

China Plastic Waste Reduction Project (P174267)

— Batch 2 Subprojects of the Ningbo Project

Social Audit Report

**Ningbo PMO
July 20, 2022**

Executive Summary

The Ningbo Municipal Solid Waste Smart Sorting, Collection and Recycling Project (hereinafter, the “Project”) is a subproject of the lately approved China Plastic Waste Reduction Project (P174267), which comprises three key components of (a) policy and institutional strengthening, (b) investment in the smart municipal solid waste management and resource recycling systems, and (c) project management and capacity building. In the preparation stage, Ningbo PMO has conducted an SIA on Batch 1 subprojects which involve no major civil works (Batch 1 subprojects¹), and prepared relevant E&S management documents (e.g., ESMF, SIA, SEP) which were approved by the Bank in February 2021.

According to the project implementation plan, Batch 2 subprojects include: (1) a waste water treatment plant (WWTP) of Ningbo resource recycling base; (2) a centralized plastic waste sorting and processing plant; (3) a bulky and decoration waste disposal plant; and (4) four recyclables sorting centers. In addition, the WWTP of Ningbo resource recycling base will treat wastewater from the Haishu District landfill, Ningbo food waste disposal plant and Ningbo kitchen waste disposal plant, so these wastewater generating facilities and the offsite sewer lines are defined as associated facilities.

According to the ESF and the Project’s ESMF, the social team conducted a detailed social audit on Batch 2 subprojects and associated facilities.

According to the current situation and characteristics of the Project, the subproject activities will be carried out in the urban area of Ningbo City where there are neither concentrated ethnic minority villages nor tangible or intangible cultural heritages. Therefore, this social audit focuses on the aspects concerning land use, labor and working conditions, community health and safety, public participation, and grievance redress, among others.

This social audit for each subproject is summarized as follows:

WWTP of Ningbo resource recycling base: The current leachate treatment station of the Haishu District landfill will be expanded. Except the land used for the WWTP of Ningbo resource recycling base, this social audit also covers the operation, management and other social aspects of the existing wastewater treatment facility, including labor and working conditions, community health and safety, public participation, grievance redress, etc.

Centralized plastic waste sorting and processing plant: It is a new construction, and the land has not been acquired, so it is not included in this social audit.

Bulky and decoration waste disposal plant: It is a new construction, and LA had been completed by project preparation. This social audit is focused on land use and resettlement.

Recyclables sorting centers: Batch 2 subprojects include 4 recyclables sorting centers, in which two are reconstructed from existing facilities (Jiangshan recyclables sorting center in Yinzhou District, and Gulin recyclables sorting center in Haishu District), and two are going

¹ Including construction of an urban smart waste management system, integration of the Ningbo domestic waste management platform with the existing recycling network “Helper”, and output-based incentive mechanism

to be constructed (Zhenhai and Beilun recyclables sorting centers). For the existing facilities, this social audit mainly covers land use, labor and working conditions, community health and safety, public participation, grievance redress, etc.; for the facilities to be constructed, this social audit is focused on land use and resettlement.

In addition, this social audit also covers the associated facilities. Except that the sewer lines delivering wastewater to the WWTP to be newly constructed, the other associated facilities are all existing facilities. The sewer lines are new facilities that are constructed along with the WWTP, so this social audit is also focused on pipeline construction.

Except the 4 recyclables sorting centers, Batch 2 subprojects and associated facilities are all located in Ningbo resource recycling base in Dongqiao Town of Haishu District, with a planned area of 2.58 km², and with no community within 1km around.

Among Batch 2 subprojects, the existing facilities are the WWTP to be reconstructed, and two recyclables sorting centers (Jiangshan recyclables sorting center in Yinzhou District, and Gulin recyclables sorting center in Haishu District). The existing facilities have no high social risk.

WWTP: It will be reconstructed on the current site, and its land ownership has no outstanding issue. It does not involve LAR risks. The company has entered into labor contracts with laborers, is free from child and forced labor, and has established an EHS department and an OHS system, including the construction and maintenance of occupational health protection facilities, PPE, occupational health monitoring and evaluation, publicity, worker health monitoring, etc. Based on the field survey and interviews, OHS risks are “moderate”. However, the company’s LMP has no specific requirement for contractor and primary supplier management.

Recyclables sorting centers: Based on the currently selected sites, though the land used has been acquired and reserved by the government, the land use plan does not comply with the master land utilization plan, and the PIU has not reached an agreement with the government to receive the land use right, so land use risks are “moderate”. According to the survey on the existing sorting centers in Jiangshan Town, Yinzhou District and Gulin Town, Haishu District, since all recyclables are from smart waste separation cabins in urban communities, they are relatively clean. During waste sorting, worker occupational health risks are relatively minor, and the recyclable sorting centers have developed on-site operating regulations, and offer PPE for free to reduce occupational hazards. The PIU² has established a LMP, but the social team found during the survey that some workers did not wear PPE (face masks, gloves, etc.) as required at work, and temporary workers might have not entered into a labor contract. Sound traffic risk control measures have been taken for vehicles, such as GPS speed monitoring, speed limit, voice prompt and anti-fatigue, and waste collection and transfer routes are kept away from densely populated communities. Therefore, traffic and community safety risks are “moderate”.

Bulky and decoration waste disposal plant: It will be built on land acquired and reserved by the government, but it was found during the survey that some attachments on site were to

² It is also a PIU of Batch 1 subprojects.

be cleared, and the PIU had not received a certificate of land use right, and its LAR risks are deemed “moderate”.

For the **associated facilities**, a certificate of the right to use state-owned land has been obtained for the Haishu District landfill, Kaicheng Kitchen Waste Plant, and the Shouchuang Kitchen Waste Plant, so its LAR risks are “low”. The company has entered into labor contracts with laborers with no child or forced labor, and has established an EHS department and an OHS system, including the construction and maintenance of occupational health protection facilities, PPE, occupational health monitoring and evaluation, publicity, and worker health monitoring, etc. Based on the field survey and interviews, OHS risks are “low”. However, the company’s LMP has no specific requirement for contractor and primary supplier management.

The Kaicheng Kitchen Waste Plant and Shouchuang Kitchen Waste Plant have developed strict waste collection and transfer management measures, and use fully sealed vehicles for transport via fixed routes, with minor community disturbances.

In addition, it is found that adequate information disclosure and public participation were conducted for the existing and associated facilities of Batch 2 subprojects during the EIA, social stability risk assessment, and LAR. However, compared to the Bank’s ESF, the existing and associated facilities of Batch 2 subprojects need to be strengthened in community health and safety, communication, grievance redress, etc., such as disclosing E&S monitoring reports to the public regularly (especially water and air quality data), and responding to community concerns positively.

The social team has proposed the following suggestions on the basis of adequate communication with Ningbo PMO and PIUs to comply with both the domestic regulations and the Bank’s ESF:

- Labor and working conditions: The PIUs and associated facility operators should improve the requirements for contracted and primary suppliers’ workers in the Labor Management Procedure (LMP), and strengthen the protection of their rights and obligations according to ESS2.
- Community health and safety: The PIUs and associated facility operators should conduct E&S monitoring on Batch 2 subprojects, especially water and air quality, disclose monitoring data to nearby communities timely, and communicate with nearby communities regularly to handle their concerns (e.g., odor).
- LAR: For LAR, Ningbo PMO and PIU conducted adequate consultation with the agencies concerned (Ningbo Municipal Natural Resources and Planning Bureau, and district urban administration bureaus), and agreed on the following action plan: 1) Complete the land use adjustment of the relevant facilities and obtain approval by October 2022 to comply with Ningbo’s master land utilization plan; 2) The PIU will obtain land use rights: ① The PIU will obtain the land use rights for the bulky and decoration waste disposal plant, and centralized plastic waste sorting and processing plant by the end of December 2022 by transfer under an agreement, with a transfer fee of about 700,000 yuan/mu; ② After the land use plan for sanitation facilities is approved, the district governments will allocate the land to the district sanitation authorities, and the PIU will lease such land to construct

sorting centers for 30 years. The land for the sorting centers in Zhenhai and Jiangbei Districts is expected to be obtained by the end of 2022, and that for those in Yinzhou and Haishu District is expected to be obtained by the end of 2023. The rental is about 50,000 yuan/mu for the 30-year land leasing; and ③ All land use costs will be borne by the PIU.

- GRM: The PIUs and associated facility operators should improve the GRM, conduct information disclosure and public participation, and respond to community concerns positively according to ESS10 and the Stakeholder Engagement Plan (SEP) of the Project.

Table 9-1 in Part 9 of this report summarizes the issues identified in this social audit and the corresponding suggestions. Ningbo PMO will monitor and evaluate the effectiveness of the relevant mitigation measures continually, and report to the Bank regularly.

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Acronyms and Abbreviations

E&S	Environmental and Social
EIA	Environmental Impact Assessment
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Standard
FGD	Focus Group Discussion
GRM	Grievance Redress Mechanism
HD	House Demolition
LA	Land Acquisition
LAR	Land Acquisition and Resettlement
LMP	Labor Management Procedure
M&E	Monitoring and Evaluation
NMII	Ningbo Municipal Public Utilities Investment Co., Ltd.
OHS	Occupational Health and Safety
PIU	Project Implementation Unit
PMO	Project Management Office
PPE	Personal Protection Equipment
SIA	Social Impact Assessment
SEP	Stakeholder Engagement Plan
USD	US Dollar
WBG	World Bank Group
WWTP	Wastewater Treatment Plant

1 Part 1: Summary

1.1 Background

China and the World Bank are working closely to implement the lately approved China Plastic Waste Reduction Project (P174267) which aims to strengthen national and sub-national policies, urban solid waste management systems, and institutions and operations towards reduced plastics leakage from municipal solid waste streams. In Ningbo – one of the demonstration cities under the new project, Ningbo Municipal Solid Waste Smart Sorting, Collection and Recycling Project (hereinafter, the “Project”) will be implemented, as part of the overall project. The Ningbo Project has a construction period of 5 years, and will be implemented in batches.

The Project will support the establishment of a smart municipal solid waste separation, collection, transfer, recycling and treatment system that will employ smart waste separation techniques at source, and enhanced waste recycling and reuse towards the end. The project will help Ningbo achieve its 2025 targets of increasing precise waste separation at drop-off to 80%, solid waste recycling to 60%, and the recycling of plastic waste to 20% as of all recyclables.

The Project has three components: (a) policy work and institutional strengthening, (b) smart solid waste management and resource recycling, and (c) project management and capacity building. According to the implementation arrangements, the Project will be implemented in batches, as detailed in Table 1-1.

Table 1-1 List of Project Activities

Subproject		Scope of construction		PIU	Batch
1. Policy work and institutional strengthening	1.1 Output-based reward		Soft component	Ningbo Municipal Solid Waste Separation Guidance Center	1
	1.2 Technical assistance	1.2.1 Study on plastic pollution reduction action plan for Ningbo			1
		1.2.2 Study on evaluation methods for plastic pollution reduction effects of Ningbo			1
		1.2.3 Study on improvement of domestic waste collection policies of Ningbo			1
		1.2.4 Study on implementation rules for waste sorting regulations of Ningbo			1
		1.2.5 Study on regulation measures for utilities (waste) sector			1
		1.2.6 Public data security study based on smart all-category waste cabins			1
2. Smart solid waste management and plastic recycling	2.1 Waste sorting, collection, and transfer system	2.1.1 Construction of a smart management system for domestic waste in the urban area	Deploying not less than 4,000 smart collection terminals over three years, covering about 2,200 residential communities, schools, government buildings, enterprises and institutions, commercial complexes, farmer’s markets and other public places in the entire project implementation area; procurement of 230 recyclables transportation trucks and 600 kitchen waste transportation trucks	Dabashou	1
		2.1.2 Integration of Ningbo domestic waste management platform with the existing recycling network	Soft component	Dabashou	1
		2.1.3 Recyclables sorting center	Construction of 9 sorting and transfer centers covering to sort out recyclables of paper, plastic, textiles, metals, and glass, etc.;	Dabashou	2 and 3

Subproject		Scope of construction	PIU	Batch
	2.1.4 Home appliances dismantling center and integrated management system	Construction of a home appliances dismantling center, with a floor area of 20,000 m ² (about 30 mu ³) and a building area of 13,000 m ² (including dismantling line)	Dabashou	3
	2.2 WWTP of Ningbo resource recycling base	Reconstructed and expanded from an existing leachate treatment plan, including demolishing the existing management room and two-stage A/O wastewater treatment system, constructing a regulating tank, two MBR complexes, a car washing center, a management room, enclosing walls, roads and landscaping, and purchasing and installing equipment After completion, the plant's daily wastewater treatment capacity will be 2,500 m ³ /d (1,800 m ³ /d from new construction and 700 m ³ /d from reconstruction).	Qingyuan	2
	2.3 Centralized plastic waste sorting and processing plant	With a planned land area of 57,000 m ² (85.5 mu), a building area of 60,000 m ² and an annual plastic treatment capacity of 40,000 tons	Haijing	2
	2.4 Bulky and decoration waste disposal plant	With a planned land area of 39,451 m ² (about 59.1mu), a building area of 22,150 m ² and an annual treatment capacity of 300,000 tons of decoration waste; also constructing a 45,000-ton bulky waste treatment line, an 82,000-ton RDF treatment line and an 18 million-brick regeneration line	Meijing	2
3. Project management and capacity building	3.1 Technical upgrading of digital waste separation management platform		Ningbo Municipal Solid Waste Separation Guidance Center	1
	3.2 Study on publicity evaluation plan for smart waste separation in residential communities			1
	3.3 Planning of waste separation publicity activities			1
	3.4 Print production, training and seminars on waste separation			1

Source: Feasibility Study Report of the Project (final)

³ Mu is Chinese land area measurement unit. 1 mu=666.67 m²

In the preparation stage, since the details (including site, scale, technical solution, etc.) for some subprojects were still unclear, the E&S documents of the Project are prepared and assessed as follows:

- Prepare E&S framework documents for the whole Project, including ESMF, SEF and ESCP;
- Prepare detailed E&S management documents for any identified subproject, including SIA report, LMP, SEP, RAP (if required), etc.

According to the above principles and methods, Ningbo PMO has prepared the E&S management documents (including ESMF, ESCP and SEF) for the Project in the preparation stage (2020-2021), and a detailed SIA report for Batch 1 subprojects. These documents were approved by the Bank in February 2021.

Batch 1 subprojects comprise mainly activities that involve no major construction:

- 1 Policy work and mechanism strengthening;
- 2.1.1 Construction of a smart management system for domestic waste in the urban area;
- 2.1.2 Integration of Ningbo domestic waste management platform with the existing recycling network.

Ningbo PMO and PIUs have identified Batch 2 subprojects, including:

- 2.2 WWTP of the Ningbo resource recycling base;
- 2.3 Centralized plastic waste sorting and processing plant
- 2.4 Bulky and decoration waste disposal plant; and
- 2.1.3 4 recyclables sorting centers

See Table 1-2 for the front-end collection and transfer system for Batch 2 Subprojects.

Table 1-2 Waste Collection and Transfer System for Batch 2 Subprojects

Subproject	Collected by	Transfer mode
Recyclables sorting center	Smart all-category waste collection cabins under the integration of Ningbo’s existing domestic waste management network and waste recycling network	Recyclable truck and enclosed waste truck (with hooked arm)
WWTP of Ningbo resource recycling base	Kaicheng Kitchen Waste Plant, Shouchuang Kitchen Waste Plant, centralized plastic waste sorting and processing plant (Batch 2 subprojects), and Haishu landfill	Municipal sewer network (offsite sewer lines)
Centralized plastic waste sorting and processing plant	Recyclables sorting center, bulky and decoration waste disposal plant	Truck
Bulky and decoration waste disposal plant	Recyclables sorting center	Truck

1.2 Scope

Since the centralized plastic waste sorting and processing plant is a new subproject, for which land has not been acquired, it is not included in this social audit⁴. Therefore, the scope of this social audit is:

- **Batch 2 subprojects**, which are: 1) WWTP of the Ningbo resource recycling base; 2) bulky and decoration waste disposal plant; and 3) two existing ones of the 4 recyclables sorting centers (Jingshan and Haishu)
- Associated facilities of the **WWTP of Ningbo resource recycling base⁵**: which are: 1) Haishu District landfill; 2) Ningbo food waste disposal plant (Phase 2); 3) Ningbo kitchen waste disposal plant (Phase 2); and 4) offsite sewer lines.

Except the 4 recyclables sorting centers, Batch 2 subprojects and associated facilities are all located in the Ningbo resource recycling base in Dongqiao Town of Haishu District, with a planned area of 2.58 km².

The 4 recyclables sorting centers are located in 4 urban districts (Zhenhai, Beilun, Yinzhou and Haishu), in which the recyclables sorting centers in Yinzhou and Haishu Districts will be reconstructed from the existing facilities, and the other two recyclables sorting centers are to be newly constructed. See Table 1-3 and Figure 1-1.

In sum, this report is the summary social audit report on Batch 2 subprojects (except the centralized plastic waste sorting and processing plant) and associated facilities, mainly including:

- Part 1: Introducing the project background, and social audit methods, and comparing China's laws and regulations with the Bank ESSs);
- Part 2: Social audit report on the existing facilities of the WWTP of the Ningbo resource recycling base;
- Part 3: Social audit report on Associated Facility 1 of the WWTP - Haishu District landfill;
- Part 4: Social audit report on Associated Facility 2 of the WWTP - Kaicheng Kitchen Waste Plant (Phase 2);
- Part 5: Social audit report on Associated Facility 3 of the WWTP - Shouchuang Kitchen Waste Plant (Phase 2);
- Part 6: Social audit report on Associated Facility 4 of the WWTP - Offsite Sewer Lines (temporary land occupation);
- Part 7: Social audit report on the bulky and decoration waste disposal plant;
- Part 8: Social audit report on the 4 recyclables sorting centers;
- Part 9: Summarizing conclusions and suggestions; and
- Appendixes: Lists of reviewed documents, vouchers on subproject LAR, fieldwork photos, a list of interviewees, etc.

⁴ This subproject is included in the social audit on Batch 2 subprojects. A separate RAP has been prepared for LA.

⁵ These facilities meet all three criteria set in Para 11 of ESS1. The social audit confirms that the E&S risks and impacts management practice. Therefore, the ESSs apply to these facilities within the influence of Ningbo PMO.

