

Land Acquisition, Involuntary Resettlement, and Indigenous Peoples Due Diligence Report

Final Report

Project Number: 35173-015

Loan Number: 3711-NEP

Package No. W21

July 2021

Nepal: Urban Water Supply and Sanitation (Sector) Project),
Bhojpur Bazar Sewerage and Decentralized Wastewater
Treatment System Subproject (DEWATS)

Prepared by Ministry of Water Supply, Government of Nepal as per requirement of the Asian Development Bank

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

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

Note

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

Currency Equivalents

(As of June 3, 2021)

Currency unit- Nepalese rupee (NRs)

\$ 1.00 = NRs 116.60

NRs 1.00 = \$ 0.009

Weights and Measures

km – kilometre

sq. m – square meter

mm – millimetre

Abbreviations

ABR	-	Anaerobic Baffle Reactors
ADB	-	Asian Development Bank
BOD	-	Biochemical Oxygen Demand
COD	-	Chemical Oxygen Demand
DEWATS	-	Decentralized Wastewater Treatment System
DMS	-	Detail Measurement Survey
HFCW	-	Horizontal Flow Constructed Wetlands
HRT	-	Hydraulic Retention Time
MOWS	-	Ministry of Water Supply
PMO	-	project Management Office
PPE	-	Personal Protective Equipment
RCC	-	Reinforced Cement Concrete
SDB	-	Sludge Drying Bed
UWSSP	-	Urban Water Supply and Sanitation (Sector) Project
WSS	-	Water Supply and Sanitation
WSSDO	-	Water Supply and Sanitation Division Office
WUSC	-	Water Users and Sanitation Committee
WWTP	-	wastewater treatment plant

TABLE OF CONTENTS

I. INTRODUCTION	1
A. PROJECT BACKGROUND	1
B. SCOPE OF THIS REPORT	2
II. SUBPROJECT DESCRIPTION.....	3
A. LOCATION AND ACCESSIBILITY	3
B. SOCIOECONOMIC PROFILE OF THE PROJECT	4
C. DESIGN CONCEPT AND PROJECT COMPONENTS	11
D. OPERATION SYSTEM OF WWTP	20
III. FIELD WORK: SURVEYS AND PUBLIC CONSULTATIONS	35
A. OUTLINE OF FIELD WORK	35
B. PUBLIC CONSULTATION	35
IV. LAND AVAILABILITY, INVOLUNTARY RESETTLEMENT AND INDIGENOUS PEOPLE IMPACTS.....	38
A. FINDINGS	38
B. MITIGATION MEASURES	44
C. INVOLUNTARY RESETTLEMENT	45
D. INDIGENOUS PEOPLES.....	45
V. CONCLUSIONS	47
A. SUMMARY AND CONCLUSIONS	47
B. NEXT STEPS	48
C. ANTICIPATED PROJECT IMPACTS ON INDIGENOUS PEOPLES	97

APPENDIXES:

- Appendix-1: Consent Letters for Construction of Proposed Components and Discharge of Effluent
- Appendix-2: Minutes of Meeting of Consultation and Participation
- Appendix-3: Photographs
- Appendix-4: Social Safeguards Screening Checklists
- Appendix-4: Specific Action Plan for Indigenous People

