PROJECT RESULTS FRAMEWORK PILOT PROJECT ON THE DEVELOPMENT OF MERCURY INVENTORY IN THE RUSSSIAN FEDERATION

See Appendix 5

| ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat a STAP at PIF). | | | | | |
|--|--|--|--|--|--|
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ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF/LDCF/SCCF/NPIF RESOURCES

| | \$/ | Estimated | | |
|--|--------------|-------------------|--------|--|
| Position Titles | Person Week* | Person Weeks** | TOTAL | Tasks To Be Performed |
| For Project Management | | | | |
| Local | | | | |
| Project Coordinator | 575 | 96 | 55'200 | day to day supervision and coordination of the project |
| Project Financial Officer* | 400 | 12 | 4'800 | Financial management of the project and preparation of financial reports |
| Sub. Total | | | 60'000 | |
| International | | | 00 000 | |
| THE THE COLOR | | | | |
| For Technical Assistance* | | | | |
| National | | | | |
| Consultant to strengthen the baseline information and to prepare a baseline report | 1'250 | 4 | 5'000 | Pulling together documents and reports concerning mercury management issues in Russia and analyse existing information and how can be used in this project |
| Consultant to produce the mercury inventory report | 1'250 | 8 | 10'000 | Development of a national report on mercury inventories |
| Consultant to assess the monitoring capacity and to assist to design training modules | 1'250 | 6.4 | 8'000 | Development of a monitoring capacity report and training modules |
| Consultant to develop a priority criteria for mercury related issue and to develop a national action plan for mercury management | 1'250 | 8 | 10'000 | Development of a national action plan on mercury management |
| Consultant to develop the lessons learned report | 1'250 | 8 | 10'000 | Development of a lessons learned report including dissemination strategies |
| International | | | | |
| Consultant to assist developing the lessons learned report and to draft recommendations for sound management of mercury and global dissemination of the project outcomes | 2'500 | 6 | 15'000 | Lessons learned report including international experience and recommendations based on national and international experiences |
| Total | | | 58'000 | |

Justification for travel, if any:

^{*} The MNRE and SRI Atmosphere will provide a considerable amount of co-finance to project management, including a technical coordinator, administrative project assistant, technical advisor, financial assistant and Steering Committee members participation. The GEF will provide the overall project coordinator (full salary) and part of the salary of the financial officer, which will be complemented with the SRI contribution

^{*}Provide dollar rate per person week.

^{**}Total person weeks needed to carry out the tasks.

CO-FINANCE PROVIDED BY PROJECT PARTNERS FOR PROJECT MANAGEMENT

| | TOTAL | per week | person/week |
|---------------------|--------|----------|-------------|
| SRI Atmosphere | | | |
| Project Coordinator | 55'200 | 575 | 96 |
| Admin | 79'200 | 400 | 198 |
| Technical Advisor | 55'200 | 575 | 96 |
| Financial | 7'200 | 450 | 16 |
| MNRE | | | |
| Project Coordinator | 50'000 | 575 | 87 |
| Admin support | 12'000 | 400 | 30 |

TOTAL 523

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

| Α | EXPLAIN IF THE PPG OBJECTIVE HAS | REEN ACHIEVED | THROUGH THE PPG | ACTIVITIES LINDERTAKEN |
|----------|---|---------------|-----------------|-------------------------|
| α | EAFLAIN IF THE FFU ODIECTIVE HAS | DEEN ACHIEVED | HINDUUH HIEFFU | ACTIVITIES UNDERTAIREN. |

B. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY:

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMENTATION STATUS IN THE TABLE BELOW:

| Project | | G | | | | |
|---------------------------------------|---------------------------|--------------------|----------------------------|---------------------|-------------------------|----------------------|
| Preparation Activities Approved | Implementatio n Status | Amount Approved | Amount Spent to date | Amount Committed | Uncommitte d Amount* | Co-financing (\$) |
| | (Select) | | | | | |
| | (Select) | | | | | |
| | (Select) | | | | | |
| | (Select) | | | | | |
| | (Select) | | | | | |
| | (Select) | | | | | |
| | (Select) | | | | | |
| | (Select) | | | | | |
| Total | | 0 | 0 | 0 | 0 | 0 |

^{*}Any uncommitted amounts should be returned to the GEF Trust Fund. This is not a physical transfer of money, but achieved through reporting and netting out from disbursement request to Trustee. Please indicate expected date of refund transaction to Trustee.

ANNEX E: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

APPENDICES

- 1. Acronyms and abbreviations
- 2. Overall Project Budget
- 3. Budget by project component and UNEP budget lines
- 4. Co-financing by source and UNEP Budget lines
- 5. Results framework
- 6. Public awareness, communications and mainstreaming
- 7. Environmental and social safeguards
- 8. Workplan and timetable
- 9. Key deliverables and benchmarks
- 10. Summary of reporting requirements and responsibilities
- 11. Standard terminal evaluation
- 12. Decision making flowchart and Organigram
- 13. Terms of reference
- 14. Co-financing commitment letters from project partners
- 15. Endorsement letters of GEF National Focal Points
- 16. Draft Procurement plan
- 17. Tracking tools (not available)
- 18. Supervision Plan

APPENDIX 1 - ACRONYMS AND ABBREVIATIONS

ACAP Arctic Council Action Plan

AMAP Arctic Monitoring and Assessment Programme

CCA Country Common Assessment

CIS Commonwealth of Independent States

EA Executing Agency

GEF Global Environment Facility

HELCOM Baltic Marine Environment Protection Commission

IA Implementing Agency

ISTC International Science and Technology Center

MNRE Ministry of Natural Resources and Environment of the Russian Federation

NGO Non Governmental Organisation

NCG National Coordination Group

PC Project Coordinator

PSC Project Steering Committee

PT Project Team

UNCT United Nations Country Team

UNDAF United Nations Development Assistance Framework

UNEP United Nations Environment Programme

APPENDIX 2: OVERALL PROJECT BUDGET

| Project Components | GEF | Co-finance | TOTAL |
|--|-----------|------------|-----------|
| Component 1: Identification of Initial guidance on Hg management | 110'500 | 1'794'429 | 1'904'929 |
| 1.1 Identify initial guidance materials including translation into Russian of the UNEP Toolkit | 110'500 | 1'794'429 | 1'872'429 |
| Component 2: Development of mercury inventories by industrial sector | 216'000 | 430'000 | 646'000 |
| 2.1 Awareness workshop leading to sign at least 3 agreements with key industrial associations | 40'000 | 0 | 40'000 |
| 2.2 Conduct and develop an inventory of mercury source categories and quantify their mercury releases through consultations and national workshops | 176'000 | 430'000 | 606'000 |
| Component 3: Assessment and strengthening of existing monitoring capacity for mercury analysis in the environment and humans | 199'500 | 727'500 | 927'000 |
| 3.1 Assessment of mercury laboratories in Russia able to analyse mercury in various media according to international methods | 19'500 | 60'000 | 79'500 |
| 3.2 Collection of available data of good quality on mercury in the environment including biota and humans, and on mercury in emissions from prioritized sectors from Russian Federation. | 40'000 | 547'500 | 587'500 |
| 3.3 Development of a capacity building programme on measurements of mercury in emissions at the source to reinforce analytical capacity of local laboratories | 140'000 | 120'000 | 260'000 |
| Component 4: Prioritization of mercury sources, mercury management gap analysis and development of initial action plan. | 155'500 | 0 | 155'500 |
| 4.1 Development of criteria for prioritization of mercury sources | 20'500 | 0 | 20'500 |
| 4.2 Identification of mercury management gap by sector and proposals to address these gaps | 30'000 | 0 | 30'000 |
| 4.3 Identification of needs for environmental and human monitoring | 25'000 | 0 | 25'000 |
| 4.4 Development of sector action plans for prioritized sectors | 80'000 | 0 | 80'000 |
| Component 5: Lessons learned, final report, and strategies for needs to reduce mercury agreed | 229'500 | 84'880 | 314'380 |
| 5.1 Hold national workshops to discuss draft report, strategies and lessons learned | 140'000 | 0 | 140'000 |
| 5.2 Development of a final report including lessons learned and future recommendations | 49'500 | 0 | 49'500 |
| 5.3 Implementation of a Monitoring and Evaluation Plan | 40'000 | 84'880 | 124'880 |
| Project Management and supervision | 89'000 | 382'160 | 471'160 |
| Project Management | 89'000 | 382'160 | 471'160 |
| TOTAL | 1'000'000 | 3'418'969 | 4'418'969 |

APPENDIX 3: BUDGET BY PROJECT COMPONENTS AND UNEP BUDGET LINES¹⁵

| The state of the s | ECI COMI CINENIS | ۲. | OIVEL DODGE | UEI LINES | | | | | |
|--|---|--|---|--|---|-----------------------|--------------|---------------|---------------|
| | | B 0 D 6 | BUDGET ALLOCATION BY PROJECT COMPONENT/ACTIVITY | BY PROJECT C | OMPONENT/AC | Y T I V I T Y | | ALLOCATION BY | ION BY CALENE |
| | Component 1 Initial guidance on Hg management indentified and baseline strengthened | Com ponent 2 Hg inventories by industrial sector developed | Component 3 Existing monitoring capacity for Hg analysis in the environment and humans assessed | Com ponent 4 Prioritization of Hg sources, Hg m anagem ent gap analysis and action plan developed. | Component 5 Lessons learned, final report, and strategeis for needs to reduce | Project Management | Total | Year 1 | Year 2 |
| HINED DII DC ET TINE / ODIECT OF EVBENDITHIDE | | | an a strengthenea | . 4011 | | | | *** | 40 |
| O NET BUDGEL LINE/OBJECT OF EXPENDITURE | 0.5\$ | \$8.0 | 0.5\$ | 0.5\$ | 0.5\$ | 0.5\$ | 0.5.3 | 0.5\$ | 0.5\$ |
| 1100 Project Personnel | | | | | | | ď | ď | 0 |
| | | | | | | 000,09 | 000,09 | 000,08 | 30,000 |
| | 0 | 0 | 0 | U | Ü | 000.09 | 000,09 | 30000 | 000,08 |
| | | | | | | | 0 | 0 | 0 |
| | 0 0 0, 2 | 10,000 | 0 0 0 0 8 | 10,000 | 10,000 | | 43,000 | 21.500 | 21.500 |
| | | | | | 15.000 | | 15,000 | 2 ,2 0 0 | 7.500 |
| ı | 000.5 | 10000 | 000,8 | 000,01 | 25'000 | 0 | 28,000 | 2 9 0 0 0 | 2 9 0 0 0 |
| | | | | | | | 0 | 0 | 0 |
| | 10,000 | 10,000 | 0 0 0, 9 | 0.00,5 | 10,000 | | 40,000 | 20,000 | 20,000 |
| Ш | 10,000 | 10,000 | 2,000 | 2 ,0 0 0 | 10,000 | | 40,000 | 20,000 | 20,000 |
| 1600 Travelon official business | | | | | | | | | |
| 1601 Travel National Experts | 2 0 . 0 0 0 | 7.500 | 7.500 | 10,000 | 15,000 | 10,000 | 000,02 | 3 5 '0 0 0 | 35.000 |
| | 20,000 | | | 15'000 | | | 32,000 | 17 '5 0 0 | 17.500 |
| ١ | 40,000 | | | 25'000 | 12,000 | 10,000 | 102,000 | 52'500 | 52'500 |
| 1999 Component Total | 55.000 | 27'500 | 20.200 | | | | 2 63 '00 0 | 131'500 | 131'500 |
| 20 SUB-CONTRACT COMPONENT | | | | | | | | | |
| | | | | | | | | | |
| 2201 National institutions to contribute / develop mercury inventory | 2 ,0 0 0 | 40,000 | 12,000 | 2,000 | 10,000 | | 72,000 | 43 2 0 0 | 28,800 |
| 2202 Capacity building activities on inventory and action plan | 10,000 | | | 0.00,02 | | | 000,06 | 54 0 0 0 | 36,000 |
| | 0000 | | 000 | | | | 000000 | | |
| 2203 Translation of the UNEP Toolkit | 0 0 0 0 7 | 000,00 | | | | | 0.00.07 | 0 0 0 0 0 1 | 0 0 0 0 1 |
| | 35,000 | 100,000 | 22,000 | 000,58 | 000,01 | 0 | 202,000 | 127,200 | 74'800 |
| | 35,000 | 100,000 | | 35,000 | 10,000 | 0 | 2 0 2 ,0 0 0 | 127.200 | 74'800 |
| | | | | | | , | | | |
| N | | | | | | | | | |
| | _ | | | | | | 0 | 0 | 0 |
| - | | 12,000 | 20,000 | | | | 32,000 | 17,200 | 17,500 |
| | 4 | | | 10.000 | | | 10,000 | 2,000 | 2,000 |
| 5203 Gaps analysis and proposals to address gaps | 0.0.0.1 | 0.00.51 | 000,10 | | | | 0.00.57 | 12.500 | 12.500 |
| ı | 000101 | 00000 | 0.00.62 | 000101 | | • | 25.000 | 12.500 | 12500 |
| | 000.01 | 30.00 | 42.000 | 000.01 | 0 | 0 | 000.56 | 47.500 | 47.500 |
| | _ | | | | | | 0 | 0 | 0 |
| 3301 National Coordination meetings | | | | | | | 0 | 0 | 0 |
| 3303 Peerreview and validation meetings | | 15,000 | 15,000 | 15,000 | 15,000 | | 0 0 0 0 0 9 | 0 0 0, 0 8 | 30,000 |
| | | 2,000 | 2,000 | 2.000 | 45,000 | | 51,000 | 25 500 | 25.500 |
| | 0 | 17000 | 17'000 | 000.21 | 000,09 | 0 | 111,000 | 25,200 | 25,200 |
| 3999 Component Total | 10,000 | 47'000 | 62'000 | 2 7 0 0 0 | 000,09 | 0 | 2 06 '00 0 | 103,000 | 103'000 |
| 40 EQUIPMENT COMPONENT | | | | | | | | | |
| 4100 Expendable equipment | | | | | | | 0 | 0 | 0 |
| 4101 Operating costs | 2.500 | 1,000 | 1,500 | 1.200 | 3 ,000 | 000.6 | 18,500 | 9 '2 5 0 | 9.250 |
| 4199 Sub-Total | 2 ,2 0 0 | 1000 | 1,200 | 1 .200 | 000.8 | 000.6 | 18,200 | 6,520 | 9 '2 5 0 |
| 4200 Non-expendable equipment | | | | | | | 0 | 0 | 0 |
| 4201 Computer, fax, photocopier, projector | | | | | | 0 0 0 , 8 | 3,000 | 1 '5 0 0 | 1.500 |
| 4202 Renting/purchasing Hg measurement equipment | | | 85,000 | | | | 82,000 | 85,000 | 0 |
| | | | | | | | | | |
| | 0 | | | 0 | 0 | 3,000 | 000,88 | 86,200 | 1,200 |
| 4999 Component Total | 2.500 | 1,000 | 86,200 | 1.500 | 3 '0 00 | 12'000 | 106'500 | 95.150 | 10'750 |
| 50 MISCELLANEOUS COMPONENT | | | | | | | | | |
| 5200 Reporting costs (publications, maps, NL) | | | | | | | | | |
| 5201 Awareness raising and dissemination activities | | | | 10,000 | 25'000 | | 35,000 | 10'500 | 24'500 |
| 5202 Publication and dissemination materials | | 25 '500 | | 25'000 | | | 7 0 '5 0 0 | 14 '1 0 0 | |
| | | | | | | Ì | | Ì | |