Table 1-3 Identification of Batch 2 subprojects and associated facilities

No.	Subproject		Existing facility	Associated facilities	Existing primary supplier ⁶	Key social risks
1	WWTP of Ningbo resource recycling base		Reconstruction and expansion of the existing leachate treatment station in the Haishu landfill	<ul style="list-style-type: none"> - Haishu District landfill (closed down in August 2017, now being a backup landfill) - Ningbo food waste disposal plant (operating) - Ningbo kitchen waste disposal plant (operating) - Offsite sewer lines 	To be purchased through bidding, mostly being drug suppliers	<p>Except the offsite sewer lines, this social audit is focused on:</p> <p>LAR</p> <p>Worker OHS</p> <p>Community health and safety</p> <p>Public participation and grievance redress; and</p> <p>Land use</p> <p>For the offsite sewer lines:</p> <p>Land use</p>
2	Centralized plastic waste sorting and processing plant		New construction, no existing facility, acquiring collective woodland	None	Recyclables sorting center, and collection and transfer system	None
3	Bulky and decoration waste disposal plant		New construction, no existing facility; state-owned land obtained in 2004, involving the relocation of facilities, the right to use not obtained	None	None, collected and transferred as required by households through the smart platform ⁷	LAR
4	4 recyclables sorting centers	Zhenhai District	New construction, no existing facility; reserved state-owned land, the land utilization plan to be adjusted, the right to use not obtained	None	None, from recyclables dumped by residents in smart waste cabins	LAR
		Beilun District	New construction, no existing facility; reserved state-owned land, the land	None		LAR

⁶ Primary suppliers are those who, on an ongoing basis, provide directly to the project goods or materials for the core functions of the project.

⁷ This activity has been included in the SIA of Batch 1 subprojects, and a social action plan developed.

No.	Subproject		Existing facility	Associated facilities	Existing primary supplier ⁶	Key social risks
			utilization plan to be adjusted, the right to use not obtained			
		Jiangshan Town, Yinzhou District	Existing site, reconstructed from existing facility; leased state-owned land, the land utilization plan to be adjusted, the right to use not obtained	None		LAR Worker OHS Community health and safety Public participation and grievance redress
		Gulin Town, Haishu District	Existing site, reconstructed from existing facility; leased state-owned land, the land utilization plan to be adjusted, the right to use not obtained	None		

Source: field survey



Figure 1-1 Location map of Batch 2 subprojects and associated facilities

1.3 Purpose and methods of the social audit

1.3.1 Purpose

The social audit aims to analyze the existing social risk management level of the subprojects based on the Bank's ESF for the following purpose:

- Identifying and analyzing potential major social impacts and risks in the existing facilities, especially in relation to Labor and Working Conditions (ESS2), Community health and safety (ESS4), Land Acquisition, Restriction on Land Use and Involuntary Resettlement (ESS5), and Stakeholder Engagement and Information Disclosure (ESS10);
- Proposing suggestions to solve social issues based on the social audit results to ensure that Batch 2 subprojects and associated facilities meet the applicable Bank ESSs and Chinese regulations within a reasonable period;
- Learning local communities' attitudes to and concerns about the proposed subprojects, and providing a basis for identifying potential social impacts and risks, and developing more effective mitigation measures

1.3.2 Methods

The following methods were used in the social audit:

- 1) **Literature review:** The social team searched for information on project construction and social stability by means of Ningbo PMO, district and town governments, and online search engines, such as approval documents, special reports, organizational charts, and personnel management systems and practices.
- 2) **Field visit:** The social team conducted field visits to the subproject sites to learn nearby E&S sensitive sites, identify potential social factors, and evaluate on-site management level.
- 3) **Key informant interview:** The social team interviewed the owners and agencies concerned
 - **PIUs:** To understand the types of works, jobs, labor management policies and implementation, and potential risks; frequency of vehicles, communities passed through and potential risks; worker and resident grievances, and their handling
 - **District and town LAR staff:** District and town LAR staff was interviewed to learn the LA process, compensation rates, resettlement process and effectiveness, grievance redress, and outstanding issues.
 - **Officials of affected communities:** The social team interviewed village officials and villagers in communities affected by LAR to learn compensation allocation, information disclosure, grievance redress, and potential issues.
- 4) **FGD:** For the following stakeholders, the social team held FGDs
 - **Workers of existing facilities:** To understand workers' perceptions of the working environment and potential risks, if the labor policies of the Project comply with the Chinese Labor Law and the Bank's ESS2, and the Project's potential disturbances to nearby residents and nearby residents' attitudes to the existing facilities

- **Nearby residents:** learning attitudes to and suggestions on the environmental and traffic impacts of the existing facilities, and grievance redress channels and feedback
- **Persons affected by LAR:** learning LA implementation, compensation, resettlement and outstanding issues
- **Residents in communities passed through by bulky and plastic waste:** learning attitudes to and suggestions on traffic safety and environmental sanitation, accidents, and grievance redress channels and feedback

5) **Door-to-door questionnaire survey:** The social team also sampled some persons affected by LA for a questionnaire survey to learn LA implementation, compensation, resettlement, satisfaction with resettlement, and outstanding issues.

1.4 Regulatory and Institutional Framework

The social audit is based on the applicable domestic laws and standards, and the Bank's relevant ESSs.

1.4.1 Applicable social laws, regulations and policies of China

China has established a sound system of laws and regulations on social security, covering social risk assessment, labor, LAR, stakeholder engagement, etc.

1) Social risk assessment

The government of China has social risk management provisions on major investment projects. The Interim Measures for the Social Stability Risk Assessment of Major Fixed Asset Investment Projects stipulates, China requires that a social stability risk assessment be conducted around the legitimacy, rationality, feasibility and controllability of a project to determine its risk rating, and major decisions and surveys should cover all local stakeholders, fully collect their opinions, and propose risk prevention and mitigation measures, and an emergency plan.

2) Labor and working conditions

ESS2 divides workers into four types, namely direct hires, contract workers, primary suppliers' workers and community workers, which may be involved in the Project. "Direct hires" include managers, drivers, repairmen, operators, etc. signing labor contracts directly with the owners; "contract workers" include staff hired by contractors, subcontractors, brokers, agents or intermediaries to do jobs related to the core functions of the Project, such as construction workers, cleaners, security guards and researchers; "primary suppliers' workers" refer to workers of suppliers supplying necessary goods or raw materials for the core functions of the Project continually; and "community workers" refer to staff hired to perform or participating in community services, such as volunteers participating in publicity and guidance on waste sorting.

Chinese laws and regulations have comprehensive provisions on child labor, discrimination, forced labor, working hours, minimum wages, labor safety and health, etc. For example, employers are prohibited from recruiting minors under 16 years; female and underage workers (16-18 years) are subject to special protection; laborers should not be discriminated against based on ethnic group, race, gender or religion; women enjoy the same employment rights as men; forced labor is

prohibited; employers must establish a sound labor safety and health system, and reduce occupational hazards.

The government of China has also established a system of laws, regulations and industry standards to protect laborers' OHS, including state laws and regulations, local regulations and bylaws, and health and safety standards of different industries. A multi-layer legal system for occupational health protection has been established. There are special laws that protect women's labor rights, including the prohibition of sexual harassment.

Table 1-4 State laws and regulations on labor and working conditions

No.	Policy	Effective date
1	Labor Law of the PRC	2018 amendment
2	Provisions of the State Council on Working Hours of Workers and Staff	1995
3	Emergency Incident Response Law of the PRC	2007
4	Regulations on the Implementation of Labor Contract Law of the PRC	2008
5	Labor Contract Law of the PRC	2012 amendment
6	Special Rules on Labor Protection of Female Employees	2012
7	Law on the Prevention and Control of Occupational Diseases	2018 amendment
8	Tentative Provisions on the Payment of Wages	1995
9	Social Insurance Law of the PRC	2018 amendment
10	Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used	2002
11	Regulations on the Prevention and Control of Pneumoconiosis	1987
12	Law of the PRC on the Protection of Minors	2020 amendment
13	Law of the PRC on the Protection of the Disabled	2018 amendment
14	Labor Dispute Mediation and Arbitration Law of the PRC	2007
15	Trade Union Law of the PRC	2009 amendment
16	Notice of the Zhejiang Provincial Human Resources and Social Security Department on Doing a Better Job in Credit Regulation on Labor Security	2020
17	Interim Measures of Zhejiang Province on the Agency of Labor and Social Security Affairs	2000
18	Measures for Labor Contract Management of Zhejiang Province	2003
19	Regulations of Zhejiang Province on the Protection of Minors	2010
20	Measures of Ningbo City on the Implementation of the Labor Contract System	1995
21	Opinions of Ningbo City on Further Strengthening Legal Assistance for Minors	2018
22	Measures for Labor Contract Management of Ningbo City	1999

3) LAR

For LAR and compensation, etc., China has established a complete legal framework and policy system. Except the centralized plastic waste sorting and processing plant for which land has not

been acquired, the land for Batch 2 subprojects was fully reserved or acquired by the government during 2004-2018. See Table 1-5.

Table 1-5 State laws and regulations on LAR

Level	Policy	Effective date
State	Land Administration Law of the PRC	Amended on 2004-8-28
	Regulations on the Implementation of the Land Administration Law of the PRC	Effective from 1999-1-1, amended in 2014-7
	Decision of the State Council on Deepening the Reform and Rigidly Enforcing Land Administration (SC [2004] No.28)	2004
	Notice of the General Office of the State Council on Doing a Good Job in the Employment Training and Social Security of Land-expropriated Farmers (SCO [2006] No.29)	2006-4
	Guidelines on Improving Compensation and Resettlement Systems for Land Acquisition (MLR [2004] No.238)	2004-11
	Notice of the Ministry of Land and Resources on Doing a Better Job in Land Acquisition Management	2010-6-26
	Regulations on the Demolition of Urban Houses	2001-11-1
	Urgent Notice of the General Office of the State Council on Carrying out Strict Land Acquisition and House Demolition Management, and Protecting the Lawful Rights and Interests of People Practically (SCO [2010] No.15)	2010
Zhejiang Province and Ningbo City	Notice of the Legal Affairs Office of the Zhejiang Provincial Government, and the Zhejiang Provincial Land and Resources Department on Further Regulating Land Acquisition Announcement	2017-12-8
	Measures of Zhejiang Province on Land Acquisition Compensation and the Basic Living Security of Land-expropriated Farmers (Decree No.264 of the Zhejiang Provincial Government)	2010-1-1
	Regulations of Zhejiang Province on the Administration of Urban House Demolition	2007-3-29
	Notice of the Zhejiang Provincial Government on Adjusting and Improving Land Acquisition Compensation and Resettlement Policies (ZPG [2014] No.19)	2014
	Measures of Ningbo City for the Administration of House Demolition on Collectively Owned Land for Urban Construction	2002-2-1
	Regulations of Ningbo City on the Demolition of Houses on Collectively Owned Land	2006-5-24
	Rules for the Implementation of the Regulations of Ningbo City on the Demolition of Houses on Collectively Owned Land	2006-12-1
	Regulations of Ningbo City on Monetary Compensation Rewards and Subsidies for the Expropriation of Houses on Collectively Owned Land	2016-7
Yinzhou District	Measures of Yinzhou District for Land Acquisition Compensation and Resettlement (YDG [2002] No.24)	2002

Level	Policy	Effective date
	Notice of the Yinzhou District Government on Adjusting Block Comprehensive Land Prices for Land Acquisition (YDG [2014] No.75)	2014
	Notice of the Yinzhou District Government on Issuing the Measures of Yinzhou District for Land Acquisition Compensation and Resettlement (YDG [2014] No.77)	2014
Haishu District	Notice of the Haishu District Government on Re-promulgating Block Comprehensive Land Prices for Land Acquisition (HDG [2017] No.83)	2017

According to the above laws and regulations, the basic principles for resettlement are as follows:

- Adverse impacts should be minimized;
- If resettlement is inevitable, replacement cost and compensation level should be determined in consultation with the affected villages and residents;
- Necessary compensation and assistance is provided to the affected persons to increase their income and living standard, or at least restore them to the pre-project levels;
- The affected persons receive sufficient information on compensation agreements, which are signed in full consultation with them; and
- Special attention is paid to vulnerable groups.

4) Stakeholder engagement

Chinese laws and regulations require that adequate information disclosure and public participation be conducted during the EIA, LAR and policy making to protect the participation right of citizens. Ningbo Municipal Government also stipulates that if any decision involves the interests of any certain group, such group should be consulted.

Table 1-6 State laws and regulations on stakeholder engagement

No.	Policy	Effective date
1	Land Administration Law of the PRC	2004
2	Measures for Public Participation in Environmental Impact Assessment	2019
3	Guidelines on the Grass-root Government Affairs Disclosure on Rural Collective Land Acquisition	2019

It can be seen that China has established a sound social security system, whose objective is consistent with the Bank's social safeguard policy, i.e., to alleviate social risks and realize sustainable development. However, there are still some differences.

1.4.2 Bank ESF

The Bank's ESF has 10 ESSs. The basis of the social audit on a Bank-financed project is to analyze the relevance of the ESSs. Based on screening and analysis, the Batch 2 subprojects are not located in minority communities, and no minority community is collectively attached to the project area, so ESS7 does not apply; the Project is not a financial intermediary, so ESS9 does not apply; the Project does not involve cultural relics, so ESS8 does not apply. The applicable ESSs are ESS1, ESS2, ESS4, ESS5 and ESS10. See Table 1-7.

Table 1-7 Applicability of Bank ESSs to Existing Facilities of the Batch 2 subprojects

No.	ESS	Relevant?	Analysis
1	ESS1: Assessment and Management of Environmental Risks and Impacts	Yes	Batch 2 subprojects involve large civil works, mainly including: 1) WWTP of Ningbo resource recycling base, 2) centralized plastic waste sorting and processing plant, 3) bulky and decoration waste disposal plant, and 4) 4 recyclables sorting centers. The WWTP of Ningbo resource recycling base and two recyclables sorting centers (Yinzhou and Haishu Districts) are reconstructed, while the other works are newly constructed. The Project will involve social impacts and risks in many aspects during implementation, including LA, OHS, NIMBY risks, traffic safety, community health and safety, etc.
2	ESS2: Labor and Working Conditions	Yes	Batch 2 subprojects involve direct hires, contract workers and primary suppliers' workers mainly, and do not involve community workers. Therefore, the requirements on working conditions, worker rights, GRM and OHS in this ESS apply to the Project. OHS risks are from the construction and operation stages mainly, including traffic, mechanical injury, falling and equipment operation risks, and health hazards from exposure to noise, dust, odor, etc.
4	ESS4: Community Health and Safety	Yes	Batch 2 subprojects may have health and safety risks, and traffic safety risks to nearby communities.
5	ESS5: Land acquisition, Restriction on Land Use and Involuntary Resettlement	Yes	This standard aims to minimize involuntary resettlement, and alleviate unavoidable and adverse economic and social impacts of land acquisition and restriction on land use through a series of measures. According to this social audit, the centralized plastic waste sorting and processing plant in Batch 2 subprojects involves the acquisition of 87.5 mu of collective woodland in Xuanpei Village, Dongqiao Town, Haishu District, for which an RAP has been prepared. The land for the other subprojects is land acquired or reserved by the government. Due diligence has been conducted on the land used for all subprojects.
6	ESS10: Stakeholder Engagement and Information Disclosure	Yes	Information disclosure and consultation will run through the preparation, construction and operation stages, with attention to the needs of project-affected parties and vulnerable groups, such as workers, community residents, persons affected by LAR, and especially vulnerable groups. In addition, different GRMs should be established for communities and workers.

Source: social team summarized it based on information available.

1.5 Limitations

The social audit was conducted within the scope of work approved by Ningbo PMO, and its results are based on the field visits and the documents provided by the PIUs, town and district governments, village committees, etc., and are subject to change.

A site walkthrough, by nature, is limited in its ability to fully assess potential E&S liabilities or concerns associated with existing sites. Further investigations would be required to identify the presence or absence of potential E&S liabilities but are beyond detection by performance of the

scope of this social audit report. Laws and regulations, if referenced in this report, are provided for information purposes only and should not be construed as legal opinion or recommendation.

In particular, the restrictions encountered during this social audit include:

- 1) This report focuses on relevant social aspects and dimensions that are in connection with Ningbo Batch 2 subprojects as required by the ESF.
- 2) The document review (e.g., labor contracts, LAR evidence) was conducted by random sampling. The sampling process was not designed to be a comprehensive document review, but rather to verify the current status by sampling for risk identification and assessment purposes. In addition, since the WWTP is located in Haishu District landfill, for which LA was completed around 2005. Due to the long time and local administrative division adjustment⁸, only some available LAR documents have been collected and reviewed.
- 3) Due to COVID-19, face-to-face interaction was much limited. Also, since some associated activities/facilities under previous Bank-financed project in Ningbo were completed many years ago and have copies of documents only, the social team was unable to review the original file for most permits and approvals were provided for review. Information provided to the social audit team was accepted in good faith and was assumed to be accurate unless written documentation or visual observations presented contradictions to this assumption.
- 4) Data collected during stakeholder engagement are deemed accurate to the extent that the information was provided by those consulted, which shall not to be construed as legal advice.

⁸ In 2016, Dongqiao Town was transferred from Yinzhou District to Haishu District.

2 Part 2: Social Audit Report on the WWTP of Ningbo resource recycling base

The WWTP of Ningbo resource recycling base is located in the Haishu District landfill in southern Dongqiao Town of Haishu District, and will be reconstructed and expanded on the existing leachate treatment station. Civil work will include the demolition of the existing administrative room and two-stage wastewater treatment A/O system, construction of a conditioning tank, two MBR complexes, a vehicle washing center, an administrative room, an enclosing wall, roads, landscaping and other associated works, and the purchase and installation of process equipment. After completion, it will have a treatment capacity of 2,500m³/d, and receive wastewater from the following sources:

- 500 m³/d leachate treatment plant (related facility, as detailed in Chapter 3)
- Expansion of Kaicheng Kitchen Waste Plant (Phase 2), with a capacity of 720m³/d, expected to be completed in December 2021 (related facility, as detailed in Chapter 4);
- Expansion of Shouchuang Kitchen Waste Plant, with a capacity of 800 m³/d; expected to be completed in December 2021 (related facility, as detailed in Chapter 5);
- Vehicle washing center, with a capacity of 120 m³/d (Bank-financed, being part of the WWTP); and
- Centralized plastic waste sorting and processing plant, with a capacity of 300 m³/d (2025) (Bank-financed)

Based on the fieldwork and screening results, the social audit (Part 2) is focused on the following social aspects: 1) labor and working conditions, 2) community health and safety, 3) LAR, and 4) public participation and grievance redress. In particular, public participation and grievance redress are overlapping issues that run through the whole lifecycle of this existing facility.

2.1 Introduction of the WWTP of Ningbo resource recycling base

The leachate treatment station of Haishu District landfill is to be expanded. In 2014, Haishu District Urban Administration Bureau expanded the leachate treatment station to a capacity of 800m³/d, which was put into trial operation in May 2015 and accepted in October 2015. From August 1, 2017, the landfill has been closed down temporarily. In the WWTP of Ningbo resource recycling base, the existing leachate treatment station will be reconstructed to treat both leachate and biogas fluid.