I. INTRODUCTION

A. Project Background

1. The Urban Water Supply and Sanitation (Sector) Project (UWSSP) will support the Government of Nepal in expanding access to community managed water supply and sanitation (WSS) in 20 project municipalities by drawing on experiences and lessons from three earlier projects funded by the Asian Development Bank (ADB)¹. The project will fund climate-resilient and inclusive WSS infrastructure in project municipalities and strengthen institutional and community capacity, sustainable service delivery, and project development. Subprojects will be demand-driven by Water Users Associations (WUAs) and project municipalities and selected based on transparent criteria² including population growth, poverty index, existing WSS infrastructure, community willingness for cost sharing, and long-term operation and maintenance (O&M) contract³.
2. The project will build upon the on-going efforts of the Government of Nepal in providing water supply and sanitation (WSS) services in urban areas of Nepal. It will help the country to meet Sustainable Development Goal (SDG)-6 to ensure availability and sustainable management of water and sanitation for all by 2030. It is also aligned with sector objectives laid out by the government's Fourteenth Plan, National Urban Development Strategy, and updated 15-year Development Plan for WSS in Small Towns, which is to improve water supply and sanitation service delivery in urban areas across Nepal.
3. The project will have the following impact: quality of life for urban population, including the poor and marginalized, through provision of improved sustainable WSS services⁴. The project will have the following outcome: inclusive and sustainable access to water supply and sanitation services in project municipalities improved. The project will have two outputs: (i) water supply and sanitation infrastructure in project municipalities improved (within this output, construction of 30 km of storm water drainage and 2 DEWATS project also included); and (ii) institutional and community capacities strengthened.
4. The Ministry of Water Supply (MOWS) is responsible for planning, implementation, regulation, and monitoring of WSS. The Department of Water Supply and Sewerage Management (DWSSM) under the MOWS supports the provision of WSS facilities in municipalities where large utilities do not exist, and these are operated by WUSCs⁵ or municipalities. Shortage of investment funds, skilled personnel, and inadequate operation and maintenance (O&M) budgets, hinders municipalities from providing adequate, cost-effective services. The Local Governance Operation Act, 2017, established municipalities as autonomous government institutions with responsibility for WSS services. While municipalities' capacity is being built, the government and residents have been receptive to the decentralized, participatory, and cost-sharing service provision model by Water Users Associations (WUAs). Development support for municipal WSS has been channelled through a combination of (i) government grants

¹ ADB. Nepal: Small Towns Water Supply and Sanitation Sector Project (2000); Nepal: Second Small Towns Water Supply and Sanitation Sector Project (2009); and Nepal: Third Small Towns Water Supply and Sanitation Sector Project (2014).

² Subproject selection criteria are detailed in the PAM. Selection of future investments to be designed under the project will follow same criteria, with preference for investments located in Kathmandu Valley, provincial headquarters, and strategic border municipalities.

³ Procurement can only commence after DWSSM and municipality sign management agreement with WUSC for 20 years O&M service. The municipality will own the system and the WUSC will be the operator.

⁴ Government of Nepal. 2009. Urban Water Supply and Sanitation Policy. Kathmandu

⁵ The DWSSM assists in preparation of investment plans, project design, and establishing sustainable service delivery

through DWSSM, (ii) loans by the Town Development Fund (TDF)⁶, and (iii) contributions from municipalities and beneficiaries⁷. The TDF also supports WUAs in institutional and financial management including the introduction of tariffs.

5. The project will be implemented over a five-year period (indicative implementation period is 2018 to 2023) and will be supported through ADB financing using a sector lending approach. The MOWS is the executing agency and DWSSM as the implementing agency. The Project Management Office (PMO) will be responsible for the overall management, implementation and monitoring of the project. There will be regional PMOs (RPMOs) to manage the day-to-day project implementation at the subproject/municipality level. After construction of water supply and sanitation subprojects which includes a one-year O&M period by the contractor, subprojects will be operated by the WUSC or municipality. However, after construction, the storm water drainage sub project will be operated by the municipality.
6. In terms of financing, for Decentralize Wastewater Treatment Plant Project (DEWATS), 85 percent cost will be borne by Government of Nepal and 15 percent of the cost is contributed by local government i.e., Municipality. The project ensures full participation of local government in the formulation, implementation and operation and maintenance of the Decentralise Waste Water Treatment Project (DEWATS).
7. The proposed UWSSP is not anticipated to involve any significant resettlement impacts and is classified as Category B. The Resettlement Framework provides guidance for the assessment of involuntary resettlement impacts and for the preparation of resettlement plans/land acquisition and involuntary resettlement due diligence reports for components that are identified or subprojects that are assessed or any changes in design after Board approval. Any proposed future subproject involving significant impacts will not be allowed.