¹⁵ Communication costs are high due to the translation services to be required during the project implementation

APPENDIX 4: CO-FINANCING BY SOURCE AND UNEP BUDGET LINES

| | | | 1 | | | DONORS | | | | | | ALLOCATI | ALLOCATION BY CALENDAR YEAR | AR YEAR** |
|---|---------|---------|-----------|------------|----------------|-------------------------|-----------------|------------|-----------|----------------|-----------|-----------|-----------------------------|-----------|
| | | | | | | | | | | | | | | |
| | MNRE | יב | UNEP | Eco-Accord | SRI Atmosphere | RusChlor Association | lor tion | FINGO | EPA US | EPA Swedish | Total | Year 1 | Year 2 | Total |
| | in-kind | in-kind | cash | in-kind | in-kind ca | sh in-ki | nd in-kind | in-kind | in-kind | in-kind | | | | |
| 10 BDGIECT BEBEGNAREL COMBONIENT | ns\$ | \$SO | \$SO | ns\$ | n \$sn | \$SD \$S | Н | \$SO | \$SO | \$SO | \$SN | \$SO | \$SO | \$SO |
| 1100 Project Personnel | | | | | | | | | | | | | | |
| 1101 Project coordination(RU) 1199 Sub-Total | 50,000 | | 0 | 0 | 55'200 | 55'200 | 0 | 0 | 0 | 0 | 160'400 | 80'200 | 80,200 | 160'400 |
| 1200 Consultants w/m | | | | | | - | | | | | | | | |
| | | 169'229 | 0 | | | 9 | 60,000 82,000 | 00 26,000 | 0 | 2,500 | 198'000 | 99'000 | 99,000 | 198'000 |
| | 0 | 169 | 0 6 | 0 | 0 | 09 0 | 00,000 | 0 26'000 | 0 | 7.200 | 374'429 | 187'215 | 187'215 | 374'429 |
| 1300 Administrative support | 000101 | | | | COCIE | 00000 | | | | | 00100 | 00000 | 00000 | 00100 |
| | 12,000 | | 0 | 0 | 7.200 | 9.200 | 0 | 0 | 0 | 0 | 98'400 | 49.200 | 49.200 | 98'400 |
| | | | | | | | | | | | | | | |
| | 30,000 | 40,000 | | 0 | | | | | | | 70,000 | 35,000 | 35,000 | 70'000 |
| 1699 Sub-Total | 30,000 | 58 | | | Ш | Ш | Ш | Ш | | | Ш | Ц | | 000.88 |
| 1999 Component Total | 92,000 | 227'229 | | 0 0 | 62'400 13 | 134'400 60 | 60'000 82'000 | 0 26,000 | 0 0 | 7.200 | 721,229 | 360'615 | 360'615 | 721'229 |
| 20 SUB-CONTRACT COMPONENT | | | | | | | | | | | | | | |
| 2200 Sub-contracts | 000,028 | | 210'500 | | 162,000 | - | 000,96 | 00 | 217,000 | 21.500 | 1,686,000 | 843,000 | 043,000 | 1,686,000 |
| | | | | | | | | | | | 30,000 | 15,000 | 15,000 | 30,000 |
| 2199 Sub-Total | 870'000 | | 0 219'500 | 30,000 | | 0 | 0 96,00 | 0 | 317'000 | 21,200 | 1,216,000 | 858,000 | Ц | 1,716,000 |
| 2999 Component Total | 870'000 | | 0 219'500 | | 162'000 | 0 | 000.96 0 | 0 | 0 317,000 | 21,500 | 1,716,000 | 858,000 | 858,000 | 1,716,000 |
| Z | | | | | | | | | | | | | | |
| 3200 Group training (field trips, WS, etc.) | | | - | | - | - | - | - | - | | | | | |
| П | | | | | | 1 | | | | | | | | |
| 3202 Development of priority list of rig sources 3203 Gaps analysis and proposals to address gaps | | | | | | | | | | | | | | |
| 3204 Identification of needs for env. and hum. montoring | | | | | | | | | | | 0 | 0 | 0 | 0 |
| | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | - | - | - | L | | | | | c | C |
| 3302 Steering group mtgs (3) | | | | | 74'880 | | | | | | 74'880 | 37.440 | 37.440 | 74'880 |
| П | | | | | 10,000 | | | | | | 10,000 | 5,000 | 2,000 | 10,000 |
| | 0 | | 0 | 0 | 0 | q | c | | 0 | • | 0 | 0 | 0 | 0 |
| ı | 6 | | | | 84'880 | 0 | ٥ ٥ | | | | | | | 84,880 |
| 1 6 | | | | | 200 10 | 2 | | | | | | | | |
| 4100 Expendable equipment | | | | | | | | | | | | | Ĺ | |
| Н | | | | | 63,360 | Ц | 25 | 14.00 | 0 | | 358,360 | 179'180 | 179'180 | 358'360 |
| 4199 Sub-Total | 0 | | 0 0 | 0 | 03:360 | 0 256 | 256'000 25'00 | 000 14.000 | 0 | 0 | 358,360 | 179'180 | 179'180 | 358,360 |
| 4200 Non-expendable equipment | | | | | 12,000 | | | | | | 12,000 | 000/9 | 000,9 | 12,000 |
| | | | | | 77 | | | 0 | | | 000 21 | | | 000 21 |
| 4203 Maintenance of technical equipment | | | | | | | 154,000 | 00 | | | | | | |
| 4299 Sub-Total | 0 | | 0 0 | | 12,000 | 0 | 0 | 0 | 0 | 0 | 12,000 | 0.0009 | П | 12.000 |
| 5999 Component Total | 0 | | 0 0 | 0 | 75'360 | 0 256 | 256'000 25'000 | 0 14,000 | 0 0 | 0 | 370,360 | 185'180 | 185'180 | 370'360 |
| 50 MISCELLANEOUS COMPONENT | | | | | | | | | | | | | | |
| 5100 Laboratory analysis 5101 Laboratory sample analysis | | | | | | | | | | | | | | |
| 5102 Laboratory maintenance and infrastructure | | | | | | Ш | Ц | Ц | | | 319,000 | 150 | 159'500 | 319'000 |
| | 0 | | 0 0 | 0 | 0 | 0 120 | 120,000 116,000 | 0 83,000 | 0 | 0 | 319,000 | 159,200 | 159'500 | 319,000 |
| 5201 Awareness raising and dissemination activities | | | | | | _ | _ | | | | 0 | | | 0 |
| Ш | | | | 35,200 | | | | | | | 35,200 | 17.750 | 17.750 | 35,500 |
| 5203 Translation and interpretation 5299 Sub-Total | 0 | | 0 | 35,200 | 0 | 0 | 0 | 0 | 0 | 0 | 005,58 | 17.750 | 0 17.750 | 35,200 |
| ı | | | | | | | | | | | | | | |
| | | | | | 18,000 | | | | | | 18'000 | 000.6 | 9,000 | 18'000 |
| 5302 Postage 5309 Sub-Total | 0 | | 0 | 0 | 18,000 | 0 | 0 | | 0 | 0 | 18,000 | 000.6 | 000.6 | 18,000 |
| ı | | | | | | | | | | | | | | |
| | | | | | | | | | | | 0 | 0 | О | 0 |
| | | | | | | | | | | | | Š | | |
| 5509 Sub-Total | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 0 | 0 | 0 | 0 | 0 | 0 |
| 5999 Component Total | 0 | | 0 0 | 35'500 | 18,000 | 0 120 | 120'000 116'000 | 000.88 000 | 0 0 | 0 | 372,500 | 186'250 | 186'250 | 372'500 |
| Programme support cost | | | | | | | | | | | 0 | 0 | 0 | 0 |
| Sub-10tai | | | | | | | | | | | | | | |
| TOTAL | 962.000 | 227.22 | | | 402,640 | | | | | | 3,264,969 | 1,632,485 | 1,632,485 | 3,264,969 |

4.2 CO-FINANCE BY ACTIVITY

| | | Co-financing (In- kind) | Co-financing (In- Co-financing (in- kind) kind + cash) | Co-financing (in-kind) | Co-financing (in-kind + cash) | Co-financing (in-kind) | Co-financing (in-kind) | Co-financing (in-kind) | Co-financing (in-kind) | Co-financing (in-kind) | Co-financina | |
|--|---------------------|---------------------------------|---|------------------------|----------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------|-----------|
| Project Components and Activities | GEF Funding | MNRE Russian Federation (EA) | UNEP (Implementing Agency) | Eco-Accord | SRI Atmosphere | RusChlor | Mercuriy | FINGO | EPA USA | EPA Swedish | Subtotal | TOTAL |
| Component 1: Strengthening of baseline and identification of Initial guidance on Hg management | n of Initial guidan | ce on Hg managem | ent | | | | | | | | | |
| 1.1 Develop a workplan, budget and project implementation monitoring plan for the project | 32,200 | | | | | | | | | | 0 | 32'500 |
| 1.2 Identify initial guidance materials including translation into Russian of the UNEP Toolkit | 000,82 | 470,000 | 446'729 | | 162'000 | | 300,000 | 000,02 | 317'000 | 28'700 | 1,794,429 | 1'872'429 |
| SUBTOTAL | 110'500 | 470,000 | 446'729 | 0 | 162'000 | 0 | 300,000 | 20,000 | 317'000 | 28'700 | 1'794'429 | 1'904'929 |
| Component 2: Development of mercury inventories by industrial sector | dustrial sector | | | | | | | | | | | |
| 2.1 Awareness workshop leading to sign at least 3 agreements with key industrial associations | 40,000 | | | | | | | | | | 0 | 40,000 |
| 2.2 Conduct and develop an inventory in key industrial resources through consultations and national workshops | 176'000 | 400,000 | | 30,000 | | | | | | | 430,000 | 000,909 |
| SUBTOTAL | 216'000 | 400,000 | 0 | 30,000 | 0 | 0 | 0 | 0 | 0 | 0 | 430,000 | 646'000 |
| Component 3: Assessment and strengthening of existing monitoring capacity for mercury analysis in the environment and humans | nonitoring capaci | y for mercury ana | lysis in the environ | ment and humans | | | | | | | | |
| analyse mercury in various media according to | 19'500 | | | | | 000,09 | | | | | 000,09 | 79'500 |
| 3.2 Collection of mercury studies that contain analytical results from environmental and human samples from | 40,000 | | | 35,200 | | 256'000 | 173,000 | 83,000 | | | 547'500 | 587'500 |
| 3.3 Development of a capacity building programme to reinforce analytical capacity of local laboratories | 140,000 | | | | | 120,000 | | | | | 120,000 | 260'000 |
| SUBTOTAL | 199'500 | 0 | 0 | 35'500 | 0 | 436,000 | 173'000 | 83,000 | 0 | 0 | 727'500 | 927'000 |
| Component 4: Prioritization of mercury sources, mercury management gap analysis and development o | ' management gap | analysis and deve | lopment of initial a | finitial action plan. | | | | | | | | |
| 4.1 Development of criteria for prioritization of mercury sources | 20,200 | | | | | | | | | | 0 | 20'500 |
| 4.2 Identification of mercury management gap by sector and proposals to address these gaps | 30,000 | | | | | | | | | | 0 | 30,000 |
| 4.3 Identification of needs for environmental and human monitoring | 25'000 | | | | | | | | | | 0 | 25'000 |
| 4.4 Development of sector action plans by key priority servers | 80,000 | | | | | | | | | | 0 | 80,000 |
| SUBTOTAL | 155'500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 155'500 |
| Component 5: Lessons learned, final report, and strategies for needs to reduce mercury agreed | s for needs to red | ace mercury agree | q | | | | | | | | | |
| 5.1 Hold national workshops to discuss draft report, strategies and lessons learned | 140'000 | | | | | | | | | | 0 | 140'000 |
| 5.2 Development of a final report including lessons learned and future recommendations | 49'500 | | | | | | | | | | 0 | 49'500 |
| 5.3 Implement a Monitoring and Evaluation Plan | 40,000 | | | | 84,880 | | | | | | 84,880 | 124'880 |
| SUBTOTAL | 229'500 | 0 | 0 | 0 | 84,880 | 0 | 0 | 0 | 0 | 0 | 84,880 | 314'380 |
| Project Management and supervision | | | | | | | | | | | | |
| Project Management | 89,000 | 92,000 | | | 290'160 | | | | | | 382,160 | 471'160 |
| SUBTOTAL | 89,000 | 95,000 | 0 | 0 | 290'160 | 0 | 0 | 0 | 0 | 0 | 382'160 | 471'160 |
| TOTAL | 1,000,000 | 962'000 | 446'729 | 65,200 | 537'040 | 436'000 | 473'000 | 153'000 | 317'000 | 28'700 | 3'418'969 | 4'418'969 |