Figure 2-1 Plan of WWTP reconstruction and expansion

2.2 Labor and working conditions (ESS2)

From August 1, 2017, the landfill has been closed down temporarily. The leachate treatment station is now operated and maintained by Ningbo Mingzhou Environment & Energy Co., Ltd. (Mingzhou Company) as entrusted by Haishu District Urban Administration Bureau. Mingzhou Company has 20 staff members responsible for wastewater treatment (3 managers and 17 operators), including 4 female workers, and the minimum age is 23 years. In addition, cleaning is outsourced to two cleaners of the Ningbo branch of Beijing Lianchuang Company.

2.2.1 Employment terms and conditions

During the social audit, the following rules and regulations on worker management of Mingzhou Company were checked:

- Personnel Management Measures;
- Notice on Regulating the Recruitment Process
- Training Management System;
- Measures for Evaluation Management during Internship and Probation;
- Measures for Temporary Worker Management;
- Regulations on Payment of Duty Subsidies;
- Measures for the Management of Paid Annual Leaves of Workers;
- Measures for Compensation, Reward and Punishment for Road Traffic Accidents (Amended);
- Intern Management System;

- Sample labor contract for direct hires.

The WWTP adopts a comprehensive labor management system, providing clear written guide to worker management. Each employee is required to enter into a labor contract in written according to the template prepared by the Ningbo Municipal Labor and Social Security Bureau (see Figure 2-1), specifying the term, scope of work, workplace, working hours, rest time, remuneration, overtime pay, social insurance and benefits, labor conditions, contract change, termination and renewal, labor dispute settlement, etc. The company offers induction training to new hires to help them get familiar with the corporate policies and their jobs.

The WWTP operates around the clock. The operators work on 3 shifts (8:00-16:00, 16:00-0:00 and 0:00-8:00), while the other workers work on the day shift (8:00-12:00 and 13:00-17:00). Each shift works 5 days a week on average.

Based on interviews with direct hires of Mingzhou Company, all of them have entered into a labor contract, are paid regularly, have covered social insurance and one fund (endowment, medical, unemployment, work-related injury and maternity insurance, and housing provident fund), rest on legal holidays, and are entitled to overtime pay and other basis benefits as stipulated by law. The company conducts a health checkup for all employees annually.

After checking with the Haishu District Human Resources and Social Security Bureau who is responsible for governing the labor-related affairs, there have been no outstanding labor-related complaints registered recently for the company.

Findings: The company has established a series of procedures and policies to define its labor management system, which are generally consistent with the requirements of ESS2. Based on document review and interviews, it was confirmed that all workers have signed the labor contract that outlines the salary, leave, and insurance entitlements etc. The overall salary level of direct hires is much higher than the local minimum salary standard, salaries are paid monthly, and overtime work is paid for according to the Labor Law of the PRC, and Labor Contract Law of the PRC, consistent with the applicable domestic regulations and ESS2. There have been no outstanding labor-related complaints registered by local government authority.

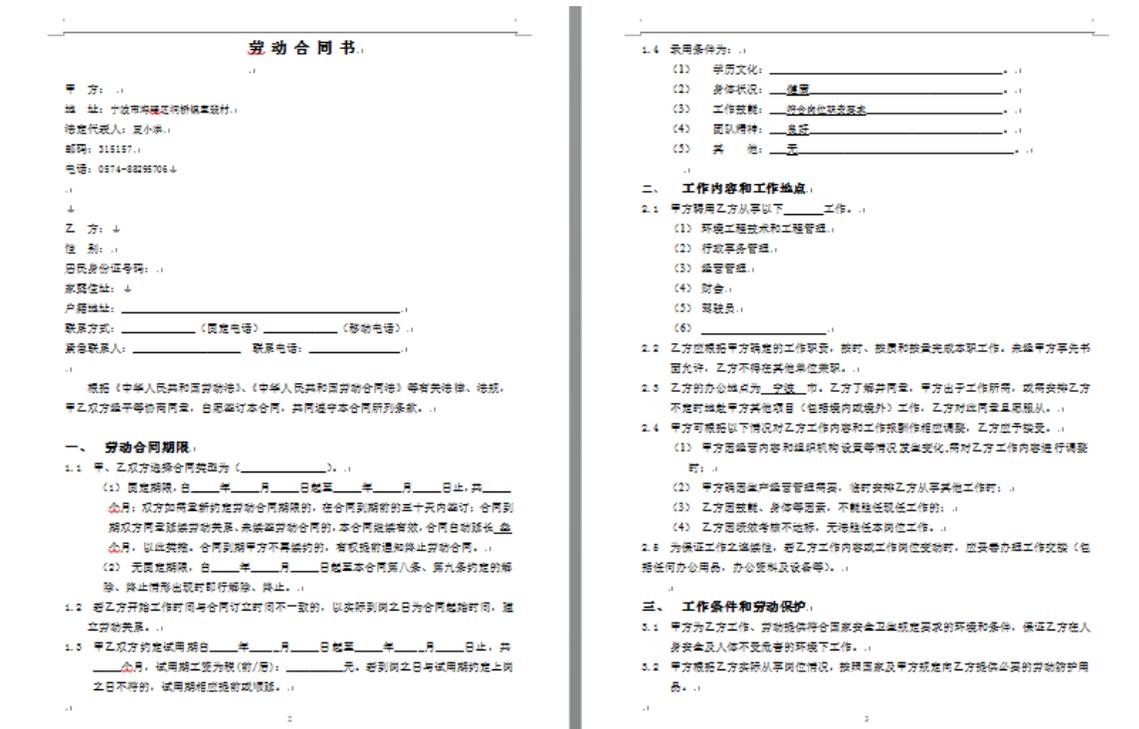


Figure 2-2 Sample labor contract of Mingzhou Company

2.2.2 Labor protection

Forced and child labor: The Chinese Labor Law stipulates that the minimum working age is 16 years (higher than 14 years in ESS2), and special protection is provided to underage workers aged 16-18 years. The WWTP specifies in its worker management policy that no child labor shall be hired. According to on-site interviews, the youngest worker is aged 23 years. The contract workers are mostly cleaners aged 40-50 years. Therefore, the WWTP does not involve child and underage (16-18 years) labor. The WWTP's Human Resources Measures and labor contracts do not contain any provision on penalty payment for resignation, and workers may apply for resignation during the contract term freely, so they are free from forced labor.

According to the review of the job description and human resources management system, its recruitment and job qualification requirements comply with the state laws and contain no restrictive or discriminatory provision.

GBV: According to the interview with the company's HR department, the company complies strictly with the Law of the PRC on the Protection of Women's Rights and Interests and pays particular attention to women's special needs and vulnerabilities. In addition, Mingzhou Company has established a system against sexual harassment and a smooth internal grievance redress channel, and disclosed it to all staff. Sexual harassment prevention is covered by induction and routine management training. For GBV and sexual harassment, the Ningbo Legal Assistance Center, and Women's Federation would also provide external supervision and assistance. The social team interviewed 5 female workers randomly, and all of them thought that the company's relevant systems were sound, and they had never experienced GBV or sexual harassment.

Conclusion: The company does not involve child and underage (16-18 years) labor, forced labor, recruitment discrimination, or GBV.

2.2.3 Labor OHS

In July-August 2021, the social team conducted a field survey on this subproject, occupational health and workplace conditions, etc., and interviewed the EHS department and staff.

- **Occupational hazards and protection facilities**

The existing WWTP treats landfill leachate mainly through the process of conditioning tank—two-stage A/O system—external ultrafiltration system—NF system—RO system—discharge up to the standard. The main working areas with occupational hazards are the conditioning tank, anaerobic tank, nitrification tank, wastewater dewatering room, etc., and occupational hazards include noise, ammonia, hydrogen sulfide, sodium hydroxide, sulfuric acid, ferrous sulfate, etc.

For the above areas and occupational hazards, the PIU has set up and operated protection facilities. For toxic gases (ammonia, hydrogen sulfide, etc.), a fully sealed design is used or facilities set up (vent pipes, blowers, fume hoods, etc.) for organized gas discharge to prevent harmful gases from escaping or reducing levels of hazardous substances.

Noise is generated by the biogas blowers, pumps, etc. in the leachate treatment station. In the design, a shock absorbing foundation is used, and low-noise blowers and pumps are selected. In addition, workers are required to wear PPE (e.g., face masks, earplugs) when entering the workplace to reduce occupational hazards.

- **PPE**

Based on the properties of the potential occupational hazards, the company has provided appropriate PPE to workers, such as gas masks, dust masks and earplugs, etc. Commonly used PPE includes 3M8210CN dust masks, 3M1100 elastic earplugs, etc. The interviewed workers say that anyone who does not wear PPE as stipulated will be regarded to working against the regulations, which will affect performance evaluation.

- **Occupational health management system and staff**

The company has established an occupational health management organization at the EHS department, assigned full-time occupational health management staff, and formulated the implementation plan for occupational disease prevention and control, including distributing PPE regularly, conducting occupational hazard monitoring and evaluation, and occupational health checkup, and establishing occupational health monitoring files.

- **Occupational health management system and operating regulations**

The company has formulated occupational health management systems, including the standard for PPE distribution, operating regulations for jobs with occupational hazards, comprehensive and special emergency plans, etc. The EHS department offers training on various systems and operating regulations regularly and irregularly, and supervises implementation regularly.

- **Occupational hazard M&E**

The company has appointed a qualified agency to conduct workplace occupational hazard M&E, such as Jidi Test Technology Co., Ltd. in December 2020. The evaluation includes the overall layout, equipment layout, occupational hazards and distribution, protection facilities, OHS monitoring and management measures, etc. The company conducts occupational hazard monitoring annually, and an occupational hazard evaluation every three years, with the last one conducted in December 2020. The evaluation report (2020) states, provided that the occupational disease protection facilities operate normally, PPE is worn properly, and all occupational disease management systems are implemented, the company meets the requirements of the Law of the PRC on the Prevention and Control of Occupational Diseases, and other applicable laws and regulations.

- **Identification and disclosure of occupational hazards**

The company has established an occupational hazard disclosure system, mainly including disclosure at contract signing, and on-site disclosure, including warning signs, informing cards and bulletin boards, which post texts, pictures and warnings on occupational health, and occupational hazard monitoring results. See Figure 2-3.



Figure 2-3 On-site warning signs

- **Occupational health monitoring**

The company has established an occupational health monitoring and file management system, and would organize pre-job, on-the-job and separation occupational health checkups, where the checkup items are consistent with the occupational hazards identified. There is no worker suspected of any occupational disease or contraindication.

- **Occupational health training**

The company offers pre-job and on-the-job occupational health training in the form of classroom teaching mainly, and trains workers transferred to new jobs or processes by means of classroom teaching, video watching and field education. All training records are included in files.

- **Emergency rescue plan and drilling**

The company has established a sound subsequent handling mechanism, and an emergency headquarters, developed general and special emergency plans, and emergency rescue measures, and conducted drills on emergency rescue plans. The company would establish an emergency headquarters when an emergency occurs, which governs 6 emergency teams (production management, rescue, security, logistics, material supply, and public relations coordination teams). No environmental or safety emergency has occurred in the past 3 years.

- **Infection risks**

For COVID-19 and other potential infectious diseases, a pandemic prevention and control organization has been established at the municipal and district levels. The company has established an internal pandemic prevention and control system, developed relevant plans, done well in pandemic prevention and control, material reservation, living support, security, etc., assigned persons for temperature taking, ventilation, disinfection, PPE distribution, publicity, education, and relevant information collection and submission, and defined emergency response processes for pandemic prevention and control to reduce infection risks. By the date of this report, no worker had been infected with COVID-19.

Findings: The company has realized “three simultaneities” in the construction of occupational disease protection facilities⁹. An occupational hazard pre-assessment was conducted during project reasoning, occupational disease protection facilities designed before project construction, and an occupational hazard control effectiveness assessment conducted before the final inspection. The company has established an EHS department to take charge of occupational health affairs, and the occupational health management system. The company’s occupational health management measures, including occupational hazard identification and protective measures, occupational health training and checkup, operating regulations, PPE, emergency plans, etc., have been implemented in accordance with the applicable domestic laws and regulations, which is also consistent with the Bank’s ESF.

2.2.4 Contracted workers

The WWTP has two contracted workers (cleaners) from the outsource **Beijing Lianchuang Company**. Workers dispatched by third parties usually enter into a contract annually.

All direct hires and contract workers have signed a labor contract according to the standard of the Ningbo Municipal Human Resources and Social Security, covering contract term, scope of work, workplace, working hours, rest time, remuneration, overtime pay, social insurance and benefits, labor protection and conditions, occupational hazard prevention, financial compensation, etc. The Measures for the Management of Third-Party Dispatched Workers specify labor remuneration, social insurance, overtime pay, and other labor rights. The cleaners work on daytime shifts (8:00-12:00 and 13:00-17:00), for 5 days a week.

The cleaners say that they are paid on time every monthly, and seek help through the GRM for labor-related issues.

⁹ Occupational protection facilities for construction projects must be designed, constructed, and put into operation together with the main part.

Similar to the labor management of direct hires, the overall salary level of contracted workers is higher than the local minimum salary standard, salaries are paid monthly, and overtime work is paid for according to the Labor Law of the PRC, and Labor Contract Law of the PRC; an appropriate GRM is in place to handle labor issues. Therefore, the management of contracted workers is consistent with the applicable domestic regulations.

According to the LMP review, the company's third-party labor management relies on the prevailing laws and regulations, and its labor management policy does not contain any monitoring requirement. Therefore, the company needs to improve its LMP to strengthen third party labor management.

2.2.5 Worker GRM

It is learned from interviews with managers and workers that there has been no grievance since the beginning of operation, and the following grievance channels are available:

- 1) Grievance channel for contract workers: A worker first reports the issue to the shift leader, who the reports the issue to the team leader of the third-party company, who then reports to the manager of the facility.
- 2) Grievance channel for direct hires: Workers first report issues to shift leaders, who hold a regular safety meeting at least weekly to identify and discuss such issues and site risks, and then report to the department manager. A labor union chairman's mailbox, and an anonymous complaint box are provided (see Figure 2-4).



Figure 2-4 Labor Union Chairman's Mailbox and Complaint box

The interviewed workers say that they have been told the grievance redress channels in induction and routine training, and know how to file grievances when they encounter problems related to labor contracts, remuneration, working conditions, etc.

Any worker may file grievances about labor contracts, remuneration, working conditions, etc. directly to the Ningbo Municipal Labor and Social Security Bureau, which discloses the hotlines of the municipal and district labor security supervision authorities on its official website (http://rsj.ningbo.gov.cn/art/2018/10/9/art_1229130162_49605564.html).

2.3 Community health and safety (ESS4)

2.3.1 Impacts of facility operation on community health and safety

The leachate treatment station is located in Ningbo resource recycling base. In recent years, the villagers near Ningbo resource recycling base have been relocated successively. For example, Xuanpei Village of Dongqiao Town where the base is located was relocated entirely under the new countryside building subproject of the World Bank-financed Ningbo Municipal Solid Waste Minimization and Recycling Project (P123323) implemented in 2015, and there is no resident within 1km around the construction site (Figure 2-5).



Figure 2-5 Layout of key social sensitive sites

A manager of Mingzhou Company thinks that since the leachate treatment station operates on the site and is far away from settlements. In addition, the Haishu District landfill performs routine monitoring on on-site wastewater, surrounding air and groundwater quality, and discloses monitoring results to nearby communities quarterly. During the preparation of Batch 2 subprojects, the EIA agency conducted groundwater monitoring¹⁰. The results show that all monitoring sites in the Haishu landfill area reach Class IV in the Quality Standard for Groundwater (GB/T14848-2017).

As discussed above, there are other waste disposal facilities in the base, such as the Haishu District waste-to-energy plant and Ningbo food waste disposal plant. Nearby residents say that

¹⁰ See the environmental audit report for the Batch 2 subprojects.

they can still smell odor in summer or when the atmospheric pressure is low, though such odor is not necessarily from Kaicheng Kitchen Waste Plant.

Findings: The environmental monitoring report shows that wastewater and waste gases meet the emission standards. Nearby residents worry that odor produced by the facility may affect their health, though such odor may be from other facilities. Haishu District Urban Administration Bureau and Mingzhou Company should strengthen communication with nearby residents, and disclose relevant information timely.

2.3.2 Community communication mechanism

This social audit has found that the Project has no grievance record, and residents may report their grievances directly to the landfill, or to the village committee or town government. All their grievances have received timely feedback.

Finding: There is no formal community communication and grievance mechanism. The GRM for residents should be improved, and timely response and feedback given to residents.

2.4 LAR (ESS5)

The leachate treatment station has a floor area of 67 mu, and is within Haishu District landfill, involving no additional LA. The land for the landfill was acquired in 2004. See Part 3 for details.

2.5 Issues and suggestions for correction

According to this social audit, Table 2-1 summarizes social findings and issues, and gives corresponding suggestions.

Table 2-1 Findings and suggestions on WWTP reconstruction and expansion

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
1	ESS2	Labor management	Third-party labor contract management is unsound.	Moderate	Improve the LMP to strengthen the third-party labor management and monitoring.	Mingzhou and Qingyuan	Dec. 31, 2022
2	ESS4 and ESS10	Community health and safety, communication mechanism	Environmental monitoring shows that wastewater and waste gases meet the emission standards. Nearby residents worry that odor produced by	Moderate	Disclose environmental monitoring results to and strengthen communication with nearby residents, and keep records.	Qingyuan	At least semiannually (July and January)
					Disclose annual environmental reports to nearby communities timely, including basic corporate information, environmental	Qingyuan	January

			the facility may affect their health; residents may express their concerns through relevant channels, but there is no relevant written record. There are still some gaps from ESS10.		management, pollutants generated, management and discharge, etc.		
					Establish a formal GRM, and offer sufficient resources (manpower and finance) to ensure its proper operation.	Qingyuan	As per the SEP

3 Part 3: Social Audit Report on Associated Facility 1 of the WWTP - Haishu District landfill

The WWTP of Ningbo resource recycling base is located in Haishu District landfill, and will treat leachate from the Haishu District landfill directly. Therefore, Haishu District landfill is defined as an associated facility of the WWTP of Ningbo resource recycling base. Since the Haishu District landfill has been closed down from August 1, 2017, and is managed by the management staff of the leachate treatment station, and the conclusions of the social audit on labor management are not presented here. Therefore, the social audit is focused on: 1) LAR, 2) community health and safety, and 3) information disclosure and grievance redress.

3.1 Introduction to Haishu District landfill

Haishu District landfill is located in Yemao'ao Hill in Bailiang Village, Dongqiao Town of Haishu District, with a floor area of 360,000 m² (about 540 mu), with a design daily capacity of 800 tons, a total storage capacity of 6.47 million m³, and a service life of 20 years.

The landfill construction started in May 2005, was put into operation in May 2006, and was accepted in January 2007. By the end of July 2017, the landfill had accommodated and disposed of over 3.5 million tons of domestic waste. From August 1, 2017, the landfill has been closed down temporarily.