B. Scope of this Report

8. This due diligence report (DDR) is prepared for the proposed Bhojpur Decentralize Waste Water Treatment Project (DEWATS) Project under the UWSSP based on final detail engineering design report. It will be implemented by the project management office (PMO). A due diligence report (DDR) is prepared for such works because no involuntary resettlement impacts are anticipated for the proposed subproject works. Potential disturbances can be avoided through careful management of civil construction work ensuring access to businesses and provision of assistance to mobile vendors to shift to the other side of the road or nearby places, such that they are able to continue with their economic activities, thus avoiding any temporary economic impact.
9. Nearly 3129.94 sq. m land is required in three locations for the site of Decentralised Waste Water Treatment System (DEWATS). The treatment plant of WWTP-1 site is located at Ward no 8 (Dhokale Kholsi), WWTP-2 at ward no 7 Ramailo Ban and WWTP-3 is at ward no 7 & 12 Siddhikarne Community Forest of Bhojpur Municipality. The total length of the sewer lines required for the proposed system would be about 6,293.04m. Out of total proposed sewer length, about 2,136.91 m belongs to WWTP-1, 2,272.49 m belongs to WWTP-2 site and 1,883.64m belongs to WWTP-3 site. The proposed land is vacant public/government land. There are no land acquisitions or compensation activities associated with proposed sewer line and WWTPs construction works. Field visit by the design team has confirmed there will be no disturbances to

⁶ The TDF is a government-owned entity established under the Town Development Fund Act, 1997. Loans from the government to WUAs or municipalities are generally on-lent by TDF under a subproject financing agreement.

⁷ WUAs contribute 30% of project costs for water supply subprojects (25% from TDF loan and 5% from users' upfront cash contribution) and 15% for sanitation subprojects (subsidy from municipalities).

adjacent private land and property. Extensive field visits and formal/ informal consultations were held to understand people's views on the proposed project construction activities.

10. The sewer line will be constructed on public roads within its clear width right of way (ROW). Similarly, the treatment plants will also be constructed at the public barren land. For the efficient work progress and people's support in project activities, the Regional Project Management Office (RPMO) along with the Regional Design Supervision and Management Consultant (RDSMC) and the Contractor must disseminate information on commencement of works. The full road closure is not anticipated. Good construction practices and traffic management measures, including night works, will ensure continued access to businesses and limited disruption to business activity.
11. Prior to project implementation, the Social Safeguards Officer at the PMO will be required to undertake a review of this due diligence, prepare a confirmation letter or report documenting any modifications for the subproject and submit to ADB; and receive a 'no objection' confirmation from ADB prior to start of construction in the subproject.

II. SUBPROJECT DESCRIPTION

A. Location and Accessibility

12. The service area of Bhojpur Sewerage (DEWATS) Project lies in Bhojpur Municipality, Bhojpur District in the Eastern Development Region of Nepal. Bhojpur Municipality was established on 5th March, 2017 after merging neighboring four VDCs, Aamtep, Gupteshwor, Helauchha and Siddheshwor with former Bhojpur Municipality. The former Bhojpur Municipality was established on 18th May, 2014 merging the existing Bhaisipankha, Bokhim, Bhojpur, Taksar Village Development Committees. The Municipality has 12 wards. It is the district headquarters of Bhojpur district. The municipality lies between Latitude 27° 07' 58" N to 27° 16' 42" N and Longitude 87° 02' 40" E to 87° 04' 56" E. The Municipality is in hilly region with altitudes ranging between 560 m (Pikhuwa Khola) to 2560 m (Suntale Danda) above mean sea level (amsl) with average altitude of 1630 meters. The Municipality has subtropical to temperate climate and is heavily influenced by the monsoon (June-September) with an average annual rainfall of more than 1700 mm. The elevation of the service area is ranges from 1360 m to 1735 m amsl.
13. Bhojpur is home to many Newar businessmen as well as skilled Newar craftsmen, and is famous for its metalwork, particularly Khukuri Knives. The nearest airstrip, Taksar, is within the Municipality, from where flights connect to Biratnagar and Kathmandu. There is a road links to Bhojpur Bazaar with Hile which in the North-South Koshi Highway which joins Project area to Dhankuta, Dharan and Itahari. The distance from Bhojpur Bazaar to Hile, Dhankuta and Dharan is approximately 92 km, 118 km and 167 km, respectively. Historically, Bhojpur Bazaar is a part of Majh Kirant/Kirat (middle Kirat), and used to be called "East 4 number ". Middle Kirat consists mainly of Bhojpur and Khotang districts, the traditional home of Kirat Rai people, and an indigenous ethnic group of Nepal. In addition to Rais, other ethnic groups include Magar, Gurung, and Tamang, as well as castes like Chhetri, Bahun, and Dalit. Figure 1 shows the location of project site of Bhojpur DEWATS town.

