



Environmental Monitoring Report

Project Number: 42265-023
Semestral Report: July 2022 - December 2022
March 2023

India: Assam Urban Infrastructure Investment Program - Tranche 1

Prepared by Guwahati Development Department and Urban Development Department, Government of Assam for the Asian Development Bank

This environmental monitoring report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

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Asian Development Bank

ASSAM URBAN INFRASTRUCTURE INVESTMENT PROGRAM

::: PROJECT MANAGEMENT UNIT (PMU) :::

3rd Floor, Tripti Tower, Ganeshguri, Guwahati, Assam-781005

Tel. No. 0361-2349839, +91 70860 80108,

Email: pmu.auiip@assam.gov.in, Website: <http://www.auiip.nic.in>



No. AUIIP/515/2023/94

Date: 21/03/2023

From: The Project Director,
Assam Urban Infrastructure Investment Program,
Ganeshguri, Guwahati-05

SFG Log: 5442

To: The Country Director,
India Resident Mission
Asian Development Bank.

Sub: Loan No. 2806-IND & 3624-IND: Submission of Revised Semi Annual Environmental Monitoring Report for the period January- June 2022 and Semi Annual Environmental Monitoring Report for the period July- December 2022.

Ref: Your E-mail Dated 13.03.2023

Sir,

With reference to the subject cited above, I am submitting herewith the Revised Semi Annual Environmental Monitoring Reports for the period January to June 2022 and Semi Annual Environmental Monitoring Report for the period July- December 2022 under both the loans.

This is for favour of your kind information.

Encls: As stated above.

Yours sincerely



Project Director

Assam Urban Infrastructure Investment Program

Project Director
Assam Urban Infrastructure Investment Program
Ganeshguri, Guwahati-5

Semi Annual Environmental Monitoring Report

ADB Loan Number 2806-IND

Period Covered: July to December 2022

**IND: Assam Urban Infrastructure Investment
Program – Project 1**

February 2023

**Prepared by Department of Housing and Urban Affairs, Government of Assam for
Asian Development Bank**

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ABBREVIATIONS

ADB	-	Asian Development Bank
AUIIP	-	Assam Urban Infrastructure Investment Program
APCB	-	Assam Pollution Control Board
AUWSSB	-	Assam Urban Water Supply and Sanitary Board
CTE	-	Consent to Establish
CTO	-	Consent to Operate
DFO	-	Divisional Forest Officer
DHUA		Department of Housing and Urban Affairs
DMB	-	Dibrugarh Municipal Board
DMSC	-	Design Management and Supervision Consultant
DSC	-	Design & Supervision Consultant
DTP	-	Dibrugarh Town Protection
EARF	-	Environmental Assessment and Review Framework
EC	-	Environmental Clearance
EIA	-	Environmental Impact Assessment
EM	-	Environment Monitoring
EMP	-	Environmental Management Plan
GDD	-	Guwahati Development Department
GMC	-	Guwahati Municipal Corporation
GMDA	-	Guwahati Metropolitan Development Authority
GRM	-	Grievance Redress Mechanism
IEC	-	Information, Education and Communication
IEE	-	Initial Environmental Examination
LOA	-	Letter of Acceptance
LOI	-	Letter of Intent
MFF	-	Multi Tranche Financing Facility
NABET	-	National Accreditation Board for Education and Training
NOC	-	No Objection Certificate
NTP	-	Notice to Proceed
PD	-	Project Director, AUIIP
PHED	-	Public Health Engineering Department
PIU	-	Project Implementation Unit
PMC	-	Project Management Consultants
PMU	-	Project Management Unit
PPMS	-	Project Performance Monitoring System
PSO	-	Project Support Office, Guwahati
PUC	-	Pollution Under Control
SPPTS	-	Support project program and Technical Assistance
SPS	-	Safeguards Policy Statement, 2009
STP	-	Sewage Treatment Plant
SWM	-	Solid Waste Management
TL	-	Team Leader
TOR	-	Terms of Reference
DTL	-	Dy. Team Leader
UDD	-	Urban Development Department
WO	-	Work Order
WTP	-	Water Treatment Plant

I. INTRODUCTION

A. OVERALL PROJECT DESCRIPTION

1. Asian Development Bank (ADB) has approved the Assam Urban Infrastructure Investment Program (AUIIP), a \$200 million Multi-Tranche Financing Facility (MFF) on 20th September 2011, to improve water supply of South Guwahati East Zone¹ as well as drainage and solid waste management (SWM) of Dibrugarh.² AUIIP will also provide support for ongoing urban reforms and associated capacity development for improved service delivery, urban governance and financial management in Guwahati and Dibrugarh. Loan 2806-IND: AUIIP-Tranche 1 for \$81 million was approved on 18 November 2011, signed on 9 March 2012 and declared effective on 25 April 2012. On March 2014, \$20 million and in September 2016, \$10 million of Tranche 1 was cancelled and reallocated to the MFF pool. After that Tranche 1 (Project 1) stands at \$51 million. The original loan closing date was 30 June 2018. The loan closing date was initially extended till 29 June 2021 which was further revised to 30th September 2021. The Extension of completion time period up to 21.06.2022 had been approved for the sub project Construction of DTP drain, BOX Culvert & Allied Works Chainage 5625 m to 9515 m(AUIIP/PR-1/DIB/DR/01 by the Project Director, AUIIP and the work has been completed.

2. Project 1 contains various sub-projects which are (i) 2 sub projects on Water Supply System in South East Guwahati (ii) 1 sub project on Storm Water drainage in Dibrugarh and (iii) 4 sub projects on Solid Waste Management in Dibrugarh.

3. The executing agency is Department of Housing and Urban Affairs (DHUA) (earlier it was Guwahati Development Department). The Project Management Unit (PMU) in Guwahati and respective Project Implementation Units (PIUs) have been established in Guwahati and Dibrugarh. Initially, Project Management Consultants (PMC) and Design and Supervision Consultants (DSC) were mobilized under Tranche 1 (Project 1) to assist the PMU and PIUs. However, in the third quarter of 2016, the PMC had withdrawn their services from AUIIP and DSC's contract was lapsed on 30th May 2018 after extension of their contract for three months. In the month of October 2018 GKW Consult GmbH in association with Vision EIS Consulting Pvt. Ltd. has been awarded the contract for the Design, Management and Supervision Consultancy (DMSC) and the contract expired 30.09.2021.

4. The primary objective of the program is to formulate and implement a roadmap that helps national and state-level targets for water supply in Guwahati and storm water drainage and SWM facility at Dibrugarh.

5. **Outputs of the Project:** The major key outputs are as follows:

- Improvement water supply infrastructure in Guwahati
- Improved SWM infrastructure in Dibrugarh
- Improved drainage in Dibrugarh
- Enhanced capacity building

6. **Outcomes:**

- Improved access to Urban infrastructure
- Reduced flooding

¹Guwahati has been divided into four water supply zones; one north of the Brahmaputra river and three to the south. In south Guwahati, the west zone is being financed under Jawaharlal Nehru National Renewal Mission (JNNURM), the central zone by Japan International Cooperation Agency (JICA), and the east zone has been identified for ADB assistance.

²Dibrugarh suffers from prolonged local flooding during the annual monsoon. Because of the lack of sewerage and inadequate solid waste management much of the areas in the city's drainage system becomes choked and severely polluted with un-treated wastewater.

- Environmental sustainability
- Gender main streaming

B. BACKGROUND AND CONTEXT OF THE REPORT

7. **Environmental Categorization:** Sub projects under AUIIP Project 1 have been categorized as ADB Category B for environment as per ADB Safeguard Policy (SPS 2009) and accordingly Initial Environmental Examination (IEE) reports were prepared and were approved by the ADB.

8. Environmental Monitoring Plans (EMPs) which addresses the potential impacts and risks identified by respective environmental assessments of each sub-project are included in the IEE reports. The level of complexity of the EMPs and the priority of the identified measures and actions commensurate with the sub projects" impact and risks. The EMPs are a part of bidding and contract documents.

9. The Semi-Annual Environmental Monitoring Report presents the status of sub project implementation, details of compliance with environmental regulations of the Government and policies of ADB, details of compliance with environmental loan covenants, details of complaints received and their redressal and the status of compliance with various aspects of EMP as stated in the IEE reports.

10. This report consists of the following content:

- Status of Subprojects;
- Compliance of Safeguard Loan Covenants;
- Implementation Arrangement;
- Environmental Legal Requirement;
- Compliance with Environmental Legal Requirements;
- Compliance status with the environmental management and monitoring plan;
- Environmental monitoring and evaluation;
- Consultations and disclosures conducted;
- Grievance redress mechanism;
- Findings and recommendations;
- Appendix

C. ENVIRONMENT PERFORMANCE INDICATORS, IF ANY

11. For effective monitoring, selected environmental parameters have been identified as indicators which may be qualitatively and quantitatively measured and compared over a period of time in order to assess/ ensure the compliance to the Environmental Management Plans (EMPs) of each subproject. The environmental performance indicators selected are physical, biological and social characteristics identified as most important in affecting the environment at critical locations all along the sub project corridors. The parameters identified as performance indicators are:

- ✓ Compliance with environmental management and monitoring plan;
- ✓ Compliance to State/ National environmental regulations; and
- ✓ Monitoring of ambient air quality, water quality and noise levels and comparison with baseline environmental quality and State/ National Standards.

II. IMPLEMENTATION PROGRESS

A. STATUS OF SUBPROJECTS UNDER PROJECT 1

12. The Project 1 contains various sub-projects which are (i) 2 sub projects on Water Supply System in South East Guwahati (ii) 1 sub project on Storm Water drainage in Dibrugarh and (iii) 4 sub projects on Solid Waste Management in Dibrugarh.

13. **Table 1** shows the subprojects under Project 1 and the work package including the status of July-December'2022 period.

14. The package involving construction of 6 storage reservoirs and allied works in Guwahati; and another package involving construction of transmission main pipelines and allied works for water supply project in Guwahati, awarded earlier had terminated in December 2015 due to non-performance of the contractor. The terminated contracts were repackaged into three packages and were re-bid. Following which, Shivam Transcon Pvt. Ltd. was engaged in August 2016 for construction of three water reservoirs and Tirupati Cement Products was engaged in October 2016 for the construction of clear water transmission mains pipeline and allied works.