Figure 3-1 Temporary closure of the landfill

3.2 LAR (ESS5)

It is learned from the Dongqiao Town Government and Xuanpei Village Committee that the former Dongqiao landfill in Yinzhou District ¹¹ has been transferred to Haishu District due to an administrative division adjustment, namely Dongqiao landfill is under Haishu District today. LA for the landfill was fully completed in 2005, with 361,400 m² (about 541.922 mu) of land acquired in total, affecting Xuanpei, Bailiangqiao and Huijiang Villages, Dongqiao Town. Some LA information

¹¹ Due to an administrative division adjustment, Dongqiao Town has been transferred from Yinzhou District to Haishu District.

has been lost, so this report is based on the information available, and key informant interviews only. The landfill involves LA only, and does not involve HD.

LA for the landfill was completed in 2005. In the social audit, the heads of Bailiangqiao, Peixuan and Huijiang Villages, and 15 villagers were interviewed. The interviewees say that they are unclear about LA details, but are sure that all LA compensation has been paid. There is no outstanding LAR issue.

3.2.1 Resettlement impacts and implementation process

A total of 541.9 mu of land has been acquired for Haishu District landfill, including 169.7 mu of farmland, accounting for 31.3%; 10 mu of construction land, accounting for 1.9%; and 362.2 mu of other land (woodland), accounting for 66.8%, affecting Bailiangqiao, Xuanpei and Huijiang Villages, Dongqiao Town, Haishu District. See Table 3-1. Since LA compensation is based on land area other than population in China, information on the affected population is unavailable.

Table 3-1 Summary of land acquired for the Haishu District landfill

District	Town	Village	LA area (mu)			
			Farmland	Construction land	Other land	Total
Haishu	Dongqiao	Bailiangqiao	110.4	0.0	267.0	377.4
Haishu	Dongqiao	Xuanpei	58.6	6.9	94.7	160.2
Haishu	Dongqiao	Huijiang	0.7	3.1	0.5	4.4
Total			169.7	10.0	362.2	541.9
Percent			31.3%	1.9%	66.8%	100.0%

Source: Dongqiao Town Government

In November 2004, Yinzhou District Planning Bureau issued the land planning permit of this project, defining the LA boundary line, and completed the woodland approval procedure (ZLDSZ [2005] No.18).

On January 28, 2005, an LA compensation agreement was signed with Dongqiao Town Government, where the Dongqiao Town Government would be responsible for LA and ground attachment compensation.

LA had been largely completed by the end of April 2005, and the LA compensation had been fully paid to the affected villages and households.

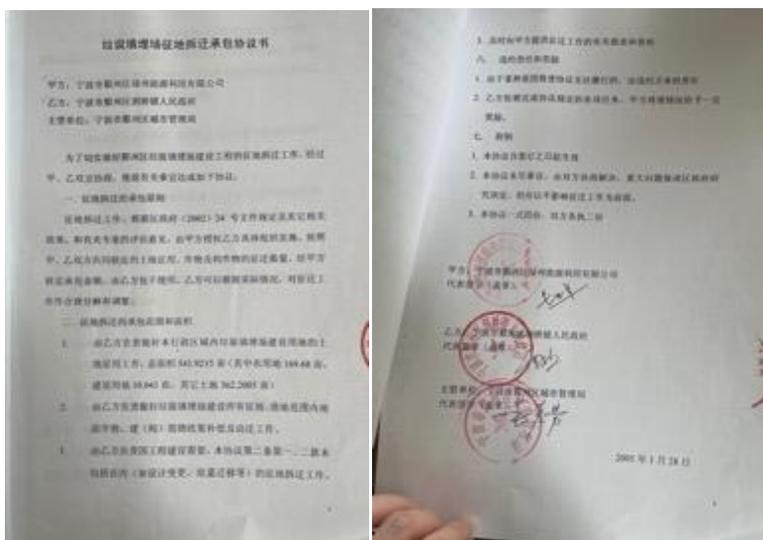


Figure 3-2 LAR contracting agreement for the landfill (2005)

In September 2016, Ningbo Municipal Government transferred the acquired land to Yinzhou District Urban Administration Bureau for Yinzhou District landfill (YJTZ (2016) No.79).



Figure 3-3 Decision on state-owned land allocation for the landfill (2016)

Findings: LA for the landfill was completed in 2005. In 2016, Ningbo Municipal Government approved the allocation of state-owned construction land. Therefore, the land used complies with the applicable laws and regulations of China.

3.2.2 LA compensation rates

LA was conducted by the Dongqiao Town Government in accordance with the Measures of Yinzhou District for Land Acquisition Compensation and Resettlement (YDG [2002] No.24).

Table 3-2 LA compensation rates for Haishu District landfill

Type	Compensation rate (yuan/mu)
Farmland	35408
Construction land	35408
Other land (woodland)	17704

In addition, ground attachments are appraised by a third party, and otherwise compensated for.

Conclusion: All village officials and APs are aware of the LA compensation rates, the policy is high transparent, and there has been no grievance.

3.2.3 Compensation

The LA compensation for the landfill is 12.776 million yuan, as detailed in Table 3-3. It should be noted that this is the LA compensation only, and excludes compensation for ground attachments. As discussed above, Some LA information has been lost, but according to key informant interviews, all affected assets have been fully compensated for according to the policy.

Table 3-3 LA compensation for Haishu District landfill (unit: 0,000 yuan)

Town	Village	Farmland	Construction land	Other land	Total
Dongqiao	Bailiang	390.9	0	472.6	863.5
Dongqiao	Xuanpei	207.4	24.5	167.7	399.5
Dongqiao	Huijiang	2.5	11.0	0.9	14.5
Total		600.8	35.6	641.2	1277.6

Source: Dongqiao Town Government, the social team

Finding: During the social audit, respondents confirm that all compensation has been paid.

3.2.4 Information disclosure and grievance redress

A public hearing was held during LA and compensation, and the LA announcement, compensation and resettlement policy and rates, etc. were posted at the village committees. The respondents think that transparency has been realized.

3.3 Community health and safety

3.3.1 Impacts of facility operation on nearby communities

As mentioned above, from August 1, 2017, the landfill has been closed down temporarily. Except leachate treatment, the landfill has almost no disturbance to or impact on nearby communities. In addition, all villages within 1km around the landfill have been relocated. On-site wastewater, air and groundwater quality is monitored routinely, and monitoring results disclosed to nearby communities quarterly. During the preparation of Batch 2 subprojects, the EIA agency conducted groundwater monitoring¹². The results show that all monitoring sites in Haishu landfill area reach Class IV in the Quality Standard for Groundwater (GB/T14848-2017).

Haishu District landfill is also located in Ningbo resource recycling base. Nearby residents complain that there is still odor, though such odor may be from other facilities (e.g., waste-to-

¹² See the environmental audit report for Batch 2 subprojects.

energy plant). The landfill should strengthen communication with nearby residents, and disclose relevant information timely.

3.3.2 Community communication mechanism

This social audit has found that the Project has no grievance record, and residents may report their grievances directly to the landfill, or to the village committee or town government. All their grievances (mostly about odor) have received timely feedback.

Finding: There is no formal community communication and grievance mechanism. The GRM for residents should be improved, and timely response and feedback given to residents.

3.4 Issues and suggestions for correction

According to the social audit, Table 3-4 summarizes social findings and issues, and gives corresponding suggestions.

Table 3-4 Findings and suggestions on Haishu District landfill

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
1	ESS4 and ESS10	Community health and safety, communication mechanism	There is no resident within 1km around the construction site. However, nearby residents say that they can still smell odor sometimes, and have not seen environmental monitoring reports timely.	Moderate	Disclose environmental monitoring results to nearby residents timely, strengthen communication with them, and keep records properly.	Qingyuan	At least semiannually (July and January)
					Disclose annual environmental reports to nearby communities timely, including basic corporate information, environmental management, pollutants generated, management and discharge, etc.	Qingyuan	January
					Establish a formal GRM, and offer sufficient resources (manpower and finance) to ensure its proper operation.	Qingyuan	As per the SEP

4 Part 4: Social Audit Report on Associated Facility 2 of the WWTP - Kaicheng Kitchen Waste Plant

Kaicheng Kitchen Waste Plant is located in Ningbo resource recycling base, and is constructed and operated in the PPP mode for a period of 20 years (including the construction period). The investor is Kaicheng Company.

Based on the fieldwork and screening results, the social audit is focused on the following social aspects: 1) labor and working conditions, 2) community health and safety, 3) LAR, and 4) public participation and grievance redress. In particular, public participation and grievance redress are overlapping issues that run through the whole project lifecycle.

4.1 Introduction to Kaicheng Kitchen Waste Plant

Kaicheng Kitchen Waste Plant has a floor area of 50 mu, and a design capacity of 600 t/d, and is constructed in two stages. The Phase 1 plant was completed and put into operation in June 2018, and Phase 2 is under construction, and is expected to be completed by the end of 2021. The plant's kitchen wastewater includes rinse wastewater and biogas fluid separation wastewater. After the completion of Phase 2, 720m³/d of wastewater will be generated. According to the centralized treatment requirement of Ningbo resource recycling base wastewater, the plant's wastewater (about 720m³/d) will be transported to the WWTP of Ningbo resource recycling base for centralized treatment. Therefore, Kaicheng Kitchen Waste Plant (Phase 2) is defined as an associated facility.

4.2 Labor and working conditions (ESS2)

Ningbo Kaicheng Kitchen Waste Disposal Co., Ltd. (Kaicheng Company) has a general manager's office, a safety, environment and health department, a production operation department, and a general management department, and a workforce of 50, including 1, 2, 31 and 16 in the above departments respectively. The company has no contract worker, and its primary suppliers' workers are about 50 drivers of kitchen waste transfer vehicles.

The social audit reviews Kaicheng Company's current employment terms and conditions, forced and child labor, OHS and worker GRM.

Kaicheng Kitchen Waste Plant has direct hires and primary suppliers' workers only, and no contract and community workers.

4.2.1 Employment terms and conditions

During this social audit, the following rules and regulations on worker management of Kaicheng Company were checked:

- Personnel Management Measures;
- Notice on Regulating the Recruitment Process
- Training Management System;
- Measures for Evaluation Management during Internship and Probation;
- Measures for Temporary Worker Management;

- Regulations on Payment of Duty Subsidies;
- Measures for the Management of Paid Annual Leaves of Workers;
- Intern Management System;
- Sample labor contract for direct hires.

Kaicheng Company adopts a comprehensive labor management system, providing clear written guide to worker management. Each employee is required to enter a labor contract (see Figure 4-1), specifying the term, scope of work, workplace, working hours, rest time, remuneration, overtime pay, social insurance and benefits, labor conditions, contract change, termination and renewal, labor dispute settlement, etc. The company offers induction training to new hires to help them get familiar with the corporate policies and their jobs.

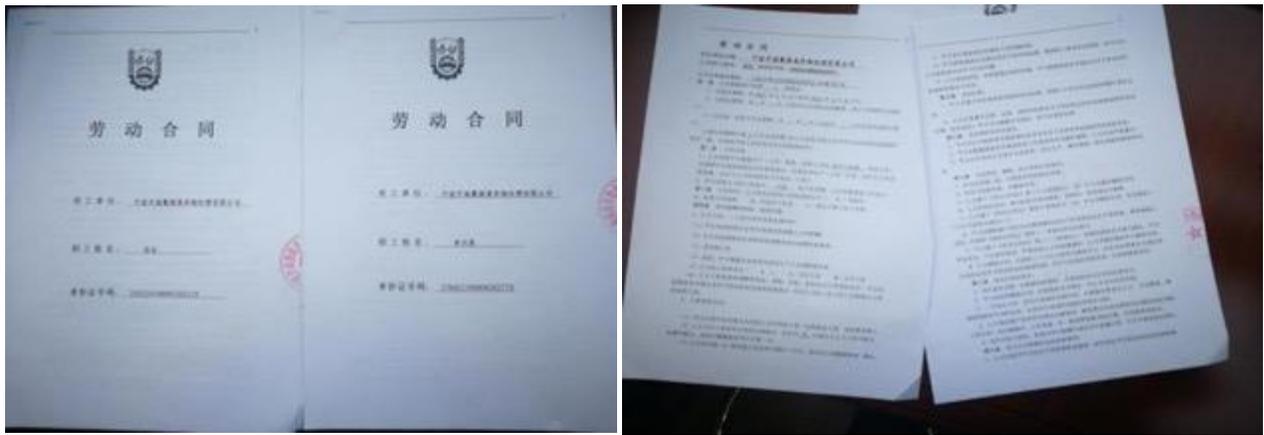


Figure 4-1 Sample labor contract of Kaicheng Company

Except all staff of the general manager’s office, safety, environment and health department, general management department, and maintenance department, and inspectors of the production operation department, and inspectors of the production operation department, who work 8 hours a day, the other divisions of the production operation department work 12 hours a day and 5 days a week. The central control room operates around the clock, and the operators rest in rotation and actually work 5 days a week.

Based on interviews with direct hires of Kaicheng Company, all of them have entered a labor contract, are paid regularly, have covered social insurance and one fund (endowment, medical, unemployment, work-related injury and maternity insurance, and housing provident fund), rest on legal holidays, and are entitled to overtime pay and other basis benefits as stipulated by law. The company conducts a health checkup for all employees annually.

After checking with the Haishu District Human Resources and Social Security Bureau who is responsible for governing the labor-related affairs, there have been no labor-related complaints registered recently for the company.

Findings: Kaicheng Company has established a series of procedures and policies to define its labor management system, which are generally consistent with the requirements of ESS2. Based on document review and interviews, it was confirmed that all workers have signed the labor contract that outlines the salary, leave, and insurance entitlements, etc. The overall salary level of

direct hires is much higher than the local minimum salary standard, salaries are paid monthly, and overtime work is paid for, consistent with the applicable domestic regulations and ESS2. There have been no labor-related complaints registered by local government authority.

4.2.2 Labor protection

The Labor Law of China stipulates that the minimum working age is 16 years (higher than 14 years in ESS2), and special protection is provided to underage workers aged 16-18 years. Kaicheng Company specifies in its worker management policy that no child labor shall be hired.

The workers are aged 30-50 years, with a minimum age of 24 years. Therefore, Kaicheng Company does not involve child and underage (16-18 years) labor.

Kaicheng Company's HR Measures and labor contracts do not contain any provision on penalty payment for resignation. During recruitment, the company notifies the scope and place of work, working hours, potential overtime work, benefits, etc. to applicants, and includes them in the employment contract. According to worker interviews, workers may apply for resignation during the contract term freely, so they are free from forced labor.

Finding: Kaicheng Company does not involve child and underage (16-18 years) labor, or forced labor.

4.2.3 Labor OHS and protective facilities

In July-August 2021, the social team conducted a field survey on this subproject, occupational health and workplace conditions, etc., and interviewed the EHS department and staff.

- **Occupational hazards and protection facilities**

The production units involving OHS at Kaicheng Kitchen Waste Plant include kitchen waste pretreatment system, anaerobic fermentation system, biogas purification system, biogas residue dewatering system, illegal cooking oil pretreatment system, and auxiliary production units (including deodorization and purification system, boiler room, pump station, etc.).

Based on the existing production processes and equipment, the main occupational hazards are dust (polyacrylamide), sodium carbonate, hydrogen sulfide, ammonia, methane, methylmercaptan, dimethyl sulfide, carbon monoxide, ozone, welding fume, noise, welding arc, etc. In addition, in special production processes (e.g., confined space work, repair), operating regulations for confined space work, and pre-repair preparation should be implemented to reduce the concentration of occupational hazards.

For the above areas and occupational hazards, the PIU has set up and operated protection facilities, including setting up facilities against dust, poisons, noise, vibration and heat, such as automatic dispensers, to reduce workers' exposure to dust, using advanced and reliable fully automatic control technologies to reduce workers' exposure to harmful substances, and using sealed equipment and pipelines to avoid the diffusion of harmful gases, selecting low-noise equipment and using shock pads to reduce noise, and taking heat insulation measures for boilers, pre-heaters, high-temperature pipelines, etc.



Figure 4-2 Deodorization equipment of Kaicheng Kitchen Waste Plant



Figure 4-3 Acoustic Hood

- **PPE**

Based on the properties of the potential occupational hazards, the company has formulated the Regulations on the Management of Labor Protection Articles, and the PPE record reform. PPE includes earplugs (3M1110), filtering gas masks (3M6000), cartridges (6006CN), dust masks (3M8514), protective gloves, safety glasses, antistatic work clothes, etc.

- **Occupational health management system and staff**

The company has established an occupational health management organization at the EHS department, assigned one occupational health manager, and formulated the implementation plan for occupational disease prevention and control, including distributing PPE regularly, conducting occupational hazard monitoring and evaluation, and occupational health checkup, and establishing occupational health monitoring files.

- **Occupational health management system and operating regulations**

The company has formulated occupational health management systems, including the management system for occupational disease protection articles, operating regulations for occupational health, occupational hazard disposal and reporting system, and management system for occupational health monitoring and file management, etc. The EHS department offers training on various systems and operating regulations regularly and irregularly, and supervises implementation regularly.

- **Occupational hazard monitoring**

The company has appointed a qualified agency to conduct workplace occupational hazard monitoring annually, such as Anlian Test Technology Service Co., Ltd. in 2021, which issued a report (ZJ21070511). The main test items include other dust (polyacrylamide), welding smoke, manganese and inorganic compounds (as MnO₂), NO_x (NO and NO₂), ozone, ammonia, methanethiol, hydrogen sulfide, sulfuric acid, sulfur trioxide, sodium hydroxide, sodium carbonate (soda ash), welding arc, carbon monoxide, carbon dioxide, high temperatures, noise, etc. According to the report, except few areas where PPE is not provided and used properly (e.g., electric welding, earplugs), all 16 working areas with chemical hazards and 15 ones with physical hazards meet the requirements for occupational exposure restriction. The report advises the company to strengthen PPE supply, distribution and use, and require all workers to wear PPE properly before going to work.

- **Identification and disclosure of occupational hazards**

The company has established an occupational hazard warning and disclosure system, mainly including pre-job disclosure, on-site disclosure, and inspection result disclosure. When entering into a labor contract with a worker, the company would disclose potential occupational hazards and their consequences, protective measures, and remuneration, and specify these in the contract; in case of a job or duty change, the worker will be otherwise informed of occupational hazards. Bulletin boards are set up at workshops to disclose regulations on occupational disease prevention and control, operating regulations, emergency rescue measures, monitoring and evaluation results. In addition, the company will notify workers of occupational health checkup results timely.

- **Occupational health monitoring**

The company has established an occupational health monitoring and file management system, and would organize pre-job, on-the-job and separation occupational health checkups. Based on checkup records during 2018-2020, the checkup items were consistent with the occupational hazards identified, and there was no worker suspected of any occupational disease or contraindication.

