

Resettlement Plan

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India: Uttarakhand Integrated and Resilient Urban Development Project – Development and Improvement of Sewerage System with 5 Years Operation and Maintenance of Dehradun, Zone 8 (Miyawala, Nathhanpur-1, Harrawala, Ladpur, Dobhal Chowk, Mohakampur, Nathhanpur-2, Balawala, Nakraunda), Uttarakhand

Package UIRUDP: WW-DDN-03

CURRENCY EQUIVALENTS

(as of 13 August 2021)

Currency unit	–	Indian rupee (₹)
₹1.00	=	\$0.0135
\$1.00	=	₹74.26

ABBREVIATIONS

ADB	- Asian Development Bank
CAPPA	- Community Awareness and Public Participation Agency
CBO	- Community Based Organization
ESMC	- Environment and Social Management Cell
FGD	- Focus Group Discussions
GOI	- Government of India
GOU	- Government of Uttarakhand
GRC	- Grievance Redress Committee/ Grievance Redress Cell
PMU	- Program Management Unit
PIU	- Program Implementation Unit
IPMC	- Investment Program Management Consultants
RFCTLARRA 2013	- Right for fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act 2013
NGO	- Non-Government Organizations
NPRR	- National Policy on Resettlement & Rehabilitation
PMDSC	- Project Management and Design Supervision Consultant
PWD	- Public Works Department
ROW	- right-of-way
SCDO	- Social and Community Development Officer
SDS	- Social Development Specialist
SIA	- Social Impact Assessment
PAR	- Project Appraisal Report
TLC	- Town Level Committee
UDD	- Urban Development Department
ULB	- urban local bodies
UIRUDP	- Uttarakhand Inclusive and Resilient Urban Development Project
UUSDIP	- Uttarakhand Urban Sector Development Investment Program

WEIGHTS AND MEASURES

km	–	kilometer
LPCD	–	liter per capita per day
m	–	meter
MLD	–	million liter per day
m ²	–	square meter
km ²	–	square kilometer

NOTE

In this report, "\$" refers to United States dollars.

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EXECUTIVE SUMMARY

Background. The proposed Uttarakhand Integrated and Resilient Urban Development Project (UIRUDP) aims to improve universal and equitable access to safe and affordable drinking water, and access to adequate and equitable sanitation and hygiene for all ending open defecation. The outcome of the project is reliability and efficiency of water supply and sanitation services in Dehradun and Nainital enhanced. The project has four major outputs as follows: (i) Output 1: Water supply system and service in Dehradun improved; (ii) Output 2: Integrated sanitation systems and drainage enhanced in Dehradun and Nainital; (iii) Output 3: Computerized maintenance and management systems (CMMS) for water and sanitation developed and implemented in Dehradun and Nainital; (iv) Output 4: Project management, institutional capacity and knowledge strengthened.

This Resettlement Plan is prepared for one of the projects under output 2, which is the development of sanitation and drainage systems in newly-added wards based on the 2018 re-boundary located in the south-eastern periphery of Dehradun, comprising nine wards: Mohakampur; Miyapur (Chak Tun Wala); Harrawala; Balawala; Nakraunda; Ladpur; Dobhal Chowk; Nathhanpur-1; and Nathhanpur-2.

Project Description. The project is proposed in Southeast part of newly expanded Dehradun, which consists of Nathanpur-1, Nathanpur-2, Miyapur, Mokhampur, Dobhal Chowk, Ladpur, Nakraunda, Balawala, Harawala wards. The project covers sub-zone 8A and 8B and the main components of project sanitation and drainage systems include: (i) installation of a sewage treatment plant (STP) at Nakronda (hereinafter referred as Nakronda STP) with 18 million liter per day (MLD) capacity, which will be equipped with co-treatment unit to accommodate additional septage; (ii) installation of around 110 km sewer pipes; (iii) 10,000 house sewer connections; and (iv) construction of 15 km of stormwater drainage system.

Resettlement Plan. The draft resettlement plan is prepared for the proposed Development of Sewerage System of Zone 8A and 8B project in Dehradun (UIRUDP: WW-DDN-03). The project will ensure an improved drainage, sewerage and sanitation management for all the inhabitants within the target areas. The draft resettlement plan assesses the potential impacts due to involuntary resettlement for construction of the project components based on preliminary design. There is no land acquisition anticipated for the project. Roadside shop owners and vendors are found to run their business at the edge of the ROW through a temporary arrangement. Potential adverse impacts (temporary income losses) are identified during laying of sewer pipelines at these locations, Miyawala Chowk, Balawala, Harrawala Chowk, Harrawala to Nakronda Band. Mitigation measures have been developed to reduce adverse impacts to acceptable levels as per environment management plan (EMP). At locations where involuntary resettlement impacts are unavoidable, budgetary provisions are made in the resettlement plan as per the entitlements matrix, to compensate the losses.

Scope of Land Acquisition and Involuntary Resettlement. Project implementation will not require acquisition of private land as the entire civil works for the construction of the STP, the sewer pipelines and stormwater drainage will be done within the right of way (ROW) of land and roads under government ownership. The land parcels proposed for construction of the STP is under the ownership of Nagar Nigam Dehradun. The sewer pipelines will be laid within the ROW of existing government roads (under the ownership of National Highway Authority of India, Public Works Department, Dehradun Nagar Nigam). The resettlement plan is based on review of existing information on preliminary design, field visits, discussion with relevant stakeholders, and

consultations with representatives of line departments, user groups, and with other community members as a process of social impact assessment for the project.

Based on transect walks and surveys of the business activities in the project area, involuntary resettlement impacts are assessed. It is assessed that 20 roadside business owners (92 household members) will incur temporary income loss for the period of disruption (estimated as 26 days) during the construction phase. Out of the total affected persons likely to face loss of income temporarily, seven falls under vulnerable category. This draft RP is based on 100% surveys of sites and alignments. Since the implementation of proposed project would be through a hybrid type Design, Build and Operate mode, there may be some changes in the layout and design of the proposed key infrastructure and various ancillaries during finalization of detail design. Involuntary resettlement impacts will be further assessed and reconfirmed during finalization of detailed design, through detailed measurement surveys and census surveys (DMS). The draft resettlement plan will be updated based on detailed design, DMS, census survey and site-specific consultations, prior to start of construction work and will include the 100 percent assessment of impact for all project sites and all roads through which the sewer pipelines will be routed. Project Implementation Unit (PIU), and Project Management and Design Supervision Consultant (PMDSC) will conduct the verification survey covering 100 percent of affected persons for updating of the draft resettlement plan.

Impact Avoidance and Minimization. Majority of the envisaged impacts are expected to be reduced as per the mitigation measures provided in the EMP; working during night hours and nonmarket days should be considered for laying of sewer pipelines especially along market areas. To minimize and avoid involuntary resettlement impacts, consultations with the roadside shops, and vendors in market areas will be conducted to finalize the construction schedule (in a phased manner), particularly in stretches of narrow roads and busy commercial areas.

Categorization. The impact duration is assessed to be for longer period. The project is classified as 'Category B' in accordance with Asian Development Bank's Safeguard Policy Statement (ADB SPS) 2009.

Legal Framework. The policy framework and entitlements for UIRUDP are based on the following laws and policies: The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (RFCTLARRA) 2013, and ADB SPS, 2009.

Entitlements, Assistance and Benefits. The entitlement matrix presented in the resettlement plan provides for compensation of all potential losses to be provided to all affected persons in the project area. In general, the affected people under the sewerage project will be entitled to the following types of compensation and assistances: (i) compensation for loss of income for the duration of impact; (ii) shifting allowance and (iii) additional assistance to vulnerable groups.

Consultation and Disclosure. Project objectives, goals and scope of work under the project have been disclosed to the potential beneficiaries of the project, affected persons, elected representatives and institutional stakeholders. The approved entitlement matrix and resettlement plan will be made available at public locations in the city and will be disclosed to a wider audience through the Government of Uttarakhand and ADB website. Copies of the project information disclosure leaflet, translated in local language, will be always kept at site during the construction period.

Grievance Redressal Mechanism: The grievance redress mechanism (GRM) of Uttarakhand Inclusive and Resilient Urban Development Project (UIRUDP), will provide the communities and

other stakeholders, a platform for expressing their opinion, registering their grievances and redress of the same within a defined time frame. A three-tier common GRM will be set up. Public awareness campaign will be conducted to ensure that awareness on the project and its grievance redress procedures is generated. The campaign will ensure that the poor, vulnerable and others are made aware of and part of the awareness program. Grievance redress mechanism outlined in the draft resettlement plan will ensure that complaints and grievances are resolved in a collaborative, expeditious, and effective manner through dialogue, joint fact-finding, negotiation, and problem solving.

Resettlement Plan Budget. The proposed budget for the implementation of the resettlement plan is **₹18,40,800.00 (Rupees Eighteen lakhs forty thousand and eight hundred only)**, which covers compensation for temporary income loss, one-time shifting allowance and one-time assistance to identified vulnerable households. The amount will be electronically transferred by the PIU to the account of the affected persons. The project will ensure preparation of identify cards and opening of bank accounts of the affected persons (not having bank accounts).

Institutional Arrangement. The Urban Development Department (UDD), Government of Uttarakhand is the Executing Agency (EA) of the UIRUDP. A state-level Program Management Unit (PMU) under Uttarakhand Urban Sector Development Agency a special purpose vehicle is set up for the project implementation. City/town level Program Implementation Units (PIU) have been set up by the Implementing Agency (IA) to manage implementation of projects, at Dehradun and Nainital. The PMU/PIU will be assisted by Project Management and Design Construction Supervision Consultants (PMDSC) which will be providing program management support, assure the technical quality of design and construction, and provide advice on policy reforms. Resettlement Plan implementation will be closely monitored by PMU/PIU on a regular basis. Community Awareness and Public Participation Agency (CAPPA) will facilitate PMU and PIU with organizing meetings with affected persons and disclosure of entitlement matrix and grievance redress mechanism with affected persons and stakeholders.

Monitoring and Reporting. Resettlement Plan implementation will be closely monitored by the PMU with an effective basis for assessing resettlement progress and identifying potential difficulties and problems. The PMU is required to implement safeguard measures and relevant safeguard plans, as provided in the legal agreements, and to submit periodic monitoring reports on their implementation performance. The project monitoring will include daily planning, implementation, feedback and troubleshooting etc. The PMU/UIRUDP will provide monitoring report to ADB on a semi-annual basis. Additionally, ADB will monitor projects on an ongoing basis until a project completion report is issued.

I. INTRODUCTION

A. Project Background

1. The proposed Uttarakhand Integrated and Resilient Urban Development Project aims to improve universal and equitable access to safe and affordable drinking water, and access to adequate and equitable sanitation and hygiene for all ending open defecation. The outcome of the project is reliability and efficiency of water supply and sanitation services in Dehradun and Nainital enhanced. The project has four major outputs as follows:

2. **Output 1: Water supply system and service in Dehradun improved.** The project will construct around 136 kilometers (km) of water supply networks in newly added wards in South Dehradun, to close the gap of water supply infrastructure. The project will ensure reliable and quality water supply services with a standard norm of 135 liter per capita per day (LPCD); 24 hours a day and 7 days a week (24/7) supply. Around 5,400 household connections will be provided by 2028 with water meters that would allow volumetric billing. Non-revenue water (NRW) in the project area will be reduced from 45–50% to at most 25%, which is higher than the Uttarakhand performance standards. The improved water service will benefit around 40,000 population including about 4,000 urban poor and vulnerable people by 2028.

3. **Output 2: Integrated sanitation systems and drainage enhanced in Dehradun and Nainital.** The project will construct (i) two sewage treatment plants (STPs) with a total treatment capacity of 29 million liters per day (MLD); (ii) around 256 km of sewer networks; (iii) at least 117 km of stormwater drainage networks factoring potential climate risks; and (iv) around 17,410 household sewer connections in Dehradun. This output will benefit about 138,000 population, including around 15,000 urban poor and vulnerable people by 2028. The project will collect fecal sludge and septage from households that are not connected to sewer networks, and transport and treat them at a proposed STP equipped with a septage co-treatment unit. Combining a centralized sewerage system with decentralized septage management solutions, the project will establish cost-effective integrated sanitation systems in Dehradun. Once households are connected to the new centralized sewer system, existing household and community level soak pits in the project areas that would be no longer in use. These soak pits after cleaning and connecting with rainwater capturing system can be re-utilized as ground water recharge pits. This soak pit reutilization idea introduced by UUSDA will be first kind in India, which is not only an innovative solution to enhance climate-resilience but also a great example of resource saving and circular economy. In Nainital that has 100% coverage of sewerage system, the project will (i) replace around 4 km of an aging trunk and outfall sewers with leaks; and (ii) construct a new STP with a treatment capacity of 17 MLD and five prefabricated compact STPs with advanced moving bed biofilm reactor technology, which will have at least 20 kiloliter per day capacity each. While ensuring high quality sanitation services to benefit around 154,000 people, and no contamination of ground and surface water from sewer leaks, the project addresses the challenge of a steep hilly town and its limited land space for a large scale STP by introducing prefabricated compact STPs with advanced technology that are also equipped for reuse of treated wastewater.

4. **Output 3: Computerized maintenance and management systems (CMMS) for water and sanitation developed and implemented in Dehradun and Nainital.** To advance the O&M performance and asset management of WSS in Dehradun and Nainital, the project will procure, install, and implement city-wide CMMS for WSS schemes. Using the internet of things, this information and communication technology (ICT)-based platform will communicate with supervisory control and data acquisition (SCADA) and geographical information system (GIS) to provide real-time data and information. It will also provide a range of functions, including but not

limited to the following: (i) present and record operation status; (ii) schedule and track inspections; (iii) plan, implement, and report the results of preventive maintenance; (iv) manage fixed assets across multiple sites; (v) manage inventory, work orders and contract managements; and (vi) provide customer services, which include the establishment of consumer data management system with disaggregated data by sex, age, and other social dimension.¹ The detailed program functions for CMMS will be determined through the customized design based on the WSS system needs and WSS governance structure in Dehradun and Nainital.

5. **Output 4: Institutional capacity and knowledge strengthened.** This output includes a range of activities such as: (i) enhancing project and contract management of UIRUDP through hands-on implementation support and skills training for project management unit (PMU) and project implementation units (PIUs) at Dehradun and Nainital; (ii) developing robust WSS O&M manuals, which will be aligned with the national WSS manuals² and customized to the WSS system, governance structure, and specific conditions and needs in the project cities; (iii) providing training and implementation support on the WSS O&M manuals and CMMS use to UUSDA, UJN, UJS, and project ULBs; (vi) executing community awareness, participation, and behavior changes programs on water conservation, public health and hygiene practices, waste reduction, and making safe, clean, and healthy community environments; and (v) implementing the gender and social inclusion (GESI) action plan; and (v) strengthening institutional capacities and deepening the knowledge of UUSDA, UJN, UJS, project ULBs, and/or the ward members at project ULBs on a wide range of subjects on urban infrastructure and services, including WSS tariff re-structuring to enhance the sustainability,³ green and resilient urban planning for livable and prosperous cities, integrated watershed and water management, intelligent and sustainable WSS operation and management, and gender equality and social inclusion (GESI) issues in urban systems and services.

6. This resettlement plan focuses on one of projects under output 2, which is the development of sanitation and drainage systems in newly-added wards since the 2018 re-boundary located in the south-eastern periphery of Dehradun, comprising nine wards: Mohakampur; Miyapur (Chak Tun Wala); Harrawala; Balawala; Nakraunda; Ladpur; Dobhal Chowk; Nathhanpur-1; and Nathhanpur-2.

7. Implementation of the project will be governed by the acts, rules, regulations of Government of India (GOI), the state of Uttarakhand and as per the requirements of ADB Safeguard Policy Statement, 2009. During the design, construction, and operation of the project the State of Uttarakhand, Government of India will ensure impact avoidance, mitigation and compensation consistent with ADB SPS, 2009 and international good practice.

¹ 'Internet of things' describes the network of physical objects—"things"—that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet.

² GOI, Ministry of Housing and Urban Affairs, Central Public Health & Environmental Engineering Organisation (CPHEEO). (i) *Manual on Operation and Maintenance of Water Supply System – 2005*; (ii) *Manual on Sewerage and Sewage Treatment Systems – 2013 Part B O&M and Part C Management*; and (iii) *Manual on Storm Water Drainage Systems – 2019 Part B O&M and Part C Management*. (accessed 18 September 2020).

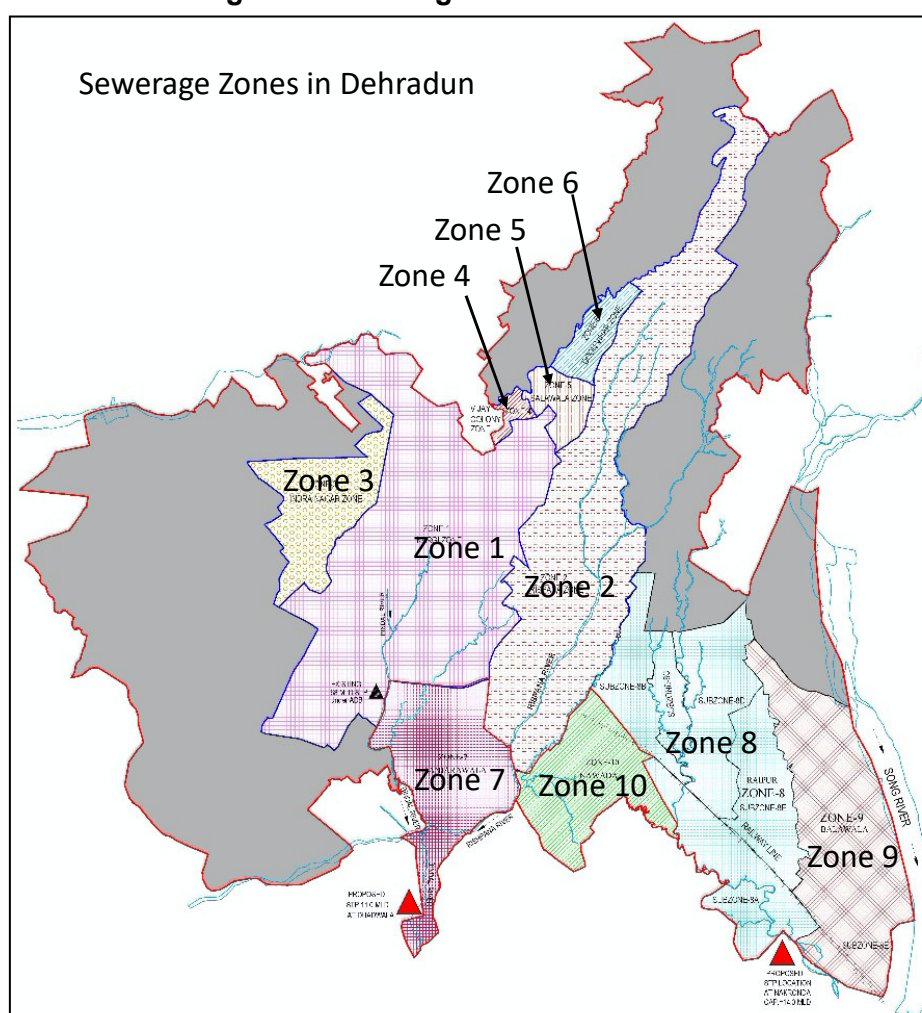
³ The World Bank has an ongoing project in Uttarakhand to support institutional strengthening of ULBs' public financial management and revenue management systems, which would have positive impacts on the financial sustainability of the water supply and sanitation systems and other urban services. To avoid any duplicated efforts, the project team will closely monitor and communicate with the World Bank. If any gaps are identified, the project team will design specific activities to support the project UBLs. (World Bank. 2019. [Uttarakhand Public Financial Management \(PFM\) Strengthening Project](#).)

B. Dehradun Project Location

8. Dehradun is the winter capital and most populous city the State of Uttarakhand. Dehradun experienced fast growing peri-urban areas with huge influx of urban migrants and carried out re-boundary mission. As a result, Dehradun has expanded to 300% in area (196.48 km) and increased by 141% in population (803,983 in 2018) living in 100 wards. The project is located in Southeast part of newly expanded Dehradun, which consists of Nathanpur-1, Nathanpur-2, Miyapur, Mokhampur, Dobhal Chowk, Ladpur, Nakraunda, Balawala, Harawala wards.

9. The city of Dehradun had been divided into six main sewerage zones within the pre-2018 city boundary. Since the re-boundary of Dehradun in 2018, three additional zones namely Zones 7, 8, 9, and 10 have been created in the newly added areas. After addition of these three new zones, there will be total 10 zones in Dehradun (Figure 1).

Figure 1: Sewerage Zones in Dehradun

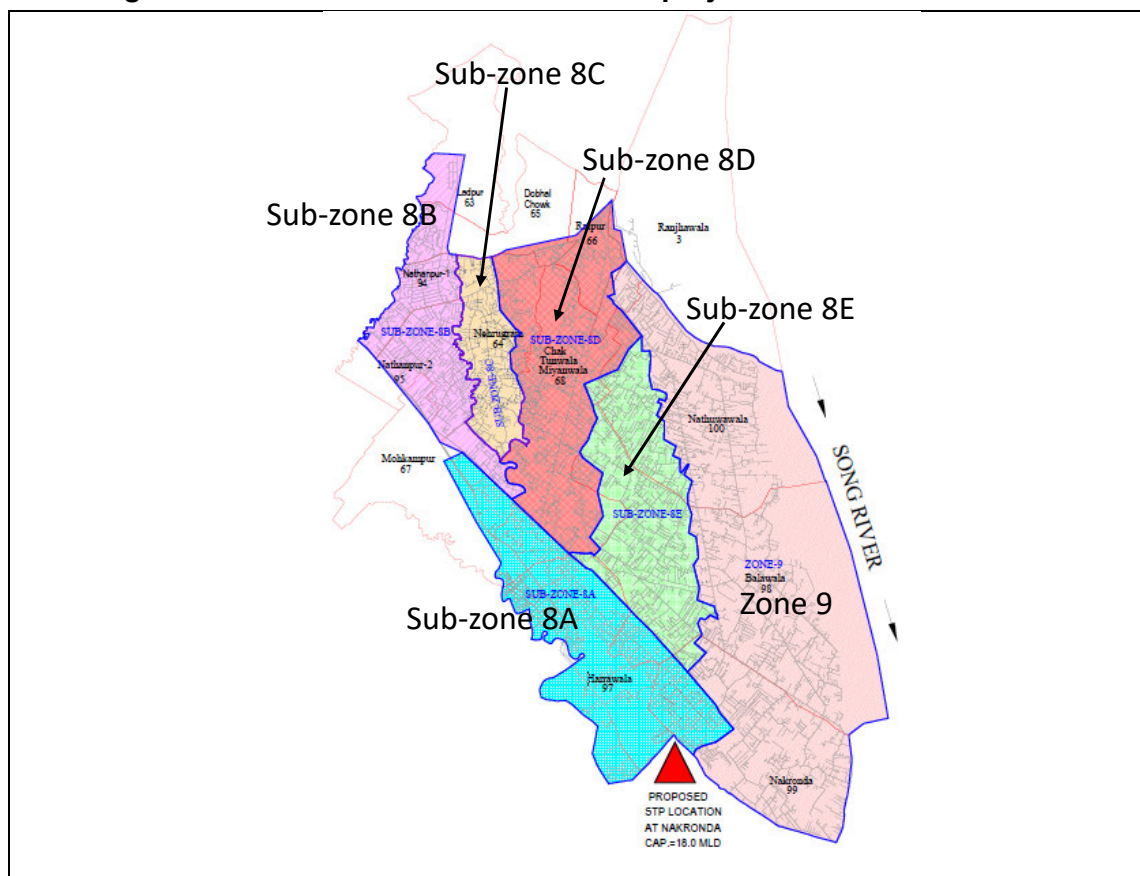


Source: Detailed Project Report (2020)

10. The project is located in Zone 8, which is divided into five sub-zones based on topography and hydrology (Figure 2). The project covers sub-zone 8A and 8B and the main components of project sanitation and drainage systems include: (i) installation of a sewage treatment plant (STP)

at Nakroda (hereinafter referred as 'Nakroda STP') with 18 million liter per day (MLD) capacity, which will be equipped with co-treatment unit to accommodate additional septage; (ii) installation of around 110 km sewer pipes; (iii) 10,000 house sewer connections; and (iv) installation of 15 km of drainage system.

Figure 2: Zone 8 and the location of the project- Subzones 8A and 8B



Source: Detailed Project Report (2020)

11. Currently, there is no sewerage system provided in the project area, which is around 879 Hectare (Ha) comprising of municipal ward numbers (part/full) 63, 65, 67, 68, 94, 95, 97, 98 and 99 with the 2011 Census population of 27,801 (Table 1). Table 2 shows the projection of population in base year of 2021 and the recommended STP design year of 2051, which are 49,792 in 2021, 78,608 in 2036 and 107,425 in 2051. Based on the projection of population increase, it has been estimated that the project area will have 5.32 MLD, 8.40 MLD & 11.48 MLD of wastewater during the base, intermediate and ultimate years respectively.

Table 1: Areas Covered Under Various Wards coming Under this Project

	Ward Name	Ward No.	Total area (Ha)	Area considered under this project (Ha)	Contributing area
					(% of total area) to sub-zones
1	Ladpur	63	212.18	31.34	14.77 % in Subzone 8B
2	Dobhal Chowk	65	182.37	37.42	20.52 % in Subzone 8B
3	Mohakampur	67	325.43	105.01	16.24 % in Subzone 8A
					16.02 % in Subzone 8B
4	Miyawala	68	419.56	57.52	13.71 % in Subzone 8A

	Ward Name	Ward No.	Total area (Ha)	Area considered under this project (Ha)	Contributing area
					(% of total area) to sub-zones
5	Nathhanpur-1	94	76.45	76.45	100 % in Subzone 8B
6	Nathhanpur-2	95	171.72	135.82	79.12 % in Subzone 8B
7	Harrawala	97	335.75	320.91	95.58 % in Subzone 8A
8	Balawala	98	903.63	33.43	3.70 % in Subzone 8A
9	Nakraunda	99	432.04	80.62	18.66 % in Subzone 8A

Source: Project Detailed Project Report (2020)

Table 2: Details of Sewerage Generation in sub-zones 8A and 8B

Sub-zones	Projected Population (including 10% floating population)			Sewage generation (MLD)		
	Base Year (2021)	Intermediate Year (2036)	Ultimate Year (2051)	Base Year (2021)	Intermediate Year (2036)	Ultimate Year (2051)
8A	18946	28791	38638	2.02	3.08	4.13
8B	30846	49817	68787	3.30	5.32	7.35
TOTAL	49,792	78608	107,425	5.32	8.40	11.48

Source: Project Detailed Project Report (2020)

1. Nakraunda Sewage Treatment Plant

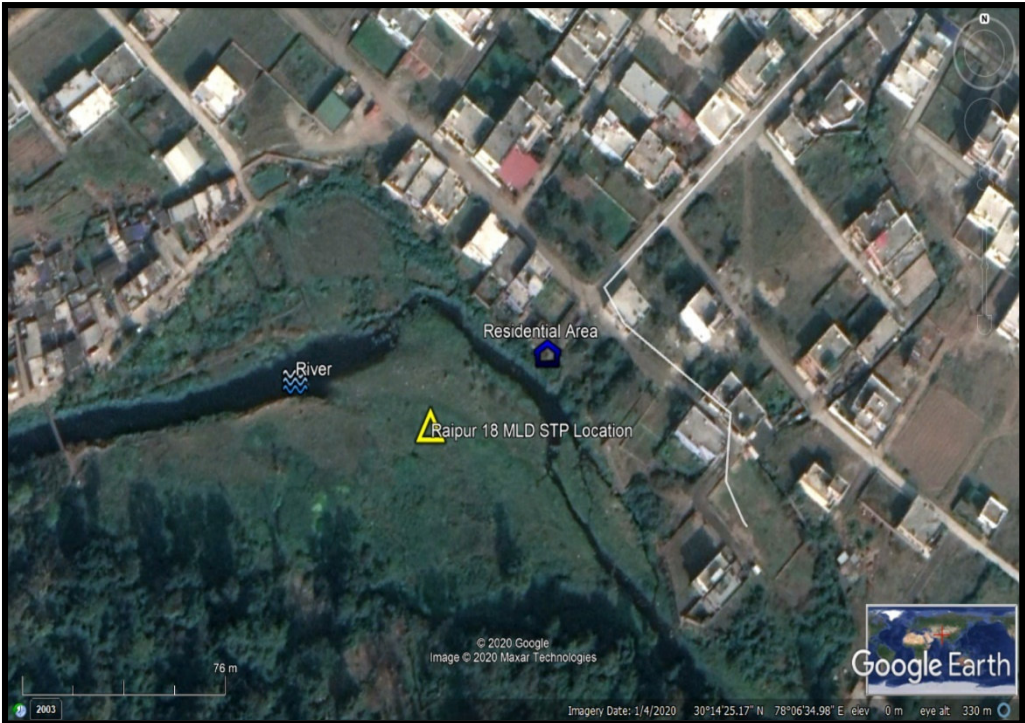
12. Nakraunda STP will be located at Nakraunda ward (30°14'19.24" N, 78°6'32.76" E). A total land area of the STP is 1.618 ha owned by Nagar Nigam Dehradun (Dehradun Municipal Corporation).⁴ The STP location (Figure 3) is chosen taking into consideration of the travel time of sewage to trunk mains, maximum sewerage area, and land availability and reasonable distance to water bodies for ease of disposal of treated effluent. The STP will have a total of 18 MLD treatment capacity. The STP capacity was decided based on the average flows contributed by the trunk mains.

13. Within the premise of the STP, a Terminal Sewage Pumping Station (TSPS) will be installed to convey the sewage to the STP. It will pump water from receiving chamber to the STP. It is proposed to provide submersible pumps in wet well type pumping station.

