

INTEGRATED SAFEGUARDS DATA SHEET

CONCEPT STAGE

Report No.: ISDSC1214

Date ISDS Prepared/Updated: 30-Aug-2012

I. BASIC INFORMATION

A. Basic Project Data

Country:	China	Project ID:	P126832
Project Name:	CH GEF Municipal Solid Waste Management Project (P126832)		
Task Team Leader:	Tijen Arin		
Estimated Appraisal Date:	15-Jul-2013	Estimated Board Date:	15-Jan-2014
Managing Unit:	EASCS	Lending Instrument:	Specific Investment Loan
Focal Area:	Persistent Organic Pollutants		
Sector:	Solid waste management (100%)		
Theme:	Pollution management and environmental health (80%), Environmental policies and institutions (20%)		
Financing (In USD Million)			
Financing Source		Amount	
BORROWER/RECIPIENT		26.00	
Global Environment Facility (GEF)		12.00	
GLOBAL ENVIRONMENT - Associated IBRD Fund		22.00	
Financing Gap		0.00	
Total		60.00	
Environmental Category:	A - Full Assessment		
Is this a Repeater project?	No		

B. Global Environmental Objective(s)

The Project would aim to enhance the regulatory framework for compliance with new dioxin emissions standards for incineration facilities, demonstrate best available techniques (BAT) and best environmental practices (BEP) in MSW management to lower dioxins and furans emissions from such facilities, and establish favorable conditions for replicating project results more widely across China. As such, the Project would support China in meeting its obligations under the Stockholm Convention.

C. Project Description

The proposed Project would seek to demonstrate globally accepted monitoring and enforcement practices in order to support Chinese authorities in regulating the expected large wave of new incinerators. It would also seek to support successful application of BAT and BEP to reduce dioxin emissions. Lessons learned from the pilot investments would be disseminated in other parts of the country.

FECO has selected Kunming City, Ningbo City, and the Shunyi District of Beijing as candidate project areas. These three cities have met the eligibility criteria agreed by FECO and the Bank, and have submitted preliminary proposals. In Ningbo City, the Project would complement the World Bank loan-funded Ningbo MSW Minimization and Recycling Project (“Ningbo loan Project”), which is at an advanced stage of preparation and will aim to assist Ningbo Municipality in reducing the proportion of MSW disposed at landfills and incinerators through waste minimization, source separation, recycling, and institutional strengthening in selected districts.

The proposed project activities would be grouped in four components. The cost estimates provided are preliminary and will be refined during Project preparation.

Component 1. Piloting improved regulations, monitoring and compliance (5.58 million GEF, 10.48 million beneficiary municipalities, environmental protection bureaus and FECO).

- Improved monitoring. In all three project areas the project would support enhanced monitoring of incinerator performances in terms of dioxin emissions, through a combination of dioxin testing and inexpensive monitoring of incinerator operating parameters, such as temperature, which impacts dioxins emissions. Local environmental protection bureau and municipal sanitation unit officials would be trained in interpreting such data to monitor the incinerators’ operations continuously. The project would also fund the competitive selection and long-term contracting of a laboratory for dioxin emission tests. Ningbo proposes procurement of laboratory equipment for dioxin testing. Such equipment will be financed under the project (a) it is determined that the GEF will support it, (b) it is directly related to a strategy of reducing dioxin emissions from MSW incinerators, (c) the laboratory’s cost effectiveness is demonstrated and a plan for ensuring its financial sustainability is place, and (d) strategies for ongoing quality assurance and quality control, and for ensuring international credibility are in place.
- Improved regulations, environmental permitting and enforcement. Kunming proposes to strengthen the regulatory framework for MSW source segregation, kitchen waste management, and tipping fee collection. The city also proposed support for a master plan for MSW management. The project may also pilot a system of permits that specify incinerator operating conditions, maintenance of the operating data which will be available for inspection. This would build on a bilateral project with the United Kingdom that aimed at strengthening institutional capacity for permitting and regulatory compliance, whereby MSW incineration was one of the focus sectors. Ningbo and Shunyi too have expressed strong interest in adopting improved enforcement tools, which will be elaborated during Project preparation.
- Public information dissemination. In all three project areas, data collected about dioxin monitoring and incinerator operations would be shared with the public in an accessible manner.
- Enhancing national level capacity for regulating MSW incineration and replication. At the

national level, the Project would fund technical assistance to the drafting of technical guidelines or other materials that MEP identifies as high priority to support the implementation of BAT/BEP to encourage compliance with the Stockholm Convention. If MEP enacts the revised PCDD/F emission limit before Project appraisal, the Project would also fund priority technical assistance to support MEP in implementing the revised standard. The Project would also support dissemination of lessons learnt from BAT/BET applications under Components 1 and 2 through printed materials and national and international workshops in order to support replication in other cities of China.