APPENDIX 5: RESULTS FRAMEWORK

| RISKS AND ASSUMPTIONS | | mercury releases and | Political support and co-financing secured Russian government, local authorities and research institutes willing to cooperate |
|----------------------------|--|--|--|
| SOURCES OF VERIFICATION | | alysis and monitoring of | Initial guidance identified and available UNEP Toolkit (2012) in Russian available |
| END OF PROJECT TARGET | | , quantification, an | • Full set of guidance materials developed and used |
| MID-TERM TARGET | nercury | the identification of mercury sources, quantification, analysis and monitoring of mercury releases and global convention | Guidance materials identified and available UNEP Toolkit (2012 in prep.) translated into Russian |
| Units | oxic exposure to | | • NA |
| INDICATORS | environment from t | the Russian Federatio ercury issues under a f | • Initial guidance material (incl for inventories, action development, analytical procedures, budget, workplan etc.) on mercury identified and baseline strengthened |
| BASELINE | GOAL: To protect human health and the environment from toxic exposure to mercury | Project Objective : Strengthen capacity of the Russian Federation for identification of priority actions to address mercury issues under a future | Initial information available in: Assessment of Mercury Releases from the Russian Federation (ACAP, 2005), the Baltic Hazardous and Agricultural Releases Reduction - BALTHAZAR Project Phase I (2009- 2011), in the inventory of mercury releases from the coal-fired power sector, developed in 2011, and the 2008 and updated (for 2013) UNEP Global Mercury Assessments UNEP Toolkit for identification and quantification of Mercury releases (UNEP 2010) |
| STRATEGY NARRATIVE | GOAL: To protect hu | Project Objective : St identification of priorit | The identification of initial guidance is an activity that will identify gaps in information necessary to carry out the project |

¹⁶ Cooperative agreements must be made with the sector in order to obtain data

| STRATEGY NARRATIVE | BASELINE | INDICATORS | UNITS | MID-TERM TARGET | END OF PROJECT TARGET | SOURCES OF VERIFICATION | RISKS AND ASSUMPTIONS |
|--|---|---|---|---|---|---|---|
| Labs and data: This component will: a) provide an overview of mercury | Some laboratories able to measure mercury in air, including emissions, water soil and | Number of laboratories' assessed regarding their capability (e.g. | #of laboratories assessed | At least 10 laboratories assessed | At least 10 laboratories assessed | • Survey questionnaire for laboratories assessment and the responses to them | Laboratories willing to participate Political support and stakeholders (including |
| assist Russia to assess the local implications of mercury use and release; b) identify the laboratories with the capacity to carry out | human samples. Some datasets are available on measurements of mercury in the environment and human health, and | Russian, international, and level of participation in international QC/QA) of analysis of mercury in various media, | | | | Complete list of laboratories capable of measuring mercury in various media Report of existing guide-lines/procedures | central, local governments, academic and private sectors) willing to participate Data on mercury measurements not available |
| mercury analysis of various environmental media including biota and humans, and emissions, according to internationally accepted methods; and | from emissions Some national procedures for mercury analysis and quality control/assurance exist Lack of legal | methoding in emissions • Number of data sets (e.g. a study of a region, a study around a specific facility, etc.) of mercury | • # of data-sets or studies identified | • 5 datasets | | for mercury monitoring/ measurements in the environment | |
| measurements of measurements of ongoing and past research. d) measure mercury in flue gas (emissions) at selected facilities in key sectors. The results will be compiled and presented in a report. | requirements to monitor/measure mercury releases in all sectors. Guidelines for voluntary monitoring /measurement for chlor-alkali production | measurements in various media, including mercury in humans and mercury emissions from industries sources. | • # of facilities being measured on mercury emission | Mercury emissions measured at 2 facilities from 2 key priority sectors | | • Report on existing mercury measurements available | |

| RISKS AND ASSUMPTIONS | Political support and stakeholders willing to participate Partnership with productive sectors in | place and working | |
|----------------------------|---|--|---|
| SOURCES OF VERIFICATION | National priority for mercury sources report available on the UNEP's website. Report on mercury | gaps assessment and proposed actions by key sources available National action plan available | • 1 national action plan including 5 specific sources categories action plans available on the UNEP's website |
| END OF PROJECT TARGET | Mercury source categories prioritized | • Gaps identified in 4 source categories | • National plan for future monitoring of mercury in the environment, including humans, and for mercury air emissions measurements developed and submitted to the government for approval. • 5 specific sources categories action plans constituting the national action plan |
| MID-TERM TARGET | Mercury source categories prioritized based on developed criteria | • Gaps identified in 3 source categories on environment/ mercury related management | • Stakeholders agreement to monitor mercury at priority sites/media |
| UNITS | • NA | • # of sources categories where mercury management gaps are identified | • NA • # of source category (sector) action plans |
| INDICATORS | Status of prioritizing mercury sources. | Number of source categories where mercury management gaps have been identified. | National mercury monitoring plan developed Number of source category (sector) specific action plans developed. |
| BASELINE | Sources not prioritized No analysis of mercury management gaps | No coordination of mercury sampling and analysis at national level /no national monitoring plan | Voluntary action plans/guidelines to reduce mercury releases exist at some individual plants /industrial entities (chlor-alkali production; mercury-added products) |
| STRATEGY NARRATIVE | Action plan There are a number of sectors that make an intensive use and/or release mercury to the environment. The | identification and prioritizing of the key sectors in order to address mercury issues will greatly assist Russia to develop detailed plans | for mercury reduction. The action plan will identify short and long-term actions, as well as resources needed and stakeholders involved. |

| RISKS AND ASSUMPTIONS | Stakeholders willing to participate and ready to share their experiences | | Russian government, bocal authorities, research institutes and private sector ready to participate |
|----------------------------|--|---|---|
| SOURCES OF VERIFICATION | • Lessons learned reports available online on the UNEP website | | Guidance materials identified available UNEP Toolkit in Russian available |
| END OF PROJECT TARGET | • 5 additional source categories (sectors) | | Basic materials collected |
| MID-TERM TARGET | • 3 additional source categories (sectors) | | Basic guidance materials collected and available for project use (early in the project) UNEP Toolkit (currently in preparation) translated into Russian (early in the project) |
| Units | • # of source categories (sectors) | | NA |
| INDICATORS | Number of source categories (sectors) where essons earned on mercury inventory and action plan are identified | | 1.1 Initial guidance materials (incl. for inventories, action development, analytical procedures, etc.) identified |
| BASELINE | Lessons learned and good practices from chlor-alkali sector and from battery production available | on needs identified | Initial information available in: Assessment of Mercury Rekeases from the Russian Federation (ACAP, 2005), UNEP Global Atmospheric Mercury Assessment (UNEP 2008), the Baltic Hazardous and Agricultural Rekeases Reduction – Balthazar Project Phase I (2009- 2011), and in the inventory of mercury releases from Coal-fired power sector developed in 2011. UNEP Toolkit for identification and quantification of Mercury releases (UNEP 2010) |
| STRATEGY NARRATIVE | This activity will identify lessons learned, e.g. methodology and key actions that have proven successful, or not, and develop recommendations to be taken into account by local and central authorities | Outcome 1: Information needs identified | |

| RISKS AND ASSUMPTIONS | |
|----------------------------|---|
| SOURCES OF VERIFICATION | |
| END OF PROJECT TARGET | |
| MID-TERM TARGET | |
| Units | |
| INDICATORS | • |
| BASELINE | |
| STRATEGY NARRATIVE | |

Outcome 2: Comprehensive information on mercury sources and releases (the inventory) and current control measures enable a better understanding of mercury risks to human health and the environment in Russia

| National stakeholders support project activities and are fully engaged | Commitment from federal and local authorities, and the private sector to the work Timetable for inventories realistic and feasible |
|--|---|
| Signed agreements available | Final inventory available online |
| At least 3 agreements | inventory |
| At least 3 agreements with key industrial associations (source categories) signed | Final inventory developed |
| # of agreements | NA |
| 2.1 Number of cooperative agreements with key sectors (government bodies, industry associations, etc.) | 2.2 Status of the mercury inventory |
| Informal cooperation is established with the associations of the Chlor-alkali sector, non-ferrous metallurgy, and cement industry. | UNEP Global Atmospheric Mercury Assessment (UNEP 2008). Assessment of Mercury releases in Russia from 2005 available (ACAP, 2005). Inventory of mercury releases from Coal-fired power sector developed in 2011. UNEP Process Optimization Guidelines document (POG) available in Russian |
| | |

Outcome 3: Improved knowledge of mercury in the environment and the capacity of Russian laboratories regarding mercury analysis and measurements guides Russia to develop targeted reduction strategies

| RISKS AND ASSUMPTIONS | Laboratories with facilities and expertise to perform analysis of mercury Laboratories willing to cooperate Central and local government willing to provide data High quality data | Laboratories with facilities and expertise to perform analysis of mercury Laboratories willing to cooperate Central and local government willing to provide data High quality data available |
|----------------------------|--|--|
| SOURCES OF VERIFICATION | Survey questionnaire for lab assessment available. Questionnaires returned to project management team available Report on assessment of analytical capacity for mercury analysis available | Monitoring data from Russia available |
| END OF PROJECT TARGET | At least 10 laboratories | 5 datasets |
| MID-TERM TARGET | At least 10 laboratories | 5 datasets available |
| UNITS | # of laboratories assessed | # datasets or studies identified |
| INDICATORS | 3.1 Number of laboratories assessed regarding their capability to perform mercury analysis in various media according to international recognized methods | 3.2 Number of datasets (or studies providing data) of high quality on mercury measurement in various media |
| BASELINE | Some analytical capacity for mercury available | Some mercury data of high quality available in Russia, but data and /or programs are not centrally available |
| STRATEGY NARRATIVE | | |

| JECT SOURCES OF RISKS AND TO VERIFICATION ASSUMPTIONS | es Record of participation (with names and training workshops) available online reports available reports available online reports available report |
|---|--|
| END OF PROJECT TARGET | 2 laboratories 2 facilities from 2 lesy source categories |
| MID-TERM TARGET | 2 laboratories participating in the training workshop Mercury emissions measured at 2 facilities from 2 key priority source categories (sectors) |
| Units | NA # of laboratories trained # of datasets |
| INDICATORS | 3.3 Training workshops carried out to enhance capacity of sampling and analysis of mercury emissions measurements Number of laboratories trained Number of datasets on mercury emission |
| BASELINE | No laboratories across Russia have the capacity for sampling and analyzing mercury emissions using internationally accepted methods Guidelines for voluntary monitoring/measur ement for chloraldel production and for mercury added products Some mercury |
| STRATEGY NARRATIVE | |

Outcome 4: Enhanced understanding of priority sources and capacity for mercury management through the development of a national action plan, including identification of management gaps and monitoring needs

| Report containing Sufficient information or criteria for mercury prioritization sources available on line Political support and National priority for support from mercury sources report stakeholders available on UNEP's All stakeholders participate in the priority setting exercise and action planning development. | Report on mercury gaps assessment and associations willing to proposed actions by cooperate. key sources available on the UNEP's website. |
|---|---|
| At least 4 source categories | At least 4 source categories |
| Report containing criteria for mercury prioritization sources established, and sources prioritized At least 4 source categories | 3 source categories |
| NA # of priority mercury sources | # of source categories where mercury management gaps are identified |
| 4.1 Criteria for prioritization of mercury sources Number of priority mercury sources | 4.2 Number of source categories being assessed for mercury management gaps and proposals to address them. |
| No previous criteria for prioritization developed. UNEP Global Atmospheric Mercury Assessment (UNEP, 2008) ACAP Mercury releases assessment in Russia available (ACAP, 2005) | No analysis of mercury management gaps |
| | |

| STRATEGY NARRATIVE | BASELINE | INDICATORS | Units | MID-TERM TARGET | END OF PROJECT TARGET | SOURCES OF VERIFICATION | RISKS AND ASSUMPTIONS |
|-----------------------|---|--|-------|--|--|--|---|
| | No coherent plan for mercury monitoring in the environment, including humans, nor for air emissions exists UNEP carried out mercury emission measurements at two power plants in 2010 (UNEP Coal project) Guidelines for voluntary monitoring/measurement for chloralkali production and for mercury-added products | 4.3 Assessment and identification of needs for environmental (incl. humans) monitoring of mercury and for monitoring of air emissions of mercury, and development of a national plan for future mercury monitoring | NA | Stakeholders agreement to monitor mercury at priority sites (issues)/media | Long/mid-term national plan for future monitoring of mercury in the environment including humans, and in emissions developed and submitted to the government for approval. | Report on national release monitoring programme available online | Political support and support from stakeholders Suitable experts to develop a proposal for a monitoring programme |

| STRATEGY NARRATIVE | BASELINE | INDICATORS | Units | MID-TERM TARGET | END OF PROJECT TARGET | SOURCES OF VERIFICATION | RISKS AND ASSUMPTIONS |
|-----------------------|--|---|--|--|---|---|--|
| | Voluntary action plans/ guidelines available for chloralkali plants. Limited application of existing regulation on control and abatement of mercury releases. No specific national legislation or policy for mercury control/ management available. National priorities for mercury management need to be established. | 4.4 Number of source category (sector) action plans by key priority sectors | # of source category (sector) action plans | No action plan expected as the mid-term target | At least 5 specific source category (sector) action plans constituting the national action plan | National action plan available on-line | Sectors fully engaged in the action plan process and willing to commit for future activities Action plans reflects stakeholders expectations and capacities to reduce mercury use and promote sound management |