15. The contract for „design, build and operation of intake works, raw water rising main, water treatment plant, clear water pumping stations and allied works in Guwahati was proposed to be covered under Tranche 2. Later, it was decided by ADB and higher authority of Govt. of Assam that this package will be considered in phase II of AUIP³.

16. The contract for the construction of DTP drain box culverts and allied works chainage 0 to 9.5 km in Dibrugarh was awarded in 2014 and the project completion date was May 2017. The contractor (M/s Corsan Corvium Construccin S.A.) applied for EOT since the contract was expired on 23.05.2017. However, the request was not approved by the Govt. of Assam and in the meantime the contractor was bankrupt. Contractor & Sub contractor then left the work abandoned. Later the scope was reduced from Chainage 0 – 9515 m to Chainage 5625 -9515 m and rebidding was done for portion from chainage 5625 m to 9515 m of DTP drain. Contractor has been selected and project work continued from February 2020.

17. The Solid waste management (SWM) sub-project in Dibrugarh has four packages which are (i) The construction of Compound Wall for SWM: the contract is awarded to M/S Badri Rai and Co. in June 2017; (ii) Design build 100 MT Solid Waste Compost Plant & 60 MT Sanitary Landfill site: the contract is awarded to M/s Milan Dutta-Blackberry Overseas Pvt. Ltd and Alfa Therma (JV) in April 2017;(iii) Procurement of equipment/transportation for primary and secondary collection system and (iv) Construction of Compost Plant Sheds at SWM Plant in Dibrugarh. Environment Clearance has been obtained for SWM landfill site for Dibrugarh.

18. Physical Progress of the sub-projects awarded under Project 1 is shown in **Table 2**. **Appendix 1** shows photographic illustration of different packages under implementation.

19. Location of project sites at Guwahati and Dibrugarh are shown in **Figure 1A, 1B and 1C**.

³As per mutual decision taken by ADB, DEA and GoA, the contract package which are not likely to be completed within the MFF closing date are proposed to be shifted to a new loan and accordingly a PPR has already been uploaded in DEA's e-Portal for the new loan AUIP II.

Table 1: Status of Sub-project Awarded/Implementation under Project 1

Town	Package No.	Components	Status- up to 31st December 2022
1. Water Supply System Subproject			
Guwahati	AUIIP/PR-1/GUW/WS-01	<p>Construction of transmission water supply pipelines and allied works in Guwahati</p> <ul style="list-style-type: none"> Laying of 21.325 km length of mild steel pipe line of nominal internal diameter ranging from 1300mm to 500mm Laying of 4.24km length of gravity pipe line of ductile iron (Class K-9) of 500 mm internal diameter. <p>Total pipe length- 25.565 km Locations- Water treatment plant to Gopal Nagar, then connecting all reservoirs</p> <ul style="list-style-type: none"> JICA- ADB Interconnection- 700mm dia pipe – 2400 m completed. 	<p>Due to poor performance of the Contractor M/S. IVRCL, contract was terminated on 07.12.2015 for fresh bid.</p> <p>LOA issued to M/S Tirupati Cement Products on 30.08.2016. Award of Contract: 01.10.2016 NTP issued: 04.10.2016 Time of completion: 730 days from the date of issuance of NTP. Target completion of work by 01.10.2018. Extension of contract done up to 30th September 2021.</p> <p>100 % work has been completed.</p>
Guwahati	AUIIP/PR-1/GUW/WS-02A	<p>Construction of storage reservoirs of various capacities at three locations (Gopalnagar, NorthJyoti Nagar and Kenduguri), approach road and allied works in South East Guwahati Water Supply Project.</p> <p><u>Details: Locations</u> Reservoirs:</p> <ul style="list-style-type: none"> ➤ Gopal Nagar – 17 Million Litter (ML) ➤ North Jyotinagar- 3.2 ML ➤ Kenduguri- 3.6 ML <p>Approach road:</p> <ul style="list-style-type: none"> ▪ Gopal Nagar - 500 m ▪ North Jyotinagar- 200 m ▪ Kenduguri-250 m 	<p>Due to poor performance of the Contractor M/S. IVRCL, contract was terminated on 07.12.2015 for fresh bid. New bidding invitation completed.</p> <p>LOA issued to M/s. Shivam Transcon Pvt. Ltd. on 05.05.2016 Award of Contract:08.06.2016 NTP issued: 06.08.2016 Time of completion: 900 days from the date of issuance of NTP. Target completion of work by 28.01.2019 Extension of contract done up to 30th September 2021.</p> <p>100 % work has been completed.</p>
2. Storm water Drainage Subproject			
Dibrugarh	AUIIP/PR-1/DIB/DR-01	<p>Construction of Reinforced cement concrete RCC DTP drain, widening of culverts and allied works in Dibrugarh from chainage 0 to 9500 m</p> <p>New contract- Construction of DTP drain, BOX Culvert & Allied Works Chainage 5625 m to 9515 m</p>	<p>Contract Agreement was signed on 20.02.2014 and NTP was issued on 25.03.2014.</p> <p>The contractor had applied for EOT since the contract was expired on 23.05.2017. However, the request was not approved by the Govt. of Assam and in the meantime the contractor was bankrupt.</p> <p>Contractor & Sub contractor have left the work abandoned. No physical progress since 11th June</p>

Town	Package No.	Components	Status- up to 31 st December 2022
			<p>2017.</p> <p>The contract rebid for the chainage- 5625m - 9515m. Bidding process completed; contractor selected for chainage 5625 m to 9515 m of DTP drain. Project work commenced from February 2020.</p> <p>The ADB loan closure date was 30th September 2021. Then The Extension of completion time period upto 21.06.2022 had been approved Project Director, AUIIP. The remaining spills over works are completed. The cost was beared by the State Government.</p> <p>100 % work has been completed.</p>
3. Solid Waste Management Subproject			
Dibrugarh	AUIIP/PR-1/DIB/SWM-01A	Construction of Compound wall, River Protection Wall, Access Roads, Security Guard Room and Allied Works of Landfill site at Dibrugarh	<ul style="list-style-type: none"> • LOA issued to M/S Badri Rai and Co. on 07.11.2017 • Award of Contract: 23.06.2017 • NTP issued: 08.11.2017 • Time of completion: 730 days from the date of issuance of NTP <p>Scheduled date of completion 8th November 2019. Expected date of completion 11th November 2020. Extension of contract done up to 30th September 2021.</p> <p>100 % work has been completed.</p>
Dibrugarh	AUIIP/PR-1/DIB/SWM-01B	Design Build of 100 MT processing plant and 60 MT sanitary land fill site and allied works at Dibrugarh	<p>The contract was awarded to M/s Milan Dutta-Blackberry Overseas Pvt. Ltd-Alfa Therma Ltd JV on 19.04.2017. NTP was issued on 21.08.2017</p> <p>Scheduled date of completion 20th September 2019. Expected date of completion 10th December 2020. Extension of contract done up to 30th September 2021.</p> <p>100 % work has been</p>

Town	Package No.	Components	Status- up to 31 st December 2022
			completed. Till the reporting period the SWM plant is in operation stage.
Dibrugarh	AUIIP/PR-1/DIB/SWM-02 (Lot 1 to 5)	<p>Procurement of equipment for primary, secondary collection and transportation Vehicles for Municipal Solid Waste Management at Dibrugarh</p> <p>Lot 1: Procurement of equipment for primary secondary collection and transportation vehicles</p> <p>Lot 2: Procurement of equipment for primary secondary collection and transportation vehicles.</p> <p>Lot 3A: Procurement of Heavy equipment and vehicles for Dibrugarh</p> <p>Lot 3B: Procurement of Heavy equipment and vehicles for Dibrugarh</p> <p>Lot 4: Supply, Testing and Commissioning (SITC) of GPS tracking for waste collection and transportation vehicle in Dibrugarh with RFID technology for two years AMC and DLP:</p> <p>Lot 5: Procurement of Equipment secondary collection and transportation vehicles for Municipal Solid Waste Management in Dibrugarh – procurement of PPEs and other equipment"s</p>	<p>For Lot 1: NTP issued on 23.03.2020- Work completed</p> <p>For Lot 2: NTP issued on 20.03.2020- Work completed</p> <p>For Lot 3A: Work completed</p> <p>For Lot 3B: Work completed</p> <p>For Lot 4: Work completed</p> <p>For Lot 5: Work completed</p>
Dibrugarh	AUIIP/PR-1/DIB/SWM-01C	Construction of Compost Plant Sheds at SWM Plant in Dibrugarh	<p>The contract was awarded to M/s Milan Dutta</p> <p>Start date - 27th November 2020</p> <p>Extension of contract done up to 30th September 2021.</p> <p>100 % work has been completed.</p>