14. A typical sewage treatment process involves (i) primary mechanical treatment to screen out grit, debris, oil and grease from the influent; (ii) secondary biological and/or chemical treatment process; (iii) disinfection; and (iv) sludge dewatering and disposal. The layout of the STP is presented in Figure 4.

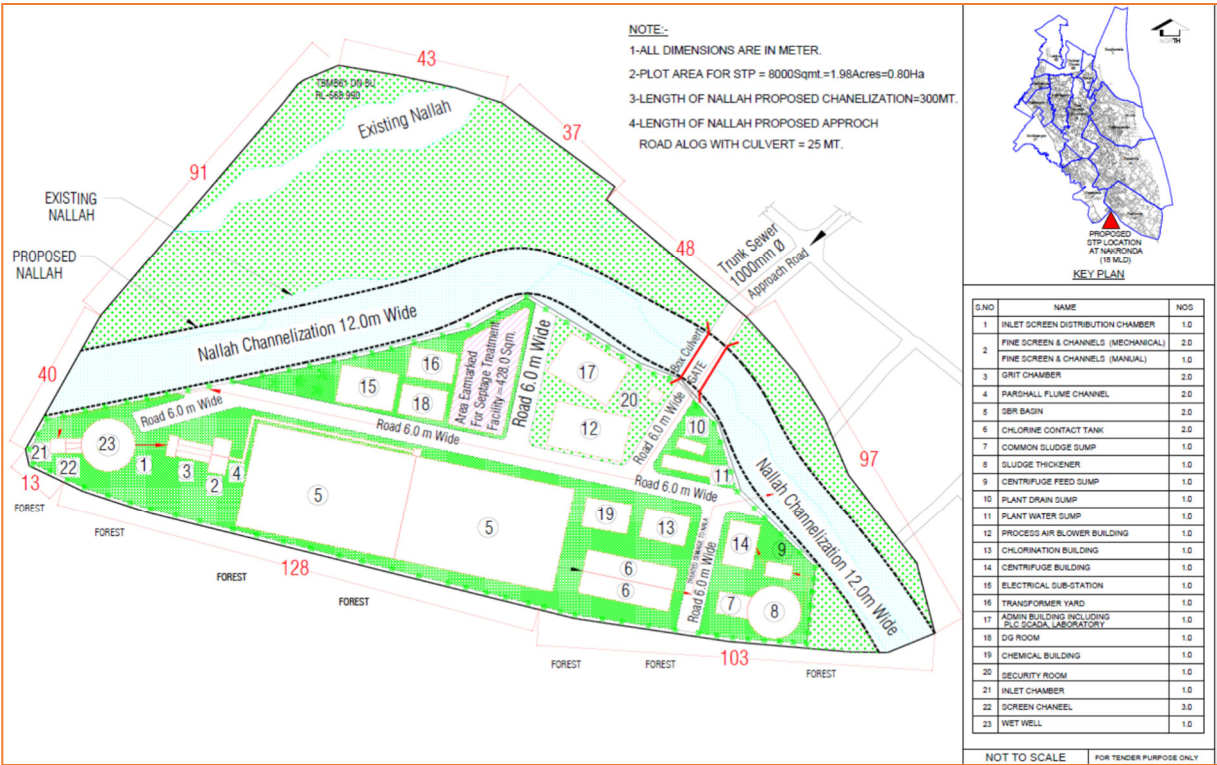
⁴ Letter for STP land from Nagar Nigam is appended to this report in Appendix 4.

Figure 3: Google Earth Map on Nakraunda STP



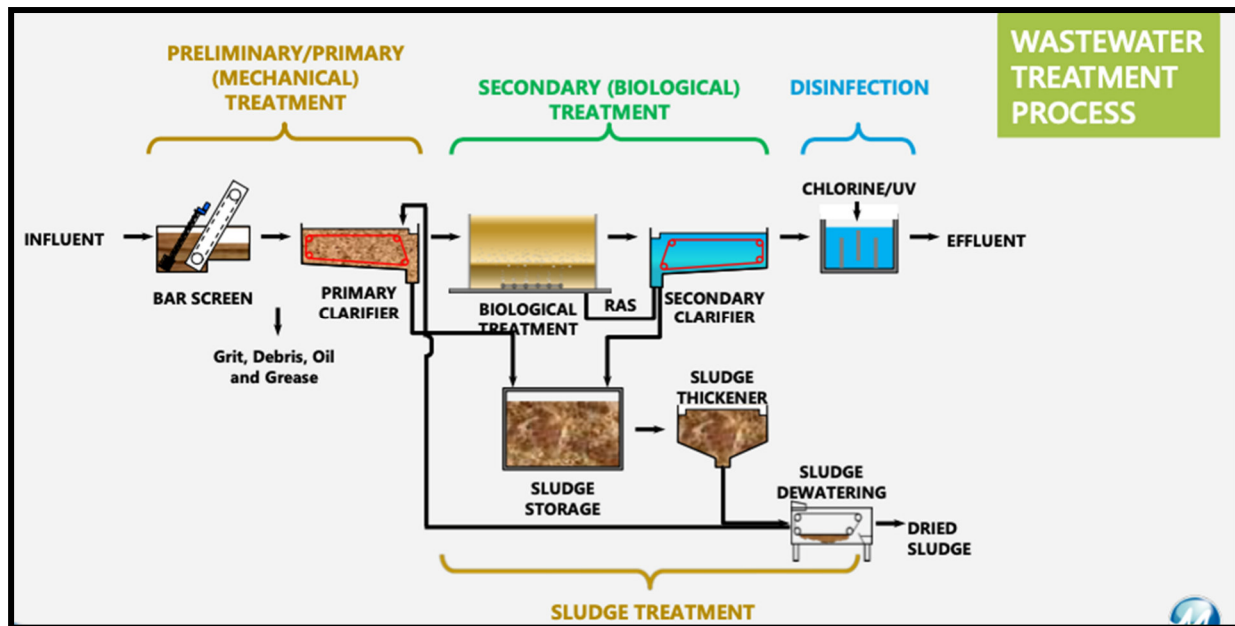
Source: Detailed Project Report (2020)

Figure 4: Nakraunda STP Layout



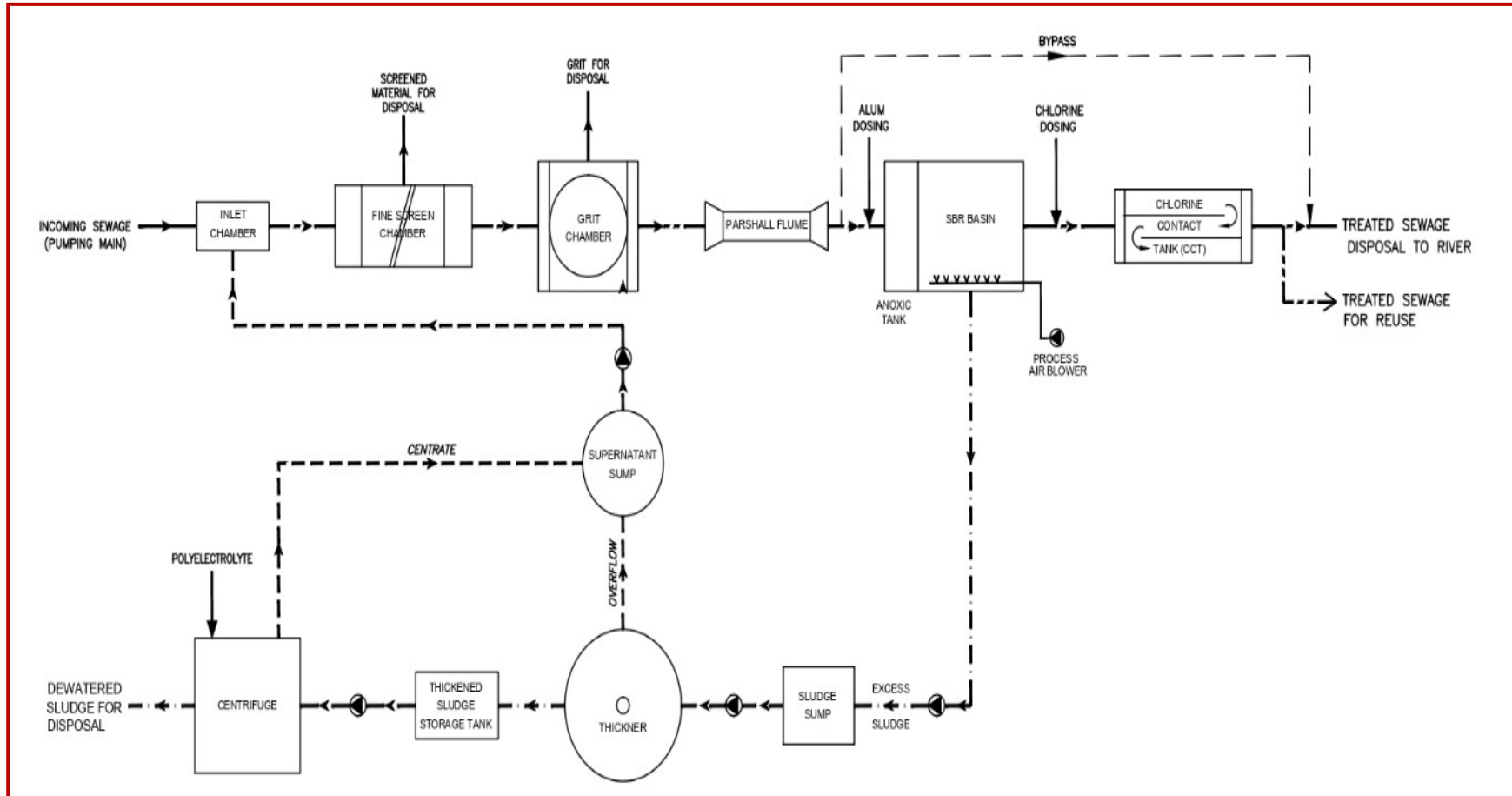
Source: Detailed Project Report, (2020)

Figure 5: Typical Sewage Treatment Process



Source: Detailed Project Report, (2020)

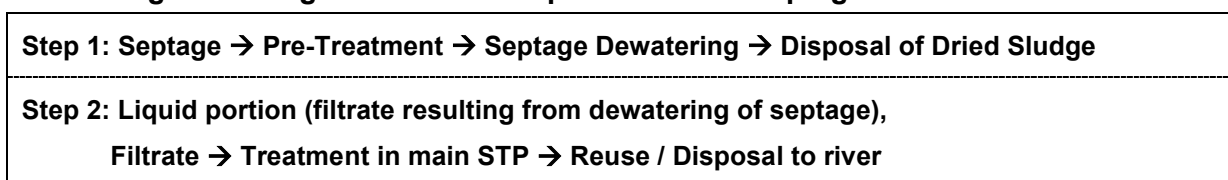
Figure 6: Schematic plan of Nakraunda STP



Source: Detailed Project Report, (2020)

15. At the proposed Nakraunda STP, there will be a co-treatment unit will be added in order to accommodate septage. The co-treatment unit will have a 40 KLD capacity. If septage collection increases beyond designed capacity, a co-treatment unit can be added as the STP is designed in modular approach. A vacuum tanker can discharge the septage into a receiving station, which is equipped with coarse and fine screens so that septage after passing through screens will be homogenized in the homogenization tank. After 24-48 hours of storage at homogenization tanks, septage will be dewatered at a centrifuge unit including Dewatering Polyelectrolyte (DWPE) dosing (a type of chemical used for solid liquid separation). As solid-liquid separation will be carried out through dewatering unit of the STP before mixing septage liquid with incoming sewage. After removing the solids, liquid portion will have lesser BOD concentration thus to be easily treated with sewage. The efficiency of Centrifuge to reduce BOD, COD and TSS concentration will be at least 90%.

Figure 7: Diagram of Basic Steps involved in Septage Co-Treatment Unit



16. As for a biological treatment process at Nakraunda STP, a Sequential Batch Reactor (SBR) is proposed. A SBR is a cyclic activated sludge treatment process and provides highest treatment efficiency possible in a single step biological process. The incoming sewage will be fed into the cyclic activated sludge process/SBR process basins for biological treatment to remove BOD, COD and Suspended Solids. Thus, no additional settling unit, nor a secondary clarifier will be required. As for disinfection process, chlorine treatment will be used. As the STP will be designed in a modular approach, it will optimize energy and resource consumption. Figure 5 is the typical sewage treatment process. During the detailed engineering design, the treatment process will be finalized. Nevertheless, the treated effluent must meet the effluent quality standards.

17. As for sludge treatment, a sludge sump will collect thickened sludge from SBR basins. Supernatant from the sump will be returned to inlet/equalization tank for treatment. Sludge from sump will be pumped to sludge thickener, and the thickened sludge will be pumped to mechanical sludge dewatering system (such as centrifuge). Dewatered sludge cake will further air dried in a sludge storage shed for 15 days. Sewage sludge generated from the SBR process has undergone sufficient treatment for stabilization and pathogen reduction. Hence, the sludge generated is of high quality that can be applied on land. Considering that the sludge from the SBR process is composed of both inorganic and organic materials, large concentration of some plant nutrients and much smaller concentrations of numerous trace elements and organic chemicals, the sludge can be used for fertilizer in agriculture land. Any remaining can be disposed to an identified landfill site, which is Shishambada landfill site located in about 25 km away from proposed STP. A sludge reuse plan will be developed and implemented by the Contractor in consultation with the Municipality authorities.

18. **Reuse and discharge of treated effluent.** It is proposed to reuse the treated effluent for various non-domestic purposes. A portion of the treated effluent shall be collected in the treated effluent storage tank by gravity. The treated effluent can be used for gardening, cleaning, car washing, firefighting, sewer manholes flushing and other purposes within plant premises. In order to safeguard the interest of users of treated effluent, it is proposed to apply technology/process

to achieve very low biological oxygen demand (BOD) - BOD₁₀, and suspended solids (SS) in the treated effluent. The treated effluent reuse plan shall be developed and implemented by the contractor in consultation with the Nagar Nigam authorities. The treated effluent reuse plan includes flushing of 103 manholes that were already identified. These manholes will be flushed every day and for each manhole about 1,500 liters of water is required for flushing. Thus, a total of 0.1545 MLD effluent coming after treatment from STP will be used for flushing. A storage tank for treated wastewater will be installed within the STP premise.

19. Outflow sewer of around 345 m will be installed to discharge treated effluent from the STP that will meet the discharge standards. The Co-ordinate of disposal point is Latitude: 30°14'18.50"N and longitude: 78° 6'45.48"E. The STP will have a backup generator, which is an emergency diesel generator set (2x 625 kVA capacity) as emergency power for common and essential services/ utilities.

2. SCADA and GIS system

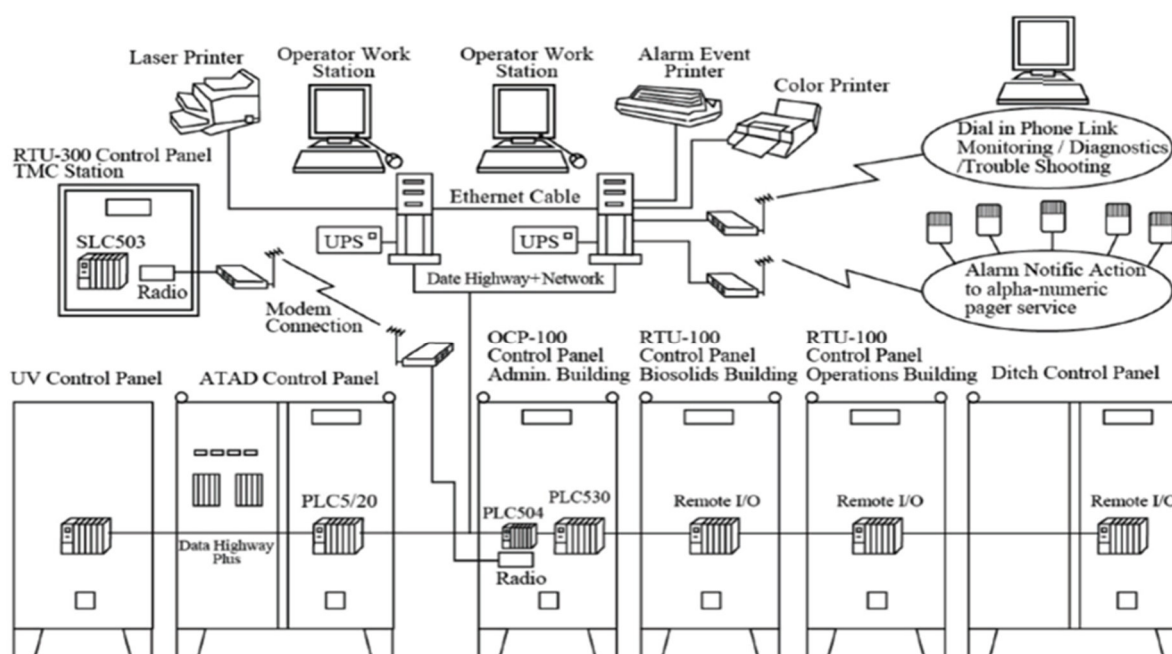
20. GIS data of all the assets created under the project will be created. The three-dimensional position (x,y,z) of all point and line assets constructed under this project, including sewers, manholes, property chambers, house service connections, pumping station, STP, valves, pumps, and septic tanks will be surveyed. Nodes shall be created to clearly delineate different pipe sections in terms of material and diameter and to allow for future development of a hydraulic model in the GIS platform. Point and line data (i.e., the pipeline) will be consistent with the attributes of the existing Survey of India GIS and new attributes pertaining to non-survey data, e.g., pump make and model, images and/or plans will be added.

21. The GIS data will be linked to web-based interface/ dashboard to Supervisory Control and Data Acquisition (SCADA) for control and monitoring. SCADA presents the data as a viewable and controllable system on the screen of a computer. The data thus collected is stored and analysed for better real time process control. It assists plant operating personnel by monitoring and announcing abnormal conditions and failure of equipment and allows the operators to perform calculations based on the sensor inputs. Daily, weekly and monthly reports can be prepared using the stored data. A typical SCADA is shown in Figure 8.

22. Signals generated by various sensors and instruments are transmitted from the sensor to a control panel or computer system, which allows operators to inspect many process variables simultaneously. A Programmable Logic Controller (PLC) is electronic equipment that senses inputs and takes the decision to change outputs according to the set rules stored in the memory. Link systems with PLC are used for transmitting the signal, with which analogue signal is converted to digital signal and transmitted via coaxial cables or optical fibers.

23. The GIS and SCADA will be developed in a compatible environment so that it is aligned to city-wide CMMS. During operation and maintenance, the status of assets, inspection details and inventory etc. will be managed through these linkages to CMMS. The GIS system will be providing real time information for CMMS on ever increasing consumer details.

Figure 8: Typical SCADA Communication Overview⁵



Source: Central Public Health and Environmental Engineering Organization, Ministry of Urban Development of India

3. Sewer Network

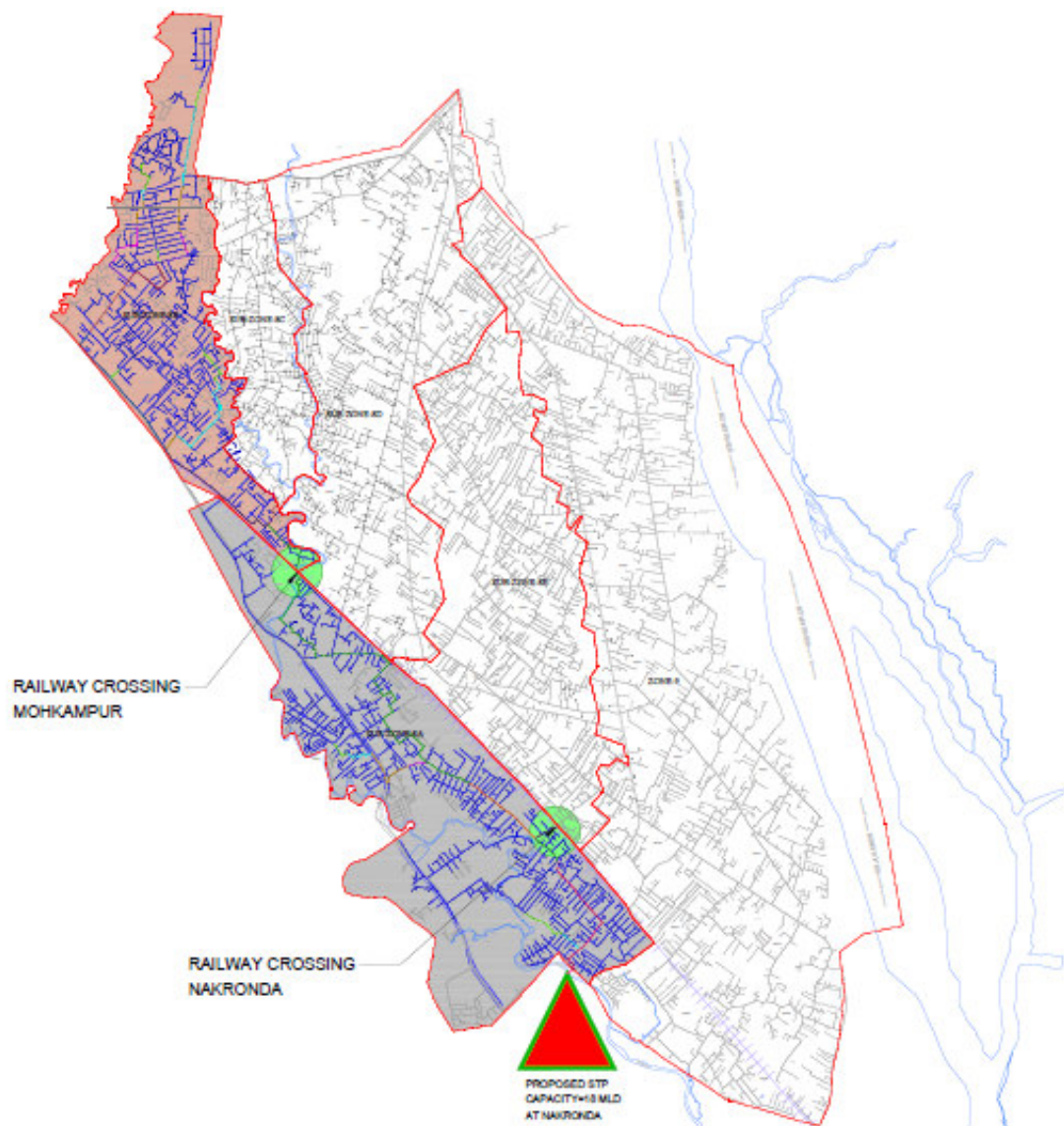
24. The project will install a total of around 110 km sewer pipes, including 98 km of high-density polyethylene (HDPE) pipe with diameter ranging from 225 to 355 mm and around 12 km of DI-K7 pipe of diameter varying from 350 to 1000 mm diameter. The wastewater collection system will mainly rely on gravity pipes and will discharge into the STP. The network will be of the conventional gravity collection type, starting from service connections to gravity sewers conveying the sewage to discharge into the wet well at the TSPS, which is an integral part of the STP.

25. The sewer system will be designed as a separate sewer system that carries only the domestic/municipal wastewater and will not mix with a stormwater drainage system. No industrial wastewater will be allowed into the sewers. Sewers will be laid underground in the roads and streets. While water pipes are/will be located on one or either side of the roads, the sewers will be laid in the middle of the road to avoid any disturbing the water pipes. In the areas of water body crossing, main road crossings or deep cuttings (above 6-7 m depth), the sewers (around 6km) will be laid by trenchless method. The sewer laying will involve two crossings under railway track at Km 71/6-71/7 and Km 68/6-68/7 between railway stations Harrawala and Dehradun on LRJ-DDN section (Figure 9). This work must be closely coordinated with Railway department for permission for way leave facility and will require to be executed under the supervision of Railway Engineers under suitable restriction and precautions stipulated by the Railways. The sewer pipes will be laid under the railway track through a casing pipe of RCC, PSC or steel of adequate strength to facilitate future maintenance and renewals without causing interference to railway traffic. The pipes would be inserted under the track using trenchless technology like pipe pushing/ auger boring / direction drilling. The nominal diameter of the casing pipes would be kept sufficiently large to permit easy withdrawal of the carrier pipe.

⁵ Source: Chapter 6, Part B Operation and Maintenance, Manual on Sewerage and Sewage Treatment Systems, Central Public Health and Environmental Engineering Organization, Ministry of Urban Development, India

26. A total of 4,890 manholes, including 3,800 brick masonry circular manholes; 860 in-situ RCC circular manholes; and around 230 precast RCC manholes based on the assessment of subsoil condition and traffic loads, will be installed along the sewer network. Around 9,000 house sewer connections will be also installed, which include around 3,400 in sub-zone 8A and around 5,600 in sub-zone 8B. House connections will be provided through a chamber constructed inside the property line and another chamber outside the property line. Chambers are to be connected with manholes in the main sewer line below the roads by means of uPVC pipe SN4 of 110 mm or 160 mm OD.

Figure 9: Sewer Network Map



Source: Detailed Project Report, (2020)

27. **Discharge of treated wastewater.** The excess / surplus treated effluent from STP that is not reused will be discharged into the adjoining natural nalla through a pipeline along the government owned vacant land which ultimately meets with Song River as per norms stated by the Pollution Control Board and necessary facilities like pipelines and pumping requirements, will

be developed. Song River which drains-out the storm water of both Rispana and Bindal also (through Suswa River) ultimately meets the River Ganga. But now the increasing number of slums and encroachments on the Ripsana and Bindal rivers has turned both into a dumping pit. The amount of toxic material that is now been found on the river beds is increasing the toxicity of the both Song river. The excess amount of raw sewage that is been disposed into the rivers are making its condition worse every single day. The river bed of 'Song' is lined with domestic waste, effluents, plastics, animal carcasses and human excreta.

4. Fecal Sludge and Septage Management (FSSM) System

28. Septage is the settled solid matter in semi-solid condition usually a mixture of solids and water settled at the bottom of septic tank. It has an offensive odour, appearance and is high in organics and pathogenic microorganisms. A FSSM system will be provided to collect fecal sludge and septage in low lying and/or low dense areas that are not techno-economically feasible to connect to sewerage system. FSSM system will be provided to entire sub-zone 8, including the area that the sewer network is not reached under sub-zone 8A and 8B. The collected septage will be transported to Nakraunda STP for treatment.

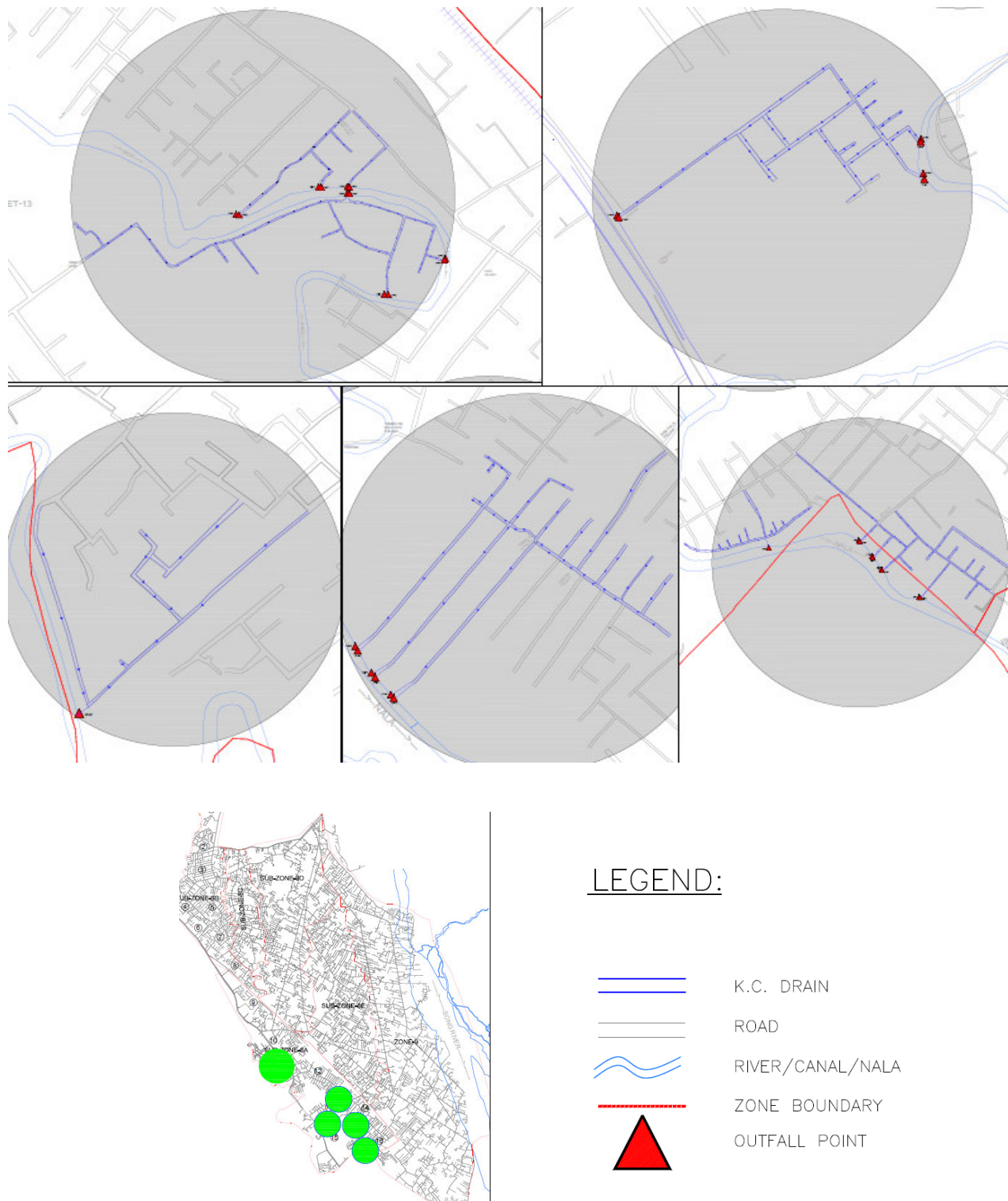
29. Septic tanks are proposed for individual households for 5 and 10 users. Community based septic tanks are proposed for 20/50/100 households. Collection of soil water and sullage from individual households will be by 110 mm dia uPVC pipes and conveyance will be through sewers laid on road to community septic tank (150 mm dia UPVC pipe). The location for proposed community-based septic tanks and soak pit will be decided as per topography. Septage from the septic tanks will be regularly removed using trunks/sewer suction machines.