Outcome 5: Better practices used in future projects

| RISKS AND ASSUMPTIONS | Cooperation and participation of all stakeholders. Timelines realistic and achievable. Sufficient financial resources available | | Participation of all stakeholders |
|----------------------------|--|--|--|
| SOURCES OF VERIFICATION | Draft final report on lessons learned and good practices including recommendations; on mercury management, inventory taking and action plans development available | Final report sent to UNEP and disused through MNRE networks | Steering Committee Meeting reports available on the UNEPs and MNRE's website |
| END OF PROJECT TARGET | At least 3 workshops/ seminars | Final report endorsed by key stakeholders. | 3 STG meeting reports |
| MID-TERM TARGET | 2 workshops | Draft final report being revised and comments from national workshop /seminar incorporated into final report | 2 STG meeting reports |
| UNITS | # of consultation workshops | NA | # of Steering Committee Meeting reports |
| INDICATORS | 5.1 Number of consultation workshops/seminars with stakeholders (including industry associations, NGOS, etc.) to discuss the outcomes of the national exercise to identify lessons learned, good practices and recommendation on: a) mercury management practices; b) inventory taking; and c) action plan development | 5.2 Final project report on lessons learned and main outputs (inventories, action plans) endorsed and diffused | 5.3 Number of Steering Committee meeting reports available as part of the Monitoring and Evaluation Plan |
| BASELINE | No previous consultations available | | 0 |
| STRATEGY NARRATIVE | | | |

APPENDIX 6: PUBLIC AWARENESS, COMMUNICATIONS AND MAINSTREAMING

According to the 2008 UNEP report on Global Mercury Atmospheric Emissions Russia releases of Hg in Russia is 79 tons per year. In order to support global actions for mercury management, Russia has attended all sessions of the INC held so far to prepare a global legally binding instrument on mercury. A representative from the Russian Federation also serves as a member of the Bureau of the INC. The ACAP report also highlights the importance of implementing a mercury consumption and recycling control system (through environmental authorities) and the preparation of legal basis for consumption and recycling. This suggests that no regulation on mercury products and consumption is in place.

The Balthazar Project (whose phase I was implemented from 2009 to 2011), with the support of HELCOM, aims at protecting the Baltic Sea from main land-based threats; reducing agricultural nutrient loading and the risk of hazardous wastes. This project implemented a number of pilots activities to enhance the treatment of mercury containing waste (fluorescent lamps). One of the main conclusions of the project was to extend the awareness raising campaigns in households. This issue is being handled during phase II of the project (2012).

This project will complement the ongoing activities and will engage stakeholders to raise awareness of the problem and will encourage as much as possible, the participation of civil society. NGOs as Eco-Accord has experience not only on awareness raising campaigns but also on research and studies on mercury management in Russia, such as the study on Mercury Emission Sources in Russia including six cities of the country. This report concludes that mercury emission reduction will only be possible if it is developed along with regulatory elements.

One of the biggest difficulties in Russia is the lack of awareness of the mercury issue at the facility and ordinary citizen level. It is expected that at the end of this project communities and sectors of the population will know more about mercury related issues. This project will raise awareness at different levels of the society and will reduce risk of mercury exposure through the identification of threats posed by mercury in certain areas.

One key element of the project outreach is the production of lessons learned and good practices. This report is intended to be disseminated through internet websites and be available from MNRE, UNEP and Eco-Accord websites.

APPENDIX 7: ENVIRONMENTAL AND SOCIAL SAFEGUARDS

Mercury identification and management during the inventory process will require careful attention, specially project staff and workers in close contact with mercury containing products, specially during the measure of mercury samples. The project team in charge of the inventory in-site will use special equipment in order to avoid direct contact with mercury.

In terms of equal participation of women in a participatory process, the project will advocate for a sound representation of women and affected groups in the project. Criteria to identify key issues on mercury management will include vulnerable groups, groups at risk and intake from foods.

Pregnant women and children are also more susceptible to mercury and heavy metals in general. Women are also exposed to mercury-containing cosmetics. Many face creams contain mercury and are not necessarily declared in the labels of cosmetic products. Usually communities nearby mercury sources are more vulnerable to contamination, the project will advocate for a national regulatory framework targeting the protection of these two vulnerable groups.

Concerning the *social safeguards*, vulnerable groups will be encouraged to participate in the project and special attention will be given to poor communities being at risk from mercury emissions or living in proximity of a factory that releases mercury emissions. Additionally, media coverage will ensure that the population know about the risk posed by mercury, the environmental and social consequences of continuing using mercury. Dissemination of the information is particularly important to alert the population on the simple measures to avoid mercury contamination and to understand the importance of taking a sound decision that will preserve human health and the environment.

Under the *environmental safeguards*, the project will follow internationally agreed standards in sampling and analysis of mercury samples at the source and will prepare a sound plan to prevent accidents that may put at risk communities nearby. The transportation of the appliance and mercury containing samples to measure mercury concentration and emission at the source will pay particular attention to international agreed standards to avoid mercury release to the environment.

This project will also ensure that minimum carbon emissions are generated, the communication through email and electronic means will replace as much as possible, physical circulation of documents. Travelling will also be restricted to the minimum necessary and most of the discussions will take place through electronic means (email, videoconference, etc). Reducing human and environmental risk to mercury will comply with the Poverty Reduction and Economic Development issues identified with the United Nations Country Team (UNCT).

APPENDIX 8: WORK PLAN AND TIMETABLE

| D. L. C. L. LA C. W. | | | Ye | ar 1 | | | | | Yea | r 2 | | |
|--|----------|---------|----------|--------|--------|----------|---------|---------|-------|-------|------|----|
| Project Components and Activities | 2 | 4 | 6 | 8 | 10 | 12 | 2 | 4 | 6 | 8 | 10 | 12 |
| Component 1: Identification of Initial guidance on Hg manag | ement | t | | | | | | | | | | |
| 1.1 Identify initial guidance materials including translation into Russian of the UNEP Toolkit | | | | | | | | | | | | |
| Component 2: Development of mercury inventories by indus | strial s | ector | | | | | | | | | | |
| 2.1 Awareness workshop leading to sign at least 3 agreements with key industrial associations | | | | | | | | | | | | |
| 2.2 Conduct and develop an inventory of mercury source categories and quantify their mercury releases through consultations and national workshops | | | | | | | | | | | | |
| Component 3: Assessment and strengthening of existing mo | nitorir | ng capa | acity fo | r merc | ury an | alysis i | n the e | enviroi | nment | and h | uman | S |
| 3.1 Assessment of mercury laboratories in Russia able to analyse mercury in various media according to international methods | | | | | | | | | | | | |
| 3.2 Collection of available data of good quality on mercury in the environment including biota and humans, and on mercury in emissions from prioritized sectors from Russian Federation. | | | | | | | | | | | | |
| 3.3 Development of a capacity building programme on measurements of mercury in emissions at the source to reinforce analytical capacity of local laboratories | | | | | | | | | | | | |
| Component 4: Prioritization of mercury sources, mercury management gap analysis and development of initial action plan. | | | | | | | | | | | | |
| 4.1 Development of criteria for prioritization of mercury sources | | | | | | | | | | | | |
| 4.2 Identification of mercury management gap by sector and proposals to address these gaps | | | | | | | | | | | | |
| 4.3 Identification of needs for environmental and human monitoring | | | | | | | | | | | | |
| 4.4 Development of sector action plans by prioritized sectors | <u> </u> | | | | | | | | | | | |
| Component 5: Lessons learned, final report, and strategies for needs to reduce mercury agreed | | | | | | | | | | | | |
| 5.1 Hold national workshops to discuss draft report, strategies and lessons learned | | | | | | | | | | | | |
| 5.2 Development of a final report including lessons learned and future recommendations | | | | | | | | | | | | |
| 5.3 Implement a Monitoring and Evaluation Plan | | | | | | | | | | | | |
| Project Management and supervision | | | | | | | | | | | | |
| Project Management | | | | | | | | | | | | |
| | | | | | | | | | | | | |

APPENDIX 9: KEY DELIVERABLES AND BENCHMARKS

| Component | Activities | Deliverables | Benchmarks |
|--|--|---|---|
| Identification of initial guidance on Hg management | 1.2 Indentify initial guidance materials | Basic information on mercury management in Russian Federation available to relevant stakeholders | guidance material identified by month 2; UNEP toolkit translation into Russian by month 4 |
| 2 Development of mercury inventories by industrial sector | 2.1 Awareness workshop leading to signing at least 3 agreements with key industrial associations | Agreements with key associations. | 3 agreements signed with industry association by month 8 |
| | 2.2 Conduct and develop an inventory of mercury source categories and quantify their mercury releases through consultations and national workshops | National inventory of mercury sources and their releases. | by month 14 |
| 3 Assessment and strengthening of existing monitoring capacity for monitoring analysis in the | 3.1 Assessment of mercury laboratories in Russia able to analyse mercury in various media according to international recognised methods | Report on national capacity for mercury analysis and overview of laboratories able to perform mercury analysis | by month 16 |
| | 3.2 Collection of available data of good quality on mercury in the environment including biota and humans, and on mercury in emissions from prioritized sectors from Russian Federation. | Collected data of good quality for mercury in the environment including biota and humans, and in emissions from key sectors in Russian Federation available | by month 18 |
| | 3.3 Development of a capacity building programme on measurements of mercury in emissions at the source to reinforce analytical capacity of local laboratories | Record of laboratories participating including mercury sampling, analysis and measurements of mercury in emissions. | by month 20 |
| 4 Prioritization of mercury sources, mercury management gaps analysis and development of initial action plan | 4.1 Development of criteria for prioritization of mercury sources | Scheme of criteria for mercury prioritization sources developed and available | by month 20 |
| | 4.2 Identification of mercury management gap by sector and proposals to address these gaps | Report on management gaps identified including proposals to address these gaps | by month 22 |
| | 4.3 Identification of needs for environmental and human monitoring | National plan for monitoring of mercury levels in the environment and humans, and in emissions that will confirm mercury reductions in the environment and humans | by month 22 |
| | 4.4 Development of sector action plans for prioritized sectors | Action plan for the Russian Federation on medium and long term measures to decrease mercury emissions in prioritized sectors. | by month 22 |
| 5 Lessons Learned, final report, and strategies for needs to reduce mercury agreed | 5.1 Hold national workshop to discuss draft report, strategies and lessons learned | Draft report including recommendations on mercury management, inventory taking and initial and initial action plan for Russian Federation | by month 2, 14 and 24 |

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APPENDIX 10: SUMMARY OF REPORTING REQUIREMENTS AND RESPONSIBILITES

- 1. Day-to-day management and monitoring of project activities will be the responsibility of the Executin (MNRE).
- 2. During the course of the project, the Executing Agency teams will be responsible for the preparation of progress reports (financial and technical) and for the preparation of forward plans and budgetary estimatimely preparation and submission of mandatory report forms are integral part of the monitoring Reporting requirements are summarized below:

Summary of Reporting Requirements and project monitoring

| Report and Content | Format | Timing | R |
|---|--|---|-------------------|
| Inception report | | | |
| Detailed implementation plan for progress monitoring | Agreed format allowing progress tracking | Following inception workshops | MNR UNE |
| Technical Progress reports | | | |
| Documents progress & completion of activities; Describes progress against annual work plan; Reviews implementation plans, summarizes problems and adaptive management; Provides activity plans for following period; Provides project outputs for review | UNEP Progress Reporting Formats; | Half-yearly, within 30 days of each reporting period | MNR UNE |
| Financial Progress Reports | | | |
| Documents project expenditure according to established project budget and allocations; Provides budgetary plans for following reporting period; Requests further cash transfers; Requests budget revision as necessary; Provides inventory of non-expendable equipment procured for project | UNEP Financial reporting formats; Inventory of non- expendable equipment | Half-yearly, within 30 days of each reporting period | MNR UNE |
| Financial Audit | | | |
| Audit of project accounts and records | Approved audit report format | At project completion | MNR UNE |
| Co-financing report | | | |
| Reports co-financing provided to the project; Reviews co-financing inputs against GEF approved financing plan | UNEP reporting format | Annual | MNR UNE |
| Project Implementation Review (PIR) reports | | | |
| Summary implementation review | GEF M&E format | Annual | MNR UNE |
| Terminal report | | | |
| Review of effectiveness of the project, its technical outputs, lessons learned and progress towards outcomes | UNEP reporting format | At project completion | MNR UNE |
| Terminal Evaluation | | | |
| Provides detailed independent evaluation of project management, actions, outputs and impacts | GEF M&E format | At project completion | Inde _l |
| | | | |