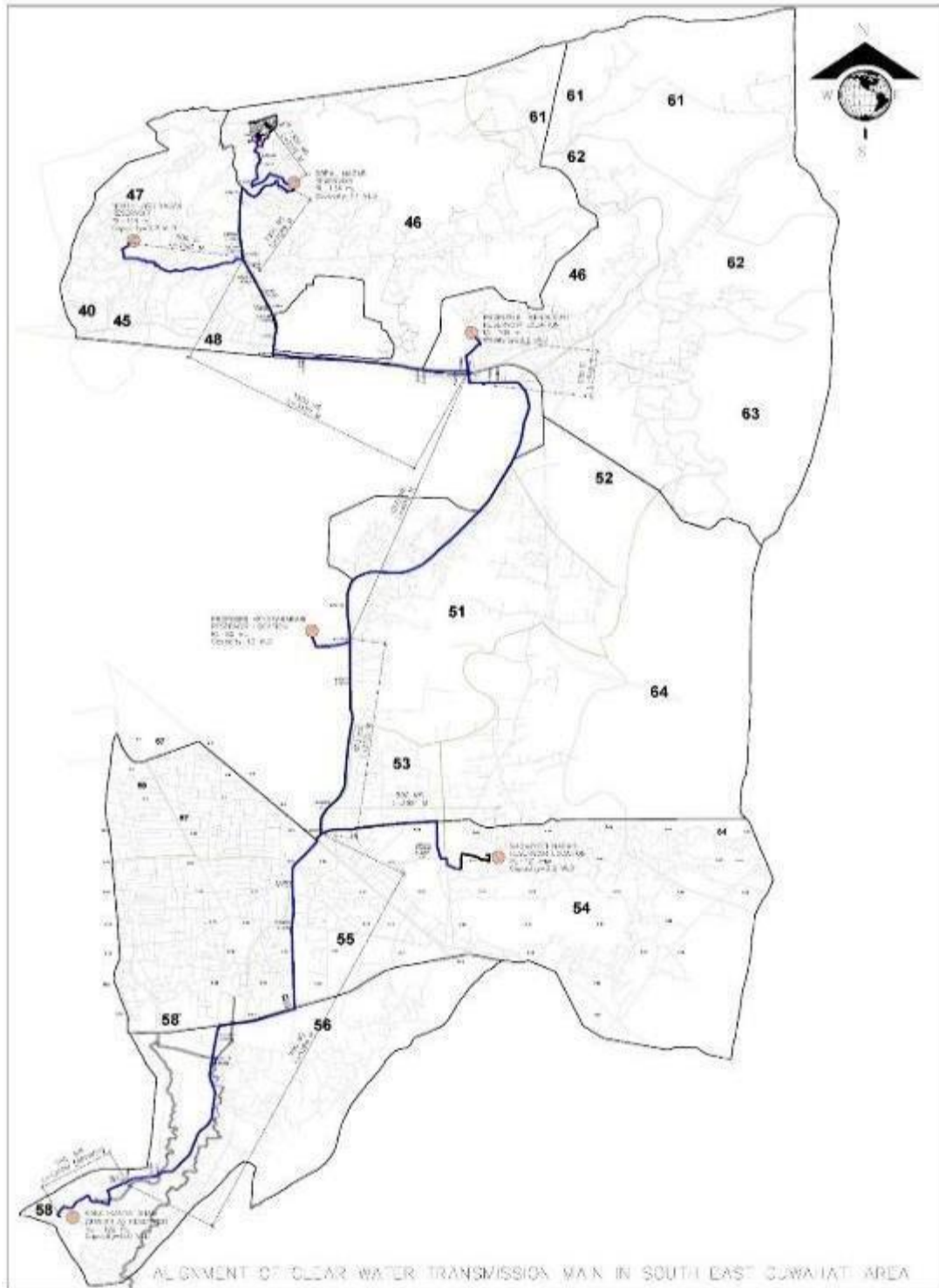


Figure 1A: Location of Transmission main pipe line and Reservoirs- Guwahati
 (Note: Only Reservoirs at Gopal nagar, Kenduguri and North Jyoti nagar will be constructed under the package)

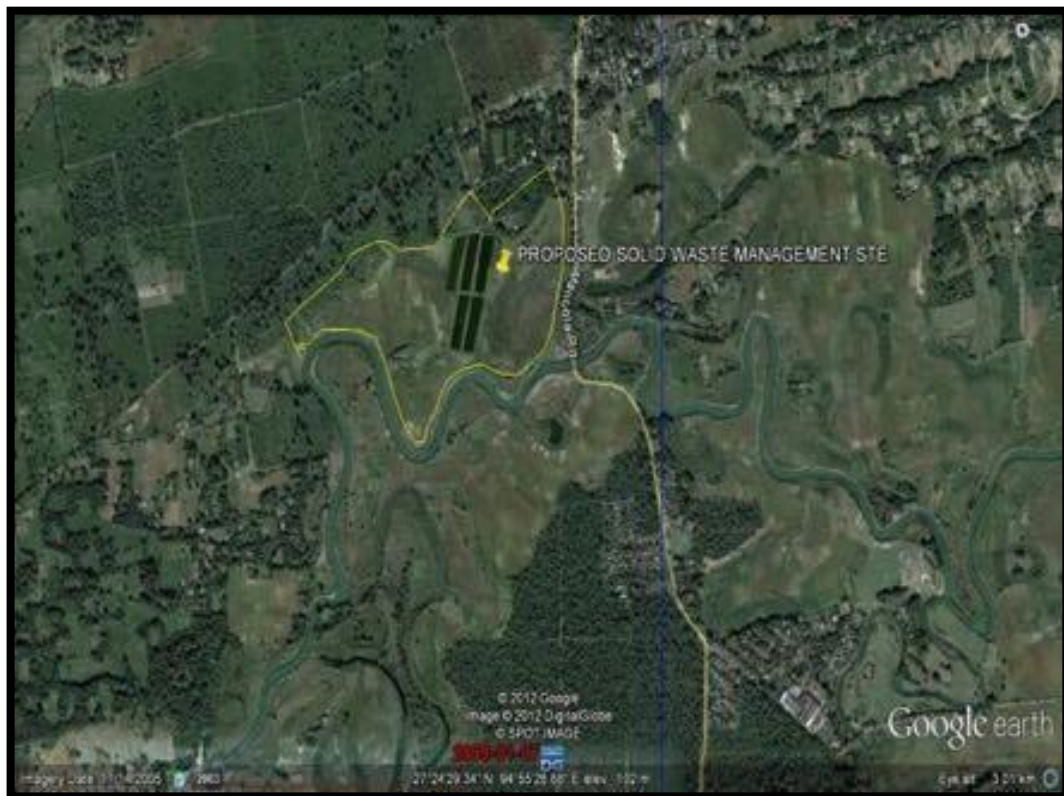


Figure 1B: Location of SWM project site at Dibrugarh

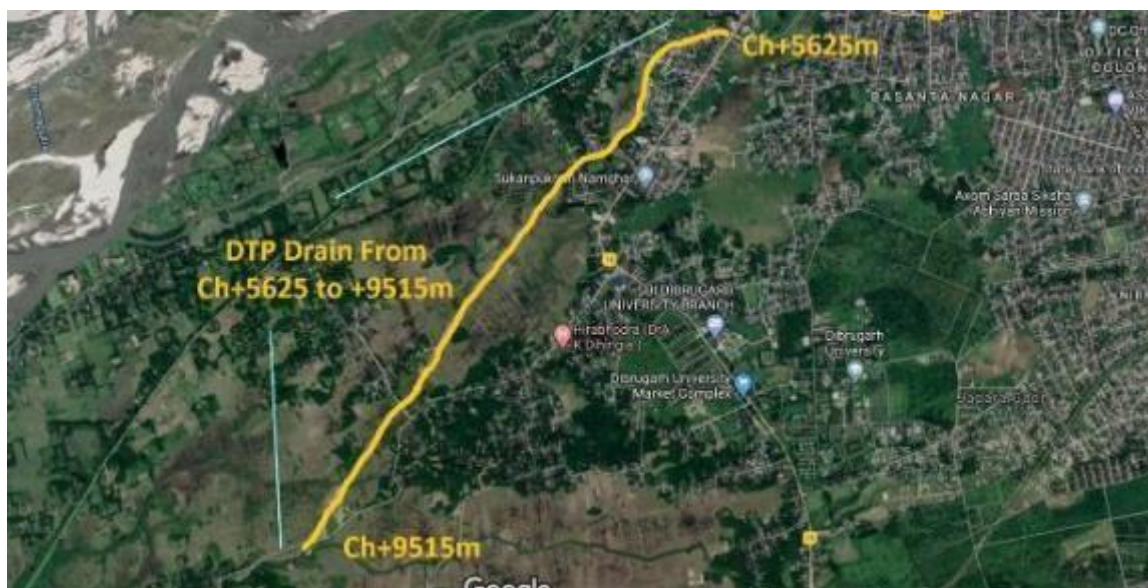


Figure 1C: Key Plan for DTP drain Dibrugarh (chainage 5625 to 9515 - Working area)

Table 2: Physical Progress of the sub-projects awarded under Project 1

Sl. No.	Component of the Project & Package Ref No.	Name of the Contractor	Contract value in INR	Starting date of Implementation	Schedule date of completion (Extended date of completion)	Original Contract period in months/days	Work completed till 31 st December 2022	Cumulative Physical progress (%) as on 31.12.2022
1.	Constriction of Water supply, Transmission Main Pipelines and allied work in Guwahati-AUIIP/PR-1/GUW/WS/01	M/s. Tirupati Cement Products	78.99 Crore- (Original) 104.89 Crore (Revised) Further revised to – 112.21 Crores	Award of Contract: 01.10.2016 NTP issued: 04.10.2016	Target completion of work by 01.10.2018 (Extension of contract up to 28.02.2019){Further extension – (provisional)up to 31.12.2019} Further extension up to 31.12.2020. Extension of contract done up to 30 th September 2021.	730 days or 24 months	<ul style="list-style-type: none"> Laying of Pipeline MS and DI - 25.56 km totally completed Jack pushing: total 1217 m completed Hydro test: -23 km completed, rest under progress Road Restoration: CC road completed JICA - ADB interconnection pipe laying of 2400 m completed 	100 %
2.	Construction of storage reservoirs of various capacities at three locations (Gopal Nagar, NorthJyoti Nagar and Kenduguri), approach road and allied works in South East Guwahati Water Supply Project. - AUIIP/PR-1/GUW/WS/02A	M/s. Shivam Transcon Pvt Ltd.	37.11 Crore (Original) 33.91 Crores (Revised)	Award of Contract:08.06.2016 NTP issued: 06.08.2016	Target completion of work by 28.01.2019 (Extension up to 31.07.2019), Further extension approved up to 31 st July 2020. Expected completion by 31.12.2020. Extension of contract done up to 30 th September 2021.	900 days or 30 months	The construction works for the three reservoirs are completed along with the allied works.	100 %
3.	Construction of DTP Drain- AUIIP/PR-1/DIB/DR/01 New contract - Construction of DTP drain, BOX Culvert &Allied Works Chainage	M/s. Corsan Corvium Construction S.A <i>New Contractor-</i>	169.89 Crore Value for new contract – 91.41 Crores	Contract Agreement: 20.02.2014 NTP issued: 25.03.2014. For new contract work started from 12 th February 2020.	Schedule date of completion of new contract – 21 st June 2021.	1095 days or 36 months	Contractor & Sub contractor have left the work abandoned. No physical progress since 11 th June 2017. Re-bidding done for chainage 5625 m to 9515 m	13.41% - Upton June 2017 For new contract – 5625 m to 9515 DTP