- **Special operation management and practice**

The company has developed management systems for special operators and special equipment safety. Special equipment must be operated by an operator with a valid certificate, and relevant staff must attend training and evaluations on time. Special operators may refuse to operate without secure protection.

- **Occupational health training**

The company offers pre-job and on-the-job occupational health training in the form of classroom teaching mainly, and trains workers transferred to new jobs or processes by means of classroom teaching, video watching and field education. All training records are included in files. Occupational health is offered in every May.

- **Emergency rescue plan and drilling**

The company has established an emergency rescue and management system for occupational hazards, including organizational arrangements and responsibilities, emergency management, key targets and hazards, working requirements, etc. In addition, the company has prepared an emergency plan for confined space accidents, and special emergency rescue plans for chemical poisoning, such as hydrogen sulfide. The company would organize an emergency plan drill for occupational hazards in every June and November.

In addition, the company has developed an occupational hazard handling and reporting system, specifying that any department or individual should report any potential occupational hazard timely, and keep away from the workplace until the hazard is removed.



Figure 4-4 Fire-fighting Devices in the Plant



Figure 4-5 Emergency drills

- **Infection risks**

For COVID-19 and other potential infectious diseases, a pandemic prevention and control organization has been established at the municipal and district levels. The company has established an internal pandemic prevention and control system, developed relevant plans, done well in pandemic prevention and control, material reservation, living support, security, etc., assigned persons for temperature taking, ventilation, disinfection, PPE distribution, publicity,

education, and relevant information collection and submission, and defined emergency response processes for pandemic prevention and control to reduce infection risks.

Findings: The company has a deep understanding of factors affecting worker health. An occupational health administrator is responsible for occupational disease prevention and control. The company has realized “three simultaneities” in the construction of occupational disease protection facilities¹³. An occupational hazard pre-assessment was conducted during project reasoning, occupational disease protection facilities designed before project construction, and an occupational hazard control effectiveness assessment conducted before the final inspection. The company conducts occupational health checkup and workplace occupational hazard monitoring every year at the operation stage, and has established occupational health management systems and files. The company’s occupational health management complies with the applicable domestic laws and regulations, and is also consistent with the Bank’s ESF.

4.2.4 Primary suppliers’ workers

Primary suppliers’ workers are about 50 drivers of kitchen waste collection vehicles, who belong to district environmental sanitation offices. In China, only adults (18 years or above) can apply for a driving license. Therefore, there is no child or underage worker in Kaicheng Company’s primary suppliers’ workers. These drivers are work voluntarily, and may apply for resignation freely, so there is no forced labor.

These drivers are exposed to traffic safety risks mainly. The company has no direct control over them out of the project site, but has imposed some restrictions on their driving behavior on the project site, such as a speed limit (5km/h).

Findings: According to field observation, the vehicles of the primary supplier still drive fast on the site, so the company should strengthen the control and supervision of driving behavior on the site. The company should strengthen traffic safety management in coordination with the district sanitation offices, including vehicle safety, safe driving education, waste transfer routes and times, etc.

4.2.5 Worker GRM

It is learned from interviews with managers and workers that there has been no grievance since the beginning of operation, and the following grievance channels are available:

- 1) Workers may report their grievances directly to the shift leader, who report issues that cannot be handled within the shift to the corporate manager.
- 2) A reporting hotline and an anonymous complaint box are provided at the canteen, and the person responsible would check the box and handle complaints received centrally every day (see Figure 4-5).

¹³ Occupational protection facilities for construction projects must be designed, constructed, and put into operation together with the main part.



Figure 4-6 Labor Union Chairman’s Mailbox and Complaint box

The interviewed workers say that they have been told the grievance redress channels in induction and routine training, and know how to file grievances when they encounter problems related to labor contracts, remuneration, and working conditions, etc.

Any worker may file grievances about labor contracts, remuneration, and working conditions, etc. directly to Ningbo Municipal Labor and Social Security Bureau, which discloses the hotlines of the municipal and district labor security supervision authorities on its official website (http://rsj.ningbo.gov.cn/art/2018/10/9/art_1229130162_49605564.html).

4.3 Community health and safety (ESS4)

Communities involved in this subproject mainly include communities around the facility and those passed through by vehicles. The social audit covers: 1) facility impacts on nearby communities, 2) environmental disturbances to communities passed through by vehicles, and 3) road traffic safety risks, etc.

4.3.1 Impacts of vehicles on community health and safety

In Ningbo, kitchen waste is collected by Kaicheng Kitchen Waste Plant (about 32 tankers) and district environmental sanitation offices (about 50 tankers) directly from restaurants at noon and in the evening. All vehicles are provided with a GPS, and have a fixed transfer route via **Provincial Highway 214—airport elevated road—road for solid waste disposal**, avoiding communities, schools, villages, hospitals and other social sensitive sites where possible to reduce traffic risks.

4.3.2 Community disturbances by vehicles

The company has taken the following measures to avoid community environment pollution during waste transfer:

- Sound measures are taken for driver and vehicle management to reduce traffic accidents.
- The municipal urban administration bureau urges all districts to correct illegal vehicles, with focus on vehicle appearance, condition, marking and sealing to reduce waste spills and secondary pollution.
- Vehicles are sealed to avoid spills, and cleaned regularly to keep them clean.

- Vehicles entering the plant should be clean, sealed and free from spills, and cleaned after unloading.

Findings: Strict management measures for waste collection and transfer have been formulated, and vehicles are fully sealed during transfer, and run through a fixed route to minimize community disturbances.

4.3.3 Impacts of plant operation on community health and safety

Kaicheng Kitchen Waste Plant is located in Ningbo resource recycling base. In recent years, the villagers near Ningbo resource recycling base have been relocated successively. For example, Xuanpei Village of Dongqiao Town where the base is located was relocated entirely under the new countryside building subproject of the World Bank-financed Ningbo Municipal Solid Waste Minimization and Recycling Project (P123323) implemented during 2012-2020, and there is no resident within 1km around the construction site (Figure 2-5). As discussed above, there are other waste disposal facilities in the base, such as the Haishu District waste-to-energy plant and Ningbo food waste disposal plant. Nearby residents say that they can still smell odor in summer or when the atmospheric pressure is low, though such odor is not necessarily from Kaicheng Kitchen Waste Plant.

In March 2019, Kaicheng Company appointed Pony Testing International Group Co., Ltd. to perform final environmental inspection on Phase 1. According to the inspection results, and the routine monitoring results from May 2019 to June 2020, the waste gas, wastewater and noise emission standards were all met¹⁴.

However, the relevant environmental monitoring reports are not provided to nearby residents timely.

Findings: Kaicheng Company has taken a series of measures to reduce impacts of facility operation on nearby communities, but nearby residents say that they can still smell odor in summer or when the atmospheric pressure is low. Kaicheng Company should strengthen communication with nearby communities, information disclosure, and internal management to reduce waste gas and wastewater emissions.

4.4 LAR (ESS5)

Kaicheng Kitchen Waste Plant has a floor area of 33,350 m² (50 *mu*). In August 2015, Ningbo Municipal Government allocated the land to the municipal environmental sanitation office to construct the Ningbo kitchen waste disposal plant (YJTZ [2015] No.145).

Conclusion: The land used for Kaicheng Kitchen Waste Plant complies with the applicable laws and regulations of China, and the right to use state-owned land has been transferred.

¹⁴ See Section 4.3.2 of the EIA report for the Batch 2 subprojects.

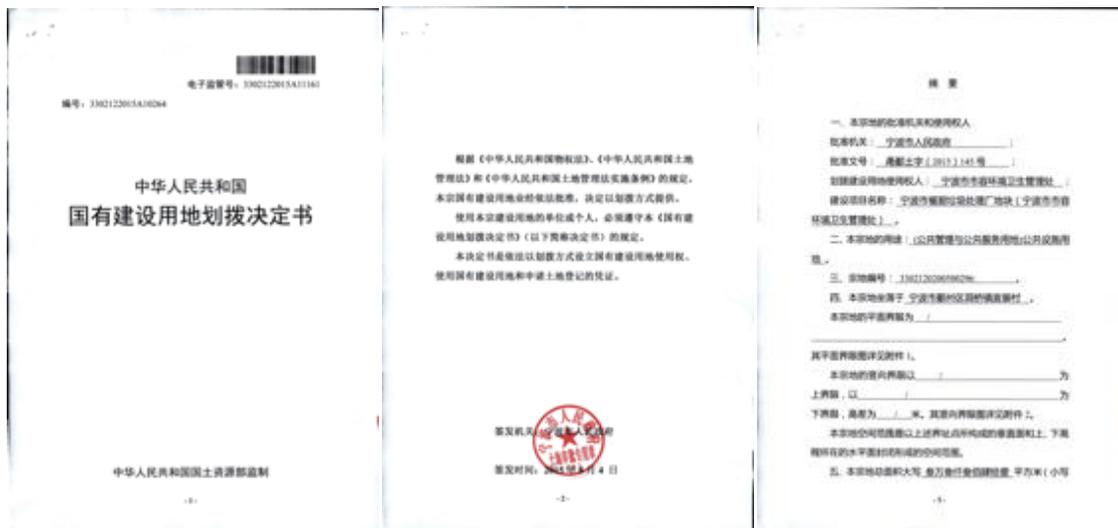


Figure 4-7 Decision on land allocation for Kaicheng Kitchen Waste Plant

4.4.1 Resettlement impacts and implementation process

Kaicheng Kitchen Waste Plant is located at Ningbo solid waste disposal center¹⁵, which is a subproject of the World Bank-financed Ningbo Municipal Solid Waste Minimization and Recycling Project (P123323) implemented during 2012-2020.

1) LA

Ningbo solid waste disposal center is located in Xuanpei Village, Yinzhou District. In December 2014, Zhejiang Provincial Government approved the application of Yinzhou District Government for the 30th batch of construction land in 2014 with the approval opinion on construction land (No.: ZTZ (2014)-0266), including 289.197 mu of construction land for Ningbo solid waste disposal center in Xuanpei Village. See Figure 2-8.



Figure 4-8 Approval opinion on construction land of Zhejiang Province (No.: ZTZ (2014)-0266)

¹⁵ It is now an integral part of the Ningbo resource recycling base.

A total of 192,800 m² (289.197 mu) of collective land has been acquired for Ningbo solid waste disposal center, affecting 74 households with 210 persons in Xuanpei Village, Dongqiao Town.

In February 2015, Yinzhou District Tongyi Land Acquisition Firm entered into an LA compensation agreement with Xuanpei Village, and the LA compensation was disbursed by Yinzhou District Tongyi Land Acquisition Firm to Xuanpei Village collective. All AHs have entered into LA compensation agreements. Through consultation at a village congress, 60% of the land compensation and resettlement subsidy is withheld by the collective, and the remaining 40% and the young crop compensation is fully paid to the AHs.

2) HD

Rural houses of 31,072.66 m² in Xuanpei Village, Dongqiao Town have been demolished for Ningbo solid waste disposal center, affecting 151 households with 340 persons, including 20,390.51 m² (65.62%) in masonry concrete structure, 7,830.37 m² (25.20%) in masonry timber structure, and 2,851.78 m² (9.18%) in earth timber structure.

HD has been completed. Among the 151 AHs, 104 choose monetary compensation, and have received the compensation in full; 47 choose property swap at Dongxuan Garden.

4.4.2 LA compensation policies and rates

1) Compensation rates for LA

For paddy rice and other crops on the cultivated land acquired, the compensation rate of Ningbo City is 800-1000 yuan/mu, and that under the Project is 1,000 yuan/mu.

According to the Notice of Yinzhou District Government on Adjusting Block Comprehensive Land Prices for Land Acquisition (YDG [2014] No.75), Xuanpei Village, Dongqiao Town affected by LA is a Tier 2 area, where the compensation rate is 80,000 yuan/mu. See Table 2-8.

Table 4-1 Block comprehensive land prices of Yinzhou District

Tier	Compensation rate for cultivated and garden land (yuan/mu)	Compensation rate for unused land (yuan/mu)	Young crop compensation rate (yuan/mu)	Village involved
2	80000	10000	1000	Xuanpei

2) Compensation rates for rural HD

HD compensation rates for Ningbo solid waste disposal center are fixed based on the Implementation Plan for the Demolition of Houses on Collectively Owned Land for Ningbo Solid Waste Disposal Center, including house compensation, moving subsidy, transition subsidy, reward, etc. See Table 4-2.

Table 4-2 HD compensation rates

Type	Compensation rate (yuan/m ²)	Remarks
House compensation	3720	Average price of commercial housing of the same class minus basic cost, where the basic cost is 730 yuan/m ²

Type	Compensation rate (yuan/m ²)		Remarks
Other compensation	Moving subsidy	1,000 yuan per household	
	Transition subsidy	<ul style="list-style-type: none"> ● 6 yuan/m² of building area, not less than 500 yuan per household ● 8 yuan/m² per month for self-transition 	
Reward	House emptying and agreement signing reward	<p>The house emptying period is 60 days (first 20 days being the agreement signing period).</p> <ul style="list-style-type: none"> ● 15,000 yuan if the house is emptied within the first 30 days ● 10,000 yuan if the house is emptied within the first 31-40 days ● 5,000 yuan if the house is emptied within the first 41-50 days 	

3) HD resettlement

According to Article 23 of the Regulations of Ningbo on the Demolition of Houses on Collectively Owned Land, the resettlement size of a demolished house is the building area specified in the certificate of the right to use collective construction land or house ownership certificate provided by the AH, usually not more than 250 m² of building area per household. Any AH that is eligible for housing land application but has not obtained housing land, or the building area of whose completed house is less than the resettlement size to which it is entitled, the resettlement size will be fixed at not less than 30 m² of building area per capita (hereinafter, the “minimum resettlement size”).

In case of property swap, the following provisions apply:

- a) The price difference will be settled between the resettlement house at basic cost and the demolished house at replacement cost.
- b) For part of the building area of the demolished house in excess of the resettlement size, compensation will be not more than 3 times the replacement cost; if the minimum resettlement size applies, the building area of the demolished house is the minimum resettlement size.
- c) For the part of the actual building area of the resettlement house less than the resettlement size, the average price of commercial housing of the same class minus basic cost applies.
- d) For the part of the actual building area of the resettlement house in excess of the resettlement size, the average price of commercial housing of the same class applies.

4.4.3 HD resettlement

HD for Ningbo solid waste disposal center affects 151 households with 340 persons in Pei’ao Village, Dongqiao Town, Yinzhou District. HD has been completed. Among the 151 AHs, 104 choose

monetary compensation, and have received the compensation in full; 47 choose property swap at Dongxuan Garden.

The social team has found that all AHs have been resettled properly by June 2020.

A resettlement ICR had been conducted in July 2020 by Hohai University that was entrusted by Ningbo PMO, and it was concluded that the land acquisition and house relocation had been fully completed in compliance with resettlement action plan approved by the WB. Furthermore, the implementation completion and results report¹⁶ of the WB also confirmed that all resettlement activities have been completed in full without outstanding issues or complaints.



Figure 4-9 Dongxuan Garden (Resettlement Community)

Conclusion: The resettlement and compensation policies comply with the principles and requirements in ESS5, the fund disbursement procedure is transparent and efficient, and the compensation has been paid to the AHs timely and fully. The resettlement program had been well implemented by June 2020 and the ICR deemed the resettlement performance is satisfactory.

4.4.4 Information disclosure and grievance redress

1) Information disclosure and public participation

LAR for Ningbo solid waste disposal center has been implemented in accordance with the Bank’s OP4.12 on involuntary resettlement, and China’s laws and regulations. During RAP preparation and implementation, extensive information disclosure and public participation was conducted. During resettlement implementation, external M&E was conducted, and 9 external M&E reports submitted (including the completion report). See Table 4-3.

Table 4-3 Information disclosure and public participation on LAR

Purpose	Mode	Time	Agencies	Participants	Topic
RAP or RIB	Distributed to APs	After Bank review	Ningbo PMO, township governments	All APs	RAP or RIB

¹⁶ [China - Ningbo Municipal Solid Waste Minimization and Recycling Project \(worldbank.org\)](http://www.worldbank.org)

Purpose	Mode	Time	Agencies	Participants	Topic
LA announcement	Village bulletin board and village meeting	Dec. 2015 – Jan. 2016	Ningbo PMO, township governments	All APs	Disclosing the LA area, compensation rates and resettlement modes
Disclosure of LA compensation and resettlement program	Village bulletin board and village meeting	Dec. 2015 – Jan. 2016	Ningbo PMO, township governments	All APs	Compensation and mode of payment
Preparation and implementation of income restoration program	Village meetings (many times)	Dec. 2015 – Jan. 2016	Ningbo PMO, township governments	All APs	Discussing the final income restoration program, and how to use compensation
Resettlement program adjustment	Door-to-door survey, FGDs	2017	Dongqiao Town Government	AHs under the solid waste disposal center	47 AHs are subject to property swap instead of monetary compensation.
External M&E	Interview, FGD, questionnaire survey	Feb. 2014 – Jun. 2020	External M&E agency	PMO, PIU, APs	Resettlement progress, compensation payment, information disclosure, grievance redress, livelihood restoration, etc.
Resettlement house visit by APs	Field visit	2018 and 2019	Dongqiao Town Government	APs of the solid waste disposal center	APs were organized to visit resettlement house construction progress twice on site.

Source: social team

2) Grievance redress

To ensure fairness and openness, and conduct LAR orderly, a sound GRM has been established during resettlement implementation. It has 3 channels – administrative agencies (village committees, township governments, etc.), grievance hotline and online. All agencies will accept agencies from the APs for free, and expenses reasonably incurred will be disbursed from contingencies. The village committees and township government will keep records properly.

In addition, if any AP is dissatisfied with the disposition, he/she may resort to judicial proceedings.

Conclusion: Public participation activities have been conducted in a diversified manner during LAR. All respondents say that the LAR process is open and transparent, they are aware of the GRM, and there is no outstanding issue.

4.4.5 Resettlement satisfaction survey

During the social audit, the social team also learned satisfaction with resettlement from 40 sample households in Xuanpei Village to learn the socioeconomic effects of compensation and resettlement from the APs' personal experiences. See Table 4-4.

During LAR, 57.31% of the respondents are aware of LA at a village meeting or by informal means, show that information disclosure is effective. Most of the respondents are satisfied with DMS results. 63.42% are aware of LA compensation policies, 49.54% are satisfied with these policies, and 51.88% are satisfied with their implementation.

During LAR, the APs express their appeals to the owner directly.

20.34% of the respondents are very satisfied with their current lives, 68.92% satisfied, and 10.74% neither satisfied nor dissatisfied. In addition, during LAR, all respondents think that their lawful rights and interests are not infringed on.