- 3. The *Inception report* will include a detailed narrative on the institutional roles and responsibilities of the project partners, identify stakeholder engagement commitments developed during the inception workshops, set out progress on project establishment and start-up activities, provide a detailed implementation plan suitable for progress tracking purposes. The report will be submitted by MNRE to UNEP DTIE Chemicals and used as a benchmark against which regular progress reports are reviewed.
- 4. **Technical Progress reports** will be prepared by the project coordinator in MNRE in English within 30 days of the end of each semester. Reports will be prepared using the standard UNEP format. These reports form the principal tools of regular project monitoring and will contain:
 - an account of actual implementation activities undertaken during the reporting period and an assessment of progress against the implementation plan;
 - an identification of barriers to project implementation and recommendations for corrective actions during the following period, including any revision to the implementation plan;
 - a detailed and costed work plan for the following reporting period, including a forward project of the status of funds held locally and, when necessary, a request for further cash transfers to the project;
 - an updated inventory of non-expendable equipment and items of attraction procured for the project;
 - copies of project meeting reports and participants lists, technical outputs submitted to the project team.
- 5. *Financial progress reports (Project Expenditure Accounts)*: will be prepared by the Executing Agency within 30 days of the end of each semester. Reports will be prepared in US\$ using the project budget codes and in the standard UNEP format. They will contain an account of actual expenditure in support of the activities undertaken. The reports will be approved by a duly authorized official of MNRE and submitted to UNEP DTIE Chemicals.
- 6. A *terminal financial audit, if applicable,* is required within 180 days of the completion of the project. MNRE will supply UNEP with a final statement of account in the same format as for the periodic financial statements, certified by a recognized firm of public accountants. If requested, MNRE shall facilitate an audit by the United Nations Board of Auditors and/or the Audit Service of the accounts of the Project. In particular, the auditors should be asked to report whether, in their opinion:
 - Proper books of account and records have been maintained;
 - All project expenditures are supported by vouchers and adequate documentation;
 - Expenditures have been incurred in accordance with the objectives outlined in the project document;
 - The Expenditure reports provide a fair view of the financial condition and performance of the project.
- 7. **Unspent funds:** Any portion of cash advances remaining unspent or uncommitted by MNRE on completion of the project will be reimbursed to UNEP within one month of the presentation of the final statement of accounts. In the event of any delay in such reimbursement, MNRE will be financially responsible for any adverse movement in the exchange rates.
- 8. *Co-finance report*: The Executing Agency will report annually on the co-finance received and used to advance the project activities. The report will show:
 - The amount of co-financing realized compared with the amount of co-financing committed to at the time of project approval, and
 - Co-financing reporting by source and by type¹⁷.
- 9. **Project Implementation Review (PIR)** will be prepared by the project coordinator in English at the end of each 12 month period of project implementation. The PIR is an annual monitoring process mandated by the GEF and for which the independent GEF M&E unit provides the scope and content. Individual PIRs are collected, reviewed and analyzed by UNEP DTIE Chemicals by focal area, theme and region to extract common issues, lessons learned and good practices. Focal area PIRs are discussed at the GEF Interagency Focal Area Task Forces with consolidated reports by focal area then being transferred to the independent GEF M&E unit.

¹⁷ Sources include the agency's own co-financing, government co-financing and contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector, and beneficiaries.

Types of co-finance include Cash (grants, loans, credits, and equity investments) and In-Kind resources (limited to those dedicated uniquely to this project and valued as the lesser of the cost and the market value of the required inputs they provide for the project and monitored with documentation available for any evaluation or project audit.

10. The *Terminal Report* is prepared by the Executing Agency in English immediately within the 60 days following the end of project implementation. It is submitted to UNEP DTIE Chemicals, to the Chief, Budget and Financial Management Service, and to the Chief, Programme Coordination and Management Unit. It provides a review of the effective operation of the project and of its achievements in reaching its designed outputs. The report will set out lessons learned during the project and assesses the likelihood of the project achieving its design outcomes. It provides a basis for the independent *Terminal Evaluation* of the project. This evaluation reviews the impact and effectiveness of the project, the sustainability of results and whether the project has achieved its immediate, development and global objectives. Indicators for the evaluation of the effective operation of the project are given in the table below:

Indicators for evaluation of effective operation of the project

| malcutors for evaluation of effective operation of the project | | | | |
|--|--|--|--|--|
| Indicator | Means of verification | | | |
| Half-yearly progress and financial reports and annual PIR prepared in a timely and satisfactory manner | Arrival of reports at UNEP | | | |
| Performance targets, outputs, and outcomes are achieved as specified in the implementation plan and any agreed revisions to it | Progress reports | | | |
| Deviations from the implementation plans are corrected promptly and appropriately. | Work plans, minutes of MNRE meetings | | | |
| Half yearly financial reports are timely and accurate | Arrival of reports at UNEP | | | |
| Disbursements are made on a timely basis | IMIS system of UNEP and Bank statements of national executing agency | | | |
| Procurement is achieved according to procurement plan and reflected in non-expendable equipment inventory | Progress reports | | | |
| Requests for deviations from approved budgets are submitted in timely manner | Timely submission of revised budget to UNEP for approval | | | |
| Audit reports and other reviews showing sound financial practices | Audit reports | | | |

APPENDIX 11: STANDARD TERMINAL EVALUATION

1. TERMS OF REFERENCE:

- 1. Terminal Evaluation of the UNEP GEF project
- 2. Project Number GF/...

2. PROJECT BACKGROUND AND OVERVIEW:

- 1. Project rationale from the project document
- 2. Relevance to GEF Programmes
- 3. Executing Arrangements
- 4. Project Activities
- 5. Budget

TERMS OF REFERENCE FOR THE EVALUATION

1. OBJECTIVE AND SCOPE OF THE EVALUATION

The objective of this terminal evaluation is to examine the extent and magnitude of any project impacts to date and determine the likelihood of future impacts. The evaluation will also assess project performance and the implementation of planned project activities and planned outputs against actual results.

The evaluation will focus on the following main questions: ...

2. METHODS

This terminal evaluation will be conducted as an in-depth evaluation using a participatory approach whereby the UNEP/DGEF Task Manager, key representatives of the executing agencies and other relevant staff are kept informed and regularly consulted throughout the evaluation. The consultant will liaise with the UNEP/EOU and the UNEP/DGEF Task Manager on any logistic and/or methodological issues to properly conduct the review in as independent a way as possible, given the circumstances and resources offered. The draft report will be circulated to UNEP/DGEF Task Manager, key representatives of the executing agencies and the UNEP/EOU. Any comments or responses to the draft report will be sent to UNEP / EOU for collation and the consultant will be advised of any necessary revisions.

The findings of the evaluation will be based on the following:

- 1. A desk review of project documents including, but not limited to:
 - (a) The project documents, outputs, monitoring reports (such as progress and financial reports to UNEP and GEF annual Project Implementation Review reports) and relevant correspondence.
 - (b) Review of specific products including the final reports from country executing agencies, workshop proceedings, etc
 - (c) Notes from the Steering Group meetings.
 - (d) Other project-related material produced by the project staff or partners.
- 2. Interviews with project management and technical support staff.
- 3. Interviews with intended users for the project outputs and other stakeholders involved with this project, including in the participating countries and international bodies. As appropriate, these interviews could be combined with an email questionnaire.
- 4. The Consultant shall seek additional information and opinions by e-mail, through telephone communication, or by actual meetings.
- 5. Interviews with the UNEP/DGEF project task manager and Fund Management Officer, and other relevant staff in UNEP dealing with POPs related activities as necessary. The Consultant shall also gain broader perspectives from discussions with relevant GEF Secretariat staff.

Key Evaluation principles. In attempting to evaluate any outcomes and impacts that the project may have achieved, evaluators should remember that the project's performance should be assessed by considering the difference between the answers to two simple questions "what happened?" and "what would have happened anyway?". These questions imply that there should be consideration of the baseline conditions

and trends in relation to the intended project outcomes and impacts. In addition it implies that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project.

Sometimes, adequate information on baseline conditions and trends is lacking. In such cases this should be clearly highlighted by the evaluator, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgments about project performance.

3. PROJECT EVALUATION PARAMETERS

A. Attainment of objectives and planned results:

The assessment of project results seeks to determine the extent to which the project objectives were achieved, or are expected to be achieved, and assess if the project has led to any other positive or negative consequences. While assessing a project's outcomes the evaluation will seek to determine the extent of achievement and shortcomings in reaching the project's objectives as stated in the project document and also indicate if there were any changes and whether those changes were approved. As the project did not establish an elaborate baseline (initial conditions), the evaluator should seek to estimate the baseline condition so that achievements and results can be properly established (or simplifying assumptions used). Since most GEF projects can be expected to achieve the anticipated outcomes by project closing, assessment of project outcomes should be a priority. Outcomes are the likely or achieved short-term and medium-term effects of an intervention's outputs. Examples of outcomes could include but are not restricted to stronger institutional capacities, higher public awareness (when leading to changes of behaviour), and transformed policy frameworks or markets. The evaluation should assess the extent to which the project's major relevant objectives were effectively and efficiently achieved or are expected to be achieved and their relevance.

- *Effectiveness:* Evaluate how, and to what extent, the stated project objectives have been met, taking into account the "achievement indicators" specified in the project document and logical framework¹⁸.
- *Relevance:* In *retrospect*, were the project's outcomes consistent with the focal areas/operational program strategies and country priorities? The evaluation should also assess the whether outcomes specified in the project document and or logical framework are actually outcomes and not outputs or inputs.
- Efficiency: Cost-effectiveness assesses the achievement of the environmental and developmental objectives as well as the project's outputs in relation to the inputs, costs, and implementing time. Include an assessment of outcomes in relation to inputs, costs, and implementation times based on the following questions: Was the project cost-effective? Was the project the least cost option? Was the project implementation delayed and if it was then did that affect cost-effectiveness? The evaluation should assess the contribution of cash and in-kind co-financing to project implementation and to what extent the project leveraged additional resources. Comparisons of the cost-time vs. outcomes relationship of the project with that of other similar projects should be made if feasible.

B. Assessment of Sustainability of project outcomes:

Sustainability is understood as the probability of continued long-term project-derived outcomes and impacts after the GEF project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits after the project ends. Some of these factors might be outcomes of the project, e.g. stronger institutional capacities or better informed decision-making. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes. The evaluation should ascertain to what extent follow-up work has been initiated and how project outcomes will be sustained and enhanced over time. In this case, sustainability will be linked to the continued use and influence of scientific models and scientific findings, produced by the project.

Four aspects of sustainability should be addressed: financial, socio-political, institutional frameworks and governance, and ecological (if applicable). The following questions provide guidance on the assessment of these aspects:

• *Financial resources*. To what extent are the outcomes of the project dependent on continued financial support? What is the likelihood that any required financial resources will be available to sustain the project outcomes/benefits once the GEF assistance ends (resources can be from multiple sources, such

¹⁸ In case in the original or modified expected outcomes are merely outputs/inputs then the evaluators should assess if there were any real outcomes of the project and if yes then whether these are commensurate with the realistic expectations from such projects.

- as the public and private sectors, income generating activities, and market trends that support the project's objectives)? Was the project was successful in identifying and leveraging co-financing?
- *Socio-political:* To what extent are the outcomes of the project dependent on socio-political factors? What is the likelihood that the level of stakeholder ownership will allow for the project outcomes/benefits to be sustained? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project?
- *Institutional framework and governance.* To what extent are the outcomes of the project dependent on issues relating to institutional frameworks and governance? What is the likelihood that institutional and technical achievements, legal frameworks, policies and governance structures and processes will allow for, the project outcomes/benefits to be sustained? While responding to these questions consider if the required systems for accountability and transparency and the required technical knowhow are in place.
- *Ecological.* Are there any environmental risks that can undermine the future flow of project environmental benefits? The TE should assess whether certain activities in the project area will pose a threat to the sustainability of the project outcomes.¹⁹

As far as possible, also assess the potential longer-term impacts considering that the evaluation is taking place upon completion of the project and that longer term impact is expected to be seen in a few years time. Frame any recommendations to enhance future project impact in this context. Which will be the major 'channels' for longer term impact from the project at the national and international scales? The evaluation should formulate recommendations that outline possible approaches and necessary actions to facilitate an impact assessment study in a few years time.

C. Catalytic role

The terminal evaluation will also describe any catalytic or replication effect of the project. What examples are there of replication and catalytic outcomes that suggest increased likelihood of sustainability? Replication approach, in the context of GEF projects, is defined as lessons and experiences coming out of the project that are replicated or scaled up in the design and implementation of other projects. Replication can have two aspects, replication proper (lessons and experiences are replicated in different geographic area) or scaling up (lessons and experiences are replicated within the same geographic area but funded by other sources). If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the catalytic role.

D. Achievement of outputs and activities:

- Delivered outputs: Assessment of the project's success in producing each of the programmed outputs, both in quantity and quality as well as usefulness and timeliness.
- Assess the soundness and effectiveness of the methods and approached used by the project.