Sl. No.	Component of the Project & Package Ref No.	Name of the Contractor	Contract value in INR	Starting date of Implementation	Schedule date of completion (Extended date of completion)	Original Contract period in months/days	Work completed till 31 st December 2022	Cumulative Physical progress (%) as on 31.12.2022
	5625 m to 9515 m	M/s Badri Rai & Co			Extension of Scheduled completion time period up to 21.06.2022 has been approved Work completion date-30.11.2022		of DTP drain. Work started by new contractor from 12 th February 2020 <ul style="list-style-type: none"> Excavation done for 2,79,592.02 cu.m Rubble soling, coarse sand gravel filling done for 25,119.177 m, rest under progress Plain Cement concrete done: 9873.791 cu.m and RCC completed 14906.661 cu.m Geo-textile membrane placement done for 61248.400 Sq.m Providing and laying of boulder apron laid in wire crates: 25849.400 cu.m Installation of precast elements: 2435 no"s. 	drain – 100%
4.	Construction of Compound Wall, River Protection etc.- AUIP/PR-1/DIB/SWM/01A	M/S Badri Rai and Co.	12.09 Crore(Revised to 13.64 Cr)	Award of Contract: 23.06.2017 NTP issued: 08.11.2017	08.11.2019 Expected completion date 11 th November 2020 Extension of contract done up to 30 th May 2021. Extension of contract done up to 30 th September 2021.	730 days Or 24 months	Construction works of the compound wall are completed.	100 %
5.	Design Build 100 MT compost plant with 60 MT sanitary landfill site-	M/S Milan Dutta-Blackberry	29.25 Crore (Original) 42.88 Crore	Contract Agreement: 19.04.2017. NTP was issued on	24/09/2019 (30.04.2020) Expected date of	750 days Or 25 months	Construction works of the 100 MT compost plant with 60MT sanitary landfill site are	100%

Sl. No.	Component of the Project & Package Ref No.	Name of the Contractor	Contract value in INR	Starting date of Implementation	Schedule date of completion (Extended date of completion)	Original Contract period in months/days	Work completed till 31 st December 2022	Cumulative Physical progress (%) as on 31.12.2022
	AUIIP/PR-1/DIB/SWM/01B	Overseas Pvt. Ltd and Alfa Therma	(Revised)	21.08.2017	completion 10 th December 2020 Extension of contract done up to 30 th September 2021.		completed.	
6.	Procurement of goods and equipment- AUIIP/PR-1/DIB/SWM/02 (Lot 1 to 5)- Environment non sensitive package-procurement	1. Lot 1: M/s Neelkamal Limited 2. Lot 2: M/s Borah Automobile Pvt. Ltd.	Total 10.0 Crores 1. Lot 1: 0.83 Crores 2. Lot 2: 3 Crores	1. Procurement of Equipment for primary, secondary collection and transportation vehicles for Municipal SolidWaste Management in Dibrugarh (LOT-1) - NTP issued on 23.03.2020for completion of supply 2. Procurement of Equipment for primary, secondary collection and transportation vehicles for Municipal SolidWaste Management in Dibrugarh (LOT-2)- NTP issued 12.02.2020 3. Procurement of Heavy equipment and vehicles for Dibrugarh (LOT-3A).- work awarded and completed 4. Procurement of	1. 22.03.2021 2. 13.02.2021 3.31.05.2021 4. 31.07.2021 6. 31.05.2021	12 months	1. Supply completed 2. Supply completed 3. Supply completed 4. Supply completed 6. Supply completed	1. 100 % 2. 100% 3. 100 % 4. 100% 6. 100 %

Sl. No.	Component of the Project & Package Ref No.	Name of the Contractor	Contract value in INR	Starting date of Implementation	Schedule date of completion (Extended date of completion)	Original Contract period in months/days	Work completed till 31 st December 2022	Cumulative Physical progress (%) as on 31.12.2022
				Heavy equipment and vehicles for Dibrugarh (LOT-3B).- work awarded and supply under progress 5. Supply, Testing and Commissioning (SITC) of GPS tracking for waste collection and transportation vehicle in Dibrugarh with RFID technology for two years AMC and DLP 6. Procurement of Equipment secondary collection and transportation vehicles for Municipal Solid Waste Management in Dibrugarh – procurement of PPE and other equipment"s				
7	Construction of Compost Plant Shed at SWM Plant at Dibrugarh (AUIP/PR-1/DIB/SWM/01 C)	M/S Milan Dutta-	9.96 Crores	27.11.2020	26.08.2021 Expected date of completion - 31 st July 2021	9 months	Construction of Compost Plant Shed at SWM Plant completed	100%

B. IMPLEMENTATION ARRANGEMENT

20. The Government of Assam's Department of Housing and Urban Affairs is the executing agency. PMU has been established to manage AUIP through PIUs, one each in Guwahati and Dibrugarh. The PMU functions as the implementing agency for project administration and coordination and monitor all the project implementation activities with a focus on performance and achievement of results. PMU reports to the Empowered Committee (the Committee) of the Government of Assam headed by the Chief Secretary, who is responsible for the project results on behalf of Government of Assam. The PIUs are responsible for the day-to-day activities of project implementation in the field and will be under the direct administrative control of the PMU. **Table 3** shows the contact details of the PMU and PIUs.

Designation	Name and Contact Details
PMU, Project Director	Name: Nawab Al Azhar Ali, ACS Office Address: Assam Urban Infrastructure Investment program Tripti Towers, 3 rd Floor, Ganeshguri, Guwahati-781005 Phone: 0361-2529839, Email: pmu.auiip@assam.gov.in
PIU Guwahati, Senior Project Officer (Additional Program Manager i/c)	Name: Mr. Joydeep Bhuyan Office Address: Assam Urban Infrastructure Investment program Tripti Towers, 3 rd Floor, Ganeshguri, Guwahati-781005 Phone: 0361-2529839, 70021 07299, Email:
PIU Dibrugarh, Additional Program Manager (i/c)	Name: Mr. Diganta Mili Office Address: Assam Urban Infrastructure Investment program. Leela Gogoi Path, Milan Nagar, Mancota Road P.O. - C.R. Building, PIN- 786003, Dist- Dibrugarh. Phone: 8474863470, Email: piu.dibrugarh@gmail.com

21. PMU and PIU Safeguard officers: The Safeguards compliance officer at the PMU had resigned in June 2018 and following this, the Resettlement Specialist and Environment Officer from PIU, Guwahati were transferred to PMU, Guwahati with effect from July 2018 and the PIU in Guwahati the said positions are vacant with no safeguard officers. The PIU Resettlement Specialist is in place in Dibrugarh and the Resettlement Specialist has additional responsibility to implement the Environment Safeguard Policy. However, the Resettlement Specialist and Environment Officer PMU, Guwahati have resigned and at present these two posts are vacant.
22. In the month of October 2018 GKW Consult GmbH in association with Vision EIS Consulting Pvt. Ltd. has been awarded the contract for the Design, Management and Supervision Consultancy (DMSC) which got expired on 30.09.2021.

III. ENVIRONMENTAL ASSESSEMENT AND REVIEW PROCEDURE

A. ENVIRONMENTAL LEGAL REQUIREMENT

23. The following Regulations detailed in **Table 4** are currently in force in India that deals with environmental issues that could apply to infrastructure development.

Table 4: Environmental Legal Requirements Applicable to AUIP – Tranche 1

Component	Applicable Legislation	Compliance	Action Required for AUIP Subprojects
1. All components that require acquisition of forest land and tree felling	Forest (Conservation) Act 1980; Wildlife (protection) Act 1972	Approval from State Principal Chief Conservator of Forest and Ministry of Environment, Forests and Climate change, Government of India	
2. All composting and landfill facilities	Municipal Solid Wastes (Management and handing) Rules 2000	Authorization of proposed site by APCB	Authorizatio issued based on land use in and around the site and groundwater condition.
3.Waste management facilities including composting, landfills and transfer stations	Environment (Protection) Act 1986: EIA Notification 2006, amended in 2009 Category B	Requires environmental clearance from State Environment Impact Assessment Authority (SEIAA)	Based on preliminary information and site visits, the SWM project was categorized as B1 and EC was obtained from SEIAA. The CTO for SWM Plant had been obtained from Pollution Control Board and the consent was valid up to 31 st March 2022.
2.Establish of	Air (Prevention and	CTE and CTO for batching	The CTO has been

Component	Applicable Legislation	Compliance	Action Required for AUIIP Subprojects
Batching plant, hot mix and wet mix plant	Control of Pollution) Act, 1981, amended 1987 and its Rules, 1982	plant, hot mix and wet mix plant for DTP drain project.	obtained for batching plant from Assam Pollution Control Board and validity till 31.03.2022.
4. Earth cutting and transportation to WTP	Assam Minor Mineral Concession Rules, 2013	Permission from the District Magistrate; Kamrup Metropolitan	Requisite Permission is already obtained for earth cutting and transportation of ordinary earth for all the reservoir sites and to be renewed as per requirement.

B. COMPLAINT WITH ENVIRONMENTAL LEGAL REQUIREMENT

24. The following Table shows the regulatory requirements of subproject/components under Project 1 and the present status of compliance. Under project 1, the work for the six packages i.e. (i) Construction of Water supply Transmission Main Pipelines and allied work in Guwahati (AUIIP/PR-1/GUW/WS/01), (ii) Construction of storage reservoirs of various capacities at three locations (Gopal Nagar, NorthJyoti Nagar, Kenduguri) approach road, and allied works in South East Guwahati Water Supply Project (AUIIP/PR-1/GUW/WS-02A), (iii) Construction of Compound Wall, River Protection etc.- AUIIP/PR-1/DIB/SWM/01A, (iv) Design Build of 100 MT processing plant and 60 MT sanitary land fill site and allied works at Dibrugarh (AUIIP/PR-1/DIB/SWM/01B), (v) Construction of Compost Plant Sheds at SWM Plant in Dibrugarh (located with landfill site)(AUIIP/PR-1/DIB/SWM/01C) and (vi) Construction of DTP drain, BOX Culvert & Allied Works Chainage 5625 m to 9515 m(AUIIP/PR-1/DIB/DR/01 are completed.

