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Report No: {PAD1839}

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT FROM THE
GLOBAL ENVIRONMENT FACILITY TRUST FUND

IN THE AMOUNT OF US$ 8.0 MILLION

TO THE

PEOPLE'S REPUBLIC OF CHINA

FOR A

CAPACITY STRENGTHENING FOR IMPLEMENTATION OF MINAMATA CONVENTION ON MERCURY PROJECT

August 23, 2016

Environment and Natural Resources Global Practice
East Asia and Pacific Region

(Exchange Rate Effective June 17, 2016)

Currency Unit	=	CNY
CNY 6.59	=	US$1
US$ 0.15	=	CNY1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

BAT/BEP	Best available technique/best environmental practice
CNAO	China National Audit Office
CQ	Selection Based on the Consultants' Qualifications
DA	Designated Account
DC	Direct Contracting
DEP	Department of Environmental Protection
EHS	Environmental, Health and Safety
ESMF	Environmental and Social Management Framework
FBS	Fixed Budget Selection
FECO	Foreign Economic Cooperation Office
FM	Financial Management
FMSB	FM Sector Board
FYP	Five Year Plan
GEF	Global Environment Facility
GRS	Grievance Redress Service
IBRD	International Bank for Reconstruction and Development
IC	Individual Consultant selection procedure
ICB	International Competitive Bidding
LCS	Least Cost Selection
IDA	International Development Association
ISP	Implementation Support Plan
M&E	Monitoring and Evaluation
MEP	Ministry of Environmental Protection
MIA	Minamata Convention Initial Assessment
MIS	Management Information System
NCB	National Competitive Bidding
OP/BP	Operational Policy/Bank Policy
PAD	Project Appraisal Document
PAP	Provincial Action Plan
PDO	Project Development Objective
PCG	Preparation Coordination Group
PRC	People's Republic of China
PVC	Polyvinyl chloride
QBS	Quality-Based Selection
QCBS	Quality- and Cost-Based Selection
SSS	Single Source Selection
TOR	Terms of Reference
UNEP	United Nation Environment Program
UNIDO	United Nation Industrial Development Organization
VCM	Vinyl Chloride Monomer
WB	World Bank
Zn	Zinc

Regional Vice President:	Victoria Kwakwa, EAPVP
Country Director:	Bert Hofman, EACCF
Senior Global Practice Director:	Julia Bucknall, GENDR
Practice Manager:	Iain G. Shuker, GEN02
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CHINA
CAPACITY STRENGTHENING FOR
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CAPACITY STRENGTHENING FOR IMPLEMENTATION OF MINAMATA CONVENTION ON MERCURY PROJECT (P151281)

PROJECT APPRAISAL DOCUMENT

EAST ASIA AND PACIFIC

Environmental and Natural Resources Global Practice

Report No.: PAD1839

Basic Information			
Project ID P151281	EA Category B - Partial Assessment		Team Leader(s) Anis Wan, Jiang Ru
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ] Financial Intermediaries [ ] Series of Projects [ ]		
Project Implementation Start Date 01-Nov-2016	Project Implementation End Date 30-Apr-2021		
Expected Effectiveness Date 01-Nov-2016	Expected Closing Date 30-Apr-2021		
Joint IFC No			GEF Focal Area Persistent Organic Pollutants
Practice Manager/Manager Iain G. Shuker	Senior Global Practice Director Julia Bucknall	Country Director Bert Hofman	Regional Vice President Victoria Kwakwa

Borrower: PEOPLE'S REPUBLIC OF CHINA

Responsible Agency: Ministry of Environmental Protection, Foreign Economic Cooperation Office

Contact: Tianjin Cheng Title: Director

Telephone No.: (86-10) 8226-8850 Email: cheng.tianjin@mepfeco.org.cn

Project Financing Data(in USD Million)					
[ ]	Loan	[ ]	IDA Grant	[ ]	Guarantee
[ ]	Credit	[X]	Grant	[ ]	Other

Total Project Cost:	16.00	Total Bank Financing:	0.00
Financing Gap:	0.00		

Financing Source	Amount
Borrower	8.00
Global Environment Facility (GEF)	8.00
Total	16.00

Expected Disbursements (in USD Million)

Fiscal Year	0000	2017	2018	2019	2020	2021				
Annual	0.00	0.80	1.20	2.00	2.00	2.00				
Cumulative	0.00	0.80	2.00	4.00	6.00	8.00				

Institutional Data

Practice Area (Lead)

Environment & Natural Resources

Contributing Practice Areas

Cross Cutting Topics

[ ] Climate Change
[ ] Fragile, Conflict & Violence
[X] Gender
[X] Jobs
[ ] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Public Administration, Law, and Justice	Central government administration	80		
Energy and mining	Other Mining and Extractive Industries	10		
Industry and trade	Other industry	10		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%

Environment and natural resources management	Environmental policies and institutions	70
Environment and natural resources management	Pollution management and environmental health	30
Total		100

Proposed Global Environmental Objective(s)

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 the project provinces.

Components

Component Name	**Cost (USD Millions)**
Development of National Strategy and Sectoral and Provincial Action Plans	4.72
Capacity Strengthening for Mercury Management and Risk Assessment	10.48
Project Management	0.80

Systematic Operations Risk- Rating Tool (SORT)

Risk Category	**Rating**
1. Political and Governance	Low
2. Macroeconomic	Low
3. Sector Strategies and Policies	Low
4. Technical Design of Project or Program	Low
5. Institutional Capacity for Implementation and Sustainability	Low
6. Fiduciary	Moderate
7. Environment and Social	Low
8. Stakeholders	Low
9. Other	
OVERALL	Moderate

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [X]
Does the project require any waivers of Bank policies?	Yes [ ]	No [X]
Have these been approved by Bank management?	Yes [ ]	No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No [ ]

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

Legal Covenants

Name	Recurrent	Due Date	Frequency
Institutional Arrangements (GA reference: Schedule 2, Section I.A)	X		Continuous

Description of Covenant

The Recipient, through MEP, shall: (a) establish by no later than December 31, 2017, and thereafter maintain, throughout the period of project implementation, the National Strategy Preparation Coordination Group responsible in providing overall guidance and coordination for the implementation of the project, with membership, terms of reference, staffing and other resources acceptable to the World Bank; and (b) maintain the Project Management Unit, responsible for overall project implementation, coordination with the project Provinces, and the day-to-day implementation support to the activities of the project with membership, terms of reference, staffing and other resources acceptable to the World Bank.

Name	Recurrent	Due Date	Frequency
Annual Work Plans (GA reference: Schedule 2, Section I.D)	X		Yearly

Description of Covenant

The Recipient shall, through MEP: (a) carry out activities under the project during each fiscal year in accordance with Annual Work Plans agreed with the World Bank; (b) prepare and furnish to the Bank by November 1 in each year, beginning in 2016, a draft Annual Work Plan for review and comment, summarizing the implementation progress of the project for the said year and the Project activities to be undertaken for the following calendar year, including the proposed annual budget for the project; (c) taking into account the World Bank's comments, finalize and furnish to the Bank no later than December 31 in each year, beginning in 2016, the Annual Work Plan, satisfactory to the World Bank; and (d) thereafter, ensure the implementation of the Project during the following calendar year in accordance with the Annual Work Plan, in a manner satisfactory to the World Bank. The Recipient shall not amend, suspend, abrogate, or waive said Annual Work Plans or any provision thereof without the prior approval of the World Bank.