E. Assessment of Monitoring and Evaluation Systems:

- **M&E design.** Did the project have a sound M&E plan to monitor results and track progress towards achieving project objectives? The Terminal Evaluation will assess whether the project met the minimum requirements for project design of M&E and the application of the Project M&E plan (Minimum requirements are specified in Annex 4). The evaluation shall include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The M&E plan should include a baseline (including data, methodology, etc.), SMART (see Annex 4) indicators and data analysis systems, and evaluation studies at specific times to assess results. The time frame for various M&E activities and standards for outputs should have been specified.
- **M&E plan implementation.** Was an M&E system in place and did it facilitate tracking of results and progress towards projects objectives throughout the project implementation period. Were Annual project reports complete, accurate and with well justified ratings? Was the information provided by the M&E system used during the project to improve project performance and to adapt to changing needs? Did the Projects have an M&E system in place with proper training for parties responsible for M&E activities to ensure data will continue to be collected and used after project closure?

¹⁹ For example, construction of dam in a protected area could inundate a sizable area and thereby neutralizing the biodiversity related gains made by the project or, a newly established pulp mill might jeopardise the viability of nearby protected forest areas by increasing logging pressures.

- **Budgeting and Funding for M&E activities.** Were adequate budget provisions made for M&E made and were such resources made available in a timely fashion during implementation?
- **Long-term Monitoring.** Is long-term monitoring envisaged as an outcome of the project? If so, comment specifically on the relevance of such monitoring systems to sustaining project outcomes and how the monitoring effort will be sustained.

F. Assessment of processes that affected attainment of project results.

The evaluation will consider, but need not be limited to, consideration of the following issues that may have affected project implementation and attainment of project results:

- i. **Preparation and readiness.** Were the project's objectives and components clear, practicable and feasible within its timeframe? Were capacities of the executing institutions and counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in design? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to implementation? Was availability of counterpart resources (funding, staff, and facilities), passage of enabling legislation, and adequate project management arrangements in place at project entry?
 - Ascertain to what extent the project implementation mechanisms outlined in the project
 document have been closely followed. In particular, assess the role of the various committees
 established and whether the project document was clear and realistic to enable effective and
 efficient implementation, whether the project was executed according to the plan and how well
 the management was able to adapt to changes during the life of the project to enable the
 implementation of the project.
 - Evaluate the effectiveness and efficiency and adaptability of project management and the supervision of project activities / project execution arrangements at all levels (1) policy decisions: Steering Group; (2) day to day project management: (3) GEF guidance: UNEP DGEF.
- ii. **Country ownership/Drivenness.** This is the relevance of the project to national development and environmental agendas, recipient country commitment, and regional and international agreements. Examples of possible evaluative questions include: Was the project design in-line with the national sectoral and development priorities and plans? Are project outcomes contributing to national development priorities and plans? Were the relevant country representatives, from government and civil society, involved in the project? Did the recipient government maintain its financial commitment to the project? Have the government approved policies or regulatory frameworks been in-line with the project's objectives?

Stakeholder involvement. Did the project involve the relevant stakeholders through information sharing, consultation and by seeking their participation in project's design, implementation, and monitoring and evaluation? For example, did the project implement appropriate outreach and public awareness campaigns? Did the project consult and make use of the skills, experience and knowledge of the appropriate government entities, NGOs, community groups, private sector, local governments and academic institutions in the design, implementation and evaluation of project activities? Were perspectives of those that would be affected by decisions, those that could affect the outcomes and those that could contribute information or other resources to the process taken into account while taking decisions? Were the relevant vulnerable groups and the powerful, the supporters and the opponents, of the processes properly involved? Specifically the evaluation will:

- Assess the mechanisms put in place by the project for identification and engagement of stakeholders in each participating country and establish, in consultation with the stakeholders, whether this mechanism was successful, and identify its strengths and weaknesses.
- Assess the degree and effectiveness of collaboration/interactions between the various project partners and institutions during the course of implementation of the project.
- Assess the degree and effectiveness of any various public awareness activities that were undertaken during the course of implementation of the project.

Financial planning. Did the project have the appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds. Specifically, the evaluation should:

- Assess the strength and utility of financial controls, including reporting, and planning to allow the
 project management to make informed decisions regarding the budget and allow for a proper and
 timely flow of funds for the payment of satisfactory project deliverables throughout the project's
 lifetime.
- Present the major findings from the financial audit if one has been conducted.
- Did promised co-financing materialize? Identify and verify the sources of co-financing as well as leveraged and associated financing (in co-operation with the IA and EA).
- Assess whether the project has applied appropriate standards of due diligence in the management of funds and financial audits.
- The evaluation should also include a breakdown of final actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing. This information will be prepared by the relevant DGEF Fund Management Officer of the project for scrutiny by the evaluator (table attached in Annex 1 Co-financing and leveraged resources).

UNEP Supervision and backstopping. Did UNEP Agency staff identify problems in a timely fashion and accurately estimate its seriousness? Did UNEP staff provide quality support and advice to the project, approved modifications in time and restructure the project when needed? Did UNEP and Executing Agencies provide the right staffing levels, continuity, skill mix, frequency of field visits?

Co-financing and Project Outcomes & Sustainability. If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for this? Did the extent of materialization of co-financing affect the project's outcomes and/or sustainability, and if it did affect outcomes and sustainability then in what ways and through what causal linkages?

Delays and Project Outcomes & Sustainability. If there were delays in project implementation and completion, the evaluation will summarise the reasons for them. Did delays affect the project's outcomes and/or sustainability, and if so in what ways and through what causal linkages?

The *ratings will be presented in the form of a table* with each of the categories rated separately and with **brief** justifications **for the rating** based on the findings of the main analysis. An overall rating for the project should also be given. The rating system to be applied is specified in Annex 1:

4. EVALUATION REPORT FORMAT AND REVIEW PROCEDURES

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

Evidence, findings, conclusions and recommendations should be presented in a complete and balanced manner. The evaluation report shall be written in English, be of no more than 50 pages (excluding annexes), use numbered paragraphs and include:

- i) An **executive summary** (no more than 3 pages) providing a brief overview of the main conclusions and recommendations of the evaluation;
- ii) **Introduction and background** giving a brief overview of the evaluated project, for example, the objective and status of activities;
- iii) **Scope, objective and methods** presenting the evaluation's purpose, the evaluation criteria used and questions to be addressed;
- iv) **Project Performance and Impact** providing factual evidence relevant to the questions asked by the evaluator and interpretations of such evidence. This is the main substantive section of the report and should provide a commentary on all evaluation aspects (A F above).
- v) **Conclusions and rating** of project implementation success giving the evaluator's concluding assessments and ratings of the project against given evaluation criteria and standards of performance. The conclusions should provide answers to questions about whether the project is considered good or bad, and whether the results are considered positive or negative;

- vi) **Recommendations** suggesting *actionable* proposals for stakeholders to rectify poor existing situations as well as recommendations concerning projects of similar nature. In general, Terminal Evaluations are likely to have very few (only two or three) actionable recommendations;
- vii) **Annexes** include Terms of Reference, list of interviewees, documents reviewed, brief summary of the expertise of the evaluator / evaluation team, a summary of co-finance information etc. Dissident views or management responses to the evaluation findings may later be appended in an annex.

Examples of UNEP GEF Terminal Evaluation Reports are available at www.unep.org/eou

Review of the Draft Evaluation Report. Draft reports submitted to UNEP EOU are shared with the corresponding Programme or Project Officer and his or her supervisor for initial review and consultation. The DGEF staff and senior Executing Agency staff are allowed to comment on the draft evaluation report. They may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. The consultation also seeks agreement on the findings and recommendations. UNEP EOU collates the review comments and provides them to the evaluators for their consideration in preparing the final version of the report.

All UNEP GEF Evaluation Reports are subject to quality assessments by UNEP EOU. These incorporate GEF Office of Evaluation quality assessment criteria and are used as a tool for providing structured feedback to the evaluator (see Annex 3).

5. SUBMISSION OF FINAL TERMINAL EVALUATION REPORTS.

The final report shall be submitted in electronic form in MS Word format and should be sent to the following persons:

...

With a copy to:

...

The final evaluation report will be printed in hard copy and published on the Evaluation and Oversight Unit's web-site www.unep.org/eou. Subsequently, the report will be sent to the GEF Office of Evaluation for their review, appraisal and inclusion on the GEF website.

6. RESOURCES AND SCHEDULE OF THE EVALUATION

This final evaluation will be undertaken by an international evaluator contracted by the Evaluation and Oversight Unit, UNEP. The contract for the evaluator will begin on... The evaluator will submit a draft report on ... to UNEP/EOU, the UNEP/DGEF Task Manager, and key representatives of the executing agencies. Any comments or responses to the draft report will be sent to UNEP / EOU for collation and the consultant will be advised of any necessary revisions. Comments to the final draft report will be sent to the consultant by ... after which, the consultant will submit the final report no later than...

In accordance with UNEP/GEF policy, all GEF projects are evaluated by independent evaluators contracted as consultants by the EOU. The evaluators should have the following qualifications: The evaluator should not have been associated with the design and implementation of the project. The evaluator will work under the overall supervision of the Chief, Evaluation and Oversight Unit, UNEP. Knowledge of UNEP programmes and GEF activities is desirable. Fluency in oral and written English is a must.

ANNEX 1. OVERALL RATINGS TABLE

| Criterion | Evaluator's Summary Comments | Evaluator's Rating |
|---|---------------------------------|-----------------------|
| Attainment of project objectives and results (overall rating). Sub criteria (below) | | |
| Effectiveness | | |
| Relevance | | |

| Criterion | Evaluator's Summary Comments | Evaluator's Rating |
|--|---------------------------------|-----------------------|
| Efficiency | | |
| Sustainability of Project outcomes (overall rating). Sub criteria (below) | | |
| Financial | | |
| Socio Political | | |
| Institutional framework and governance | | |
| Ecological | | |
| Achievement of outputs and activities | | |
| Monitoring and Evaluation (overall rating) Sub criteria (below) | | |
| M&E Design | | |
| M&E Plan Implementation (use for adaptive management) | | |
| Budgeting and Funding for M&E activities | | |
| Catalytic Role | | |
| Preparation and readiness | | |
| Country ownership / driveness | | |
| Stakeholders involvement | | |
| Financial planning | | |
| UNEP Supervision and backstopping | | |
| Overall Rating | | |

RATING OF PROJECT OBJECTIVES AND RESULTS

Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Unsatisfactory (U): The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

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

RATINGS ON SUSTAINABILITY

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

Rating system for sustainability sub-criteria. On each of the dimensions of sustainability of the project outcomes will be rated as follows:

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

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

RATINGS OF PROJECT M&E

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project monitoring and evaluation system will be rated on 'M&E Design', 'M&E Plan Implementation' and 'Budgeting and Funding for M&E activities' as follows:

- **Highly Satisfactory (HS):** There were no shortcomings in the project M&E system.
- **Satisfactory (S):** There were minor shortcomings in the project M&E system.
- Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system.
- Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system.
- **Unsatisfactory (U):** There were major shortcomings in the project M&E system.
- **Highly Unsatisfactory (HU):** The Project had no M&E system.

"M&E plan implementation" will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on "M&E plan implementation."

All other ratings will be on the GEF six point scale.

| | GEF Performance Description | Alternative description on the same scale |
|----|------------------------------------|---|
| HS | = Highly Satisfactory | Excellent |
| S | = Satisfactory | Well above average |
| MS | = Moderately Satisfactory | Average |
| MU | = Moderately Unsatisfactory | Below Average |
| U | = Unsatisfactory | Poor |
| HU | = Highly Unsatisfactory | Very poor (Appalling) |

ANNEX 2 - CO-FINANCING AND LEVERAGED RESOURCES

CO-FINANCING (BASIC DATA TO BE SUPPLIED TO THE CONSULTANT FOR VERIFICATION)

| Co financing (Type/Source) | IA or Financin USS | ıg (mill | Govern (mill t | | Other* USS | | Total (m | nill US\$) | Total Disbursement (mill US\$) | | | | |
|--|--------------------------|----------|-------------------|--------|---------------|--------|----------|------------|--------------------------------------|--------|--|--|--|
| | Planned | Actual | Planned | Actual | Planned | Actual | Planned | Actual | Planned | Actual | | | |
| - Grants | | | | | | | | | | | | | |
| - Loans/Concessional (compared to market rate) | | | | | | | | | | | | | |
| - Credits | | | | | | | | | | | | | |
| - Equity investments | | | | | | | | | | | | | |
| - In-kind support | | | | | | | | | | | | | |
| - Other (*) | | | | | | | | | | | | | |
| - | | | | | | | | | | | | | |
| - | | | | | | | | | | | | | |
| - | | | | | | | | | | | | | |
| - | | | | | | | | | | | | | |
| 3. <u>Totals</u> | | | | | | | | | | | | | |

^{*}Other is referred to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.

Leveraged Resources. Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result of the project. Leveraged resources can be financial or in-kind and they may be from other donors, NGO's, foundations, governments, communities or the private sector. Please briefly describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project's ultimate objective.

Table showing final actual project expenditure by activity to be supplied by the UNEP Fund management Officer. (insert here)

ANNEX 3 - REVIEW OF THE DRAFT REPORT

Review of the Draft Report. Draft reports submitted to UNEP EOU are shared with the corresponding Programme or Project Officer and his or her supervisor for initial review and consultation. The DGEF staff and senior Executing Agency staff provide comments on the draft evaluation report. They may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. The consultation also seeks agreement on the findings and recommendations. UNEP EOU collates the review comments and provides them to the evaluators for their consideration in preparing the final version of the report. General comments on the draft report with respect to compliance with these TOR are shared with the reviewer.

