

Environmental Monitoring Report

Project Number: 52026-001
Semestral Report (January-June 2021)
August 2021

People's Republic of China: Anhui Huangshan Xin'an River Ecological Protection and Green Development Project

Prepared by Huangshan Project Management Office for the Huangshan Municipal Government and the Asian Development Bank.

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CURRENCY EQUIVALENTS

(as of 30 June 2021)

Currency unit	–	Yuan (CNY)
CNY1. 00	=	\$ 0. 1549
\$1. 00	=	CNY 6. 4567

ACRONYMS AND ABBREVIATIONS

ADB	-	Asian Development Bank
CSC	-	Construction Supervision Company
EA	-	Executing Agency
EEB	-	Ecology and Environment Bureau
EHS	-	Environmental, Health and Safety
EIA	-	Environment Impact Assessment
EMA	-	External Monitoring Agency
EMP	-	Environmental Management Plan
EMR	-	Environmental Monitoring Report
ESMS	-	Environmental and Social Management System
GAP	-	Gender Action Plan
GIF	-	Green Investment Fund
GRM	-	Grievance Redress Mechanism
HMG	-	Huangshan Municipal Government
HPMO	-	Huangshan Municipal Project Management Office
HTIC	-	Huangshan Trust and Investment Corporation
HXIC	-	Huangshan Xintou Investment Corporation
KfW	-	Kreditanstalt für Wiederaufbau
IA	-	Implementing Agency
IEE	-	Initial Environmental Examination
LIEC	-	Loan Implementation Environment Consultant
MIS	-	Management Information System
PAM	-	Project Administration Manual
PMO	-	Project Management Office
PRC	-	People's Republic of China
RP	-	Resettlement Plan
SME	-	Small and medium-sized enterprise
SPS	-	Safeguard Policy Statement
TA	-	Technical Assistance
WWTS	-	Wastewater Treatment Station
YREB	-	Yangtze River Economic Belt

SUMMARY PROJECT INFORMATION

GENERAL INFORMATION	
Project title:	Anhui Huangshan Xin'an River Ecological Protection and Green Development Project
Date of project effectiveness:	25 September 2020
Executing agency:	Huangshan Municipal Government
Implementing agency:	Huangshan District Government Huizhou District Government Tunxi District Government Xiuning County Government She County Government Yi County Government Qimen County Government Huangshan Xintou Investment Corporation and their respective Project Implementing Units
PMO (name of agency):	Huangshan municipal project management office
PMO Environment Officer (name, email):	There are totally 8 PMO environmental officers including 1 from HPMO, 7 from seven district or county IA.
Loan implementation consultant / firm:	ESD
LIEC:	Mr. Zhang Defa, ESD
ADB web link to EMP:	https://www.adb.org/projects/documents/prc-52026-001-pam
Domestic web link to EMP:	Not available
ENVIRONMENTAL SAFEGUARD MONITORING	
ADB environment safeguard category:	B
Environmental report prepared as per ADB requirements for this category:	Initial Environmental Examination
Domestic safeguard report:	Project EIA
Quarterly period covered by this report:	1 January to 30 June 2021
# EMRs to date including this report:	2
Agency/person responsible for internal environmental monitoring:	Seven district or county IA and Construction Supervision Company
Agency/person responsible for external environment monitoring:	Huangshan Angel Environmental Monitoring Co. , Ltd
Agency/person responsible for EMP implementation and progress monitoring:	Mr. Zhang Defa, the LIEC from ESD
Agency/person responsible for independent compliance monitoring:	This is environment safeguard category B project. No independent compliance monitoring for this project is required
Overall status of environmental safeguards:	On track

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EXECUTIVE SUMMARY

1. **Overview.** This semi-annual report presents the status of compliance with the environment management plan (EMP) and environmental and social management system (ESMS) requirement during the project implementation from 1 January to 30 June 2021.
2. **The environmental personnel of the project agencies have been appointed.** During the reporting period, the project office, the implementing agency, the contractor, the construction supervision company and the consultant assigned qualified environmental personnel to coordinate the implementation of environmental management requirements. HTIC assigned three qualified environmental commissioners to support the environmental management of green development projects.
3. **Mitigation measures are implemented as required.** During the reporting period, the mitigation measures before/during/after construction are well implemented based on EMP and domestic environmental requirements, which were strictly complied with by PMOs, with the assistance of consultants.
4. **Environmental and Social Management System (ESMS) is being implemented as required.** The Screening and the environmental and social due diligence work for the first investment project - Yixian Younong Ecological Agriculture Co., LTD. under GIF have been completed, and No Objection from ADB has been received.
5. **External monitoring was carried out as required, and the results comply with the requirements.** The onsite environment monitoring was carried out by Huangshan Angel Environmental Monitoring Co., Ltd. on July of 2021, and the results comply with the requirements. During the reporting period, the PMOs, the IAs and consultants visited the project sites and found that EMP was effectively implemented without significant environmental impacts.
6. **Public participation and Grievance Redress Mechanism (GRM) have been implemented.** The public participation activities have been implemented before/during construction by IAs, design institutes, and contractors. In addition, GRM has been established and implemented as required and no complaints were received up to the end of May.
7. **Training and capacity-building plan have been carried out effectively.** The site supervision for the environment and safety has been organized by HPMO with the assistance of consultants during the reporting period. The training on various content of project management (including environmental management) has been conducted out in the ADB & KfW Mission activities. In addition, the training of on-site construction management covered the requirements of environmental management.
8. **Compliance with covenants of Loan Agreement (LA).** The implementation activities of the EMP complied with the covenants of environmental safeguard clauses of LA.
9. The action of Memorandum of Understanding (MOU) on the environment of ADB - KfW previous Loan Inception Mission has been completed as required. The environmental measures proposed in the MOU (including submission of revised first semi-annual EMR, including implementation of both EMP and ESMS, and submission of second semi-annual EMR) are completed.
10. **Lessons learned and next steps.** Project implementation consultants will continue assist PMOs to conduct centralized training and in-work environment management training as planned, and maintain regular communication with project stakeholders. Monitoring

activities for the next period (1 July- 31 December 2021) will be carried out in accordance with the EMP monitoring plan and the next semi-annual environmental monitoring reports will be submitted as planned.

I. INTRODUCTION

A. Purpose of report

11. The purpose of this environmental monitoring report (EMR) is to describe and assess progress for implementation of the environmental management plan (EMP) for the Anhui Huangshan Xi'an River ecological protection and green development project, for the reporting period 1 January to 30 June 2021. This EMR is submitted in compliance with the Safeguard Policy Statement (SPS) of the Asian Development Bank (ADB) and the loan agreement between ADB and the project executing agency.

12. This is the 2nd EMR for the project. It covers the bidding and construction phases of the project. The report describes: (i) project readiness with respect to fulfilling environmental requirements (ii) implementation of mitigation measures; (iii) monitoring activities; (iv) public consultations and including grievance redress; (v) training and capacity building; (vi) reporting; and (vii) an overall assessment of key achievements, challenges, issues, corrective actions, and lessons learned, during the reporting period.

B. Project outcomes and outputs

13. The project is aligned with the following impact: sustainable economic growth and environmental improvement in the Yangtze River Economic Belt (YREB) achieved. The project will have the following outcome: economic and environmental conditions in the upstream of Xin'an River improved.

14. The project is expected to produce four outputs, namely,

15. **Output 1: Urban point source pollution management facilities upgraded.** This output will include (i) sewage and storm water management through upgrading the existing centralized sewerage systems in Huangshan's central district and four county urban areas; and (ii) river rehabilitation and flood control through river embankment.

16. **Output 2: Rural point and non-point source pollution control facilities and systems enhanced.** Innovative approaches supporting green agricultural and ecological practices will be adopted. This includes point and non-point source pollution controls through (i) decentralized sewage and on-site treatment system and environment management in rural villages; (ii) changing fertilizer application practices, including the improved use of organic fertilizer and biological pesticides with low toxicity at agricultural and forestry sites; and (iii) improvement of pine forest conditions through disease monitoring and prevention.

17. **Output 3: Green financing mechanisms piloted.** This includes the establishment, piloting and operationalization of a (i) Green Incentive Fund to encourage farmers to adopt sustainable farm management practices to address agricultural non-point source pollution in Huangshan; and (ii) green investment fund to invest in SMEs involved in green business.

18. **Output 4: Capacity for ecological system and project management strengthened.** This will enhance HMG's capacity in water resources and flood forecasting management in the Xin'an River Basin. This includes (i) establishing environmental, health, and safety management systems to strengthen its industrial and urban environmental monitoring and emergency response capacity; (ii) integrated smart¹⁰ MIS; (iii) studies on Huangshan city green development strategy, eco-compensation mechanisms, rural wastewater discharge standards, and green farming certification; and (iv) HMG implementation support and capacity development.

C. Project implementation progress

19. The date of project effectiveness is 25 September 2020. As of 30 June 2021, procurement of 14 civil construction contracts were completed and some of the construction contracts were initiated. Implementation progress for subcomponents is summarized in Table 1.

Table 1: I
Implementation Status of Civil Work Contracts, as of 30 June 2021

No.	Contract Name	Contract Content		Contract Status	Date of Constr. Started	Contractor	Supervisor	Implementation Description
1	Works-HS-1	Xinhua Village Green Agriculture Demonstration Project in Huangshan District		Signed	2021/6	Fujian Yuchen Construction Co., Ltd		Early construction
2	Works-HS-2	Sewage and Stormwater Sewer Upgrade Project in Huangshan District		Signed	2021/6	Jiangsu Shuigong Construction Co., Ltd		Early construction
3	Works-HS-3	Xinhua Village Environment Improvement Project in Huangshan District		Construction Design	N/A			
4	Works-HS-4	Caocun River Rehabilitation Project in Huangshan District		Signed	2020/12	Zhejiang Jiuhe Environmental Co., Ltd	Hubei Three Gorges Construction Project Management Co. LTD	Approximately 40% of works completed
5	Works-HSC-1	Pine Forest Disease Prevention Project - Disease control system (Prevention and control of key forest areas, trunk injection, training of full-time and part-time reporters) in	Qimen County	Construction Design	N/A			
6	Works-HSC- 2		Yi County	Construction Design	N/A			
7	Works-HSC-3		Xiuning County	Construction Design	N/A			
8	Works-HSC-4		She County	Construction Design	N/A			
9	Works-HSC-5		Huangshan District	Construction Design	N/A			
10	Works-HSC-6		Huizhou District	Construction Design	N/A			
11	Works-		Tunxi	Construction	N/A			

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No.	Contract Name	Contract Content		Contract Status	Date of Constr. Started	Contractor	Supervisor	Implementation Description
	HSC-7		District	Design				
12	Works-HSC-8		part of City	Construction Design	unstarted			
13	Works-HZ-1	Sewage and Stormwater Sewer Upgrade Project in Huizhou District-1		Signed	2021/3	Shanhu Construction Group Co., Ltd	Anhui Hengzheng Construction Project Management Co. LTD	Approximately 30% of works completed
14	Works-HZ-2	Village Environment Improvement Project in Huizhou District		Signed	2021/3	Kunpeng Construction Group Co., Ltd	Jiangsu Yutian Engineering Consulting Group	Approximately 10% of works completed
15	Works-HZ-3	Sewage and Stormwater Sewer Upgrade Project in Huizhou District-2		<i>Use of domestic funds</i>	N/A			
16	Works-QM-1	Sewage and Stormwater Sewer Upgrade Project in Qimen County-1		In bidding	N/A			
17	Works-QM-2	Sewage and Stormwater Sewer Upgrade Project in Qimen County-2		Construction Design	N/A			
18	Works-QM-3	Sewage and Stormwater Sewer Upgrade Project in Qimen County-3		Construction Design	N/A			
19	Works-SX-1	Sewage and Stormwater Sewer Upgrade Project in She County-1		Signed	2021/4	China Petroleum Pipeline Engineering Co., Ltd		Approximately 10% of works completed
20	Works-SX-2	Sewage and Stormwater Sewer Upgrade Project in She County-2		Construction Design	N/A			
21	Works-SX-3	Sewage and Stormwater Sewer Upgrade Project in She County-3		<i>Combined with Works-SX-2</i>	N/A			
22	Works-	Sewage and Stormwater Sewer		Construction	N/A			

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No.	Contract Name	Contract Content	Contract Status	Date of Constr. Started	Contractor	Supervisor	Implementation Description
	SX-4	Upgrade Project in She County-4	Design				
23	Works-SX-5	Xitou Village Environment Improvement Project in She County-2	Signed	2021/6	Xingrun Construction Co., Ltd		Application for construction permit.
24	Works-SX-6	Xitou Village Environment Improvement Project in She County-1	Signed	2021/6	Tianjin Pipeline Engineering Group Co., Ltd		Application for construction permit.
25	Works-SX-7	Environmental Infrastructure Improvement along Xin'an River in She County	Construction Design	N/A			
26	Works-SX-8	Xi'an River Green Agriculture Demonstration Project in She County	In bidding	N/A			
27	Works-SX-9	Xitou and Yancun Water Supply Network Construction	Construction Design	N/A			
28	Works-TX-1	Village Environment Improvement Project in Tunxi District-1	Signed	2020/9	Hangzhou Xiaoshan Landscape Group Co., Ltd	Anhui Hengxin Construction Engineering Management Co. , Ltd	Approximately 90% of works completed
29	Works-TX-2	Village Environment Improvement Project in Tunxi District-2	Signed	2021/1	Kunpeng Construction Group Co., Ltd		Approximately 70% of works completed
30	Works-TX-3	Village Environment Improvement Project in Tunxi District-3	Signed	2020/12	Kunpeng Construction Group Co., Ltd	Anhui Hengxin Construction Engineering Management Co. , Ltd	Approximately 70% of works completed
31	Works-TX-4	Village Environment Improvement Project in Tunxi District-4	<i>Use of domestic funds</i>	N/A			
32	Works-XN-1	Sewage and Stormwater Sewer Upgrade Project in Xiuning County - 1	Signed	2020/12	Anhui Xinda Construction & Installation Co. Ltd	Anhui Hongji Construction Project Management Co. , Ltd	Approximately 20% of works completed

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No.	Contract Name	Contract Content	Contract Status	Date of Constr. Started	Contractor	Supervisor	Implementation Description
33	Works-XN-2	Sewage and Stormwater Sewer Upgrade Project in Xiuning County - 2	Signed	2021/6	Tiangong Fangyuan Construction Group Co. Ltd	Hebei Sanyuan Construction Supervision Co. Ltd	Application for construction permit.
34	Works-XN-3	Village Environment Improvement Project in Xiuning County-Shangshan 1	Construction Design	N/A			
35	Works-XN-4	Village Environment Improvement Project in Xiuning County-Shangshan 2	Construction Design	N/A			
36	Works-XN-5	Village Environment Improvement Project in Xiuning County-Shangshan 3	Construction Design	N/A			
37	Works-XN-6	Village Environment Improvement Project in Xiuning County-Xikou	Construction Design	N/A			
38	Works-XN-7	Village Environment Improvement Project in Xiuning County-Wucheng	Construction Design	N/A			
39	Works-YX-1	Sewage and Stormwater Sewer Upgrade Project in Yi County, and Zhang River Rehabilitation Project in Yi County	Signed	2020/12	Anhui Xinjian Holding Group	Jiangsu Yutian Engineering Consulting Group	Approximately 50% of works completed

20. In addition, other sub-contract implementation progress is as follows,
21. The bidding documents of Xin'an River green agriculture demonstration project (Works-SX-8) in She county completed and tendered on April 30, 2021, the bidding evaluation is being conducted
22. The contract package for Works-QM-1 is in tender bidding stage, and the bidding evaluation report has been submitted to ADB for review.
23. The bidding documents of Xinhua village green agriculture demonstration project in Huangshan District (Works-HS-3) are being prepared and expected to be tendered on September.
24. The construction design and bidding document preparation of environmental infrastructure improvement along Xin'an River in She county (Works-SX-7) is being conducted.
25. The village environmental improvement project in Xiuning County is divided into 5 packages (Works-XN-3~7). The preliminary design has been completed, the bidding documents are being prepared, and expected to be tender in the second half of the year.
26. The bidding documents of the sewage and stormwater pipeline upgrading project in Qimen county (Works-QM-2) are being prepared and reviewed, and expected to be tendered by the end of July.
27. Green Investment Fund (GIF) implementation progress is as follows,
28. In March 2021, the on-lending agreement between HMG and HTIC has been signed.
29. The project database establishment and investment due diligence work was carried out by HXIC. It has made a preliminary survey and investigation on ecological agriculture, rural revitalization, green foods and others by fund plan, and established a database of more than 20 investment projects, as well as completed due diligence work for the first investment project - Yixian Younong Ecological Agriculture Co., LTD (hereinafter referred to as "Younong Company"). The due diligence report and relevant environmental and social documents were submitted to ADB for review on February 22 and received No Objection from ADB on April 6. The investment of GIF to Younong Company is an equity investment activity, not a project investment. Equity investment is used to support: 1) the current business activities of Younong Company, that is, social services and sales of agricultural products in the whole process; 2) the future business activities of Younong Company, such as the expansion of the social service scale for crop planting.

II. SUMMARY OF THE PROJECT ENVIRONMENTAL MANAGEMENT PLAN (EMP)

30. The project environmental management plan (EMP) is the primary reference document for the government and ADB for all environment-related mitigation, monitoring, reporting, and training activities for the project. Timely and effective implementation of the EMP is a key condition of the loan agreement between the government and ADB. The EMP is to be implemented in all phases of the project: design, pre-construction, construction, and operation. The EMP is to ensure project compliance with PRC environmental laws and ADB's Safeguard Policy Statement (SPS 2009).

31. The EMP describes: the roles and responsibilities of all project agencies to implement this EMP; anticipated impacts and mitigation measures; inspection, monitoring, and reporting arrangements; training and capacity building; grievance redress mechanism (GRM); and public consultation and awareness raising.

32. **Project institutional arrangements (Section B of the EMP).** This section of the EMP describes the roles and responsibilities of relevant agencies for EMP implementation. For this project, the principal person responsible for EMP coordination is the PMO Environment Officer (Yin Quan, HPMO), acting on behalf of the HPMO. The implementing agencies, contractors, and construction supervision companies are responsible for on-site implementation of the EMP. Guidance and supervision to the PMO Environment Officer is given by the Loan Implementation Environment Consultant (Mr. Zhang Defa, ESD).

33. **Potential impacts and mitigation (Section C of the EMP).** This section of the EMP summarizes the potential impacts of the subprojects in the three districts and four counties during project preparation, design, construction and operation, and proposed mitigation measures. The effectiveness of these measures will be evaluated based on environmental inspections and monitoring to determine whether they should be continued, improved or adjusted.

34. **Training (Section E of the EMP).** This section of the EMP describes the training program for environmental safeguards, including the recipients and frequency of training.

35. **Grievance Redress Mechanism (Section F of the EMP).** This section of the EMP identifies the mechanisms to receive and manage any public environmental and/or social issues which may arise due to the project.

36. **Environmental monitoring program (Section D of the EMP).** Three types of project monitoring will be conducted under the EMP: (i) internal monitoring – to be conducted by the seven IAs and the CSCs; (ii) external monitoring – of air, water and noise standards – to be conducted by the certificated EMA in each project county/district; and (iii) compliance monitoring – to be conducted by both the EMA and LIEC, to ensure the EMP is being implemented.

37. **Public Consultation (Section G of the EMP).** During construction, the project will continue to seek public consultation and raise awareness of project activities, especially those that may impact the public. The public consultation plan includes public participation in evaluating environmental benefits and impacts.

38. **Reporting.** The reporting requirements for the project, including the responsible agencies and reporting frequency, were described in EMP.

III. IMPLEMENTATION STATUS OF ENVIRONMENTAL MANAGEMENT DURING THE REPORTING PERIOD

39. The chapter provides an overview of the implementation progress of the EMP during the reporting period.

A. Establishment of project agency personnel

40. During the reporting period, the project office, the implementing agency, the contractor, the construction supervision company and the consultant designated qualified environmental personnel to coordinate the implementation of the environmental management requirements in accordance with the requirements of ADB. HTIC has appointed project environmental management officers as required by ESMS, and there are 3 qualified environmental officers (2 environmental major) to support the environmental management of the GIF. The work management, coordination and communication in EHS of project are generally satisfactory.