Name	Recurrent	Due Date	Frequency
Safeguards (GA reference: Schedule 2, Section I.E)	X		Continuous

Description of Covenant

The Recipient, through MEP, shall ensure that: (i) the project is carried out in accordance with the provisions of the ESMF; and (ii) the terms of reference for any consultancies related to studies, assessments, regulations, technical guidelines, training and technical assistance activities under the project shall be satisfactory to the World Bank and, to that end, such terms of reference shall, *inter alia*, duly incorporate the requirements of the World Bank's safeguard policies then in force, as applied to the advice conveyed through such studies, assessments, regulations, technical guidelines, training and technical assistance activities.

Name	Recurrent	Due Date	Frequency
Mid-term review (GA reference: Schedule 2, Section II.A.2)		December 31, 2018	

Description of Covenant

The Recipient, through MEP, shall prepare, under terms of reference satisfactory to the World Bank, and furnish to the World Bank no later than December 31, 2018, a mid-term review report for the Project, summarizing the result of the monitoring and evaluation activities carried out from the inception of the Project, and setting out the measures recommended to ensure the efficient completion of the Project and the achievement of the objectives thereof during the period following such data.

Conditions

Source Of Fund	Name	Type
GEFU	Signing of Implementation Agreements (GA reference: Article IV, Section 4.01 (b))	Effectiveness

Description of Condition

Signing of the implementation agreements between FECO and each of the Project Provinces.

Team Composition

Bank Staff

Name	Role	Title	Specialization	Unit
Anis Wan	Team Leader (ADM Responsible)	Operations Officer	Task Team Leader	GEN02
Jiang Ru	Team Leader	Senior Environmental Specialist	Co-Task Team Leader	GEN02
Guoping Yu	Procurement Specialist (ADM Responsible)	Senior Procurement Specialist	Senior Procurement Specialist	GGO08
Fang Zhang	Financial Management Specialist	Financial Management Specialist	Financial Management Specialist	GGO20
Zhuo Yu	Team Member	Finance Officer	Finance Officer	WFALN
Bernardita Ledesma	Team Member	Operations Analyst	Operations Analyst	GFA04
Chongwu Sun	Safeguards Specialist	Senior Environmental	Senior Environmental	GEN02

		Specialist	Safeguards Specialist	
Laurent Granier	Team Member	Senior Environmental Specialist	Senior Environmental Specialist	GCCIA
Nina Queen Irving	Team Member	Senior Program Assistant	Senior Program Assistant	GEN02
Songling Yao	Safeguards Specialist	Senior Social Development Specialist	Senior Social Safeguards Specialist	GSU02
Yunqing Tian	Team Member	Program Assistant	Program Assistant	EACCF
Yan Zhang	Team Member	Program Assistant	Program Assistant	EACCF

Extended Team

Name	Title	Office Phone	Location

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
China	Shaanxi	Shaanxi		**X**	
China	Hunan	Hunan		**X**	
China	Guizhou	Guizhou		**X**	
China	Beijing	Beijing		**X**	

Consultants (Will be disclosed in the Monthly Operational Summary)

Consultants Required? Consultants will be required.

I. STRATEGIC CONTEXT

A. COUNTRY CONTEXT

1. The transboundary and environmental and health impacts of mercury and mercury 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 reducing, and where possible, eliminating mercury use in key industrial sectors.

2. China is the country that contributes the 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 mercury 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 methyl-mercury 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.

3. 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 percent 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 United Nations Environment Programme (UNEP) Global Mercury Assessment Report (2013), China accounted for about 75 percent 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 and ratified the Convention on April 28 2016.

B. SECTORAL AND INSTITUTIONAL CONTEXT

4. 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 are being exploited episodically depending on market demand. It also has nine licensed mercury waste recycling facilities.

(b) *Mercury-added Products*. China has over 300 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 polyvinyl chloride (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 percent 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 producers and waste incinerators.

5. 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 the 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 the support of the Global Environment Facility (GEF), 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 two key industries (coal-fired power plants and PVC) in Hunan and Guizhou Provinces; and a Project on Reduction of Mercury Emissions and Promotion of Sound Chemicals Management in Zinc Smelting Operations to pilot best available techniques/best environmental practices (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).

6. 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, contaminated sites, and so on) are yet to be systematically collected and assessed. In addition, there is no official information on specific mercury trades as the customs' system is not designed to collect separate information on the import and export of mercury related 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.

7. 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 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.

8. Recognizing these challenges, China requested the Bank's support to the 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 uses in an orderly manner and with an understanding of relative priorities.

C. HIGHER LEVEL OBJECTIVES TO WHICH THE PROJECT CONTRIBUTES

9. The higher level objective of this project is to help the Government of China manage the production, use, and disposal of mercury and mercury related products to reduce releases and emissions of mercury to the environment and reduce public exposure to mercury related pollution. This is consistent with Strategic Theme One - Supporting Greener Growth - of the Bank's China Country Partnership Strategy (FY2013-2016). Under this theme, the project will support Outcome 1.6: Demonstrating Pollution Management Measures, by supporting efforts to the sound management of hazardous wastes. Formulation and implementation of this national strategy on the implementation of the Minamata Convention on Mercury will help China ultimately reduce its population's exposure to mercury pollution and improve health conditions of the population, in particular of those vulnerable groups who are often disproportionally affected by environmental pollution thus contributing to the World Bank Group's goals of ending extreme poverty by 2030 and boosting shared prosperity.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

10. The project development objectives (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 the project provinces.

B. PROJECT BENEFICIARIES

11. The project's direct beneficiaries are (a) the MEP and Departments of Environmental Protection (DEPs) of the three project provinces as these agencies will receive project support to improve their capacity on mercury management; (b) associations of mercury related sectors at the national level and in the three provinces for receiving project support to improve their capacity on mercury management and strategic planning for mercury reduction and phase-out; (c) the communities surrounding project sites to be selected during project implementation that will have an improved understanding of environmental risks associated with the concerned project sites. Indirectly, the DEPs in all other provinces will benefit as a result of the formulation and future implementation of the national strategy on mercury and the improved mercury management information system (MIS) capacity nationwide.

C. PDO LEVEL RESULTS INDICATORS

12. The following indicators are proposed to measure the achievement of the PDO: (a) national strategy developed and submitted for approval; and (b) mercury flow tracked by a fully functional MIS.

III. PROJECT DESCRIPTION

A. PROJECT COMPONENTS

13. The project will support the development of the national mercury strategy, including sectoral action plans, and develop provincial-level action plans in three provinces and implement pilot activities in these provinces. The sectors to be considered cover all the elements addressed by the Minamata Convention of relevance to China, and will build on the other existing projects referred to above where appropriate. The three pilot provinces of Guizhou, Hunan, and Shaanxi, are selected as they are the provinces with the significant mercury issues, including mines still in operation or with valid permits, number of smelters in operation, and number of downstream mercury-related businesses. The sectoral action plans will be largely developed as stand-alone documents that will also be brought together and synthesized into the national strategy. The provincial action plans will be developed in parallel, with experiences and lessons captured in real time and directly informing the development of the national strategy. The final provincial action plans will follow the framework of the national strategy.