Quality Assessment of the Evaluation Report. All UNEP GEF Reports are subject to quality assessments by UNEP EOU. These apply GEF Office of Evaluation quality assessment and are used as a tool for providing structured feedback to the evaluator.

The quality of the draft evaluation report is assessed and rated against the following criteria:

| GEF Report Quality Criteria | UNEP EOU Assessment | Rating |
|---|------------------------|--------|
| A. Did the report present an assessment of relevant outcomes and achievement of project objectives in the context of the focal area program indicators if applicable? | | |
| B. Was the report consistent and the evidence complete and convincing and were the ratings substantiated when used? | | |
| C. Did the report present a sound assessment of sustainability of outcomes? | | |
| D. Were the lessons and recommendations supported by the evidence presented? | | |
| E. Did the report include the actual project costs (total and per activity) and actual co-financing used? | | |
| F. Did the report include an assessment of the quality of the project M&E system and its use for project management? | | |
| G. Quality of the lessons: Were lessons readily applicable in other contexts? Did they suggest prescriptive action? | | |
| H. Quality of the recommendations: Did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?)'. Can they be implemented? Did the recommendations specify a goal and an associated performance indicator? | | |
| I. Was the report well written? (clear English language and grammar) | | |
| J. Did the report structure follow EOU guidelines, were all requested Annexes included? | | |
| K. Were all evaluation aspects specified in the TORs adequately addressed? | | |
| L. Was the report delivered in a timely manner | | |

GEF Quality of the MTE report = 0.3*(A + B) + 0.1*(C+D+E+F)

EOU assessment of MTE report = 0.3*(G + H) + 0.1*(I+J+K+L)

Combined quality Rating = (2* 'GEF EO' rating + EOU rating)/3

The Totals are rounded and converted to the scale of HS to HU

Rating system for quality of terminal evaluation reports:

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

ANNEX 4 - GEF MINIMUM REQUIREMENTS FOR MONITORING AND EVALUATION

Minimum Requirement 1: Project Design of Monitoring and Evaluation ²⁰

All projects must include a concrete and fully budgeted monitoring and evaluation plan by the time of Work Program entry (full-sized projects) or CEO approval (medium-sized projects). This plan must contain at a minimum:

- SMART (see below) indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management
- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, corporate-level indicators
- A project baseline, with:
 - a. a description of the problem to address
 - b. indicator data
 - c. or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation
- An M&E Plan with identification of reviews and evaluations which will be undertaken, such as mid-term reviews or evaluations of activities
- An organizational setup and budgets for monitoring and evaluation.

Minimum Requirement 2: Application of Project Monitoring & Evaluation

- Project monitoring and supervision will include implementation of the M&E plan, comprising:
- Use of SMART indicators for implementation (or provision of a reasonable explanation if not used)
- Use of SMART indicators for results (or provision of a reasonable explanation if not used)
- Fully established baseline for the project and data compiled to review progress
- Evaluations are undertaken as planned
- Operational organizational setup for M&E and budgets spent as planned.

SMART INDICATORS GEF projects and programs should monitor using relevant performance indicators. The monitoring system should be "SMART":

- 1. **Specific**: The system captures the essence of the desired result by clearly and directly relating to achieving an objective, and only that objective.
- 2. **Measurable:** The monitoring system and its indicators are unambiguously specified so that all parties agree on what the system covers and there are practical ways to measure the indicators and results.
- 3. **Achievable and Attributable:** The system identifies what changes are anticipated as a result of the intervention and whether the result(s) are realistic. Attribution requires that changes in the targeted developmental issue can be linked to the intervention.
- 4. **Relevant and Realistic:** The system establishes levels of performance that are likely to be achieved in a practical manner, and that reflect the expectations of stakeholders.
- 5. **Time-bound, Timely, Trackable, and Targeted:** The system allows progress to be tracked in a cost-effective manner at desired frequency for a set period, with clear identification of the particular stakeholder group to be impacted by the project or program.

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 $^{^{20}\} http://gefweb.org/Monitoring and Evaluation/MEPolicies Procedures/MEPTools/mept standards.html$

ANNEX 5 - LIST OF INTENDED ADDITIONAL RECIPIENTS FOR THE TERMINAL EVALUATION

| Name | Affiliation | Email |
|----------------------|-------------|-------|
| Government Officials | | |
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| GEF Focal Point(s) | | |
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| Executing Agency | | |
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Sweden Partner Organization Representatives **Technical Support** USEPA USEPA UNEP SRI UNEP Define project objective and approach Project Steering Committee (PSC) GEF Hg Action Plan adoption MNRE Executing Agency Cabinet of Prime Minister Russian Parliament National Coordinator **MNRE Minister** Environment (MNRE) Technical Officer PSC Secretariat: Admin Officer Ministry of National Coordination Group RusChlor SR Legal advice Ministry of Foreign Affairs MNRE UNEP Eco Accord

APPENDIX 12: DECISION MAKING FLOWCHART AND ORGANIGRAM

APPENDIX 13: TERMS OF REFERENCE

Project Coordinator Terms of Reference Job Description

Project: Pilot project on the development of mercury inventory in Russia

Post title: Project Coordinator

Duration:24 Months**Date Required**:1 January 2013

Duty station: Moscow, Russian Federation

Counterpart: Ministry of Natural Resources and Environment of the Russian Federation

(MNRE)

Duties: Working within the MNRE premises or place designated by the MNRE and with recruited experts, the Project Coordinator will be responsible for the supervision, coordination and execution, of the above mentioned project.

The main duties are as follows:

| | Main Duty | Main Duty Output | | | | |
|---|---|---|--|--|--|--|
| 1 | Elaborate a detailed work plan and budget for the MSP project. | Work Plan and budget | For consideration at the 1 st meeting of the Steering Group | | | |
| 2 | Liaise with the parties participating in the project and assist them to: • Establish national coordinating mechanisms (NCG) • Link project activities to related subproject institutions | Terms of Reference for NCG NCG established and operational | At project start to provide national representatives for the Steering Committee | | | |
| 3 | Prepare, in consultation with MNRE, and UNEP, draft Terms of Reference for the experts to be contracted in the context of the MSP project | Draft Terms of Reference | For consideration at the 1 st meeting of the Steering Group | | | |
| 4 | Provide a secretariat function for the Project Steering Committee of the project including: • Prepare necessary documents and logistics for the meetings of the Committee; • Facilitate meetings, providing progress and draft technical papers for consideration • Prepare formal reports of meetings | Meeting papers and Reports | Meetings of the Steering Committee are envisaged at the inception and late stage (2 meetings) of the MSP implementation. Exact timing to be determined in the work plan. | | | |
| 5 | Prepare, in conformity with the project document, periodic progress and financial reports of the project | Progress and financial reports in UNEP format Terminal report of the MSP project | At the end of each semester Within 60 days of the end of the MSP project | | | |
| 6 | Coordinate, in close collaboration with the UNEP DTIE, all activities under the MSP project, as stated in Annex 9 of this document | Regular supervision and coordination | 24 months | | | |
| 7 | Prepare in collaboration with UNEP DTIE Chemicals recruited expert(s); • An analysis of industrial sectors; • a guidance on how to best use the UNEP toolkit to be used during the inventory taking exercise; | analysis of the typical provinces industrial sectors; module for industry training on the use of UNEP's toolkit | During the first year of the project | | | |

| | Main Duty | Main Duty Output | | | | | |
|----|--|--|--|--|--|--|--|
| | A review of the mercury inventory data produced in the project | Analysis of mercury inventory | | | | | |
| 8 | Organize a series of training sessions on mercury inventory taking, priority setting, action plan development and measures at the source | Report on training sessions | To be undertaken during the first and second year of the project | | | | |
| 9. | Identify lessons learned and replicable elements to be disseminated with Parties to mercury inventory | Final report on lessons learned identified and shared with Parties | At month 24 of the project | | | | |

Expected Outputs/ Outcomes

- Approved half-yearly and terminal progress and financial reports in UNEP formats as specified in the project document
- Terms of Reference for experts to be recruited for the project
- Terms of Reference for National Coordination Group linked to the project
- Coordination and final delivery of reports as stated in Appendix 8 of the Project document
- Terminal report to UNEP
- Final written outputs will be required in Russian and English.

Reporting

The Coordinator will report to UNEP DTIE, Steering Committee, Partner countries and SSC.

Oualifications

At least 5 years experience with proven records as project coordinator in the field of heavy metals releases.

Expert knowledgeable on the following matters:

- Knowledge of analysis of mercury management or research;
- Knowledge of good practices to mercury and experience in setting up a coordination mechanism for mercury management;
- Familiarity with the Toolkit for Identification and Quantification of Mercury Releases and mercury Convention papers (including COP decisions);
- Familiarity with the regulation and standards of the mercury;
- Familiarity with the mercury processes and available technologies.

Language:

Excellent command of spoken and written Russian and English

Background

The duties and tasks of the Coordinator as set out above are derived from the project document approved by the GEF.

APPENDIX 14: CO-FINANCING COMMITMENT LETTERS FROM PROJECT PARTNERS

APPENDIX 15: ENDORSEMENT LETTERS OF GEF NATIONAL FOCAL POINT

APPENDIX 16: DRAFT PROCUREMENT PLAN

Project title: Pilot project on the development of mercury inventory in the Russian Federation (RF)

Project number: ADDID 01008

Project executing partner: Ministry of Natural Resources and Environment of the Russian Federation

Project implementation period: 2013-2015

| From: | |
|--|---------|
| To: | Total |
| UNEP Budget Line | |
| 20SUB-CONTRACT COMPONENT | |
| 2200Sub-contracts (MOUs/LOAs for supporting organizations) | |
| 2201National institutions to contribute/develop mercury inventory | 72'000 |
| Capacity building activities on inventory and action plan development executed by 2202international institutions | 90'000 |
| 2203Translation of the UNEP Toolkit | 20'000 |
| 2204Engage laboratories to conduct analysis | 20'000 |
| 2299Sub-total | 202'000 |
| 2999Component total | 202'000 |
| 40EQUIPMENT AND PREMISES COMPONENT | |
| 4100Expendable equipment | |
| 4101Operating costs | 18'500 |
| 4199 Sub-total | 18'500 |
| 4200Non-expendable equipment | |
| 4201Computer, fax, photocopier, projector | 3'000 |
| 4202Renting/purchasing Hg measurement equipment | 85'000 |
| 4203Maintenance of technical equipment | 0 |
| 4299Sub-total | 88'000 |
| 4999Component total | 106'500 |
| 50MISCELLANEOUS COMPONENT 5200Reporting costs | |
| 5201Awareness raising and dissemination activities | 35'000 |
| 5202Publication and dissemination materials | 70'500 |
| 5203Translation and interpretation | 40'000 |
| 5299Sub-total | 145'500 |
| 5300Sundry | |
| 5301Communications | 32'500 |
| 5302Postage | 4'500 |
| 5399Sub-total | 37'000 |
| 5500Evaluation | |
| 5501Mid-term review | 10'000 |
| 5502Terminal Evaluation | 25'000 |
| 5503Financial Audit | 5'000 |
| 5599Sub-total | 40'000 |
| 5999Component total | 222'500 |
| 99GRAND TOTAL | 531'000 |

NOTE: BL5202 will translate official documents produced under the project; BL 5301 will include costs of unofficial translations, progress reports and regular communications wirth UNEP and outside counterparts