Findings: 89% of the respondents are satisfied or largely satisfied with the Project in general. Few respondents have expressed different opinions about LAR, but say that there is no outstanding issue. The overall satisfaction with resettlement is high, consistent with the conclusions of other methods, such as key informant interview and FGD.

Table 4-4 Resettlement satisfaction survey form

No.	Question	Options	Results				
			①	②	③	④	⑤
1	By what means did not first know about the Project?	1) Government leaflet; 2) mass media; 3) neighborhood discussion; 4) village meeting; 5) measurement	14.63%	17.25%	10.81%	57.31%	0
2	Are you satisfied with DMS results?	1) Very satisfied; 2) Satisfied; 3) Neither, nor; 4) Dissatisfied; 5) Very satisfied	30.60%	55.05%	14.35%	0	0
3	Are you aware of LA compensation policies	1) Yes; 2) Somewhat; 3) No	63.42%	36.58%	0	/	/
4	Are you satisfied with these policies?	1) Very satisfied; 2) Satisfied; 3) Neither, nor; 4) Dissatisfied; 5) Very satisfied	24.74%	25.72%	49.54%	0	0
5	Are you satisfied with the implementation of these policies?	1) Very satisfied; 2) Satisfied; 3) Neither, nor; 4) Dissatisfied; 5) Very satisfied	44.12%	55.88%	0.00%	0	0
6	By what means do you express your opinions?	1) None; 2) village official directly; 3) village official indirectly; 4) mass media; 5) owner	0	50.21%	24.78%	25.01%	0.00%
7	Are you satisfied with your current life?	1) Very satisfied; 2) Satisfied; 3) Neither, nor; 4) Dissatisfied; 5) Very satisfied	20.34%	68.92%	10.74%	0	0

Source: fieldwork

4.5 Issues and suggestions for correction

According to the social audit, Table 4-5 summarizes social findings and issues, and gives corresponding suggestions.

Table 4-5 Findings and Suggestions on Kaicheng Kitchen Waste Plant

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
1	ESS4 and ESS10	Community health and safety, communication mechanism	There is no resident within 1km around the construction site. However, nearby residents say that they can still smell odor sometimes, and have not seen environmental monitoring reports timely.	Moderate	Disclose annual environmental reports to nearby communities timely, including basic corporate information, environmental management, pollutants generated, management and discharge, etc.	Kaicheng	At least semiannually (July and January)
					Establish a formal GRM, and offer sufficient resources (manpower and finance) to ensure its proper operation.	Kaicheng	January
					Establish a formal GRM, and offer sufficient resources (manpower and finance) to ensure its proper operation.	Kaicheng	Operation stage
2	ESS2	OHS	Drivers may fail to observe the operating regulations (e.g., over-speed).	Moderate	Improve the LMP to strengthen the management of primary suppliers' workers (drivers mainly), especially work safety and driving.	Kaicheng	July 2022
					Strengthen traffic safety training for drivers, including traffic rules, speed and route requirements, etc.	Kaicheng and district sanitation offices	At least quarterly

5 Part 5: Social Audit Report on Associated Facility 3 of the WWTP—Shouchuang Kitchen Waste Plant

Ningbo Shouchuang Kitchen Waste Disposal Co., Ltd. (Shouchuang Company) is a joint venture specializing in kitchen waste disposal between Shouchuang Environmental Investment Holding Co., Ltd. and Ningbo Municipal Public Utilities Investment Co., Ltd. (NMII), located in Xuanpei Village, Dongqiao Town of Haishu District, incorporated in August 2016.

Based on the fieldwork and screening results, this social audit is focused on the following social aspects: 1) labor and working conditions, 2) community health and safety, 3) LAR, and 4) public participation and grievance redress. In particular, public participation and grievance redress are overlapping issues that run through the whole project lifecycle.

5.1 Introduction to Shouchuang Kitchen Waste Plant

Shouchuang Kitchen Waste Plant has a floor area of 115 mu, and is located in Ningbo resource recycling base, with a planned capacity of 800t/d. It is constructed in two phases, in which Phase 1 (400t/d) has been completed and put into operation. This plant receives kitchen waste from the urban center for disposal by dry anaerobic fermentation, and biogas generated is refined to produce natural gas, and biogas residue is used for composting. After expansion, it will generate 800m³/d of wastewater, which will be sent to the WWTP of Ningbo resource recycling base for centralized treatment. Therefore, Shouchuang Kitchen Waste Plant is defined as an associated facility.

5.2 Labor and working conditions (ESS2)

Shouchuang Company has a management, a general affairs department, a production operation department, a maintenance department, and a safety and environment department, and a workforce of 53, including 5, 32, 5, 3, 5 and 2 in the above departments respectively. The company has no contract worker, and about 40 primary suppliers' workers, who are kitchen waste vehicle drivers from district urban administration bureaus.

This social audit reviews Shouchuang Company's current employment terms and conditions, forced and child labor, OHS and worker GRM.

5.2.1 Employment terms and conditions

During this social audit, the following rules and regulations on worker management of Shouchuang Company were checked:

- Personnel Management Measures;
- Notice on Regulating the Recruitment Process;
- Training Management System;
- Measures for Evaluation Management during Internship and Probation;
- Measures for Temporary Worker Management;
- Regulations on Payment of Duty Subsidies;
- Measures for the Management of Paid Annual Leaves of Workers;

- Intern Management System;

The company's operating hours are 4:00 to 20:00. The workers work on a rotation basis. The central control room workers, and biogas purification and utilization system operators of the production operation department work on 4 shifts, the other workers work on 3 shifts, and managers and technicians work on the day shift (9:00-18:00, 5 days a week).

Based on interviews with direct hires of Shouchuang Company, all of them have entered a labor contract, are paid regularly, have covered social insurance and one fund (endowment, medical, unemployment, work-related injury and maternity insurance, and housing provident fund), rest on legal holidays, and are entitled to overtime pay and other basis benefits as stipulated by law. The company conducts a health checkup for all employees annually.

After checking with the Haishu District Human Resources and Social Security Bureau who is responsible for governing the labor-related affairs, there have been no outstanding labor-related complaints registered recently for the company.

Findings: Shouchuang Company has established a series of procedures and policies to define its labor management system, which are generally consistent with the requirements of ESS2. Based on document review and interviews, it was confirmed that all workers have signed the labor contract that outlines the salary, leave, and insurance entitlements, etc. The overall salary level of direct hires is much higher than the local minimum salary standard, salaries are paid monthly, and overtime work is paid for, consistent with the applicable domestic regulations and ESS2. There have been no outstanding labor-related complaints registered by local government authority.

5.2.2 Labor protection

The Labor Law of China stipulates that the minimum working age is 16 years (higher than 14 years in ESS2), and special protection is provided to underage workers aged 16-18 years. The youngest worker of Shouchuang Company is 23 years, and its workers are mostly 30-45 years.

During recruitment, the company notifies the scope and place of work, working hours, potential overtime work, benefits, etc. to applicants, and includes them in the employment contract. Shouchuang Company's Personnel Management Measures and labor contracts do not contain any provision on penalty payment for resignation, and workers may apply for resignation during the contract term freely, so they are free from forced labor.

According to the review of the job description and human resources management system, its recruitment and job qualification requirements comply with the state laws, and contain no restrictive or discriminatory provision, so it can be regarded that there is no recruitment discrimination in project implementation.

China has strict Special Rules on Labor Protection of Female Employees, which require that employers should prevent and prohibit sexual harassment against female workers, and protect their privacy when handling their sexual harassment grievances. In Ningbo, GBV rarely happens, so the Project's GBV risks are negligible.

Conclusion: Shouchuang Company does not involve child and underage (16-18 years) labor, forced labor, recruitment discrimination, or GBV.

5.2.3 Labor OHS

In July-August 2021, the social team conducted a field survey on this subproject, occupational health and workplace conditions, etc., and interviewed the EHS department and staff.

- **Occupational hazards and protection facilities**

The treatment processes include the kitchen waste pretreatment system, anaerobic fermentation system, biogas purification and utilization system, biogas residue composting system, deodorization system, and wastewater treatment system:

- 1) Kitchen waste pretreatment system: kitchen waste collection and transfer → sorting → crushing;
- 2) Kitchen waste treatment (anaerobic fermentation) system: sorting → anaerobic fermentation
- 3) Biogas purification and utilization system: biogas filtration → biogas desulfurization → biogas compression
- 4) Biogas residue composting system: biogas residue transfer → mixing → aerobic fermentation → post-treatment;
- 5) Deodorization system: odor collection → biological filter → chemical washing
- 6) Wastewater treatment system: pretreatment → external biological film treatment → advanced oxidation

Based on the existing production processes and equipment, the main occupational hazards are carbon dioxide, carbon monoxide, ammonia, hydrogen sulfide, sodium carbonate, noise, etc. In addition, there are special operations at the operation stage, mainly including confined space work (oxygen depletion, ammonia poisoning, etc. in the treatment tank), repair (potential exposure to toxic gases in pipelines), and emergency rescue (potential exposure to leaking biogas).

For the above areas and occupational hazards, the PIU has set up and operated protection facilities, including setting up facilities against dust, poisons, noise, vibration and heat, such as automatic dispensers, to reduce workers' exposure to dust, using advanced and reliable fully automatic control technologies to reduce workers' exposure to harmful substances, and using sealed equipment and pipelines to avoid the diffusion of harmful gases, selecting low-noise equipment and using shock pads to reduce noise, and taking heat insulation measures for boilers, pre-heaters, high-temperature pipelines, etc.

The company's dust, poison and noise proofing facilities operate normally, reducing health impacts of occupational hazards on workers during production effectively.

- **PPE**

Based on the properties of the potential occupational hazards, the company has formulated the Regulations on the Management of Labor Protection Articles, and the PPE record reform. PPE includes earplugs (3M1110), Honeywell full face masks (with 75SCL cartridge), dust masks (3M9542V), etc.

This social audit covers PPE supply, use and management, and shows that the company has distributed different PPE for different jobs in accordance with the applicable domestic regulations.

Workers can largely properly wear gas masks, dust masks, earplugs, protective gloves and other PPE.

- **Occupational health management system and staff**

The company has established an occupational health management organization at the EHS department, assigned two occupational health managers, and formulated the implementation plan for occupational disease prevention and control, including distributing PPE regularly, conducting occupational hazard monitoring and evaluation, and occupational health checkup, and establishing occupational health monitoring files.

- **Occupational health management system and operating regulations**

The company has formulated occupational health management systems, including the management system for occupational disease protection articles, procedure for workplace occupational hazard monitoring and evaluation, occupational health management procedure, occupational disease management procedure, regulations on health checkup, and management system for occupational health monitoring and file management, etc. The EHS department offers training on various systems and operating regulations regularly and irregularly, and supervises implementation regularly.

- **Occupational hazard monitoring**

The company has appointed a qualified agency to conduct workplace occupational hazard monitoring annually, and an occupational hazard evaluation every 3 years, such as Tianheng Monitoring Co., Ltd. in November 2020, which issued a report (NBTH/J200365). The main test items include other dust, sodium carbonate, hydrogen sulfide, ammonia, carbon monoxide, carbon dioxide and noise. According to the report, the levels of the chemical and physical hazards to which workers are exposed comply with the national occupational exposure limits.

- **Disclosure of occupational hazards**

The company has established an occupational hazard warning and disclosure system, mainly including pre-job disclosure, on-site disclosure, and inspection result disclosure. When entering into a labor contract with a worker, the company would disclose potential occupational hazards and their consequences, protective measures, and remuneration, and specify these in the contract; in case of a job or duty change, the worker will be otherwise informed of occupational hazards. Bulletin boards are set up at workshops to disclose regulations on occupational disease prevention and control, operating regulations, emergency rescue measures, monitoring and evaluation results. In addition, the company will notify workers of occupational health checkup results timely.



Figure 5-1 Occupational hazard informing cards at different places

- **Occupational health monitoring**

The company has established an occupational health monitoring and file management system, and would organize pre-job, on-the-job and separation occupational health checkups. Based on checkup records during 2018-2020, there was no worker suspected of any occupational disease or contraindication. Occupational health monitoring files include occupational history, occupational hazard exposure history, occupational health checkup results, and occupational disease diagnosis and treatment records, etc.

- **Occupational health training**

The company offers pre-job and on-the-job occupational health training in the form of classroom teaching mainly, and trains workers transferred to new jobs or processes by means of classroom teaching, video watching and field education. All training records are included in files. Occupational health is offered in every May.

- **Emergency rescue plan and drilling**

The company has prepared an emergency plan and an annual emergency plan drilling schedule, including firefighting skills training, fire emergency rescue, joint emergency drill for leakage and environmental accidents, etc. In addition, the company has prepared an emergency plan for confined space accidents. The company would organize an emergency plan drill for occupational hazards in every June and November.

In addition, the company has developed OHS management system, and requires that any department or individual should handle any occupational hazard timely, and staff will return to their posts only if any hazard is removed. The above system has been well implemented.



Figure 5-2 Emergency eye sprinker in the wastewater treatment area



Figure 5-3 Emergency drills

- **Infection risks**

For COVID-19 and other potential infectious diseases, a pandemic prevention and control organization has been established at the municipal and district levels. The company has established an internal pandemic prevention and control system, developed relevant plans, done well in pandemic prevention and control, material reservation, living support, security, etc., assigned persons for temperature taking, ventilation, disinfection, PPE distribution, publicity, education, and relevant information collection and submission, and defined emergency response processes for pandemic prevention and control to reduce infection risks.

Findings: The company has established a sound occupational disease management system, and assigned a special department and dedicated staff to take charge of OHS. The company has realized “three simultaneities” in the construction of occupational disease protection facilities¹⁷. An occupational hazard pre-assessment was conducted during project reasoning, occupational disease protection facilities designed before project construction, and an occupational hazard control effectiveness assessment conducted before the final inspection. The company conducts occupational health checkup and workplace occupational hazard monitoring every year at the

¹⁷ Occupational protection facilities for construction projects must be designed, constructed, and put into operation together with the main part.

operation stage, and has established occupational health management systems and files. The company's occupational health management complies with the applicable domestic laws and regulations, and is also consistent with the Bank's ESF.

5.2.4 Primary suppliers' workers

Primary suppliers' workers are about 40 drivers of kitchen waste collection vehicles, who belong to the district environmental sanitation offices. In China, only adults (18 years or above) can apply for a driving license. Therefore, there is no child or underage worker in Kaicheng Company's primary suppliers' workers. These drivers are work voluntarily, and may apply for resignation freely, so there is no forced labor.

These drivers are exposed to traffic safety risks mainly. The company has no direct control over them out of the project site, but has imposed some restrictions on their driving behavior on the project site, such as a speed limit (5km/h).

5.2.5 Worker GRM

Shouchuang Company has a smooth worker GRM that is similar to those of other enterprises in the park. The grievance channel is as follows: Workers first report issues to shift leaders, who hold a regular safety meeting at least weekly to identify and discuss such issues and site risks, and then report to the department manager. An anonymous complaint box is provided.

The interviewed workers say that they have been told the grievance redress channels in induction and routine training, and know how to file grievances when they encounter problems related to labor contracts, remuneration, working conditions, etc.

Any worker may file grievances about labor contracts, remuneration, working conditions, etc. directly to Ningbo Municipal Labor and Social Security Bureau, which discloses the hotlines of the municipal and district labor security supervision authorities on its official website (http://rsj.ningbo.gov.cn/art/2018/10/9/art_1229130162_49605564.html).

5.3 Community health and safety (ESS4)

Communities involved in this subproject mainly include communities around the facility and those passed through by vehicles. The social audit covers: 1) facility impacts on nearby communities, 2) environmental disturbances to communities passed through by vehicles, and 3) road traffic safety risks, etc.

5.3.1 Impacts of vehicles on community health and safety

In Ningbo, domestic waste is collected from communities, transferred to 6 transfer stations, and then transferred by special vehicles via the fixed transfer route of **Provincial Highway 214—airport elevated road—road for solid waste disposal**, avoiding communities, schools, villages, hospitals and other social sensitive sites where possible to reduce traffic risks. In addition, the company has installed a GPS for vehicles for speed and route monitoring. The 6 transfer stations are Haishu District station, Jiangbei District station, Binjiang station in Yinzhou District, Dingqiao station in Yinzhou District, Zhenhai District station and Dongqian Lake station.

Community disturbances by vehicles: The company has taken the following measures to avoid community environment pollution during waste transfer -

- Waste unloading and compression are completed in the sealed unloading hall, and cleaners will clean vehicles and the floor timely. In addition, vehicles are sealed to avoid spills, and cleaned regularly to keep them clean.
- Sound measures are taken for driver and vehicle management to reduce traffic accidents.
- The fixed transfer route of Provincial Highway 214—airport elevated road—road for solid waste disposal has been established.
- Vehicles entering the plant should be clean, sealed and free from spills, and cleaned after unloading.
- The municipal urban administration bureau urges all districts to correct illegal vehicles, with focus on vehicle appearance, condition, marking and sealing to reduce waste spills and secondary pollution.

Finding: Strict management measures for waste collection and transfer have been formulated, and vehicles are fully sealed during transfer, and run through a fixed route to minimize community disturbances.



Figure 5-4 Waste Transfer Road and Vehicle

5.3.2 Impacts of plant operation on community health and safety

Shouchuang Kitchen Waste Plant is located in Ningbo resource recycling base. In recent years, the villagers near Ningbo resource recycling base have been relocated successively. For example, Xuanpei Village of Dongqiao Town where the base is located was relocated entirely under the new countryside building subproject of the World Bank-financed Ningbo Municipal Solid Waste Minimization and Recycling Project (P123323) implemented in 2015, and there is no resident within 1km around the construction site (Figure 2-5).

As discussed above, there are other waste disposal facilities in the base, such as Haishu District waste-to-energy plant and Ningbo food waste disposal plant. Nearby residents say that they can still smell odor in summer or when the atmospheric pressure is low, though such odor is not necessarily from Shouchuang Kitchen Waste Plant.

In December 2019, Shouchuang Kitchen Waste Plant (Phase 1) passed the final environmental inspection. All wastewater and waste from Shouchuang Kitchen Waste Plant was discharged with environmental compliance, but such monitoring data was not provided to nearby residents timely.

Findings: Shouchuang Company has taken a series of measures to reduce impacts of facility operation on nearby communities, but nearby residents say that they can still smell odor in summer or when the atmospheric pressure is low, and relevant monitoring data is not disclosed to them timely. Shouchuang Company should strengthen communication with nearby communities, information disclosure, internal management, and the management of waste transfer vehicles to reduce waste gas and wastewater emissions.

5.4 LAR (ESS5)

Shouchuang Kitchen Waste Plant has a floor area of 76,700 m² (about 115 mu). In August 2015, Ningbo Municipal Government allocated the land to Ningbo PMO to construct Ningbo food waste disposal plant.

In July 2018, this land was transferred instead of being allocated.

The land for Shouchuang Kitchen Waste Plant was acquired along with the land for Kaicheng Kitchen Waste Plant. See **Part 4 - LAR**.