41. Table 2-1 and Table 2-2 summarizes the project specified environmental management personnel contacts.

Table 2-1: Information of dedicated environmental management correspondents

Cities and counties	Institutions	Name of institution	Environmental Officer	Email
Huangshan City	Huangshan Project Office	Huangshan Municipalities	Yin Quan	hssxmb@126.com
Huangshan Mountain	Huangshan District Project Office (Implementation Agency)	Huangshan District Government	Qin Ling Mountains	122066540@qq.com
Huizhou District	Huizhou District Project Office(Implementation Agency)	Huizhou District Government	Zheng Wenjing	405550201@qq.com
Tunxi District	Tunxi District Project Office (Implementation Agency)	Tunxi District Government	Cheng Shichang	852428591@qq.com
Suning District	Xiuning District Project Office (Implementation Agency)	Xiuning District Government	Chen Weisong	512368047@qq.com
She County	She County Project Office (Implementation Agency)	She County Government	Fang Xiaohui	hssxshb@126.com
Yi County	Yi County Project Office (Implementation Agency)	Yi County Government	Wang Xin	392297684@qq.com
Qimen County	Qimen County Project Office (Implementation Agency)	Qimen County Government	Fang Sheng	291536803@qq.com

Cities and counties	Institutions	Name of institution	Environmental Officer	Email
Huangshan City	Implementing Agency	Municipal Forestry Bureau	Xu Rui	hsssfz@163.com
Huangshan City	Implementing Agency	Huangshan Trust Investment Company	Jiang Junyu	86691776@qq.com

**Table 2-2: Information of dedicated environmental management correspondents
(Project in construction)**

Contract number	Main content	Company Name		Environmental Officer
Works- HS-4	Sewage and Stormwater Sewer Upgrade Project in Huangshan District	Construction Unit	Zhejiang Jiuhe Environmental Limited Company	Fang Zhengfei
		Supervision Unit	Hubei Three Gorges Construction Project Management Co. , Ltd	Cheng Hongyu
Works- HZ-1	Sewage and Stormwater Sewer Upgrade Project in Huizhou District-1	Construction Unit	Shanhu Construction Group Co., Ltd	Dong Ming
		Supervision Unit	Anhui Hengzheng Construction Project Management Co. LTD	Liu Guoqing
Works- HZ-2	Sewage and Stormwater Sewer Upgrade Project in Huizhou District-1	Construction Unit	Kunpeng Construction Group Co., Ltd	Song Dengfeng
		Supervision Unit	Jiangsu Yutian Engineering Consulting Group Co. , Ltd	Lin Zhijian
Works- TX-1	Village Environment Improvement Project in Tunxi District-1	Construction Unit	Hangzhou Xiaoshan Garden Group Co. , Ltd	Cheng Yuping
		Supervision Unit	Anhui Hengxin Construction Engineering Management Co. , Ltd	Chen Hui
Works- TX-2	Village Environment Improvement Project in Tunxi District-2	Construction Unit	Kunpeng Construction Group Co. , Ltd	Gao Liang
Works- TX-3	Tunxi Ecological Village Construction Project-3	Construction Unit	Kunpeng Construction Group Co. , Ltd	Hong Chunyou
		Supervision Unit	Anhui Hengxin Construction Engineering Management Co. , Ltd	Chen Hui
Works- XN-1	Sewage and Stormwater	Construction Unit	Anhui Xinda Construction and Installation Co. , Ltd	Cui Tao

Contract number	Main content	Company Name		Environmental Officer
	Sewer Upgrade Project in Xiuning County - 1	Supervision Unit	Anhui Hongji Construction Project Management Co. , Ltd	Yu Changzhong
Works-YX-1	Sewage and Stormwater Sewer Upgrade Project in Yi County	Construction Unit	Anhui Xinjian Holdings Limited	Wang Qing
		Supervision Unit	Jiangsu Yutian Engineering Consulting Group Co. , Ltd	Zhou Chunlong

42. During the reporting period, the consultants paid attention to the EHS training for the personnel of PMOs, IAs, supervisors, and construction units during on-site supervision in districts/counties. The ADB's safeguard policy and on-site safety management priorities are introduced to clarify the environmental management requirements of each responsible party and maintain regular communication among project stakeholders.

43. **Conclusion.** The project organization setup plan in the environmental management plan is being implemented as required, and the implementation meets the requirements of the environmental management plan.

B. Implementation of the project mitigation measures

44. Table 3 summarized the implementation status of the mitigation measures in the EMP as of 31 December.

Table 3: Project impacts, mitigation measures, and implementation status

Item	Potential impacts / issues	Mitigation measures	Implementation status	Whether in compliance (Yes/No)
Detailed design stage	Institutional strengthening for EMP Implementation and supervision	At least 1 month before construction: (i) reconfirm the full-time status of the HPMO Environmental Officer for the project; (ii) appoint at least one environment officer in each of the 7 IAs (excluding HTIC, which will separately engage an environment officer for the ESMS).	Environmental protection responsible persons of municipal/county project offices and subcontractors have been appointed Employees Fan Xianguang, Liu Xinyue, and Chen Junqi were appointed as environmental officers, and Cheng Shifeng, Chen Yan, and Jiang Junyu were appointed as social officers by HTIC on November 2020. Among environmental officer, Fan has a master's degree in agronomy from Northwest	Yes

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Item	Potential impacts / issues	Mitigation measures	Implementation status	Whether in compliance (Yes/No)
			Agriculture and Forestry University. In addition, Liu and Chen majored in environment of South China Agricultural University, and they have received learning and training in environmental ecology	
		At least 2 months before any construction, engage LIEC.	ESD as a LIEC, including an environmental consultant, was hired in October 2020 .	Yes
		At least 2 months before any construction, provide training to all environmental staff for EMP implementation.	The training on environmental management for all environmental officers of the project has been conducted by environmental consultant of LIEC at ADB Mission on December 2, 2020 and March 2021	Yes
		Confirm that at least one certified EMA has been recruited for the project at least 2 months before any construction.	Huangshan Angel Environmental Monitoring Co., Ltd. was recruited on December 2020 to be responsible for external environmental monitoring of the project. The company is qualified for environmental monitoring and its scope of business covers all monitoring required for the project	Yes
		When the contractors and CSCs have been engaged, conduct training on the project EMP.	Environmental consultant of LIEC conducted online training for the contractors and CSCs. EMP is introduced by the LIEC to the contractors and CSCs during daily on-site survey	Yes

Item	Potential impacts / issues	Mitigation measures	Implementation status	Whether in compliance (Yes/No)
	Updating the EMP	Update the mitigation measures defined in this EMP based on final detailed design. This will include the specific designs for the use of biopesticides which have been prepared during the detailed designs (see IEE Section V.D.6 and Section X).	The design for relevant sub-project is being conducted	Yes
		Asbestos. Under ADB's List of Prohibited Investment Activities (SPS, 2009), the use of asbestos is prohibited except for the "purchase and use of bonded asbestos cement sheeting where the asbestos content is <20%" (SPS 2009: 76). However: (i) in practice it is difficult to assess whether asbestos content is <20%; and (ii) international development banks are increasingly banning the use of all asbestos from their projects. To ensure international best practice for human health and safety for this project: no asbestos of any kind will be used in any materials supported by the project.	The EMP has been distributed to the design institutes by the PMO and specifies that no asbestos of any kind shall be used in the design of the project.	Yes
		Check with the design institute and HPMO to ensure the proposed materials do not include the use of asbestos.	The construction design has been reviewed by PMOs and environmental consultants and the proposed materials do not include the use of asbestos.	Yes
		Submit the updated EMP to ADB for review;	There is no major variation in the project and no need to update EMP	Yes
		In case of major changes of project location and/or additional physical components, form a DEIA team to conduct additional DEIA and public consultation. The revised DEIA should be submitted to Huangshan and district/county EEBs and ADB for approval and disclosure. To determine if the change is minor or major the HPMO will consult with ADB.	Up to June 30, 2020, there is no major variation in the project site or content and no need to update EMP	Yes
Construction Preparation	Environmental monitoring plan	Prior to construction, the HPMO will hire an EMA for environmental monitoring;	Recruitment for environmental monitoring agencies (Huangshan Angel Environmental Monitoring Co., Ltd) has been completed.	Yes
		Prepare detailed monitoring plan in accordance with the monitoring plan in this EMP.	A further detailed environmental monitoring plan has been prepared on December 2020 based on the latest procurement plan and EMP.	Yes

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	Bidding and contract documents	Mitigation measures in the EMP are incorporated in all bidding documents;	The EMP was included in the first bidding document submitted to ADB.	Yes
		Bidding documents are sent to ADB for review;	The bidding documents has sent to ADB for review	Yes
		Prepare environmental contract clauses for contractors.	Environmental contract clauses have been prepared for contractors.	Yes
	EMP training	LIEC, or invited environment specialists and/or officials from EEBs provide training on construction environmental management, implementation, supervision, to contractors and CSCs, in accordance with the training plan in this EMP	Training on EMP for contractors and CSCs was conducted by the environmental consultant in December 2020. EMP is introduced by the LIEC to the contractors and CSCs during daily on-site survey.	Yes
	Establish GRM	Responsibility for GRM implementation is assigned to the HPMO and IA Environmental Officers and HPMO Social Officers, and is included in their terms of reference;	GRM has been established in the preliminary preparation stage of the project. The responsible personnel have been designated.	Yes
		HPMO and IA personnel will be aware of, and trained in, the GRM, and will help support the environmental and social officers when necessary.	The training includes GRM for environmental and social officers of the project has been conducted on December 2020	Yes
		Key contact details for the GRM (phone number, fax, address, email) will be provided on the HPMO, IAs and/or EEB public websites and information boards at construction sites.	The correspondents information of the GRM has been publicized on the construction site	Yes
	Site EMPs	Prior to any works, prepare site-specific EMP for individual construction sites	At present, 14 civil works contracts have started. 14 site EMPs have been prepared for all construction sites	Yes
		Review and ensure site EMP complies with the measures in this EMP	Environmental consultant reviewed and ensured that site EMP complies with the measures in this EMP	Yes

Item	Potential impacts / issues	Mitigation measures	Implementation status	Whether in compliance (Yes/No)
Wastewater management	Construction wastewater and domestic wastewater generated from construction activities	Sedimentation tanks will be installed on site and, after settling out of solids, the upper clear liquid will be recycled for spraying the construction site (dust control), and the waste residue in the tank will be cleared and transported to the construction spoil disposal sites.	Being implemented	Yes
		Oil-water separators will be installed before the sedimentation tank for oily wastewater treatment.	Being implemented	Yes
		All sites for washing of construction equipment will be equipped with water collection basins and sediment traps.	Being implemented	Yes
		Domestic wastewater generated from construction camps will be disposed in three ways: (i) for project sites nearing septic tanks in surrounding villages, domestic wastewater will be treated by the septic tanks before being used for irrigation; (ii) for project sites accessible to municipal sewerage systems, domestic wastewater will be discharged into the nearest sewerage system; (iii) for project sites neither close to villages nor sewerage systems, temporary septic tanks will be constructed for the centralized treatment of domestic wastewater.	N/A. The contractors generally lease the existing house as the site office, and the domestic wastewater is discharged through the existing pipe; due to villages of rural projects are scattered, managers and workers are basically local villagers, and there is no construction site office	Yes
		Fuel storage, machinery maintenance workshop and vehicle cleaning areas must be stationed at least 500 m away from the waterbody.	N/A. The crawler and wheel loaders used are leased from equipment vendors, who are responsible for fuel and maintenance. There is no fuel storage or maintenance workshop on site.	Yes
		Storage facilities for fuels, oil, and other hazardous materials will be within secured areas on impermeable surfaces and provided with bunds and cleanup installations.	N/A. There is no fuel storage or maintenance workshop on site.	Yes
		Contractors will develop actions for control of oil and other dangerous substances as part of their site EMPs.	Being implemented	Yes
		Contractors' fuel suppliers must be properly licensed. They shall follow proper protocol for transferring fuel and the PRC standard of JT3145-91 (Transportation, Loading and Unloading of Dangerous or Harmful Goods. revised).	Being implemented	Yes
		Labor camps will be located at least 500 m from waterbody.	N/A. There is no construction site office	Yes
		Portable toilets and on-site wastewater pre-treatment systems will be installed at construction camps along with proper maintenance protocols.	N/A.	Yes

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Water supply	Interruption to existing water supply due to works	Ensure that existing water and wastewater services continue to be provided to communities during the civil works.	Being implemented	Yes
		Any interruptions to such services as a result of the project works are as limited as possible.	Being implemented	Yes
		Prior to any such interruptions, consultations are held with all affected communities.	Before the start of construction activities, the construction plan has been discussed with relevant communities and villages, and the construction can only be started after receiving a positive reply	Yes
Ambient Air	Dust generated by construction activities, gaseous air pollution (CO, CH and NO ₂) from construction machinery, and fugitive emission of odor (NH ₃ and H ₂ S) from existing sewage pipes	Establish a series of measures for dust control in construction sites before work commencement.	Being implemented	Yes
		Install barriers at the boundary of construction sites with a height no less than 2.5m.	The barriers at the boundary of urban construction sites installed. . The alleys in rural villages are narrow, only 1-2m. it is difficult to install fences. At present, the safety requirements can be met by setting up warning signs and reminding passers-by by safety worker	Yes
		Spraying water daily on construction sites where fugitive dust is being generated. Before excavation, proper spraying shall be performed on the working surface to maintain a certain humidity to reduce dust generation.	Being implemented	Yes
		Cover stockpiles with dust shrouds or tarpaulin to avoid spillage or dust generation. For the earthwork management for backfill, measures will include surface press and periodical spraying and covering. Extra earth will be cleared from the project site in time to avoid long term stockpiling.	Being implemented	Yes
		Vehicles with a closed load-carrying case shall be used to transport potentially dust- producing materials.	Being implemented	Yes
		Design haulage routes and schedules to avoid transport occurring in the central areas, traffic intensive areas or residential areas.	Trench excavation and rapid backfilling on site	Yes
		Install vehicle washing equipment or conduct wheel washing manually at each exit of the work area to prevent trucks carrying mud and soils onto public roads.	N/A. Barriers have no conditions to be installed in the ecological village	Yes

Item	Potential impacts / issues	Mitigation measures	Implementation status	Whether in compliance (Yes/No)
			project	
		Keep construction vehicles and machinery in good working order, regularly service and turn off engines when not in use. Ensure vehicle and machinery emissions comply with PRC standards of GB18352-2005, GB17691-2005, GB11340-2005, and GB18285-2005.	Responsible by the vehicle rental vendors	Yes
		During high wind, dust-generating operations shall not be performed and onsite construction materials shall be covered with shrouds. When wind speed exceeds PRC Levels 4 or 5, excavation, soil transportation and demolition works are not permitted. Special precautions need to be applied in the vicinity of sensitive receptors such as schools, kindergartens and hospitals.	Being implemented	Yes
		Transport the sludge from existing sewer pipes offsite timely to reduce fugitive odor emission.	Being implemented	Yes
		Use exhaust fans at welding sites to increase ventilation and promote the diffusion of organic exhaust gas onsite.	Being implemented	Yes
		Timely monitoring of air quality and inspections during construction.	Being implemented	Yes
Noise	Noise generated from construction and transportation activities	Construction activities will be planned in consultation with local authorities and communities so that activities with the greatest potential to generate noise are planned during periods of the day that will result in the least disturbance.	Being implemented. There are currently no projects involved in nighttime construction	Yes
		Construction works will be limited to daytime and will be strictly prohibited during the nighttime (22:00 h to 06:00 h) and noon (12:00 h to 14:00 h). Exceptions will only be allowed in exceptional cases, and only after getting the approval of the surrounding residents, local environmental authority and other relevant departments. The contractor shall apply for the approval seven days before the construction works. Nearby residents will be notified of such nighttime activities well in advance.	There are currently no projects involved in nighttime construction. The construction plan has been discussed with relevant communities and villages, and the construction can only be started after receiving a positive reply	Yes
		When preparing construction planning, simultaneous high-noise activities will be avoided. High noise activities will be scheduled during the day rather than evening hours. Similarly, the construction sites will be planned to avoid multiple high noise activities or equipment from operating at the same location.	Concrete pavement drilling work involved in pipeline installation only during the day	Yes
		Movable noise barriers will be adopted during construction at daytime. The barriers will: be of adequate size and thickness to reduce construction noise to the required standards; and (ii) be placed to maximize noise absorption.	Being implemented	Yes
		Low-noise equipment will be selected as much as possible. Equipment and machinery will be equipped with mufflers	Being implemented	Yes

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		and will be properly maintained to minimize noise.		
		Transportation routes and delivery schedules will be planned to avoid densely populated and sensitive areas and high traffic times. Vehicles transporting construction materials or waste will slow down and not use their horn when passing through or nearby sensitive locations, such as residential communities, schools and hospitals. No honking is permitted during nighttime.	Being implemented	Yes
		Monitor noise at sensitive areas at regular intervals. If noise standards are exceeded, equipment and construction conditions shall be checked, and mitigation measures shall be implemented to rectify the situation.	Being implemented	Yes
		Conduct regular interviews with residents/villagers adjacent to construction sites to identify noise disturbance. Community feedback will be used to adjust work hours of noisy machinery.	Frequent communication between IAs, the construction units, the community, and the village to be maintained	Yes
		For the households that will be within 60 m of construction works (Section V.D.3 of IEE), particular attention will be provided. This will include: (a) follow-up consultations with these households prior to the start of any works, to specify the exact planned dates and schedule of works, nature of works, equipment to be used, safety measures, and public access during construction; (b) installation of noise barriers to reduce as much of the emissions as possible, and/or installation of additional layers on the windows of the affected homes as necessary, based on the assessment of the most technically effective method and feedback from the community consultations; (c) agreement on the duration of daily works.	The plan has been discussed with relevant communities and villages before construction, and the construction can only be started after receiving a positive reply	Yes
Soil erosion	Soil erosion caused by construction activities, earthworks	Prepare site soil erosion management plans before works begin.	Being implemented	Yes
		Level the ground for the temporary spoil storage sites with proper blocking measures.	Being implemented	Yes
		During construction phase, the earthwork will be reasonably planned and balanced to reduce the stockpiling of spoil onsite as much as possible. Spoil will be reused onsite to the maximum extent feasible as fill. The spoil sites will be away from roads and be restored after storage activities.	Trench excavation and rapid backfilling on site	Yes
		Limit construction during rainy season and high winds. Appropriate stormwater drainage systems and slope protection measures will be implemented to minimize soil erosion, such as perimeter bunds and temporary detention and settling ponds to control topsoil runoff.	Being implemented	Yes
		The construction schedule will be well designed to minimize the exposure time of bare land surface and stabilize all earthwork disturbance areas timely after the earthworks are completed.	N/A. The pipe installation work basically does not involve large areas exposure of bare	Yes

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			earthwork	
		Minimize open excavation areas and slope during trenching.	Being implemented	Yes
		Construction camps, storage areas and access roads will be located within the acquired land to minimize the impacts on the soil and land vegetation in surrounding area.	N/A. The contractors generally lease the existing house as the site office, and the domestic wastewater is discharged through the existing pipe; due to villages of rural projects are scattered, managers and workers are basically local villagers, and there is no construction site office	Yes
		Landscaping will only use native plant species.	N/A	Yes
		Construct intercepting channels and drains to prevent runoff entering construction sites and divert runoff from sites to existing drainage or open ground for watering the vegetation.	N/A	Yes
		Rock material for the gabion cages for river revetment will be sourced from: (i) licensed suppliers of construction materials; and (ii) the old revetment material extracted from the Caocun River as part of the project works.	The construction of the river revetment of the Zhang River in Yixian County has been implemented according to this	Yes
Solid Waste	Solid waste generated by construction activities and from workers' camps	Provide appropriate waste collection and storage containers at locations away from surface water or sensitive spots;	Being implemented	Yes
		Arrange with municipal waste collection services for regular collection of waste;	Being implemented	Yes
		Properly remove and dispose residual materials, wastes and contaminated soils. Paving or vegetating shall be done as soon as the materials are removed to stabilize the soil;	Being implemented	Yes
		Burning of waste is strictly prohibited;	Being implemented	Yes
		Provide sufficient garbage bins at strategic locations and ensure that they are protected from birds and vermin, and emptied regularly by the municipal waste collection systems.	Being implemented	Yes
		CONTRACTOR PERFORMANCE TARGET: No uncollected waste at close of construction activities each day.	Being implemented	Yes
Ecology	Protection of flora and fauna around construction	Minimize damage to vegetation. Minimize the damage to existing vegetation and recover the vegetation timely after the completion of construction works. Native plant species will be used for replanting and site rehabilitation.	Minimal vegetation damage involved in pipe installation of village	Yes