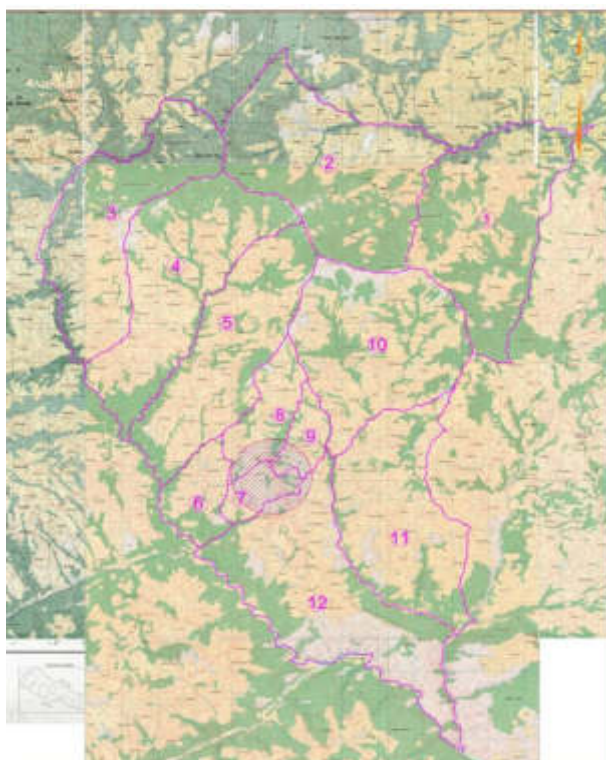


Figure 1: Project Area Location Map

B. Socioeconomic Profile of the Project

i. Population and Households

14. Bhojpur Municipality is formed by merging four former VDCs. Table 1 shows the restructuring of Bhojpur Municipality and ward delineation.

Table 1 : Formation of the Municipality

Ward No. of the Municipality	Former Ward Nos. of VDCs
1	WN 6 to 9 of former Helauchha VDC
2	WN 1 to 5 of former Helauchha VDC
3	WN 1 to 9 of former Gupteshwor VDC
4	WN 1 to 9 of former Siddheshwor VDC
5	WN 3 and 4 of former Bhojpur Municipality
6	WN 8 of former Bhojpur Municipality
7	WN 7 of former Bhojpur Municipality
8	WN 6 of former Bhojpur Municipality
9	WN 5 of former Bhojpur Municipality
10	WN 1 and 2 of former Bhojpur Municipality
11	WN 1 to 9 of former Aamtek VDC
12	WN 9 to 11 of former Bhojpur Municipality

15. The consultants conducted a socio-economic survey in 2016 A.D. for Water Supply Project. The survey included census survey of all of above area and sample survey of 5% of households in the project area. The survey focused on collection of data on various social and economic conditions relating to water supply and sanitation activities in the area. The same information has been used during the design where applicable. The household size of the survey has been considered to finalize the population in the proposed DEWATS service area. Increased households in service area after survey were assessed using Google image.

Table 2: Ward-wise households

Wards of Bhojpur Municipality	Household	Population
3	29	148
4	142	698
5	284	1,458
6	232	1,515
7	456	3,239
8	332	1,864
9	260	1,300
10	248	1,091
11	207	1,010
Total	2190	12,323

Source: Socio-economic Survey, 2016 for Water Supply and Sanitation Project

16. Though socio-economic survey was carried out before the formation of present Bhojpur Municipality, all the socio-economic information has been collected and presented in terms of present wards. The service area of the proposed Bhojpur Sewerage DEWATS Project comprises of ward nos. 7, 8, 9 and partial area of 12 of Bhojpur Municipality. The project area for the sewerage (DEWATS) components has been delineated in consultation with WUSC, Municipality and the local community. Only the main areas where the land values are more are selected for the project. Also the capacity of the Municipality was under consideration.