14. **Component 1: Development of National Strategy and Sectoral and Provincial Action Plans**. This component aims at delivering the National Mercury Strategy and related action plans. The MEP/FECO supported by consultants will work closely with industry associations and other stakeholders to deliver analytical reports and proposals constituting the various elements of a comprehensive national strategy. FECO will be responsible for oversight and ultimate quality control, seeking stakeholders' participation and buy-in throughout, and bringing the strategy forward to the MEP for broader adoption. Specific sectoral action plans will be developed to address issues related to: (a) mercury supply sources and trade; (b) mercury added products; (c) industrial point sources (coal-fired power plants, coal-fired industrial boilers, municipal solid waste and hospital waste, cement clinker production, and non-ferrous metals smelting); and (d) waste and contaminated sites. In some instances, and similar to other jurisdictions, it is envisaged that proposed mercury controls and guidelines would not be specific to mercury, but rather would be integrated in multi-pollutant control texts and provisions. Cross-cutting elements will address (a) environment and health monitoring; (b) monitoring and management of social impacts; and (c) research and development. The sector action plans will be developed first and feed into the national strategy. The project will support stakeholder engagement activities throughout and also development of specific action plans in the pilot provinces of Guizhou, Hunan and Shaanxi.

15. **Component 2: Capacity Strengthening for Mercury Management and Risk Assessment.** This component aims at building capacity for mercury management in the MEP, DEPs from the three pilot provinces and other stakeholders through targeted activities and establishing some of the building blocks that will support China's long-term environmentally sound management of mercury, and mercury reduction and phase-out efforts. Activities will include (a) the development of a National Mercury MIS to include data on mercury production, supply, use, releases, emissions, import and export, and allow for tracking of mercury material flow and support to decision making, tested first in the pilot Provinces; (b) assessment of mercury management and recycling technologies and practices in relevant sectors; (c) upgrade of the provincial environmental analytical laboratory of each participating province, and training and inter-laboratory comparison and knowledge sharing; and (d) environmental risk assessment of selected mercury contaminated sites to improve understanding of the scope and impact of mercury

contamination in China.[1] Activities to be carried out in the pilot Provinces are responsive to their strong interests to use funding and international expertise under the project to identify and address their mercury priorities. Implementation experiences and lessons will be collected, analyzed and disseminated through activities in the pilot provinces and nationwide.

16. **Component 3: Project Management**. This component will support FECO to properly manage project implementation in collaboration with the provincial DEPs of the pilot province.

B. PROJECT FINANCING

17. The project's lending instrument is Investment Project Financing. It will be financed by a GEF grant of US$ 8 million and budget allocations of US$ 8 million of the national and local governments of the three project provinces. The counterpart funding will be parallel financing to the GEF financing, so that GEF financing is at 100% of eligible expenditures. The counterpart funding will mainly finance the activities under the domestic heavy metal pollution reduction program at national and local levels. They are part of the 13th Five Year Plan (from year 2016 – 2021), which has started and overlaps with the Project implementation period. The counterpart funding will support all three components (see the Financing Table below), including IOC, technical assistance and monitoring to help develop national strategy and sectoral and provincial action plans, capacity building to improve mercury management and risk assessment, and site investigations, etc.

Project Components	GEF Financing (US$)	Government Contributions (US$)
1. Development of National Strategy and Sectoral and Provincial Action Plans	3,600,000	1,120,000
2. Capacity Strengthening for Mercury Management and Risk Assessment	4,000,000	6,480,000
3. Project Management	400,000	400,000
Total Costs	8,000,000	8,000,000

IV. IMPLEMENTATION

A. INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

18. The 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 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.

B. RESULTS MONITORING AND EVALUATION

19. FECO will monitor and evaluate project implementation progress and outcomes based on the agreed results framework. Monitoring and Evaluation (M&E) data and analysis will be shared with all

[1] The Provinces face mercury contamination with unique characteristics: due to a long history of mercury mining and consumption, mercury contamination extends to large areas and affects local residents from multiple sources and for a long period.

stakeholders to ensure that implementation challenges if any can be identified and corrective actions proposed and implemented as early as possible. M&E will also be used to inform resource allocation and decision making. As part of the project progress report, FECO will prepare and submit to the Bank its M&E report on a semi-annual basis. In line with the GEF reporting requirements, FECO will submit a completed GEF "tracking tool" at the time of mid-term review and at project completion, together with a report on contributions from national and local governments.

C. SUSTAINABILITY

20. China has been a key country in the international negotiations for the Minamata Convention on Mercury, and has signed the Convention in 2013 and ratified the Convention on April 28, 2016. China has also been implementing a number of bilateral and GEF projects to examine mercury issues in different sectors and regions, and is actively engaged in addressing closely related issues such as contaminated sites and air pollution. These efforts have demonstrated that China is fully committed to addressing its mercury issues. With a focus on capacity strengthening, this project will help China better design and implement its future mercury actions.

V. KEY RISKS

A. OVERALL RISK RATING AND EXPLANATION OF KEY RISKS

21. The overall risk rating of this project is *moderate*. There are no risks that are rated "substantial" or above. FECO in general has experience managing Bank-assisted projects with well-established procurement and financial management (FM) capacities. The key risk is related to the lack of experience of the new FECO project team in managing fiduciary aspects of the project. Agreed mitigation measures will be implemented to help improve capacity of the FECO project team. This risk will be carefully monitored during project implementation. The risk ratings and corresponding mitigation measures will be updated as needed during project implementation.

VI. APPRAISAL SUMMARY

A. ECONOMIC AND FINANCIAL ANALYSIS

22. The project will support China's efforts to effectively manage its mercury issues. No economic and financial analysis will be carried out at this stage due to the technical assistance nature of the Project. The national strategy and action plans developed by the project contain actions that will affect production practices of mercury related industries, manage existing mercury pollution issues, and avoid or reduce future mercury releases to the environment. As such, this project may generate indirect economic impacts from future adoption of some of the actions recommended by the national strategy and action plans. Such adoption may incur economic costs but also economic benefits – such as reduced human health risks from exposure to mercury contamination.

23. During project implementation, cost effectiveness analyses will be performed to prioritize actions proposed for given mercury issues. To better evaluate costs and benefits of proposed actions across different mercury issues, a study will be carried out during implementation to review available methodologies and best practices for valuing economic benefits and distributional impacts of reducing mercury exposure risks from different and a large number of sources and at different spatial and temporal scales.

B. TECHNICAL

24. Contamination of historical mining areas. Areas of active mercury mining in China have been in operation for thousands of years. Historical mining areas in Shaanxi Province for example and in particular in Guizhou Province present a large legacy of contamination problems from old mercury mines and artisanal smelters. Rice cultivation is a common practice by farmers in mining areas in Guizhou, where mercury is methylated to its highest form of toxicity and transferred to the local population. Assessment of risks from contamination and mitigation strategies in these regions will, therefore, have to consider impacts much beyond impacts at the source from on-going industrial activities, to the effects of broad contamination of land and water resources. The project will share experiences and learn from the on-going Bank project on the management of heavy metals contaminated soils of agricultural production in Hunan Province.

25. Inventory of sources of mercury releases. Internationally, the UNEP "Toolkit for Identification and Quantification of Mercury Releases" serves as the basis to assist countries to develop a national mercury releases inventory, based on standardized methodology, and by applying set emission factors to annual production or input (for example amount of coal burned in a power plant). A chief concern however is that emission factors are based on relatively limited data points, do not fully represent the technical and environmental conditions prevalent in China, and may therefore lead to over or under-estimating mercury releases from various sources in China, potentially affecting decision-making when prioritizing options for mercury reduction. Therefore in developing the sectoral action plans under Component 1, the project will support sampling and analysis of mercury from key industrial processes to improve the accuracy of the inventory.