Component 2. Demonstrating BAT/BEP in MSW incinerator operations (5.1 million GEF, 32.28 million beneficiary municipalities, incinerator(s) and the Ningbo loan project). This component would demonstrate of BAT and BEP for MSW incineration to reduce dioxin emissions and of good upstream MSW management practices if they can be shown to be directly linked to dioxin reduction.

- Demonstrating BAT and BEP for MSW incineration. In Shunyi, the Project would fund the installation of flue gas treatment facilities, including sophisticated acid removal, dust removal, nitrogen removal and activated carbon adoption systems in a planned new 700tpd-capacity, two-unit incinerator. The Project would also finance training of incinerator operators for the implementation of BEPs such as feed control, combustion temperature control, activated carbon dosing control, SCR catalytic agent control, and preparation of specifications for the operation and maintenance of the MSW incinerator and flue gas facility in the two units of the new incinerator. The proposed investments would allow the incinerator to consistently maintain dioxins emissions below the 0.1ng limit. While neither Ningbo nor Kunming have proposed BAT/BEP investments at any of their incinerators at this stage, technical assessments of the incinerators and feasibility studies during project preparation may lead to concrete investment activities.
- Demonstrating good upstream MSW management practices in Kunming, Ningbo, and Shunyi. The project may support a limited number of such practices provided that a direct link with MSW dioxin emissions can be demonstrated and the activities are not complex and can be completed within the project's time frame.

All three project areas have plans to introduce MSW segregation and have proposed pilot activities to support these plans. In Ningbo, the Project would complement the Ningbo loan Project's component (a) "waste reduction through source separation" through public awareness campaigns aimed at promoting household waste segregation. To the extent such segregation reduces the organic content of the waste delivered to the city's incinerators, it would help improve combustion efficiency. The activities to be supported under this project that complement the Ningbo loan project will be defined during project preparation. Kunming City has proposed that project finance MSW segregation and transportation facilities in the Guandu district, collection and transportation for restaurant kitchen waste, and an MSW segregation pilot in urban areas of Kunming City. In Shunyi, the municipality plans to implement an MSW segregation, collection and transport pilot during 2012-2015 and has indicated that during project preparation it may identify specific areas for Project support. The proposed activities will be assessed during project preparation from the point of view of impact on dioxin emissions, complexity, and time required for completion.

Component 3. Project management, and monitoring and evaluation (US\$ 1.31 million GEF and US\$ 5.24 million FEEO, beneficiary municipalities and environmental protection bureaus). The GEF TF will support day-to-day Project management activities and monitoring and evaluation (M&E) to ensure that Project output and outcome targets agreed at Project appraisal are achieved by the agreed Project closing date. M&E will include periodic monitoring of dioxin emissions from the pilot

incinerators. The management of Project funds and procurement will be carried out in accordance with World Bank policies and guidelines. World Bank environmental and social safeguards will also be adhered to during Project implementation.

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

Project activities will be carried out in Shunyi District of Beijing, Kunming City and Ningbo City.

E. Borrowers Institutional Capacity for Safeguard Policies

The Foreign Economic Cooperation Office (FECO) of the Ministry of Environmental Protection (MEP) will be the implementing agency for the proposed project and will take overall responsibilities for the project implementation. FECO has implemented the past three GEF-financed POPs projects managed by the Bank. Past experience shows that FECO has a strong commitment to and a good record in managing environmental and social safeguards issues in a manner satisfactory to the Bank.

F. Environmental and Social Safeguards Specialists on the Team

Chaogang Wang (SDV)

Ning Yang (EASCS)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/ BP 4.01	Yes	<p>During project identification, a variety of incineration plants in the three candidate cities were reviewed and consulted according to their willingness to join the project and technical and economic considerations. Based on the review and consultation, at this stage the incinerator expansion plan of Shunyi District MSW Comprehensive Processing Center is considered appropriate for the project to support.</p> <p>The key physical activity of the Project is installation of flue gas treatment facilities in a planned new 700tpd-capacity incinerator in Shunyi. The proposed new incinerator would be built in the existing Shunyi District MSW Comprehensive Processing Center located in a rural area. The center currently houses a 200 tpd-capacity incinerator and a landfill, both of which were put into operation in 2008.</p> <p>Environmental Issues. Currently, the Chinese dioxins and furans emission standards for MSW incineration is 1.0ng TEQ/m³ compared with the more stringent limit of 0.1ng TEQ/m³ [toxicity equivalent] in the EU and 13 ng/dscm (total mass, dry standard cubic meter, about 0.2</p>