Table 3: Ward-wise Households and Population of Bhojpur DEWATS service area

Ward (Present)	Ward (former)	W. Area (Ha)	Census 2001			Census 2011			Growth Rate
			House holds	Population	Population Densities (PPHA)	House holds	Population	Population Densities (PPHA)	
9	5	189.25	362	1,527	8.1	489	1,771	9.4	1.49
8	6	221.29	217	1,002	4.5	311	1,160	5.2	1.47
7	7	244.57	506	1,859	7.6	862	2,805	11.5	4.2
Partial of 12	9	693.01	302	1,442	2.1	271	1,112	1.6	-2.57
	Total	1348.12	1387	5830	5.58	1933	6848	6.93	1.15

Source: Socio-economic Survey, 2016

17. The survey shows that the total population of the proposed WWTP service area is 4,370 in 771 Households (during DEWATS survey year (i.e base year of water supply system), 2019. The base year of the sewerage (DEWATS) is 2023. The beneficiary households and population of the sewerage (DEWATS) project is provided as in the Table 4.

Table 4: Beneficiaries Households of DEWATS project

Site	Present Ward No. of Bhojpur Municipality	Former Ward No. of Bhojpur Municipality	Households	Total Population, 2019
WWTP-1 (at Dhokale Kholsi)	Partial area of 7,8	Partial area of 6,7	241	1367
WWTP-2(Ramailo Ban)	Partial area of 7,9	Partial area of 7,5	239	1353
WWTP-3(at Siddhikarne Community Forest)	Partial area of 9, 12	Partial area of 5, 9	291	1650
		Total	771	4370

Source: Based on Socio economic survey 2016 and Google map verification

Note: The information of other socio-economic aspects that includes Caste/Ethnicity, Economic Activities, Health & Sanitation, Education & Skills etc. are adopted from the socioeconomic survey conducted for the implementation of the Bhojpur Water Supply

Project in 2016 A.D. Hence, the total households considered in the sections described below is 2190 that covers wards 3 to 11 of former Bhojpur Muniicaplity.

ii. Ethnicity and Caste

18. The composition of community by caste/ethnic is heterogeneous in nature. Therefore, diversity of culture, custom, tradition, norms and values exist in the project area. The household survey of the project area has also reflected the cross section of major ethnic groups of the country.
19. The survey revealed that Janajati/ethnic (Newar, Rai, Magar, Tamang etc.) are the main ethnic group of the project area comprising of 63.7% (1395) of total household whereas Brahmin/Chhetri, Dalit and other cast (Madhesi, Musalman etc.) comprising 26.5% (580), 8.4% (184) and 1.4 % (31) respectively.

Table 5: Distribution of population by Ethnic Composition

Caste/Ethnic Status	Present Ward									Grand Total	%
	5		9	8	7	6	12				
	Former Ward										
	3	4	5	6	7	8	9	10	11		
Janajati	27	112	158	114	322	204	196	125	137	1395	63.7
Brahman/Chhetri	0	23	112	105	87	78	43	86	46	580	26.5
Dalit	2	7	0	13	44	49	21	31	17	184	8.4
Others (Madhesi, Musalman etc.)	0	0	14	0	3	1	0	6	7	31	1.4
Grand Total	29	142	284	232	456	332	260	248	207	2190	100.0