30. Septage generation rates vary widely from place to place depending on practices of septic tank use, number of users, water used for flushing, and the frequency of cleaning the septage. For estimation of septage flow, 1/3 volume of septic tank is estimated as septage for the treatment. The sludge removal will be through vacuum tankers, which is the most satisfactory method of sludge removal. Though desludging frequencies vary, it is generally recommended to de-sludge tanks once every two to three years, or when the tank becomes one third full. In this project area, once in a year sludge removal frequency is considered. Small scale vacuum sewer cleaning machines with 2,000 liter capacity will be used, which can easily access narrow roads.

5. Stormwater Drainage System

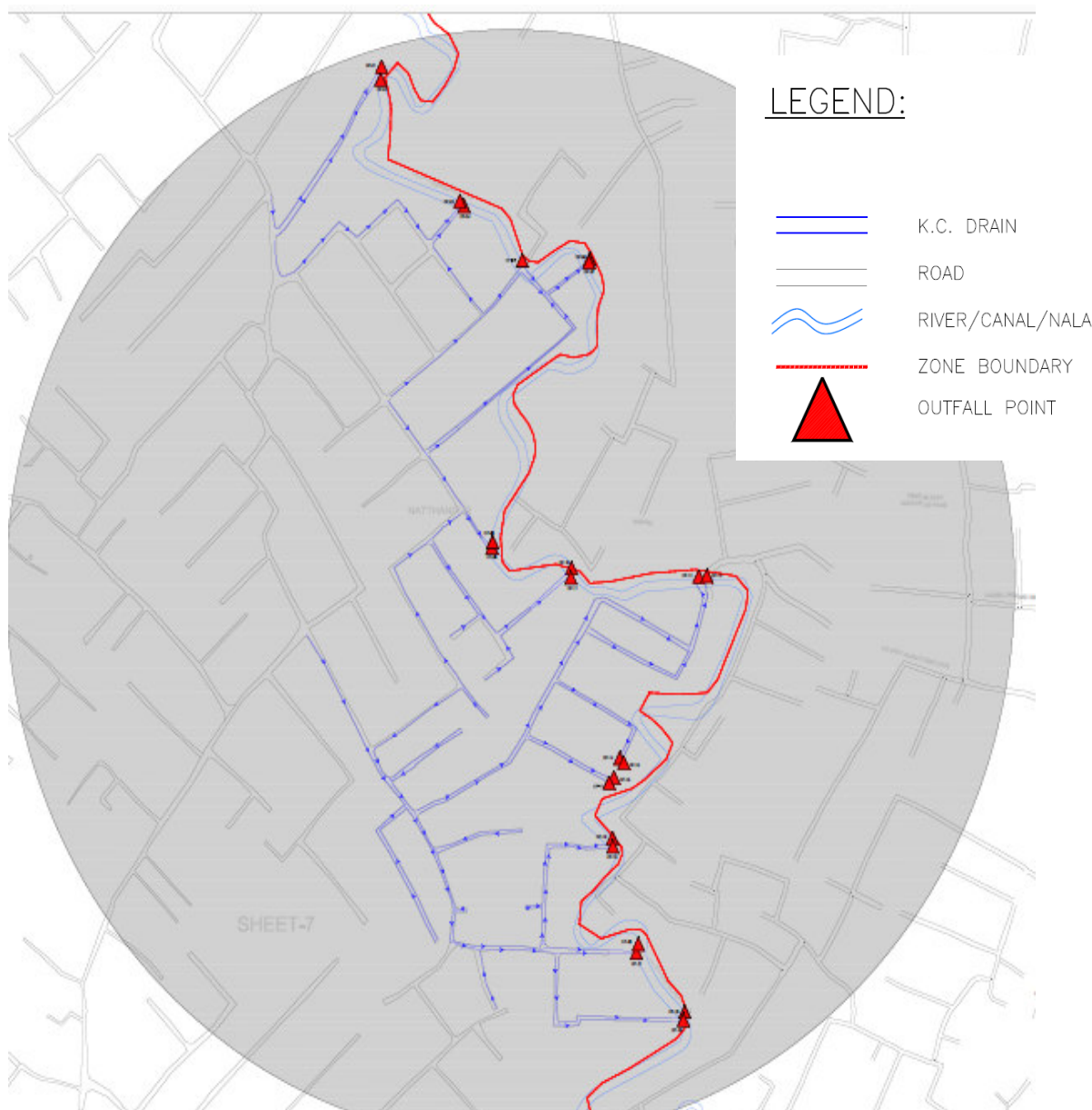
31. A total of 15 km Kerb Channel (KC) drains will be constructed alongside identified roads to facilitate smooth draining of storm water coming on the roads into the nearby drains thereby preventing the erosion of road top surface during rains. These drains will be on both sides of identified roads. These drains can be precast and/or cast in situ at site. The drains will be as per IS: 5758-1984, which is the Indian Standards on Specification for precast concrete kerbs, channels, edgings, quadrants and gutter aprons. Type B channels in IS:5758-1984 will be constructed on minor roads having width less than 3m to transfer storm runoff into main drains. The proposed stormwater drains and outfall locations in subzone 8A and 8B is provided in Figure 10 and Figure 11.

Figure 10: Proposed KC Drains and Outfall Locations in Subzone 8A



Source: Project Management Unit, UIRUDP and Detailed Project Report, (2020)

Figure 11: Proposed KC Drains and Outfall Locations in Subzone 8B



Source: Project Management Unit, UIRUDP and Detailed Project Report, (2020)

32. In order to reduce velocity and prevent erosion, outfall structures will be constructed at the end of storm water drains that discharge to major drains and river. A total of 57 such outfalls have been proposed in the project area, out of which 34 outfalls are proposed for subzone 8A (Figure 11) and 23 outfalls are proposed for subzone 8B (Figure 12). The outfalls are located on the bank of Harrawala Nala, Nakraunda Nala, Kaunwala Nala and Natthanpur Nala; all these nalas or drains ultimately join Song River which in turn joins River Ganga.

6. Climate adaptation measures

33. **Groundwater Recharge pits and Rainwater Harvesting Structures** will be developed and installed in the project area. A total of 45 groundwater recharge pits along the primary and secondary existing natural drainage channels will be created. Rainwater harvesting structures will be constructed within the premises of one selected government offices and/or premises, public schools, shopping complex, public parks and/or community open spaces.

34. The draft resettlement plan is prepared based on the available preliminary design for the project. This document will be updated and reconfirmed for final involuntary resettlement impacts after completion of detailed measurement surveys (DMS) in sections ready for implementation as part of Service Improvement Plan by the construction contractor. The draft and final resettlement plan will be reviewed and upon receipt of approval from ADB, disclosed on implementing agency and ADB websites. Civil work will be taken up only after compensation payment to affected persons, as per approved entitlement matrix. The implementing agency will be responsible for handing over the project land/site to the contractor free of any kind of encumbrance.

35. **Measures to avoid and minimize the Involuntary Resettlement Impacts:** To avoid and minimize the involuntary impacts the UIRUDP proposes to use the government lands wherever available and right of way of roads owned by the government agencies for augmentation and development of all the project assets and associated ancillaries as mentioned in the project description. The sewer pipes are proposed to be laid along existing available Right of Way ROW. Construction contractor will ensure prior consultation with the community residing beside the construction site and shops in the area if the impact on access ramp is unavoidable.⁶

36. Livelihood impacts will be avoided in busy market areas to the permanent shops in the areas like Raipur, Mokhampur, Nakraunda and Dobhal Chowk. Work will be executed in night hours to avoid the impacts, pipes lines in narrow roads and commercial areas mentioned above will be laid in phased manner with the due consultation with the shop owners and nearby residents. Civil works will be executed in small stretches in section-to-section phases. Noise level will be kept under 55 dB (A) as per noise pollution (regulation and control) rules 2000 as per the Environmental Management Plan. All safety norms would strictly be adhered to, taking into consideration the magnitude of work and the sensitivity of the location.

37. The Project Implementation Unit (PIU) will also ensure that all the necessary rules related to safety and security of the public and residents are duly followed by the contractor. The actual dates of construction schedule with respect to rush hour, festival time, and special business days will be discussed with vendors, squatters, market committee members, and residents, and accordingly construction activities will be planned. After laying pipes, the lane/road will be restored to its original condition {including bitumen, cement concrete (CC) and CC interlocking tiles as applicable}.

38. The contractor will ensure maintaining the access to shops and residences or other buildings along pipe alignments, to institutions located close to proposed sites by providing pedestrian access through planks, assistance to mobile hawkers and vendors, and safety through hard barricading of excavated alignments/sites. Avoidance of pipe laying activities, construction work near schools, health centers; Anganwadi centers (ICDS), etc. as much as possible. Any damage to access ramps during construction will be restored by contractor as per contractual

⁶ In the Engineers estimate provision of utility shifting and repair of minor structures has been proposed under provisional sum of DBO contract.

provisions (included in contract document and considered as part of bill of quantity [BOQ]), in line with the agreed principles of the resettlement plan.

39. Measures to be taken up by the contractor to avoid/mitigate economic impacts will include: (a) announcement of proposed civil works in advance (to enable shop owners to stock up and remain unaffected if goods vehicles are unable to reach them during construction), (b) provision of planks to ensure pedestrian access; (c) careful timing of implementation to avoid peak sale hours/days or school timings; (d) use of trenchless pipe laying technology, major civil work during night hours, maximum use of precast materials particularly for manhole will be used in commercial areas and narrow roads, where possible; (e) minimizing construction period to the extent possible; (f) assistance to mobile vendors if any present during construction, to shift nearby; (g) signage with project details and contact details for grievance redress; and (h) proper traffic management. These measures will be part of the contract and will be implemented with careful monitoring by the concerned PIU.

C. Objectives of the Resettlement Plan

40. This resettlement plan is prepared for development of sewer work components of the project, Package No. WW-DDN-03, under UIRUDP based on preliminary design. It addresses the potential involuntary resettlement impacts of the proposed project components and is consistent with national laws and ADB SPS (2009).

41. This Resettlement Plan is prepared in accordance with ADB SPS 2009 requirements for involuntary resettlement Category B projects and to meet the following objectives:

- (i) To describe the identified scope and extent of land acquisition and involuntary resettlement impacts because of identified project components, and address them through appropriate recommendations and mitigation measures in the Resettlement Plan;
- (ii) To present the socio-economic profile of the population in the project area, identify social impacts, including impacts on the poor and vulnerable, and the needs and priorities of different sections of the population, including women, poor and vulnerable;
- (iii) To describe the likely economic impacts and identified livelihood risks of the proposed project components;
- (iv) To describe the process undertaken during project design to engage stakeholders and the planned information disclosure measures and the process for carrying out consultation with affected people and facilitating their participation during project implementation;
- (v) To establish a framework for grievance redress for affected persons that is appropriate to the local context, in consultation with stakeholders;
- (vi) To describe the applicable national and local legal framework for the project, and define the involuntary resettlement policy principles applicable to the project;
- (vii) To define entitlements of affected persons, and assistance and benefits available under the project;
- (viii) To present a budget for resettlement and define institutional arrangements, implementation responsibilities and implementation schedule for resettlement implementation; and to describe the monitoring mechanism that will be used to monitor resettlement plan implementation.

II. SCOPE OF LAND ACQUISITION AND INVOLUNTARY RESETTLEMENT

A. Land Acquisition and Involuntary Resettlement

42. The scope of land acquisition and involuntary resettlement is identified based on the field visits to each of the project component locations and transect walk along the trunk sewer pipeline alignment and sewer network. There will be no private land acquisition undertaken for the project components; the entire civil works under the project will be done within ROW of government land. Efforts will be made to minimize impact to the extent possible through provisions of access planks. Where impact is unavoidable, compensation will be paid for the period of disruption/income loss as per the agreed entitlement matrix.

43. **Construction of Sewage Treatment Plant (STP):** Land acquisition is not envisaged for proposed project component. Construction of STP (18 MLD) with SBR technology will be carried out on the available vacant land which is not under any productive use at Nakraunda. The available land is about 3.99 acres out of which 1.97 acres will be required for the STP as per the design considerations. The identified land is under the possession and ownership of Nagar Nigam Dehradun since the inclusion of Nakronda Village into the ULB (Nagar Nigam Dehradun) area in the year 2018.⁷ Assessment based on satellite imagery and site visit indicates that the land is vacant and not under any productive use. Further, the land has been found to be suitable for construction of STP according to Tehsildar (Sadar) and the Revenue Inspector, Nakronda as mentioned in the letter by Commissionaire to the Sub-divisional Magistrate, Dehradun vide letter number 3964/Land Department/2020, dated 16 September 2020 (Appendix 4). The land related details for the STP is provided in Appendix 1. PMU has to obtain self-certification or no objection from Nagar Nigam.

Table 3: Details of Land Availability for Sewage Treatment Plants

Sl. No.	Project Component	Location	Ownership	Khasra No.	Area (acre)	Status of NOC
1	Sewage Treatment Plant of 18 MLD Capacity	Nakronda	Dehradun Nagar Nigam	612 Ka. Mi.	1.97 acre (0.8 hectare)	To be obtained

Source: Project Management Unit, UIRUDP and Project Management and Design Supervision Consultant

44. **Laying of Trunk Sewer and Sewer Network Pipelines:** Laying of around 110 km sewer pipes, including 98 km of high-density polyethylene (HDPE) pipe with diameter ranging from 225 to 355 mm and around 12 km of DI-K7 pipe of diameter varying from 350 to 1000 mm diameter are proposed within the boundaries of ROW of government roads and are assessed to not have any involuntary land acquisition impact. The roads through which the trunk sewer pipelines will be laid are under the ownership of Public Works Department (PWD) and National Highway Authority (NHA). The sewer network pipelines will be laid within ROW of Dehradun Nagar Nigam Roads. UIRUDP will obtain 'no objection' or approval from the appropriate government department (NHAI, PWD and Nagar Nigam) that are owners of the public roads before start of civil work; the NOCs will be appended to the updated resettlement plan. The sewer pipeline laying will involve two crossings under railway track at Km 71/6-71/7 and Km 68/6-68/7 between railway stations Harrawala and Dehradun on LRJ-DDN section (Figure 9). The PMU will obtain

⁷ Prior to inclusion of the Nakronda village into Nagar Nigam Dehradun, it was under Gram Panchayat and the said land parcel was under the ownership of Nakronda Gram Panchayat.

permission for way leave facility and will require the sewer pipeline laying works to be executed under the supervision of Railway Engineers under suitable restriction and precautions stipulated by the Railways. The permission for way leave facility will be updated to the resettlement plan document.

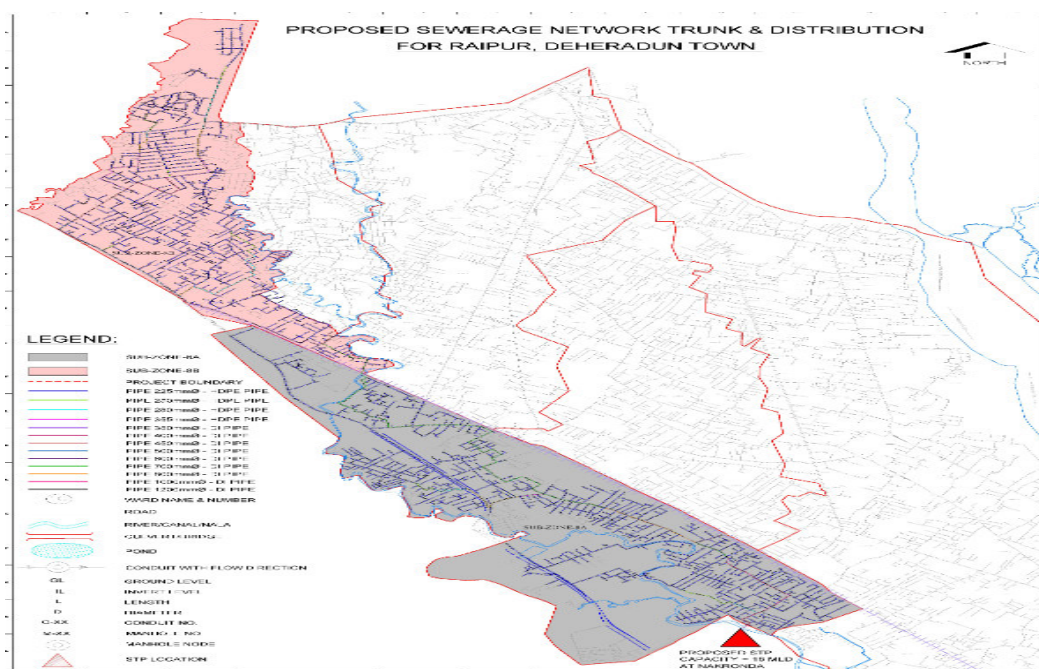
45. Transect walk and 100 percent walk-through surveys along the sewer pipeline alignment were jointly undertaken by PMDSC consultants, staff from the office of urban local body and safeguard staff from PMU followed by visual screening on the proposed alignment. The visual screening conducted confirms that there are no permanent/semi- permanent structures and common property resources on the pipe/drain ROW. Both visual screening and transect walks confirm that the proposed project impacts are temporary in nature. The walk-through survey identified 20 mobile vendors, roadside temporary shops which are anticipated to face temporary income loss during the construction period at Miyawala Chowk, Balawala, Harrawala Chowk and Harrawala to Nakronda Band. The majority of affected persons comprise of roadside shops and vendors, operating from mobile carts or moveable/transitory structures temporary in nature.

Table 4: Road Width-wise Diameter of Sewer Pipeline to be Laid (sample roads)

Sl. No.	Name of Major Road	Length (M)	Category Low/Medium/High Density ⁸	Width (M)	Dia of Major Proposed Pipe (mm)	Proposed Trench Width (M)
1	NH Dehradun-Haridwar Road	7207	High	32	250 To 500	1.0 to 2.25
2	Mussorrie Ring Road Dehradun	6633	High	8	250 To 500	1.0 to 2.25
3	Vivekanand Enclave	160	Low	4	250	1
4	Lower Natthan pur Road	2038	Medium	6	250 to 315	1.0 to 2.00
5	Mohkampur-Nattanpur link road	8830	Low	4	450 to 700	2.25 to 4.0
6	Harrawala road	683	Medium	7	250	1
7	Nakronda Road	1700	Medium	8	350	2
8	Gulargathi Road	5037	Low	6	600 to 1000	3.75 to 5.0
9	Upper Nakronda road	850	Low	5	250	1

Source: Project Management Unit, UIRUDP and Project Management and Design Supervision Consultants

⁸ Category of roads: High Density Roads – National Highways, State Highways and major district roads with commercial structures, marketplaces along the roadside; Medium Density Roads – Public Works Department (PWD) roads, roads under Nagar Nigam (Municipal Corporation) joining to colonies and there are commercial and residential areas along the road; Low Density Roads – These are sub-arterial intra-colony roads, with no commercial zone or activities along the road. (Definition as provided by Design and Supervision Consultants).

Figure 12: Proposed Trunk Sewer Pipeline and Sewer Network under the Project

Source - Detailed Project Report, June 2020

46. There are no structures (either temporary or permanent) or common property resources (CPRs) on the proposed pipe/drain right of way. During preparation of the resettlement plan transect walks conducted along the proposed alignment have confirmed that no commercial establishments, permanent shops along the route will be impacted.

47. Following the transect walks, survey of affected businesses was carried out to determine the impact on shops and businesses (movable / transitory structures). Identification of the affected persons were undertaken by 100 percent walk-through survey of trunk sewer and network pipelines, and collection of information (anticipated business loss and relevant socio-economic details) from all affected businesses along the entire proposed pipe length. Based on this exercise, a total of 20 roadside movable/transitory business entities (comprising 92 household members) have been identified who will be temporarily affected. Photographs of some of the areas are provided in Appendix 2 and 3 along which the sewer pipelines will be laid.

Table 5: Number of Affected Persons Identified Along the Sewer Pipeline through Transect Walk

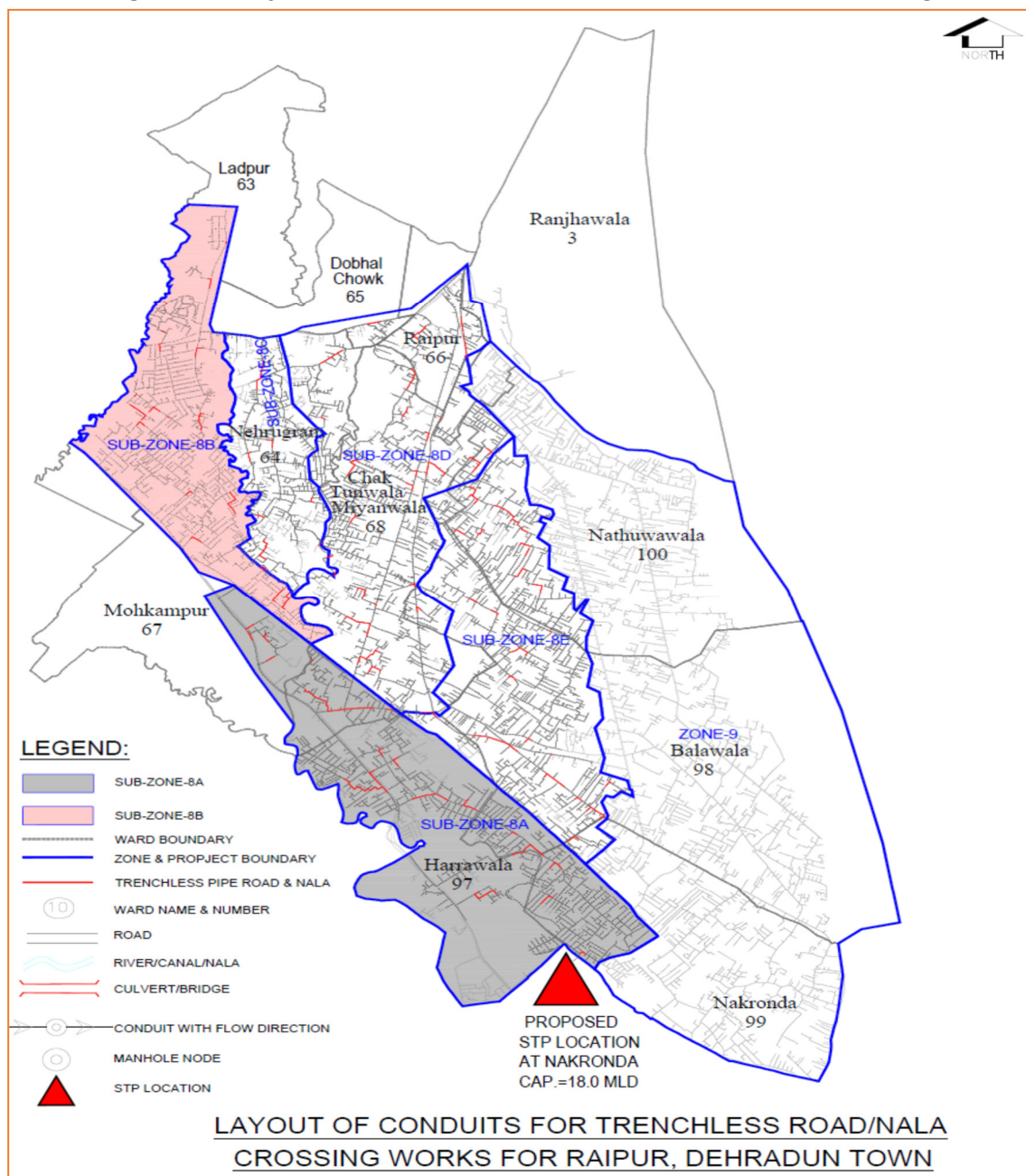
Sl. No	Location	Number of affected shops and entities	Affected Population
1	Miyawala Chowk	3	12
2	Balawala	7	40
3	Harrawala Chowk	7	30
4	Harrawala to Nakronda Band	3	10
	Total	20	92

Source: Transect walk, Walk-through survey, PMDSC-UUSDIP, June 2020.

48. To minimize impacts, sewer pipelines are proposed be laid through trenchless method in sub-zone 8A and 8B for about 6.766 km. The sewer pipeline will cross a railway crossing near Nathuwala- Balawala Area, Nakronda. Pipeline laying at the railway crossing will be undertaken

by trenchless method (photograph given in Appendix 3). The PUM, UIRUDP will obtain on objection certificate (NOC) from the Northern Railways, Moradabad Division for laying of the sewer pipeline across the railway crossing.

Figure 13: Layout of Conduits for Trenchless Road/Nalla Crossings



Source: Project Management Unit, UIRUDP

49. **Construction of Manholes:** The project proposes to construct 4890 manholes, including 3,800 brick masonry circular manholes; 860 in-situ RCC circular manholes; and around 230 precast RCC manholes based on the assessment of subsoil condition and traffic loads. The manholes will be constructed well within the ROW of government roads along the sewer network.

No land acquisition or involuntary resettlement impacts due to construction of manhole pumping stations are assessed.

50. **House Sewer Connection:** Sewer house service connection up to property chambers are proposed for 10,000 houses in the zone 8A (about 3400 houses) and 8B (about 5600 houses) will be connected to the sewer system in the new added wards under DMC. No land acquisition or involuntary resettlement impacts are assessed due to house service connections.

51. **Fecal Sludge Septage Management (FSSM):** FSSM system will be provided to entire sub-zone 8, including the area that the sewer network is not reached under sub-zone 8A and 8B. The collected septage will be transported to Nakraunda STP for treatment. Septic tanks are proposed for individual households for 5 and 10 users. Community based septic tanks are proposed for 20/50/100 households. Collection of soil water and sullage from individual households will be by 110 mm dia uPVC pipes and conveyance will be through sewers laid on road to community septic tank (150 mm dia UPVC pipe). This facility is expected to cover a population of 3485 in the base year 2021 and 7715 population through ultimate design horizon 2051 (Table 6). Desludging of septage from household pits/ septic tanks will be done through mobile tankers with suction and discharge arrangements, that will be procured for the project, transported and discharge to STP to co-treat the septage within STP.

Table 6: Population covered under Septage Management in different Sub-zones

Zone	Projected Population for Septage Management (including Floating Population @10%)			No. of required Septic tanks and Soak pits per Households		
	Base Year	Intermediat	Ultimate	Base Year	Intermediat	Ultimate
8A	902	1323	1746	180	265	349
8B	2583	4276	5969	517	855	1194
TOTAL	3485	5599	7715	697	1120	1543

Source: Detailed Project Report, June 2020, Project Management Unit, UIRUDP

52. The space for septage facility would include a septage holding tank for co-treatment, mixers and pumps accommodated in STP plant. Under septage management, septic tanks and soak pits are proposed (individual and community based) and pipe inside the properties for connecting connection chamber and property connection chamber outside property. This also includes the pipeline on road and connection up to community septic tanks. Location for the proposed community-based septic tanks and soak pits will be updated to this resettlement plan document on design finalization and DMS along with google earth maps. Land acquisition and involuntary resettlement impacts will be assessed for the community-based septic tanks and soak pits based on DMS and updated to resettlement plan.