	<p>ng TEQ/m³) in the USA, which are the emission standards identified in the EHS Guidelines and are attainable by implementing BAT/BEP for new MSW incinerators. Destruction of these toxins require a relatively long holding time (over two seconds) in the combustion chamber at very high temperatures (over 1000°C) followed by a very rapid quench to prevent reformation of larger complex molecules. China is updating its national standards for MSW incineration, in which the emission limit for dioxins and furans is proposed to reach 0.1 ng TEQ/m³. However, the local MSW incinerator emission limit in Beijing is already 0.1 ng TEQ/m³ and therefore satisfies the EHS Guidelines of Waste Management Facilities, which will apply to the proposed new incinerator in Shunyi.</p> <p>Anticipated environmental issues include construction related impacts and those associated with the operation of the incinerator. The temporary construction environmental impacts directly generated from the project are currently anticipated in the building of an incinerator in Shunyi to meet proposed Chinese emission standards. During operation, impacts of emissions from the MSW incinerator and disposal of ash residue are likely to be the key issues.</p> <p>Public sensitivity to MSW incinerators will require the Project to maintain a continual and meaningful public dialogue. The project will support disseminating the experiences and lessons learned via the internet, mass media, booklets, and professional journals; exchanging information and sharing experiences through regional, national and international seminars; and developing standardized training materials for MSW incinerator operators. In addition, in all three project areas, data collected about dioxins monitoring and incinerator operations would be shared with the public in an accessible manner.</p> <p>EA Category and Terms of Reference (TOR).</p>
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	<p>Given the sensitivity and trans-boundary nature of the potential negative environmental impacts associated with the dioxins and furans emission generated from MSW incinerators, the project is proposed as Category A in accordance with OP4.01 Environmental Assessment. According to the policy, the task team will conduct environmental screening and assist the client to prepare EA TOR that is satisfactory to the Bank safeguards requirements.</p> <p>EA Preparation. Comprehensive EA procedures and documentation in accordance with OP4.01 are needed for the EA preparation for the Shunyi incinerator. The EIA/EMP will address thoroughly relevant EHS issues, and provide sound management plans for future implementation and supervision. The following issues will need to be given particular attention during the environmental assessment process.</p> <ul style="list-style-type: none">• The EA will thoroughly explain the process and criteria-including environmental and social considerations, which lead to the site's selection. In addition, assessment of the current capacities and needs for strengthening of the project institutions should be included. These studies should be used as the basis for the preparation of institutional strengthening component of the project.• Regulatory requirements and EHS guidelines on incinerators. The EIA shall include an analysis of the legal and regulatory framework. In particular, the EIA shall thoroughly analyze and compare EHS guidelines against local legislations for specific incinerators, and justify what can be accomplished, taking into account specific environmental settings, technical, economic and social considerations.• Review of performance of the existing incinerator. The Shunyi District MSW Comprehensive Processing Center has an existing 200tpd-capacity incinerator. A review of the records of the environmental management
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	<p>performance will be included in the EIA.</p> <ul style="list-style-type: none">• Environmental baselines. There is the need for a comprehensive baseline to be established regarding ambient environmental quality, including air, water and soil quality, and the biological status of the project affected area.• Alternative Analysis. The EIA will need to provide an alternatives analysis in terms of comparisons between “with and without project” scenario, compatibility with national, local and sector development plans, different resource conservation and waste control strategies, technical designs and applicability of different BAT/BEP.• Management of waste streams, including air emissions, solid wastes and wastewater that are generated from the Shunyi incinerator will need to be thoroughly analyzed in the EIA.• Cumulative impacts. The EA will contain a discussion of potential cumulative impacts, although the project will contribute to the reduction of emissions potential cumulative impacts. The EA analysis of cumulative impacts will be commensurate with project specific risks.• Public consultation. At least two rounds of public consultation shall be conducted among potentially affected groups and communities at the early stage of EA preparation and once draft EIA is available. A variety of approaches (public meetings, interviews and questionnaire survey) shall be used to get public concerns on the project. Project information shall be provided or introduced to the public prior to consultation. It is important to record the details of these two rounds of consultation in the EIA report (the consultation process, i.e. date, locations, number/type of people participated, key issues raised and how these issues are addressed in EIA and the project design). The draft EIA shall be fully disclosed in publicly
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		<p>accessible places (e.g. local government and/or internet) with announcement published through local newspaper. Establishment of a grievance mechanism will also be considered given the public sensitivities with a project of this nature.</p> <ul style="list-style-type: none"> • Environmental Management Plan (EMP). The EMP should include sufficient details for implementation, including environmental management and supervision organization setup (institutional arrangements for each party involved, responsibilities and staff capacity requirements); mitigation measures/specifications and cost estimates; environmental monitoring plan; institutional capacity analysis and necessary training plan; contingency plans, and budget. <p>EA Instrument. As noted above, the project is categorized as Category A for EA purpose. Therefore, for the selected incinerator, a full EA will be prepared. The final EA instrument will include:</p> <ul style="list-style-type: none"> • An EIA report for the selected incinerator • A standalone EMP report for the selected incinerator, and • An EA Executive Summary for the project.
Natural Habitats OP/BP 4.04	TBD	<p>The location of the proposed beneficiary incinerator is known; however, information on any sensitive natural habitats or species in the vicinity of this site is currently not available. This information will be ascertained through environmental screening during the preparation mission and it will determine whether OP4.04 Natural Habitats is applicable to this project.</p>
Forests OP/BP 4.36	No	<p>The project will not involve any activities that will cause negative impacts to forests resources. This policy is not triggered.</p>
Pest Management OP 4.09	No	<p>The project will not lead to purchase or use of any pesticides. This policy is not triggered.</p>
Physical Cultural Resources OP/ BP 4.11	No	<p>The location of the proposed beneficiary incinerator is not near any physical cultural resources and neither the construction nor the operation is expected to affect any such</p>