APPENDIX 17: TRACKING TOOLS

To be developed during project implementation

APPENDIX 18: SUPERVISION PLAN

| | PPEND | | | | | | | | | | | | | | | | | | | | | | | | | | | _ |
|---|-----------|--------------|------------|---------------|---------------------|-----------|----------|------|------|---------------|----------|---------------|-----------|-----------|-----------|-----------------|---------------|------|-----|----------|-----|-------------------|---------------|---------------|---------|--------------|---------------|----------|
| Project Titte: | Pilot pi | oje | ct on | the | dev | velo | pm | ent | of n | nerci | ıry | inve | | ory: | | ıe R | ussi | ian | Fed | erat | ion | (RF |) | | | | | \Box |
| ADDIS Project number: Project executing partner: | Ministr | v of | f Nati | ural | Re | SOU | rce | an | d Er | iviro | nm | ent. | | | | sian | Fee | lera | tio | 1 | | | | | | | | _ |
| Project executing partner. Project implementation period (add additional years as required): | | | | | | | Yea | ır 1 | | | | | | | | | | | Yea | ar 2 | | _ | | | \neg | | ear 3 | _ |
| | Month | | - | M | J | J | A | S | 0 | N | | | F | M | A | M | | J | A | | 0 | N | D | | | | | D |
| Executing partner | Mth no | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 2 | 24 2 | 25 2 | 26 2 | 27 |
| UNEP/DTIE Chemicals (Implementing | • | | | コ | \rightrightarrows | \Box | | | | | _ | \dashv | = | = | \Box | \Box | | | | | | \Box | コ | # | ヰ | 丰 | ユ | \equiv |
| Outpu Activity/Task/Output | t 🍝 | \vdash | \vdash | \dashv | \dashv | \vdash | Н | | | | + | - | \dashv | \dashv | Н | Н | | | | | | \vdash | \dashv | -+ | + | + | + | - |
| Project Management, Coordination & Sustainability | | | | | | | | | | | | | | | | | | | | | | | | | 工 | 工 | \equiv | |
| Inception meeting and report of meeting | | | | \dashv | \Box | \square | ш | | | | _ | | \Box | | | \square | | | | | | \Box | \rightarrow | \perp | \perp | 工 | \perp | |
| Progress report - Dec 31 + 30 days | | | | \rightarrow | | | Ш | | | | 宇 | = | _ | | = | \vdash | | | _ | | | \vdash | _ | | + | + | + | _ |
| Annual audit report - Dec 31 + 180 days Annual co-financing report - Dec 31+30 days | | | | _ | _ | \vdash | \vdash | | | | + | - | \dashv | = | | \vdash | | | | | | \vdash | \rightarrow | -+ | + | + | + | _ |
| Establish M&E system | | | | - | = | \Box | \vdash | | | | \dashv | - | \dashv | = | | \Box | | | | | | \vdash | \rightarrow | - | + | + | - | - |
| Expenditure report - Mar, June, Sep and Dec 31 + 30 days | | | | \neg | \neg | | | | | | | | \neg | | \vdash | | | | | | | П | | | \neg | \top | \pm | |
| Mid-term review/evaluation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Procurement of equipment & hiring of consultants | | | | | | | | | | | | | \Box | | | \square | | | | | | | | | \perp | \perp | | |
| Progress reports to co-financiers | NA | | | <u> </u> | _ | \vdash | \sqcup | | | | - | _ | _ | | \vdash | \vdash | | | | | | \vdash | \rightarrow | | _ | + | \rightarrow | _ |
| Project brochure/newsletter/banner Project Implementation Review | | | | | _ | \vdash | \vdash | | | | | | \dashv | \dashv | \vdash | \vdash | | | | | • | \vdash | \rightarrow | | = | + | - | _ |
| Project implementation Review Project website design & development + updates/revamps | | | | \dashv | - | | | | | | - | | \dashv | - | - | - | | | | | • | $\overline{}$ | - | - | + | + | - | - |
| PSC/PMC meetings + minutes of meetings | | | | | T | = | \Box | | | | _ | | \dashv | \exists | | \Box | | | | | | | | \rightarrow | ╼ | | _ | _ |
| GEFSEC communications (Inception, midterm & completion) | | | | • | | | | | | | | | | | • | | | | | | | | | | • | \perp | | |
| Site visits + mission reports | | | | _ | _ | \square | ш | | | | | | _ | | oxdot | \square | | | | | | \longrightarrow | \rightarrow | | _ | \bot | \perp | |
| Final report | | \vdash | \vdash | \dashv | _ | | Щ | | Ļ | \vdash | \dashv | 4 | _ | | \vdash | \dashv | \vdash | | | | | \vdash | \rightarrow | + | | 4 | + | _ |
| Training workshops/seminars | | \vdash | \vdash | + | - | | | | | | + | + | \dashv | \dashv | \vdash | \vdash | $\overline{}$ | | | | | \vdash | \dashv | + | + | + | + | _ |
| Pipeline of projects Terminal evaluation | 1 | \vdash | + | + | \dashv | \vdash | \vdash | | | + | + | - | \dashv | \dashv | \vdash | \vdash | \rightarrow | | - | \vdash | | \vdash | + | + | + | + | + | |
| Final audit report for project | | Т | \vdash | \dashv | \dashv | \neg | | | | \vdash | \dashv | \dashv | \dashv | \exists | \neg | \vdash | | | | | | \dashv | \dashv | + | + | 卡 | | Ť |
| | mercurv | | | 丰 | \dashv | \exists | \Box | | | | _ | \dashv | \dashv | = | = | \exists | = | | | | | Ħ | 丰 | - | 丰 | \mp | \mp | = |
| management | | | | Ŧ | | | | | | | | | | | | | | | | | | ▃ | | | \perp | \perp | \perp | |
| 1.1 Identify initial guidnace materials including translation into Russi UNEP Toolkit | an of the | | | Ŧ | | П | | | | | \top | T | \neg | П | | ╷╗ | | | | | | П | \Box | | \Box | Т | | ٦ |
| Output : Translated UNEP Toolkit; basic information on mercury | | | \vdash | \dashv | \dashv | \dashv | | | | \vdash | \dashv | \dashv | \dashv | \dashv | Н | \dashv | | | | | | \dashv | + | + | + | + | + | ۲ |
| management in the Russian Federation available to relevant stakehol | ders | | | | * | , | | | | | | | I | , | , / | , | | | | | | ıl | | | | | | ļ |
| Outcome 2: Development of mercury inventories by industria | l sector | Т | | 十 | \neg | | | | | | | _ | | | | \dashv | \neg | | | | | \neg | \dashv | \neg | \top | \top | \neg | \neg |
| 2.1 Awareness workshops leading to at least 3 agreements with key i | | \vdash | \vdash | \dashv | _ | | | | | | | | | | | \vdash | \vdash | | | | | \vdash | \rightarrow | + | + | + | + | _ |
| associations | usti idi | _ | \sqcup | \perp | _ | | | | | J | | | | لـــــ | لـــا | Ш | | | | | | Ш | \perp | | 丄 | 4 | _ | ╝ |
| Output - Agreements with key industrial associations | | | | \dashv | \dashv | \vdash | ш | | ٠ | | _ | | _ | لـــــ | igspace | $\vdash \vdash$ | | | | | | \vdash | \dashv | \rightarrow | \bot | 4 | \perp | ╝ |
| 2.2 Conduct and develop mercury inventory of relevant mercury s and quantify their mercury releases through consultations and na | | | | | | | | | | | | | _ | | | ıl | | | | | | ıl | | | | | | - |
| workshops | cionai | | | | | | | | | | | | | | | ıl | | | | | | ıl | | | | | | - / |
| Output - 2. Quantitative and qualitative data on mercury releases | | | | | | | | | | | | | | | * | | | | | | | | | | | Т | | ٦ |
| available: development of a detailed inventory for the Russian Fed | | | | | | ш | Ш | | | | | | | | لت | ш | | | | | | ш | | | \perp | | | _ |
| Outcome 3: Improved knowledge on mercury in the environment the capacity of Russian laboratories regarding mercury anal | | | | | | | | | ١. | | | | | | لـــــا | ш | | | | | Щ | ıl | | | | | | - |
| measurements guides the Russian Federation to develop | | | | | | | | | | | | | | | | | | | | | | ıl | | | | | | - |
| mercury reduction strategies. 3.1 Assessment of mercury laboratories in Russia able to analyse r | nercury | | | \dashv | \dashv | | \vdash | | | | | | | | | | | | | | | \Box | \dashv | - | + | + | _ | \dashv |
| in various media according to internationally recognized methods | | | | | | | | | | | T | $\overline{}$ | \neg | | | | | | | | | ıl | | | | | | - |
| Output - Report on national capacity for mercury analysis and overv | | | | \neg | \neg | \Box | | | | | | | \neg | | \neg | \Box | | | | | | \Box | \neg | \neg | 十 | \top | _ | ٦ |
| laboratories able to perform mercury analysis (at least 10 laboratorie assessed) | es | | | | | | | | | | | | | | , ! | ıl | * | | | | | ıl | | | | | | - |
| 3.2 Collection of available data of good quality on mercury in the | | | | \neg | \neg | П | П | | | | | | | | = | \Box | = | | | | | П | \neg | | 十 | \top | _ | \neg |
| environment including biota and humans, and on mercury in emis from prioritzed sectors from Russian Federation. | | | | | | | | | | | | | П | П | | П | | | | 1 | | ıl | | | | | | - / |
| Output - Available data of good quality on mercury in the environme including biota and humans, and on mercury in emissions from key so | | | | \exists | \Box | | | | | | | \Box | \neg | | | | | | * | | | П | \Box | | \top | T | \top | \neg |
| the Russian Federation. | | $oxed{oxed}$ | | | | | | | | | | | | | | | | | _ | | | Ш | | | \perp | \perp | \perp | |
| 3.3 Development of a capacity building programme on measurememercury in emissions at the source to reinforce analytical capacity | | _ | $ \top $ | T | T | ıΠ | | | | | | T | 1 | | | Ţ | | | | | | ιТ | T | | | | | |
| laboratories. | | L | | | | | | | | | | | | | | | | | | | | ╙ | | | \perp | \perp | L_ | _ |
| Output - Record of laboratories participating including mercury sam | pling, | _ | П | T | T | ıT | ιЛ | | | Т | T | T | ٦ | П | ٦ | ıT | ıT | | | | ٠ | ιТ | Т | T | | Γ | T | 7 |
| analysis and measurements Outcome 4: Enhanced understanding of priority sources for | mara | \vdash | \vdash | + | \dashv | \vdash | H | | | \vdash | + | \dashv | \dashv | \dashv | \vdash | \vdash | \dashv | | | \vdash | | \vdash | + | + | + | + | + | 4 |
| Outcome 4: Enhanced understanding of priority sources for management through the development of a national action. | on plan, | | | | | , | | | | | | | I | , | , ! | , | | | | | | | | | | | | ļ |
| including identification of management gaps and monitoring | needs | | Ш | | | | | | | | | | | | | | | | | | | ш | \perp | \perp | \perp | \perp | \perp | |
| 4.1 Development of criteria for prioritization of mercury sources | | _ | | \perp | \Box | Ш | ш | | | | | | | لـــــا | | Ш | | | | | | Ш | \perp | L | 丄 | \perp | | ! |
| Output - Scheme of criteria for ranking of mercury sources develor available through the Minsitry of Natural Resources and Environn | | | | | | , | | | | | | | | ļ | , ! | , | | | | | | , 1 | | | | | | ļ |
| website 4.2 Identification of mercury management gaps by sector and propos | | _ | \sqcup | _ | \dashv | Ш | ш | | | \sqcup | _ | _ | _ | Ш | لـــا | \sqcup | | | | | - | ш | \rightarrow | \perp | \bot | 4 | \perp | _ |
| address these gaps | | L | | | _ | ╻╽ | L | | | | _ | | _ | _ | ┰╵ | ┰╽ | | | L | | | | | | [| _ | [| _ |
| Output - Report on management gaps identified including proposa | ıls to | | | \exists | \neg | \Box | | | | | | | | \Box | | \Box | | | | | | ı | | | \neg | \top | | ٦ |
| address these gaps. 4.3 Identification of needs for environmental and human monitoring | | t | + | + | \dashv | \vdash | \Box | | | + | \dashv | \dashv | \exists | \dashv | \vdash | \vdash | \exists | | | | | | | - | + | + | + | \dashv |
| Output - National plan developed for future monitoring of mercur | v levels | т | \vdash | \dashv | \dashv | \dashv | \Box | | | \vdash | \dashv | \dashv | \dashv | \dashv | \dashv | \dashv | \dashv | | | | | П | 一干 | + | + | + | + | \dashv |
| in the environment including in humans, and for mercury in emiss | ions that | | | | | , | | | | | | | I | , | , 1 | , | | | | | | ıl | ٠ | | | | | ļ |
| will confirm mercury reduction in the environment and in humans | 5 | | Ш | | | | | | | | | | | | | Ш | | | | | | Ш | \perp | | \perp | \perp | \perp | |
| 4.4 Development of sector action plans for prioritized sectors | | | | \perp | \Box | \square | Ш | | | | | [| | | \square | \Box | \square | | | | | | | | \perp | \perp | \perp | ╝ |
| Output - Action plan for the Russian Federation on medium and lo measures to decrease mercury emissions in prioritized sectors | ng term | | | | | , | | | | | | | | ļ | , ! | , | | | | | | , 1 | ٠ | | | | | |
| Outcome 5: Better practices used in future projects | | | \vdash | \dashv | \dashv | \vdash | | | | | \dashv | \dashv | \dashv | \dashv | Н | \vdash | | | | | | \vdash | + | - | + | + | + | + |
| 5.1 Hold national workshops to discuss draft report, strategies and le | ssons | | Щ | \dashv | \dashv | \vdash | | | | \vdash | \dashv | \dashv | \dashv | | | , | | | | | | \vdash | _ | # | ᆂ | + | + | ۲ |
| learned Output - Draft report on good practices and lessons learned include | | | F | \dashv | \dashv | \vdash | ш | | | \vdash | \perp | _ | _ | | | \vdash | \vdash | | | | | \vdash | | 丁 | ユ | + | + | _ |
| recommendations on mercury management, inventory taking and | | 1 | | | | , | | | | | | | I | , | , 1 | , | | | | | | ıl | | ٠ | | | | ļ |
| action plan for Russian Federation 5.2 Development of a final report including lessons learned and futur | | \vdash | \vdash | \dashv | \dashv | \vdash | \vdash | | | \vdash | - | + | - | | \vdash | \vdash | \vdash | | | | | \vdash | \dashv | + | + | + | + | _ |
| recommendations | | | | \perp | | ш | | | | | | | | | | ш | | | | | | Ш | | | 7 | \perp | \perp | |
| Output - Final lessons learned and recommendations requested in Federal subjects and countries; suggestions for dissemination | other | | | \top | | П | | | | $ \top \top$ | \neg | \top | П | П | | П | | | | | | ιП | | | | | | |
| implemented and report disseminated through UNEPs and MNRE | S | l | | | | | | | | | | | | | , ! | . 1 | | | 1 | 1 | | ιΙ | | | * | | | ļ |
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| wehsite 5.3 Implement a Monitoring and Evaluation Plan | | | | 렅 | | | | | | | | _ | _ | | | | | | | | | | | | # | ightharpoons | | |
| website | s rate of | | | Ħ | Ħ | | | | | | | 1 | _ | | | | | | | | | | Ħ | Ŧ | 丰 | 茾 | Ť | |