Table 5: Status of Compliance with National and State Legal Requirements

Town	Package No.	National and State Legal Requirement	Clearances given by and Date	Conditions of the Clearance/NOCs	Remarks/Action Needed
Water Supply System Subproject					
Guwahati	Construction of Water supply, Transmission Main Pipelines and allied work in Guwahati-AUIIP/PR-1/GUW/WS/01	(i) CTO for operating Diesel Generator sets under Air (Prevention & Control of Pollution) Act, 1981	No Objection Certificates CTO obtained for 2 D.G sets with capacity of 63 KVA each from Pollution Control Board Assam dated 17/7/2017. Presently Green DGs are used – no clearance is required		
		The Ancient Monument and Archaeological Sites and Remains (Amendment and Validation) Act 2010 The Assam Ancient Monuments and Records Rule 1964	Location of Transmission pipeline near Basistha temple, State Protected Monuments NOC obtained from Directorate of Archeology Assam (NOC was attached in the earlier SEMR)	No condition given	Pipe laying outside temple premises - completed
Guwahati	Construction of storage reservoirs of various capacities at three locations (Gopal Nagar, NorthJyoti Nagar, Kenduguri), approach road and allied works in South East Guwahati Water Supply Project. AUIIP/PR-1/GUW/WS-02 A	(i) Forest (Conservation) Act 1980- For tree felling; (ii) EIA notification 2006 and its subsequent amendments issued under Environment Protection Act, 1986 for obtaining Environmental Clearance for excavation and transportation of earth;	Tree cutting Gopalnagar: Requisite permission for cutting of 73 trees has been obtained from the Forest Department. Kenduguri: Requisite permission for cutting of 16 trees has been obtained from the Forest Department. Northjyotinagar: Requisite permission for cutting of 21 trees has been obtained from the Forest Department. Environmental clearances Gopalnagar: The EC for excavation and transportation of earth was obtained on	Compliance of earlier EC condition disclosed in earlier SEMR	Tree cutting The entire tree cutting procedure for Kenduguri, Northjyotinagar has been completed in 2017. For Gopalnagar, it was completed way back in 2013. Further renewal is

Town	Package No.	National and State Legal Requirement	Clearances given by and Date	Conditions of the Clearance/NOCs	Remarks/Action Needed
			15/02/2017 and was valid for a period on 1 year from the date of issue. Presently work completed at Gopalnagar no further EC is required. Kenduguri: The EC for excavation and transportation of earth was obtained on 08/03/2017 and was valid for a period on 1 year from the date of issue. Northjyotinagar: The EC was obtained from SEIAA, Assam on 19.12.2019 for 2 years		currently not required.
Solid Waste Management Subproject					
Dibrugarh	Construction of Compound Wall, River Protection etc.- AUIIP/PR-1/DIB/SWM/01A Design Build 100 MT compost plant with 60 MT sanitary land fill site- AUIIP/PR-1/DIB/SWM/01B	(i) CTE for setting up 100 TPD MSW treatment and 60 MT sanitary landfill facility under Water (Prevention & Control of Pollution) Act, 1074 and Air (Prevention & Control of Pollution) Act, 1981; (ii) EIA Notification 2006, amended in 2009 - Environmental Clearance for construction of landfill and composting facility (iii) Amended EIA Notification, 2013,	CTE obtained for setting up 100 TPD MSW treatment and 60 MT sanitary landfill facility from Pollution Control Board Assam dated 9/12/2016. The CTE is valid till the date of commissioning of the unit of 5 years whichever is earlier (CTE was enclosed with the earlier SEMR) . Consent to Operate for the SWM Plant obtained on 03.06.2021 from Pollution Control Board, Assam, which is valid till 31.03.2022. (CTO was enclosed with the earlier SEMR) . Environmental Clearance obtained from State Environment Impact Assessment Authority, Assam	Compliance with CTE conditions and Compliance with CTO were presented in earlier SEMR. Compliance with EC conditions are presented in previous SEMR.	All the conditions related to the construction phase in the CTO and EC are complied. All conditions are fulfilled.

Town	Package No.	National and State Legal Requirement	Clearances given by and Date	Conditions of the Clearance/NOCs	Remarks/Action Needed
		Requirement of Environment clearance for Brick earth / Ordinary earth mining project	for development and establishment of 100 TPD processing plant and 60 MT sanitary landfill on 21 st September 2015. The EC is valid for 5 years, i.e. 21 st September 2020 (EC was enclosed with the previous SEMR). As per Govt. Notification EC validity extended up to 31 st March 2021 under COVID condition. Further extension of the EC has been received till 31 st March 2022 (The EC was enclosed with the earlier SEMR.) Environmental Clearance against extraction of ordinary earth required for filling and leveling work for the SWM plant was obtained on 29/02/2020 and is valid till for 2 years (was enclosed with the earlier SEMR.) Currently no mining is carried out at borrow pit site.		
		(iv) No Objection Certificate (NOC) from Dibrugarh Airport	NOC (height clearance only) for construction of sanitary landfill project at Ghoramara, Dibrugarh was obtained from AAI on 28 June 2013 Initially NOC was valid for 5 years i.e., up to 28 th June 2018 Renewal has been done on 04.12.2018. NOC renewed.	(i) No light or a combination of lights which by reason of its intensity, configuration or colour may cause confusion with the aeronautical ground lights of the airport shall be installed at the site at any time during or after	The construction of SWM structures is completed. All conditions are fulfilled.

Town	Package No.	National and State Legal Requirement	Clearances given by and Date	Conditions of the Clearance/NOCs	Remarks/Action Needed
			Validity up to 27.06.2021. Further renewal of the NOC is not required since the construction for the structures as mentioned in the NOC (height clearance only) for construction are already completed within the validity period. (NOC was attached in earlier SEMR)	the construction of the building; (ii) No Radio/ TV Antenna, lighting arrestors, staircase, overhead water tank and attachment or fixtures of any kind shall project above the height indicated in said NOC; (iii) Day & Nights marking with both main and standby power supply should be provided as per ICAO standard.	
		Tree felling permission from DFO, division Dibrugarh	NOC obtained on 13.12.2018 from DFO for felling of one tree at the approach road of landfill at Lekai Thakurthan (NOC copy was attached in the earlier SEMR)	<ul style="list-style-type: none"> Felling should be done in presence of forest staff Out turn of the same to be transported to nearest forest Depot at Khanikar While felling attention may be taken not to disrupt the vehicular traffic and public 	In case of felling of tree all conditions were followed
		CTE and CTO for operating a mini batching plant under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981;	No batching plant is used for the last 6 months		No use of batching plant
Dibrugarh	Construction of DTP drain, BOX Culvert & Allied Works Chainage	CTE and CTO for operating a batching plant under Water (Prevention & Control	The previous CTO has been renewed in 20.10.2020 from Assam Pollution Control Board and validity till	Compliance with CTO was presented in earlier SEMR .	

Town	Package No.	National and State Legal Requirement	Clearances given by and Date	Conditions of the Clearance/NOCs	Remarks/Action Needed
	5625 m to 9515 m mAUIP/PR-1/DIB/DR/01	of Pollution) Act, 1074 and Air (Prevention & Control of Pollution) Act, 1981;	31.03.2021. Further renewal done, which valid upto 31 st Mach 2022		
		Forest (Conservation) Act 1980- For tree felling;	<ul style="list-style-type: none"> • 16 trees at Sukan Pukhuri Fishery dept at Ch. 6.8 km: NOC received from the fishery department and the Forest Department, Dibrugarh for the cutting of 16 trees at chainage 6.8 km of DTP drain (NOC was attached in the earlier SEMR). • 35 trees between Ch 5.265 km to 6.08 km: NOC received from the Forest Department, Dibrugarh for felling of 35 trees (NOC was attached in the earlier SEMR). • 19 trees at Tekela Chiring Gaon Ward: NOC received from the Forest Department, Dibrugarh for felling of 19 trees (NOC was attached in the earlier SEMR). 	<ul style="list-style-type: none"> • All trees are currently cut. • Re-plantation of trees by Forest Dept. • Condition mentioned in NOC. Conditions followed during felling of trees 	

C. COMPLIANCE OF SAFEGUARD LOAN COVENANTS

25. The loan agreement for AUIIP Tranche 1 (Project 1) was signed on 2nd March 2012 and is available on ADB website (<http://www.adb.org/sites/default/files/project-document/59986/42265-02-ind-mlo1.pdf>). **Table 7** provides a summary of compliance to the loan covenants related to environmental safeguards.

Table 6: Compliance to Loan Agreements (Environmental Safeguards)

Serial No. as per Loan Agreement	AUIIP Project 1 Specific Covenants	Status/Issues
Environment		
Schedule 5, para 14 (Project 1)	The Borrower shall cause the State to ensure that the preparation, design, construction, implementation, operation and decommissioning of each Subproject comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the relevant IEE and EMP, and any corrective or preventative actions set forth in the Environment Monitoring Report.	Being Complied <ul style="list-style-type: none"> - Environmental safeguard documents⁵ are prepared in accordance with the requirements of relevant national and state laws, ADB SPS 2009 and EARF. - Draft IEEs were prepared during project preparation and were finalized after the finalization of detailed design. The final updated IEEs were submitted to ADB and were approved and disclosed - For Guwahati Water Supply Subproject, re-bidding has been done for 2 packages. - Updated IEE has been included in the bid and contract documents to ensure measures and requirements set forth in the IEE, specifically the EMP. Site specific EMP are prepared and are implemented. -- For Dibrugarh SWM Subproject DPR prepared. Environment clearance has been obtained. IEE/EMP included in Bid document. In addition, accepted EIA/EMP report has been included in agreement. After final design updated IEE prepared and ADB disclosed IEE in the website. - Regular submissions of SEMRs are done to ADB for review and disclosure in its website.
Human and Financial Resources to Implement Safeguards Requirements		
Schedule 5, para 18 (Project 1)	The Borrower shall cause the State to make available necessary budgetary and human resources to fully	Being Complied. <ul style="list-style-type: none"> - As per implementation arrangement for environmental safeguards, PMU &

⁵All IEEs following ADB SPS were prepared based on preliminary design for all AUIIP Project 1 subprojects. An environmental impact assessment (EIA) following requirements of Government of India EIA Act and Rules, and Solid Waste Management and Handling Rules was prepared for Dibrugarh SWM Subproject in order to obtain the environmental clearance.