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	sites	The surface soil (0-30 cm) will be stored separately for reuse for landscape greening or agriculture. The stockpiling shall have a height less than 5m and a slope less than 1:1.5 with proper compaction to avoid soil erosion.	Being implemented	Yes
		Minimize damage to aquatic habitats. For the stone debris removal from river channel in Caocun River, only debris from previous river revetment works will be removed, and all works shall be conducted manually without intervention of any mechanical equipment to prevent mechanical damage to the riverbed.	N/A	Yes
		All river channel related works will be carried out during dry season (October to March) to minimize potential impacts on the aquatic habitat.	The project of Zhang River in Yixian County has been implemented as required	Yes
		Landscaping and site rehabilitation. All planting activities under the project, including re-vegetation, landscaping, and rehabilitation of construction sites, will only use plant species which are (i) native (i.e. naturally occurring) to the Xin' an River basin, and (ii) are sourced from local stock within Huangshan Municipality.	N/A	Yes
		In the event that non-native seedlings are required for rapid stabilization of exposed soils and sites, HMG will and will cause the IAs to ensure that only sterile seedlings are used to prevent the spread of weeds.	N/A	Yes
		Training. Provide trainings to contractors and workers to increase their awareness on the need to protect the environment, wildlife and vegetation around the construction sites.	Multiple on-site visits and training have been conducted by PMOs, IAs and LIEC	Yes
		Site inspection. The CSCs and the environmental officer of the HPMO will regularly inspect construction sites to ensure that habitats are well demarcated, and workers are fully informed of "no-go" areas.	Multiple on-site visits and training have been conducted by PMOs, IAs and LIEC	Yes
		Biopesticides. Before any use of biopesticides, confirm that: (a) a complete inventory of the pest species to be addressed for each demonstration site has been prepared; (b) any "pest" species which are rare, threatened, restricted range, or protected species have be excluded from the pest management program; (c) the specific organisms or other agents to be used as biopesticides have been identified during the detailed engineering designs; (d) each proposed agent or method has been confirmed to be highly crop-specific and will only act on the intended pest species, and will not affect local flora and fauna (e.g. the use of water mixed with tobacco will not be used as it may impact aquatic organisms in nearby streams); (e) specific application procedures, volumes, and post-application monitoring have been detailed, to ensure safe and responsible use of the biopesticides.	N/A. No use of biopesticides is involved in started project	Yes
Protected Area	Damage to protected area during	Engineering design will be in line with the Taiping Lake Scenic Zone Master Plan (2015- 2030) and Huashan Mysterious Grottoes Scenic Zone Master Plan (2007-2025);	N/A	Yes

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	construction	All works will be conducted within the confirmed ecological red line only;	N/A	Yes
		Avoid setting up temporary storage sites for construction waste within scenic zones, and all waste generated will be transported out for disposal timely;	N/A	Yes
		For subprojects near riverway, proper onsite wastewater treatment facilities (e.g. sedimentation tank) will be set up to avoid direct discharge of wastewater and impairing of aquatic ecosystem along the river;	N/A	Yes
		Design the location and shape of spoil piles before construction;	N/A	Yes
		Vehicles will slow down within scenic zones and frequent water spraying in construction sites will be performed to minimize dust;	N/A	Yes
		Recover the vegetation in construction sites timely after the completion of construction works to minimize soil erosion and visual landscape impact in scenic zones.	N/A	Yes
Physical cultural resources	Damage to known or unknown above or below-ground cultural relics	Establish chance-find procedures for physical cultural resources;	N/A	Yes
		If a new site is unearthed, work shall be stopped immediately and the IA, HPMO and local CRB promptly notified. The construction will resume only after a thorough investigation and with the permission of appropriate authority.	N/A	Yes
Community and occupational health and safety	Site and access safety	Erect signs will be placed at construction sites in view of the public, warning people of potential dangers such as moving vehicles and excavations, and raising awareness on safety issues;	Establishment of on-site safety and traffic guidance plates implemented.	Yes
		Assign personnel to direct pedestrians around dangerous work areas;	The full-time safety management personnel on site and traffic guiders for closed urban road have been arranged	Yes
		Ensure that all sites are secure, discouraging access through appropriate fencing;	Temporary barriers and reflective cones are installed on site	Yes
		Place clear signs at construction sites in view of the people at risk (including workers and nearby communities), warning people of potential dangers such as moving vehicles, hazardous materials, excavations, and raising awareness on safety issues;	Establishment of on-site safety plates has been implemented.	Yes
		At the end of each day, all sites and equipment will be made secure (through fencing and/or lock-down of equipment) to prevent public access;	Being implemented	Yes
		Erect safety barricades around all excavations;	Being implemented	Yes

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		Hold a public consultation meeting prior to commencing construction to discuss issues associated with ensuring the safety of nearby communities in vicinity of the construction site.	The plan has been discussed with relevant communities and villages before construction, and the construction can only be started after receiving a positive reply	Yes
	Occupational health	Provide personal protection equipment to workers as needed, e.g. safety boots, helmets, gloves, protective clothing, goggles, ear protection in accordance with health and safety regulations.	Being implemented	Yes
		An emergency response plan to take actions on accidents and emergencies, including environmental and public health emergencies associated with hazardous material spills and similar events will be prepared, and submitted to the IA for review and appraisal. A fully equipped first-aid base in each construction site will be provided.	Being implemented	Yes
		A Records Management System will be established to document occupational accidents, diseases, and incidents, that: (a) includes a tracking system to ensure that incidents are followed-up; (b) can easily retrieve records; and (c) can be used during compliance monitoring and audits. The system will be backed up on at least one external hard drive to protect records against loss or damage.	Being implemented	Yes
		Ensure that safety, rescue and industrial health matters are given a high degree of publicity to all persons regularly or occasionally on the Site. Posters drawing attention to site safety, rescue and industrial health regulations will be made or obtained from the appropriate sources and will be displayed prominently in relevant areas of the site.	Being implemented	Yes
		Train all workers in basic sanitation and health care issues, general health and safety matters, and on the specific hazards of their work and sites and the requirements for community safety.	Being implemented	Yes
		Asbestos. In the event that materials containing asbestos are suspected: (i) the contractor will immediately inform the IA, who will inform the HPMO; (ii) the contractor will subcontract the municipal center for hazardous waste, who will be responsible for the safe handling, transport, and disposal of the materials; (iii) such materials will only be disposed in a landfill site certified and designed to receive hazardous materials.	Being implemented	Yes
	Community health and safety - COVID-19 prevention and control	(a) Organization and mobilization Establish street (township) and community (village) level prevention and control work teams, with cadres, community health service centers and family doctors as the main force, supplemented by residents and volunteers, and full-time and part-time staff, so as to implement grid-based management and carpet-style management, with responsibility attributable to corresponding person, so as to fully cover communities (villages), buildings (natural villages) and families, and to implement prevention and	Being implemented	Yes

Item	Potential impacts / issues	Mitigation measures	Implementation status	Whether in compliance (Yes/No)
		control measures.		
		(b)Health education Make full use of a variety of methods to carry out targeted publicity on the prevention and control of pneumonia caused by novel coronavirus infection. Raise the awareness of the masses on the health knowledge, the key points of protection, the importance of healthy habits and protection in time.	Being implemented	Yes
		(c)Information notification Release the information of medical treatment to the public, and remind all kinds of patients to go to designated institutions for medical treatment by classification and levels. Release local pandemic information, information on traffic and travel risks on a daily basis .	Being implemented	Yes
		(d)Management of returnees from affected areas Issue a notice, requiring people returning from affected area to register for physical examination immediately, and take the initiative to self isolate for 14 days. People with respiratory symptoms such as fever should seek medical treatment nearby in time, and be isolated at home or go to designated institutions for isolation as required.	Being implemented	Yes
		(e)Environmental sanitation management Clean up key places and dispose of garbage and dirt. Organize and carry out comprehensive vector control and disinfection in time to effectively reduce vector density.	Being implemented	Yes
		(f)Material preparation; Provide necessary prevention and control items and materials, such as thermometers, masks, disinfection supplies, etc.	Being implemented	Yes
		(g)Close contact management Close contacts of confirmed cases of pneumonia caused by novel coronavirus should be investigated and observed at home or subject to centralized medical observation. Where conditions permit, the centralized observation place should be clearly defined. Follow up the health status of close contacts every day, guide the observation subjects to monitor the changes of their own status properly and timely, and make records at any time. Make proper preparations for patient isolation control and transfer to designated hospitals.	Being implemented	Yes
		(h)Disinfection Properly carry out disinfection of pandemic spots such as the home, building units, offices and conference rooms of the employer of the confirmed case, and clean and disinfect public places.	Being implemented	Yes
		(i) Blockade of affected area For communities defined as affected areas, when necessary, measures can be taken to block the affected areas, where efforts should be made to restrict the access by personnel, and temporarily requisition houses and transportation tools.	Being implemented	Yes
		(j)Restrict the gathering of people In the community, fairs and gatherings shall be restricted or suspended, and public places such as public baths, hot springs, cinemas, Internet cafes, KTVs and shopping malls should be closed. Suspend work, business or classes when necessary.	Being implemented	Yes

Item	Potential impacts / issues	Mitigation measures	Implementation status	Whether in compliance (Yes/No)
	Occupation health and safety - COVID-19 prevention and control	(a) The Contractor should prepare a detailed profile of the project work force, key work activities, schedule for carrying out such activities, different durations of contract and rotations (e.g. 4 weeks on, 4 weeks off).	Being implemented	Yes
		This should include a breakdown of workers who reside at home (i.e. workers from the community), workers who lodge within the local community and workers in on-site accommodation. Where possible, it should also identify workers that may be more at risk from COVID-19, those with underlying health issues or who may be otherwise at risk.	Being implemented	Yes
		Consideration should be given to ways in which to minimize movement in and out of site. This could include lengthening the term of existing contracts, to avoid workers returning home to affected areas, or returning to site from affected areas.	Being implemented	Yes
		Workers accommodated on site should be required to minimize contact with people near the site, and in certain cases be prohibited from leaving the site for the duration of their contract, so that contact with local communities is avoided.	Being implemented	Yes
		Consideration should be given to requiring workers lodging in the local community to move to site accommodation (subject to availability) where they would be subject to the same restrictions.	Being implemented	Yes
		Workers from local communities, who return home daily, weekly or monthly, will be more difficult to manage. They should be subject to health checks at entry to the site (as set out above) and at some point, circumstances may make it necessary to require them to either use accommodation on site or not to come to work.	The Personnel Health Monitoring Record Sheet has been filled regularly by staff on duty	Yes
		(b) Establishing a system for controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points (if they do not already exist). Entry/exit to the site should be documented.	Being implemented	Yes
		Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviors required of them in enforcing such system and any COVID -19 specific considerations.	Being implemented	Yes
		Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks and recording details of any worker that is denied entry.	Being implemented	Yes
		Confirming that workers are fit for work before they enter the site or start work. While procedures should already be in place for this, special attention should be paid to workers with underlying health issues or who may be otherwise at risk. Consideration should	Being implemented	Yes

Item	Potential impacts / issues	Mitigation measures	Implementation status	Whether in compliance (Yes/No)
		be given to demobilization of staff with underlying health issues.		
		Checking and recording temperatures of workers and other people entering the site or requiring self-reporting prior to or on entering the site.	Being implemented	Yes
		Providing daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures, using demonstrations and participatory methods.	Being implemented	Yes
		During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.	Being implemented	Yes
		Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.	Being implemented	Yes
		Preventing a sick worker from entering the site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days.	Being implemented	Yes
		(c) Workers should wear appropriate personal protective equipment (PPE), which includes protective outerwear, gloves, boots, goggles or a face shield, and a mask; they should perform hand hygiene frequently; and they should avoid touching eyes, nose, and mouth with unwashed hands.	Being implemented	Yes
		Train field workers and staff	Being implemented	Yes
		Placing posters and signs around the site, with images and text in local languages.	Being implemented	Yes
		Ensuring handwashing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout site, including at entrances/exits to work areas; where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. Where handwashing facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol based sanitizer (if available, 60-95% alcohol) can also be used.	Being implemented	Yes
		Setting aside part of worker accommodation for precautionary self-quarantine as well as more formal isolation of staff who may be infected.	Being implemented	Yes
		(d) Conduct regular and thorough cleaning of all site facilities, including offices, accommodation, canteens, common spaces.	Being implemented	Yes
		Providing cleaning staff with adequate cleaning equipment, materials and disinfectant.	Being implemented	Yes

Item	Potential impacts / issues	Mitigation measures	Implementation status	Whether in compliance (Yes/No)
		Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas.	Being implemented	Yes
		Where it is anticipated that cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, providing them with appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, cleaners should be provided with best available alternatives.	Being implemented	Yes
		Training cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).	Being implemented	Yes
		(e) If a worker has symptoms of COVID-19 (e.g. fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on site.	Being implemented	Yes
		If testing is available on site, the worker should be tested on site. If a test is not available at site, the worker should be transported to the local health facilities to be tested (if testing is available).	Being implemented	Yes
		If the test is positive for COVID-19 or no testing is available, the worker should continue to be isolated. This will either be at the work site or at home. If at home, the worker should be transported to their home in transportation provided by the project.	Being implemented	Yes
		Extensive cleaning procedures with high-alcohol content disinfectant should be undertaken in the area where the worker was present, prior to any further work being undertaken in that area. Tools used by the worker should be cleaned using disinfectant and PPE disposed of.	Being implemented	Yes
		Co-workers (i.e. workers with whom the sick worker was in close contact) should be required to stop work, and be required to quarantine themselves for 14 days, even if they have no symptoms.	Being implemented	Yes
		Family and other close contacts of the worker should be required to quarantine themselves for 14 days, even if they have no symptoms.	Being implemented	Yes
		If a case of COVID-19 is confirmed in a worker on the site, visitors should be restricted from entering the site and worker groups should be isolated from each other as much as possible.	Being implemented	Yes
		If workers live at home and has a family member who has a confirmed or suspected case of COVID-19, the worker should quarantine themselves and not be allowed on the project site for 14 days, even if they have no symptoms.	Being implemented	Yes

Item	Potential impacts / issues	Mitigation measures	Implementation status	Whether in compliance (Yes/No)
		Workers should continue to be paid throughout periods of illness, isolation or quarantine, or if they are required to stop work, in accordance with national law.	Being implemented	Yes
		Medical care (whether on site or in a local hospital or clinic) required by a worker should be paid for by the employer.	Being implemented	Yes
		(f) Training of workers should be conducted regularly, providing workers with a clear understanding of how they are expected to behave and carry out their work duties.	Being implemented	Yes
		Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work.	Being implemented	Yes
		Training should cover all issues that would normally be required on the work site, including use of safety procedures, use of construction PPE, occupational health and safety issues, and code of conduct, taking into account that work practices may have been adjusted.	Being implemented	Yes

45. The bidding documents that incorporate environmental requirements into the contractual arrangement have been submitted to ADB for review before tender bidding during the reporting period.

46. Before the start of construction activities, the construction plan has been discussed with relevant communities and villages, and the construction can only be started after receiving a positive reply. During the construction period, the measures that enclosure of urban construction site, establishment of safety and traffic guidance plates, sprinkling water for suppressing dust during earthwork excavation, properly wearing safety hats and other PPEs, strict prevention and control measures for the COVID-19 epidemic, and regularly filling the "Personnel Health Monitoring Record Sheet" by staff on duty, have been implemented.

47. **Conclusion.** Mitigation measures in the environmental management plan are being implemented as required and the project meets the requirements of the environmental management plan.

C. Implementation of ESMS

48. The due diligence work and environmental assessment in accordance with ESMS requirements for the first investment project - Yixian Younong Ecological Agriculture Co., LTD (hereinafter referred to as "Younong Company"). have been completed, and No Objection from ADB has been received on April 6. Reference to **Appendix 1** for the environmental assessment of the investment project.

49. **Main activities of investment projects.** HTIC will sign a five-year social service agreement with Younong Company. The main activities of GIF used by Younong Company include,

- a) Provide social services for the whole process of rice in Huangshan City, of which 8,757 mu has been implemented in 2021; including i) carried out unified cultivation, planting and irrigation; ii) applied biological pesticides to control plant diseases and insect pests to reduce use of chemicals and ban herbicides; iii) provided mechanization services to improve work efficiency and reduce fuel consumption, etc; iv) adopted soil testing and formula fertilization to reduce use of chemical fertilizer.
- b) provided bundling, collection and utilization services for rice straw, of which 6,000 mu has been implemented in Yixian County in 2021. Reached a cooperation agreement with Nanjing Agricultural University (NAU) on research of carbonization of rice straw, and planned to mobilized research and development in the second half of this year.
- c) Provide the whole process social services for chrysanthemum of Dingtian Village in She County. Cooperate with the team of NAU to carry out research on Soil management for chrysanthemum. It is plans to mobilize the R&D of special fertilizer for chrysanthemum in the second half of the year, and expected to carry out pilot planting in 2022.

50. **Environmental management and internal monitoring of investment projects.** A good internal management and monitoring system, as well as targeted environmental mitigation activities have been established by Younong Company, details as follows,

- a) Institutional integrity. A special supervision office that strictly controls the use of pesticides, fertilizers, etc., and bans and strictly supervises products that do not meet environmental protection requirements.
- b) Approved by relevant departments of local government. The Environmental Impact Assessment (EIA) report was prepared and approved.
- c) Regularly training on rational use of chemical fertilizers and ecological planting for company employees and cooperative farmers.
- d) Cooperate with leading domestic scientific research institutions and experts such as Zhu Defeng, chief expert of China National Rice Research Institute and Nanjing National Environmental Research Institute, etc., to introduce high-quality grain varieties and use advanced ecological planting techniques to reduce the impact on soil and ecology.
- e) Strictly monitor all the farmland that is planted, and fertilize the soil by testing first, and then fertilize the formula. The fertilization formula of each farmland is different, and the soil is continuously improved to reduce agricultural non-point source pollution.
- f) The rice straw will be carbonized and returned to the field, and the farmland will be idle in winter, and the use of herbicides is strictly prohibited.
- g) Energetically develop a control and management team by professional drone.
- h) apply biological pesticides to control plant diseases and insect pests to ensure zero agricultural residues.

- i) all the served farmland should apply for green certification, and some should apply for organic certification.

51. **Next step.** In the second half of the year, HTIC is planned to a) complete the establishment and business registration of Green Investment Fund (GIF); b) complete the tender bidding for the fund custodian bank; c) organize training on requirements of ESMS for company's personnel involved in the implementation of GIF projects, and ensure that all personnel involved in project work are familiar with ESMS content and apply it to the whole process of project proposal, screening, due diligence and investment management; d) complete the first withdrawal of GIF. e) submit the implementation report of GIF covering 1 July to 31 December 2021.

52. **Conclusion.** The investment projects under GIF are being carried out in accordance with the requirements of the Environmental and Social Management System (ESMS).

D. Implementation of the project monitoring program

53. Environmental protection monitoring, including internal monitoring, external monitoring, compliance monitoring, was implemented during the reporting period.

54. **Internal monitoring.** During the construction, the construction supervision company and seven implementing agencies will be responsible for internal environmental monitoring according to the monitoring plan. The results will be reported to the implementing agency and Huangshan Project Office through the monthly report of the construction supervision company. The project office, the project implementing agencies and the project implementing organization have been trained. IAs have appointed environmental officers to update the internal environmental monitoring results on schedule after the contract package construction begins. In June 2021, the HPMO organized the relevant experts of the consulting company to carry out the site review for the environment and safety. It focuses on the management of deep slope and excavation work with high-risk; enclosure space construction; and earthwork construction which is connected to air pollution.