Source: Based on Socio economic survey 2016 and Google map verification

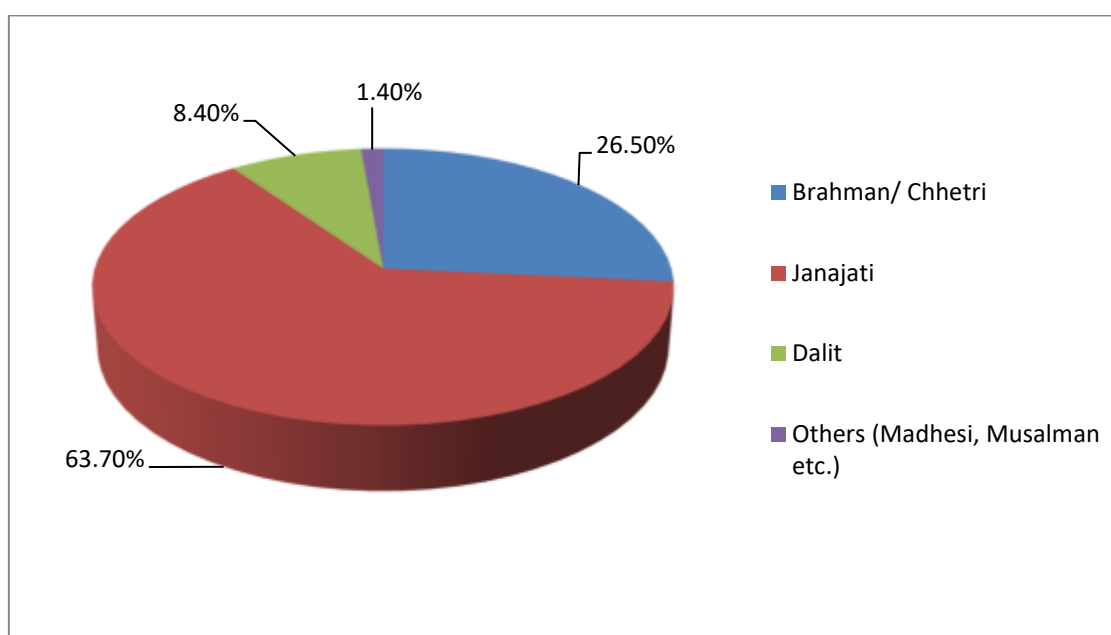


Figure 14: Composition of Caste/Ethnic Groups in Bhojpur

iii. Education

20. According to the institutional data obtained from the socio-economic survey 2016, 18 educational institutions including campus for higher education, higher secondary schools, secondary schools as well as primary schools in service area with 7588 people including students, staffs and teachers. Similarly, almost of educational institutions are depending on tap water provided by Sillichung water supply. All educational institutions have water-sealed latrines. The survey revealed that about 13.4 % (294) of household head are

illiterate within the project area. Similarly, just literate rate is 68% (1491) and more than SLC to above MA are 12%.

Table 6: Education Status of Household Head by Ward

Education	Present Ward									Grand Total	%
	5		9	8	7	6	12				
	Former Ward										
	3	4	5	6	7	8	9	10	11		
Illiterate	7	15	92	36	24	13	23	40	44	294	13.4
Literate	18	116	48	141	423	248	237	144	116	1491	68.1
Primary	0	1	44	12	0	14	0	3	1	75	3.4
Secondary	0	4	3	10	0	27	0	9	5	58	2.6
SLC	4	1	25	25	2	19	0	27	25	128	5.8
Intermediate	0	5	11	3	2	5	0	16	13	55	2.5
Bachelor	0	0	61	4	3	2	0	7	3	80	3.7
MA	0	0	0	1	2	1	0	2	0	6	0.3
Other	0	0	0	0	0	3	0	0	0	3	0.1
Grand Total	29	142	284	232	456	332	260	248	207	2190	100.0

Source: Socio-economic Survey, 2016

iv. Health

21. The survey shows that twelve numbers of hospitals, health posts and polyclinics with 67-bed capacities were recorded in service area. Medical facilities for diagnosis and treatments are available in the service area. Similarly, pharmaceutical stores and medical shops are also available in Bhojpur Bazaar area.

v. Water-borne and Communicable Diseases

22. The survey revealed that cases of waterborne diseases such as diarrhoea, dysentery, stomach aches and skin disease etc. are found to be very low. Cases of mortality by water related diseases are nil. According to the socioeconomic survey, about 4.27% (526) Households suffered from diarrhoea whereas 3.17% (391) suffered from dysentery. Similarly, about 2.73% (337) suffered from other diseases such as skin diseases, stomach pains, fever etc. The details are presented in the Table -7.