Table 7: Details of Septic Tanks in Sub-zone 8A

Sr. No.	Particulars	Base year (2021)	Intermediate Year (2036)	Ultimate Year (2051)
1	Projected Population (including 10% floating population) for Septage facility	902	1323	1746
2	No. of households	180	265	349
3	No. of Septic tanks and Soak pits required	180	265	349

Sr. No.	Particulars	Base year (2021)	Intermediate Year (2036)	Ultimate Year (2051)
4	Existing System	72	180	265
5	No. of Septic tanks and Soak pits proposed	108	84	85
a	Nos. of Septic Tank (5 users)	43	34	34
b	Sizes of Septic Tank (10 users)	11	25	25
c	Nos. of Septic Tank (20 users)	5	4	4
d	Nos. of Septic Tank (50 users)	1	1	1
e	Nos. of Septic Tank (100 users)	1	0	0
6	Sizes of Septic tanks	As per IS: 2470 Part-1	As per IS: 2470 Part-1	As per IS: 2470 Part-1
7	Sizes of Soak pits	As per IS: 2470 Part-2	As per IS: 2470 Part-2	As per IS: 2470 Part-2

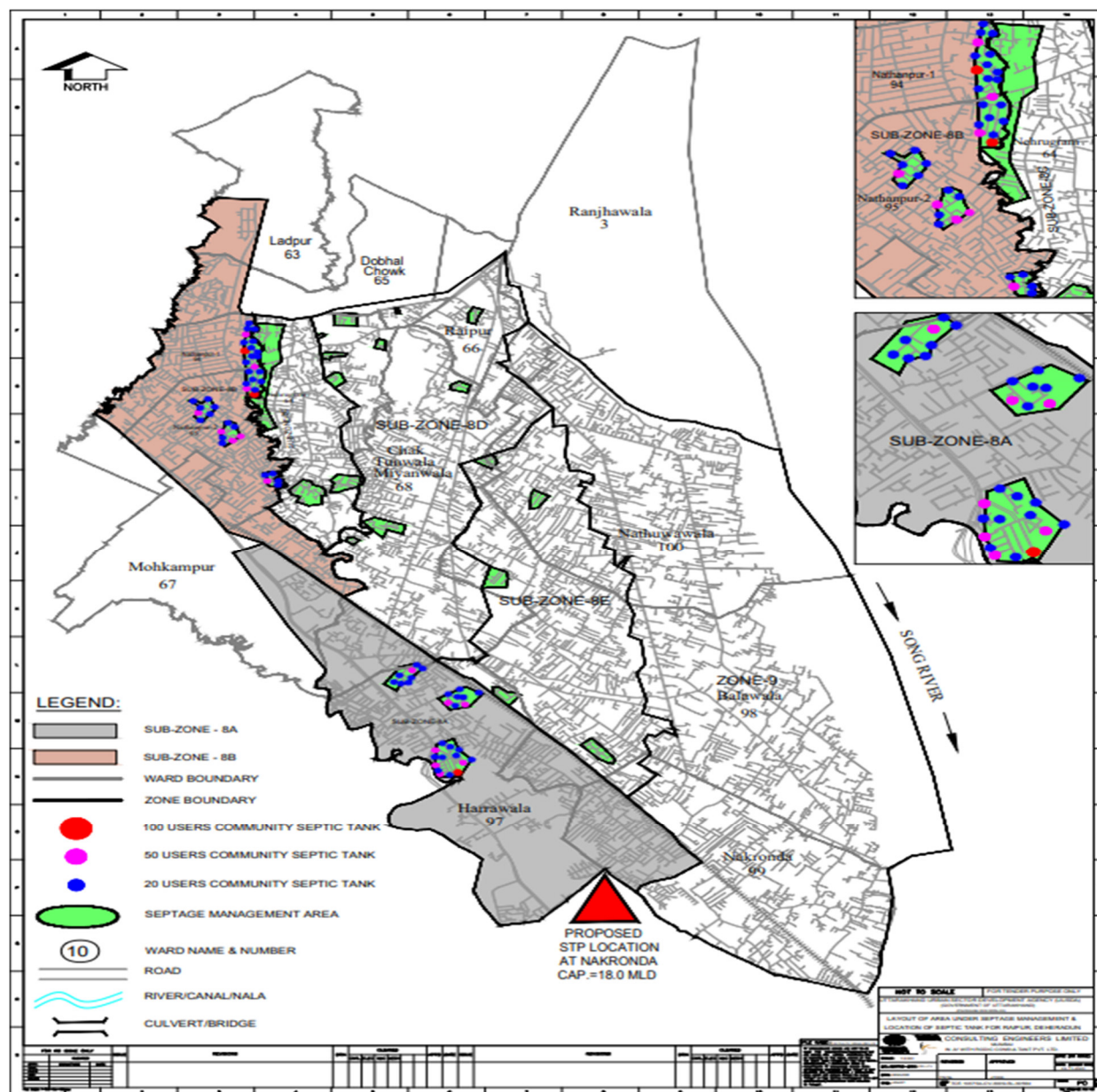
Source: Detailed Project Report, June 2020, Project Management Unit, UIRUDP

Table 8: Details of Septic Tanks in Sub-zone 8B

Sr. No.	Particulars	Base year (2021)	Intermediate Year (2036)	Ultimate Year (2051)
1	Projected Population (including 10% floating population) for Septage facility	2583	4276	5969
2	No. of households	517	855	1194
3	No. of Septic tanks and Soak pits required	517	855	1194
4	Existing System	207	517	855
5	No. of Septic tanks and Soak pits proposed	310	339	339
a	Nos. of Septic Tank (5 users)	124	135	135
b	Sizes of Septic Tank (10 users)	31	102	102
c	Nos. of Septic Tank (20 users)	15	17	17
d	Nos. of Septic Tank (50 users)	3	3	3
e	Nos. of Septic Tank (100 users)	2	2	2
6	Sizes of Septic tanks	As per IS: 2470 Part-1	As per IS: 2470 Part-1	As per IS: 2470 Part-1
7	Sizes of Soak pits	As per IS: 2470 Part-2	As per IS: 2470 Part-2	As per IS: 2470 Part-2

Source: Detailed Project Report, June 2020, Project Management Unit, UIRUDP

Figure 14: Proposed location for Community Septic Tanks



Source: Project Management Unit, UIRUDP and Detailed Project Report, (2020)

53. **Construction of Stormwater Drainage.** Stormwater drains will be constructed of total length 15 km on both sides of the existing roads. Drains will be constructed within ROW of public roads (Table 9); it is proposed to be constructed on the same municipal wards where sewer pipelines will be laid. Construction of drains are part of the road reconstruction work, making the sides of road in slop to accommodate rain flowing down to the existing drainage systems. PMU, UIRUDP will obtain NOC from Nagar Nigam Dehradun for the civil works prior to start of work and the same will be appended to the updated resettlement plan. As the storm water drains will be constructed on the same roads, where sewer pipelines will be laid, it is assumed that same identified road-side shops and vendors will be impacted (identified along sewer pipelines).

Table 9: Summary of Stormwater Drains in Subzones (Sample Roads)

S. No.	Subzone	Name of Roads Where Drains will be Constructed	Ownership of Road	Road Width (m)	Average Width of Drain Proposed (m)
1	8A	Vivek vihar link road, Adarsh colony link road, Rana farm link road, Logistic Park link road,	Nagar Nigam Dehradun	2 to 4 meters	250 mm to 400 mm
2	8B	Natthanpur link road,	Nagar Nigam Dehradun	2 to 4 meters	250 mm to 400 mm

Source: Detailed Project Report, June 2020, Project Management Unit, UIRUDP

Table 10: Details of Drainage Outfall Points

S. No.	Sub zone	Number of Drainage Outfall points	Name of Major Roads	Name of Drain/Nala/ Rivulet /River Canal*	Average Width of Drain/Nala/ Rivulet /River/Canal
1	8A	1	Link Road (Near Haridwar Road) in Harrawala	Harrawala Nala	10 m
2	8A	9	Links roads near proposed STP Site in Nakraunda	Nakraunda Nala	15 m
3	8A	6	Adarsh colony link roads	Nakraunda Nala	8 m
4	8A	6	Link Roads near Logistics Park, Vaatsalya World School	Kaunwala Nala	7 m
5	8A	12	Vivek Vihar link Roads	Nakraunda Nala	11 m
Sub-Total		34			
6	8B	23	Natthanpur link roads (Garhwali Colony Road, Roads near Ramleela Ground)	Natthanpur Nala	6 m
Sub-Total		23			
Total		57			
*All the nalas join Song River which meets River Ganga ultimately					

Source: Detailed Project Report, June 2020, Project Management Unit, UIRUDP

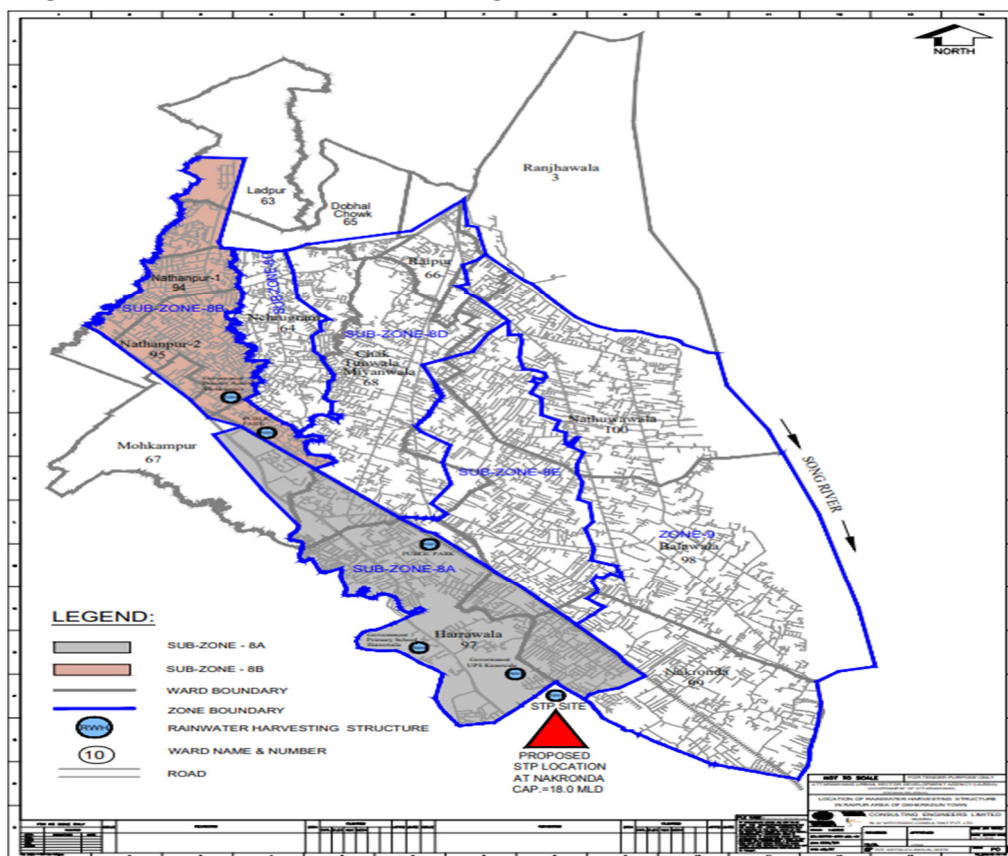
54. The proposed 57 outfalls for subzones 8A and 8B are located on the banks of Harrawala Nala, Nakraunda Nala, Kaunwala Nala and Natthanpur Nala; all these nalas or drains ultimately join Song River which in turn joins River Ganga. For discharge of storm water and construction of outfall structures, UIRUDP will obtain approval or NOC from Department of Irrigation, Government of Uttarakhand. The NOC will be appended to the updated resettlement plan (Table 10).

55. **Groundwater Recharge pits** and Rainwater Harvesting Structures will be developed and installed in the project area. For Raipur area 6 locations have been identified for rainwater harvesting, two locations are at public parks, three are located at government primary and upper primary stations, one near the STP site; 05 m² area is required for the recharge pits. Table 11 summarizes the locations of groundwater recharge pits. UIRUDP will obtain NOCs from the Department of Education, Government of Uttarakhand, Nagar Nigam Dehradun for construction of groundwater recharge pits.

Table 11: Details of Groundwater Recharge Pits

S. No.	Sub zone	Location Name	Area Required (m ²)	Ownership of Land	Land use	Status of NOC
1.	8A	Public Park	5	Nagar Nigam Dehradun	Park	To be updated
2.		Govt. Primary School Harrawala	5	Department of Education GoUK	Fallow land	
3.		Govt. UPS Kuanwala	5	Department of Education GoUK	Fallow land	
4.		Near STP Site	5	UJN	Fallow land	
5.	8B	Govt. Primary School Mohkampur	5	Department of Education GoUK	Fallow land	
6.		Public Park	5	Nagar Nigam Dehradun	Park	

Source: Detailed Project Report, June 2020, Project Management Unit, UIRUDP

Figure 15: Groundwater Harvesting Pit Location in Subzones 8A and 8B

Source: Project Management Unit, UIRUDP and Detailed Project Report, (2020)

56. A component-wise summary of involuntary resettlement impacts under the project is consolidated in Table 12 and subsequently elaborated in the paragraphs.

Table 12: Component-wise Summary of Involuntary Resettlement Impacts

Sl. No.	Component	Description	Location	Land Ownership	Involuntary Resettlement Impacts
Sewerage System					
1.	Construction of Sewage Treatment Plant (STP)	18 MLD with SBR technology	Nakronda	Dehradun Nagar Nigam	No land acquisition or involuntary resettlement impact is envisaged. The land parcel is vacant, unused and encumbrance free.
2.	Laying of Trunk Sewer and Sewer Network Pipelines	110 km	Within project area	ROW of NHAI, PWD and DNN	Involuntary resettlement impact assessed. 20 road side temporary shops and vendors will lose temporary access and temporary income loss due to access disruption.
3.	Construction of Manholes	4890	Within project area	ROW of PWD and DNN	No land acquisition or involuntary resettlement impacts are envisaged.
4.	House Sewer Connection	10,000 house connections	-	-	No land acquisition or involuntary resettlement impacts are envisaged.
Fecal Sludge Septage Management (FSSM)					
5.	Community based septic tanks and soak pits	Proposed for 20/50/100 households	Within project area	-	The exact locations of these components will be identified by the DBO contractor during detailed design. Land acquisition and involuntary resettlement impact will be assessed and updated based on final detail design and DMS.
Storm Water Drainage					
6.	Construction of Storm Water Drains	15 km	Secondary municipal roads within project area	ROW of DNN roads	No land acquisition or involuntary resettlement impacts are envisaged.
7.	Outfall structures	57 outfalls	Different nals, and Song River	Department of Irrigation, Government of Uttarakhand and DNN	No land acquisition or involuntary resettlement impacts are envisaged.
Climate Adaptation Measures					

Sl. No.	Component	Description	Location	Land Ownership	Involuntary Resettlement Impacts
8.	Rainwater harvesting structure nos. and Groundwater recharge pits – 6 nos.	Each structure will require 10 m ² Each pit will require 5 m ²	Public parks and Primary/ Upper Primary School within project area	Department of Education, Government of Uttarakhand and DNN	No land acquisition or involuntary resettlement impacts is envisaged.

57. To avoid and mitigate income loss to those mobile hawkers, street vendors and unauthorized shops at market and congested areas due to construction of road activity, it is suggested that the work be carried out in night time (11 PM to 4 AM) and during weekly holidays. In case of access disruption to business activities, the contractor will provide assistance to move to nearby places and through provision of planks etc. The roadside business and vendors will be allowed by the government and will be assisted by the contractors to move back to the present location after the construction work is complete. In case impact avoidance is impossible, the affected persons will be compensated as per entitlement matrix based on the actual duration of construction work and exact nature of impact.

58. The DBO contractor may consider adopting best engineering and construction practices to be implemented, as like construction of the roads side storm water drainage (in the selected roads stretches) along with the sewer line laying works, to minimize the period of disruption to the livelihood of the affected persons and general public. The contract document for the DBO may contain suggestions to consider precast drains also.

59. A final assessment of impacts will be undertaken along each site/road section based on the detailed engineering design, when exact pipe alignments are known. A detailed measurement survey (DMS) will be conducted to update and finalize the resettlement plan accordingly. Rigour in data collection and consultations with local people will be required to ensure that all affected persons eligible for compensation are identified. Summary of Involuntary resettlement impacts is provided in Table 13.

Table 13: Summary of Involuntary Resettlement Impact

Sl. No.	Details	Number of Affected Persons	Remarks
1.	Permanent land acquisition	None	The STP will be constructed on land parcel under the ownership of Dehradun Nagar Nigam and the PUM has obtained NOC for the same; 0.8 acres of land is required for the STP. No impact due to involuntary acquisition will take place.
2.	Structure loss	None	Structures have not been identified at the STP location or on the edge of the roads, that may be impacted during laying of sewer pipelines.
3.	Permanent and significant livelihood impact (land owners)	None	Nil

Sl. No.	Details	Number of Affected Persons	Remarks
4.	Loss of crops / trees (planted by non-titleholders)	None	Nil
5.	Permanent loss of livelihood	None	Nil
6.	Temporary access disruption	20	Temporary access disruption for maximum of 26 working days for laying of sewer pipelines in each stretch. 20 mobile vendors, roadside shopkeepers (with 92 household members) which are anticipated to face temporary access disruption during the construction period at Miyawala Chowk, Balawala, Harrawala Chowk and Harrawala to Nakronda Band. The affected business owners will be allowed and assisted by the contractor to move back to the present location after the construction work is complete.
7.	Potential temporary income loss to employees ⁶ of affected shops/ Businesses	None	Based on the walk-through survey for 20 number of roadside vendors, it is assessed that the business entities are managed by the owners themselves. There are no employees engaged with these affected entities.
8.	Temporary impacts (income loss)	20	Temporary income loss for 26 working days anticipated. Impact to the 20 road-side shopkeepers and vendors, with 92 household members (same as serial number 6), will occur when sewer pipelines passes through Miyawala Chowk, Balawala, Harrawala Chowk and Harrawala to Nakronda Band. Efforts may be made in detailed design stage to avoid the temporary impact on income loss of the shop owners with proper mitigation measures and also to minimize the impact duration.
9.	Vulnerability ⁹	7	Disability + SC: 01 SC: 03 OBC: 02 WHH: 01
10.	Affected Indigenous People	None	No indigenous people, groups or communities are present in project areas.

Source: Transect walk and income loss survey June 2020, Dehradun

B. Indigenous People

60. **Indigenous People:** Based on field visits and consultations conducted so far, no impacts to indigenous peoples are anticipated under the project. None of the potentially affected persons (temporary loss of livelihood) identified during the community consultations held at the time of transect walk and socio-economic survey, belong to indigenous people groups. As per ADB SPS,

⁹ The Project UIRUDP considers the following as Vulnerable: households / groups comprise of those living below the poverty line, elderly headed households, women headed households, scheduled castes, scheduled tribes, other backward classes, disabled-headed household, landless and those without legal title to land, and transgender people.

indigenous people safeguards are triggered if a project directly or indirectly affects the dignity, human rights, livelihood systems, or culture of indigenous peoples or affects the territories or natural or cultural resources that indigenous peoples own, use, occupy, or claim as their ancestral domain; no such impacts are anticipated in project area. Dehradun has 6.58% tribal population classified as scheduled tribe; however, this population is scattered (does not stay in cohesive tribal communities/tribal groups), is well assimilated in urban society and does not retain the defining characteristics of scheduled tribes including primitive traits, distinctive culture, shyness, geographical isolation and social and economic backwardness. Dehradun does not fall in a scheduled area, and no particularly vulnerable tribal groups are reported in project areas. Hence, in consideration of all of the above, no Indigenous Peoples Plan is required for this project.

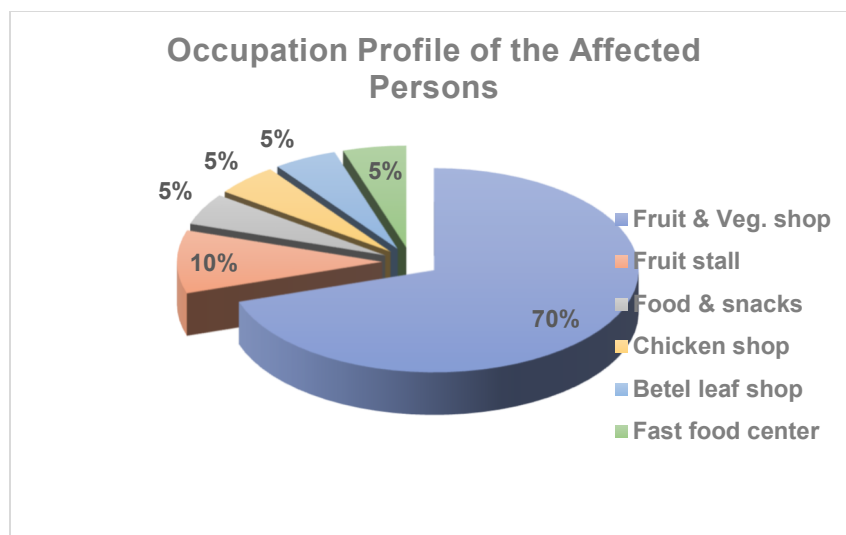
III. SOCIO-ECONOMIC INFORMATION AND PROFILE

61. The following section presents socio-economic profile of households likely to be affected by the proposed works. Findings presented here are based on information collected from 20 affected persons (temporary income loss), having 92 household members identified during walk-through survey along the sewer pipeline alignment, including 07 vulnerable affected families (refer Table 6). The survey provides information on the socio-economic conditions of affected households based on preliminary design. Twenty roadside shop owners and vendors, may be impacted for temporary loss of income due to access disruption during the period of pipeline laying; no structure loss is anticipated. A wide range of data including, social category, type of losses, type of occupation, sources of income, have been collected for social-economic profiling of the affected person. Summary profile of affected persons with photographs are presented in Appendix 11. Location wise number of affected persons are presented in Table 14.

62. **Demographic Details:** Walk-through survey identified 20 roadside shops and vendors comprising 92 household population (female: 45 and male: 47) that will be potentially impacted due to laying of sewer pipelines. Average family size of the affected households is 4.6. The socio-economic survey undertaken has identified two (2) women affected persons running fruit and vegetable shop.

63. **Occupation Profile:** Based on socio- economic information collected during the survey it is assessed 70 percent (14 affected persons) of the affected persons have fruit and vegetable shops, 10 percent (2 affected persons) of them have fruit stalls, and rest have food and snacks, betel leaf, chicken shop, fruit juice stall (Figure16). It was informed during the socio-economic survey that those affected persons, who possess mobile carts, take rounds at the market area, sometimes to sell their products, otherwise all of them have a stationary/fixed place for their business operations.

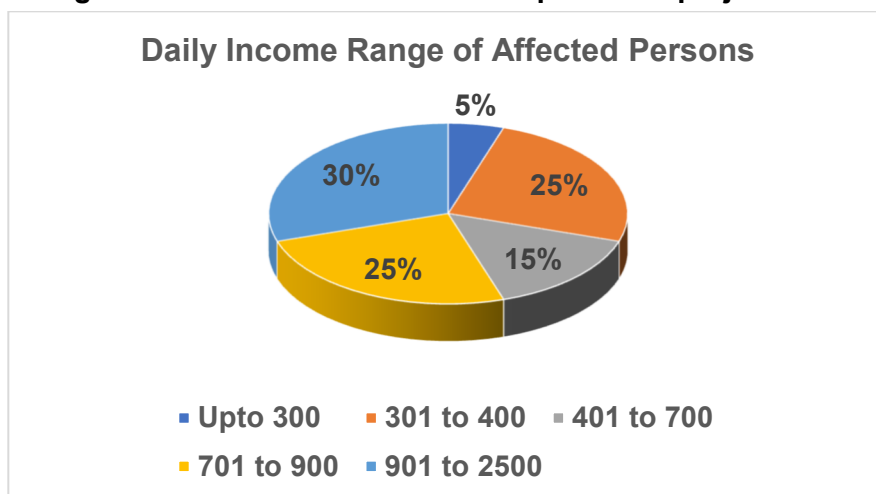
Figure 16: Occupational Profile of Affected Person in Project Area



Source: Income loss survey, June 2020

64. **Income Profile:** About 5 percent of the affected persons have income up to ₹300 per day, 25 percent have income ranging between ₹301 - 400 per day, 15 percent of the households have income of ₹401-700 per day. Further, 25 percent of the affected persons have income ranging from ₹ 701-900 per day and 35 percent reportedly have income range above 901 up to ₹2500 per day. The average net daily income is calculated as ₹922.50.¹⁰ Refer Figure 17 for pie-chart representation of income level of affected person in project area. Labor wage rates as per Government of Uttarakhand notification is presented in Appendix 9.

Figure 17: Income level of affected person in project Area



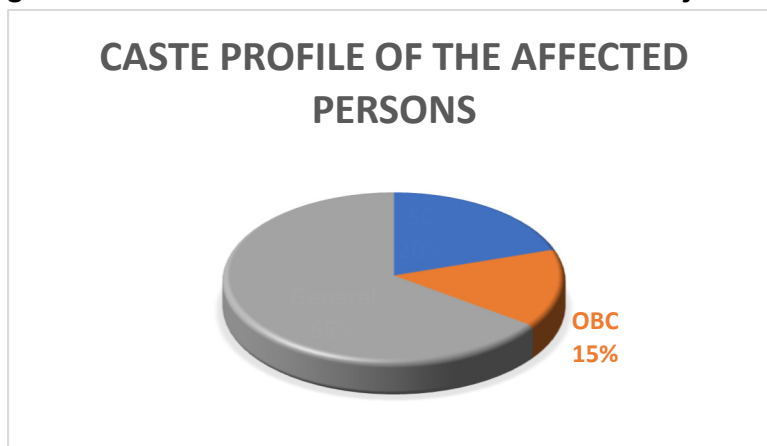
Source: Income loss survey, June 2020

¹⁰ The average net income is calculated based on the daily net income reported by 20 affected persons during income loss survey, presented in Appendix 11.

As per a report published by the Planning Commission, Government of India, the state-specific poverty line for Uttarakhand in 2011-2012 was ₹1082 per capita per month for urban areas (Press Note on Poverty Estimates 2011-2012, Government of India, Planning Commission, July 2013). On adjusting for inflation, the poverty line in 2021 is estimated as ₹1828 per capita per month in urban areas.

65. **Caste Profile:** Affected persons mostly belong to general category (65 percent), 20 percent belongs to Scheduled Caste (SC) and 15 percent belongs to other backward class (OBC). Caste profile of affected person in project area is represented in Figure 18.

Figure 18: Caste Profile of Affected Persons in Project Area



Source: Income loss survey, Raipur Area 2020

Table 14: Summary Profile of Affected Persons

Impact	Number of affected persons / Quantity
1. Loss of land	
Permanent land acquisition	All the project components will be laid within the ROW of government land (Dehradun Nagar Nigam) and roads under the ownership of National Highway Authority, PWD, DMC
Temporary land acquisition	
2. Loss of structures/permanent relocation	
Residential	No permanent or temporary, residential or commercial structure loss is envisaged. ¹¹
Commercial	
3. Loss of livelihood	
Permanent	Nil
4. Temporary Impact	
Total No. of temporarily affected shopkeepers and businesses	20 (92 household members) – All are movable/transitory structures (mobile carts, and structures made of bamboo and tarpaulin)
Employees in the temporarily affected shops/businesses	Nil
Number of women affected persons	2
Average income/day (shops)	₹ 922.50 per day (Daily net income ranges from ₹300- 2500 per day)

¹¹ In the Engineers estimate provision of utility shifting and repair of minor structures has been proposed under provisional sum of DBO contract.

Impact	Number of affected persons / Quantity
5.Vulnerable affected persons (facing temporary impact)	Total: 07 Disability + SC: 01 SC: 03 OBC: 02 WHH: 01
Scheduled Tribe	Nil

Source: Income loss survey, transect walks, technical documents and analysis, June 2020

Note: SC=Scheduled Caste, BPL= Below Poverty Line, OBC= Other Backward Classes, WHH= Women Headed Household

IV. CONSULTATION, PARTICIPATION AND DISCLOSURE

A. Public Consultation

66. The draft resettlement plan preparation involved meaningful consultations¹² with stakeholders. The key stakeholders consulted during resettlement plan preparation include (i) affected persons, including vulnerable households; (ii) program beneficiaries; (iii) elected representatives, community leaders, and representatives of community- based organizations; (iv) local NGOs; (v) local government and relevant government agency representatives; and (vi) Program staff, PMU, PIU, and consultants. Project site visit was undertaken when COVID-19 restrictions were relaxed in the state while maintaining COVID-19 safety protocols by the project authorities and the design consultants to project location. One-to-one consultations were undertaken with affected persons and stakeholders, in addition to small group consultations with 4-5 persons to understand their perception and to disseminate information. Meetings and individual interviews were held involving stakeholders particularly, potentially temporarily affected persons; and transect walks, survey and interviews were conducted to determine the potential impacts of project. During meetings, stakeholders were briefed about the technical details of project and project implementation cycle; project benefits as well as adverse impacts envisaged during construction; environmental and social safeguards, gender inclusion, community participation aspects built into the project etc. Consultations covered issues such as awareness and scope of the project components, benefits of project, envisaged impacts such as traffic disruptions and temporary loss of income. It was informed to surveyed affected persons that appropriate measures will be undertaken during construction to minimize impacts (including scheduling of activities and reducing construction activities during the rush hour). It was also informed that, if despite mitigation measures, there would be any temporary impacts on livelihood; these would be compensated in accordance with the agreed entitlement matrix. Further consultations, including focus group discussions (FGDs) throughout the project design and implementation period, and structured census surveys will also carried out before project implementation and consultations will continue throughout project implementation. A Survey and

¹² ADB SPS requires meaningful consultation to be a process that (i) begins early in the project preparation stage and is carried out on as an ongoing process throughout the project cycle;(ii)provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people;(iii) is undertaken in an atmosphere free of any socio-economic and cultural etc. pressure ; (iv) is gender inclusive and responsive, and is responsive to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stake holders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues

Consultation Safety Protocol on COVID-19 has been prepared for the project and is being strictly followed and will continue to be followed during the project implementation period. Details of consultation and photographs are attached in Appendix 5, 7 and 9; Appendix 10 contains the signature sheets. List of public consultations conducted for preparation of the draft resettlement plan is provided in Table 15. Continuous public consultation will be carried out by the PMU, PIU officials, Consultants and Contractors throughout the project lifecycle.

Table 15: List of Public Consultations Held in Project Area

Sl. No.	Date	Location	Total participants	Female participants
1	22. 06.20	Nakronda STP location	15	06
2	22. 06.20	Mohkampur Chowk	12	03
3	24. 06.20	Mohkampur Chowk	12	03
	Total		39	12

B. Information Disclosure

67. This draft Resettlement Plan and the final resettlement plan approved by the ADB will be duly uploaded in ADB and government of Uttarakhand's websites. Project information will be disclosed to affected persons in a form and language easily understood by them, in accordance with ADB's Access to Information Policy 2018. Prior to implementation of the project, the draft resettlement plan will also be updated. The final resettlement plan will be available in key local/state government offices. During the project implementation, construction schedules will be informed to all residents (including affected persons) prior to the commencement of any construction activities specially laying of sewer pipelines through signboards. The signboards will be placed on the construction site in local language and will include the information like: (i) start and end dates, (ii) section to be affected, (iii) information on traffic diversions, and (iv) contact information for questions / grievances, (v) name of the project and details of the Implementation Agency.