55. **External environmental monitoring.** The environmental monitoring work has implemented by external environmental monitoring unit (Huangshan Angel Environmental Monitoring Co. , Ltd.) recruited by LIEC.

56. Table 4 summarizes the external monitoring plan and implementation status of EMP. On-sites monitoring for 7 among 9 civil works contracts that were fully started (another 5 civil works contracts have just been signed) has been conducted in last monitoring in July. As there is no project that will produce construction wastewater temporarily, the monitoring is only for ambient air quality (TSP) and noise (LAeq).

57. Accord the monitoring result, TSP concentration during the construction period did not increase significantly compared to the background value, which shows that the construction activities have not caused a large negative impact on the ambient air quality. The monitoring value of noise can comply with the "Environmental Noise Emission Standard for Construction Site Boundary" (GB 12523-2011). See Appendix 2~4 for details of external monitoring.

Table 4: Environmental Monitoring Program and Implementation Status

Subject	Parameter	Location	Frequency	Implement Supervise
1. Construction phase – compliance with measures in Table EMP-2				

Subject	Parameter	Location	Frequency	Implement Supervise
Internal monitoring (contractors, CSCs, HPMO and IA Environment Officers)				
Ambient air quality	Dust mitigation	Visual inspection at all construction sites	1 time / week	Being implemented
Noise	<ul style="list-style-type: none"> • LAeq: measured with hand-held meter • Consultations with affected residents 	<ul style="list-style-type: none"> • At each construction site boundary • Settlements within 60 m of construction works – see Table EMP-2 and IEE Section V.3 	Daily measurements and consultations or as needed during peak construction levels at individual sites	Being implemented
Solid waste	Domestic and construction waste	Visual inspection at all construction sites and work-camps	Daily	Less construction waste is generated by rapid excavation and backfilling of trench on site in 2 ecological village project that were started
Soil erosion	On-site management of soil erosion	Visual inspection at spoil sites and all construction sites	1 time / week; and immediately after heavy rainfall	Being implemented
Community health and safety	Measures for traffic management and on-site safety described in in Table EMP-2	Construction sites and public roads and paths	Daily during construction at all individual sites	The measures that establishment of safety plates and gates, properly wearing safety PPEs, as well as regularly filling the “Personnel Health Monitoring Record Sheet” by staff on duty, have been implemented
Occupational health and safety	Camp hygiene, safety, availability of clean water	Inspection at all construction sites and work-camps	1 time / week	Managers and workers are basically local and fewer people are used on site, and the construction sites office is rented rather than newly built in 2 ecological village project that were started
External monitoring (certified environment monitoring agency)				
Water quality	SS, petroleum	Onsite treated construction wastewater (by oil-water separator and/or sedimentation tank)	1 time / month during construction	there is no project that will produce construction wastewater temporarily
Ambient air quality	Dust: TSP	All construction sites (at least 1 point upwind and 1 point downwind) and the nearest sensitive receptor	1 time / month during construction	Be implemented. The results comply with the requirements
Noise	LAeq	Boundaries of all construction sites and the nearest sensitive receptor for each construction site	1 time / month (twice a day: once in daytime and once at nighttime, for 2 consecutive days) during construction	Be implemented. The results comply with the requirements

58. **Compliance monitoring.** The loan implementation environmental consultant will review the progress of the project and the implementation of the environmental management plan by field visits and environmental monitoring reports provided by the environmental monitoring agency. The work of loan implementation consulting team began in October 2020, including an environmental expert.

59. The following tasks were carried out by loan implementing environmental consultant during the reporting period: (i) on-site visits, including municipal project offices and county/district project sites; (ii) review of project documents such as research, preliminary design and bidding documents; (iii) environmental and social security training and communication for municipal/county project offices, implementing agencies and Huangshan Trust and Investment Corporation; (iv) review of project progress and implementation of environmental management plan; and (vi) preparatory work for environmental monitoring; (vii) Assist municipal project office environmental officers in the preparation and submission of the second semi-annual environmental monitoring report to ADB.

60. During the reporting period, PMOs, IAS and consultants have visited the projects, in particular started construction site. The IAs and the contractors strictly abide by EMP and the requirements of domestic environmental protection, so as to ensure that the environment, occupational health and safety during the construction period are in good condition, and there are no adverse events related to the environment, occupational health and safety.

61. **Conclusion and next steps.** During the reporting period, no external environmental monitoring was carried out. The first monitoring will be carried out in the next semi-annual report period (1 July-31 December 2021). Internal monitoring and compliance monitoring were carried out as required and the results met the EMP requirements.

E. Public consultations and grievance redress mechanism

62. This section summarizes the implementin progress of ppublic consultations and grievance redress mechanism during the current reporting period.

63. During construction, the project will continue to seek public consultation and raise awareness of project activities, especially those may impact the public such as noise and dust from excavation of pipe trenches, traffic impact caused by roads closure. The IAs are responsible for public participation during project implementation. They will be supported by the HPMO Environment and Social Officers and the LIEC. Table 5 summarizes the Implementation status public consultation plan. Appendix 4 show the implementation of public consultation and participation during the reporting period.

Table 5: Public Consultation and Participation Plan

Organizer	Approach	Times/Frequency	Subjects	Participants	Implementation status
HPMO, IAs, LIEC	Site visits, informal interviews	At least once a week during peak construction	Construction impacts; adjusting mitigation measures if necessary; feedback	Affected persons Workers	Being implemented
	Site-specific basis	At least one month before the start of construction at any new site	Anticipated risks- noise, dust, etc.	Affected persons	The public consultation of EIA and EMP was implemented

Organizer	Approach	Times/Frequency	Subjects	Participants	Implementation status
	Public workshops	At least once during peak construction period	EMP implementation progress; construction impacts; adjusting mitigation measures if necessary; feedback	Affected persons	Being implemented

64. In accordance with the EMP, any grievances which arise due to project activities will be managed through a grievance redress mechanism (GRM), as follows.

65. Stage 1 (5 calendar days): If a concern arises during construction or operation, the affected person may submit a written or oral complaint to the contractor. The contractor will: (i) respectfully acknowledge the issue and immediately stop the causal activity; (ii) not resume the activity until the complaint has been resolved; (iii) inform the Project Managers of IAs of the incident on the same day of the incident occurring; (iv) give a clear reply to the affected person within two calendar days; and (v) as far as possible, resolve the problem within five calendar days from receiving the complaint.

66. Stage 2 (5 calendar days): If the issue cannot be resolved in Stage 1, after five calendar days, the IAs and/or HPMO will take over responsibility. Eligibility of the complaint will be assessed, and a recommended solution given to the complainant and contractors within two calendar days. If the solution is agreed by the complainant, the contractors will implement the solution.

67. Stage 3 (15 calendar days): If no solution can be identified by the HPMO and/or IA, and/or the complainant is not satisfied with the proposed solution, the HPMO and/or HPMO will organize, within seven (7) calendar days, a stakeholder meeting. A solution acceptable to all shall be identified including clear steps. The contractors will immediately implement the agreed solution.

68. The HPMO will report to ADB on all complaints and solutions according to the grievance redress mechanism, and relevant documents will be included in the progress report.

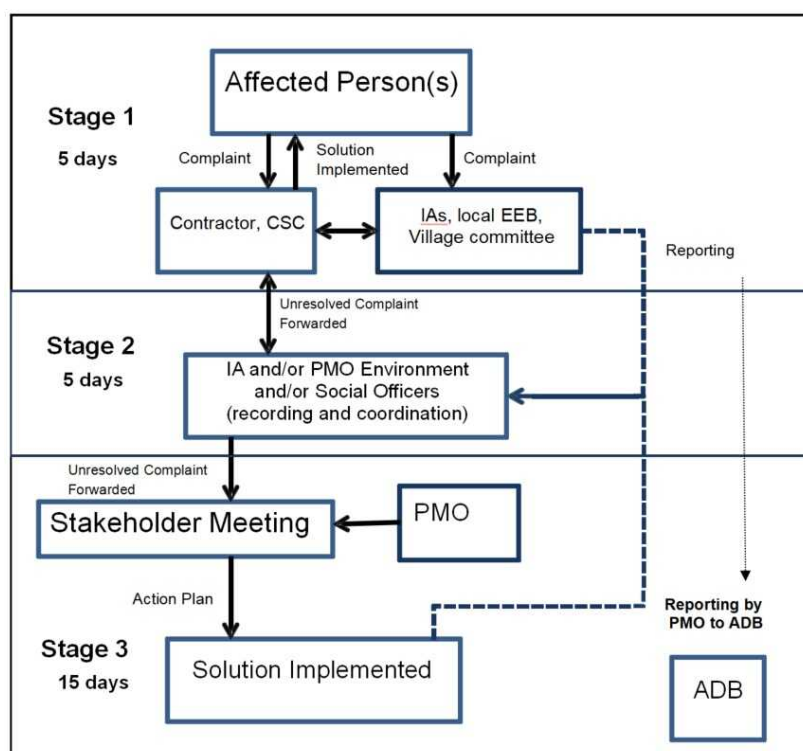


Figure 1: Operation Chart of the Grievance Redress Mechanism

ADB = Asian Development Bank, CSC = construction supervision company, EEB = ecology and environmental bureau, GRM = grievance redress mechanism, IA = implementing agency, HPMO = Huangshan Municipal project management office.

69. The grievance redress mechanism (GRM) of the project has been established as required during the reporting period, and the environmental and social officials of the Huangshan Project Office and the project office of the three districts and four counties will act as the main coordinator for the implementation of the grievance redress mechanism. Prior to construction, the contact information (telephone number, address and email address) of the corresponding environmental coordinator will be made public on the information board of the construction site and the website of the local ecological environment bureau.

70. During the reporting period, the construction of urban sewage and stormwater pipeline upgrade projects in 5 districts/counties and the ecological village projects in 3 districts have been fully conducted, and the project process is relatively smooth. Both of the public consultation and grievance redress mechanism in the process are implemented well. So far, no complaints have been received from stakeholders about the construction of sewerage system. The affected residents, especially the villagers in towns, generally support the connection to wastewater systems, believing that this will improve the status of domestic wastewater into the river and the surrounding water environment. For example, All involved villages decided to provide free land for pumping station construction in the village through a series of effective information disclosure and participation activities that promoted by the PMOs of Huizhou District, Huangshan District, and She County.

71. **Conclusions and next steps.** The public consultation and grievance redress mechanism have been conducted well at the site where construction has been started and no complaints or grievance have been received. Public consultation will be regularly organized by the county/district project office during the remaining implementation period. If there are any petitions and/or complaints, the relevant agencies will keep records.

F. Training and capacity building

72. Project implementing agencies in the three districts and four counties of Huangshan Municipality have no previous experience with ADB-funded projects and safeguard requirements. The experience of individual staff within the district and county EEBs for environmental management varies considerably.

73. Therefore, a capacity building program will be implemented on: (i) the EMP, including the mitigation measures, monitoring, and reporting; (ii) the grievance redress mechanism, including roles, responsibilities and procedures; (iii) procurement and contract management, focusing on EMP incorporation and implementation; (iv) operation and maintenance of the WWTS; and (v) measures for improved efficiency in the use of agricultural chemicals and water resources for agriculture.

Over the reporting period, in the activities of ADB-KfW Loan Review Mission, training on various contents of project management including environmental management were conducted. Introduction on the specific requirements of ESMS to the personal of HTIC and Younong Company were conducted by environmental consultant and social and resettlement consultant of ADB during the Mission, particularly what kinds of activities GIF will encourage and what kinds of activities GIF will not support. On-site training and introduction on ADB's environmental management for PMOs, IAs, contractors, and supervision units at all levels were conducted by relevant experts of LIEC. Table 6 shows the implementation of training and capacity-building during the reporting period. The training organized during the period are in Appendix 6.

Table 6: Training on environmental safeguards conducted during the reporting period

Training projects	Training content	Training time and venue	Trainees	# Trainees		Training specialists	Outcomes
				M	F		
Project Management	Financial payments, environment & social safeguard	March 15-19, 2021, ADB - KfW Loan Review Mission	Personnel from municipal/ district/county PMOs, IAs, HTIC and consultants.	24	10	ADB -KfW Loan Review Mission	Further understanding of relevant concepts of ADB's environmental and safety management achieved
Construction site management	Construction site management training for initiated projects	June 1-3, 2021	Personnel from district/county PMOs, IAs, supervision unit and contractors	47	13	Consulting Company	Promoted the effective implementation of the environmental management plan requirements
ESMS requirements for GIF	Introduction of activities supported and not supported by GIF	March 15-19, 2021	Personnel from municipal PMOs, IAs, HTIC and consultants.	9	6	environmental consultant and social and resettlement consultant of ADB	Participants have a brief understanding of which activities GIF will and will not support

74. **Conclusions and next steps.** After the training, participants had a basic understanding of the implementation of environmental management plans, monitoring and reporting requirements and the concept and implementation of grievance redress mechanism. As the project progresses, other contracts with new contractors and supervision companies will be signed, so further environmental management training will be conducted in the next reporting period according to the progress of project implementation. HTIC is planned to organize training on requirements of ESMS for company's personnel involved in the implementation of GIF projects, and ensure that all personnel involved in project work are familiar with ESMS content and apply it to the whole process of project proposal, screening, due diligence and investment management.

G. Compliance with loan and project agreement

75. Loan agreements and project agreements between the government and ADB include 25 environmental safeguards and/or guarantees related to environmental issues (or "terms"). This involves the timely and effective implementation of environmental management plans and specific project guarantees for current projects. Compliance with these terms is a condition of the loan and project agreement. The environmental safety and security provisions during the reporting period (including the environment, safeguards provisions, pre-construction preparation, safeguard and monitoring reports and grievance redress mechanism) and their implementation progress are described in Table 7.

Table 7 Compliance with environmental assurances

Para No.	Description	Remarks / Issues	Type
10-11	10. HMG shall, and shall cause the IAs to, ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health and safety; (b) the Environmental Safeguards; and (c) all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions (i) set forth in a Safeguards Monitoring Report, or (ii) subsequently agreed between ADB and HMG.	In Compliance	Safeguards
	11. HMG shall, and shall cause the IAs to, ensure that agricultural chemicals listed as hazardous under Classes I or II by the World Health Organization or listed as prohibited or strictly controlled use under the Borrower's national regulations for pesticide management are not be used within the Project area.		
15	15. HMG shall, and shall cause the IAs to, make available necessary budgetary and human resources to fully implement the EMP and the RPs.	In Compliance	Safeguards
16	16. HMG shall ensure that all bidding documents and contracts for Works entered into by HMG contain provisions that require contractors to:	In Compliance	Safeguards
	(a) comply with the measures and requirements relevant to the contractor set forth in the IEE, EMP, the related RP (to the extent they concern impacts on the respective affected people under the Environmental Safeguards and the Involuntary Resettlement Safeguards during construction) and any corrective or preventative actions set forth in (i) a Safeguards Monitoring Report, or (ii) subsequently agreed between ADB and HMG;		

Para No.	Description	Remarks / Issues	Type
	<p>(b) make available a budget for all such environmental and social measures;</p> <p>(c) provide HMG with a written notice of any unanticipated environmental, resettlement or indigenous peoples/ethnic minorities risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, and the RPs;</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition as early as possible but no later than the completion of construction.</p>		
17	<p>17. HMG shall ensure that each IA:</p> <p>(a) appoint at least one qualified environment officer and one social officer as full time Project management office staff to coordinate implementation of the EMP, the RP, and the GAP;</p> <p>(b) recruit a start-up loan implementation consultant to support the Project management office; and</p> <p>(c) ensure that the Project management office has engaged one external social monitoring specialist.</p>	In Compliance	Safeguards
18	Before and during the implementation of Works, HMG shall cause each IA to organize and conduct training on implementation and supervision of the EMP for construction supervision companies, and contractors, and shall ensure that the appropriate staff and officers receive such training.	In Compliance	Safeguards
19	<p>19. HMG shall do the following:</p> <p>(a) submit semiannual Safeguards Monitoring Reports to ADB until the issuance of ADB's Project completion report, unless a longer period is agreed in the EMP, and disclose relevant information from such reports to the respective affected people under the Environmental Safeguards promptly upon submission;</p> <p>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, or the RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</p> <p>(c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP or the RP promptly after becoming aware of the breach.</p>	In Compliance	Safeguards
20	20. HMG shall ensure that a safeguards grievance redress mechanism acceptable to ADB is established and maintained in accordance with the provisions of the IEE, the EMP, the RP and the PAM, to consider safeguards complaints	In Compliance	Safeguards

H. Actions in ADB Memorandum of Understanding

76. Asian Development Bank (ADB) and Kreditanstalt fuer Wiederaufbau (KfW) conducted a Loan Review Mission for Anhui Huangshan Xin'an River Ecological Protection and Green Development Project from 15 to 19 March 2021 and issued a Memorandum of Understanding (MOU). The MOU records identified issues and follow-up actions. Table 8 summarizes the environmental issues raised in the Mission, the corrective actions need to be taken and the current status of them.

Table 8: Implementation progress of environmental measures in the MOU of Loan Review Mission

Actions agreed	Responsible Unit	Completion Date	Completion status
Submission of revised first semi-annual EMR, including implementation of both EMP and ESMS (loan effectiveness to 30 December 2020)	PMO	30-Mar-21	Completed
Submission of second semi-annual EMR	PMO, external monitor	30-Jul-21	January 2022

I. Reporting

77. Table 9 summarizes the project environmental safeguard reporting requirements and implementation status during the reporting period, including: i) progress reports submitted by construction supervision companies to implementing agencies; (ii) external monitoring reports submitted by environmental monitoring agencies to implementing agencies and HPMO; and (iii) environmental monitoring progress reports submitted by project offices to ADB.

Table 9: Environmental reporting requirements and status of implementation during the reporting period

Report	From	To	Reporting frequency	Implementation status
Internal progress reports	Construction Supervision Company	IAs	Monthly	Completed
External monitoring reports	Environmental monitoring agency	EA, HPMO	Half a year	Monitoring activities were carried out and reports were issued in March and July 2021, respectively. (See Annex 2 and 3).
Compliance monitoring and EMP progress reports	Huangshan Project Office/ Loan Implementation Environmental	ADB	Half a year	Refer to this semi-annual progress report on environmental monitoring

Report	From	To	Reporting frequency	Implementation status
	Specialist			

78. During the report period, there has been no construction of Green Investment Fund project carried out. After the project is officially carried out, Huangshan Trust Investment Company will submit the semi-annual environmental monitoring report in compliance with the requirements of the environmental management plan.

79. **Cconclusions and next steps.** The reporting system for the environmental management plan is being implemented as required, and the next semi-annual report on environmental monitoring will report on the implementation for the period from 1 July 2021 to 31 December 2021.

IV. LESSONS LEARNED

72. During the reporting period, the main lessons learned from environmental management includes: the recording work for public participation of district/county PMOs in the construction is lacking, and more reminders and attention are needed. In order to strengthen the ADB loan project management capacity of the project office, implementing agency and contractors, the project implementation consultant will conduct centralized training as planned and provide training in the process of project implementation, and maintain regular communication among project stakeholders.

**APPENDIX 1 ENVIRONMENTAL ASSESSMENT OF YIXIAN YOUNONG ECOLOGICAL
AGRICULTURE CO., LTD**

Huangshan Green Investment Fund
Project Financed by ADB

**Yixian Younong Ecological Co., Ltd
Investment Projects
Environmental Assessment**

Anhui Huangshan Xin'an River Ecological Protection and Green Development Project
Semi-Annual Environmental Monitoring Report (No. 2)

FI name	Huangshan Xintuo Investment Co., Ltd
Name of invested project (entity name)	Yixian Younong Ecological Agriculture Co., Ltd.
Name of sub-loan applicant (legal representative of proposed equity investment company)	Xu Haibo
Name of final borrower (If "as above ")	Idem
Information on proposed sub-items	
Proposed investment project activities	The Green Investment Fund's investment in Yixian Younong Ecological Agriculture Co., Ltd. is an equity investment activity, non-project investment, and equity investment is used to support :1. The current business activities of YouNong Company, namely the whole process of socialized agricultural services and sales of agricultural products; 2. The future business activities of YouNong Company, such as the expansion of the scale of socialized services for crop planting.
County	Yixian
Town/township	Biyang Town
Village	/
Date of site visit	20 October 2020
Name of assessor	Jiang Junyu
Geographical coordinates (if any)	Existing basic farmland in Huangshan City
If the invested project is a production base (otherwise write "not applicable"):	Not applicable
Area of production base	At present, the entire socialized service area of about 8757 mu, the future will expand to 1 million mu
# Farmer participation	About 2884 farmers
# Farmers participate	About 8652 farmers
# Participation of poor families	About 214 families
# Participation of the poor	About 641 poor people
# EM Family Participation	No
# EM participants	No
Names of minority groups	No
# Women's participation	Approximately 4275 women
Remarks: Yixian Younong Ecological Agriculture Co., Ltd. is an Agricultural companies that provides full socialized service for crop planting. Its business scope includes seedling raising, seedling transplanting, fertilization, harvesting, straw comprehensive utilization, rice processing and agricultural products sales. The green investment fund is used to expand the scale of socialized service in the future, The expansion will be limited to the existing basic farmland and will not involve new farmland reclamation or other construction projects.	