26. Multi-pollutant control. In developing guidance for BAT/BEP for mercury emissions control from industrial sources and similar to other jurisdictions such as with the European Union BAT reference document for coal-fired power plants, it is possible that the proposed mercury controls and guidelines would not be specific to mercury, but rather would be integrated in multi-pollutant control texts and provisions. The need for mercury-specific or multi-pollutant control measures and regulatory and other texts will be assessed pragmatically based on technical and economic characteristics of each sector under consideration.

C. FINANCIAL MANAGEMENT

27. FECO has over 20 years' experience in implementing Bank supported and complex grant projects. It has recently been accredited by the GEF as a GEF Project Agency. Under this project, it will be responsible for daily project disbursement and FM activities, including project accounting and financial reporting. FECO will open and maintain one designated account (DA). FECO's FM arrangements satisfy the World Bank's requirements under OP/BP 10.00 and the FM risk rating is *Moderate*.

D. PROCUREMENT

28. The Bank's procurement capacity assessment confirmed that FECO has sufficient capacity to manage procurement activities under this project and the risk rating is *Moderate*. At appraisal, FECO has prepared a Procurement Plan for all project activities, which is acceptable to the Bank. Based on actual implementation progress, this Procurement Plan will be updated and disclosed annually or as required, subject to the Bank's prior review.

E. SOCIAL (INCLUDING SAFEGUARDS)

29. *Social Impacts and Policy Triggered*. By helping China develop a national strategy and improve its capacity to manage its mercury issues and thus reduce mercury pollution and associated health risks, this project is expected to generate positive social impacts. Nonetheless, the national strategy and sectoral and provincial action plans developed under Component 1 may contain actions with downstream social impacts on the general public and vulnerable groups including ethnic minorities. In addition, site level activities under Component 2 may recommend actions that will affect the land use status of these sites. As such, the project triggers the Bank's OP 4.12 (Involuntary Resettlement) and OP 4.10 (Indigenous Peoples).

30. *Instruments*. FECO has prepared an Environmental and Social Management Framework (ESMF) to guide project implementation. Relevant elements of the ESMF will be incorporated into terms of reference (TORs) of the project sponsored technical assistance activities during project implementation to ensure that environment and social safeguard policy requirements are incorporated into various assessments and development of strategies and plans and the screening process for downstream investments. The initial ESMF was disclosed nationally through the MEP/FECO website on April 13, 2016 and at the InfoShop on March 29, 2016. The final ESMF was disclosed nationally and at the InfoShop on July 18, 2016.

31. *Gender*. It is well recognized that mercury issues might have differentiated gender impacts, particular on pregnant women. Following the ESMF, gender issues will be carefully analyzed and considered in various strategies and action plans developed by the project. In addition, gender participation in project consultation and dissemination events will be monitored.

32. *Institutional Capacity.* As noted earlier, FECO has managed a large number of Bank projects and developed extensive experiences on the preparation and implementation of Bank safeguards instruments. For this project, FECO will assign a dedicated staff to screen safeguard risks of site-level activities and supervise ESMF implementation. Safeguard training will be organized as needed.

33. *Citizen Engagement and Participation.* During project preparation, information of this project and the ESMF have been disclosed in Chinese on the MEP/FECO website for public review. In addition, mercury related industrial associations have been fully consulted on proposed project activities. These engagements will be maintained during project implementation to ensure project outcomes are endorsed by all stakeholders. The grievance redress mechanism under the ESMF will assist the public to file their grievances verbally and in writing with the MEP/FECO and the provincial DEPs. All grievances and their resolutions will be recorded and reported during project implementation.

F. ENVIRONMENT (INCLUDING SAFEGUARDS)

34. *Environmental Impacts and Policy Triggered*. This project will have no direct physical impacts as project activities only include technical assistance activities such as the preparation of strategies, plans and assessments. By helping China develop a strategy and improve its capacity for sound management of its mercury issues, this project will contribute to China's and global efforts to implement the Minamata Convention. During project preparation, stakeholder consultations were conducted with relevant central and local governmental agencies, industrial associations, and local residents at selected mercury mining areas. Based on environmental screening results of proposed technical assistance and capacity building activities, this project triggers the Bank's OP4.01 Environmental Assessment and is classified as a Category B project.

35. In the long term, the project will generate positive environmental benefits by helping China develop a sound national strategy and sectoral and provincial action plans to properly manage its mercury pollution issues. It is expected that, however, implementation of the strategy and action plans beyond this project may generate adverse environmental impacts. Specifically, implementation of downstream activities proposed by Component 1 activities on the development of the national strategy and Component 2 activities on risk assessment at some pilot sites (on mercury mines and industrial facilities) may have short-term and adverse downstream impacts. Examples of such impacts may come from downstream activities to remediate mercury contaminated sites: site preparation of contaminated sites; hauling and disposal of contaminated material and their occupational, environment and community health impacts; potential retrenchment of workers; livelihood and economic displacement; and even physical displacement if people have to be moved out from contaminated sites as part of site remediation and restoration. If present, ethnic minorities may be affected by such downstream activities.

36. *Instruments*. As noted in Section E, the ESMF has been prepared and disclosed. On the environmental side, the ESMF has incorporated requirements of China's legal and policy framework on environmental protection and applicable Bank safeguard policies, including the Bank's Environmental, Health and Safety (EHS) Guidelines. During project implementation, relevant elements of the ESMF will be integrated into TORs of strategy development activities under Component 1 and site risk assessment activities under Component 2 to ensure that environment and social safeguard policy requirements are incorporated into various assessments and development of strategies and plans and the screening process for downstream investments.

G. WORLD BANK GRIEVANCE REDRESS

37. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework and Monitoring

Country: China

Project Name: CAPACITY STRENGTHENING FOR IMPLEMENTATION OF MINAMATA CONVENTION ON MERCURY PROJECT (P151281)

Results Framework

Global Environmental Objectives

PDO Statement

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 the project provinces.

These results are at	Project Level

Global Environmental Objective Indicators

Indicator Name	Baseline	Cumulative Target Values			
		YR1	YR2	YR3	YR4
National strategy developed and submitted for approval (Text)	No national strategy	-	-	Drafted for consultation	Submitted for approval
Mercury flow tracked by a fully functional MIS (Text)	No system to track mercury flow	-	-	MIS developed	MIS in operation in the three provinces

Intermediate Results Indicators

Indicator Name	Baseline	Cumulative Target Values			
		YR1	YR2	YR3	YR4
Development of sectoral action plans (Number)	0	-	6	9	9
Development of three provincial action plans (Text)	No provincial action plans	-	-	Drafted for consultation	Submitted for provincial approval

Recycling technologies assessed (Number)	0	0	2	2	2
Mercury contaminated sites with environmental risks assessed (Number)	0	0	2	5	5
Participants in consultation activities during project implementation (Number)	0	200	200	700	1,600
Number of key mercury sectors represented by participants (Number - Sub-Type: Breakdown)	10	10	10	10	10
Participants in dissemination events (Number)	0	0	0	600	750
Participants in dissemination events - female (Number - Sub-Type: Breakdown)	0	0	0	200	300