68. During revised resettlement plan preparation, PMU/PIU will ensure to issue public notices. For the purpose of temporary impacts, the final detailed measurement and census survey date will be considered as cut-off date for the project. Cut-off-date for temporary impacts will be communicated to affected persons by PMU/PIUs with the support of community awareness and public participation agency (CAPPA), helping to organise awareness campaigns, meetings in the entire affected area at the start of the census survey and also by putting up printed information in project affected area at some common place having possibility of wider advertisement of the information. Similarly, list of affected persons will be put as notice for the general public at common places with relevant information like contact details of PIU and PMU. The list will be displayed, area wise and at the same time for the entire project area. This will help in identification of affected persons specifically those moving into a new area during project planning and implementation phase. Respective town level PIUs will facilitate affected persons to have access to lists in their area and resolve issues around any duplication, missing/absentee person from the list. Information related to project and entitlements, cut-off-date, grievance redress mechanism will be disclosed to community and affected population in local language (Hindi). A sample template for Project Summary Leaflet is provided in Appendix 14.

69. The PMU/ PIU will ensure that meaningful consultation and disclosure process continues during the construction period. The project management and design supervision consultant (PMDSC) will conduct training of contractors (engineers other supervisory as well as safeguards

staff). The PMU, and with the support of CAPPA, will design and conduct a public awareness campaign during project implementation with the support of ULB. Community Awareness and Participation Agency will be deployed for preparation and implementation of community awareness activities. The Community based organisations and other formal-informal Community groups will be consulted and made aware of the scope of work and other project activities, anticipated impacts and mitigation measures, grievance registration, redressal process and contact details of PIU/ PMU personnel prior to construction.

V. GRIEVANCE REDRESSAL MECHANISM

A. Grievance Redress Mechanism

70. A project-specific, grievance redress mechanism (GRM) will be established to receive, evaluate and facilitate resolution of both social and environment related concerns raised by the affected persons, communities and other stakeholders during project implementation. GRM aims to provide a time-bound and transparent mechanism to voice and resolve complaints/grievances of the project stakeholders. Assessment of the GRM designed and implemented for Uttarakhand Urban Sector Development Investment Program (UUSDIP)¹³ shows that the system was effective in timely resolution of grievances in a transparent manner.¹⁴ The multichannel, project-specific, three-tier GRM is functional at UUSDIP, hence the design of GRM for UUSDIP2 takes into account the proposed institutional structure for UIRUDP¹⁵ and the positive features and learning from the previous GRM.

71. **Common GRM** - A common GRM will be in place for social, environmental, or any other grievances related to the project. Implementation of the resettlement plans/due diligence reports (DDRs)/initial environmental examination (IEEs) will follow the GRM described below. The GRM

¹³The procedures followed for grievance redress during implementation of UUSDIP Loan 1 and 2 included the project level GRM, including providing toll free number for grievance registering, Samadhan (www.samadhan.uk.gov.in), portal of Government of Uttarakhand and the Chief Minister's helpline. Complaints received through various channels were mostly minor and pertained to damage to existing water supply pipelines and disruption of water supply during construction, delays in road restoration, pending new connections and increase in Noise and dust levels. Complaints related to damage to private property (compound walls/steps, etc.) were less in number. The grievances were resolved in coordination with the contractors. Complaints received were immediately referred by the Consultation and Participation Agency (CAPA)/ design and supervision consultant (DSC) supervision staff to the Implementing Project Implementation Unit (IPIU) Nodal officer (safeguards) and concerned engineer at IPIU, who advised them on further action. Follow up with the contractor on complaint resolution was undertaken by IPIU Nodal officer CAPA; and DSC and final feedback sought from complainant upon resolution. Complaints requiring inter-departmental coordination were referred to the implementing IPMU (IPMU) for resolution, and feedback provided to complainant. The PMU kept regular track of grievances through WhatsApp and email also with respective IPIUs, ensuring registration and follow-up till its successful resolution.

¹⁴Town-level grievance registration data at PIU level indicates that a large number of grievances were registered, pointing to the effectiveness of the multi-channel GRM. No major grievance was received for both the phases of UUSDIP. The GRM helped smoothen the process of project implementation, hence the proposed architecture for the UUDP GRM remains similar, with some refinement, taking into account the changes in institutional setup proposed for project implementation.

¹⁵Logistics support at field level will be key to successful management of grievance redress under UUDP. The target date for establishment of the first level (Field/PIU level) and second level (PMU level) of GRM is before loan negotiation. Billboards were used to inform communities about the filing process, and community mobilizers supported creating a continuous consultation process. Pamphlets were distributed, and community consent was obtained before the commencement of work. Stakeholders were able to file their grievances through a toll-free number (which do not exist now); a new toll-free number will be place for UIRUDP. Grievances can also be uploaded in UUSDA website at: <https://www.uusdip.org/grievance.php> (which is still functional).

will provide an accessible and trusted platform for receiving and facilitating resolution of affected persons' grievances related to the project.

72. The grievance redress mechanism will provide an accessible, inclusive, gender-sensitive and culturally appropriate platform for receiving and facilitating resolution of affected persons' grievances related to the project. The construction works under the project will be carried-out along inhabited areas, therefore, it is anticipated that it may lead to some disturbance and inconvenience to local people. In order to provide a direct channel to the affected persons and stakeholders for approaching project authorities and have their grievance registered and redressed in an appropriate time frame, PMU will establish a Grievance Redress Mechanism, which will be functional throughout the project period.

73. A Complaint receiving system will be put in place at each site with the help of Community Awareness and Public Participation Agency (CAPPA). A Complaint Register and Complaint Forms will be made available at the site office of each contractor, with a display board indicating availability of such facility.

74. Public awareness campaigns within entire ULB/Municipal area will ensure that awareness on grievance redress procedures is generated. The nodal officer- social/environment at field level will be supported by CAPPA to organise ULB/Municipal area-based awareness campaigns to ensure that poor and vulnerable households are made aware of grievance redress procedures and entitlements. Contractors will provide leaflets to communities prior to start of works and put-up billboards during construction mentioning details of the project work. The pamphlets and billboards will include relevant environmental and social safeguards, GRM information, and contact details of key personnel from PIU and contractors.

75. Affected persons will have the flexibility of conveying grievances/suggestions by dropping grievance redress/suggestion forms in complaint/suggestion boxes that will be installed by project PIUs or by e-mail, by post, or by writing in a complaint register in ULB offices/complaints register at contractor's work site. Appendix 15 has the sample grievance registration form. Careful documentation of the name of the complainant, date of receipt of the complaint, address/contact details of the person, location of the problem area, and how the problem was resolved will be undertaken and feedback provided to the complainant on action/decision taken. The Social and Environmental Safeguard Nodal Officers of town/city level PIU will have the overall responsibility for timely grievance redressal on environmental and social safeguards issues and for registration of grievances, related disclosure, with the assistance of project consultants. In case of grievances that are immediate and urgent in the perception of the complainant, the contractor, and officials of PIU with assistance from CAPPA on-site will provide the most easily accessible or first level of contact for quick resolution of grievances. Contact numbers and names of the concerned PIU safeguard and safety officer, EHS supervisors or contractors, CAPPA and SDGO/EO will be posted at visible locations.

B. Grievance Redress Process

76. Grievances received during public outreach programs and consultations by CAPPA will be brought to the notice of concerned PIU and formally registered. Grievances not redressed at field/PIU level and PMU level will be brought to grievance redress committee (GRC). The Town Level Committees (TLC) set up to monitor project implementation in each town will be the members of GRC. The proposed GRC will be gender inclusive and will have civil society representation. The grievance redress committee (GRC) is chaired by the Chairman of TLC (Mayors or Chairpersons). The members of TLC are as follows:

- (i) Mayor or Chairperson as chair;
- (ii) Municipal Commissioner or Executive Officer as member;
- (iii) Concern Line Agency representatives as member;
- (iv) NGO and Civil Society Organization as member; and
- (v) Executive Engineer of Town PIU as member secretary.

77. The GRC, including TLC members will meet every month (if grievances are brought to the Committee), determine the merit of each grievance, and resolve grievances within a month of receiving the complaint. This will accept complaints regarding the social safeguard issues in implementation of the project. The grievances received and actions taken will be included into the environmental and social monitoring reports submitted to ADB. The following 3-stage process will be followed in grievance redress:

78. **First Level Grievance (Field/PIU level):** Complaints received (written or oral communication) will be registered in Complaint Register assigning complaint number with date of receipt, name of complainant, address/contact number of complainants. The PIU/PMDSC will review the complaint and direct the Contractor for necessary action (will try to resolve the issue within 7 days from the date of receipt of complaint); depending on the type/nature of complaint the Contractor will be given reasonable time for corrective action; the CAPPa will inform the complainant, within 24 hours, the time frame in which the corrective action will be communicated by e-mail, text message or telephonically; if the grievance referred will not fall under the purview of the project/program, the same will be intimated to the complainant; Contractor will take corrective action or as directed by PMDSC; the CAPPa in coordination with PMDSC will conduct the site visit to check the action taken and its appropriateness. The action taken will be documented in the Complaint Register, and the complaint will be closed if it is satisfactorily addressed, and the complainant will be informed through website/e-mail/telephonically. The responsible person for field/PIU level grievance redress are as follows:¹⁶

- (i) Social and Gender Officers (SGO) and Assistant Environmental Officers (AEO), PIUs;
- (ii) Social, Gender and Resettlement and Environmental Experts, Engineers (if required), PMDSC;
- (iii) Contractor representative (EHS Supervisor);
- (iv) CAPPa;
- (v) Municipal Ward Member (if required)

79. **Second Level Grievance (PMU level):** In case of no satisfactory action in 1st level, the complainant can approach PMU/PMDSC for necessary action; CAPPa will assist the complainant in doing so. Grievance redress team at PMU level with the assistance of PMPMDSC will initiate action and take the corrective measures as required, and CAPPa will intimate the complainant about the action taken; upon satisfaction of complainant, the case will be closed and marked as resolved within 15 days of receipt of compliance/grievance. The responsible persons for PMU level grievance redress are as follows:

¹⁶ It is suggested for each PIU to have a dedicated WhatsApp helpline number for registration of grievances and receipt of quick feedback, to be followed by more formal communication. The complainant can interact directly with the PIU office and get one-to-one guidance and help. Project contractors in all project towns will have a toll-free number with specific working hours for registration of grievances related to UIRUDP.

- (i) Deputy Program Director 1, responsible for project, GESI and safeguard implementation;
- (ii) Social Development and Gender Officer (SDGO);
- (iii) Environmental officer (EO);
- (iv) Information, Education and Communication Officer (IECO);
- (v) Social, Gender and Resettlement Experts (SGREs) and Environmental Experts, Engineers (if required), PMPMDSC; and
- (vi) CAPP.

80. **Third Level Grievance (GRC):** If complainant is not satisfied with the action made or due to noncompliance of grievance at Level 2, the complainant can approach the Grievance Redress Committee (it is expected that the grievance will be redressed within 7 days¹⁷ from date of receipt). The GRC will comprise of the following members:

- (i) Town Level Committee (Dehradun/Nainital), chaired by respective Chairperson/Mayor of the particular town;
- (ii) Program Director, UIRUDP;
- (iii) Additional Program Director (APD) Technical, UIRUDP;
- (iv) DPD 1;
- (v) Social Development and Gender Officer (SDGO);
- (vi) Environmental Officer (EO);
- (vii) PMPMDSC (Environment and SGRE Experts);
- (viii) Women Members of Civil Society under TLC;
- (ix) Elected Representative (if required); and
- (x) CAPP.

81. **Grievance Redress Committee.** The grievance redress committee (GRC) will address both social safeguard and environment issues. The Town Level Committee (TLC)¹⁸ would be chaired by Mayor of Dehradun Municipal Corporation or Nainital Municipal Corporation (as the case may require) and will have the member from civil society (preferably a woman representative), local elected representatives, engineers from UJS/UJN/Irrigation Department and any other concerned line department officials (Forrest Department). Grievances related to social and environmental safeguards will be handled by GRC through periodic meetings. The PMU Social Development and Gender Officer (SGDO), Environment Officer, experts from PMDSC and CAPP will assist the PD, UIRUDP, APD, UIRUDP and other members of GRC, in facilitating smooth functioning of GRM and timely resolving the complaints/grievances.

82. **Court of Law:** Under the project specific GRM, an aggrieved person shall have access to the country's legal system at any stage and accessing the country's legal system can run parallel to accessing the GRM and is not dependent on the negative outcome of the GRM. In case of grievance related to land acquisition, resettlement and rehabilitation, the affected persons will have to approach a legal body/court specially proposed under the RFCTLARRA, 2013.¹⁹ However, as none of the impacts are complex, long-term or significant in nature, it is unlikely that there will be any unresolved issues after the first three stages. The PMU will submit RP/EMP/SEMP implementation report to ADB's review and will ensure that affected persons will

¹⁷ Given the challenging times (due to COVID-19), an additional 7 days time-period would be given to each level to resolve the complaints/grievances.

¹⁸ The TLC has been formed at each of the targeted town level for planning and monitoring of work, resolve issues related to departmental coordination etc. It is headed by Commissioner /Executive Officer ULB(Chairman) and Executive Engineer of UJS/UJN, public works department (PWD) and head of PIU acting as Member Secretary.

¹⁹ The Authority admits grievances only with reference to the Land Acquisition and R&R issues under the RFCTLARRA, 2013.

receive compensation and other assistances as per EM prior to impact / displacement and before commencement of civil works. The issues relating to environment will be redressed as per the guidance provided in EMP/SEMP.

83. **ADB's Accountability Mechanism.** The People who may /are in future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach ADB accountability mechanism.²⁰

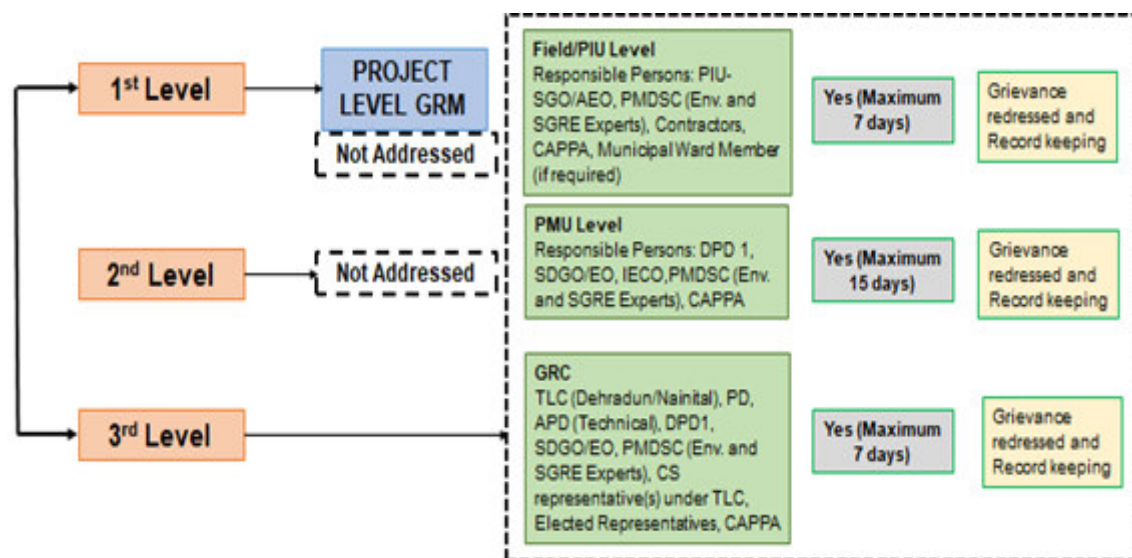
84. **Record-keeping.** The town/city level PIUs will keep records of grievances received, including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date these were affected and final outcome in gender segregated manner. The number of grievances recorded and resolved, and the outcomes will be displayed/disclosed in the PMU office, PIU offices, and on the websites, as well as reported in monitoring reports submitted to ADB on a semi-annual basis. The sample Grievance registration format is attached.

85. **Periodic review and documentation of lessons learned.** The PMU safeguard officers (SDGO and EO) will periodically review the GRM functioning at PIU/Construction Contractor level and record information on the effectiveness of the mechanism, especially on the project's ability to transparently prevent and address the reported grievances.

86. **Costs.** As part of the EMP cost the Construction Contractors will be allocating budget for pamphlets and billboards and site level grievance registers as per requirement. PIU at town level will bear the costs involved in resolving the complaints (meetings, consultations, communication and reporting/information dissemination) while costs related to further action on intensified grievances will be met by the PMU. GRM structure for UIRUDP is presented in the Figure 19 below.

Figure 19: Grievance Redress Process for UIRUDP

²⁰ Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.



AEO = Assistant Environmental Officer; APD = Additional Program Director; CAPP = Community Awareness and Public Participation Agency; CS = Civil Society DBO = Design Build and Operate Contractor; DPD = Deputy Program Director; EO = Environmental Officer; IECO = Information Education and Communication Officer; PD = Program Director; PIU = Project Implementation Unit; PMDSC = Project Management, Design Supervision Consultant; PMU = Project Management Unit; SDGO = Social Development and Gender Officer, SGO = Social and Gender Officer; SGRE = Social, Gender and Resettlement Expert; TLC = Town Level Committee

VI. POLICY AND LEGAL FRAMEWORK

87. The policy framework and entitlements for the UIRUDP are based on applicable laws and regulations of the national and state government, the ADB Safeguards Policy Statement (2009). In accordance with:

- (i) The RFCTLARRA 2013,²¹ the legal process for the acquisition of the land, if required, shall be initiated by the Executing Agency (EA) through the District Magistrate (DM).
- (ii) ADB's Safeguard Policy Statement (SPS), 2009. The salient features of Government and ADB policies are summarized below. The resettlement principles and procedures to be followed for social safeguards are detailed out in the resettlement plan. Project implementation shall be carried out in its full compliance.

A. Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013

88. **Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.** This Act repeals the Land Acquisition Act, 1984 and is applicable to all states in India including Uttarakhand. RFCTLARRA, 2013 is a first national/central law that addresses land acquisition and rehabilitation and resettlement collectively. Establishing of a completely new Act, which was due from a long time, is a pioneering step taken by the Government of India in providing a humane, participative, informed and transparent process for permanent/temporary land acquisition in the public interest. The Act lays down procedures for

²¹ Ministry of Law and Justice. The Act has received the assent of the President on the 26 September 2013.

estimating fair compensation of the affected families (and not just the titleholders) due to land acquisition, rehabilitation and resettlement. The Act prohibits acquisition of multi-cropped irrigated land as a special provision to safeguard food security, unless in exceptional circumstances as a demonstrable last resort. The Governor of the state of Uttarakhand issued a notification (No. 87/XVIII(III)/2016-20(01)/2014, dated February 09, 2016) to confer power on the District Collector to carry out land acquisition as appropriate authority, not exceeding one thousand acres, for public purpose, as per clause (e) of Section 3 of RFCTLARRA, 2013.²²

B. The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014

89. The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 came into force on 5 March 2014 and seeks to protect the livelihoods of street vendors while regulating street vending. The Act recognizes street vendors of different types including mobile (moving) vendors, stationary (vending from a particular place), natural markets (spaces where buyers and sellers traditionally congregate), vendors with temporary built-up structures, hawkers, peddlers and squatters. It provides for regulation of street vendors, defines the rights and duties of street vendors and requires definition of designated vending zones, issue of certificates of vending and identity cards to street vendors, and proposes vending fees and maintenance charges. Under the Act, each state government is required to define the public purpose for which a street vendor may be evicted and the manner of relocation, manner of giving notice, and provides for a dispute resolution mechanism. As per the Act, planning and regulation of street vending is to be undertaken at town level by the Town Vending Committee. The Act also provides for social audit of the activities of the Town Vending Committee.

90. The Uttarakhand Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2016

91. In exercise of power conferred to state under section 36 of the central act, the state government has framed rules for implementation of the Act in the state. The State rules outlines the following:

- (i) Except in the areas licensed under the rules, no person shall occupy any space in any public place or open land for selling of goods or by parking vehicle and shall not do any vending activity;
- (ii) The Town Vending Committee (TVC) shall identify and demarcate vending zones, places or markets in each Municipality;
- (iii) The TVC may declare areas of importance as 'no vending zone';
- (iv) Survey of street vendors every five years;
- (v) TVC will ensure that all enlisted street vendors are accommodated in identified vending zones and are not evicted or relocated till survey specified under section 5 (1) has been completed and a vending licensee is issued;
- (vi) Section 16 (1) of the state rules mentions about prevention of harassment of street vendors who carries the street vending certificate and carries out vending activities as per the terms and conditions specified in the certificate;
- (vii) No street vendor shall be evicted by the local authority from the place specified in the certificate of vending unless he has been given thirty days' notice for the same;

²² Notification issued by the Governor for the state of Uttarakhand on the appropriate authority to carry out land acquisition as per RFCTLARRA, 2013. https://revenue.uk.gov.in/files/revenue_to_pdf.PDF

- (viii) The street vendor shall give an undertaking to the TVC, before issuance of certificate, that the person or any member of his/her family shall carry out the vending activity and that the person has no other means of livelihood.

C. ADB Safeguards Policy Statement (2009)

92. The key involuntary resettlement principles of the ADB Safeguards Policy Statement (2009) are:

- (i) Screening of project early on to identify past, present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks;
- (ii) Carry out meaningful consultations with affected persons, host communities, and concerned nongovernment organizations. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land, and ensure their participation in consultations. Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase; Improve, or at least restore, the livelihoods of all displaced persons through, (a) land-based resettlement strategies when affected livelihoods are land based where possible or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (b) prompt replacement of assets with access to assets of equal or higher value, (c) prompt compensation at full replacement cost for assets that cannot be restored, and (d) additional revenues and services through benefit sharing schemes where possible;
- (iii) Provide physically and economically displaced persons with needed assistance, including the following: (a) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (b) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (c) civic infrastructure and community services, as required;
- (iv) Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing;
- (v) Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status;

- (vi) Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets;
- (vii) Prepare a resettlement plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule;
- (viii) Disclose a draft resettlement plan, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final resettlement plan and its updates to affected persons and other stakeholders;
- (ix) Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation;
- (x) Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation; and
- (xi) Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.

D. Comparison of National Law and ADB SPS 2009

93. A detailed policy comparison between ADB's Safeguard Policy Statement, 2009, RFCTLARRA, 2013, the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 and the Uttarakhand Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2016, identified gaps and gap filling measures are given in following Table 16.

Table 16: Comparison Between LARR Act and ADB SPS and Measures to Bridge the Gaps

Sl. No.	Involuntary Resettlement Policy Principle	ADB Safeguard Policy Statement	Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014, and Uttarakhand Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2016	Measures to Bridge Gaps
1	Screen project	<p>Screen the project to identify past, present and future involuntary resettlement impacts and risks.</p> <p>Conduct survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement</p>	<p>Section 4 (I) it is obligatory for the appropriate Government that intend to acquire land for a public purpose to carry out a social impact assessment (SIA) study in consultation with concerned Panchayat, Municipality or Municipal Corporation, as the case maybe, at village level or ward level in the affected area. The SIA study report shall be made available to the public in the manner prescribed under section 6.</p>	No specific requirement for screening mentioned.	<p>The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (RFCTLARRA) and ADB Safeguard Policy Statement (SPS) requires to conduct social impact assessment.</p> <p>Gap in screening past, present and future involuntary resettlement impacts and risks. The Project will undertake screening of all projects using the ADB involuntary resettlement checklist, to identify past, present and future involuntary resettlement impacts and risks.</p>
2	Consult stakeholders and establish grievance redress mechanism	<p>Carryout consultations with displaced persons, host communities and concerned Nongovernment organizations (NGOs). Informally displaced persons of their entitlements and resettlement options</p>	<p>Whenever a SIA is required to be prepared under section 4, the appropriate Government shall ensure that a public hearing is held at the affected area, after giving adequate publicity about the date, time and venue for the public hearing, to ascertain the views of the affected families to be recorded and included in the Social Impact Assessment Report.</p> <p>The Land Acquisition Rehabilitation and Resettlement Authority shall be established in each State by the concerned State Government to hear disputes arising out of projects where land acquisition has</p>	Section 20 under the central Act 2014, outlines provision of redressal of grievances or resolution of disputes of street vendors.	<p>Gap in establishing a project-level GRM for projects that do not have significant resettlement impacts. The Project will establish project-level GRM.</p>

Sl. No.	Involuntary Resettlement Policy Principle	ADB Safeguard Policy Statement	Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014, and Uttarakhand Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2016	Measures to Bridge Gaps
			been initiated by the State Government or its agencies.		
3	Improve or at least restore, the livelihoods of all displaced, and payment at replacement cost	Improve or restore the livelihoods of all displaced persons through:(i) land-based resettlement strategies; (ii) prompt replacement of assets with access to assets of equal or higher value, (iii) prompt compensation at full replacement cost for assets that cannot be restored, and(iv) additional revenues and services through benefit sharing schemes where possible.	The Deputy Commissioner having determined the market value of the land to be acquired shall calculate the total amount of compensation to be paid to the landowner (whose land has been acquired) by including all assets attached to the land.	No specific requirement related to restoration or improvement of livelihoods mentioned. The Uttarakhand Rules do not allow any person to occupy any space in any public place or open land for selling of goods or by parking vehicle or practicing of any livelihood / vending activity, except in the areas licensed under the rules.	RFCTLARRA does not recognize loss of livelihoods to non-titled users of government land and non-titleholders present on private land for less than three years. This Resettlement Plan and its entitlement matrix ensures compensation against temporary income loss to non-titled business owners on government land. Assets to be compensated at replacement cost without depreciation. The entitlement matrix for this project allows vendors to practice their businesses and return to their original locations to continue their economic activities.
4	Assistance for displaced persons	Provide physically and economically displaced persons with needed assistance	Schedule I, provides market value of the land and value of the assets attached to land. Schedule II provides resettlement and rehabilitation package for landowners and for livelihood losers including landless and special provisions for Scheduled Tribes.	Under Section 18 and Section 20 of the central Act 2014 and the State Rules 2016 respectively mentions that no street vendor shall be evicted by the local authority from the place specified in the certificate of vending unless he has been given thirty days' notice for the same	No gap between ADB SPS and RFCTLARRA. Entitlement Matrix outlines compensation and assistance for affected persons. The Entitlement Matrix includes that the road-side shops and vendors will be provided 30 days advance notice. The provision of 30 days advance notice to street vendors is adopted in the entitlement matrix for the project and no eviction is allowed; vendors will be allowed to return

Sl. No.	Involuntary Resettlement Policy Principle	ADB Safeguard Policy Statement	Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014, and Uttarakhand Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2016	Measures to Bridge Gaps
					to their original locations to practice their businesses.
5	Improve standard of living of displaced vulnerable groups	Improve the standards of living of the displaced poor and other vulnerable groups, especially those below the poverty line, the landless, the elderly, women, children, indigenous peoples, and those without title to land, to at least national minimum standards	Special provisions are provided for vulnerable groups.	No specific measures for vulnerable groups mentioned.	Entitlement Matrix outlines assistance for vulnerable groups, as defined by ADB policy.
6	Negotiated settlement	Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihoods status	Section 46 of RFCTLARR Act, 2013 permits direct purchase of land and undertaking direct negotiation with the landowner.	Not applicable	To ensure a fair and transparent process, a third-party independent monitor will be hired to certify the process the negotiated purchase was undertaken in a transparent, consistent and equitable manner, without coercion
7	Compensation for nontitle holders	Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets. In the rural area, provide them with access to resources.	Schedule II provides benefits to families whose livelihood is primarily dependent on land acquired	No specific provisions.	There is a gap between ADB SPS and RFCTLARRA on compensation and assistance to non-titleholders on government land and those using private land for less than 3 years. Entitlement Matrix outlines compensation and assistance for nontitle holders, including squatters, encroachers,

Sl. No.	Involuntary Resettlement Policy Principle	ADB Safeguard Policy Statement	Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014, and Uttarakhand Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2016	Measures to Bridge Gaps
		In the urban area, provide them with access to housing.			sharecroppers and businesses.
8	Prepare resettlement plan	Prepare are settlement plan/indigenous peoples plan on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.	Preparation of Rehabilitation and Resettlement Scheme including timeline for implementation. Section: 16. (1) and (2). Separate development plans to be prepared. Section 41	No specific rules mentioned.	No gap between ADB SPS and RFCTLARRA. Resettlement plan will be prepared for projects with assessed involuntary resettlement impact.
9	Disclose resettlement plan	Disclose a draft resettlement plan, including documentation of the consultation processing a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to displaced persons and other stakeholders. Disclose the final resettlement plan and its updates to displaced persons and other stakeholders	Under clause 18, the Commissioner shall cause the approved Rehabilitation and Resettlement Scheme to be made available in the local language to the Panchayat, Municipality or Municipal Corporation. As the case maybe, and the offices of the District Commissioner (DC) the Sub- Divisional Magistrate and the Taluka, and shall be published in the affected areas, in such manner as maybe prescribed and uploaded on the website of the appropriate Government.	No specific rules mentioned.	The draft and final resettlement plans will be disclosed to affected persons.
10	Cost of resettlement	Include the full costs of measures proposed in the resettlement plan and	Section 16. (1) Upon the publication of the preliminary Notification under sub-section(/) of section II by the Collector, the	No specific rules mentioned.	No gap between ADB SPS and RFCTLARRA. Cost of resettlement will be covered by

Sl. No.	Involuntary Resettlement Policy Principle	ADB Safeguard Policy Statement	Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014, and Uttarakhand Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2016	Measures to Bridge Gaps
		indigenous peoples plan as part of project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.	Administrator for Rehabilitation and Resettlement shall conduct a survey and undertake a census of the affected families, in such manner and within such time as may be Prescribed, which shall include:(a) particulars of lands and immovable properties being acquired of each affected family;(b) livelihoods lost in respect of land losers and landless whose livelihoods are primarily dependent on the lands being acquired;(c) a list of public utilities and Government buildings which are affected or likely to be affected, where resettlement of affected families is involved;(d) details of the amenities and infrastructural facilities which are affected or likely to be affected, where resettlement of affected families is involved; and(e) details of any common property		the EA.
11	Taking over possession before payment of compensation	Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.	38 (I) The Collector shall take possession of Land after ensuring that full payment of compensation as well as rehabilitation and resettlement entitlements are paid or tendered to the entitled persons within a period of three months for the compensation and a period of six months for the monetary part of rehabilitation and resettlement entitlements listed in the Second Schedule commencing from the date of the award made under section 30.	No specific rules mentioned.	No gap between ADB SPS and RFCTLARRA.
12	Monitoring	Monitor and assess resettlement outcomes,	48 (I)The Central Government may, whenever necessary for national or inter-	No specific rules mentioned.	RFCTLARRA does not specify the frequency of monitoring. The

SI. No.	Involuntary Resettlement Policy Principle	ADB Safeguard Policy Statement	Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014, and Uttarakhand Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2016	Measures to Bridge Gaps
		their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.	State projects, constitute a National Monitoring Committee for reviewing and monitoring the implementation of rehabilitation and resettlement schemes or plans under this Act.		Project will prepare monitoring reports semi-annually as per ADB SPS.