EM = minority, HTIC EM = Huangshan City Xintuo Investment Co., Ltd.

Screening and impact issues	Will it happen? y/n	If so		ADB category	Remarks
		Is it irreversible? y/n	Can it be minimized?		
Project site selection					
are sub-projects within or beside (i) cultural heritage sites ,(ii) protected areas ,(iii) wetlands or (iv) special areas for biodiversity conservation?	y	n	y	c	1. the site of the world cultural heritage in the county is Xidi, Hongcun, there are no nature reserves, wetlands or special areas to protect ecological diversity. The farmland in Hongcun Village is located near Hongcun Cultural Heritage site, but Hongcun Cultural Heritage is the protection of ancient villages and ancient buildings, and farmland is not within the scope of cultural heritage protection. 2. at present, business activities are only crop cultivation, and there are no other business activities. Because Huangshan is a tourist city, similar problems may arise in future enterprises' farming activities in Huangshan City, but they are all based on existing farmland. No cultural heritage area, no new farmland development activities, no impact.
Is the location of sub-projects likely to be affected by climatic conditions, including events related to extreme weather, such as floods, droughts, storms, landslides?	y	n	y	c	Agricultural production will be affected by nature, but the Huangshan region in the past 30 years have not appeared extreme weather, such as earthquakes, storms, landslides and other extreme weather, prediction of the future is not likely to happen.
Potential environmental impacts					
Will sub-project cause...					
• Damage to historical / cultural areas or material and cultural resources?	n	Not applicable	Not applicable	c	Farmland planting, no water conservancy facilities and other engineering construction, will not cause damage to historical / cultural areas or material and cultural resources.
• interference (e.g. sensitive or protected areas)?	n			c	Farmland is not in nature reserves or sensitive areas.
• Changes in the hydrology of surface water in waterways have led to	n			c	No water conservancy facilities or civil works, no construction site.

Anhui Huangshan Xin'an River Ecological Protection and Green Development Project
Semi-Annual Environmental Monitoring Report (No. 2)

Screening and impact issues	Will it happen? y/n	If so		ADB category	Remarks
		Is it irreversible? y/n	Can it be minimized?		
increased sediment in streams affected by increased soil erosion at construction sites?					
• deterioration of surface water quality due to sludge runoff and sanitary waste in workers' camps and chemicals used in buildings?	n			c	Farmland planting, not involving engineering construction, there are no workers camp, no silt runoff and other problems.
• Air pollution has increased due to the construction and operation of sub-projects?	n			c	Farmland planting, no construction and operation of air pollution problems.
• Noise and vibration due to construction or operation of sub-projects?	n			c	Farmland planting does not involve engineering construction, no noise and vibration caused by engineering construction or operation.
• Solid waste and / or hazardous waste generation?	n			c	Agricultural planting produces straw, straw comprehensive utilization and return to the field, no other solid waste / dangerous waste.
• The use of chemicals?	y	n	y	c	Farmland planting is controlled according to the green product standard. All farmland carries on the soil test formula, the chemical fertilizer reduces, at the same time in the pest control uses Huangshan city unified centralized distribution biological pesticide, rice, rape straw return to the field, does not involve the use of other chemicals.
• Waste water production during construction or operation?	n			c	Farmland planting, no construction or operation process wastewater production.
Land formation and other necessary earthworks will include:	n			c	
Building dust and erosion	n			c	Farmland planting does not involve earthwork and building dust and erosion.
Loss of local biodiversity microenvironment	n			c	Farmland planting does not affect the local biodiversity microenvironment.
Changes in local drainage	n			c	Farmland planting does not

Anhui Huangshan Xin' an River Ecological Protection and Green Development Project
Semi-Annual Environmental Monitoring Report (No. 2)

Screening and impact issues	Will it happen? y/n	If so		ADB category	Remarks
		Is it irreversible? y/n	Can it be minimized?		
					involve earthwork.
In upgrading or establishing irrigation systems, including wells, canals, pipes. Fixed irrigation systems will be installed:	y	n	y	c	Existing farmland planting, using existing irrigation systems, no new installation equipment.
Unsustainable use of local water resources	n			c	Farmland planting needs irrigation water, the existing farmland does not affect the sustainable use of local water resources, the future new planting technology will be more water-saving.
Water conflict	n			c	There is no new water for existing farmland and no water conflict. In the future, new planting technologies will reduce water use and improve and save water.
Cumulative impacts on limited water resources	n			c	Favorable impact, the introduction of advanced planting technology will save water, sustainable water use.
There will be problems in the construction of livestock structures such as livestock fences (to meet national and provincial standards):					
Location (too close to residential/watercourses)	n			c	Livestock-free farming
Construction Impact - Dust, Noise	n			c	Livestock-free farming
Operational Impact - Noise, Smell	n			c	Livestock-free farming
For the use of electricity for machinery, greenhouses, pumps, ventilation will have:	n			c	
Greenhouse gas emissions from electricity use	n			c	No livestock breeding problem.
Greenhouse gas and flue gas emissions from field generators	n			c	Livestock-free farming
In the establishment of field wells for process water and drinking water:	n			c	Livestock-free farming
Unsustainable use of local water resources	n			c	Livestock-free farming
Water conflict	n			c	Livestock-free farming
Cumulative impacts on limited water resources	n			c	Livestock-free farming
Materials and inputs for the treatment, transport and storage of seeds, seedlings, fertilizers and chemicals will include:					
Application of chemicals and fertilizers not carefully managed - increased volume into soil and water	y	n	y	c	The enterprise has farmland specialized planting, fertilizer and fertilizer management system, farmland planting are controlled in accordance with

Anhui Huangshan Xin'an River Ecological Protection and Green Development Project
Semi-Annual Environmental Monitoring Report (No. 2)

Screening and impact issues	Will it happen? y/n	If so		ADB category	Remarks
		Is it irreversible? y/n	Can it be minimized?		
					green product standards, all farmland in the early stage of soil testing formula, fertilizer reduction, at the same time in pest control using Huangshan City unified centralized distribution of biological pesticides, rice, rape straw returned to the field, product batch testing safety rest assured. Company project construction in the Environmental Protection Bureau for the record, through environmental impact assessment.
Noise, dust, transport pollution, handling and storage of materials	n			c	Stored in a professional warehouse, transport for centralized distribution.
Extensive residues of plastic film materials in soil and water	n			c	Plastic film materials are not used in farmland planting.
Loss of crop diversity and self-sustaining family plots	n			c	Continue the existing farmland planting varieties, and no property rights change.
As part of the collection, processing, disposal/reuse process, there will be:					
Pollution of land and rivers by wastewater treatment or application as a liquid fertilizer	n			c	No waste water, no liquid fertilizer.

Additional screening issues	Yes	No	Remarks
PIAL ADB			
Does the sub-loan application include any activity on the ADB's list of prohibited investment activities (PIAL)?		No	Screening has been conducted against the ADB Prohibited Investment Activities List in the Project Management Manual and the company does not involve any of the listed activities.
D. national requirements			
Does the sub-project include any activities prohibited by national law or existing/pending litigation in violation of national laws relating to the environment or land?		No	There are no existing / pending litigation issues related to environmental or land violations.
Does the company have any land tenure permits from cities and/or local governments?		No	Not applicable. The company signs the planting service contract with the farmer or the partnership, does not produce the property right change, therefore does not involve the land occupation, also does not need the land occupation permission.
whether special permission from the government is required. For example, seed plantations		No	Not applicable. Seed procurement, planting does not require special government permission, the company's seeds only procurement of national varieties approved by the non-GM varieties, procurement channels for the regular business license of seed sales companies.
Does the company have government permission for the import, use and handling of chemicals?		No	Not applicable. The company does not have the chemical import problem, the pesticide uses for the Huangshan city government centralized unified distribution biological pesticide, and the pesticide empty bottle sends to the local government designated recovery point, by the local government unified recovery centralized harmless treatment.
Are existing facilities funded? E.g. Such as the purchase of wool, cashmere, clothing and other equipment.		No	Not applicable, the company for the provision of professional social services of agricultural companies, do not involve the purchase of wool, cashmere, clothing and other issues.
If the company's existing facilities are:		No	The use of funds will only be used for socialized services of existing farmland and the expansion of service scale, and will not provide funds for existing facilities, nor will any new facilities be built.
Domestic EIA completed? If yes, please give approval date	Yes		13 May 2017
Is the existing business fully in line with the domestic environmental management plan?	Yes		Yixian Environmental Protection Bureau gave the company an EIA approval on October 12, 2017.

Overall conclusion on the environmental category:

C

Conclusion:

Yixian Agricultural Ecological Agriculture Co., Ltd. is an Agricultural companies that provides specialized socialized service for crop planting. Farmers or cooperatives entrust agricultural companies to provide the whole process of planting services. As an agricultural service company, Agricultural companies have established a sound environmental monitoring system and adopted advanced planting technology to achieve ecological protection, reduce the use of chemical fertilizers and pesticides, and improve the ecological environment. According to the calculation of Younong companies, the unified cultivation of farmland, single planting, unified irrigation, than a family planting water saving 30%; plant protection UAV control of pests and diseases, the use of biological pesticides, banned herbicides, drug reduction 50%; Through the whole mechanization service, including (1) rice drying without coal, (2) using straw charred biomass pellets; (3) All agricultural machinery and equipment use the national 5 emission standard of agricultural machinery; (4) Science and technology research and development, high efficiency of agricultural machinery, reduce fuel consumption, energy saving and consumption reduction by 20%; soil-measuring formula fertilization, reduce fertilizer consumption 15%. Specific measures adopted by agricultural companies in environmental management include:

The internal review mechanism for the environment is: adhere to the ecological green planting. All planting farmland is strictly controlled, fertilization is first measured, then formula fertilization, each farmland fertilization formula is different, constantly improve the soil, reduce agricultural non-point source pollution. Straw carbonization back to the field, farmland winter rest, deep or planting Ziyunying. Adhere to rice transplanting machine, adopt accurate transplanting, prohibit rice direct seeding in farmland, strictly control the use of herbicides. Vigorously develop professional UAV control team, use biological pesticides to control pests and diseases, to ensure zero agricultural residue. All service farmland apply for green certification, part of the application for organic certification.

A sound 1. system. There are special regulatory offices to strictly control the use of pesticides, fertilizers and other products that do not meet the requirements of environmental protection, strict supervision.

2. regularly organize training to guide company employees and cooperative farmers to use chemical fertilizer and ecological planting.

3. cooperate with Zhu Defeng, chief expert of China Rice Institute, Nanjing National Environmental Research Institute and other leading domestic scientific research institutions and experts to introduce high quality grain varieties and use advanced ecological planting technology to reduce the impact on soil and ecology.

4. obtain the permission of the relevant local government departments, obtain the EIA approval, and prepare the EIA report.

APPENDIX 2 EXTERNAL ENVIRONMENTAL MONITORING REPORT (No.1. MARCH
2022)



安环检（2021）第 223 号

检测报告

Test Report

项目名称: 亚行贷款安徽黄山新安江流域
生态保护与绿色发展项目

委托单位: 上海伊世特科技管理有限公司

报告日期: 2021 年 03 月 17 日

黄山安琪尔环境检测有限公司
Huangshan AnQier Environmental Detection CO,LTD



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检测机构地址：黄山市屯溪区黄口青山塘新村 G 区综合楼 4 楼

电话：0559-2531668

传真：0559-2531668

邮政编码：245000

黄山安琪尔环境检测有限公司检测报告

编号: CW36-04/A1

安环检(2021)第223号

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废气采样概况和分析方法

委托单位	上海伊世特科技管理有限公司			
联系人及电话	李华 13818855792	<input type="checkbox"/> 送样/ <input checked="" type="checkbox"/> 采样日期		2021.03.12-2021.03.15
样品类别	气	接样日期		2021.03.15
分析日期	2021.03.15	报告日期		2021.03.17
检测项目	检测标准(方法)及编号(含年号)	仪器设备名称、型号/规格	仪器检定/校准有效期	方法检测限
总悬浮颗粒物	环境空气 总悬浮颗粒物的测定重量法 GB/T 15432-1995 及修改单	万分之一天平 AUW220 (2018014)	2021.05.05	0.001mg/m ³
备注	1、检测结果仅代表本次现场监测时生产工况下排放结果; 2、监测点位、监测时段和监测频次由委托方指定。			

无组织废气检测结果

单位: mg/m³

采样点位	样品状态及描述	检测项目
		总悬浮颗粒物
阳湖镇光谷亭村上风向	固态完好	0.074
阳湖镇光谷亭村下风向	固态完好	0.106
阳湖镇光谷亭村敏感点	固态完好	0.069
弈棋镇竹墩村上风向	固态完好	0.076
弈棋镇竹墩村下风向	固态完好	0.099
弈棋镇竹墩村敏感点	固态完好	0.076
弈棋镇徐村	固态完好	0.083
休宁县城沿横江管网线路	固态完好	0.076
黄山区甘棠镇沿婆溪河线路	固态完好	0.082
徽州区永兴一路	固态完好	0.076

黄山安琪尔环境检测有限公司检测报告

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无组织废气检测结果(续)

单位: mg/m³

采样点位	样品状态及描述	检测项目
		总悬浮颗粒物
徽州区永佳大道	固态完好	0.080
黟县碧阳镇沿河西路通济桥上风向	固态完好	0.073
黟县碧阳镇沿河西路通济桥下风向	固态完好	0.101
黟县碧阳镇沿河西路通济桥敏感点	固态完好	0.083
黟县碧阳镇朝阳桥附近护岸	固态完好	0.078

噪声检测概况和分析方法

委托单位	上海伊世特科技管理有限公司			
联系人及电话	李华 13818855792	□送样/☑采样日期		2021.03.12-2021.03.14
样品类别	噪声	分析日期		2021.03.12-2021.03.14
检测地点	徽州区、休宁县、阳湖镇	报告日期		2021.03.17
检测项目	检测标准（方法）及编号（含年号）	仪器设备名称、型号/规格、编号	仪器设备检定/校准有效期	方法检测限
气象参数	——	便携式风速风向仪 JY-FS-04（2020072）	2021.12.11	——
		便携式风速风向仪 JY-FS04（2018034）	2021.06.22	
厂界噪声	建筑施工厂界环境噪声排放标准 GB12523—2011	多功能声级计 AWA5688(2021058) AWA6288+(2020059)	2021.08.10	——
	环境噪声监测技术规范噪声测量值修正 HJ706-2014			
	声环境质量标准 GB3096-2008			
备注	1.检测结果仅代表本次现场监测时生产工况下排放结果； 2.监测点位、监测时段和监测频次由委托方指定。			

Air quality monitoring results (upper table).

黄山安琪尔环境检测有限公司检测报告

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噪声检测结果

类别: 噪声				
检测点位	检测日期	检测结果 dB(A)		
		时间	昼间 Leq	主要声源
阳湖镇光谷亭村施工边界	2021.03.12	15:43	86.0	施工、路面切割
阳湖镇光谷亭村敏感点	2021.03.12	16:05	76.8	施工、路面切割
阳湖镇光谷亭村施工边界	2021.03.13	10:57	61.1	施工
阳湖镇光谷亭村敏感点	2021.03.13	11:19	61.8	施工、路面切割
弈棋镇竹墩村施工边界	2021.03.12	14:41	55.9	施工
弈棋镇竹墩村敏感点	2021.03.12	15:08	44.1	生活
弈棋镇竹墩村施工边界	2021.03.13	08:52	61.2	施工
弈棋镇竹墩村敏感点	2021.03.13	09:16	46.9	生活
弈棋镇徐村	2021.03.12	14:07	40.8	生活
休宁县城沿横江管网线路	2021.03.14	9:56	64.6	施工、道路
黄山区甘棠镇沿婆溪河线路	2021.03.14	11:28	49.0	生活
徽州区永兴一路	2021.03.12	16:11	57.4	生产
徽州区永佳大道	2021.03.12	16:29	66.9	道路
黟县碧阳镇沿河西路通济桥施工边界	2021.03.14	13:19	66.9	施工、道路
黟县碧阳镇沿河西路通济桥敏感点	2021.03.14	14:17	58.2	生活
黟县碧阳镇沿河西路通济桥施工边界	2021.03.14	9:48	62.1	施工、道路
黟县碧阳镇沿河西路通济桥敏感点	2021.03.13	10:27	62.5	道路
黟县碧阳镇朝阳桥附近	2021.03.13	11:11	55.2	生活
备注: 检测点位示意图见附件。				

****报告结束****

编制: 吴海莹

审核: 陈明

签发: 王玲

签发日期: 2021.3.24



Noise monitoring results

黄山安琪尔环境检测有限公司检测报告

编号: CW36-04/A1

安环检(2021)第223号

附件1 废气精密度控制情况统计表见表1

表1 废气精密度控制情况统计表

内容	项目	总悬浮颗粒物
样品个数(个)		15
全程序空白(个)		0
实验室平行数(个)		0
合格数(个)		—
合格率(%)		—

废气准确度控制情况统计表见表2

表2 废气准确度控制情况统计表

内容	项目	总悬浮颗粒物
实验室加标数(个)		0
质控样数(个)		2
合格数(个)		2
合格率(%)		100

声级校准器校准表见表3

声级校准器校准表3

仪器名称	仪器型号	仪器编号	单位	标准值	校准日期	时间	仪器显示	示值误差	是否合格
声级校准器	AWA6021A	2020057	dB(A)	94.0±0.5	2021.03.12	07:03	93.9	-0.1	合格
						19:02	93.9	-0.1	合格
					2021.03.12	09:42	93.9	-0.1	合格
						18:43	93.9	-0.1	合格
					2021.03.13	08:49	93.9	-0.1	合格
						11:30	93.9	-0.1	合格
					2021.03.13	20:01	93.9	-0.1	合格
						07:02	93.9	-0.1	合格
					2021.03.14	09:14	94.0	0.0	合格
						14:30	94.0	0.0	合格

黄山安琪尔环境检测有限公司检测报告

编号: CW36-04/A1

安环检(2021)第223号

附件2 无组织废气检测采样天气条件

采样地点	采样时间	天气	风向	风速 (m/s)	气温 (℃)	气压 (Kpa)
弈棋镇竹墩村	2021.03.12 09:00- 2021.03.13 09:00	多云	西	1.1	10	100.7
弈棋镇徐村	2021.03.12 10:00- 2021.03.13 10:00	多云	西	1.1	10	100.6
徽州区永兴一路	2021.03.12 12:30- 2021.03.13 10:30	阴	北	2.1	8	100.6
徽州区永佳大道	2021.03.12 12:50- 2021.03.13 10:50	阴	北	2.1	8	100.6
黟县碧阳镇	2021.03.13 12:00- 2021.03.14 09:10	多云	北	1.3	9	100.8
阳湖镇光谷亭	2021.03.13 11:00- 2021.03.14 11:00	阴	西	1.2	10	100.6
休宁县城沿横江 管网线路	2021.03.14 09:50- 2021.03.15 09:50	晴	东南	1.4	19	100.7
黄山区甘棠镇沿 婆溪河线路	2021.03.14 11:25- 2021.03.15 08:25	晴	南	1.3	20	100.6

附件3 检测点位图



阳湖镇光谷亭村监测点位示意图 2021.3.13-2021.3.14

APPENDIX 3 EXTERNAL ENVIRONMENTAL MONITORING REPORT (No.2, JULY 2022)