		resources. The standard “chance find” procedures will be included in the EMP.
Indigenous Peoples OP/BP 4.10	TBD	<p>A social screening has been carried out for the loan project-Ningbo Solid Waste Management Project. This GEF would complement Ningbo loan project and has the same project areas. The screening result indicates that no ethnic minority communities, which possess the characteristics as defined in OP 4.10 are found within the project areas in Ningbo.</p> <p>In Shunyi, there are 25 ethnic minority groups scattered in the district. Most of them live in rural areas. In Kunming, there are Miao and Yi ethnic minorities in Guandu district. As activities related to the MSW segregation and transportation facilities financed by the project need to be further assessed during project preparation, further assessment will be carried out to understand the project impacts on ethnic minority communities and to determine the application of OP 4.10.</p>
Involuntary Resettlement OP/BP 4.12	TBD	<p>The proposed new incinerator would be built in the existing Shunyi District MSW Comprehensive Processing Center located in rural area. The center occupies a piece of land large enough to accommodate the proposed new incinerators. The land acquisition was completed in 2009. It is anticipated that no land acquisition is needed for the new incinerator. To be confirmed during project preparation, appropriate resettlement instruments will be prepared if land acquisition is involved, and no legacy issues are involved in the completed land acquisition process.</p> <p>In the event the policy is triggered, the study area would cover social impacts in the environmental area of influence such as the buffer zone beyond the immediate location of the new incinerator. This would include a due diligence of existing incinerators depending on how long ago land was acquired for the existing incinerator as well as linked activities such as disposal areas.</p> <p>In the event the policy is triggered, instruments</p>

		<p>required would be a Resettlement Action Plan (RAP) or a Resettlement Plan Framework (RPF) if resettlement related action identified in the preparation.</p> <p>The potential impacts on waste pickers of the proposed project will be identified and assessed through social assessment. A social assessment has been conducted for the Ningbo Solid Waste Management Project. Strictly to say, there are no waste pickers in Ningbo according to the social assessment. However, the project may have negative impacts on community cleaners' income. A social action plan has been proposed based on the findings of social assessment in Ningbo.</p> <p>Social assessment will be carried out in Kunming and Shunyi. If the project has any adverse impacts on waste pickers, adequate mitigation measures will be developed based on the findings of social assessment.</p>
Safety of Dams OP/BP 4.37	No	The project will not involve impacts to any dams in the project area. This policy is not triggered.
Projects on International Waterways OP/BP 7.50	No	The project will not involve trans-boundary rivers. The policy is not triggered.
Projects in Disputed Areas OP/BP 7.60	No	The project is not located in any disputed areas. The policy is not triggered.

III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 31-May-2013

B. Time frame for launching and completing the safeguard-related studies that may be needed.

The specific studies and their timing¹ should be specified in the PAD-stage ISDS:

Tentatively scheduled for June 25, 2013.

IV. APPROVALS

Task Team Leader:	Name: Tijen Arin	
Approved By:		
Regional Safeguards Coordinator:	Name: Panneer Selvam Lakshminarayanan (RSA)	Date: 10-Oct-2012
Sector Manager:	Name: Paul Procee (SM)	Date: 03-Sep-2012

¹ Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.