Indicator Description

Global Environmental Objective Indicators

Indicator Name	Description (indicator definition etc.)
National strategy developed and submitted for approval	National strategy for the implementation of Minamata Convention on Mercury developed and submitted to the MEP for approval
Mercury flow tracked by a fully functional MIS	Production, use, trade of primary and recycled mercury; disposal and recycling of mercury wastes; trade and import/export of mercury and mercury containing products; mercury releases

Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Development of sectoral action plans	Development of action plans for key mercury related sectors.	Semi-annual	Progress Report	FECO
Development of three provincial action plans	No description provided.	Semi-annual	Progress Report	FECO
Recycling technologies assessed	Identification and assessment of technologies for recycling mercury wastes from non-VCM sectors.	Semi-annual	Progress Report	FECO
Mercury contaminated sites with environmental risks assessed	No description provided.	Semi-annual	Progress Report	FECO
Participants in consultation activities during project implementation	The number of stakeholders consulted for the development of the national strategy and sectoral and provincial action plans.	Semi-annual	Progress Report	FECO
Number of key mercury sector represented by participants	Sectoral affiliations of stakeholders attending consultation events: mining, PVC, products (battery, lighting, medical devices), and five emission sectors (petroleum and chemical, cement, nonferrous metal, coal-fired power plants, industrial boilers).	Semi-annual	Progress Report	FECO
Participants in dissemination events	Number of participants in project sponsored dissemination events.	Semi-annual	Progress Report	FECO

Participants in dissemination events - female	Female participants in project sponsored dissemination events.	Semi-annual	Progress Report	FECO

Annex 2: Detailed Project Description

CHINA: CAPACITY STRENGTHENING FOR IMPLEMENTATION OF MINAMATA CONVENTION ON MERCURY PROJECT

1. This project has three components: (a) Development of National Strategy and Sectoral and Provincial Action Plans; (b) Capacity Strengthening for Mercury Management and Risk Assessment; and (c) Project Management.

2. The project's approach is to develop the national mercury strategy, including sectoral action plans, and provincial-level action plans in three provinces and implement pilot activities in these provinces. The sectors to be considered cover all the elements addressed by the Minamata Convention of relevance to China and will build on the other existing projects referred to above where appropriate. The three pilot provinces of Guizhou, Hunan, and Shaanxi, are selected as they are the provinces with significant mercury issues, including mines still in operation or with valid permits, number of smelters in operation, and number of downstream mercury-related businesses. The sectoral action plans will be largely developed as stand-alone documents that will also be brought together and synthesized into the national strategy. The provincial action plans will be developed in parallel, with experiences and lessons learned in developing the provincial action plans captured in real time and directly informing the development of the national strategy. The final provincial action plans will follow the framework of the national strategy.

Component 1: Development of National Strategy and Sectoral and Provincial Action Plan

3. This component aims at delivering the National Mercury Strategy and related action plans. The MEP/FECO supported by consultants will work closely with industry associations and other stakeholders to deliver analytical reports and proposals constituting the various elements of a comprehensive national strategy. FECO will be responsible for oversight and ultimate quality control, seeking stakeholders' participation and buy-in throughout, and bringing the strategy forward to the MEP for broader adoption. The component will support activities given in following paragraph.

4. Coordination for Strategy Development. This will include inception and conclusion workshops convened by FECO to mobilize the relevant national ministries and agencies, provincial DEPs, relevant institutions and associations, and participating industrial facilities. A study tour for the MEP/FECO will bring forward international experiences in mercury management. A national technical advisor will provide overall technical guidance and review the work of consultants and consulting firms, and a consultant will provide FECO specialized technical guidance related to point source emissions.

5. Action Plan for Management of Mercury Supply Sources and Trade. A consulting firm will be hired to update and validate the information available from the MIA carried out by the MEP/FECO with UNEP GEF support. This analysis will cover mercury supply and circulation from primary mining as well as from recycling, and will assess the place of recycling in mercury supply overall. The action plan will include concrete measures for enhanced management of mercury supply sources, and will be linked to the National Mercury MIS that will be developed under Component 2.

6. Action Plan for Phase Out of Mercury-Added Products. A consulting firm will work with relevant industry associations and user groups to assess the technical feasibility, costs, and benefits with regard to mercury reduction measures to phase out mercury-containing products and propose an action plan including promotion of the phase-out of mercury-added products. Also included in the action plan will be

measures for improved management of import and export of mercury and mercury-added products, tied to the MIS and addressing the adequacy and performance of the existing regulatory framework.

7. Industrial Sector-specific Action Plans for Mercury Reduction. Qualified consulting firms will assess options, costs, and mercury abatement potential for the main industrial sources of mercury releases and propose measures in six sector-specific action plans for reducing the use and/or releases of mercury and mercury compounds in the main industrial sectors responsible for mercury releases. The PVC production sector will be addressed building on outputs from the on-going GEF VCM project. The coal-fired power plants, coal-fired industrial boilers, municipal solid waste and hospital waste, cement clinker production, and non-ferrous metals smelting sectors will be developed building on the MIA project, the GEF pilot project on zinc smelting, and the GEF project on pilot inventories in Guizhou and Hunan. It will include sampling and analysis to derive mercury emission factors relevant to China, as well as the formulation of BAT/BEP guidance on mercury reduction based on Convention guidance and international best practice and applicable to the Chinese context. In some instances, and similar to other jurisdictions, it is envisaged that proposed mercury controls and guidelines would not be specific to mercury, but rather would be integrated in multi-pollutant control texts and provisions.

8. Action Plan on Environmentally Sound Management of Waste and Contaminated Sites Containing Mercury. The development of the Action Plan on Waste and Contaminated Sites will build from the information available through the preliminary contaminated sites inventory developed under the MIA, and will cover both on-going generation of waste from enterprises in operation and historical contaminated sites. Emission factors will be estimated for the main industrial sources of mercury waste identified (including primary mercury smelters, mercury-added products manufacturing facilities, PVC manufacturing plants, and recycling facilities). The magnitude of on-going contribution to site-specific and environmental contamination and potential for mercury mobilization from industrial point sources such as zinc smelters will be tentatively estimated through soil and air sampling. Contamination at historical industrial sites, in particular closed chlor-alkali plants, will be assessed through a list based on historical records and confirmatory site visits. A rough preliminary estimate of the quantity of abandoned waste and magnitude of site specific and environmental contamination will be estimated based on sampling.

9. Cross-cutting Elements. A number of cross-sectoral activities will be conducted, including development of an Action Plan for Environmental and Health Monitoring, taking full consideration of the specific situations of women and children and costs and available funding; and development of a Social Management Strategy based on the ESMF prepared during project preparation and applicable Chinese laws and regulations, taking due consideration of possible elements specific to indigenous groups, and possible gender differentiated impact. The Social Management Strategy will assess the specific and collective impact of the various measures and action plans proposed by the National Mercury Strategy, and will outline mitigation measures; development of a Research and Development Strategy with priorities for incorporation in the Five Year Plan of the Ministry for Research and Technology; and outline of financing requirements and resources for Convention compliance, based on cost estimates of phase out strategies and engineering costs of abatement, together with how these costs are to be met and benefits expected.

10. Formulation of the Provincial Action Plan (PAP) for Pilot Provinces. Through an Implementation Agreement between the MEP/FECO and the DEPs of Shaanxi, Guizhou and Hunan Provinces, investigations will be carried out to assess the province-specific situation and propose measures through provincial action plans for the reduction and phase-out of mercury. The DEPs will also be supported in policy improvement and formulation to address the Minamata Convention requirements, thereby strengthening prospects for sustainable mercury management after completion of the project.