Conclusion: The resettlement and compensation policies of this subproject comply with the principles and requirements in ESS5, and the fund disbursement procedure is transparent and efficient. All affected villages have paid compensation to the APs timely and fully. Over 89% of the respondents are satisfied or largely satisfied with this subproject, and few have objections to LAR, but think that there is no outstanding issue.



Figure 5-5 Decision on state-owned land allocation for Shouchuang Kitchen Waste Plant

5.5 Issues and suggestions for correction

According to the social audit, Table 5-1 summarizes social findings and issues, and gives corresponding suggestions.

Table 5-1 Findings and suggestions on Shouchuang Kitchen Waste Plant

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
1	ESS4 and ESS10	Community health and safety, communication mechanism	There is no settlement within 1km around the facility, but nearby residents can still smell odor sometimes; no relevant environmental monitoring report is disclosed timely.	Moderate	Disclose environmental monitoring results to nearby residents timely, strengthen communication with them, and keep records properly.	Shouchuang	At least semiannually (July and January)
					Disclose annual environmental reports to nearby communities timely, including basic corporate information, environmental management, pollutants generated, management and discharge, etc.	Shouchuang	January
					Establish a formal GRM, and offer sufficient resources (manpower and finance) to ensure its proper operation.	Shouchuang	Operation stage
2	ESS2	OHS	Drivers may fail to observe the operating regulations (e.g., over-speed).	Moderate	Improve the LMP to strengthen the management of primary suppliers (drivers mainly), especially work safety and driving.	Shouchuang	July 2022
					Strengthen traffic safety training for drivers, including traffic rules, speed and route requirements, etc.	Shouchuang and district sanitation offices	At least quarterly

6 Part 6: Social Audit Report on Associated Facility 4 of the WWTP - Offsite Sewer Lines

The offline sewer lines are used to deliver wastewater from Kaicheng Kitchen Waste Plant, Shouchuang Kitchen Waste Plant, and centralized plastic waste sorting and processing plant to the WWTP of Ningbo resource recycling base for treatment.

The offsite sewer lines will be constructed by Ningbo Qingyuan Water Environment Service Co., Ltd. using domestic counterpart funds, with a total length of about 2km, including DN160 lines of 1.5km, DN200 lines of 0.1km, and a line of 0.2km from the vehicle washing center to the conditioning tank. See Figure 2-1.

The main line runs from Kaicheng Kitchen Waste Plant and runs through the road until the newly constructed regulating tank.

The offsite sewer lines will be constructed along Route B in Ningbo resource recycling base, construction has not begun, and there is no village or resident along the lines. The main social impact is temporary road occupation. The affected road is an internal road in Ningbo resource recycling base, and will be restored after the completion of sewer line construction, and relevant costs will be included in the construction budget. Therefore, the social impact is "Low".

7 Part 7: Social Audit Report on Bulky and Decoration Waste Disposal Plant

The bulky and decoration waste disposal plant is one of Batch 2 subprojects, and will be newly constructed. It is located on the land acquired for Haishu District landfill, and LA has been completed, so this social audit is focused on land use.

7.1 Introduction to the bulky and decoration waste disposal plant

This subproject is located in Ningbo resource recycling base, with a floor area of 39,451 m² (about 59.2 mu) and a total building area of 22,150 m². After completion, it will treat 300,000 tons of bulky and decoration waste, and 60,000 tons of existing waste annually. It will build a bulky waste production line treating 45,000 tons of bulky waste annually, an RDF (refuse derived fuel) production line with an annual capacity of 82,000 tons and a production line with an annual capacity of 18 million reclaimed bricks. The owner is Ningbo Meijing Construction Solid Waste Recycling Technology Co., Ltd., which was founded in May 2021.

7.2 LAR (ESS5)

The bulky and decoration waste disposal plant is located in Haishu District landfill, and LA was completed in 2004. All LA compensation agreements have been signed, and the LA compensation was fully paid.

There are still some structures and equipment on the site to be relocated. In addition, Ningbo Municipal Natural Resources and Planning Bureau is adjusting the master land utilization plan, which is expected to be completed in October 2022; the PIU will obtain the right to use state-owned by contractual transfer in December 2022, and the transfer fee is about 700,000 yuan/mu, all borne by the PIU.

1) Collective building in Xuanpei Village

There is a 950 m² collective office building of Xuanpei Village on the site, being a two-storied masonry concrete building, built in 2004 (see Figure 2-1). According to interviews with town officials, the collective office building was compensated for under the Ningbo Solid Waste Disposal Project in 2012, since the new office building has not been completed, the existing office building has been kept, and the village committee will move into the new office building after its completion. 8 staff workers of the village committee are still working here. According to the interview of the village head, the village committee will move to a new office building in Dongxuan Garden in June 2022. The new office building is being decorated (see Figure 2-2).



Figure 7-1 Collective building of Xuanpei Village to be demolished



Figure 7-2 New office building of Xuanpei Village being decorated

2) Workers' dormitory

A workers' dormitory on the site is still in use, with a building area of 366 m². This building is owned by Haishu District landfill, and about 10 landfill O&M workers live here temporarily. This building has clear ownership, and can be demolished based on construction progress at any time, without affecting project construction. However, the landfill should be notified in advance to make arrangements for these workers.



Figure 7-3 Workers' dormitory of the landfill

3) Abandoned workshops and equipment

There are some abandoned workshops (totaling 300 m²) and equipment on the site. The abandoned workshops belong to the landfill, and the abandoned equipment belongs to New CWI (Ningbo) Environmental Technology Co., Ltd., including a biogas power generator, transformers, etc. New CWI Company and Haishu District Urban Administration Bureau cooperated on landfill biogas power generation, but the landfill was closed down temporarily in 2017. Haishu District Urban Administration Bureau is negotiating equipment relocation with New CWI Company, and relocation is expected to be completed by the end of December 2022.



Figure 7-4 Abandoned workshop and equipment

Conclusion: LA and compensation for the bulky and decoration waste disposal plant have been completed, but some structures and equipment on the site have not been cleared. Ningbo PMO and the PIU should strengthen communication and coordination with the competent authorities (especially Haishu District Urban Administration Bureau, Dongqiao Town Government

and Xuanpei Village Committee), and complete structure demolition, staff resettlement and equipment relocation at least 3 months before the beginning of construction.

7.3 Issues and suggestions for correction

According to the social audit, Table 7-1 summarizes social findings and issues, and gives corresponding suggestions.

Table 7-1 Findings and suggestions on the bulky and decoration waste disposal plant

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
1	ESS5	Site clearing	Collective house demolition and staff resettlement	Low	Strengthen coordination with the village committee, and complete house demolition and staff resettlement 3 months before the beginning of construction.	Ningbo PMO and Meijing	Jun 2022
2	ESS5	Site clearing	Worker dormitory	Low	Notify the agency and staff concerned to move 3 months before the beginning of construction.	Ningbo PMO and Meijing	Jun 2022
3	ESS5	Site clearing	Abandoned workshop and equipment	Low	Complete ownership negotiation with New CWI (Ningbo) Environmental Technology Co., Ltd. in coordination with the Haishu District Urban Administration Bureau, and complete equipment relocation by the end of December 2021.	Ningbo PMO and Meijing	Dec 2022
4	ESS5	Land approval	The PIU has not obtained the right to use state-owned land.	Low	Strengthen communication and coordination with the competent authorities, and complete land allocation or transfer before the beginning of construction.	Ningbo PMO and Meijing	Once monthly until a certificate of the right to use state-owned land is obtained

8 Part 8: Social Audit Report on the four recyclables sorting centers

Four recyclables sorting centers in 4 districts (Zhenhai, Beilun, Yinzhou and Haishu) are to be constructed or reconstructed under Batch 2 subprojects, where the recyclables sorting centers in Yinzhou and Haishu Districts will be reconstructed from existing facilities, and the other two will be constructed. This subproject will be implemented by Ningbo Dabashou Eco-digital Technology Co., Ltd. (Dabashou Company), which is also a PIU of Batch 1 subprojects. The other 3 recyclables sorting centers (Fenghua District, Jiangbei District and a demonstration one) will be implemented in Batch 3 (preparation to be started by June 2023).

The social audit reviews the land used for the recyclables sorting centers. For the two reconstructed recyclables sorting centers (Yinzhou and Haishu Districts), the social audit also reviews the following: 1) labor and working conditions, 2) community health and safety, and 3) public participation and grievance redress. In particular, public participation and grievance redress are overlapping issues that run through the whole project lifecycle.

8.1 Overview of the sorting centers

Among the 4 recyclables sorting centers, the Jiangshan recyclables sorting center in Yinzhou District and Gulin recyclables sorting center in Haishu District will be reconstructed from existing facilities. The operator is Dabashou Company.

The sorting centers target recyclables, including plastic bottles, low-value dirty plastics, daily chemical plastic waste, waste paper, waste glass, waste metals, waste textiles, etc. Currently, the Jiangshan sorting center in Yinzhou District receives about 250 tons of recyclables, and the Gulin sorting center in Haishu District receives about 390 tons of recyclables monthly. Recyclables are mostly waste paper, waste plastics, waste glass, waste textiles, etc. from smart waste separation cabins deployed in communities, and transported to the recyclables sorting centers by vans under the direction of an intelligent system.

Such waste is transferred by vans to the recyclables sorting center simple manual sorting and compression, and then sold to terminal waste re-utilization enterprises. The main equipment is a packing machine, a forklift and a weighbridge.

The sorting centers do not involve recyclables washing, and does not generate industrial wastewater, but generates cleaning and domestic wastewater only.

8.2 LAR (ESS5)

Except for the Jiangshan recyclables sorting center in Yinzhou District and Gulin recyclables sorting center in Haishu District, the sites of the other two recyclables sorting centers have been fixed preliminarily. The PIU is securing land in coordination with the competent authorities (district urban administration bureaus, and natural resources and planning bureaus). See Table 8-1.

Table 8-1 Summary of basic information of recyclable sorting centers

No.	District	Location	Floor area (mu)	Current land use	Land type	Approval status of land use	Time of land use approval	Remarks
1	Zhenhai	West of the Luotuo Sub-district transfer station	9	Unused state-owned land	Urban land	The master land utilization plan is being adjusted, and will be completed in October 2022.	End of Dec 2022	
2	Beilun	East of the Daxie No.2 Bridge	9	Unused state-owned land	Urban land	The master land utilization plan is being adjusted, and will be completed in October 2022.	End of Dec 2022	
3	Yinzhou	Southeast of Mingguang Road, Jiangshan Town	6.97	Existing recyclables sorting center	Urban land	The master land utilization plan is being adjusted, and will be completed in October 2022.	End of Dec 2023	Existing facility on leased land ¹⁸
4	Haishu	Guangze Road, Guoxia Village, Gulin Town	15	Existing recyclables sorting center	Urban land	The master land utilization plan is being adjusted, and will be completed in October 2022.	End of Dec 2023	Existing facility on leased land ¹⁹

Source: fieldwork summary

The land information of the recyclables sorting centers is as follows:

- **Zhenhai District recyclables sorting center**

This center is located west of the waste transfer station of Luotuo Sub-district, with a floor area of 9 mu, being state-owned unused land. The land used was formerly collective land of Luotuo Village of Luotuo Sub-district, and part of Batch 3 land for urban construction projects of Ningbo City in 2016 (plot ZH08-04-11-01, with a total area of 22.3 mu (about 1.48 hectares)).

In December 2016, Zhenhai District LA and HD Management Office (Party A) and Luotuo Village entered into an LA compensation agreement (No.: Zhen Zheng Zi (2016) No.18). According to the agreement, 22.5 mu of land will be acquired, with total compensation of 1.446 million yuan, including LA compensation (land compensation and resettlement subsidy) of 1.335 million yuan, and young-crop compensation of 111,000 yuan. In addition, 9 persons will be eligible for endowment insurance for LEFs, and the list of LEFs insured will be fixed by Party B.

According to interviews and document review, LAR has been completed, all compensation was paid to the AHs, and the land used was converted into state-owned construction land. Such land is currently unused.

¹⁸ The term of the existing lease contract is 5 years, and will expire on December 31, 2025.

¹⁹ The term of the existing lease contract is 5 years, and will expire on August 31, 2024.



Figure 8-1 Compensation agreement for the Zhenhai District recyclables sorting center



Figure 8-2 LA compensation payment voucher for the Zhenhai District recyclables sorting center

● **Beilun District recyclables sorting center**

This center is located in Dawan plot in Chaiqiao Sub-district, with a floor area of 9 mu, being state-owned unused land. The land used is obtained by the reclamation of state-owned tidal flat, and is currently unused.

● **Jiangshan recyclables sorting center in Yinzhou District**

Jiangshan recyclables sorting center in Yinzhou District is located south of Jingting bus stop in Jiangshan Town, with a floor area of 6.97 mu. Its land is leased from Jiangshan Town Government. The land used is state-owned construction land.

In March 2021, NBSMC Renewable Resources Technology Co., Ltd.²⁰ (Party B) and Jiangshan Town Government (Party A) entered into a land lease agreement, with a term of 5 years, from January 1, 2021 to December 31, 2025. Rental is paid in each March. For example, the rental from March 2021 to February 2022 is paid in March 2021.

If Party B is to renew the agreement, it shall give a two-month prior written notice to Party A, and both parties will otherwise enter into a lease agreement. During the term, Party A shall have

²⁰ This company is the holding company of Dabashou.

the right to withdraw the land due to policy adjustment, village appearance improvement, old village reconstruction, road construction, etc., subject to a 30-day prior notice to Party B, and Party B shall move and hand over the land to Party A within 30 days after receiving such notice.

- **Gulin recyclables sorting center in Haishu District**

This center is located in Guoxia Village, Haishu District, with a floor area of 15 mu, being leased land. Such land is owned by Haishu District Transport Bureau, and managed by Gulin Town Government. The land used is state-owned construction land. In June 2019, NBSMC Renewable Resources Technology Co., Ltd. and Gulin Town Government entered a land lease agreement, with a term of 5 years from September 1, 2019 to August 31, 2024. Such agreement can also be renewed or terminated. Rental is paid in each October. For example, the rental from September 2021 to August 2022 is paid in September 2021.



Current site of the Zhenhai District recyclables sorting center



Current site of the Beilun District recyclables sorting center



Current site of the Jingshan recyclables sorting center in Yinzhou District (existing facility)



Gulin recyclable sorting center in Haishu District (existing facility)

Figure 8-3 Current conditions of sorting center

The 4 sorting centers are all located on state-owned construction land, in which the centers in Yinzhou and Haishu Districts are operating. Ningbo PMO and PIU are adjusting land utilization plans in coordination with the district natural resources and planning, and urban administration bureaus to ensure that the land used for the sorting centers is lawful and compliant. By the end of November 2021, the sites and land of the sorting centers still needed further approvals from competent authorities, especially natural resources bureaus. Ningbo PMO and the PIU should secure land in coordination with the competent authorities. According to the applicable laws and regulations, the PIU should obtain the approval of the right to use state-owned land before the beginning of civil construction (or equipment installation).

Ningbo PMO and the PIU conducted adequate consultation with the agencies concerned (Ningbo Municipal Natural Resources and Planning Bureau, and district urban administration bureaus), and agreed on the following action plan: 1) Complete the land use adjustment of the relevant facilities and obtain approval by October 2022 to comply with Ningbo's master land utilization plan; 2) District governments will allocate the land to the district sanitation authorities, and the PIU will lease such land to construct sorting centers for 30 years. The land for the sorting centers in Zhenhai and Jiangbei Districts is expected to be obtained by the end of 2022, and that for those in Yinzhou and Haishu District is expected to be obtained by the end of 2023. The rental is about 50,000 yuan/mu; and 3). The social consultant confirmed that Dabashou Company (the PIU for recyclable sorting centers) will pay the land rentals to the Urban Administration Bureau of relevant districts.

8.3 Labor and working conditions (ESS2)

Each of Jiangshan recyclables sorting center in Yinzhou District and Gulin recyclables sorting center in Haishu District has about 10 workers, including two managers (direct hires of Dabashou Company) and 8 sorters (contract workers).

The disposal process at Jiangshan and Gulin recyclables sorting centers is manual sorting, compression and packing for sale.

Jiangshan and Gulin recyclables sorting centers have the same equipment, including a 160t horizontal packing machine, a 3.5t clamping forklift, a 3.5t flat forklift, a 100t weighbridge and a 10t weighbridge.

- **Employment terms and labor protection**

Dabashou Company is a PIU of Batch 1 subprojects. According to the social audit on Batch 1 subprojects, the PIU has no gap based on ESS2 requirements in terms of employment terms and conditions, and labor protection.

- **Occupational health risks**

Since recyclables are from smart waste cabins in communities, they are relatively clean, and have relatively occupational health risks for workers. According to the disposal process, occupational hazards for workers mainly include odor, dust, physical injuries (scratches), noise, high temperature (summer), etc.

According to manager and worker interviews, workplace occupational hazards are insignificant. Except for paperboards, recyclables have almost no dust; there is some odor in summer, but it can be reduced by window opening and fan ventilation. In addition, the company distributes disposable face masks to workers, and would check the workplace for PPE (face masks, gloves, etc.) wearing irregularly every month. However, the social team found during the survey that some workers did not wear PPE as required.

- **Safety risks**

The PIU has established an on-site job evaluation system, including job discipline, on-site health, operating safety, etc. On-site safety risks are from forklift operation mainly. Each sorting center stipulates a fixed route and a speed limit (5km/h) for forklifts, and assigns someone to command to ensure on-site safety.

Notices of job responsibilities and safety instructions are posted conspicuously at the workplace.



Figure 8-4 Notices of job responsibilities and safety instructions

According to manager and worker interviews, the recyclables sorting centers comply strictly with the on-site operating systems during operation. Based on field observation, workers wear

work clothes and safety shoes at work, and forklifts run along fixed routes and comply strictly with the speed limit.

- **Contracted workers**

Sorters at each sorting center are hired by a third-party agency, mostly women aged 45-55 years. Workers dispatched by third parties usually enter into a contract annually.

There are 18 drivers dealing with waste transfer (from smart waste cabins in communities to recyclable sorting centers) in total, all hired by a third-party agency, including 12 at the Jiangshan recyclables sorting center and 6 at the Gulin recyclables sorting center.

In the social audit, the sample labor contract for contract workers, and Measures for the Management of Third-Party Dispatched Workers were obtained. A labor contract between a contract worker and a third-party specifies the detailed job requirements, scope of work, workplace, working hours, rest time, remuneration, overtime pay, social insurance and benefits, labor protection and conditions, occupational hazard prevention, financial compensation, etc. The Measures for the Management of Third-Party Dispatched Workers specify labor remuneration, social insurance, overtime pay, and other labor rights.