Serial No. as per Loan Agreement	AUIIP Project 1 Specific Covenants	Status/Issues
	implement the EMPs, the RPs and any IPP,	<p>PIU's Safeguard Officials except at Dibrugarh and DMSC Environment Specialists were present till the Loan Closing Period. At present the Safeguard Officials post are vacant in both PIU and PMU. At present the Resettlement Specialist, PIU, Dibrugarh has additional responsibility to implement environmental safeguard policy.</p> <p>- PMU and PIUs has allocated its counterpart funds to ensure implementation of subproject EMPs. The construction contractors have allocated necessary budgets to implement mitigation measures and monitoring program as required in the IEEs.</p> <p>Tentative budgets for each contractor were provided in the earlier.</p>
Safeguards – Related Provisions in Bidding Documents and Works Contracts		

<p>Schedule 5, para 19 (Project 1)</p>	<p>The Borrower shall cause the State to ensure that all bidding documents and contracts for Works contain provisions that require contractors to:</p> <p>(a) comply with the measures and requirements relevant to the contractor set forth in the IEEs, the EMPs, the RPs and any IPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;</p> <p>(b) make available a budget for all such environmental and social measures;</p> <p>(c) provide the PMU with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEEs, the EMPs, the RPs or any IPP;</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 upon the completion of construction.</p>	<p>Being Complied.</p> <p>(a) IEEs and specific provisions related to mitigation measures and environmental monitoring are included in the bidding and contract documents.</p> <p>The budgets for the Environment, Health and Safety have been appended as Tentative budgets for each contractor were attached with the earlier SEMR.</p> <p>(c) No unanticipated environmental, resettlement or indigenous people's risks or impacts; since there was little or no construction work conducted.</p> <p>Being Complied.</p> <p>(d) Record of conditions of roads, agricultural land and other infrastructure for packages are not yet submitted by the contractor.</p> <p>Not applicable.</p> <p>(e) Reinstatement of pathways, other local infrastructure, and agricultural land to at least their pre-project condition for all the packages not required</p>
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Serial No. as per Loan Agreement	AUIIP Project 1 Specific Covenants	Status/Issues
Safeguards Monitoring and Reporting		
Schedule 5, para 20 (Project 1)	<p>The Borrower shall cause the State to do the following:</p> <p>(a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons 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 IEEs, the EMPs, the RPs or any IPP, 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 breach of compliance with the measures and requirements set forth in the EMPs, the RPs or any IPP promptly after becoming aware of the breach.</p>	<p>Being Complied.</p> <p>(a) Semi-annual Safeguard Monitoring Report is submitted to ADB for review and disclosure. For any non-compliance related to ADB Safeguard policy or national regulations, corrective action plans are prepared and included in monitoring report.</p> <p>(b) No unanticipated environmental, resettlement or indigenous people's risks or impacts.</p> <p>(c) Till the completion of the project there was no breach of compliance</p>
Labor Standards		
Schedule 5, para 23 (Project 1)	<p>The Borrower shall cause the State to ensure that Works contracts follow all applicable labor laws of the Borrower and the State and that these further include provisions to the effect that contractors (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; (ii) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions; and (iii) maximize employment of women and local poor and disadvantaged persons for construction purposes, provided that the requirements for efficiency are adequately met. Such contracts shall also include clauses for termination in case of any breach of the stated provisions by the contractors.</p>	<p>Being Complied.</p> <p>(i) H&S training had been made mandatory for workers prior to mobilization in worksites. These trainings also include specific HIV/AIDs awareness programs which were conducted among the laborers in all sites by the contractor. COVID 19 awareness training conducted on regular basis.</p> <p>(ii) IEEs included provisions on strict implementation of applicable labor laws in the EMPs.</p> <p>(iii) Contractors were encouraged to employ women and local poor and disadvantaged persons</p>

D. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

26. This section presents the compliance status of Environmental Management and Monitoring Plans of different subproject under implementation. Under Project 1, the work for the six packages i.e. (i) Construction of Water supply Transmission Main Pipelines and allied work in Guwahati (AUIIP/PR-1/GUW/WS/01), (ii) Construction of storage reservoirs of various capacities at three locations (Gopal Nagar, NorthJyoti Nagar, Kenduguri) approach road, and allied works in South East Guwahati Water Supply Project (AUIIP/PR-1/GUW/WS-02A), (iii) Construction of Compound Wall, River Protection etc.- AUIIP/PR-1/DIB/SWM/01A, (iv) Design Build of 100 MT processing plant and 60 MT sanitary land fill site and allied works at Dibrugarh (AUIIP/PR-1/DIB/SWM/01B), (v) Construction of Compost Plant Sheds at SWM Plant in Dibrugarh (located with landfill site)(AUIIP/PR-1/DIB/SWM/01C) and (vi) Construction of DTP drain, BOX Culvert & Allied Works Chainage 5625 m to 9515 m(AUIIP/PR-1/DIB/DR/01 are completed. Few photographs of construction works and environmental management measures of the package Construction of DTP drain, BOX Culvert & Allied Works Chainage 5625 m to 9515 m(AUIIP/PR-1/DIB/DR/01are presented in **Appendix 1**. The contractors followed the Environmental Monitoring Plan (EMP), which is part of the IEE and Contract document. All site observation reports are available with PMU and PIU.
27. A reporting format filled up by the Contractor on a daily basis on compliance with EMP has been issued and they are being compiled on a monthly basis. Monthly, daily environment monitoring reports are available with PMU and PIU.
28. In addition to desk reviews and site inspections, monitoring of selected environmental parameters have been conducted during the reporting period except for the sub-projects for which the construction works were already over. The frequencies of the environmental monitoring activities are commensurate to the type and significance of the impacts. For the current working subprojects under Project 1, the parameters to be monitored were ambient air quality, noise levels, water quality, sludge/ drainage silt quality. The contractor had not been carried out monitoring of the above-mentioned parameters till the reporting period.
29. Compliance on EMP and Environment, Health Safety Norms for Package Construction of DTP drain, BOX Culvert & Allied Works Chainage 5625 m to 9515 m, DIBRUGARH AUIIP/PR-1/DIB/DR- 01 is shown in **Tables 7**. Since it was the time of end of the project. So, all the related information of construction site is not getting in details and the available information are presented in the table.
30. For implementation of EMP, arrangement of human safety, provision of PPEs for workers engaged in construction were implemented. Moreover, instruction was given to contractors to follow the specified clause of BID document to mitigate environmental and social impacts.
31. The contractors whose work requires environmental implementation had been instructed to submit their environmental management plan for approval. Environment Management Plan as submitted by the contractor was scrutinized and checked, wherever necessary environment criteria required was added.

32. Contractors have prepared site-specific environment management plan (SEMP). All Site-specific Environment Management Plans are available with contractor, PIU. SEMP copies are attached in earlier SEMR.

33. Health & Safety Plan SOP in response to COVID 19 under tranche 1 and 2 prepared and which has been attached in the IEE as an Addendum. The plan is disclosed on ADB link <https://www.adb.org/sites/default/files/project-documents/42265/42265-023-iee-en.pdf>. According to SOP the Contractors will be required to submit a corrective action plan {on the next day or immediately as per the nature of issue(s)} detailing each issue of non-conformance and a plan to rectify the issue(s). Any additional issues of non-conformance may be subject to action against the Contractor's as health & safety/safeguard clauses of the contract. There is no any positive case reported during the reporting period.

34. Contractors of all packages have submitted their respective supplementary H & S plans for COVID 19 which were disclosed in earlier SEMR. Regular compliance at working sites and submission of compliance report along with monthly report was continued.

35. Construction contractors provide all necessary safety arrangement for individual safety and construction site, for individual they provide all type of PPE like Safety Vest, Safety Helmet, Hand Gloves, Safety Shoes and respiratory mask. Awareness on need of full use of PPEs among the laborers especially with risk nature of the worksite job and type of PPEs used for such type of job continued till the completion of the project.' For construction site safety they provide safety caution tape, cautionary signages, safe passage for traffic and road users and awareness meeting with locality habitants about importance risk nature of construction job. All COVID 19 related H & S procedures were applied throughout implementation of project.

Table 7: Compliance of EMP and OH&S Norms. Package Construction of DTP drain, BOX Culvert & Allied Works Chainage 5625 m to 9515 m, DIBRUGARH AUIIP/PR-1/DIB/DR- 01

Sl. No.	Mitigation Activates and Method	Location	Responsible for Mitigation	Monitoring method	Responsible for monitoring	Compliance status
1.	Sources of Materials (i) Use quarry sites and sources permitted by government; (ii) Verify suitability of all material sources and obtain approval of Investment PMU/PIU; (iii) If additional quarries will be required after construction has started, obtain written approval from PMU/PIU; and; (iv) Submit to DMSC on a monthly basis documentation of sources of materials.	Material source site	Contractor	Visual observation	DMSC, PIU	<ul style="list-style-type: none"> Construction material are collected from licensed source in compliance with Environmental regulation of the country.
2	Air Quality (i) Consult with PMU/PIU/DMSC on the designated areas for stockpiling of construction materials; (ii) Carry out air quality monitoring; (iii) Damp down exposed soil and any stockpiled at site by spraying with water when necessary, during dry weather; (iv) Use tarpaulins to cover sand and other loose material when transported by trucks; and (v) Fit all heavy equipment and machinery with air pollution control devices which are operating correctly.	Working site	Contractor	Visual observation	DMSC, PMU, PIU	<ul style="list-style-type: none"> Material and wastes were located at secure/designated locations. Air quality monitoring had not been conducted during reporting period. Stockpiles have maintained in such a way to minimize dust rising. Water sprinkling continued as per requirement During transportation of loose material (soil, sand, aggregate etc.) were covered by tarpaulins as per requirement. The PUCs are submitted by contractor. Appendix 2 shows sample copy of PUC
3	Traffic Management	Working site	Contractor	Visual	DMSC, PIU	<ul style="list-style-type: none"> Contractor has prepared and