11. National Stakeholders Engagement. Higher level coordination, review and oversight will be provided through a number of inter-ministerial coordination bodies convened by the MEP/FECO, to review various drafts and provide high level support to steer endorsement of the final version. Workshops will be organized by FECO to raise awareness of the measures promoted by the national strategy, and to disseminate outcomes throughout the country, the pilot provinces of Shaanxi, Hunan and Guizhou, and the industrial sectors. There will also be one international experience-sharing event, with brochures and audio-video material produced.

Component 2: Capacity Strengthening for Mercury Management and Risk Assessment

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

13. Development of National Mercury MIS. An MIS will be developed to collect data on mercury production, supply, use, releases, import and export; track mercury material flow; support reporting, including to the Convention; and inform decision making. Reporting templates will be designed and field tested through Implementation Agreements with the DEPs of Shaanxi, Hunan and Guizhou Provinces, and training will be provided to the local DEPs and industrial facilities. The data will be reviewed and feedback provided to the users for quality control under FECO oversight. Lessons from the trial will be summarized to offer recommendations for improvement and nation-wide replication of the MIS.

14. Pilot Laboratories Capacity Strengthening. Project activities will support the supply and installation of equipment and material to three laboratories, one in each participating pilot province, and training and inter-laboratory comparison and knowledge sharing. The project will support purchase and training in the use of equipment for the analysis of atmospheric mercury and mercury compounds based on emission standards officially issued. It is recognized however that the proper use and maintenance of such equipment is costly and requires highly trained personnel. Therefore, a study analyzing the conditions required for sustainable running of the equipment will be conducted and equipment procured only after FECO has confirmed that conditions – including long-term needs, qualified technicians, and regular budget lines – are suitable for sustainable operation. The experience will contribute to the development of a guide to establish capacity of laboratories applicable to other laboratories nationwide, outlining a three-level certification system and hierarchy of laboratories operating at the local, provincial, and national levels. A study tour will provide hands-on cutting edge international experience.

15. Environmental Risk Assessment of Selected Mercury Contaminated Sites. This activity aims at better understanding the scope and impact of mercury contamination in China, as well as generating lessons learned and experiences for the MEP, the DEPs and other stakeholders in carrying out risk assessments of mercury contaminated sites and draft risk management strategies, including estimates of costs and benefits from environmental mercury release reduction for the contaminated sites, that can be replicated to other sites/provinces. Activities will include the formulation of an environmental risk management framework for contamination from an operational primary mercury mine area in Shaanxi Province, from non-operational primary mercury mine areas in Shaanxi and Guizhou, a closed chlor-alkali facility in Shaanxi Province, and one or two other types of contaminated sites such as non-ferrous metal smelting in Hunan Province.

16. Assessment of Mercury Management and Recycling Technologies in Priority Non-VCM Sectors. Consulting firms working with the relevant associations will review the full technical, financial, economic, environmental, social, and institutional aspects of recycling. Site visits to selected mercury-added products' manufacturing facilities will assess waste sources and the investment and operational

costs and benefits of mercury recycling technologies. Similarly, site visits to non-ferrous smelters (including lead, zinc, and copper) will seek information from operating plants regarding the costs and benefits of treatments/recovery technologies. The mercury content of the waste and mercury content after treatment/recovery/recycling, as well as releases from the facility itself, will be estimated based on selected samples. These two studies will conclude with an assessment of prospects for greater adoption based on, among others, costs, benefits, and industry trends. Finally, a consulting firm will be tasked to propose emission standards for mercury waste recycling plants based on the above studies, international experience, and good practices.

17. Implementation information and lessons collected, analyzed and disseminated. Through Implementation Agreements with the three participating local DEPs, lessons and experiences from the pilot activities will be collected, analyzed and disseminated to provincial and national participants and other stakeholders, including with the production of brochures and audio-video material and provincial level and nationwide workshops.

Component 3: Project Management

18. This component will support FECO to properly manage project implementation in collaboration with the provincial DEPs of the pilot province.

Annex 3: Implementation Arrangements

CHINA: CAPACITY STRENGTHENING FOR IMPLEMENTATION OF MINAMATA CONVENTION ON MERCURY PROJECT

Project Institutional and Implementation Arrangements

Project Administration Mechanisms

1. The MEP has been tasked to lead the negotiation and preparation for the implementation of the Minamata Convention. Internally, the MEP has requested FECO to provide support convention negotiations and assigned FECO as the domestic implementing agency of its multilateral and bilateral mercury projects. In response, FECO has established a Mercury Convention Implementation Division to manage these tasks. Within the Division, FECO has established a project team to manage the preparation and implementation of this project. This team is composed of a project manager, two project officers, and a full-time project assistant to be recruited under the project. This project team is supported by FECO's Finance and Procurement Divisions to manage project implementation.

2. Under this project, FECO will manage the implementation of all project activities. Nationally, FECO will maintain a close engagement with all mercury-related industrial associations during project implementation. To facilitate project implementation, the MEP will propose establishing a National Strategy Preparation Coordination Group (PCG) after this project's inception meeting. This PCG will serve as an inter-ministerial mechanism guiding project implementation. The PCG will be led by the MEP with participation of relevant ministries such as the National Development of Reform Commission, Health and Family Planning Commission, and the Ministries of Finance (MOF), Industry and Information Technology, Land Resources, Science and Technology, Foreign Affairs, and Housing and Urban-Rural Development. It will also include three national agencies – State Administration of Safety and General Administrations of Customs and Quality Supervision, Inspection, and Quarantine.

3. FECO will work closely with the DEPs of the three project provinces to supervise the implementation of project activities at the provincial and local levels. FECO will enter into an implementation agreement with the DEPs to request the DEPs' support to supervise, coordinate and organize activities to be implemented in these provinces. Following the Implementation Agreement, the DEPs will assist FECO in the following activities:

(a) Organizing consultations with local stakeholders to ensure their full participation, technical inputs and endorsement of the provincial action plans and policy recommendations.
(b) Organizing local meetings, public awareness raising events, training, outreach and dissemination activities;
(c) Identifying and selecting candidate laboratories and contaminated sites and providing coordination.
(d) Supervising provincial activities to ensure timely and proper implementation of these activities.
(e) Performing data collection, review, quality control and analysis.
(f) Monitoring and evaluating the project implementation progress and outcomes/results.

4. FECO has rich experience in managing Bank projects, including a number of closed, ongoing and pipeline projects financed by the GEF and the Multilateral Fund for the Implementation of the Montreal Protocol. FECO is familiar with Bank procedures and requirements on project management, including those safeguards and fiduciary ones. FECO has also maintained a good track record on managing these Bank assisted projects.

Financial Management, Disbursements and Procurement

Financial Management

5. The Bank's FM capacity assessment concluded that the proposed FM arrangements for this project satisfy Bank requirements. Overall, the project's residual FM risk after mitigation is assessed as *Moderate*.

6. FECO will be responsible for daily project disbursement and FM activities, including project accounting and financial reporting. One DA will be opened and maintained by FECO.

7. Budgeting. The Annual Work Plan, including the funding budget, will be prepared by FECO. Budget variance analysis will be conducted on a semi-annual basis to inform the management of significant variances from plans that may need corrective actions. The project counterpart funds will be appropriated by the MEP and the three DEPs from the general budget of the Government's business department.