VII. ENTITLEMENTS, ASSISTANCE AND BENEFITS

A. Types of Losses and Affected Person Category

94. The anticipated losses due to the proposed project components under UIRUDP comprise potential temporary income loss to road-side shops and vendors along the sewer pipeline and sewer network alignment. The income loss to affected persons will be temporary in nature (loss of daily income for the period of disruption) and is assessed as 26 working days of each affected person. According to the project scope, sewer pipelines and stormwater drainage system are proposed along the same roads; construction work of both the components in each stretch of the road, back filling of the excavated earth, is assessed to take minimum 26 working days.

95. As per the ADB SPS 2009, regarding involuntary resettlement in the context of economic impacts, affected persons are those who are economically displaced (loss of productive land, structures, assets, access to assets, income sources, or means of livelihood). Absence of formal and legal title to the land does not bar the affected person from receipt of compensation and resettlement assistance from the project. Vulnerable affected persons are eligible for additional compensation and assistance and are to be accorded priority in employment in project related construction activities.

96. Detailed measurement surveys (DMS) will be conducted for project sites along trunk sewer pipeline, sewer network alignments and stormwater drainage, once the detailed design is finalized. These surveys remain to be conducted before implementation at each stretch of pipeline.

B. Entitlements

97. All the affected persons will be eligible against compensation for temporary income loss as specified in the entitlement matrix.²³ The affected persons will be entitled to receive compensation for income loss for the period of disruption. For construction activities involving disruption for a period of more than a month, provision of alternative sites for road-side shops and vendors for continued economic activities may be provided. If not possible, transitional allowance based on the net income of the affected business or minimum wage rate for the affected households up to 3 months or the actual period of disruption whichever is more should be provided.

98. For this project, the estimated period of disruption during sewer pipe laying and construction of storm water drains are assessed to be 26 working days (considering the pipeline laying, back filling of earth, road restoration work, construction of stormwater drains). In case the period of disruption is more than one month (30 days), the affected persons will be compensated based on the actual number of days of disruption. All affected persons will also be compensated for the time lag (taking into account annual inflation rate) between the time of payment of compensation and the time of survey. 'Shifting assistance' (lump sum ₹9000) will be paid to all affected persons irrespective of their business type. All affected persons who are identified as vulnerable will be eligible for special assistance amounting to ₹30,000 as one-time assistances under temporary impacts for livelihood restoration.

²³ Temporary income loss to employees of shop owners/vendors, as a loss category was not identified at this stage. However, this cannot be ruled out and will be ascertained during census survey.

99. **Cut-off Date.** The title holders are eligible for compensation under RFCTALRRA and the preliminary notification by the competent authority would be the cut-off date as per the law. The final detailed measurement and census survey date will be considered as the cut-off date for the project. Any person who purchases or occupies land in the demarcated project area after the cut-off date is not eligible for compensation or resettlement assistance or both. Similarly, fixed assets (such as, built structures, crops, fruit trees, and woodlots) established after this date or an alternative mutually agreed on date, will not be compensated.

100. UIRUDP will document and disseminate the cut-off date information throughout the project area. The survey presented in this draft Resettlement Plan will be revised based on detailed design, and the need for additional surveys has already been identified.

101. Affected persons will be intimated in advance before 30 days to ensure no or minimal disruption in livelihood. If required, if requested/required they will also be assisted to temporarily shift for continued economic activity. For example, they will be assisted to shift to the other side of the road where there is no construction work, shifting to new location will be facilitated by PIU. It should be ensured by the contractor that access will be provided during subproject construction.

102. When the work will be undertaken on one side of the road and temporarily affected persons will be facilitated to move to the other side of the road, where there is no construction activity. The returning to their original place of business after construction is completed will be facilitated and assisted by the construction contractor. In case moving is not required, access will be ensured by the contractor through measures suggested in bidding documents / environmental management plan (EMP). An alternate place in the vicinity will also be identified where a cluster of affected persons is available at one place such as fruit and vegetable vendors so that they continue the livelihood conveniently. Entitlement matrix is provided in Table 17.

Table 17: Entitlement Matrix

Sl. No.	Type of Loss	Application	Definition of Entitled Person	Compensation Policy	Implementation Issues	Responsible Agency
1	Temporary disruption of livelihood	Temporary impacts	Legal title holders, non-titled affected persons	<p>30 days' advance notice regarding construction activities, including duration and type of disruption.</p> <p>Cash assistance based on the net income from the affected business or minimum wage rate as per government notifications for the loss of income/livelihood for the period of disruption - whichever is more.</p> <p>Shifting allowance to affected business owners to temporarily shift for continued economic activity (₹ 9,000 as one-time assistance).²⁴</p> <p>For construction activities involving disruption for a period of more than a month, provision of alternative sites for hawkers and vendors for continued economic activities. If not possible, allowance based on the net income of the affected business or minimum wage rate for the affected households up to 3 months or the actual period of disruption whichever is more.</p>	<p>PIU will do the Identification of alternative temporary sites to continue economic activity.</p> <p>Contractor's actions to ensure there is no income/access loss consistent with the initial environmental examination. This includes: leaving spaces for access between mounds of soil, providing walkways and metal sheets to maintain access across trenches for people and vehicles where required, increased workforces to finish work in areas with impacts on access, timing of works to reduce disruption during business hours, phased construction schedule and working one segment at a time</p>	<p>i- PIU led Valuation Committee will determine income lost.</p> <p>ii- Contractors will perform actions to minimize income/ access loss.</p> <p>iii- For temporary impacts during construction activities, Safeguard Support Staff (PMDSC) with the help of PIU will assess/verify impacts through.</p> <p>Structured surveys. Payment will be made by PIU through direct transfer to the account of the Affected person.</p> <p>CAPPA will help to organise meetings with affected persons for awareness on entitlements.</p>

²⁴ The shifting allowance covers shifting from and back to the location.

Sl. No.	Type of Loss	Application	Definition of Entitled Person	Compensation Policy	Implementation Issues	Responsible Agency
					and one side of the road at a time.	
2	Impacts on vulnerable affected persons ²⁵	Temporary impacts	Vulnerable affected persons	Vulnerable households will be given priority in project construction employment and provided with income restoration support. Vulnerable persons/businesses will receive ₹30,000 as one-time assistance under temporary impacts.	Vulnerable households will be identified during the census.	PMDSC will verify the extent of impacts through 100% surveys of affected households and determine assistance, verify and identify vulnerable households. PIU and PMDSC will monitor and ensure this entitlement.
3	Any other loss not identified	-	-	Unanticipated involuntary impacts will be documented and mitigated based on ADB's Safeguard Policy Statement (SPS), 2009.		PIU/PMDSC will ascertain the nature and extent of such loss. PMU will finalize the entitlements in line with ADB's SPS, 2009/UIRUDP resettlement framework.

²⁵ Vulnerable households / groups comprise of those living below the poverty line, elderly headed households, women headed households, destitute children (orphans, child workers), scheduled castes, scheduled tribes, disabled-headed household, and transgender people, landless persons and those without legal title.

103. The vulnerable affected persons or any member of the vulnerable affected family, will be selected on priority basis for works /jobs in the project construction employment and provided with additional special assistance for income restoration support.

104. Compensation Mechanism. Assistance for temporary loss of income and livelihood will be paid to the displaced persons as per the Entitlement Matrix. The computation of the loss will be based on the monthly income of the affected shop owners as stated by them during the consultation and social impact assessment conducted. Compensation may be provided for the period of disruption.

105. The payment of compensation and assistance amount to affected persons should be transferred in their bank account before the possession of land/ assets/ ROW of roads and prior to the award of civil works contracts.

106. Identity cards will be prepared and distributed after completion of DMS.

VIII. RESETTLEMENT BUDGET AND FINANCING PLAN

107. The resettlement budget for “Sewerage System of Zone 8 A and 8 B (Nathanpur-1, Nathanpue-2, Miyapur, Mokhampur, Dobhal Chowk, Ladpur, Nakraunda, Balawala, Harawala in Dehradun with 5 years Operation and Maintenance” as outlined in the entitlement matrix and contingency provision amounting of about 20% of the total cost.²⁶ The details are provided in Table 18. PMDSC team²⁷ will be involved in facilitating meetings/camps for the disbursement process and will facilitate by making aware about the process of opening of bank accounts for the affected persons who do not have bank accounts. The costs are conservative estimates and will be confirmed during detailed project preparation and planning. The total resettlement cost for the project is **₹18,40,800.00 (Rupees Eighteen lakhs forty thousand and eight hundred only).**²⁸ PIU will issue order for release of payment to affected persons, which shall be released through electronic clearance service/National Electronic Fund Transfer (ECS/NEFT) transaction from bank, through concerned treasury of the state/district administration. The resettlement plan budget is outlined in Table 18.

108. Details of resettlement plan budget estimation are as follows:

- (i) Total number of affected persons - approximately 20 persons are estimated to be project affected as per transect walk and preliminary estimates during transect walk and income loss survey. Temporary livelihood losses are estimated to be for 26 days (considering laying of sewer pipelines, construction of stormwater drainage, back filling of excavated earth and restoration work of the roads) for the resettlement budget for each affected person under this project. Should actual days of disruption be higher, compensation will be as per the agreed entitlement matrix.
- (ii) There are 07 vulnerable affected persons (01 SC plus Disability, 03 SC, 02 OBC, 01 WHH) – as per the initial assessment done at design and planning stage.

²⁶ The estimated costs are conservative and will be confirmed during detailed project preparation at the time of updating the RP.

²⁷ The cost of NGO/agency (CAPPA) for public consultation and awareness campaigns will be considered under Project cost for UIRUDP.

²⁸ The resettlement plan budget for this project will be borne by the Executing Agency. Department of Urban Development (UDD), Government of Uttarakhand is the Executing Agency.

- Vulnerability assistance for UIRUDP has been budgeted as ₹30,000, per person, in accordance with the entitlement matrix.
- (iii) The average daily net income of the affected business owners is calculated as ₹ 922.50; therefore, the compensation for income loss is rounded-off to ₹ 950 per day for the proposed resettlement plan budget.
 - (iv) Shifting assistance has been considered for all affected persons – Based on the nature of affected businesses, shifting assistance of ₹9,000.00 is proposed for all the affected persons.

Table 18: Budgetary provision for Implementation of Resettlement Plan

Item Description	Unit	Rate In INR	Total Amount In INR
Compensation for income loss for 20 affected persons for 26 working days @ ₹ 950 per day*	Day	950.00	4,94,000.00
Shifting allowance (one-time) for 20 affected persons**	Number	9,000.00	1,80,000.00
One-time Vulnerability assistance (07 affected persons)	Number	30,000.00	2,10,000.00
DMS Survey for Resettlement Plan updating, ID preparation, Documentation	LS		3,00,000.00
Consultation, Grievance Redress	LS		2,00,000.00
Awareness Generation and Capacity Building	LS		1,50,000.00
Sub-total			15,34,000.00
Contingency @ 20%			3,06,800.00
Grand total			18,40,800.00

LS= lumpsum

Note:

* Compensation for income loss will be based on the actual period of disruption; the number of days of disruption can be less or more than 26 days as assumed in the resettlement plan budget. The affected persons will receive compensation for the actual number of days of disruption.

** Shifting allowance includes the cost of shifting from and back to the original location.

***Damage to minor structures such as ramps or steps during construction will be covered under provisional sum of DBO contract.

IX. INSTITUTIONAL ARRANGEMENTS AND CAPACITY DEVELOPMENT

A. Institutional Arrangements

109. Department of Urban Development (UDD), Government of Uttarakhand is the Executing Agency and Uttarakhand Urban Sector Development Agency (UUSDA) is the Implementing Agency for the Uttarakhand Inclusive and Resilient Urban Development Project (UIRUDP). UUSDA under UDD is responsible for management, coordination and execution of all activities funded under this project. A Project Management Unit (PMU), established within the UUSDA, will implement the project.

110. **Project Management Unit (PMU).** The PMU will be headed by a Program Director (PD), a senior IAS Officer, of Additional Secretary rank; the Program Director will be supported by Additional Program Director (APD), Technical (an officer of Chief Engineer rank), Additional Program Director (APD), Administration (a State Cadre level Administrative Officer or a junior IAS Officer) and a Finance Controller (a State Cadre level Officer from finance discipline). APD Technical will be supported by Deputy Program Directors of Superintendent Engineer rank; DPD 1 will be responsible for Project Implementation and DPD 2 responsible for Procurement Planning and Contracts. DPD 1 is the focal person for coordinating with the PIUs, and for safeguards and GESI implementation. The Deputy Program Directors will be assisted by Project Managers of Executive Engineer rank and Deputy Project Managers (DPMs) of Assistant Engineer rank. PMU will have a position of Social Development and Gender Officer (SDGO) and Environmental Officer (EO) responsible for safeguards implementation to assist the PMU, DPD 1. The Environmental Officer will assist DPD 1 of PMU for implementation of environmental management plan (EMP) provisions and other environmental issues as per IEE/ EMP in compliance with ADB's SPS 2009 and GOI rules. The PMU will also have an Information, Education and Communication (IEC) Officer. The PMU will support two PIUs, one at Dehradun and the other at Nainital; the PIUs will be responsible for planning, implementation, monitoring and supervision, and coordination of all activities under the UIRUDP. Each PIU will be headed by a Project Manager of Executive Engineer (EE) rank, reporting to DPD 1.

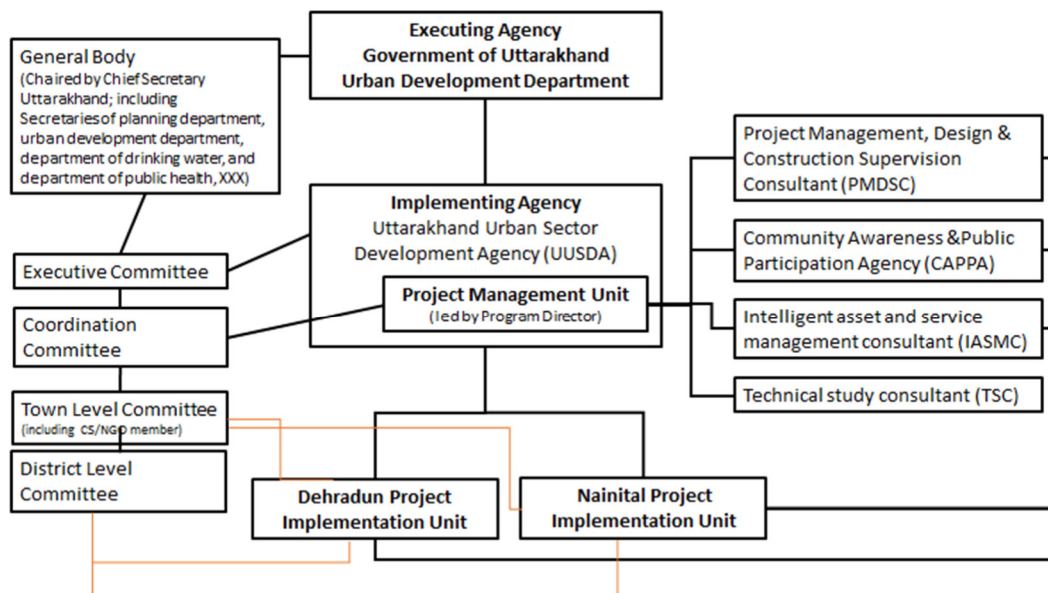
111. **Project Implementation Units (Town/City Level).** Each PIU (one each in Dehradun and Nainital) will be headed by a Project Manager of Executive Engineer rank. The Project Manager of the PIU will be supported by three Deputy Project Managers of Assistant Engineer (Civil) and Assistant Engineer (electrical and mechanical) rank. Further, Junior Engineers will assist the Deputy Project Managers in project implementation. One of the Junior Engineers will be designated as social focal point (Social and Gender Officer) and the other as environmental focal point (Assistant Environmental Officer).

112. **Project Management and Design Supervision Consultant.** PMU will be supported by a Project Management and Design Supervision Consultant (PMDSC) to supervise, monitor and oversee project implementation, support on policy reform related issues and compliance of all the reporting requirements of GOU, other statutory regulatory bodies and Asian Development Bank in line with SPS 2009. PIU will be supported by the PMDSC on supervision monitoring and to oversee the implementation of projects, including compliance of ADB's SPS 2009 and other environmental and social state and GOI rules. There will be two Environmental Experts (EE) and two Social, Gender and Resettlement Experts (SGRE) at the PMDSC.

113. **Safeguards Compliance Responsibilities.** DPD 1 will be the focal point for both social and environmental safeguard implementation and compliance. The Environmental and Social Development Officers will have the overall responsibility of ensuring compliance with ADB SPS 2009 and will support DPD 1. The PMU will have overall responsibility for implementation of resettlement plans, and appropriate monitoring and reporting responsibilities. The Social Development and Gender Officer (SDGO) will facilitate implementation, monitoring and reporting of resettlement plans and other related compliances, while IECO will oversee the community awareness, public outreach, training, capacity building preparation of IEC materials, and enhance information, education and communication among the local public, regarding gender, social, environmental related issues of UIRUDP. Community Action and Public Participation Agency, (CAPPA) will assist the PMU and PIUs in carrying out meaningful consultations during project implementation. CAPPA will have two units: (i) Core Unit based at central office in Dehradun and (ii) City Level Units based in 2 major project towns - Dehradun and Nainital. Contractor will appoint an Environment, Health and Safety (EHS) supervisor to implement EMP; the EHS Supervisor will

have responsibilities related to environmental and social safeguards compliance and grievance redress and management at field level.

Figure 20: Institutional Arrangement for Safeguard Implementation



114. **Tasks of Social Development and Gender Officer at PMU Level.** Key social safeguard tasks and responsibilities at the PMU level are as follows:

- (i) ensure projects conform to the agreed project selection criteria for the project;
- (ii) review and finalize project involuntary resettlement and indigenous people category;
- (iii) oversee preparation of resettlement plans/Due Diligence Report (DDRs); confirm existing resettlement plans/DDRs are updated based on detailed designs, and that new project resettlement plans/DDRs are prepared in compliance with ADB SPS 2009 and policies, regulations of GOI for the project;
- (iv) responsible for issuing the public notice to acquire a particular land/property (if required) for the project along with project information/details as well as the project cut off date;
- (v) ensure that resettlement plans/DDRs are included in bidding documents and civil works contracts;
- (vi) Undertake updating of resettlement plan, as required and submit to ADB for review and clearance prior start of construction works;
- (vii) ensure that water supply safety plan recommended by the World Health Organization are included in bidding documents and civil works contracts;
- (viii) provide oversight on social safeguard management aspects of projects and ensure resettlement plans and impact avoidance measures outlined in the resettlement plan/environmental management plan/DDR are implemented by PIU and contractors;
- (ix) ensured and monitor the provision in the contract to include the indigenous people households/communities/wards to be the beneficiaries of the facilities constructed under the Project;
- (x) facilitate and ensure compliance with all government rules and regulations regarding project implementation. Obtain No Objection Certificates, land ownership and

- transfer details etc. for each site, as relevant and include the same in the respective social safeguard documents for the package;
- (xi) supervise and guide the PIUs to properly carry out the social safeguard and gender monitoring (resettlement plan/GESI Action Plan);
 - (xii) review, monitor, and evaluate the effectiveness with which the resettlement plans/provisions of DDRs are implemented, and recommend corrective actions to be taken as necessary;
 - (xiii) consolidate monthly social safeguard and gender monitoring reports from PIUs/ PMDSCs and submit semi-annual social safeguard monitoring reports (SSMR) to ADB;
 - (xiv) ensure timely disclosure of final resettlement plans/DDR in locations and form accessible to the public and affected persons;
 - (xv) address any grievances brought about through the grievance redress mechanism in a timely manner;
 - (xvi) oversee training needs assessment of affected persons and vulnerable persons by PIUs and PMDSC Independent Project Implementation and Quality Control Consultants, coordinate training activities and convergence with livelihood programs of the government; in case any permanent and significant impacts to livelihood of affected persons or impacts to vulnerable are identified
 - (xvii) identify training needs and coordinate training activities for the PIUs/ contractors/Project NGOs/project consultants PMDSC for capacity building to implement the Resettlement Plans/DDR, and GRM;
 - (xviii) coordinate database management for social safeguards implementation and monitoring; and
 - (xix) coordinate public awareness campaigns by the PIUs including resettlement provisions with the help of print and electronic media.

115. Project Implementation Unit (Town/City Level). Two PIUs, one at Dehradun and the other at Nainital will be responsible for planning, implementation, monitoring and supervision, and coordination of all activities under the UIRUDP. The PIU will be headed by a Project Manager of Executive Engineer rank. Project Manager will be supported by Deputy Project Managers of Assistant Engineer (Civil) and Assistant Engineer (electrical and mechanical) rank. Junior Engineers will assist the Deputy Project Managers in project implementation. One of the Junior Engineers will be designated as Social and Gender Officer (SGO), social focal point and the other as Assistant Environmental officer (AEO), environmental focal point. The social focal point (Junior Engineer) will oversee the safeguards implementation at PIU level, coordinate public consultations, information disclosure, regulatory clearances and approvals, resettlement plan implementation and grievance redressal. The PIU will work in close coordination with Project Management and Design Supervision Consultants (PMDSC).

116. Social Safeguards Tasks at PIU Level. The key social safeguard role and tasks of town/city level PIU will be:

- (i) Provide field data to fill up IR/IP impact checklist and classify the project;
- (ii) Conduct census and socio-economic surveys, detailed measurement surveys, and verification surveys of affected persons along with PMDSC and DBO affected persons, conduct consultations with affected persons, prepare list of affected persons, provide all data required to prepare/update resettlement plans / DDRs with the assistance of Social, Gender and Resettlement Expert of PMDSC and field support from the community mobilizers of CAPPA, and ensure updated information is submitted to PIU for preparation/updating of documents with

- (iii) PMDSC and DBO contractor's support;
- (iii) Inform affected persons about tentative schedule of land acquisition/occupation, entitlement matrix and compensation packages against different categories of loss, and cut-off date;
- (iv) Coordinate valuation of assets, such as land, trees of various species, etc. based on proper due diligence and assessment, prepare compensation packages;
- (v) Coordinate, supervise and monitor disbursement of compensation;
- (vi) Obtain no objection certificates (NOCs), land documents, third party certifications as required for the project;
- (vii) Support to PMU in preparing/updating RPs/DDR's;
- (viii) Oversee day-to-day implementation of impact avoidance and mitigation measures in resettlement plans /DDR's and EMP by contractors, including compliance with all government rules and regulations particularly health and safety, take necessary action for obtaining ROW;
- (ix) Oversee maintenance of data for monitoring, by consultants and contractors;
- (x) Implement corrective actions when necessary to ensure no adverse social impacts;
- (xi) Submit monthly social monitoring reports to PIU;
- (xii) Conduct continuous public consultation and awareness;
- (xiii) Set up GRM at field/site/PIU level and ensure it is fully functional. Address any grievances brought about through the grievance redress mechanism in a timely manner;
- (xiv) Ensure that induction course for the training of contractors is conducted regularly. Prepare contractors (with consultants' support) on resettlement plans/ DDR/ GESI implementation, social safeguard and gender monitoring requirements related to mitigation measures, health and safety and on taking immediate action to remedy unexpected adverse impacts or ineffective mitigation measures found during the course of implementation;
- (xv) Liaise with the District Administration and line departments for dovetailing Government's schemes for income generation and development programs for affected persons, as and when required;
- (xvi) Supervise the work of all consultants at town level (PMDSC, CAPPA).
- (xvii) Undertake day-to-day implementation of final resettlement plans and GESI action plan;
- (xviii) Provide field level information required to prepare periodic safeguard monitoring reports in a format acceptable to ADB and quarterly GESI action plan updates in the format provided in PAM;
- (xix) Ensure relevant data on implementation of GESI action plan is collected and a gender-sensitive communication strategy and information, education and communication (IEC) materials are designed, illustrating key social and behavioural messages related to hygiene, sanitation, and health jointly with the communication specialist and in accordance with the GESI action plan; and
- (xx) Extend support in carrying out awareness campaigns in project towns.

117. **Project Management and Design Supervision Consultants (PMDSC).** The PMU and the PIUs will be supported by a Project Management and Design Supervision Consultant (PMDSC) to supervise, monitor and oversee project implementation, support on policy reform related issues and compliance of all the reporting requirements of GOU, other statutory regulatory bodies and ADB in line with SPS-2009. Social, Gender and Resettlement Experts of PMDSC (two experts) will assist PIUs in implementation of resettlement plans and GESI related tasks; the

Experts will be responsible for updating of resettlement plan/due diligence report, public consultation and disclosure, assessment of entitlement and computation of compensation etc.

118. Tasks of Social, Gender and Resettlement Experts (SGRE), PMDSC (2 positions)

- (i) Screen and categorize project components;
- (ii) Carry out baseline surveys;
- (iii) Ensure the contractors comply with the agreed social safeguards policies, resettlement plans, and due diligence reports on social safeguards for the project;
- (iv) Prepare any additional draft resettlement plans, update the existing resettlement plan (based on revalidation and DMS, before start of construction work), due diligence reports and prepare any new safeguard documents as and when required;
- (v) Assist the PIUs in the implementation of final resettlement plans and GESI action plan;
- (vi) Prepare periodic safeguard monitoring reports as per the format acceptable to ADB and quarterly GESI action plan updates in format provided in PAM;
- (vii) Collect relevant data on implementation of GESI action plan and design gender-sensitive communication strategy and IEC materials illustrating key social and behavioural messages related to hygiene, sanitation and health jointly with the communication specialist and in accordance with the GESI action plan;
- (viii) Extend assistance to PMU/PIUs in coordinating activities of the CAPPA and implementation of GESI action plan.

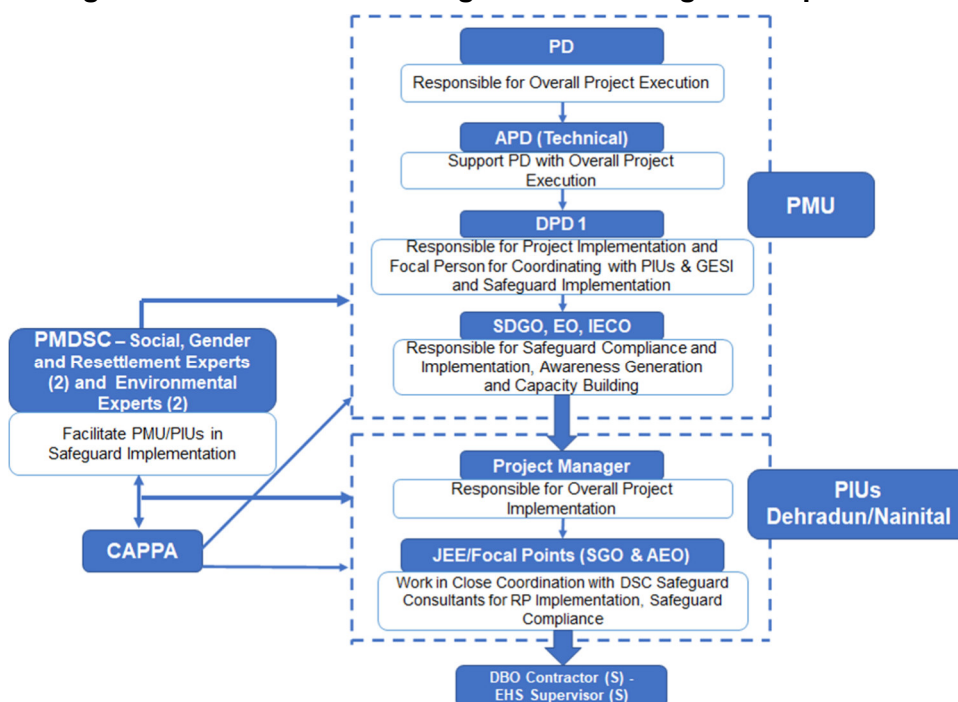
119. **Design, Build and Operate (DBO) contractor.** The resettlement plans will be included in bidding and contract documents and verified by the PIUs and PMU. The implementation of resettlement plan will be made binding i.e. mandatory on contractor as part of the employer's requirement in the bid and contract documents. All contractors will be required to designate an Environment, Health and Safety (EHS) supervisor to ensure implementation of resettlement plan social safeguard provisions/EMP as per the agreed resettlement framework for the Project during civil works and O&M, who will also have the responsibility for communication with the public under the guidance of PMU/PIUs and grievance registration. Contractors are to carry out all mitigation and monitoring measures outlined in their contract.