Sl. No.	Mitigation Activates and Method	Location	Responsible for Mitigation	Monitoring method	Responsible for monitoring	Compliance status
	Implement a traffic management strategy (if required- partly closed) during construction phase.			observation and compliance to traffic management plan.		implemented the traffic management plan at the construction site as per requirement and make sure that the traffic is not significantly impeded during construction period. (Photograph in Appendix1)
4	Surface water Quality (i) Avoid stockpiling of dredged silt/ sludge especially during the monsoon season unless covered by tarpaulins or plastic sheets. (ii) Prioritize re-use of excess spoils and materials in the construction works. If spoils will be disposed, consult with PMU/PIU/DMSC on designated disposal areas; (iii) Install temporary silt traps or sedimentation basins along the drainage leading to the water bodies; (iv) Place storage areas for fuels and lubricants away from any drainage leading to water bodies; (v) Dispose any wastes generated by construction activities in designated sites-preferably for landfill site development and (vi) Conduct surface quality inspection according to the Environmental Management Plan.	Working site	Contractor	Laboratory Test and visual observation and compliance to spoil management plan.	DMSC, PMU, PIU	<ul style="list-style-type: none"> • Slit/ sludge had been covered by tarpaulins or plastic sheets. • Excess spoils and construction materials for the construction works disposed as per spoil management plan. A Spoil Management plan was prepared and available with PIU.NOC obtained for disposal land. • Fuel and lubricants were stored as per norms and kept away from water contact • Surface water monitoring had not been conducted during reporting period.
5	Noise Quality (i) Plan activities in consultation with PMU/ PIU/ DMSC so that activities with the greatest potential to generate noise are	Working site	Contractor	Monitoring report	DMSC, PMU, PIU	<ul style="list-style-type: none"> • Workers are using earmuff near high noise producing area, particularly during operation of equipment. For minimizing

Sl. No.	Mitigation Activates and Method	Location	Responsible for Mitigation	Monitoring method	Responsible for monitoring	Compliance status
	<p>conducted during periods of the day which will result in least disturbance</p> <p>(ii) Require horns not be used unless it is necessary to warn other road users of the vehicle"s approach;</p> <p>(iii) Minimize noise from construction equipment by using vehicle silencers, fitting jackhammers with noise- reducing mufflers, and portable street barriers the sound impact to surrounding sensitive receptor,</p> <p>(iv) Maintain maximum sound levels not exceeding 80 decibels (dbA) when measured at a distance of 10 m or more from the vehicle/s; and</p> <p>(v) Carry out noise level monitoring</p>					<p>noise from construction equipment, vehicle silencers are used</p> <ul style="list-style-type: none"> Noise level monitoring had not been conducted during reporting period. Activities with high noise potential were not conducted during night time.
6	<p>Ecological resources –Terrestrial</p> <p>(i) Minimize removal of vegetation and disallow cutting of trees;</p> <p>(ii) If tree-removal will be required, obtain tree-cutting permit from Municipal Board</p> <p>(iii) Require to plant three (3) native trees for every one (1) that is removed; and</p> <p>(iv) Prohibit employees from cutting of trees for firewood</p>	Working site	Contractor	Visual observation	DMSC, /PIU	<ul style="list-style-type: none"> Joint verification done for tree felling. Tree felling had been done at different stretches after received of NOC from concerned Dept. Three trees would be planted against one cut tree and instruction has been given to the contractor. LPG gas for cooking was provided to labourer, so no tree cutting was done for firewood.

Sl. No.	Mitigation Activates and Method	Location	Responsible for Mitigation	Monitoring method	Responsible for monitoring	Compliance status
7	Disposal sites of dredged sludge and solid wastes Dispose dredge and solid waste at pre-identified agreed upon sites (e.g., existing dumpsites or use for development of landfill) away from sensitive receptors. Physico-chemical testing will be required before disposal.	Drain Site	Contractor	Visual observation and testing record	DMSC, PIU	<ul style="list-style-type: none"> Excavation work of DTP drain was completed without any impact. Extra earth/ sludge has been disposed at the approved area after necessary testing. Sludge testing had not been done during reporting period. NOC received for disposal of sludge (Ref. Spoil Management Plan, which available with PIU-DMSC)
8	Landscape and Aesthetics (i) Prepare and implement Waste Management List; (ii) Avoid stockpiling of excess excavated soils; and (iii) Coordinate with DMB for beneficial uses of dredged silt or immediately dispose to designated areas (specifically use for development of landfill (iv) Recover used oil and lubricants and reuse or remove from the sites	Drain Site & working site	Contractor	Visual observation and document checking	DMSC, PMU, /PIU	<ul style="list-style-type: none"> Adequate storage facilities were provided at the work sites to store the stockpiles. Construction wastes were reused wherever possible. Disposable wastes from camp and work site were collected by the municipality Spoil Management was prepared. and implemented. Oil & Lubricants stored as per

Sl. No.	Mitigation Activates and Method	Location	Responsible for Mitigation	Monitoring method	Responsible for monitoring	Compliance status
	(v) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas. (vi) Remove all wreckage, rubbish; and (vii) Request PMU/ PIU/ DMSC to report in writing that the necessary environmental restoration work has been adequately performed before acceptance of work					standard norms and at a secured place. Waste burned had removed from site and handed over to registered waste oilrecycler • All scrap materials disposed from construction site • Environment restoration had done before acceptance of work
9	Accessibility (i) Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites; (ii) Schedule transport and hauling activities during non- peak hours; (iii) Locate entry and exit points in areas where there is low potential for traffic congestion; (iv) Keep the site free from all unnecessary obstructions; (v) Drive vehicles in a considerate manner; (vi) Coordinate with Dibrugarh Traffic Office for temporary road diversions and with for provision of traffic aids if transportation activities cannot be avoided during peak hours; (vii) Notify affected sensitive receptors by providing sign boards informing nature and duration of construction works and contact numbers for concerns/complaints. (viii) Provide planks across drains in front of businesses, and ensure works are completed quickly to avoid	At all work sites	Contractor	Visual observation and compliance to traffic management plan. Record of Complaints from sensitive receptors; Number of signages placed at subproject location	DMSC, PIU	• Contractor prepared Traffic Management Plan (TMP) and same had been implemented as per requirement. • Signage board, diversion board and road closure board had used as per requirement. • Transportation done during non- peak hours • In case of road closure diversion permission was obtained from Traffic and Police dept. • Metal sheet or wooden planks provided at work site for maintaining access and as per the requirement • Till Not found any notified sensitive receptors within working area.

Sl. No.	Mitigation Activates and Method	Location	Responsible for Mitigation	Monitoring method	Responsible for monitoring	Compliance status
	disruption, and (ix) Avoid full street closure					
10	Socio-Economic–Income (i) Leave spaces for access between mounds of soil; (ii) Provide walkways and metal sheets where required for people; (iii) Increase workforce in front of critical areas such as institutions, place of worship, business establishment, hospitals, and schools. (iv) Consult businesses and institutions regarding operating hours and factoring this in work schedules; and (v) Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.	Drainage work site	Contractor	Observation of records / complaints from sensitive receptors; availability of walkways, signages	DMSC, PIU	<ul style="list-style-type: none"> • Walkways and metal sheet provided for the local people as per requirement • Signage boards and caution tape provided at site. • Presently there are no business establishments nearby
11	Socio-Economic –Employment (i) Employ at least 50% of the labor force, or to the maximum extent, local persons within the 2-km immediate area if manpower is available; and (ii) Secure construction materials from local market.	Drainage work site	Contractor	Observation on, (i) Employment records; (ii) records of sources of materials	DMSC/ PIU	<ul style="list-style-type: none"> • More than 50% local people worked at site. Employment records are available. • Maximum construction materials had been procured from local market
12	Core labor standard (CLS) safety and compliance. (i) Any kind occupational health impacts on the health of labour to be avoid. (ii) Child labour and forced labour to be prohibited (iii) Equal pay to be provided irrespective of gender ethnicity and caste	For entire project	Contractor	DMSC, PIU	Visual observation and employee record. Periodic medical Examination report.	Contractors have a labour License to employ more than 100 employees valid till 03.03.2023 (Enclosed with previous SEMR). <ul style="list-style-type: none"> • Tie up with health institution was available (document was attached in the earlier SEMR). Medical Examination for the workers had not been done during report period under COVID pandemic situation • Child labour and forced labour were not considered • Equal pay was provided

Sl. No.	Mitigation Activates and Method	Location	Responsible for Mitigation	Monitoring method	Responsible for monitoring	Compliance status
13	Occupational Health and Safety (i) Develop and implement site-specific Health and Safety (H&S) Plan which will include measures such as: (a) excluding public from the site; (b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gumboot, safety belt, gloves, nose mask and ear plugs; (c) H&S Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work- related accidents; (ii) Ensure that qualified first- aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site; (iii) Provide medical insurance coverage for workers; (iv) Secure all installations from unauthorized intrusion and accident risks. (v) Provide supplies of potable drinking water; (vi) Provide clean eating areas where workers are not exposed to hazardous or noxious substances (vii) Provide H&S orientation training to all new workers to ensure that they are apprised of the basic site rules of work at the site, personal protective protection, and preventing injuring to fellow workers. (viii) Provide visitor orientation if visitors to the site can gain access to	DTP Drain Site, camp site	Contractor	Compliance to respective Health and Safety plan Visual observation and reports.	DMSC/PIU	<ul style="list-style-type: none"> • Site specific health and safety plan and COVID 19 H & S plan had been prepared and was available at site. PPE had been provided to all workers. • First aid box was provided at all work locations. • For any incident, accident reports were maintained on site. During reporting period there were no first aid case reported. Sample record was attached in the earlier SEMR. • Potable drinking water was provided to worker at work site and camp • Clean eating area provided to workers. • H&S orientation training and conducted for all new workers and ensured that they were apprised of the basic site rules of work at the site, using personal protective protection, and preventing injuring to fellow workers for sample (induction and tool box training attached in earlier SEMR). Use of PPE noted. • Workers were provided with high visibility safety jackets while worked in areas with high traffic movement

Sl. No.	Mitigation Activates and Method	Location	Responsible for Mitigation	Monitoring method	Responsible for monitoring	Compliance status
	<p>areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted;</p> <p>(ix) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(x) Ensure moving equipment is outfitted with audible back- up alarms;</p> <p>(xi) Provide sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate; and</p> <p>(xii) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.</p>					<ul style="list-style-type: none"> • The working sites did not have area where hazardous condition or substances might be present. • DTP drain work site was located at isolated locations. Caution tape provided in working area. • Sign boards were provided at site. • No as such hazardous area within working area.
14	<p>Community Health and Safety.</p> <p>(i) Plan routes to avoid times of peak-pedestrian activities</p> <p>(ii) Liaise with PMU/PIU/DMSC in identifying high-risk areas on route cards/maps.</p> <p>(iii) Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or</p>	Drainage work site	Contractor	Site observation, record of public complaints, observation on traffic management plan	DMSC, PIU	<ul style="list-style-type: none"> • Traffic Management Plan had been prepared for controlling traffic movement at work site • Regular maintenance of the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.