8. Funds Flow. One Segregated DA will be opened and managed by FECO. The project advance deposit will be maintained in an existing bank account of FECO, which is used for advance deposits of all the Bank operations. A separate ledger will be maintained for each project to record respective DA advance receiving and payment transactions. Through assessment of FECO's existing payment control procedures, FECO is deemed to be reliable for payment of the DA advance. Withdrawal applications prepared by FECO will go to Bank directly. The Bank will make payment upon the type of withdrawal applications to replenish the DA or directly disburse to the contractor or reimburse funds to FECO for the GEF-financed portion that is paid by FECO first.

9. Accounting and Financial Reporting. The administration, accounting and reporting of the project will be set up in accordance with *Circular #13: Accounting Regulations for World Bank Financed Projects* issued in January 2000 by the MOF. The standard set of project financial statements has been agreed between the World Bank and the MOF.

10. FECO has an adequately staffed financial department. FM roles and responsibilities of this project have been clearly defined. Developed in house, FECO's computerized accounting system has been in use for years and is considered reliable. Separate project accounting profiles will be set up in this existing system according to requirements of Circular #13.

11. FECO will be responsible for the project's day-to-day FM activities, including project accounting and project financial reporting. FECO will retain the original supporting documents, prepare the project's financial statements, submit to the Bank the project's unaudited semi-annual financial statements no later than 60 days after the end of each calendar semester (the due dates will be August 30 and February 30) in form and substance satisfactory to the Bank.

12. The Bank will monitor the accounting process, including the adequacy of the FM system, especially during the initial stage, to ensure complete and accurate financial information is provided on time.

13. Internal control. FECO has adequate FM regulations in place. In addition, the project follows accounting policies, procedures and regulations issued by the MOF.

14. Audit. The Audit Service Center of the China National Audit Office (CNAO) for Foreign Loan and Assistance Projects has been identified as the auditors for this grant. Annual audit reports will be issued by the CNAO. According to the World Bank Policy on Access to Information, the audit reports for all investment lending operations, for which the invitation to negotiate was issued on or after July 1, 2010, need to be made publicly available in a timely fashion and in a manner acceptable to the Bank. Audit reports will be made publicly available on the website of the CNAO. Following the World Bank's formal receipt of the audited financial statements from the recipient, the World Bank will also make them available to the public in accordance with the World Bank Policy on Access to Information. The responsible agency and timing are summarized as follows:

Audit Report	**Submitted by**	**Due date**
Project Financial Statements audited by Audit Service Center of the CNAO	FECO	June 30 of each calendar year

Disbursements

15. Three disbursement methods are available to the project: advance, reimbursement, and direct payment. Supporting documents required for Bank disbursement under different disbursement methods will be specified in the Disbursement Letter issued by the Bank.

16. The ceiling of the DA will be determined and documented in the Disbursement Letter. Upon receipt of FECO's withdrawal applications directly, the Bank will replenish funds to FECO's DA, or to FECO's other bank accounts for the GEF financed portion paid first by FECO or directly disburse funds to the contractors.

17. The GEF grant will finance 100 percent (inclusive of taxes) of all eligible expenditures under the project.

18. Supervision Plan. The project's FM supervision approach is based on its FM risk rating, which will be evaluated on a regular basis by the Bank's FM specialist in line with the FM Sector Board's (FMSB) 's FM Manual and in consultation with the relevant task team leader. The initial FM supervision will focus on financial staff training and compliance with the Bank's FM and disbursement related requirements as well as the quality and timeliness of project accounting and financial reporting.

Procurement

19. The procurement capacity assessment concluded that the overall procurement risk is *Moderate*. FECO has adequate experience and capacity to carry out procurement. However, based on the past experience in the projects managed by FECO, there may be some key risks, which include (a) possible misunderstanding between FECO's new project team for the implementation of this project, the bid evaluators, and the Bank and delays in processing procurement and non-compliance due to the new project team's unfamiliarity with the Bank's procurement policies and procedures and (b) weak contract management capacity of the project team. The following measures have been agreed to further strengthen procurement and contract management of FECO teams and to mitigate potential procurement risks:

(a) FECO has designated a full-time procurement staff to carry out all the procurement activities.
(b) FECO has sent and will continue to send its procurement and other project management staff to attend workshops on procurement and contract management for Bank-financed projects, including procurement of goods and non-consulting services, as well as consulting services.
(c) The Bank will continue to provide training to FECO throughout the project implementation.

(d) The project will also hire technical experts to provide technical support to FECO for project implementation.

20. Project procurement will be carried out in accordance with World Bank's *Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers* dated January 2011 (revised July 2014); *Guidelines: Selection and Employment of Consultants Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers* dated January 2011 (revised July 2014); and the provisions stipulated in the Grant Agreement.

21. Procurement Plan. FECO has developed an acceptable Procurement Plan for the entire period of project implementation. It is available from FECO and will be available in the project's database and on the Bank's external website during project implementation. The Procurement Plan will be updated, reviewed and agreed with the Bank annually, or as required, to reflect project implementation needs.

22. Procurement and Selection Methods and Prior Review Thresholds. The table below indicates the procurement and selection methods and prior review thresholds for goods, non-consulting services, and consulting services to be procured by FECO under the project.

23. Post Review. In addition to the prior review of supervision to be carried out by the Bank's Beijing office, Bank procurement supervision missions/external auditors will conduct field visits for post review of procurement actions every 12 months. The post review sampling ratio will be at least one out of 15 contracts. This ratio will be adjusted periodically during project implementation based on the performance of FECO.

24. Advance Contracting and Retroactive Financing. Retroactive financing will be permitted for the project within the limits specified in the Grant Agreement. It has been agreed during project negotiation that retroactive financing of up to US$1 million would be available for eligible expenditures incurred on and after July 22, 2016, mainly to support IOC and some consultancies that are specified in the procurement plan approved by the World Bank. The FECO's Procurement Plan sets forth those contracts which are expected to be signed in advance of grant signing together with the relevant Bank review procedures. Only payments made under such contracts procured in accordance with the applicable Bank procurement/consultant selection procedures will be eligible for reimbursement by the Bank. TORs of some priority consultancies are under review by the Bank.

Expenditure Category	**Contract Value (US$)**	**Procurement Method**	**Bank Prior Review**
Goods/IT Systems and Non-Consulting Services	≥ 10 million	ICB	All ICB contracts
	>=500,000 and < 10 million	NCB Remarks: Where goods are not normally available from within China, the method of procurement will be ICB even if the contract value is less than US$10 million.	First NCB goods contract irrespective of value and all contracts >= US$ 3 million
	< 500,000	Shopping	None
	n.a.	DC	All DC contracts

Expenditure Category	Contract Value (US$)	Procurement Method	Bank Prior Review
Consultants	≥ 300,000	QCBS, QBS, LCS, FBS	Firms: First contract for each selection method and all contracts ≥ US$1 million; Firms: All SSS contracts >= US$ 100,000; Individual Consultant: Only in Exceptional Cases; SSS for individual consultant: ≥ US$50,000
	< 300,000	QCBS, QBS, LCS, FBS, CQS	
	n.a.	SSS	
	n.a.	IC	