安环检（2021）第 254 号

检测报告

Test Report

项目名称: 亚行贷款安徽黄山新安江流域
生态保护与绿色发展项目
委托单位: 上海伊世特科技管理有限公司
报告日期: 2021 年 07 月 20 日

黄山安琪尔环境检测有限公司
Huangshan AnQier Environmental Detection CO,LTD



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八、除客户特别申明并支付档案管理费，本次检测的所有记录档案保存期限为六年。

九、除客户特别申明并支付样品管理费，所有样品超过标准规定的时效期均不再做留样。

检测机构地址：黄山市屯溪区黄口青山塘新村 G 区综合楼 4 楼

电话：0559-2531668

传真：0559-2531668

邮政编码：245000

Air quality monitoring results

黄山安琪尔环境检测有限公司检测报告

编号: CW36-04/A2

安环检(2021)第254号

共4页 第1页

废气采样概况和分析方法

委托单位	上海伊世特科技管理有限公司			
联系人及电话	李华 13818855792	<input type="checkbox"/> 送样/ <input checked="" type="checkbox"/> 采样日期	2021.07.05-2021.07.07	
样品类别	气	接样日期	2021.07.05-2021.07.07	
分析日期	2021.07.07-2021.07.09	报告日期	2021.07.20	
检测项目	检测标准(方法)及编号(含年号)	仪器设备名称、型号/规格	仪器检定/校准有效期	方法检测限
总悬浮颗粒物	环境空气 总悬浮颗粒物的测定重量法 GB/T 15432-1995 及修改单	全自动大气/颗粒物采样器(MH1200) (2018027、2018029、2018030、2018031) /万分之一天平 AUW220 (2018014)	2022.05.05/2022.05.05/2022.05.05/2022.05.05/2022.05.05	0.001mg/m ³

无组织废气检测结果

单位: mg/m³

采样点位	检测项目
	总悬浮颗粒物
黟县碧阳镇沿河西路上风向	0.283
黟县碧阳镇沿河西路下风向	0.300
黟县碧阳镇沿河西路敏感点	0.283
黟县碧阳镇翠林路上风向	0.283
黟县碧阳镇翠林路下风向	0.567
黟县碧阳镇翠林路敏感点	0.283
黄山区平湖东路与耕耘路交叉口上风向	0.467
黄山区平湖东路与耕耘路交叉口下风向	0.583
黄山区平湖东路与耕耘路交叉口敏感点	0.600
黄山区香溪路路与北海南路交叉口上风向	0.300
黄山区香溪路路与北海南路交叉口下风向	0.283
黄山区香溪路路与北海南路交叉口敏感点	0.317

安琪尔
检测

黄山安琪尔环境检测有限公司检测报告

编号: CW36-04/A2
安环检(2021)第254号
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无组织废气检测结果(续)

单位: mg/m³

采样点位	检测项目
	总悬浮颗粒物
休宁县城区滨江路上风向	0.400
休宁县城区滨江路下风向	0.417
休宁县城区滨江路敏感点	0.383
徽州区永佳大道上风向	0.383
徽州区永佳大道下风向	0.417
徽州区永佳大道敏感点	0.400
徽州区洽舍乡汪寺坑口张村上风向	0.300
徽州区洽舍乡汪寺坑口张村下风向	0.317
徽州区洽舍乡汪寺坑口张村敏感点	0.283
屯溪区奕棋镇林塘村上风向	0.417
屯溪区奕棋镇林塘村下风向	0.617
屯溪区奕棋镇林塘村敏感点	0.600

黄山安琪尔环境检测有限公司检测报告

编号: CW36-04/A2

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噪声检测概况和分析方法

委托单位	上海伊世特科技管理有限公司			
联系人及电话	李华 13818855792	<input type="checkbox"/> 送样/ <input checked="" type="checkbox"/> 采样日期		2021.07.04-2021.07.08
样品类别	噪声	分析日期		2021.07.04-2021.07.08
检测地点	徽州区、休宁县、屯溪区、黄山区、黟县	报告日期		2021.07.20
检测项目	检测标准(方法)及编号(含年号)	仪器设备名称、型号/规格、编号	仪器设备检定/校准有效期	方法检测限
气象参数	—	便携式风速风向仪 JY-FS-04 (2020072)	2021.12.11	—
		便携式风速风向仪 JY-FS04 (2018034)	2022.06.14	
厂界噪声	建筑施工厂界环境噪声排放标准 GB12523—2011	多功能声级计 AWA5688(2021058) AWA6288+(2020059)	2021.08.10	—
	环境噪声监测技术规范噪声测量值修正 HJ706-2014			
	声环境质量标准 GB3096-2008			

噪声检测结果

类别: 噪声				
检测点位	检测日期	检测结果 dB(A)		
		时间	昼间 Leq	主要声源
黟县碧阳镇沿河西路施工边界	2021.07.04	15:18	60.7	交通
	2021.07.05	14:51	60.5	交通
黟县碧阳镇沿河西路敏感点	2021.07.04	15:43	54.9	交通
	2021.07.05	14:18	56.5	交通
黟县碧阳镇翠林路施工边界	2021.07.04	13:40	60.8	施工和交通
	2021.07.05	16:04	65.6	施工和交通
黟县碧阳镇翠林路敏感点	2021.07.04	14:01	52.0	施工和交通
	2021.07.05	13:43	54.9	施工和交通

Noise monitoring results

黄山安琪尔环境检测有限公司检测报告

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噪声检测结果(续)

类别: 噪声				
检测点位	检测日期	检测结果 dB(A)		
		时间	昼间 Leq	主要声源
黄山区平湖东路与耕耘路交叉口施工边界	2021.07.05	10:02	62.6	交通
	2021.07.06	13:43	54.9	交通
黄山区平湖东路与耕耘路交叉口敏感点	2021.07.05	09:53	58.0	交通
	2021.07.06	11:11	62.4	交通
黄山区香溪路与北海南路交叉口施工边界	2021.07.05	10:25	58.4	交通
	2021.07.06	10:23	61.4	交通
黄山区香溪路与北海南路交叉口敏感点	2021.07.05	10:22	59.6	交通
	2021.07.06	10:43	58.8	交通
休宁县城区滨江路施工边界	2021.07.06	14:00	54.9	交通
	2021.07.07	13:12	57.1	交通
休宁县城区滨江路敏感点	2021.07.06	13:29	56.6	交通
	2021.07.07	13:52	57.9	交通
徽州区永佳大道施工边界	2021.07.07	09:05	71.3	交通
	2021.07.08	09:02	72.5	交通
徽州区永佳大道敏感点	2021.07.07	09:05	61.5	交通
	2021.07.08	09:02	62.6	交通
徽州区洽舍乡汪寺坑口张村施工边界	2021.07.07	10:42	67.6	施工
	2021.07.08	11:03	65.1	施工
徽州区洽舍乡汪寺坑口张村敏感点	2021.07.07	10:18	56.4	施工
	2021.07.08	10:37	58.8	施工
屯溪区奕棋镇林塘村施工边界	2021.07.07	15:01	66.8	交通
	2021.07.08	13:49	61.2	交通
屯溪区奕棋镇林塘村敏感点	2021.07.07	15:00	62.2	交通
	2021.07.08	14:18	55.7	交通

报告结束

编制: 高世明

审核: 陈明

签发: 孙明

签发日期: 2021.7.28



Noise monitoring results

黄山安琪尔环境检测有限公司检测报告

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附件1 废气精密控制情况统计表表1

表1 废气精密控制情况统计表

内容	项目	总悬浮颗粒物
样品个数(个)		24
全程序空白(个)		0
实验室平行数(个)		0
合格数(个)		—
合格率(%)		—

废气准确度控制情况统计表表2

表2 废气准确度控制情况统计表

内容	项目	总悬浮颗粒物
实验室加标数(个)		0
质控样数(个)		3
合格数(个)		3
合格率(%)		100

多功能声级计 AWA6228 (2020059) 声级校准器校准表表3

声级校准器校准表3

仪器名称	仪器型号	仪器编号	单位	标准值	校准日期	时间	仪器显示	示值误差	是否合格
声级校准器	AWA6021A	2020057	dB(A)	94.0±0.5	2021.07.04	12:49	93.8	-0.2	合格
						17:38	93.8	-0.2	合格
					2021.07.05	08:40	93.7	-0.3	合格
						17:45	93.8	-0.2	合格
					2021.07.06	08:25	93.8	-0.2	合格
						17:27	93.8	-0.2	合格
					2021.07.07	08:16	93.8	-0.2	合格
						22:36	93.8	-0.2	合格
					2021.07.08	07:56	93.7	-0.3	合格
						23:05	93.8	-0.2	合格

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多功能声级计 AWA5688(2021058)声级校准器校准表见表 4

声级校准器校准表 4

仪器名称	仪器型号	仪器编号	单位	标准值	校准日期	时间	仪器显示	示值误差	是否合格
声级校准器	AWA6021A	2020057	dB(A)	94.0±0.5	2021.07.04	13:11	93.7	-0.3	合格
						17:17	93.7	-0.3	合格
					2021.07.05	08:18	93.7	-0.3	合格
						17:27	93.7	-0.3	合格
					2021.07.06	07:59	93.7	-0.3	合格
						17:49	93.7	-0.3	合格
					2021.07.07	08:29	93.7	-0.3	合格
						22:52	93.7	-0.3	合格
					2021.07.08	07:58	93.8	-0.2	合格
						22:53	93.8	-0.2	合格

附件 2 无组织废气检测采样天气条件

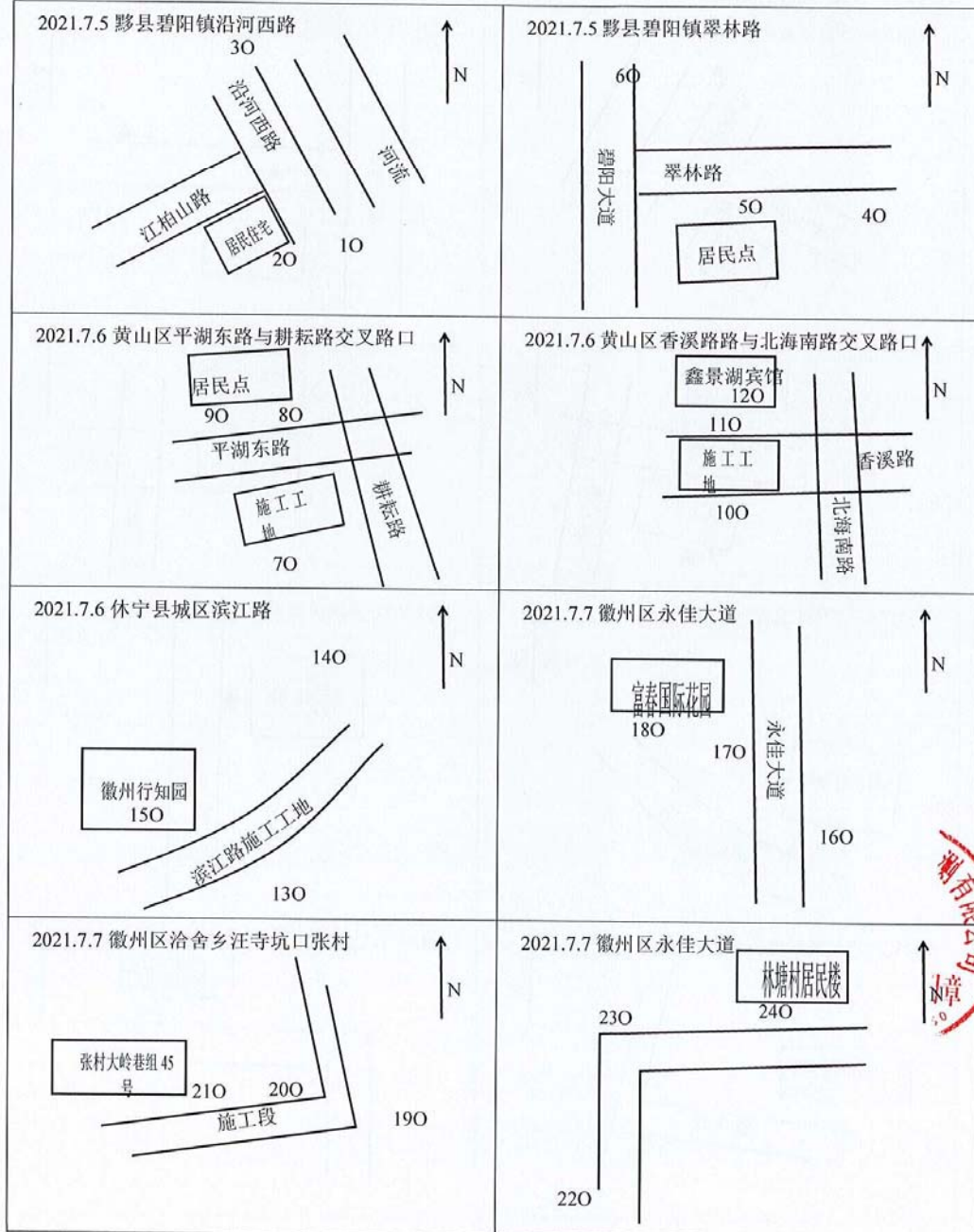
采样地点	采样时间	天气	风向	风速(m/s)	气温(℃)	气压(Kpa)
黟县碧阳镇沿河西路	2021.07.05 14:17-15:17	晴	东南	2.1	33	99.0
黟县碧阳镇翠林路	2021.07.05 15:40-16:40	晴	东南	2.1	33	99.0
黄山区平湖东路与耕耘路交叉口	2021.07.06 09:40-10:40	晴	南	1.5	32	98.5
黄山区香溪路与北海南路交叉口	2021.07.06 10:50-11:50	晴	南	1.5	33	98.5
休宁县城区滨江路	2021.07.06 14:10-15:10	晴	南	1.7	34	98.5
徽州区永佳大道	2021.07.07 09:00-10:00	晴	东南	1.3	33	99.8
徽州区洽舍乡汪寺坑口张村	2021.07.07 11:00-12:00	晴	东	1.5	32	99.5
屯溪区奕棋镇林塘村	2021.07.07 14:50-15:50	晴	西南	1.8	31	99.7

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附件3 无组织废气检测点位图



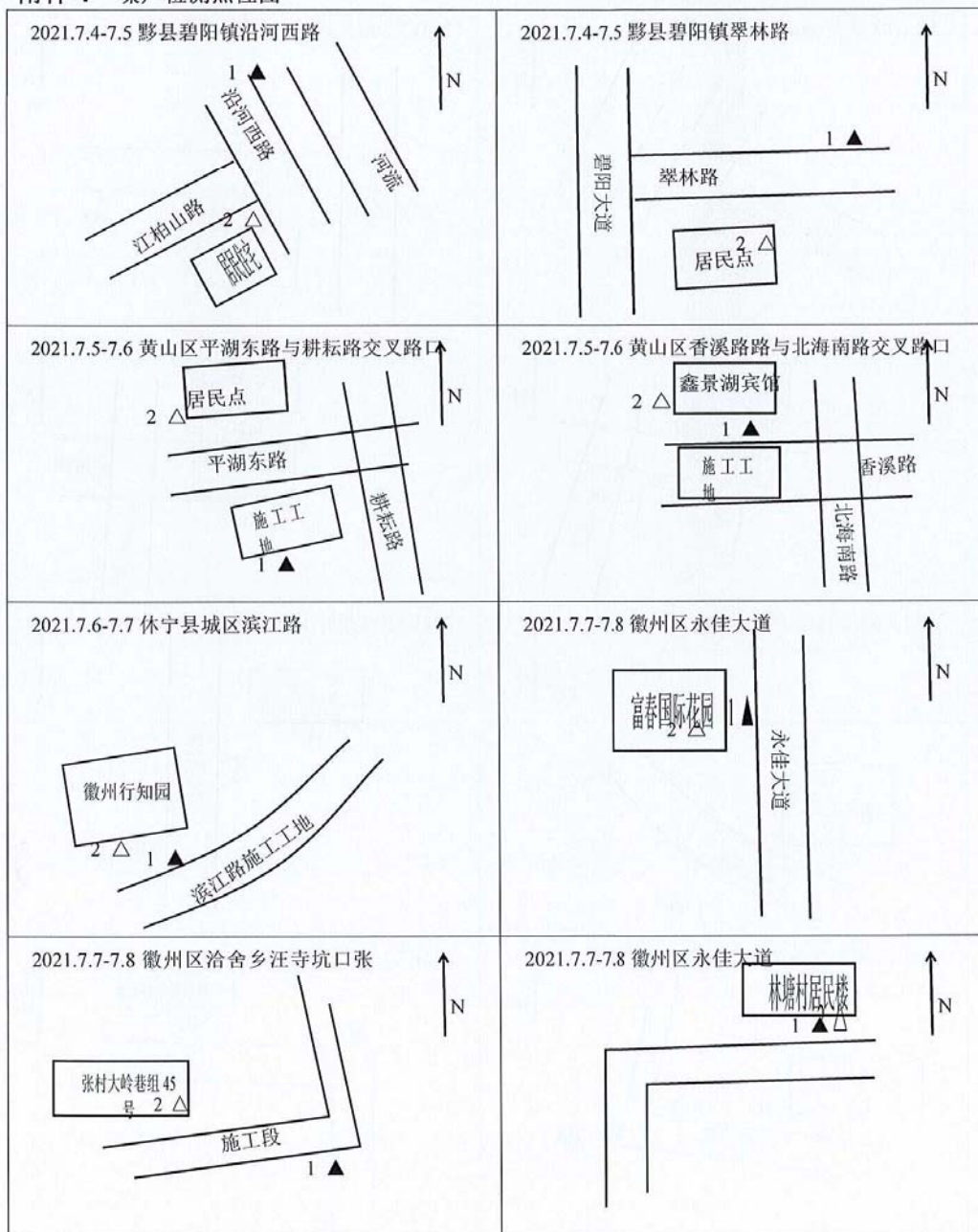
Air monitoring sites

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附件4 噪声检测点位图



Noise monitoring sites

APPENDIX 4 SITE PHOTOLOG OF ENVIRONMENTAL MONITORING



Works-HS-4- Monitoring for TSP of site boundary in Pinghudong Road



Works-HZ-1 Monitoring for TSP of sensitive receptor



Works-HZ-1 Monitoring for noise and TSP of site boundary in Yongjia Road



Works-TX-3 Monitoring for TSP of site boundary in Lintang Village



Works-YX-1 Monitoring for TSP of sensitive receptor in Baishan Road



Works-XN-1 Monitoring for noise of site boundary in Bingjiang Road

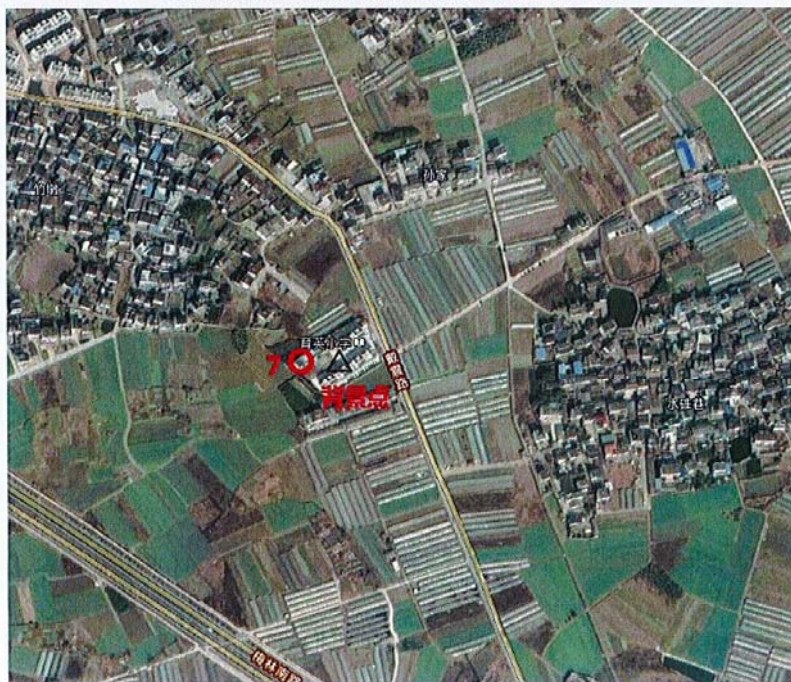
黄山安琪尔环境检测有限公司检测报告

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弈棋镇竹墩村监测点位示意图 2021.3.12-2021.3.13