120. The DBO Contractor shall comply with: (i) all applicable labour laws and core labour standards on (a) prohibition of child labour as defined in national legislation for construction and maintenance activities; (b) equal pay for equal work of equal value regardless of gender, ethnicity, or caste; and (c) elimination of forced labour; and with (ii) the requirement to disseminate information on COVID-19 safety protocols, sexually transmitted diseases, including HIV/AIDS, to employees and local communities surrounding the project sites. The key responsibilities of EHS Supervisor on social compliance are as follows:

- (i) Compliance with all government rules and regulations particularly health and safety, take necessary action for obtaining ROW;
- (ii) Implement corrective actions wherever necessary, to ensure no adverse social impacts are caused due to project implementation;
- (iii) Submit monthly progress reports to PIU;
- (iv) Conduct meaningful public consultation and awareness;
- (v) Support PIU in setting up GRM at field/site (PIU level) and ensure it is fully functional. Address any grievances brought about through the grievance redress mechanism in a timely manner;

- (vi) Make sure that that induction course for the training of contractors is conducted regularly. Prepare contractors (with consultants' support) on resettlement plans/DDR/GESI implementation, social safeguard and gender monitoring requirements related to mitigation measures, health and safety and on taking immediate action to remedy unexpected adverse impacts or ineffective mitigation measures found during the course of implementation;
- (vii) Establish working rapport and liaison with the District Administration and line departments for dovetailing Government's schemes for income generation and development programs for affected persons, as and when required;
- (viii) Work at field level to undertake day-to-day implementation of final resettlement plans and GESI action plan;
- (ix) Assist in collection of field level information required to prepare periodic safeguard monitoring reports in a format acceptable to ADB and quarterly GESI action plan updates in the format provided in PAM;
- (x) Make sure that relevant data on implementation of GESI action plan (activities assigned to contractor if any) is collected and coordination is established with CAPPa to implement behaviour change communication activities in accordance with the GESI action plan; and
- (xi) Provide support in carrying out awareness campaigns in project towns/city level.
- (xii) Ensure COVID-19 safety protocols are regularly monitored and followed at each of the construction site.

121. **Community Awareness and Public Participation Agency:** PMU will hire and appoint a Community Awareness and Public Participation Agency (CAPPa). CAPPa will assist PMU and PIUs with disclosure meetings with affected persons on entitlement matrix, awareness campaigns on grievance redress mechanism. Grievances received during public outreach programs and consultations by CAPPa will be brought to the notice of concerned PIU and formally registered. The tasks and responsibilities of CAPPa are outlined in the Project Administration Manual for UIRUDP.

Figure 21: Institutional Arrangement for Safeguard Implementation, UIRUDP

APD = Additional Program Director; CAPPA = Community Action and Public Participation Agency; DBO = Design Build and Operate Contractor; DPD = Deputy Program Director; PMDSC = Design and Supervision Consultants; EO = Environmental Officer; IECO = Information Education and Communication Officer; PD = Program Director; PIU = Project Implementation Unit; PMU = Project Management Unit; SDGO = Social Development, Gender Officer

B. Capacity Development

122. Uttarakhand Urban Sector Development Agency (UUSDA) has some of the experienced project staff having some basic knowledge of social safeguards, with knowledge and experience of ADB social safeguard policies and their implementation. However, due to being repatriated to their original department of some staff during project implementation, the new candidates/recruits as safeguards officers will require training in project preparation and implementation of this Project. The PMDSC-Social, Gender and Resettlement Experts will be responsible for training the PMU's safeguards officers (environmental and social), and PIUs' engineers and other staff. The RP includes indicative training modules on safeguards. The PMDSC will coordinate with PMU and PIUs on specific capacity development program which may include but is not limited to:

- (i) Sensitization on ADB's Policies and guidelines on social and indigenous people safeguards (ADB's Safeguard Requirement 2 and 3: Involuntary Resettlement and Indigenous Peoples) including meaningful consultation, GRM and accountability mechanism;
- (ii) Introduction to the assessment of involuntary resettlement and mitigation measures, including best practices, in the design, construction, operation and maintenance of water supply, sewerage, and drainage projects;
- (iii) Preparation and review of RPs/DDR's based on preliminary design, and updating

- of the documents based on the final design;
- (iv) Effective Communication with stakeholders including elected representatives, Media and general masses;
- (v) Improved coordination within nodal departments;
- (vi) Disbursement of compensation, consultation; and
- (vii) Monitoring and reporting requirements.

123. PMU IEC, safeguards and gender officer and PIUs' designated safeguards focal persons will be trained by PMDSC's Social, Gender and Resettlement Expert on safeguards issues of the projects and the project GRM. The targeted participants of the briefings would be PMU and PIUs' staff, design engineers, and contractors. Typical modules would be as follows: (i) introduction and sensitization to ADB SPS on involuntary resettlement and indigenous people policies and requirements resettlement framework (ii) review, updating and preparation of the resettlement plans upon the completion of project detailed design; (iii) improved coordination within nodal departments; (iv) monitoring and reporting system; and (v) project GRM. Briefings on safeguards principles and GRM will also be conducted to the contractors upon their mobilization by PIU safeguards focal persons supported by Social, Gender and Resettlement Expert of PMDSC.

124. **Other capacity Building for skill gaps bridging.** Based upon training needs assessment, the cost of trainings will be borne under the Project's capacity building program by PMU. The detailed cost and specific modules will be customized for the available skill set after assessing the capabilities of the target participants and the requirements of the project by the Social, Gender and Resettlement Expert of PMDSC. Indicative details of training needs placed in Table 19.

Table 19: Indicative Training Needs assessed

Description	Target Participants and Venue	Source of Funds
1. Introduction and Sensitization to Social/ Resettlement Issues (1 day) <ul style="list-style-type: none"> - ADB Safeguards Policy statement - Government of India and Uttarakhand applicable social safeguard acts - Incorporation of social/resettlement components under EMP into the project design and contracts - Monitoring, reporting and corrective action planning 	All staff and consultants involved in the project At PMU, Dehradun	PMU cost
2. Resettlement plan implementation (2 days; 2 times during implementation with interval of one year in-between) <ul style="list-style-type: none"> - Roles and responsibilities - Resettlement plan components and stages in implementation - Construction schedules and timelines - Public relations - Consultations - Grievance redress - Monitoring and corrective action planning - Reporting and disclosure - Timely documentation 	All staff and consultants involved in the project All contractors prior to award of contract At each PIU	PMU cost

3. Experiences and best practices sharing (1 day)	All staff and consultants involved in the project All contractors At PMU Dehradun	PMU Cost
- Experiences on resettlement plan implementation		
- Issues and challenges		
- Best practices followed		

ADB = Asian Development Bank, EM = Entitlement matrix, PIU = project implementation unit, PMU = project management unit.

C. Implementation Schedule

125. The project will be implemented over a period of 5 years. The resettlement plan implementation schedule will be as per the project implementation schedule, though the preparatory works will be carried out well in advance. In general, the project implementation will consist of the three major phases, namely project preparation, land acquisition (if required), and rehabilitation of affected persons. In line with the principles laid down in this resettlement framework, the executing agency and implementing agency will ensure²⁹ that project activities are synchronized between the resettlement plan implementation activities and the project implementation. The executing agency and implementing agency will ensure that no physical or economic displacement of affected households will occur until: (i) compensation at full replacement cost has been paid to each displaced person for project components or sections that are ready to be constructed; (ii) other entitlements listed in the resettlement plan are provided to the displaced persons; and (iii) a comprehensive income and livelihood rehabilitation program, supported by adequate budget, is in place to help displaced persons improve, or at least restore, their incomes and livelihoods. All land acquisition, resettlement, and compensation for a project will be completed before award of civil works contracts. All land required will be provided free of encumbrances to the contractor prior to handing over of project sites and the start of civil works. The implementation of the resettlement plan will include: (i) identification of cut-off date and notification; (ii) verification of losses and extent of impacts; (iii) finalization of entitlements and distribution of identity cards; (iv) consultations with affected persons on regular basis. Implementation schedule placed as Table 20.

²⁹ The start date of census survey will be the cut-off date for non-titled affected persons. For titled affected persons, the cut-off is the date of declaration.

ADB = Asian Development Bank, GRM = grievance redress management, CAPA= Community awareness and participation agency, PMDSC= Design and supervision consultant, PIU = project implementation unit, PMU = project management unit, SSS = social safeguard specialist, ID=Identity card

Notes: (i) The start date of census will be the cut-off date for non-titled affected persons. For titled affected persons, the cut-off date is the date of declaration of notice under RFCTLARRA, 2013. (ii) The resettlement plan will be updated based on final detailed design and affected person census and surveys, (iii) Endorsement and disclosure of finalized resettlement plans consistent with the resettlement framework to be undertaken.

X. MONITORING AND REPORTING

126. Resettlement plan implementation monitoring responsibility, particularly the aspects pertaining to temporary livelihood impacts will be done by PMU/PIU effectively for ascertaining the progress of resettlement plan implementation and anticipating the potential difficulties and problems in course of implementation. PIU will be instrumental in internal day-to-day monitoring through the assistance of its safeguard officer and with the support from the PMU's project officer. Monthly progress reports on resettlement plan implementation will be prepared and compiled at PIU level and submitted to the PMU. PMU will consolidate the same and will submit semi-annual monitoring reports to the ADB for approval. Refer Sample Monitoring Template in Appendix 13. The outline of the semi-annual social monitoring report and the social safeguards quarterly progress report checklists are in the Project Administration Manual for UIRUDP.

XI. FOLLOW-UP ACTION FOR RESETTLEMENT PLAN UPDATING AND IMPLEMENTATION


127. The major tasks associated with the resettlement plan updating and implementation is given in the Table 21 placed below.

Table 21: Follow-up action for resettlement plan updating and implementation

S. No.	Major Follow-up Tasks
1.	The draft resettlement plan will be updated with road wise detailed measurement and census surveys where sewer pipelines will be laid and stormwater drains will be constructed during detailed design and before start of civil works.
2.	Location for the proposed community-based septic tanks and soak pits will be updated to the resettlement plan document on design finalization and DMS along with google earth maps. Land acquisition and involuntary resettlement impacts will be assessed for the community-based septic tanks and soak pits based on DMS and updated to resettlement plan.
3.	The updated/revised resettlement plan will be submitted to the ADB for approval. A 100 percent census and socio-economic survey will be undertaken to register and document the status of affected people within project areas. Detailed measurement survey will be jointly conducted by safeguard specialist of PMDSC, contractors along with PIU, prior to start of civil construction work at each site/stretch of alignment.
4.	Land records for the STP site to be added to the updated resettlement plan.
5.	PMU, UIRUDP will obtain 'No Objection Certificate' from National Highway Authority of India (NHAI), Public Works Department (PWD), Northern Railways, Moradabad Division and Nagar Nigam Dehradun (Dehradun Municipal Corporation) for laying of sewer pipelines, construction of storm water drains and for STP land (from DMC) and append these to the updated resettlement plan.
6.	For discharge of storm water and construction of outfall structures, UIRUDP will obtain approval or NOC from Department of Irrigation, Government of Uttarakhand. The NOC will be included in the SSMR.
7.	UIRUDP will obtain NOCs from the Department of Education, Government of Uttarakhand, Nagar Nigam Dehradun for construction of groundwater recharge pits and the same will be appended to the updated resettlement plan.
8.	ADB's approval of the updated resettlement plan based on the final assessment at detailed measurement survey stage needs to be obtained by the PMU, before start of civil works by DBO Contractor.
9.	Disclosure of cut-off-date for affected persons following DMS and same to be updated in resettlement plan.

S. No.	Major Follow-up Tasks
10.	The missing photographs of the affected persons in Appendix 11 to be added to the updated resettlement plan.
11.	Public consultations and engagement will be carried out through the entire project planning and implementation phase. Project disclosure meeting with affected persons and preparation of project information leaflet in local language to be shared with stakeholders and affected persons.



Appendix 1: Details of Land Availability, Ownership and Status of NOC of the STP site

Project Component	Location	Ownership	Area of government land available at the location	Area required(m ²)	Khasra No.	Land-use Classification	Remarks/ NOC Status	Photo of Land
Sewage Treatment Plant	Nakraunda	Dehradun Nagar Nigam	3.99 acres (1.618 hectare)	1.97 acre (0.8 hectare)	612 Ka.Mi.	<i>Banzar Jhari</i> ³⁰ (as per land records)	Land is vacant and appropriate for STP construction as per Dehradun Nagar Nigam (DNN). Certification of ownership to be obtained from DNN.	

Source: Transect walks and the documents provided by PMU/UUSDA, Dehradun Nagar Nigam.


³⁰ Barren land with bushes

Appendix 2: Photographs of Sample High Density Area

S. No	Name of Area	No. of APs Identified	Width of Road (In m)	Dia proposed (mm)	Type of Road	Photos
1	Raipur Chowk, Nathuwawala, Mohkampur, Miya wala	3	8-10	225 mm to 1000 mm	CC/BT	
2	Harrawala Chowk, Balawala, Nathanpur 1 & 2	14	8-10	225 mm to 1000 mm	CC/ BT	


Note: The rest 3 affected persons have been identified along medium density road from Harrawala to Nakronda band.

Appendix 3: Sample Photographs of Low-Density Area

S. No	Name of Area	Total Number of APs Identified	Width of Road (In m)	Dia proposed	Type of Road	Photos
1	Nathuwala-Balawala Area, Nakron da	0	7-10	225 mm to 1000	CC/BT	

Appendix 4: Letter from Commissionaire, Nagar Nigam Dehradun to Additional District Magistrate (Revenue), Dehradun

No Objection Certificate and letter by Commissionaire, Nagar Nigam Dehradun, Uttarakhand, addressed to Additional District Magistrate (Revenue), Dehradun, Government of Uttarakhand for land *khasra* number 612 ka mi area 0.8000 hectare category 5(3) kha (2), which is a barren land with bushes registered on land account number (*khata*) number 2410, has been found suitable by the Tehsildar Sadar and Revenue Inspector for construction of STP under sewerage project implemented by UUSDA.

 **कार्यालय नगर निगम, देहरादून।**
(फ़ोन- 0135-2714074; फ़ैक्स-0135-2651060)

पत्रांक- 3964 / भूमि अनुभाग / 2020 दिनांक- 16/09/2020

सेवा में
अपर जिलाधिकारी (प्र०)
देहरादून

विषय : यू०यू०एस०डी०ए० द्वारा नवीन ए०डी०बी० ऋण के अन्तर्गत देहरादून शहर में प्रस्तावित सीवेज शोधन संयंत्र के निर्माण हेतु अनापत्ति प्रमाण-पत्र निर्गत करने के सम्बन्ध में।

महोदय,

आपके कार्यालय पत्र संख्या-36/12ए(2017-20) डी०एल०आर०सी, दिनांक 13 जनवरी, 2020 का सन्दर्भ ग्रहण करने का कष्ट करें। जिसमें यू०यू०एस०डी०ए० द्वारा नवीन ए०डी०बी० ऋण के अन्तर्गत देहरादून शहर में प्रस्तावित सीवेज शोधन संयंत्र के निर्माण हेतु के सम्बन्ध में नगर निगम कार्यालय से अनापत्ति चाही गयी है। तहसीलदार(सदर) व राजस्व उप निरीक्षक नकरीदा की आख्यानानुसार ग्राम नकरीदा के खसरा न० 612क०मि० रकबा 0.8000 हैक्टेयर भूमि श्रेणी 5(3)ख(2) बंजर झाड़ी के रूप में खाता संख्या 2410 पर अंकित है। राजस्व उप निरीक्षक नगर निगम की आख्यानानुसार ग्राम नकरीदा की भूमि खसरा न० 612क०मि० रकबा 0.8000 हैक्टेयर भूमि सीवेज शोधन संयंत्र के निर्माण हेतु उपयुक्त पाई गयी है।

अतः आवश्यक कार्यवाही करने का कष्ट करें।

नगर आयुक्त
नगर निगम देहरादून।


प्रतिलिपि:


- मा० महापौर महोदय को सूचनार्थ प्रेषित।
- कार्यक्रम निदेशक, उत्तराखण्ड अर्बन डवलपमेंट एजेन्सी, शिवालिक टॉवर, कौलागढ़ रोड, राजेन्द्र नगर, देहरादून को सादर सूचनार्थ।

नगर आयुक्त
नगर निगम देहरादून।

Appendix 5: Summary of Public Consultations

Sl. No.	Date of Consultation	Name of Persons	Location	Topic Discussed	Issues Addressed	Photographs
1	26.06.2020	Budhdev Uniyal, Naveen Singh Negi, Ramaesh Kumar, Goverdhan Kumar, Gurudev, Rama Devi, Suresh Negi, Neelam, Kamaljeet, Surendra Singh Bhandari, Saurab Tanpure	Mohkampu r Chowk	1) About Water Supplied in area. 2) Wastewater facility scenario in the area, 3) Requirement of Storm Water drainage 4) Work Proposed by UUDP-project package 5) Opinion of residents and other stakeholders on willingness to pay for improved services 6) Resettlement related provisions for the vulnerable Affected Families, 7) House service connection for all including poor and vulnerable families.	1) The residents have shown their willingness to participate in project. And increased awareness about the direct benefits along with latent benefits of the project were discussed. 2) Residents of the area were informed if livelihood impact envisaged to poor and vulnerable groups additional assistance will be provided by the project. 3) Clarified that all the residents will be eligible for Service connections including slums and other poverty pockets. 4) Community people expressed concern related to the time schedule of the construction work; it was assured that efforts will be made by the project authority to try and complete the work in time to reduce inconvenience.	

Sl. No.	Date of Consultation	Name of Persons	Location	Topic Discussed	Issues Addressed	Photographs
2	26.06.20	Anil Tamta, Pooran Tamta, Radhika Rawat, Soodarshan Rawat, Devendra Singh, Mukesh Bhatt, Praveen Negi, Rajeshwari Mehar, Satish Tamta, S.S. Bisht, Mukta, Manbharti Gupta, Hema, Sushma, Suneeta Tamta	Nakronda Area	<p>1) Disclosed the details of proposed Scope of Work of the project and area to be covered under the project,</p> <p>2) Explained the tentative project implementation period and possible inconveniences,</p> <p>3) Discussed current level of service of Water supply and condition of Sewerage and storm water drainage in the town/ Present drinking water problem-quantity and quality</p>	<p>1) Only few People were aware of the proposed project,</p> <p>2) Residents are concerned about the poor sewerage conditions. Presently the area is not covered under sewer system.</p> <p>3) Condition of storm water drainage condition is not up to the mark, the low-lying areas get flooded during rainy season.</p> <p>4) With the proper implementation of the Safeguard Policy, the sufferings of local people will be reduced to a large extent during project implementation phase.</p> <p>5) Any grievances related to project work will be addressed through Common GRM system of the project. Any person, irrespective of class, creed or occupation will have the access to the said GRM to lodge complaint.</p>	

3	26.02 19	Aman Sinbgh, Ranghar, Alim Safi, Praddep Rawat, Anita, Sama, Mamta, Sharmila, Saurabh	Dunali chawk Harrawala	<p>1) Shared the details of project benefits proposed under the project,</p> <p>2) Willingness of residents to pay for improved services of Sewerage and Storm water drainage,</p> <p>3) Benefits of storm water drainage.</p>	<p>1) Participants have shown their willingness to engage with the project and explore job opportunities. Mostly people are willing to take the house service connections (water supply and sewer) and enjoy benefits of the project.</p> <p>2) Residents have shown willing to pay for the improved services like regular 24x7 portable water.</p> <p>3) As regards the storm water drainage it has been told by the residents that it will improve the roads and condition of low laying areas and improve the quality of river where the outfall will go.</p> <p>4) With the proper implementation of the Environmental Management Plan & Safeguard Policy, the sufferings of local people will be reduced to a large extent during project implementation phase.</p>	
4	26.02 19	Sarsati, Pushpa, Kanta, Beena, Hemlata, Lalita, Rinku, Rama, Rakesh, Mayank	Nakronda Chowk	<p>1) Details of the project-including Project Coverage area,</p> <p>2) Present condition of Sewerage/water supply and Storm water drainage in the area</p>	<p>1) Residents and shop keepers are made aware about the project proposed in the town.</p> <p>2) People are concerned about the poor sewerage & water quality conditions and have shown happiness to know about the proposal</p> <p>3) Presently there is no collection and treatment system in the area. It was informed to the community members that a STP will be constructed in Nakronda, as apart of the sewerage system.</p>	

Appendix 6: Existing Sanitation Scenario in Targeted Area



Solid Waste disposal in Natural Drain



Uncovered drains



Discharge of Sewage into storm drains



Sewage outlets into storm drains



Roadside Drain



Existing Drain in Project area



Existing Storm drains in Project Area

Appendix 7: Photo Gallery of Stakeholders interaction



Interaction with roadside vendors in Project area, Dehradun

Nakronda, Dehradun, interaction with local residents



Meeting at STP location



Door to door interaction with households along the alignment



Interaction with residents in Balawala along the proposed alignment of sewerage pipeline

Appendix 8: Key Concerns During Public Consultations Project

For development of the sewerage, system several consultations with the local people were conducted, to understand the requirement of project and concerns about the implementation of project.

Location – Harrawala, balawala, Mohkmapur, Ladpur, Nakronda areas

Issues	Concerns and Opinion of Community Members	Clarification? Provided by the Project Authorities
General perception about the Program (UUSDIP). Awareness about the Program especially the Waste Water Management component. Support of the people for the Investment Program.	People were not aware about the proposed program before the consultation. They expressed their cooperation during implementation as per the requirement of the project initiative.	The project authorities explained the scope of the program in Harrawala, Balawala, Mohkmapur, Ladpur, Nakronda areas.
Support of local people for the proposed Waste Water Management component of the project.	The persons interacted have shown their willingness to support the programme, moreover, have also expressed their eagerness to get sewerage connection.	The project authorities shared that efforts will be made to reduce impact to the local community to the extent possible during construction. A grievance redress process will be place to address the complaints and grievances of the affected community and persons.
Any critical issue or concern by the local people regarding this project?	Community people were concerned about the accessibility to their shops and houses during construction.	It was assured by the project authority that construction work will be undertaken in phases, Alternate access will be provided and the community people will be intimated before start of civil work.
Do the community people face any problems of Sewage and Waste Water Management in their locality and in their houses? If yes, how they are managing at present?	Generally, the residents of the area explained that there is no sewer system in all the proposed areas. It was mentioned that the cleaning of the septic tanks are done by hiring scavengers or sometimes by themselves only.	The development of sewerage system in the area will help to reduce or minimise the sufferings of the people under the project. Sewer house connections will be provided or other alternatives to address these concerns.
Water logging problem in the area	The community people expressed that water logging problem is prevalent only in the low-lying areas; especially during rainy season.	Project authorities mentioned construction of stormwater drains are being considered under the project; this will help to reduce the water logging problems.

Appendix 9: Labor Wage Rates as Per Notification Dated March, 2019 of Labour Department, Government of Uttarakhand

उत्तराखण्ड शासन

श्रम अनुभाग

संख्या:- 312/VIII/19-228(श्रम)/2001-पार्ट-II

देहरादून, दिनांक: 08 मार्च, 2019

अधिसूचना

राज्यात्मक न्यूनतम मजदूरी अधिनियम, 1948 (अधिनियम संख्या 11 सन् 1948) की धारा 4 की उपधारा(1) का खण्ड (1) के अधिनियम तथा 3 की उपधारा (1) के खण्ड (ख) और उपधारा (2) एवं उपधारा (3) के अधिनियम प्रदत्त शक्तियों का प्रयोग करके और इस संबंध में जारी पूर्व अधिसूचना संख्या 348/VIII/13-228(श्रम)/2001, दिनांक 08 मार्च, 2013 को अधिक्रमित करते हुए एवं उत्तराखण्ड न्यूनतम मजदूरी सलाहकार बोर्ड से परामर्श करने के पश्चात् सम्पूर्ण विद्यमान दिनांक 01 अप्रैल, 2019 से परिशिष्ट में उल्लिखित अनुसूचित निवृत्तियों में विद्यमान कर्मचारियों के लिये मजदूरी की न्यूनतम दरों का पुनरीक्षित कर निम्नका निर्धारित करने की सहित स्वीकृति प्रदान करते हैं:-

क्र. सं.	कर्मचारियों की श्रेणी	देय मूल मजदूरी की न्यूनतम मासिक दर (प्रतिमाह रूप में)
(1)	(2)	(3)
1	अकुशल	8300
2	अर्ध-कुशल	8646
3	कुशल	8992
4	अतिकुशल	9574
5	लिपिक वर्गीय कर्मचारी	9574
	(क) श्रेणी एक	
	(ख) श्रेणी-दो	9141

टिप्पणी:- कर्मचारियों का श्रेणीवार वर्गीकरण परिशिष्ट-2 में दिया गया है।

- विभिन्न वर्ग के श्रम के लिए नियोजित व्यवस्था कर्मचारियों को देय मूल मजदूरी की न्यूनतम दरें अधिकतम भारतीय उपमोक्षा मुख्य सूचकांक आधार (2001=100) के अंक 301 पर होंगी।
- परिवर्तनीय महंगाई भत्ता:- अधिकतम भारतीय उपमोक्षा मुख्य सूचकांक (2001=100) के अंक 301 के ऊपर उपमोक्षा मुख्य सूचकांक में वृद्धि होने पर महंगाई भत्ते को 20 प्रतिशत की दर से शान्तिपूर्ण किताब जारीगा और सन्तुष्टि क्रमशः प्रत्येक वर्ष अप्रैल और अक्टूबर में पूर्ववर्ती वर्ष के जुलाई से दिसम्बर तक और घाटू वर्ष के जनवरी से जून माह तक के उपमोक्षा मुख्य सूचकांक के औसत पर करते हुए परिवर्तनीय महंगाई भत्ते का भुगतान किया जायेगा।
- मजदूरी की दैनिक दर, उपरोक्त मासिक न्यूनतम मूल मजदूरी दर और परिवर्तनीय महंगाई भत्ते के 1/28 से कम न होगी।
- घंटेवार दर, दैनिक दर के 1/6 से कम न होगी।
- ऐसे कर्मचारियों को जिनके कार्य के घंटे (विश्राम अन्तर्गत को शामिल करते हुए) एक दिन में 8 घंटे या एक सप्ताह में 36 घंटे से कम हैं तो उन्हें अंशकालिक कर्मचारी माना जायेगा और उनकी घंटेवार मजदूरी की दर तदनुसार दैनिक दर के छठे भाग से कम न होगी।
- मजदूरी की उपर्युक्त दरें किसी भी प्रकार से किसी कर्मचारी के हिस्से के प्रतिकूल प्रदर्शित नहीं होगी। अधिस्त दरों के प्रयुक्त होने के पूर्व विद्यमान मजदूरी की दरें उपर्युक्त दरों के अनुसार देय मजदूरी

333
14/3/19

न्यूनतम वेतन अधिनियम, 1948 के अन्तर्गत आवर्त अनुसूचित नियोजनों में देय परिवर्तनीय मंहगाई भत्ता

निम्नलिखित तालिका में उल्लिखित अनुसूचित नियोजनों में नियोजित कर्मचारियों को स्तम्भ-3 में सन्दर्भित शासनादेशानुसार अखिल भारतीय उपभोक्ता मूल्य सूचकांक 2001=100 के अंक 301 के ऊपर वृद्धि होने पर मंहगाई भत्ते को ₹ 20 प्रति अंक की दर से समायोजित किये जाने का प्राविधान है। तदनुसार जुलाई, 2020 से दिसम्बर 2020 के औसत सूचकांक 324 पर दिनांक : 01-04-2020 से 30-09-2020 तक की अवधि के लिए परिवर्तनीय मंहगाई भत्ता निम्नवत होगा :-

$$(324-301) \times 20 = 460.00$$

अनुसूचित नियोजनों की तालिका

क्र० सं०	अनुसूचित नियोजन का नाम	अधिसूचना संख्या एवं दिनांक	अधिसूचना में उल्लिखित सभी श्रेणी के कर्मचारियों को देय परिवर्तनीय मंहगाई भत्ता ₹
(1)	(2)	(3)	(4)
1	वाणिज्य अधिष्ठानों और उत्तराखण्ड में दुकानों के नियोजन	309/VIII/19-228 (श्रम)/2001 -पार्ट-II, दिनांक : 08 मार्च, 2019	460.00
2	सड़कों के निर्माण या उन्हें बनाये रखने या निर्माण संक्रियाओं में नियोजन	310/VIII/19-228 (श्रम)/2001 -पार्ट-II, दिनांक : 08 मार्च, 2019	460.00
3	पत्थर तोड़ने या पत्थर फूटने में नियोजन।	311/VIII/19-228 (श्रम)/2001 -पार्ट-II, दिनांक : 08 मार्च, 2019	460.00
4	चिकन के कार्य में नियोजन।	तदैव	460.00
5	दियासलाई उद्योग में नियोजन।	तदैव	460.00
6	आइसकैन्डी/आईसक्रीम विनिर्माणशालाओं में नियोजन	तदैव	460.00
7	बेकरी और बिस्कुट विनिर्माणशालाओं में नियोजन	तदैव	460.00
8	बर्फ विनिर्माणशालाओं में नियोजन	तदैव	460.00
9	एस्सेस्टरा सीमेंट कारखानों और अन्य सीमेंट उत्पाद विनिर्माणशालाओं में नियोजन	तदैव	460.00
10	लागू या धुलाई अधिष्ठानों में नियोजन	तदैव	460.00
11	जिल्दसाजी में नियोजन।	तदैव	460.00
12	कोल्ड स्टोरेज में नियोजन।	तदैव	460.00
13	पाटरी सिरेमिक्स या सिरेमिकीज में नियोजन	तदैव	460.00

TRANSCRIPT: As per Department of labor government of Uttarakhand, G.O. number 312/VIII/19-222-(Labor) /2001 part II, dehradun dated 8th March 2019 and 990/IV-01-13 dated 12 -3-2020 the labor rates are palced below.

S.No	Category of Employee	Monthly Labor rates (INR) including DA @ + 200/-	Daily rate (INR)
1	Unskilled	8500	326.92
2	Semiskilled	8846	340.23
3	Skilled	9192	353.54
4	Highly skilled	9774	375.92
5	Category -1	9774	375.23
	Category -1	9341	359.58

Note: the Daily rate should not be less than 1/26 than the monthly rate.