Notes: ICB: International Competitive Bidding
NCB: National Competitive Bidding
DC: Direct Contracting
QCBS: Quality- and Cost-Based Selection
QBS: Quality-Based Selection
LCS: Least Cost Selection
FBS: Fixed Budget Selection
CQS: Selection Based on the Consultants' Qualifications
SSS: Single Source Selection
IC: Individual Consultant selection procedure
n.a.: Not Applicable

Environmental and Social (including safeguards)

25. By helping China develop a national strategy to manage its mercury issues and thus to reduce mercury pollution and associated health risks, this project is expected to generate positive environmental and social impacts in the long run. Nonetheless, the national strategy and sectoral and provincial actions plans developed under Component 1 may propose downstream actions with environmental and social impacts on the general public and vulnerable groups including ethnic minorities. In addition, site level activities under Component 2 may recommend actions that may have downstream adverse environmental impacts and/or affect the land use status of these sites. For example, downstream activities to remediate mercury contaminated sites may generate occupational, environment, and community health impacts associated with site preparation of the contaminated sites, hauling, and disposal of contaminated materials. There may be potential retrenchment of workers, livelihood and economic displacement and even physical displacement if people have to be moved out from contaminated sites as part of site remediation and restoration. If present, ethnic minorities may be affected by such downstream activities. Based on these considerations, the project triggers the Bank's OP4.01 – Environmental Assessment, OP 4.12 – Involuntary Resettlement and OP 4.10 – Indigenous Peoples.

26. To ensure proper identification and mitigation of such social impacts, FECO has prepared an ESMF to guide project implementation. The project's ESMF has outlined legal and policy requirements of China and the Bank (including the Environmental, Health, and Safety Guidelines) to be considered during project implementation. It highlights safeguard requirements for proposed project activities and requirements on public and stakeholder consultations and information disclosure. Relevant elements of the ESMF will be incorporated into TORs during project implementation to ensure that environment and social safeguard policy requirements are incorporated into various assessments and development of strategies and plans and the screening process for downstream investments. The ESMF was first disclosed nationally through the MEP/FECO website on April 13, 2016 and at the InfoShop on March 29, 2016. The final ESMF was disclosed nationally and at the InfoShop on July 18, 2016.

27. FECO has managed a large number of Bank projects and developed extensive experiences on the preparation and implementation of Bank safeguards instruments. For this project, all safeguard activities are fully budgeted with project financing. A dedicated FECO staff will be assigned to manage the implementation of the ESMF. FECO will screen safeguard risks of site-level activities and ensure the incorporation of the relevant elements of the ESMF be fully incorporated in TORs for strategy development and site assessment. FECO will also monitor the implementation of such activities closely to ensure that social and environmental impacts be properly identified, assessed and addressed in these strategies. Based on actual implementation situations, FECO will strengthen institutional arrangements for ESMF implementation in all project activities and organize training as needed to improve capacity of relevant stakeholders.

28. A grievance redress mechanism has been proposed under the ESMF. As part of the project activities, FECO will work closely with the provincial DEPs to solicit inputs of the concerned public and other stakeholders. The grievance redress mechanism under the ESMF will assist the public to file their grievances verbally and in writing with the MEP/FECO and the provincial DEPs. Complaints, if any, will be properly recorded and responded accordingly.

29. The Bank will supervise the implementation of the ESMF and provide safeguards training as needed during project implementation.

Monitoring and Evaluation

30. Annex 1 provides the Results Framework of the project. FECO has assigned a staff to perform routine M&E tasks. Based on this framework and annual implementation plans, FECO will monitor and evaluate project implementation progress and achieved project results. For provincial activities, FECO will cooperate with the provincial DEPs of the three project provinces to verify the outputs and outcomes of site-level activities. M&E data will be shared with all stakeholders to ensure that implementation challenges if any can be identified and corrective actions be proposed and implemented as early as possible. M&E information will also be used to inform and guide resource allocation and decision making. As part of the project progress report, FECO will prepare and submit to the Bank its M&E results on a semi-annual basis. In line with GEF reporting requirements, FECO will submitted a completed *GEF Tracking Tool* at time of mid-term review and at project completion, together with a report on contributions from national and local governments.

Annex 4: Implementation Support Plan

CHINA: CAPACITY STRENGTHENING FOR
IMPLEMENTATION OF MINAMATA CONVENTION ON MERCURY PROJECT

Strategy and Approach for Implementation Support

1. The Implementation Support Plan (ISP) has been designed to ensure that the implementation support to the client will focus on addressing the key risks identified and the agreed risk mitigation measures and the procurement and FM assessments.

2. Risks. The overall risk rating of this project is *moderate*. The key risk is related to the lack of experience of the new FECO project team in managing fiduciary aspects of the project. Agreed mitigation measures will be implemented to improve the capacity of the FECO project team. This risk will be carefully monitored during project implementation.

3. Technical Support. Given the technical nature of Components 1 and 2 activities, including delivering analytical reports and proposals constituting the various elements of a comprehensive national strategy, the ISP will aim at providing strong technical support. Specifically, the following support activities have been planned:

(a) A technical advisor and technical experts will be mobilized by FECO to support the national strategy development and the related action plans;
(b) Technical specialists of the Bank will carry out technical reviews and provide implementation support during missions and through desk review;
(c) Both FECO and the Bank may mobilize international experts as necessary to help guide the development of the national strategy development, the establishment and improvement of the mercury monitoring and tracking system, and risk assessment activities at the identified contaminated sites.

4. Fiduciary and Safeguards. The Bank's implementation support missions will monitor whether FECO has followed Bank requirements on procurement, FM, and safeguards. The Bank's procurement, FM, and safeguards staff based in the Beijing Office will keep close contact with FECO and provide continuous implementation support to the FECO project team.

Implementation Support Plan

5. The Bank team, composed of both Washington and Beijing based staff will provide implementation support. Within the team, fiduciary and safeguards specialists and team assistants are based in the Beijing Office. They will ensure timely, efficient and effective training and implementation support to the client. The Bank team will perform supervision missions on a semi-annual basis to review implementation status, identify potential issues and agree with FECO on solutions needed to resolve the identified problems at an early stage. Tables below summarize the skills needed for implementation support during the various stages of project implementation.

Time	Focus	Skills Needed	Resource Estimate (staff weeks)
First 12 months	Procurement supervision and training	Procurement specialist	0.5
	FM supervision and training	FM specialist	0.5
	Social safeguards/Resettlement supervision	Social safeguards specialist	1.0
	Environmental safeguards supervision	Environmental specialist	1.0
	Technical supervision and support	Technical specialist	4.0
	Project management	TTL	4.0
12-48 months	Procurement review, supervision and training	Procurement specialist	1.5
	FM supervision and training	FM specialist	1.5
	Social safeguards/Resettlement supervision	Social development specialist	3.0
	Environmental safeguards supervision	Environmental specialist	2.0
	Technical supervision and support	Technical specialist	6.0
	Project management	Task Team Leader	12.0

Skills Mix Required

Skills Needed	*Number of Staff Weeks*	*Number of Trips*	*Comments*
Procurement Specialist	0.5	-	Procurement processes
Social Safeguards Specialist	1.0	1	Social safeguards review
Financial Management Specialist	0.5	-	FM review
Environmental Safeguards Specialist	1.0	1	Environment safeguards review
Task Team Leader	4.0	2	Overall implementation support
Technical specialist	4.0	2	National strategy development, mercury monitoring and tracking
Administrative client support	2.0	-	General support from Beijing Office