弈棋镇徐村 2021.3.12

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休宁县城沿横江管网线路 2021.03.14-2021.03.15



黄山区甘棠 2021.3.14

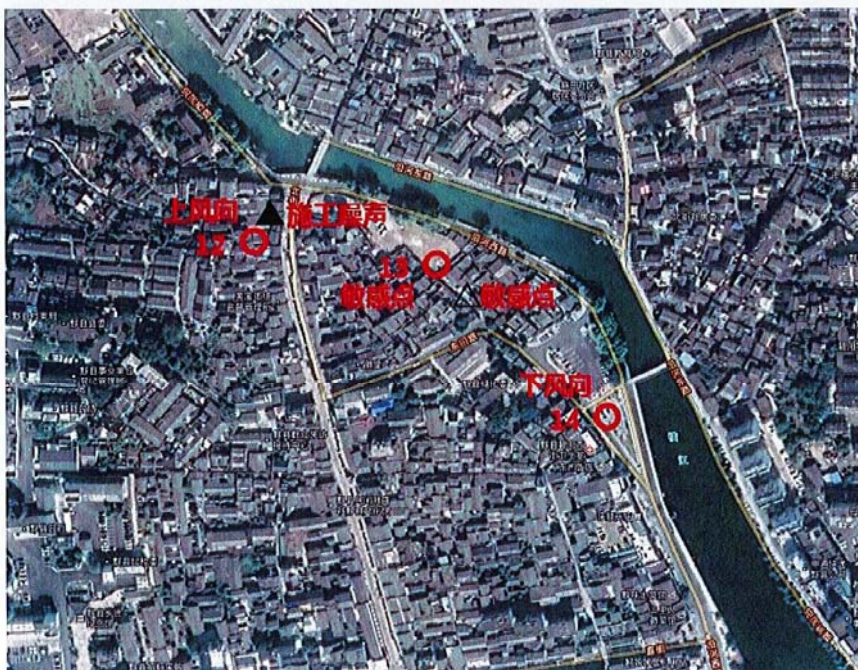
黄山安琪尔环境检测有限公司检测报告

编号: CW36-04/A1

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徽州区永兴一路凤凰城点位示意图 2021.3.12

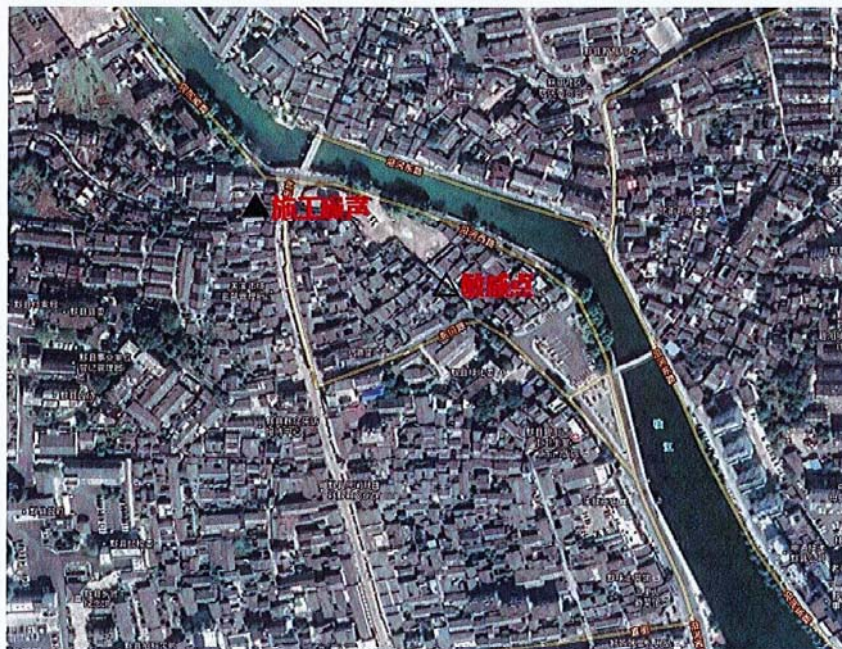


黟县碧阳沿河西路 2021.3.13-2021.3.14

黄山安琪尔环境检测有限公司检测报告

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黟县碧阳沿河西路 2021.3.14



黟县碧阳镇朝阳桥 2021.3.13

APPENDIX 5 PUBLIC CONSULTATION AND PARTICIPATION

Public consultation and participation for construction in Tunxi district (60 participants, of which 20 women, cumulatively)



Tunguang Town (11 participants, of which 3 women)



Yiqi Town (12 participants, of which 3 women)



Liyang Town (21 participants, of which 11 women)



Yanghu Town (16 participants, of which 3 women)



Information disclosure in construction site that will start



Notice board of soil disposal in construction site



Site entrance gate and environmental safety board in village environment improvement project



Traffic guidance plates near the barriers have been established to remind vehicles and people



The Huizhou District PMO, as the organizer, conducts the plan review for the construction site closure of Nanshan Road with the traffic and other management departments, community and town government representatives, as well as construction units.



The sewage pipeline installation plan with village representatives has been discussion and an agreement has been reached in Huang Village, Chashe Township, Huizhou District

APPENDIX 6 TRAINING AND CAPACITY BUILDING



ADB & KfW Loan Review Mission



The measures to build river embankments in an ecological way have been introduced to technicians by consultant



黄山市亚行贷款项目办公室

关于加强亚行贷款黄山新安江流域生态保护和绿色发展项目安全生产工作的通知

各项目单位：

近期，我省连续发生多起较大生产安全事故。5月22日，六安市霍邱县城镇城北第二污水处理厂进水管网Ⅰ标段工程，在顶管作业时发生塌方事故，造成3人死亡。5月25日，淮北市相山区人民西路市政工程发生污水管道爆裂事故，造成4人溺水死亡。为深刻汲取事故教训，做到警钟长鸣，现就加强亚行贷款黄山新安江流域生态保护和绿色发展项目（以下简称亚行贷款项目）安全生产工作通知如下：

一、提高政治站位，各项目单位要牢固树立“人民至上、生命至上”的理念，进一步提高政治站位，加强组织领导，把亚行贷款项目安全生产工作摆在重要位置，时刻绷紧思想之弦，严守安全底线，织密责任网，完善责任链，层层落实安全生产责任，落细落实好各项应对措施，坚决防范遏制各类生产安全事故。

二、突出检查重点。各项目单位要深刻汲取事故教训，举一反三，并结合疫情防控、季节气候特点等，重点就施工单位安全生产条件和安全生产制度不落实，盲目抢工期，安全管理混乱、施工人员违规作业等问题，对在建工程逐一进行认真摸排检查，对发现的问题要求施工单位立即采取有效措施整改到位，并督促其全面落实生产现场管理和隐患排查治理，确保安全生产责任、投入、培训、管理、应急救援等措施落实到位。

三、强化常态监管。当前是生产旺季，加上即将进入汛期和高温季节，安全生产事故易发多发。同时，现在至7月初全省正在开展“防风险、保平安、迎七一”安全风险防范集中攻坚行动，省有关部门将采取暗查暗访、专项检查、联合执法、综合督查等形式对全省在建工程安全生产工作实现全覆盖检查。各项目单位要深刻认识抓好安全生产工作的极端重要性，会同有关部门常态化开展亚行贷款项目安全生产监管，采取有力措施有效防范各类安全事故发生。



The training and supervision on safety management and EHS for projects of district/county have been conducted by HPMO, with the assistance of consultants.



安环检（2021）第 223 号

检测报告

Test Report

项目名称: 亚行贷款安徽黄山新安江流域
生态保护与绿色发展项目

委托单位: 上海伊世特科技管理有限公司

报告日期: 2021 年 03 月 17 日

黄山安琪尔环境检测有限公司
Huangshan AnQier Environmental Detection CO,LTD



说 明

一、本检测报告仅对采样/送检样品负责。

二、报告及复印件必须加盖“CMA”印章和检测报告专用章，否则无效。任何对于检测报告的涂改、增删、骑缝章不完整及无批准人签字均视作无效。

三、未经本机构同意不得复制（全文复制除外）本检测报告，不得利用本检测报告作任何商业性宣传。

四、本报告只对此次检测结果负责。

五、若委托单位对本次检测报告有异议，可在收到报告之日起十五日内，书面向我公司提出复检或仲裁申请，逾期不予受理。

检测机构地址：黄山市屯溪区黄口青山塘新村 G 区综合楼 4 楼

电话：0559-2531668

传真：0559-2531668

邮政编码：245000

黄山安琪尔环境检测有限公司检测报告

编号: CW36-04/A1

安环检(2021)第223号

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废气采样概况和分析方法

委托单位	上海伊世特科技管理有限公司			
联系人及电话	李华 13818855792	<input type="checkbox"/> 送样/ <input checked="" type="checkbox"/> 采样日期		2021.03.12-2021.03.15
样品类别	气	接样日期		2021.03.15
分析日期	2021.03.15	报告日期		2021.03.17
检测项目	检测标准(方法)及编号(含年号)	仪器设备名称、型号/规格	仪器检定/校准有效期	方法检测限
总悬浮颗粒物	环境空气 总悬浮颗粒物的测定重量法 GB/T 15432-1995 及修改单	万分之一天平 AUW220 (2018014)	2021.05.05	0.001mg/m ³
备注	1、检测结果仅代表本次现场监测时生产工况下排放结果; 2、监测点位、监测时段和监测频次由委托方指定。			

无组织废气检测结果

单位: mg/m³

采样点位	样品状态及描述	检测项目
		总悬浮颗粒物
阳湖镇光谷亭村上风向	固态完好	0.074
阳湖镇光谷亭村下风向	固态完好	0.106
阳湖镇光谷亭村敏感点	固态完好	0.069
弈棋镇竹墩村上风向	固态完好	0.076
弈棋镇竹墩村下风向	固态完好	0.099
弈棋镇竹墩村敏感点	固态完好	0.076
弈棋镇徐村	固态完好	0.083
休宁县城沿横江管网线路	固态完好	0.076
黄山区甘棠镇沿婆溪河线路	固态完好	0.082
徽州区永兴一路	固态完好	0.076

黄山安琪尔环境检测有限公司检测报告

编号: CW36-04/A1

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无组织废气检测结果(续)

单位: mg/m³

采样点位	样品状态及描述	检测项目
		总悬浮颗粒物
徽州区永佳大道	固态完好	0.080
黟县碧阳镇沿河西路通济桥上风向	固态完好	0.073
黟县碧阳镇沿河西路通济桥下风向	固态完好	0.101
黟县碧阳镇沿河西路通济桥敏感点	固态完好	0.083
黟县碧阳镇朝阳桥附近护岸	固态完好	0.078

噪声检测概况和分析方法

委托单位	上海伊世特科技管理有限公司			
联系人及电话	李华 13818855792	□送样/☑采样日期		2021.03.12-2021.03.14
样品类别	噪声	分析日期		2021.03.12-2021.03.14
检测地点	徽州区、休宁县、阳湖镇	报告日期		2021.03.17
检测项目	检测标准（方法）及编号（含年号）	仪器设备名称、型号/规格、编号	仪器设备检定/校准有效期	方法检测限
气象参数	——	便携式风速风向仪 JY-FS-04（2020072）	2021.12.11	——
		便携式风速风向仪 JY-FS04（2018034）	2021.06.22	
厂界噪声	建筑施工厂界环境噪声排放标准 GB12523—2011	多功能声级计 AWA5688(2021058) AWA6288+(2020059)	2021.08.10	——
	环境噪声监测技术规范噪声测量 值修正 HJ706-2014			
	声环境质量标准 GB3096-2008			
备注	1.检测结果仅代表本次现场监测时生产工况下排放结果； 2.监测点位、监测时段和监测频次由委托方指定。			

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噪声检测结果

类别: 噪声				
检测点位	检测日期	检测结果 dB(A)		
		时间	昼间 Leq	主要声源
阳湖镇光谷亭村施工边界	2021.03.12	15:43	86.0	施工、路面切割
阳湖镇光谷亭村敏感点	2021.03.12	16:05	76.8	施工、路面切割
阳湖镇光谷亭村施工边界	2021.03.13	10:57	61.1	施工
阳湖镇光谷亭村敏感点	2021.03.13	11:19	61.8	施工、路面切割
弈棋镇竹墩村施工边界	2021.03.12	14:41	55.9	施工
弈棋镇竹墩村敏感点	2021.03.12	15:08	44.1	生活
弈棋镇竹墩村施工边界	2021.03.13	08:52	61.2	施工
弈棋镇竹墩村敏感点	2021.03.13	09:16	46.9	生活
弈棋镇徐村	2021.03.12	14:07	40.8	生活
休宁县城沿横江管网线路	2021.03.14	9:56	64.6	施工、道路
黄山区甘棠镇沿婆溪河线路	2021.03.14	11:28	49.0	生活
徽州区永兴一路	2021.03.12	16:11	57.4	生产
徽州区永佳大道	2021.03.12	16:29	66.9	道路
黟县碧阳镇沿河西路通济桥施工边界	2021.03.14	13:19	66.9	施工、道路
黟县碧阳镇沿河西路通济桥敏感点	2021.03.14	14:17	58.2	生活
黟县碧阳镇沿河西路通济桥施工边界	2021.03.14	9:48	62.1	施工、道路
黟县碧阳镇沿河西路通济桥敏感点	2021.03.13	10:27	62.5	道路
黟县碧阳镇朝阳桥附近	2021.03.13	11:11	55.2	生活
备注: 检测点位示意图见附件。				

报告结束

编制: 吴海莹

审核:

陈明

签发:

马玲

签发日期:

2021.3.17



黄山安琪尔环境检测有限公司检测报告

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附件1 废气精密度控制情况统计表见表1

表1 废气精密度控制情况统计表

内容	项目	总悬浮颗粒物
样品个数(个)		15
全程序空白(个)		0
实验室平行数(个)		0
合格数(个)		——
合格率(%)		——

废气准确度控制情况统计表见表2

表2 废气准确度控制情况统计表

内容	项目	总悬浮颗粒物
实验室加标数(个)		0
质控样数(个)		2
合格数(个)		2
合格率(%)		100

声级校准器校准表见表3

声级校准器校准表3

仪器名称	仪器型号	仪器编号	单位	标准值	校准日期	时间	仪器显示	示值误差	是否合格
声级校准器	AWA6021A	2020057	dB(A)	94.0±0.5	2021.03.12	07:03	93.9	-0.1	合格
						19:02	93.9	-0.1	合格
					2021.03.12	09:42	93.9	-0.1	合格
						18:43	93.9	-0.1	合格
					2021.03.13	08:49	93.9	-0.1	合格
						11:30	93.9	-0.1	合格
					2021.03.13	20:01	93.9	-0.1	合格
						07:02	93.9	-0.1	合格
					2021.03.14	09:14	94.0	0.0	合格
						14:30	94.0	0.0	合格

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附件2 无组织废气检测采样天气条件

采样地点	采样时间	天气	风向	风速 (m/s)	气温 (℃)	气压 (Kpa)
弈棋镇竹墩村	2021.03.12 09:00- 2021.03.13 09:00	多云	西	1.1	10	100.7
弈棋镇徐村	2021.03.12 10:00- 2021.03.13 10:00	多云	西	1.1	10	100.6
徽州区永兴一路	2021.03.12 12:30- 2021.03.13 10:30	阴	北	2.1	8	100.6
徽州区永佳大道	2021.03.12 12:50- 2021.03.13 10:50	阴	北	2.1	8	100.6
黟县碧阳镇	2021.03.13 12:00- 2021.03.14 09:10	多云	北	1.3	9	100.8
阳湖镇光谷亭	2021.03.13 11:00- 2021.03.14 11:00	阴	西	1.2	10	100.6
休宁县城沿横江 管网线路	2021.03.14 09:50- 2021.03.15 09:50	晴	东南	1.4	19	100.7
黄山区甘棠镇沿 婆溪河线路	2021.03.14 11:25- 2021.03.15 08:25	晴	南	1.3	20	100.6

附件3 检测点位图



阳湖镇光谷亭村监测点位示意图 2021.3.13-2021.3.14

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阳湖镇光谷亭村监测点位示意图 2021.3.13

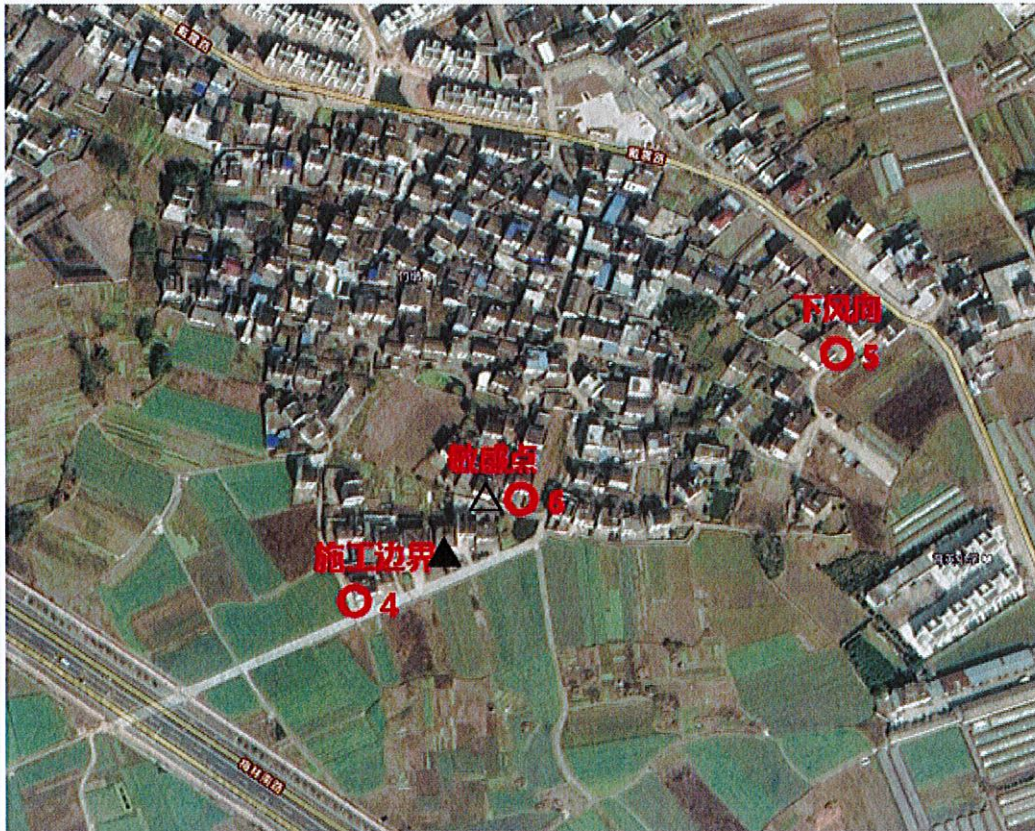


奔棋镇竹墩村监测点位示意图 2021.3.13

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弈棋镇竹墩村监测点位示意图 2021.3.12-2021.3.13



弈棋镇徐村 2021.3.12

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休宁县城沿横江管网线路 2021.03.14-2021.03.15