Sl. No.	Mitigation Activates and Method	Location	Responsible for Mitigation	Monitoring method	Responsible for monitoring	Compliance status
	<p>premature failure.</p> <p>(iv) Provide road signs and flag persons to warn.</p> <p>(v) Provide protective fencing around drain, and cover any open trench with metal planks during non- construction hours. potentially cause soil contamination</p> <p>(vi) Recover used oil and lubricants and reuse or remove from the site;</p> <p>(vii) Remove all wreckage, rubbish, or temporary structures which are no longer required; and</p> <p>(viii) Request PMU/PIU/ DMSC to report in writing that the camp has been vacated and restored to pre-project conditions before acceptance of work.</p>					<ul style="list-style-type: none"> • Flag man had been engaged as per requirement and road signs are provided to avoid traffic congestion. • Protective fencing partially provided around drain, and open trenches were covered with metal planks during non-construction hours potentially to avoid soil contamination. • Wreckage, rubbish, or temporary structures were removed from site on regular basis. • Camp had restored to pre-project conditions before acceptance of work.
15	<p>Camp sites</p> <p>(i) Consult PMU/PIU/DMSC before locating project offices, sheds, and construction plants;</p> <p>(ii) Minimize removal of vegetation and disallow cutting of trees;</p> <p>(iii) Provide water and sanitation facilities for employees</p> <p>(iv) Prohibit employees from cutting of trees for firewood;</p> <p>(v) Train employees in the storage and handling of materials which can potentially causes oil contamination;</p> <p>(vi) Recover used oil and lubricants and reuse or remove from the site;</p> <p>(vii) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas;</p> <p>(viii) Remove all wreckage, rubbish, or</p>	At drainage work site, office and camp sites	Contractor	Visual observation Observation on complaints from sensitive receptors, Water and sanitation facilities for employees	DMSC, PIU	<ul style="list-style-type: none"> • Site office was constructed at the project site Jamirah with permission of PIU. • Adequate water and sanitation facilities were provided at the site. Toilets were provided at camp. Canteen was provided for all staff. Regular cleaning of toilet and maintenance was required. • BRC had provided LPG gas for cooking so tree cutting would not be done for firewood • Waste management - storage and disposal of waste continued. • Employees are prohibited from poaching wild life and cutting of trees for fire wood. Instruction had been given

Sl. No.	Mitigation Activates and Method	Location	Responsible for Mitigation	Monitoring method	Responsible for monitoring	Compliance status
	temporary structures (such as buildings, shelters, and latrines) which are no longer required; and (ix) Request PMU/PIU/ DMSC to report in writing that the camp has been vacated and restored to pre-project conditions before acceptance of work					<ul style="list-style-type: none"> • Lubricant, used oil reused or remove from the site. • Adequate storage areas were provided at the work sites and workers were informed about the storage and handling of materials which can potentially cause soil contamination. • Camp had closed as per requirement. Cleaning was done before acceptance of work
16	Social and Cultural Resources (i) Strictly follow the protocol for chance finds in any excavation work; (ii) Request PMU/PIU/DMSC or any authorized person with archaeological field training to observe excavation; (iii) Stop work immediately to allow further investigation if any finds are suspected; and (iv) Inform PMU/PIU/DSC if a find is suspected, and take any action they require ensuring its removal or protection in-situ.	All Working site	Contractor	Visual observation	DMSC, PIU	<ul style="list-style-type: none"> • There were no socio-cultural resources within the vicinity. Chance finds protocol maintained accordingly. Instruction provided to workers in this connection

DMSC =Design, Management and Supervision Consultant, H&S =health and safety, PMU=Project Management Unit; PIU = Project Implementation Unit; GMC =Guwahati Municipal Corporation

IV. ENVIRONMENTAL MONITORING AND EVALUATION

36. Till reporting period, ambient air quality, noise levels, water quality, sludge/ drainage silt quality monitoring had not been carried out for ongoing packages of Construction of DTP drain, BOX Culvert & Allied Works Chainage 5625 m to 9515 m, DIBRUGARH AUIIP/PR-1/DIB/DR- 01.
37. All contractors have health and safety budget for implementation of EMP and monitoring of pollution parameters (The budget was provided with the earlier SEMR).
38. A performance monitoring fact sheet has been prepared to facilitate tracking and quick reference on environmental monitoring of Project 1 packages. (**Tables 8**).

Table 8: Performance Fact Sheet for EMP Implementation of AUIIP (Package-wise)

	Package Number	Name of Contractor	EMP Part of contract Document(Yes / No)	Availability of HSE person	Overall Status of EMP Implementation	Field to be Monitored as per EMP												
						Source of Materials	Camp Sites	Landscape and Aesthetics	Air Quality	Noise Level	Traffic	Ecological Resources – Terrestrial	Accessibility	Water Quality	Occupational Health & safety	Community Health & safety	Socio cultural resources	Employment generation
						In compliance (2) / Partial Compliance (1) / Not in compliance (0) / Not applicable (n/a)												
1	AUIIP/PR-1/DIB/DR/01	M/s Badri Rai & Co.	Yes	Yes	Complied	2	2	2	0	0	2	n/a	2	0	2	2	n/a	2

Note calculation of numerical value for determining performance status- Calculation is based on addition of numerical value like below-

AUIIP/PR-1/DIB/DR/01=Total score - 2+2+2+0+0+2+2+0 +2+2+2=16.Number of working fields=11, **Then 16/11=1.5-More than 1, complied.**

V. CONSULTATIONS AND DISCLOSURES CONDUCTED

39. The activities carried out for public consultation and public awareness, for the subprojects in Dibrugarh for the reporting period is given in Table 9. No community consultation was carried out for Guwahati sub projects as the site works are already completed. The photographs and signature sheets of public consultations conducted in Dibrugarh are in **Appendix 3**

Table 9: Consolidated Table of Consultation

Date	Place and subproject	Queries and Responses
05/08/2022	Extended Jhapara Gaon - DTP Drain - AUIIP/PR- 1/DIB/DR-1	<ul style="list-style-type: none">• When will the work complete? It was informed that within few months the work would be completed.• Community requested to monitor the construction work during the time of installation of precast elements so that the elements would be installed in proper manner with proper alignment.• The community also requested to take precautionary measures for dust suppression during the time of construction which causes problems for local residents.

VI. GRIEVANCE REDRESS MECHANISM

40. The grievance redress committee has been constituted on 1st July 2015 for Guwahati as well as for the Dibrugarh. The notification was attached in the previous SEMR.

41. The stakeholders were informed about the Grievance Redress Mechanism (GRM) through public awareness campaigns. The project information leaflet has been prepared that contains information on the GRM, the contact phone number and address of the PIU. The PMU Environmental Specialist and Resettlement Specialist are responsible for processing and placing the all the papers before the GRC, maintaining the database of complaints, recording the decision, issuing minutes of the meetings and monitoring that decision are implemented. During the reporting period, July to December 2022, there are no grievances related to environment safeguards which have been reported.

APPENDICES

Appendix 1: Photo Illustration (Sample copy)



Shuttering work of culvert



Rod binding work





H&E Training/tool box talk conducted by Safety Officer, Contractor (Pkg DR-01)





Road closure signboard erected during the time of construction

Appendix 2: Sample PUC certificate for vehicle& equipment

AUIIP/PR-1/DIB/DR-01- M/s Badri Rai & Co (Dibrugarh)

Form 59 [See rules 115 (2)]				
Pollution Under Control Certificate				
Authorised By : Government of Assam				
Date	: 30/12/2022			
Time	: 15:01:15 PM			
Validity upto	: 29/12/2023			
Certificate SL. No.	: AS00600320007865			
Registration No.	: AS23CC6168			
Date of Registration	: 02/Mar/2021			
Month & Year of Manufacturing	: December-2020			
Valid Mobile Number	: *****9615			
Emission Norms	: BHARAT STAGE VI			
Fuel	: DIESEL			
PUC Code	: AS0060032			
GSTIN	: Rs.130.00			
Fees	: (GST to be paid extra as applicable)			
MIL observation	: No			
Vehicle Photo with Registration plate 60 mm x 30 mm 				
Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	Carbon Monoxide (CO)	percentage (%)		
Idling Emissions	Hydrocarbon, (THC/HC)	ppm		
	CO	percentage (%)		
High idling emissions	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.63
This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.				
Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to https://puc.parivahan.gov.in				
Authorised Signature with stamp of PUC operator 60mm x 20 mm				

Form 59 [See rules 115 (2)]				
Pollution Under Control Certificate				
Authorised By : Government of Assam				
Date	: 19/08/2022			
Time	: 16:43:13 PM			
Validity upto	: 18/08/2023			
Certificate SL. No.	: AS00600320006600			
Registration No.	: AS23CC6156			
Date of Registration	: 02/Mar/2021			
Month & Year of Manufacturing	: December-2020			
Valid Mobile Number	: *****9615			
Emission Norms	: BHARAT STAGE VI			
Fuel	: DIESEL			
PUC Code	: AS0060032			
GSTIN	: Rs.130.00			
Fees	: (GST to be paid extra as applicable)			
MIL observation	: No			
Vehicle Photo with Registration plate 60 mm x 30 mm 				
Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	Carbon Monoxide (CO)	percentage (%)		
Idling Emissions	Hydrocarbon, (THC/HC)	ppm		
	CO	percentage (%)		
High idling emissions	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.28
This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.				
Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to https://vahan.parivahan.gov.in				
Authorised Signature with stamp of PUC operator 60mm x 20 mm				

**Appendix 3: Photographs of Public consultation and Attendance Sheet
Residence of Japara Gaon (village) on 05/08/2022**



ATTENDANCE SHEET

Project CONSTRUCTION OF STP DRAIN (D1)

Date: 05/08/2022

Venue: JHAPARA GABN

Time: 4pm.

[illegible]