Table 7: Reported Water Borne and Communicable Diseases in 2015

Types of diseases	Children (<5 Yrs.)	Female	Male	Total	%
Diarrhoea	244	156	126	526	4.27
Dysentery	185	111	95	391	3.17
Other (skin, stomach pain, fever etc.)	111	101	125	337	2.73
Total	540	368	346	1254	10.18

Source: Socio-economic Survey 2016 and Data from Hospitals and Health Posts

vi. Economic Activities

23. The economy of the municipality is extensively agrarian although most of the households in the project area depend on more than one occupation. During the course of household survey of project area, detail information has been collected about the major occupation and economic activities of all household head. The survey shows that, the highest number of population i.e 46% engaged in agriculture, whereas 23% populations depend on business, 10.8% of population are engaged in service. Similarly, about 9.4% and 4.6% of household head are dependent upon remittance and labour respectively. Details are presented in the Table-8.

Table 8: Distribution of Ward-wise Occupation of Households

Table 6. Distribution of Ward-wise Occupation of Households												
Occupational Status	Present Ward										Total	%
	5		9	8	7	6	12					
	Former Ward											
	3	4	5	6	7	8	9	10	11			

Agriculture	10	89	28	158	114	180	160	142	132	1013	46.3
Business	2	10	142	20	201	39	46	20	28	508	23.2
Service	1	19	0	30	71	43	23	29	21	237	10.8
Industry	0	0	11	0	0	4	0	2	6	23	1.1
Remittance	11	18	82	12	38	13	20	5	6	205	9.4
Labour	4	3	18	10	20	17	10	11	7	100	4.6
Others	1	3	3	2	12	36	1	39	7	104	4.7
Grand Total	29	142	284	232	456	332	260	248	207	2190	100

Source: Socio-economic Survey 2016

24. There are more than 42 hotels/lodges with 524 bed capacities and managed by 109 staff in the project area. The existing financial institutions are Tourism Development Bank, Citizen Bank, Bank of Kathmandu, Agricultural Development Bank, Banijya Bank, Prabhu Bank, Century Bank etc. Similarly, some cooperatives are also in operation in the area. About 73 governmental (including CDO office, DCC office, Education office etc), non-governmental and financial institutions are existing in the service area and providing services to the community.

vii. Existing Sanitation Situation and Sanitary Facilities

25. This information reflects the whole service area of the water supply project area and is applicable for this project. The survey shows that about 70% (1507) household have ventilated pit latrine where as 25% (546) household have pit latrine, which seems to be temporary and needs to be replaced or opted for new construction. Only, 3.3% (73) of household are using cistern flush type of latrine. The Table-9 shows the information about latrine facility in the project area.

Table 9: Number and Type of Household Latrine

Type of Toilet	Present Ward									Total	%
	5		9	8	7	6	12				
	Former Ward										
	3	4	5	6	7	8	9	10	11		
No Toilet	0	2	17	3	6	13		11	11	63	2.9
Pit Latrine	0	8	20	78	154	75	20	78	113	546	24.9
Ventilated Pit Latrine	26	132	247	140	254	232	237	159	80	1507	68.8
Cistern Flush	3	0	0	10	42	12	3	0	3	73	3.3
Grand Total	29	142	284	232	456	332	260	248	207	2190	100

Source: Socio-economic Survey 2016

26. The survey revealed that 57% of total 3842 households have septic tank whereas 43 % of households do not have septic tank so far. Generally, most of the households have constructed permanent type of septic tank and the size of septic tanks varies within the service area. Some households are also using concrete rings. The overall sanitary condition of the Municipality is found reasonably satisfactory. The community has very limited knowledge on the use of sanitary latrines and personal hygiene especially in the city periphery. In the core area, almost all Households have private water seal toilets. All service area household has some sort of toilets.
27. Buildings furnished with water-sealed toilets are at an earlier stage in the settlement. Hence the problem of managing the waste water when the septic tank is filled is not an issue. But as houses increase along the main streets, the problem of managing the waste water will become a prominent issue. At present, the house owners feel no need to clean the waste from the septic tank but it will be the need in near future. No provision is made to de-sludge existing Household's latrines/septic tanks sludge. However, the provision has

been made for a desludging vehicle in the contract. The Households shall use this vehicle in coordination with municipality for desludging purpose.