黄山区甘棠 2021.3.14

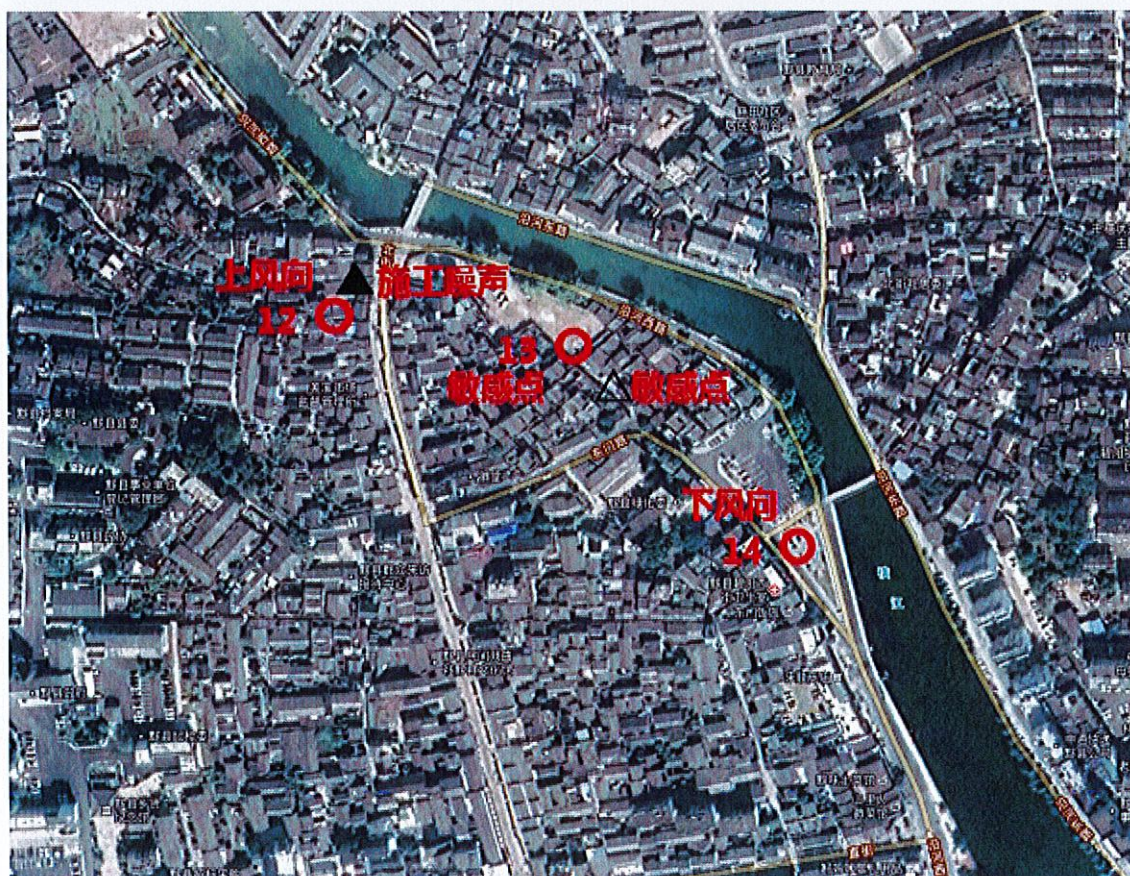
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徽州区永兴一路凤凰城点位示意图 2021.3.12

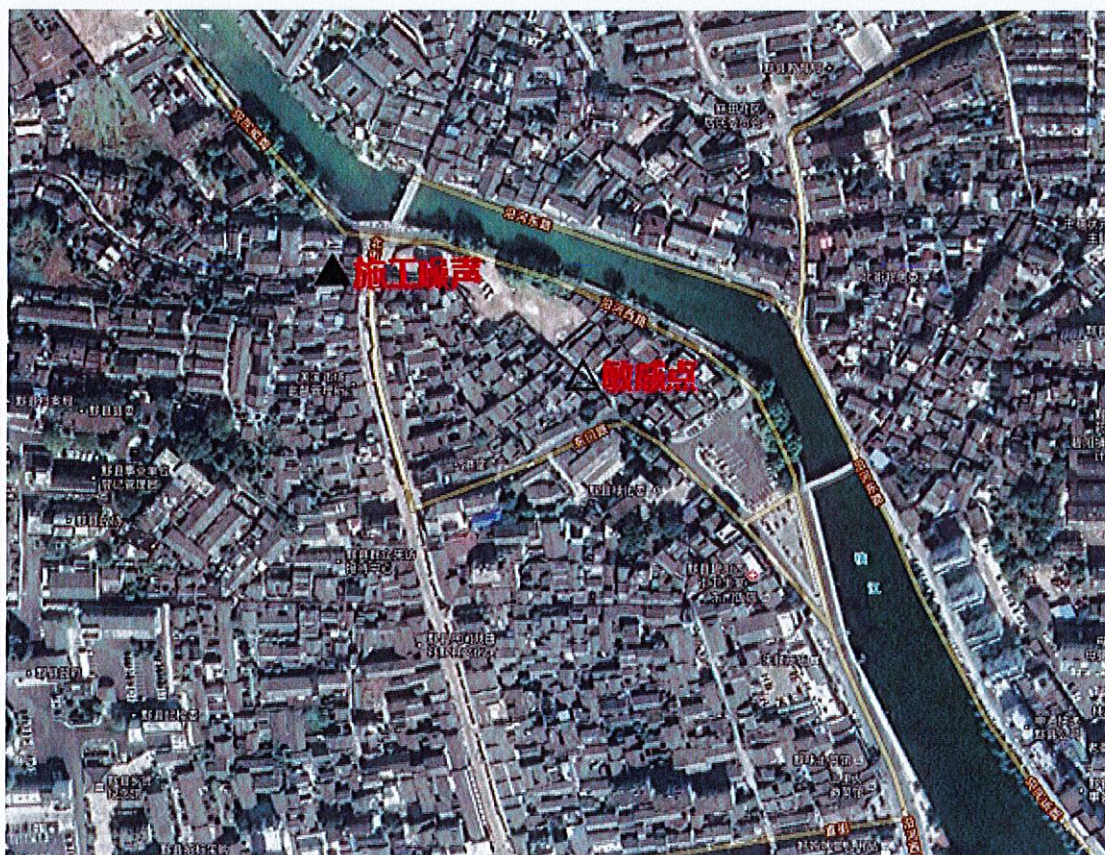


黟县碧阳沿河西路 2021.3.13-2021.3.14

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黟县碧阳沿河西路 2021.3.14



黟县碧阳镇朝阳桥 2021.3.13



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检测报告

Test Report

项目名称：亚行贷款安徽黄山新安江流域

生态保护与绿色发展项目

委托单位：上海伊世特科技管理有限公司

报告日期：2021 年 07 月 20 日

黄山安琪尔环境检测有限公司
Huangshan AnQier Environmental Detection CO,LTD



说 明

一、报告及复印件必须加盖“CMA”印章和检测报告专用章，否则无效。任何对于检测报告的涂改、增删、骑缝章不完整及无批准人签字均视作无效。

二、未经本机构同意不得复制（全文复制除外）本检测报告，不得利用本检测报告作任何商业性宣传。

三、当参数测定值小于方法检出限或最低检出浓度时，在检验检测报告中记为 ND，水记为 L。

四、本检测报告仅对当次检测有效，送检样品仅对来样的结果负责，不对样品来源负责。无法复现的样品，不受理申诉。

五、本单位保证工作的客观公正性、对委托单位的商业信息、技术文件等商业秘密进行保密义务。

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七、若委托单位对本次检测报告有异议，可在收到报告之日起十五日内，书面向我公司提出复检或仲裁申请，逾期不予受理。

八、除客户特别申明并支付档案管理费，本次检测的所有记录档案保存期限为六年。

九、除客户特别申明并支付样品管理费，所有样品超过标准规定的时效期均不再做留样。

检测机构地址：黄山市屯溪区黄口青山塘新村 G 区综合楼 4 楼

电话：0559-2531668

传真：0559-2531668

邮政编码：245000

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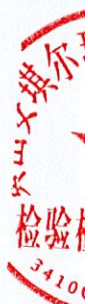
废气采样概况和分析方法

委托单位	上海伊世特科技管理有限公司			
联系人及电话	李华 13818855792	<input type="checkbox"/> 送样/ <input checked="" type="checkbox"/> 采样日期		2021.07.05-2021.07.07
样品类别	气	接样日期		2021.07.05-2021.07.07
分析日期	2021.07.07-2021.07.09	报告日期		2021.07.20
检测项目	检测标准(方法)及编号(含年号)	仪器设备名称、型号/规格	仪器检定/校准有效期	方法检测限
总悬浮颗粒物	环境空气 总悬浮颗粒物的测定重量法 GB/T 15432-1995 及修改单	全自动大气/颗粒物采样器(MH1200) (2018027、2018029、2018030、2018031) /万分之一天平 AUW220 (2018014)	2022.05.05/2022.05.05/2022.05.05/2022.05.05/2022.05.05	0.001mg/m ³

无组织废气检测结果

单位: mg/m³

采样点位	检测项目
	总悬浮颗粒物
黟县碧阳镇沿河西路上风向	0.283
黟县碧阳镇沿河西路下风向	0.300
黟县碧阳镇沿河西路敏感点	0.283
黟县碧阳镇翠林路上风向	0.283
黟县碧阳镇翠林路下风向	0.567
黟县碧阳镇翠林路敏感点	0.283
黄山区平湖东路与耕耘路交叉路口上风向	0.467
黄山区平湖东路与耕耘路交叉路口下风向	0.583
黄山区平湖东路与耕耘路交叉路口敏感点	0.600
黄山区香溪路路与北海南路交叉路口上风向	0.300
黄山区香溪路路与北海南路交叉路口下风向	0.283
黄山区香溪路路与北海南路交叉路口敏感点	0.317



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无组织废气检测结果(续)

单位: mg/m³

采样点位	检测项目
	总悬浮颗粒物
休宁县城滨江路上风向	0.400
休宁县城滨江路下风向	0.417
休宁县城滨江路敏感点	0.383
徽州区永佳大道上风向	0.383
徽州区永佳大道下风向	0.417
徽州区永佳大道敏感点	0.400
徽州区洽舍乡汪寺坑口张村上风向	0.300
徽州区洽舍乡汪寺坑口张村下风向	0.317
徽州区洽舍乡汪寺坑口张村敏感点	0.283
屯溪区奕棋镇林塘村上风向	0.417
屯溪区奕棋镇林塘村下风向	0.617
屯溪区奕棋镇林塘村敏感点	0.600

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噪声检测概况和分析方法

委托单位	上海伊世特科技管理有限公司			
联系人及电话	李华 13818855792	<input type="checkbox"/> 送样/ <input checked="" type="checkbox"/> 采样日期		2021.07.04-2021.07.08
样品类别	噪声	分析日期		2021.07.04-2021.07.08
检测地点	徽州区、休宁县、屯溪区、黄山区、黟县	报告日期		2021.07.20
检测项目	检测标准(方法)及编号(含年号)	仪器设备名称、型号/规格、编号	仪器设备检定/校准有效期	方法检测限
气象参数	——	便携式风速风向仪 JY-FS-04(2020072)	2021.12.11	——
		便携式风速风向仪 JY-FS04(2018034)	2022.06.14	
厂界噪声	建筑施工厂界环境噪声排放标准 GB12523—2011	多功能声级计 AWA5688(2021058) AWA6288+(2020059)	2021.08.10	——
	环境噪声监测技术规范噪声测量值修正 HJ706-2014			
	声环境质量标准 GB3096-2008			

噪声检测结果

类别: 噪声				
检测点位	检测日期	检测结果 dB(A)		
		时间	昼间 Leq	主要声源
黟县碧阳镇沿河西路施工边界	2021.07.04	15:18	60.7	交通
	2021.07.05	14:51	60.5	交通
黟县碧阳镇沿河西路敏感点	2021.07.04	15:43	54.9	交通
	2021.07.05	14:18	56.5	交通
黟县碧阳镇翠林路施工边界	2021.07.04	13:40	60.8	施工和交通
	2021.07.05	16:04	65.6	施工和交通
黟县碧阳镇翠林路敏感点	2021.07.04	14:01	52.0	施工和交通
	2021.07.05	13:43	54.9	施工和交通

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噪声检测结果(续)

类别: 噪声				
检测点位	检测日期	检测结果 dB(A)		
		时间	昼间 Leq	主要声源
黄山区平湖东路与耕耘路交叉口施工边界	2021.07.05	10:02	62.6	交通
	2021.07.06	13:43	54.9	交通
黄山区平湖东路与耕耘路交叉口敏感点	2021.07.05	09:53	58.0	交通
	2021.07.06	11:11	62.4	交通
黄山区香溪路与北海南路交叉口施工边界	2021.07.05	10:25	58.4	交通
	2021.07.06	10:23	61.4	交通
黄山区香溪路与北海南路交叉口敏感点	2021.07.05	10:22	59.6	交通
	2021.07.06	10:43	58.8	交通
休宁县城滨江路施工边界	2021.07.06	14:00	54.9	交通
	2021.07.07	13:12	57.1	交通
休宁县城滨江路敏感点	2021.07.06	13:29	56.6	交通
	2021.07.07	13:52	57.9	交通
徽州区永佳大道施工边界	2021.07.07	09:05	71.3	交通
	2021.07.08	09:02	72.5	交通
徽州区永佳大道敏感点	2021.07.07	09:05	61.5	交通
	2021.07.08	09:02	62.6	交通
徽州区洽舍乡汪寺坑口张村施工边界	2021.07.07	10:42	67.6	施工
	2021.07.08	11:03	65.1	施工
徽州区洽舍乡汪寺坑口张村敏感点	2021.07.07	10:18	56.4	施工
	2021.07.08	10:37	58.8	施工
屯溪区奕棋镇林塘村施工边界	2021.07.07	15:01	66.8	交通
	2021.07.08	13:49	61.2	交通
屯溪区奕棋镇林塘村敏感点	2021.07.07	15:00	62.2	交通
	2021.07.08	14:18	55.7	交通

****报告结束****

编制: 李明

审核: 陈明

签发: 孙明

签发日期: 2021.7.28



黄山安琪尔环境检测有限公司检测报告

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附件1 废气精密度控制情况统计表见表1

表1 废气精密度控制情况统计表

内容	项目	总悬浮颗粒物
样品个数(个)		24
全程序空白(个)		0
实验室平行数(个)		0
合格数(个)		——
合格率(%)		——

废气准确度控制情况统计表见表2

表2 废气准确度控制情况统计表

内容	项目	总悬浮颗粒物
实验室加标数(个)		0
质控样数(个)		3
合格数(个)		3
合格率(%)		100

多功能声级计 AWA6228 (2020059) 声级校准器校准表见表3

声级校准器校准表3

仪器名称	仪器型号	仪器编号	单位	标准值	校准日期	时间	仪器显示	示值误差	是否合格
声级校准器	AWA6021A	2020057	dB(A)	94.0±0.5	2021.07.04	12:49	93.8	-0.2	合格
						17:38	93.8	-0.2	合格
					2021.07.05	08:40	93.7	-0.3	合格
						17:45	93.8	-0.2	合格
					2021.07.06	08:25	93.8	-0.2	合格
						17:27	93.8	-0.2	合格
					2021.07.07	08:16	93.8	-0.2	合格
						22:36	93.8	-0.2	合格
					2021.07.08	07:56	93.7	-0.3	合格
						23:05	93.8	-0.2	合格

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多功能声级计 AWA5688(2021058)声级校准器校准表见表 4

声级校准器校准表 4

仪器名称	仪器型号	仪器编号	单位	标准值	校准日期	时间	仪器显示	示值误差	是否合格
声级校准器	AWA6021A	2020057	dB(A)	94.0±0.5	2021.07.04	13:11	93.7	-0.3	合格
						17:17	93.7	-0.3	合格
					2021.07.05	08:18	93.7	-0.3	合格
						17:27	93.7	-0.3	合格
					2021.07.06	07:59	93.7	-0.3	合格
						17:49	93.7	-0.3	合格
					2021.07.07	08:29	93.7	-0.3	合格
						22:52	93.7	-0.3	合格
					2021.07.08	07:58	93.8	-0.2	合格
						22:53	93.8	-0.2	合格

附件 2 无组织废气检测采样天气条件

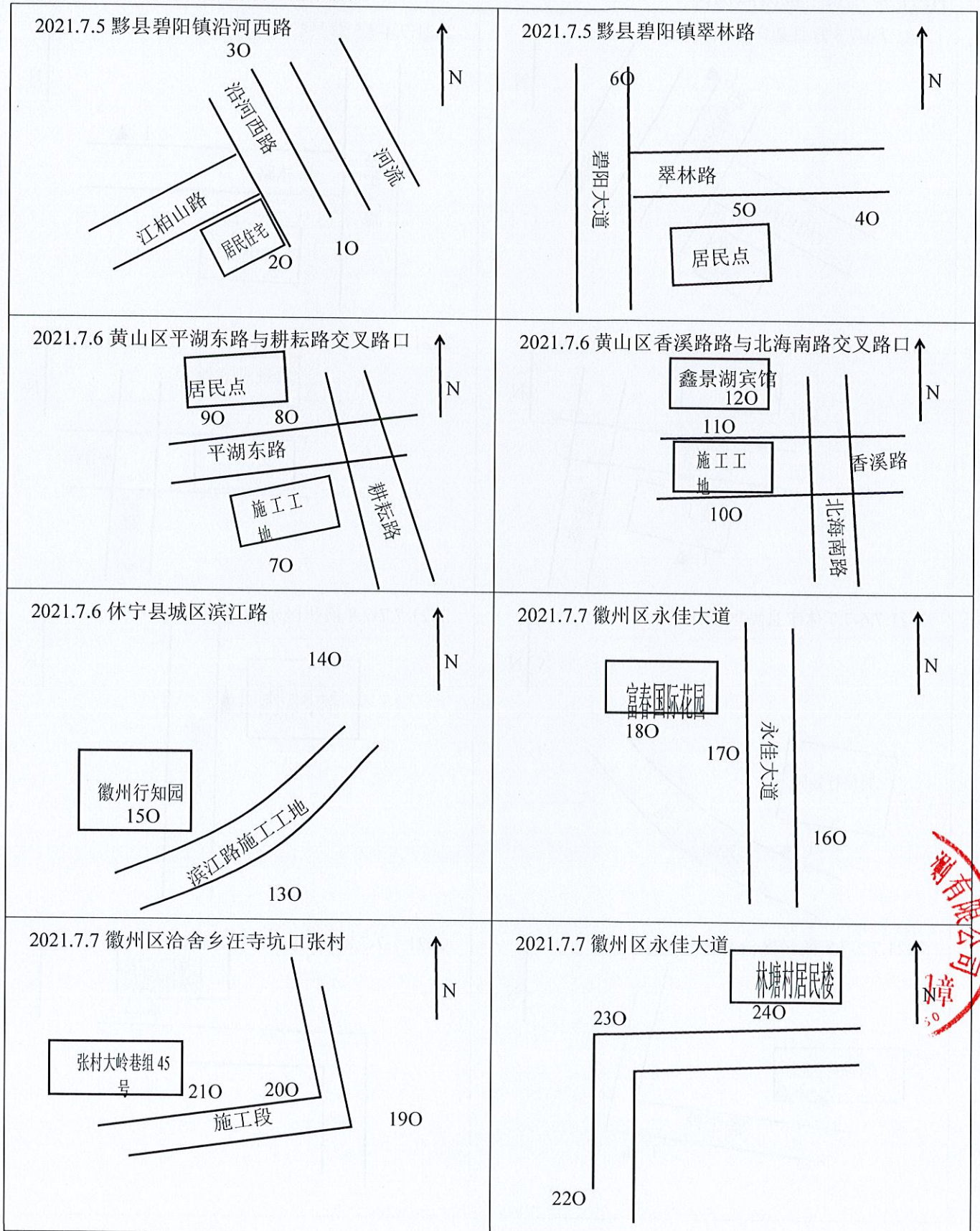
采样地点	采样时间	天气	风向	风速(m/s)	气温(℃)	气压(Kpa)
黟县碧阳镇沿河西路	2021.07.05 14:17-15:17	晴	东南	2.1	33	99.0
黟县碧阳镇翠林路	2021.07.05 15:40-16:40	晴	东南	2.1	33	99.0
黄山区平湖东路与耕耘路交叉路口	2021.07.06 09:40-10:40	晴	南	1.5	32	98.5
黄山区香溪路与北海南路交叉路口	2021.07.06 10:50-11:50	晴	南	1.5	33	98.5
休宁县城滨江路	2021.07.06 14:10-15:10	晴	南	1.7	34	98.5
徽州区永佳大道	2021.07.07 09:00-10:00	晴	东南	1.3	33	99.8
徽州区洽舍乡汪寺坑口张村	2021.07.07 11:00-12:00	晴	东	1.5	32	99.5
屯溪区奕棋镇林塘村	2021.07.07 14:50-15:50	晴	西南	1.8	31	99.7

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附件3 无组织废气检测点位图



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附件4 噪声检测点位图

