

**PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

Report No.: PIDA61711

Project Name	CAPACITY STRENGTHENING FOR IMPLEMENTATION OF MINAMATA CONVENTION ON MERCURY PROJECT (P151281)
Region	EAST ASIA AND PACIFIC
Country	China
Sector(s)	Central government administration (80%), Other Mining and Extractive Industries (10%), Other industry (10%)
Theme(s)	Environmental policies and institutions (70%), Pollution management and environmental health (30%)
Lending Instrument	Investment Project Financing
Project ID	P151281
GEF Focal Area	Persistent Organic Pollutants
Borrower(s)	PEOPLE'S REPUBLIC OF CHINA
Implementing Agency	Ministry of Environmental Protection, Foreign Economic Cooperation Office
Environmental Category	B-Partial Assessment
Date PID Prepared/Updated	06-May-2016
Date PID Approved/Disclosed	24-Jun-2016
Estimated Date of Appraisal Completion	30-Jun-2016
Estimated Date of Board Approval	30-Sep-2016
Appraisal Review Decision (from Decision Note)	The project's QER meeting on March 17, 2016 confirmed that as a track one project this project would not need a decision meeting.

I. Project Context

Country Context

The transboundary and environmental and health impacts of mercury and compounds are well recognized. Once released, mercury can travel long distances and circulates between air, water, sediments, soil, and living organisms, and is concentrated as it rises up the food chain, reaching its highest level in predator fish. High exposure to mercury and mercury compounds can seriously harm human health, affecting in particular the development of fetuses and young children, including with long lasting cognitive dysfunction. In response, with an objective to protect human and environmental health from anthropogenic emissions and releases of mercury and its compounds, the Minamata Convention on Mercury has adopted a phased approach to reduce, and where possible, eliminate mercury use in key industrial sectors.

China is the country that contributes most to atmospheric mercury emissions worldwide, and has the greatest intentional industrial use of mercury. Consequently, mercury in the Chinese environment is generally elevated, particularly in air and water bodies. Even remote areas in China show elevated Hg levels compared to other rural regions in the world. Its large river estuaries are often heavily affected by upstream industrial sources. Studies by Chinese academics of the overall contamination of the environment in historical mining areas show heavy contamination of streams and top soil and contamination of rice paddy fields. Uniquely, elevated concentrations of methylmercury have been reported from rice grown in these areas posing a threat to the populations dependent on such locally grown food. Consistent with people centered development, the reduction of man-made emissions of mercury and reduction of exposure of populations is therefore a priority of the Government of China, local authorities and other stakeholders.

China has a long history of mercury use, dating back to the sixth century B.C. It is now one of the few countries with ongoing primary mercury mining at a level of about 780 tons annually. China uses about 1,000 tons of mercury annually, about 50% of the world's total annual consumption, for industrial products and processes that use mercury and mercury compounds as raw materials, additives and catalysts. Together with high consumption of mercury containing coal, China is the world's largest mercury producer, consumer and emitter. According to the UNEP Global Mercury Assessment Report (2013), China accounted for about 75% of emissions from the East and Southeast Asia regions and about one third of the global mercury emissions. Such emissions and releases have long-term health and environmental impacts at the local, regional and global levels. A key actor in global efforts on mercury, China became a Signatory to the Minamata Convention on October 10, 2013. It is expected that China will ratify the Convention in 2016.

Sectoral and institutional Context

Provisions of the Minamata Convention specify phase-out deadlines for mercury supply sources and trade, mercury added products, and manufacturing processes in which mercury or mercury compounds are used. Under the Convention, Parties may develop, execute, review and update a strategy for meeting their obligations. During the negotiation process of the Convention, China has confirmed that its mercury production, uses and emissions involve a large number of entities from many different sectors.

- (a) **Mercury Supply Sources.** China has over 25 primary mercury mines with valid mining licenses, some of which being exploited episodically depending on market demand. It also has nine licensed mercury waste recycling facilities.
- (b) **Mercury-added Products.** China has over 500 manufacturers producing and using a wide range and large amount of mercury-added products, such as batteries (4 billion units in 2012), lamps (5 billion units in 2012), medical thermometers (80 million units in 2012) and sphygmomanometers (2.7 million units), barometers, hygrometers, manometers, dental amalgam and cosmetics.
- (c) **Manufacturing Processes using Mercury or Mercury Compounds.** China has 94 such companies that produced about 10 million tons of PVC in 2012 with a consumption of 800 tons of mercury through the use of mercury-based carbide catalyst, potentially releasing hundreds of tons of mercury containing wastes, including spent catalyst, activated carbon, and other wastes. China has no ongoing production of chlor-alkali, acetaldehyde, sodium or potassium methylate and ethylate polyurethane using mercury and mercury compounds as raw materials or catalysts.
- (d) **Emissions and Releases.** China has all 59 sources under the 11 categories identified by the

UNEP Toolkit for Identification and Quantification of Mercury Releases. Among all sources, it is estimated based on the UNEP Toolkit that over 50% of China's mercury emissions are from 550,000 industrial boilers and hundreds of thermal power plants that consume billions of tons of coals annually. Other atmospheric mercury emission sources include thousands non-ferrous metal smelting, cement, and iron and steel producers.