Appendix 10: Participation Sheets: Public Consultations

Attendance Sheet
Uttarakhand Urban Development Project, Uttarakhand Urban Sector Development Agency
Department of Urban Development, Government of Uttarakhand

Date: 24.6.20 Venue: Mohankaur

Sl.No	Name and Designation	Locality	Signature and Phone Number
1-	Budhender Singh	Mohankaur Koton	B. S. Vimal 9719351672
2-	Dr. S. S. Singh	Mohankaur Koton	Dr. S. S. Singh 8969103108
3-	Dr. S. S. Singh	Mohankaur Koton	Dr. S. S. Singh 9897271449
4-	Dr. S. S. Singh	Mohankaur Koton	Dr. S. S. Singh 9897578314
5-	Gurinder	Mohankaur Koton	Gurinder 9412916582
6-	Kamal Singh	Mohankaur Koton	Kamal Singh 9670716963
7-	Suresh Negi	Mohankaur Koton	Suresh Negi 9670716963
8-	Neelam	Mohankaur Koton	Neelam 9412916582
9-	Kamal Singh	Mohankaur Koton	Kamal Singh 9412916582
10-	Suresh Singh Bhandari	Mohankaur Koton	Suresh Singh Bhandari 9412916582
11-	Saurabh Tandon	Mohankaur Koton	Saurabh Tandon 9574770644
12-			

S. S. Singh
Social and Resettlement Expert
DSC - UUDP, Dehradun

Attendance Sheet
Uttarakhand Urban Development Project, Uttarakhand Urban Sector Development Agency
Department of Urban Development, Government of Uttarakhand

Date: 22.6.20 Venue: STP Site Nakrunda

Sl.No	Name and Designation	Locality	Signature and Phone Number
1-	Anil Tawta	ephalenala Ner STP Site	Anil Tawta 7557967455
2-	Pooja Tawta	- do -	Pooja Tawta 912687151
3-	Radhika Rana	- do -	Radhika Rana 912687151
4-	Sudharshan Rana	- do -	Sudharshan Rana 912687151
5-	Devendra Singh	- do -	Devendra Singh 9690410083
6-	Mukesh Bhatt	- do -	Mukesh Bhatt 9690410083
7-	Praveen Tawta	- do -	Praveen Tawta 9690410083
8-	Rajeshwari Mehar	- do -	Rajeshwari Mehar 9690410083
9-	Latika Tawta	- do -	Latika Tawta 9690410083
10-	S. S. Singh	- do -	S. S. Singh 9690410083
11-	Mukta Gupta	- do -	Mukta Gupta 897944511
12-	Mehar	- do -	Mehar 897944511
13-	Moukeshwari	- do -	Moukeshwari 897944511
14-	Sushma	- do -	Sushma 897944511
15-	Saurabh Tandon	- do -	Saurabh Tandon 9574770644

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DSC - UUDP, Dehradun





Attendance Sheet
Uttarakhand Urban Development Project, Uttarakhand Urban Sector Development Agency
Department of Urban Development, Government of Uttarakhand



Date: 22.6.20 Venue: Kalpur Ganga

Sl.No	Name and Designation	Locality	Signature and Phone Number
1-	Anam S. Rangra	Kalpur Ganga	Anam S. Rangra 9760113445
2-	Alium Safi	Kalpur Ganga	Alium Safi 9760113445
3-	Pradeep Rana	Kalpur Ganga	Pradeep Rana 7037624933
4-	Anita	Kalpur Ganga	Anita 7037624933
5-	Shamila	Kalpur Ganga	Shamila 7037624933
6-	Shamila	Kalpur Ganga	Shamila 7037624933
7-	Shamila	Kalpur Ganga	Shamila 7037624933
8-	Shamila	Kalpur Ganga	Shamila 7037624933
9-	Saurabh Tandon	Kalpur Ganga	Saurabh Tandon 9574770644
10-	S. S. Singh	Kalpur Ganga	S. S. Singh 9690410083

S. S. Singh
Social and Resettlement Expert
DSC - UUDP, Dehradun

Appendix 11: Socio-economic profile of Affected persons

S. No.	Name of respondent/ AP and Contact Phone Number	Father/ mother 's/ Husba nd Name	Age	Sex (M/ F)	Caste	Busi ness own er empl oyee /	Structure owner/ Tenant	Type of business (mobile vendor /stationa ry)	Type of impact (display of wares on ROW affected, temporary income loss/ other loss)	If busin ess owne r, no. of empl oyees	No. of famil y mem bers (M= F= T=)	Type of vulnerabilit y (BPL/woma n / WHH/child worker/orph an-child//SC disabled/ elderly/ landless/no n- titleholder- indicate multiple vulnerabiliti es if applicable)	Daily income from affecte d busine ss (Rs.)	Daily profit (if busine ss owner) – Rs.	Photo of AP and shop/busine ss
Miyawala Chowk (High Density)															
1	Ravindra Kumar, 9719443626	Bharm pal	31	M	SC	Owner	Personal	Fruit and Vegetable	Temporary income loss	nil	1	SC	2400	800	
											2				
											3				
2	Vishnu Prasad, 7983552527	Kaliram	46	M	SC	Owner	Personal	Fruits	Temporary income loss	nil	3	SC	2500	800	
											2				
											5				
3	Gaurav Agrawal ,8864856783	Irfan Khan	28	M	General	Owner	Personal	Fruit and Vegetabl e	Temporary income loss	nil	2	nil	800	350	
											2				
											4				
Balawala (High Density)															
4	Surendra Singh Negi, 9837424942	Ram Singh Negi	43	M	General	Owner	Personal	Fruit & Vegetabl e	Temporary income loss	nil	3	nil	2700	800	
											6				
											9				

S. No.	Name of respondent/ AP	Father/ mother's/ Husband Name	Age	Sex (M/ F)	Caste	Business owner/ employee /	Structure owner/ Tenant	Type of business (mobile vendor /stationary)	Type of impact (display of wares on RoW affected, temporary income loss /other loss)	If business owner, no. of employees	No. of family members (M= F= T=)	Type of vulnerability (BPL/woman / WHH/child worker/orphan-child//SC disabled/ elderly/ landless/non-titleholder-indicate multiple vulnerabilities if applicable)	Daily income from affected business (Rs.)	Daily profit (if business owner) – Rs.	Photo of AP and shop/business
5	Altaf, 7302781952	Md..Edris	36	M	General	Owner	Personal	Fruit and Vegetable	Temporary income loss	nil	3	nil	5000	1200	
											3				
											6				
6	Mustakim, 9627473031	Jamal Ahamd	35	M	General	Owner	Personal	Fruit and Vegetable	Temporary income loss	nil	2	nil	8000	2000	
											3				
											5				
7	Rajesh, 9837424942	Narayan	21	M	SC	Owner	Personal	Fruit and Vegetable	Temporary income loss	nil	2	SC	6000	1500	
											3				
											5				
8	Shayara bano	Ahmad Ali	45	F	General	Owner	Personal	Fruit and Vegetable	Temporary loss	nil	5	nil	7000	2500	
											2				
											7				
9	Sain Singh Rawat, 9760974960	M.S.Rawat	40	M	General	Owner	Personal	Food and Snacks	Temporary income loss	nil	3	nil	5000	1500	
											2				
											5				
10	Nawed	Moh.Jawed	21	M	Genral	Owner	Personal	Fruit and Vegetable	Temporary income loss		3	nil	6000	1500	

S. No.	Name of respondent/ AP	Father/ mother 's / Husband Name	Age	Sex (M/ F)	Caste	Business owner employee /	Structure owner/ Tenant	Type of business (mobile vendor /stationary)	Type of impact (display of wares on RoW affected, temporary income loss/ other loss)	If business owner, no. of employees	No. of family members (M= F= T=)	Type of vulnerability (BPL/woman / WHH/child worker/orphan-child//SC disabled/ elderly/ landless/non-titleholder-indicate multiple vulnerabilities if applicable)	Daily income from affected business (Rs.)	Daily profit (if business owner) – Rs.	Photo of AP and shop/ business
Harrawala Chowk (High Density)															
11	Sunil Kumar, 9897675367	Hari Rana	28	M	SC	Owner	Semi-Pakka	Chicken Shop	Temporary income loss	nil	1	SC + Disability	900	400	
											1				
											2				
12	Ram pal, 7457897519	Navbodh Singh	50	M	General	Owner	Temporary	Fruit and Vegetable	Temporary income loss	nil	4	nil	800	400	
											4				
											8				
13	Abul kalam,	Eshlam Khan	65	M	General	Owner	Personal	Pan shop	Temporary income loss	nil	3	nil	600	400	
											3				
											6				
14	Devendra Singh Negi, 7617457963	Ratan Singh Negi	37	M	General	Owner	Personal	Fruit and Vegetable	Temporary income loss, Push cart	nil	2	nil	2500	600	
											1				
											3				
15	Dinesh Joshi, 9536131450	Mothan Joshi	26	M	General	Owner	Personal	Fruit and Vegetable	Temporary income loss	nil	3	nil	2000	800	
											2				
											5				
16	Rajesh Morya, 9897573242	Bhagwan Morya	55	M	General	Owner	Personal	Fruit and Vegetable	Temporary income loss	nil	2	OBC	2500	950	
											1				
											3				
17	Tufel Khan, 8474990414	Asraf	52	M	General	Owner	Personal	Fruit and Vegetable	Temporary income loss	nil	3	nil	1500	700	

S. No.	Name of respondent/ AP	Father/ mother's/H usband Name	Age	Sex (M/ F)	Ca ste	Busi ness own er empl oyee /	Structure owner/ Tenant	Type of business (mobile vendor /stationary)	Type of impact (display of wares on RoW affected, temporary income loss/ other loss)	If busin ess owne r, no. of empl oyee s	No. of famil y y mem bers (M= F= T=)	Type of vulnerabilit y (BPL/woma n / WHH/child worker/orphan n-child//SC disabled/ elderly/ landless/no n-titleholder-indicate multiple vulnerabiliti es s if applicable)	Daily income e from affecte d d busine ss (Rs.)	Daily profit (if busin e ss owne r) – Rs.	Photo of AP and shop/busine ss
Harrawala to Nakronda band (Medium Density)															
18	Rinku, 8171553945	Jagrana Singh	25	M	General	Owner	Temporary	Fruit Juice and Vegetable	Temporary income loss	nil	1	OBC	600	350	
											1				
											2				
19	Sumer Singh	Chandra Singh	48	M	General	Owner	Personal	Fast Food	Temporary income loss	nil	3	nil	1800	600	
											2				
											5				
20	Anita Gupta, 9793553386	Late Ram Chandra Gupta	31	F	General	Owner	Personal	Fruit and Vegetable	Temporary income loss	nil	1	WHH	1000	300	
											2				
											3				

Reference: Baseline survey conducted by PMDSC/UIRUDP in the month of October 2019

Vulnerable APs: Other Backward Class (OBC) – 02; Scheduled Caste (SC) – 03; SC + Disability – 01; WHH - 01 = Total - 07

Appendix 12: Safety Measures for Sewer Line Laying

Type of Roads	Average Width of Road (M)	Pipe dia Max. (mm)	Maximum Width of Actual Excavation (mm)	Method of trench Excavation of laying of pipes	Available width from one edge (m)	Length of Single working stretch (M)	Method of traffic Management	Remarks
Bituminous /Concrete	3.5	600	1000	Mechanical Means	700	200	Flagman on both sides in addition to no parking signage on either end	May opt for night time work at few sections having heavy traffic during day time.
Interlocking tiles /Earthen	2.0	250	650	Mechanical Means	600	200	As above	

Notes:

1. There is CC, bituminous top and interlocking tiles type of roads.
2. All the service providers like electricity, telecom, Cable TV, water supply lines shall be notified and consulted well in advance through outreach team of contractor and CAPA team to identify the possible bottlenecks and to suggest the possible solutions and reinstating the services in case of any breakage of the same.
3. For the busy junctions having higher traffic load the provision of laying of pipes through trenchless has been provided.
4. Reinstatement will be carried out in two phases; temporary and permanent.
5. The socio-religious functions of the community (weekly bazar, festivals etc.;;) will be strictly followed and works causing community inconveniences will be strictly avoided on these dates/days.
6. No drainage channels will be disturbed any such disturbance /damage shall be set right as a priority work to avoid the impounding of the water in any area.
7. Pedestrian area will always be kept free from debris/trip hazard.
8. Environmental management plan will be strictly followed for all works.
9. Any form of land contamination, if encountered, shall be immediately brought to the notice of PIU/ PMU safeguard officer and remedial measures including plan for safe disposal of contaminated earth shall be suggested as immediate priority action.
10. Night work, of any, shall be carried out after due authorization with adequate authorities with adequate safety and security measures, due provisions like use of acoustic hood shall be used to reduce the noise pollution.

Appendix 13: Sample Monitoring Template

A semi-annual monitoring report shall be prepared on Resettlement Plan implementation and submitted to ADB by the PMU. It will include: (1) **the list of affected persons**, with compensation, if any due to each and details of compensation paid with signed receipts annexed to the report, socio-economic status and satisfaction levels of affected persons with the Resettlement Plan implementation process, compensation and mitigation measures; (2) **the list of vulnerable affected persons** and additional compensation / special protection measures planned/implemented for them (e.g. assistance to obtain project construction related jobs); socio-economic status and satisfaction levels of affected persons with the Resettlement Plan implementation process, compensation and mitigation measures; (3) **list of roads for closure** and actions planned / taken to minimize disturbance; (4) **details of consultations held with affected persons** (with number of participants by gender, issues raised, conclusion / agreement reached, actions required/taken; (5) **details of grievances** registered, redressed, outstanding complaints, minutes of GRM meetings held; (6) **details of information disclosure** and awareness generation activities, levels of awareness among target population and behavior change, if any; and (7) **any other relevant information** showing Resettlement Plan implementation progress. The following checklist may be used for overall monitoring of Resettlement Plan implementation.

S.N.	Resettlement Plan Activities	Completed Y/N	Remarks
A. Pre-Construction Activities and Resettlement Plan Activities			
1	Approval of final Resettlement Plan by ADB prior to contract award		
2	Disclosure of final Resettlement Plan on ADB and EA websites		
3	Circulation of summary Resettlement Plan in local languages to all stakeholders		
A. Resettlement Plan Implementation			
1	Grievance Redress Mechanism established at different levels		
2	Entitlements and grievance redress procedure disclosed		
3	Finalization of list of affected persons, vulnerable affected persons and compensation due		
4	Finalization of list of roads for full or partial closure; mitigation measures proposed and implemented (with photographic documentation)		
5	Affected persons received entitlements as per EM in resettlement plan		
6	Payment of compensation, allowances and assistance (No. of affected persons)		
7	Additional assistance (project-related construction jobs, if willing and able) for vulnerable households given (No. of vulnerable affected persons assisted)		

S.N.	Resettlement Plan Activities	Completed Y/N	Remarks
8	Grievances No. of grievances registered No. of grievances redressed Outstanding complaints Disclosure of grievance redress statistics		
9	Consultation, participation and disclosure as per Plan		
C. Monitoring			
10	Survey on satisfaction levels of affected persons with Resettlement Plan implementation completed		
D.	Labor		
11	Implementation of all statutory provisions on labor like health, safety, welfare, sanitation, and working conditions by Contractors. Ensuring no child labour used		
12	Equal pay for equal work for men and women		

NOTE: Where applicable, the information provided in the table should be supported by detailed explanatory report, receipts and other details.

Appendix 14: Outline of Project Information Disclosure Leaflet

Project Information	Description
1) Name of the project, project, EA/IA and city	
2) Proposed project technical details and project benefits	
3) Summary of project impacts	
4) Compensation and entitlements	
5) Resettlement Plan (RP) budget	
6) RP implementation schedule	
7) Consultation and disclosure requirements	
8) Implementation structure and GRM Information	
9) Contact numbers of CAPP, PIU, PMU	

Attach list of affected persons and Entitlement Matrix to this leaflet. This leaflet will be disseminated both in local language (Hindi) and English

Appendix 15: Grievance Registration Format (to be made available in Hindi language)

The _____ Project welcomes complaints, suggestions, queries and comments regarding project implementation.

Aggrieved persons may provide grievance with their name and contact information to enable us to get in touch for clarification and feedback.

In case, someone chooses not to include personal details and wants that the information provided to remain confidential, please indicate by writing/typing ***(CONFIDENTIAL)*** above Grievance Format.

Thank you.

1. Date		2. Place of registration	
3. Contact Information/Personal Details			
4. Name		5. Gender * Male *Female	6. Age
7. Home Address			
8. Place			
9. Phone no.			
10. E-mail			
11. Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below: If included as attachment/note/letter, please tick here:			
12. How do you want us to reach you for feedback or update on your comment/grievance?			

FOR OFFICIAL USE ONLY

1. Registered by: (Name of Official registering grievance)	
2. Mode of communication: Note/Letter /E-mail Verbal/Telephonic	
3. Reviewed by: (Names/Positions of Official(s) reviewing grievance)	
4. Action Taken:	
5. Whether Action Taken Disclosed:	Yes/ No
6. Means of Disclosure:	

Appendix 16: Survey Safety Protocol on Covid-19

Uttarakhand Integrated and Resilient Urban Development Project

Socio-Economic Surveys

SURVEY SAFETY PROTOCOL ON COVID-19

A. Introductions

1. The Government of Uttarakhand has requested support from Asian Development Bank for the Uttarakhand Integrated and Resilient Urban Development Project to improve universal and equitable access to safe and affordable drinking water, and access to adequate and equitable sanitation and hygiene for all ending open defecation. The outcome of the project is reliability and efficiency of water supply and sanitation services in Dehradun and Nainital enhanced. As a part of the social safeguard documents (resettlement plans), and detail measurement surveys, socio-economic survey will require to be conducted for the project locations. As the COVID-19 situation is prevailing, safety protocol for survey work has been developed addressing COVID-19.

B. About the Corona Virus Disease

2. Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. At this time, there are no specific vaccines or treatments for COVID-19.³¹ However, precautions can be implemented to prevent and slow down the transmission of the virus.

C. Common Symptoms of Corona Virus Disease³²

3. COVID-19 affects different people in different ways. Most infected people will develop mild to moderate illness and recover without hospitalization.

Most common symptoms:

- fever;
- dry cough;
- tiredness.

Less common symptoms:

- aches and pains;
- sore throat;
- diarrhea;
- conjunctivitis;
- headache;
- loss of taste or smell;
- a rash on the skin, or fingers or toes become pale.

³¹ World Health Organization. https://www.who.int/health-topics/coronavirus#tab=tab_1

³² World Health Organization. https://www.who.int/health-topics/coronavirus#tab=tab_1

Serious symptoms:

- difficulty breathing or shortness of breath;
- chest pain or pressure;
- loss of speech or movement.

D. Personal Protective Equipment that should be worn by survey team of UIRUDP

4. While in the field, all the members of the survey team shall use or wear proper personal protective equipment (PPE) at all times. These PPEs may be removed on certain circumstances only, such as, but not limited to, eating, drinking, and any other task or activity that the PPE may inhibit the action. However, during these times, strict observance of social distancing is required.

5. The most common type of PPEs that should be worn by the field surveyors and enumerators are the following:

- Reusable mask or surgical mask. Reusable masks should be maintained clean per the manufacturer's instruction. Surgical masks should not be reused.
- Face shield. This PPE is especially useful for the field workers especially when talking to various people in a relatively confined space or indoors.
- Gloves. This is especially useful in situations in the field where items are being passed around from one hand to another, and no available hand sanitizers, or water and soap for handwashing after the activity.

E. Safety Protocol for Survey Work

1. The survey team of UIRUDP should ensure the following;

- Before undertaking the survey, ensure that the respective urban local body (ULB) has been informed by UIRUDP about the survey.
 - Never carry out survey activities in containment zone, if any, and undertake surveys in such areas after restrictions are lifted and necessary approvals are obtained for survey work.
 - Maintain adequate stock of masks and sanitiser for survey team; and single-use surgical mask for respondents.
 - The team should have handheld contactless temperature scanner and pulse oximeter (minimum 3-sets).
- a) To test all members of the survey team every morning before starting of survey to ensure no persons are having a fever (above 100 F or 38 C) and oxygen saturation level (should be above 95).
- b) Once in the field, the head of the team should test the temperature of every respondent before assigning a team member to a particular respondent.
- i. The temperature of the respondent should be below above 100 F or 38 C.
 - ii. If the temperature is high, then advise such respondents to take a rest and consult a doctor.

6. FGDs should be held only if allowed by District administration and situation permits. Otherwise, avoid FGDs.

- a) If FGDs are conducted, ensure it is held in the open, ensuring that participants are seated at least 1-meter apart.

- b) Ensure there is no handshaking or any physical contact between participants and provide surgical mask to all participants.
 - c) Participants with fever, if any, should be asked to stay at home and not join the FGD.
- 7. Check daily the latest information on areas where COVID-19 is spreading and ensure no survey work is undertaken in any area declared as a containment zone.
- 8. Ensure no member of the survey team is in the high-risk category, those with medical conditions such as diabetes, heart, lung disease, etc. If any, counsel them and exclude them from the survey activity.
- 9. Ensure that no respondent with fever, cough, and cold is included in the enumeration, and collect information from some other member of the family who is in good health. If all members of the family are unwell, skip enumerating such families.
- 10. Mobile phones of the survey team, laptop, etc. need to be wiped with disinfectant daily on return from the field.
- 11. The safety protocol will be implied for the entire survey team of UIRUDP.

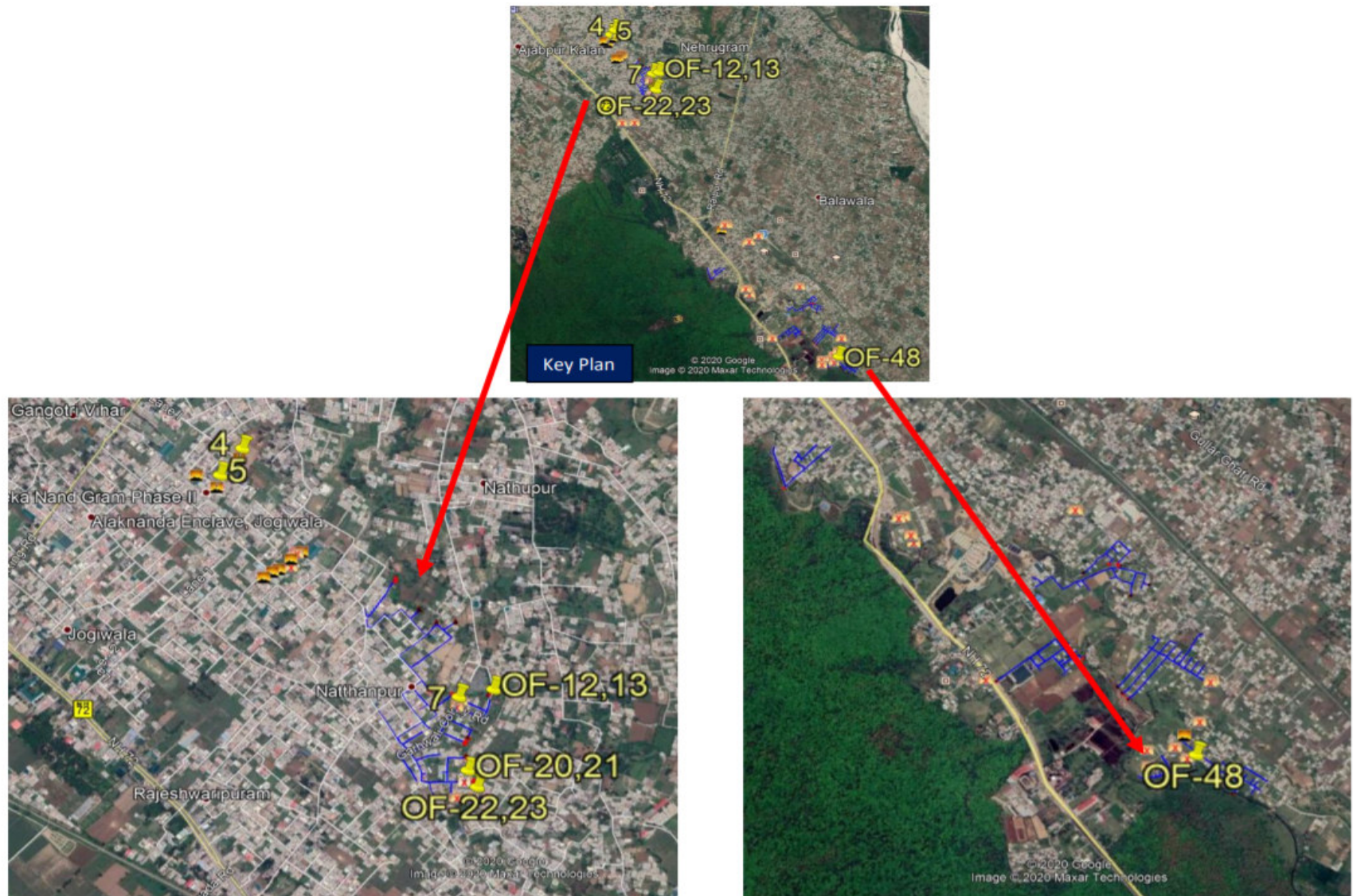
2. Every enumerator/Interviewer of the survey team should strictly adhere to the following safety measures

- 12. UIRUDP will provide an adequate number of branded N95 masks (single use only). At the end of each day, upon reaching home/place of stay, cut the mask into 2-pieces (to prevent recycling) and safely dispose of it in a separate wrapper as per Municipal Corporation guidelines.
- 13. The enumerator/ interviewer should have a shoulder bag for carrying the hand sanitiser, single-use surgical masks, hand towel, survey tablet, identity card, water bottle, etc.
- 14. He should use N95 mask before setting out of his place to survey location and should use it throughout the day, till he completes the day's survey work and returns to his place.
 - a) Before putting on the mask, clean hands with alcohol-based hand sanitise or soap and water.
 - b) Cover mouth and nose with mask and make sure there are no gaps between the face and the mask.
 - c) Avoid touching the mask while using it; if it is touched, clean hands with alcohol-based hand sanitise immediately after touching the mask.
 - d) To remove the mask: remove it from behind (do not touch the front of the mask); clean hands with alcohol-based hand rub or soap and water; and wash the mask with washing soap and dry it in sunlight.
- 15. Before and after every household survey, clean hands thoroughly with an alcohol-based hand sanitiser, which will be provided by UIRUDP.
 - a) Avoid touching eyes, mouth, and nose immediately after using the hand sanitiser, as it can cause irritation.
 - b) Under no circumstance, drink or let children at home or survey-place, swallow the hand sanitizer. It can be poisonous.

- c) Hand sanitizers recommended to protect against COVID-19 are alcohol-based and therefore can be flammable, be careful.
16. Wash hands with soap and water or using alcohol-based hand sanitiser before having tea and lunch.
17. Carry a freshly washed hand towel every day to dry your hands after washing.
18. Maintain at least 2 metre (6 feet) distance between yourself and the respondent and others during the enumeration.
- a) Since the place of the respondent to be surveyed, may be congested and it may be difficult to maintain the minimum 6-feet distance, ensure that the respondent wears a mask throughout the enumeration.
 - b) Collect and keep some single-use surgical masks from your supervisor for giving to respondents.
 - c) Request respondents to avoid crowding of other family members when the enumeration is in progress.
19. After collecting and handing over the identity cards for taking photographs, ensure that hands are cleaned using alcohol-based hand sanitiser.
20. Avoid going to crowded places during and after enumeration.
21. Avoid touching eyes, nose, and mouth until reaching home and have taken a bath.
- a) Use shampoo and wash hair thoroughly.
 - b) Wash clothes and dry them in sunlight.
 - c) All gadgets and materials used during survey should be disinfected, put in one bag and keep away from any family member, to ensure no virus is brought into the households of enumerators/surveyors.
 - d) Dispose off used face masks properly as described above. Face shields should be properly washed or disinfected as well.
22. Consume only cooked hot food and avoid consuming any packaged food.
- a) Carry drinking water and keep the body hydrated.
 - b) Drink hot water, wherever possible
23. Avoid public transport for local travel and use vehicle/motorcycle of UIRUDP (if possible) to reach survey places (settlements).
- a) If auto-rickshaw is used ensure only 2-persons travel and in taxi, 3-persons. As much as possible, avoid auto and taxi, and use motorcycle or cycle instead.
24. If someone has any minor symptoms such as cough, headache, mild fever, inform UIRUDP, and stay at home. Do not come for the survey work.
- a) At home, be isolated from others.
 - b) call the nearest government COVID-19 health care contact person and give details of your symptoms and places that is visited for survey work.

F. Important

25. UIRUDP will facilitate testing of the members for COVID-19, once they reach the destination town and the supervisors should be in self-quarantine till results come. Only after the result is known and is Negative, the survey activities should commence. If anyone tests Positive, then such a person should immediately contact the hospital and take treatment as recommended.

Appendix 17: Google Earth Image of Existing Drains & Proposed KC Drain Outfall Locations in Raipur Area

Appendix 18: Photographs of Proposed Locations KC Drains and Outfalls in Raipur

<p>1.</p>	<p>Road along which KC drain is proposed and Out Fall No. 20&21 to Natural Drain in Nathanpur Area</p>		
<p>2.</p>	<p>Out Fall No. 12&13 to Drain near Ramleela ground in Nathanpur Area</p>		

3.	Out Fall No. 22&23 to Natural Drain in lower Garhwali colony Road		
4.	Existing Storm drain in Vivekananda Gram, Lower Nathanpur		

5.	Existing Storm drain in Lower Nathanpur		
6.	Out Fall No. 48 for KC drain near STP site in Nakraunda		

7.	Road along which KC drains are proposed	 A ground-level photograph of a paved road. Two yellow arrows point from the center of the road towards the grassy areas on either side, indicating the proposed locations for KC drains. A person is visible in the distance on the road.	 An aerial photograph of a residential area. A red arrow points from a specific location on the ground (marked with a yellow '7') to the corresponding location in the ground-level photograph. The area is densely packed with buildings and greenery.
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