For the sorters, Dabashou Company provides adequate PPE (face masks, gloves, etc.) to workers. Dabashou Company pays salaries and benefits on schedule monthly, and is free from child and forced labor. Some temporary workers are employed when the workload is heavy, but have not entered labor contracts.

For drivers, the main risks are traffic safety risks. The third-party agency has taken the following measures: 1) implementing the applicable state, provincial and municipal traffic safety regulations, formulating safety regulations and measures, and strengthening safety education and management; 2) ensuring that drivers are licensed, and observe the traffic rules and operating regulations to ensure driving safety; 3) ensuring vehicle safety through annual review and proper management, and keep vehicle operation, repair and accident records timely, fully and accurately; and 4) ensuring that vehicles drive along fixed routes and according to the speed limit under online GPS monitoring.

Findings: Although Dabashou Company has established a sound LMP, some workers do not use PPE as required, and some temporary workers have not entered labor contracts. Dabashou Company should establish an LMP according to ESS2 (see the SIA Report for the Batch 1 subprojects), establish a procedure to manage and monitor third-party performance, and define nonconformity remedies for third-parties in service contracts.

8.4 Community health and safety (ESS4)

Communities involved in this subproject mainly include communities around the facility and those passed through by vehicles. The social audit covers impacts of vehicles on communities and facility impacts on nearby communities.

8.4.1 Impacts of vehicles on community health and safety

For the recyclables sorting centers, a recyclable collection and transfer system consists of an integrated logistics management platform, a smart waste cabin and a sorting center. Each sorting

center has 13-15 vehicle runs, and all vehicles are enclosed vans, for which the owner has taken sound safety measures, such as GPS speed monitoring, speed limit, voice prompt and anti-fatigue.

Jiangshan recyclables sorting center in Yinzhou District and Gulin recyclables sorting center in Haishu District are away from communities, hospitals, schools, etc., and have minor traffic safety risks for communities.

8.4.2 Impacts of facility operation on community health and safety

The existing sorting centers involve manual operations mainly, and generate small quantities of wastewater, waste gases, odor and noise.

The nearest community is 200m away, and the sorting centers generate little wastewater and waste pollution. The sorting centers have no formal grievance redress channel, and have not received any grievance from nearby residents.

Findings: Although the sorting centers have minor environmental impacts, and have not received any grievance from nearby residents, Dabashou Company is advised to improve its external communication mechanism, and strengthen communication with nearby communities.

8.5 Issues and suggestions for correction

According to the social audit, Table 8-2 summarizes social findings and issues, and gives corresponding suggestions.

Table 8-2 Findings and suggestions on the recyclable sorting centers

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
1	ESS2	Contracted workers	Some temporary workers have not signed a labor contract.	Moderate	Improve the management of contract workers according to the LMP.	Helper	Upon recruitment
2	ESS2	OHS	Some workers do not use PPE as required during operation, which may lead to OHS risks.	Moderate	Strengthen internal management to ensure that workers wear PPE properly, and train workers regularly.	Helper	Working days; at least quarterly
3	ESS4	Community health and safety	There is no formal community communication mechanism.	Moderate	Establish a formal community communication mechanism, strengthen community communication, and respond to community concerns timely.	Helper	As per the SEP
4	ESS5	Site and planning adjustment	The selected sites, environmental sanitation facility plan, and land use	Moderate	Secure land, and complete land adjustment in	Ningbo PMO, district urban administration	October 2022

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
			plan have not been approved by the government.		coordination with the competent authorities.	bureaus, Helper	
5	ESS5	Acquisition of the right to use state-owned land	No right to use state-owned land has been obtained formally for the 4 recyclables sorting centers.	Moderate	The land will be leased for construction for 30 years. The rental is about 50,000 yuan/mu. All land use costs will be borne by the PIU.	Helper	Land for the sorting centers in Zhenhai and Jiangbei Districts obtained by the end of 2022, and that for those in Yinzhou and Haishu District to be obtained by the end of 2023

9 Part 9: Key Conclusions of the Social Audit

9.1 Conclusions

Among Batch 2 subprojects, the existing facilities are the WWTP to be reconstructed, and two recyclables sorting centers (Jiangshan recyclables sorting center in Yinzhou District, and Gulin recyclables sorting center in Haishu District). The existing facilities has no high social risk.

WWTP: It will be reconstructed on the existing site, and its LAR risks are “low”. The company has entered labor contracts with laborers, is free from child and forced labor, and has established an EHS department and an OHS system, including the construction and maintenance of occupational health protection facilities, PPE, occupational health monitoring and evaluation, publicity, worker health monitoring, etc. Based on the field survey and interviews, OHS risks are “low”. However, the company’s LMP has no specific requirement for contractor and primary supplier management.

Recyclables sorting centers: Based on the currently selected sites, the land used has been acquired and reserved by the government, but the land use plan needs to be adjusted, and the PIU has not received a certificate of land use right, so land use risks are “moderate”; since all recyclables are from smart waste separation cabins in communities, they are relatively clean. During waste sorting, worker occupational health risks are relatively minor, and the recyclable sorting centers have developed on-site operating regulations, and offer PPE for free to reduce occupational hazards. The PIU²¹ has established a sound LMP, but the social team found during the survey that some workers did not wear PPE (face masks, gloves, etc.) as required at work, and temporary workers might have not entered into a labor contract. Sound traffic risk control measures have been taken for vehicles, such as GPS speed monitoring, speed limit, voice prompt and anti-fatigue, and waste collection and transfer routes are kept away from densely populated communities. Therefore, traffic and community safety risks are “low”.

Bulky and decoration waste disposal plant: It will be built on land acquired and reserved by the government, but it was found during the survey that some attachments on site were to be cleared, and the PIU had not received a certificate of land use right, so its LAR risks are “moderate”.

For the **associated facilities**, a certificate of the right to use state-owned land has been obtained for Haishu District landfill, Kaicheng Kitchen Waste Plant, and Shouchuang Kitchen Waste Plant, so its LAR risks are “low”. The company has entered into labor contracts with laborers, is free from child and forced labor, and has established an EHS department and an OHS system, including the construction and maintenance of occupational health protection facilities, PPE, occupational health monitoring and evaluation, publicity, worker health monitoring, etc. Based on the field survey and interviews, OHS risks are “low”. However, the company’s LMP has no specific requirement for contractor and primary supplier management.

²¹ It is also a PIU of Batch 1 subprojects.

Kaicheng Kitchen Waste Plant and Shouchuang Kitchen Waste Plant have developed strict waste collection and transfer management measures, and use fully sealed vehicles for transport via fixed routes, with minor community disturbances.

In addition, it is found that adequate information disclosure and public participation were conducted for the existing and associated facilities of the Batch 2 subprojects during the EIA, social stability risk assessment, and LAR. However, compared to the Bank's ESF, the existing and associated facilities of Batch 2 subprojects need to be strengthened in community health and safety, communication, grievance redress, etc., such as disclosing E&S monitoring reports to the public regularly (especially water and air quality data), and responding to community concerns positively.

9.2 Issues and suggestions for correction

Table 9-1 summarizes the key issues identified in this social audit and the corresponding suggestions.

In the future, the external social M&E agency appointed by Ningbo PMO will track M&E effectiveness continually, and report to the Bank regularly.

Table 9-1 Summary of issues identified in this social audit and suggestions for correction

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
1. WWTP of Ningbo resource recycling base							
1	ESS2	Labor management	Third-party labor contract management is unsound.	Moderate	Improve the LMP to strengthen third-party labor management and monitoring.	Mingzhou and Qingyuan	Dec. 31, 2022
2	ESS4 and ESS10	Community health and safety, communication mechanism	Environmental monitoring shows that wastewater and waste gases meet the emission standards. Nearby residents worry that odor produced by the facility may affect their health; residents may express their concerns through relevant channels, but there is no relevant written record. There are still some gaps from ESS10.	Moderate	Disclose environmental monitoring results to and strengthen communication with nearby residents, and keep records.	Qingyuan	At least semiannually (July and January)
					Disclose annual environmental reports to nearby communities timely, including basic corporate information, environmental management, pollutants generated, management and discharge, etc.	Qingyuan	January
					Establish a formal GRM, and offer sufficient resources (manpower and finance) to ensure its proper operation.	Qingyuan	As per the SEP
2. Associated Facility 1 of the WWTP - Haishu District landfill							
1	ESS4 and ESS10	Community health and safety, communication mechanism	There is no resident within 1km around the construction site. However, nearby residents say that they can still smell odor sometimes, and have not seen environmental	Moderate	Disclose environmental monitoring results to nearby residents timely, strengthen communication with them, and keep records properly.	Qingyuan	At least semiannually (July and January)
					Disclose annual environmental reports to nearby communities timely, including basic corporate	Qingyuan	January

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
			monitoring reports timely.		information, environmental management, pollutants generated, management and discharge, etc.		
					Establish a formal GRM, and offer sufficient resources (manpower and finance) to ensure its proper operation.	Qingyuan	As per the SEP
3. Associated Facility 2 of the WWTP - Kaicheng Kitchen Waste Plant							
1	ESS4 and ESS10	Community health and safety, communication mechanism	There is no resident within 1km around the construction site. However, nearby residents say that they can still smell odor sometimes, and have not seen environmental monitoring reports timely.	Moderate	Disclose annual environmental reports to nearby communities timely, including basic corporate information, environmental management, pollutants generated, management and discharge, etc.	Kaicheng	At least semiannually (July and January)
					Establish a formal GRM, and offer sufficient resources (manpower and finance) to ensure its proper operation.	Kaicheng	January
					Establish a formal GRM, and offer sufficient resources (manpower and finance) to ensure its proper operation.	Kaicheng	Operation stage
2	ESS2	OHS	Drivers may fail to observe the operating regulations (e.g., over-speed).	Moderate	Improve the LMP to strengthen the management of primary suppliers (drivers mainly), especially work safety and driving.	Kaicheng	July 2022

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
					Strengthen traffic safety training for drivers, including traffic rules, speed and route requirements, etc.	Kaicheng and district sanitation offices	At least quarterly
4. Associated Facility 3 of the WWTP - Shouchuang Kitchen Waste Plant							
1	ESS4 and ESS10	Community health and safety, communication mechanism	There is no settlement within 1km around the facility, but nearby residents can still smell odor sometimes; no relevant environmental monitoring report is disclosed timely.	Moderate	Disclose environmental monitoring results to nearby residents timely, strengthen communication with them, and keep records properly.	Shouchuang	At least semiannually (July and January)
					Disclose annual environmental reports to nearby communities timely, including basic corporate information, environmental management, pollutants generated, management and discharge, etc.	Shouchuang	January
					Establish a formal GRM, and offer sufficient resources (manpower and finance) to ensure its proper operation.	Shouchuang	Operation stage
2	ESS2	OHS	Drivers may fail to observe the operating regulations (e.g., over-speed).	Moderate	Improve the LMP to strengthen the management of primary suppliers (drivers mainly), especially work safety and driving.	Shouchuang	July 2022
					Strengthen traffic safety training for drivers, including traffic rules, speed and route requirements, etc.	Shouchuang and district sanitation offices	At least quarterly
5. Bulky and decoration waste disposal plant							

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
1	ESS5	Site clearing	Collective house demolition and staff resettlement	Low	Strengthen coordination with the village committee, and complete house demolition and staff resettlement 3 months before the beginning of construction.	Ningbo PMO and Meijing	Jun 2022
2	ESS5	Site clearing	Worker dormitory	Low	Notify the agency and staff concerned to move 3 months before the beginning of construction.	Ningbo PMO and Meijing	Jun 2022
3	ESS5	Site clearing	Abandoned workshop and equipment	Low	Complete ownership negotiation with New CWI (Ningbo) Environmental Technology Co., Ltd. in coordination with the Haishu District Urban Administration Bureau, and complete equipment relocation by end of December 2021.	Ningbo PMO and Meijing	Dec 2022
4	ESS5	Land approval	The PIU has not obtained the right to use state-owned land.	Low	Strengthen communication and coordination with the competent authorities, and complete land allocation or transfer before the beginning of construction.	Ningbo PMO and Meijing	Once monthly until a certificate of the right to use state-owned land is obtained
6. Recyclables sorting centers							
1	ESS2	Contracted workers	Some temporary workers have not signed a labor contract.	Moderate	Improve the management of contract workers according to the LMP.	Dabashou	Upon recruitment
2	ESS2	OHS	Some workers do not use PPE as required during operation,	Moderate	Strengthen internal management to ensure that workers wear PPE properly, and train workers regularly.	Dabashou	Working days; at least quarterly

No.	Applicable ESSs	Concern	Findings and issues	Risk rating	Suggestions	Agency responsible	Timing
			which may lead to OHS risks.				
3	ESS4	Community health and safety	There is no formal community communication mechanism.	Moderate	Establish a formal community communication mechanism, strengthen community communication, and respond to community concerns timely.	Dabashou	As per the SEP
4	ESS5	Site and planning adjustment	The selected sites, environmental sanitation facility plan, and land use plan have not been approved by the government.	Moderate	Secure land, and complete land adjustment in coordination with the competent authorities.	Ningbo PMO, district urban administration bureaus, Dabashou	October 2022
5	ESS5	Acquisition of the right to use state-owned land	No right to use state-owned land has been obtained formally for the 4 recyclable sorting centers.	Moderate	The land will be leased for construction for 30 years. The rental is about 50,000 yuan/mu. All land use costs will be borne by the PIU.	Dabashou	Land for the sorting centers in Zhenhai and Jiangbei Districts obtained by the end of 2022, and that for those in Yinzhou and Haishu District to be obtained by the end of 2023

Appendixes

Appendixes 1. References for the Social Audit

No.	Document	Source
WWTP reconstruction and expansion		
1	Work Attendance Management System of NMII	NMII
2	Sample Labor Contract of NMII	NMII
3	Human Resources Management System of NMII	NMII
4	Organizational chart of Ningbo Qingyuan Water Environment Service Co., Ltd.	Ningbo Qingyuan Water Environment Service Co., Ltd.
5	WWTP Progress Report and Process Introduction	Ningbo Qingyuan Water Environment Service Co., Ltd.
Associated facility — Haishu landfill		
6	Occupational Hazard Assessment Report of Mingzhou Company	Mingzhou Company
7	Workplace Occupational Hazard Test Report of Mingzhou Company	Mingzhou Company
8	Employee Occupational Health Checkup Form	Mingzhou Company
9	Trade Union System of Mingzhou Company	Mingzhou Company
Associated facility — Ningbo Kitchen Waste Disposal Plant Relocation Project (Phase 2)		
10	Occupational Hazard Control Assessment Report of the Ningbo Kitchen Waste Disposal Plant Relocation Project (Phase 1)	Kaicheng Company
11	Health Management System of Kaicheng Company	Kaicheng Company
12	Personnel Management System of Kaicheng Company	Kaicheng Company
13	Production Management System of Kaicheng Company	Kaicheng Company
14	EIA Report of the Ningbo Kitchen Waste Disposal Plant Relocation Project (Phase 2)	Kaicheng Company
15	Sample Labor Contract of Kaicheng Company	Kaicheng Company

No.	Document	Source
Associated facility — Shouchuang Kitchen Waste Plant (Phase 2)		
16	Occupational Hazard Pre-assessment Report of the Technological Transformation and Expansion Project of the Ningbo Food Waste Disposal Plant	Shouchuang Company
17	Safety Pre-assessment Report of the Technological Transformation and Expansion Project of the Ningbo Food Waste Disposal Plant	Shouchuang Company
18	Personnel Management System of Shouchuang Company	Shouchuang Company
19	Sample Labor Contract of Kaicheng Company	Shouchuang Company
20	Emergency Plan of of Kaicheng Company	Shouchuang Company
21	OHS Management System of Kaicheng Company	Shouchuang Company
Resettlement policies and documents for associated facilities		
22	LA Entrustment Agreement of the Dongqiao Landfill Project in Yinzhou District	File of Yinzhou Oasis Energy Utilization Co., Ltd.
23	LA Compensation Agreement of the Dongqiao Landfill Project in Yinzhou District	File of Yinzhou Oasis Energy Utilization Co., Ltd.
24	LA and HD Agreement of the Landfill	File of Yinzhou Oasis Energy Utilization Co., Ltd.
25	Reference compensation rates for young crops, perennial crops, ground attachments and structures	File of Yinzhou Oasis Energy Utilization Co., Ltd.
26	Woodland Administration Measures of Zhejiang Province (Decree No.43 of the provincial government in 1994)	File of Yinzhou Oasis Energy Utilization Co., Ltd.
27	Output value estimate report of flowers, trees, tea gardens and bamboos of the landfill	Ningbo Academy of Agricultural Sciences
28	LA compensation calculation sheet of the Dongqiao landfill	LA and HD Administration Section of the Yinzhou District Land and Resources Bureau
29	RAP for Phase 1 of the Project	Ningbo Municipal Law Enforcement Bureau

Appendix 2. List of Interviewees

No.	Interviewee
1	Ningbo Municipal Law Enforcement Bureau
2	Ningbo Municipal Public Utilities Investment Co., Ltd.
3	Qingyuan
4	Mingzhou
5	Kaicheng
6	Shouchuang
7	Dabashou
8	Jiangshan recyclables sorting center in Yinzhou District (existing)
9	Gulin recyclables sorting center in Haishu District (existing)
10	Haishu District Natural Resources and Planning Bureau
11	Haishu District Urban Administration Bureau
12	Cicheng New Town waste transfer station in Jiangbei District
13	Yuelin recyclables sorting center in Fenghua District
14	Haishu landfill
15	Dongqiao Town Government in Haishu District
16	Peixuan and Bailiangqiao Villages, Dongqiao Town, Haishu District
17	Luotuo Sub-district, Zhenhai District
18	Jiangbei District Natural Resources and Planning Bureau

Appendix 3. Fieldwork and Interviews



FGD in Xuanpei Village



FGD at the Dongqiao Town Government



Fieldwork at the resettlement site



Seminar at the SIA agency



FGD at Kaicheng Company



Visit to the publicity base of the park



LA range

会议签到表

姓名	单位名称	日期	签到方式
1			
2	张国强 中国环境科学研究院	2018.10.10	签到
3	李强 中国环境科学研究院	2018.10.10	签到
4	王明 中国环境科学研究院	2018.10.10	签到
5	赵磊 中国环境科学研究院	2018.10.10	签到
6	孙伟 中国环境科学研究院	2018.10.10	签到
7	周涛 中国环境科学研究院	2018.10.10	签到
8	吴昊 中国环境科学研究院	2018.10.10	签到
9	郑宇 中国环境科学研究院	2018.10.10	签到
10	冯磊 中国环境科学研究院	2018.10.10	签到
11	陈伟 中国环境科学研究院	2018.10.10	签到
12	李强 中国环境科学研究院	2018.10.10	签到
13	王明 中国环境科学研究院	2018.10.10	签到
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20	陈伟 中国环境科学研究院	2018.10.10	签到

Meeting registration form