Through its Ministry of Environmental Protection (MEP), China started to address mercury issues since the 12th Five Year Plan (FYP) as part of its heavy metal pollution control program. Its activities so far are limited to high-risk mercury contaminated sites. With international support, China through the Foreign Economic Cooperation Office (FECO) of MEP, is implementing a number of projects to investigate its mercury issues. Bilaterally, it is cooperating with Norway to study contaminated site issue (Capacity Building to Reduce Mercury Pollution in China - Case Study in Guizhou) and with Italy on coal combustion related mercury air emission (Capacity Building on Atmospheric Mercury Releases Control from Coal Combustion and Management). With GEF support, China is implementing the Minamata Convention Initial Assessment (MIA) Project and has initiated policy and strategic discussions related to its ratification of the Convention (to be completed by March 31, 2017), a Pilot Project on the Development of a Mercury Inventory to develop sector specific inventories of n two key industries (coal-fired power plants and PVC) in Hunan and Guizhou Provinces (to be completed on June 30, 2016); and a Project on Reduction of Mercury Emissions and Promotion of Sound Chemicals Management in Zinc Smelting Operations to pilot BAT/BEP to reduce mercury emissions in the non-ferrous metal smelting sector. China is also preparing a GEF project to reduce mercury consumption and releases from its production of vinyl chloride monomer (VCM).

In spite of the above limited and ad hoc efforts, China still faces serious challenges to implement the Minamata Convention due to the scale and complexity of mercury issues in the country. Most significantly, mercury information is still very limited. For example, information on the status of existing and closed mines and mercury recycling facilities and their mercury issues (trade, release, waste, and contaminated sites etc.) are yet to be systematically collected and assessed. In addition, there is no information on mercury trade as the customs system is not designed to collect information on the import and export of mercury, mercury compounds, or mercury-added products. Moreover, mercury emission and release information of most sectors is estimated so far based largely on the UNEP Toolkit and needs to be validated and updated based on local production practices.

At the policy level, the GEF MIA Project is helping China review its existing policies on mercury and identify policy needs under the Convention. Additional efforts will be needed to help China translate identified policy needs into concrete policy reforms. As such policy reforms will entail social and economic consequences, it is essential to carefully evaluate cost benefit and/or cost effectiveness of various mercury control measures, communicate effectively to all stakeholders on such impacts and associated cost benefit implications, support stakeholders to reach consensus on proposed strategic actions in both short- and long-terms, and identify concrete actions to strengthen their capacity to implement prioritized mercury control measures.

Recognizing these challenges, China requested the Bank's support to MEP to prepare and implement the proposed project with an aim to develop its national strategy on mercury, identify action plans of priority sectors and provinces, and strengthen its capacity in specific areas of

mercury pollution control. This request is consistent with the objective of the Convention and will accelerate China's efforts to tackle its mercury issues in a strategic and holistic manner. The national strategy and priority action plans will help China control its primary mercury mining activities, minimize its production and use of primary mercury, reduce its production of mercury-added products and thus wastes, and avoid the releases and emissions of mercury and mercury wastes to the environment. Capacity building activities will help China improve its mercury management and monitoring capacity and practices. Crucially, the proposed project will provide China with the tools and information-base necessary to plan for investments towards reduction and phase out of mercury emissions and use in an orderly manner and with an understanding of relative priorities.

II. Proposed Development Objectives

The PDOs are to (a) develop a national strategy on mercury and related action plans, and (b) improve China's mercury management capacity and readiness to implement this strategy in selected provinces.

III. Project Description

Component Name

Development of National Strategy and Sectoral and Provincial Action Plans

Comments (optional)

This component aims at delivering the National Mercury Strategy and related Action Plans for key mercury related industrial sectors and three provinces with most mercury activities.

Component Name

Capacity Building for Mercury Management and Risk Assessment

Comments (optional)

This component aims at building capacity for mercury management in provincial DEPs from the three pilot provinces, and other stakeholders through targeted activities, and to establish some of the building blocks that will support China's long-term environmentally sound management of mercury, and mercury reduction and phase-out efforts.

Component Name

Project Management

Comments (optional)

This component will support incremental operating costs of MEP/FECO and the provincial DEPs associated with project implementation.

IV. Financing (in USD Million)

Total Project Cost:	16.00	Total Bank Financing:	0.00
Financing Gap:	0.00		
For Loans/Credits/Others			Amount
Borrower			8.00
Global Environment Facility (GEF)			8.00
Total			16.00

V. Implementation

MEP has assigned FECO as the domestic implementing agency of this project. FECO has set up a project team for the implementation of this project. Based on agreed annual implementation plans, FECO will manage and supervise the implementation of all project activities. Through an implementation agreement, FECO will cooperate closely with the Departments of Environmental Protection (DEPs) of the three project provinces to implement project activities at the local level. FECO will prepare and submit to the Bank project progress and financial reports on a semi-annual basis.

VI. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	x	
Natural Habitats OP/BP 4.04		x
Forests OP/BP 4.36		x
Pest Management OP 4.09		x
Physical Cultural Resources OP/BP 4.11		x
Indigenous Peoples OP/BP 4.10	x	
Involuntary Resettlement OP/BP 4.12	x	
Safety of Dams OP/BP 4.37		x
Projects on International Waterways OP/BP 7.50		x
Projects in Disputed Areas OP/BP 7.60		x

Comments (optional)

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