28. The Municipality requires various infrastructures to manage faecal sludge. Sludge drying bed, transportation vehicles, pumps and various equipment etc. As the municipality is quite large, it is proposed to manage Faecal Sludge Management from two decentralize location. It is envisaged that after completion of sewerage system and DEWATS, the households shall disconnect the septic tank and connect their sewer to the households' sewerage connection chamber at their own cost. The households shall pay the tariff applied by the municipality against use of sewer system. This has been discussed and well informed with the stakeholders. The defect correction will be done by the contractor during DLP period. After that municipality will be responsible and make their rule for the connection of household sewer into household connection chamber.

viii. Drainage Facilities

29. There is no proper drainage system for storm water as well as for the domestic sewage in the Project area. As the terrain is mostly steep, people are less concerned about storm water drain.

ix. Willingness for Septage Improvement

30. Most of the respondent has shown willingness toward improvement of septage within the community. The survey shows that about 63.4% household have shown willingness for improvement of septage management where as 36.6% have shown unwillingness toward it. Details are presented in the Table -10.

Table 10: Willingness for Septage Management

Willingness	Ward											
	Present Ward											
	5	9	8	7	6	12						
	Former Ward											
	3	4	5	6	7	8	9	10	11	Total	%	
Yes		4	2	12	12	4	25	6	13	78	63.4	
No	4	2	29				6	2	2	45	36.6	
Grand Total	4	6	31	12	12	4	31	8	15	123	100.0	

Source: Sampled Household Survey 2016

x. Willingness for Improvement of Septage Management by Type of Activities

31. The survey revealed that almost of the respondent has shown willingness toward improvement of septage household latrine with community Septage System (46.3%) where as 48.8% household are willing for installation of septic tank. Likewise, 5% of respondent has shown willingness toward the improvement of septic tank and/latrine pit. Details are presented in the Table-11.

Table 11: Existing Septage Management Practice in Service Area

Activities for Improvement of Septic Management	ward											%
	Present ward											
	5	9	8	7	6	12						
	Former ward											
	3	4	5	6	7	8	9	10	11	Total		
Installation of Septic Tank	0	6	7	2	10	2	20	3	10	60	48.8	
Improvement in Septic tank/Latrine Pit	0	0	3	0	0	0	3	0	0	6	4.9	
Connection to HH Latrine with Community Septage System	4	0	21	10	2	2	8	5	5	57	46.3	

Total	4	6	31	12	12	4	31	8	15	123	100.0
-------	---	---	----	----	----	---	----	---	----	-----	-------

Source: Sampled Household Survey 2016

xi. Domestic Waste Water Disposal Practices

32. The survey team has collected data about the practices on disposal of domestic waste water in service area. According to the findings, 80.5% of households has reported that they are disposing waste water in the soak pit nearby their house whereas 17% households are disposing in kitchen garden. Detail information are given below:

Table 12: Place and Practices of Domestic Waste Water Disposal

Domestic Waste Water Dispose	Ward										
	Present ward										
	5	9	8	7	6	12					
	Former ward										
	3	4	5	6	7	8	9	10	11	Total	%
In soak pit	2	6	28	4	10	4	28	6	11	99	80.5
In kitchen garden	2	0	0	8	2	0	3	2	4	21	17.1
In public drain	0	0	3	0	3	0	0	0	0	3	2.4
Grand Total	4	6	31	12	12	4	31	8	15	123	100.0

Source: Sampled Household Survey 2016

xii. Septic Waste Management Practices

33. The waste is stored in the septic tank, which are not properly sealed at the bottom. The water from the septic tank infiltrates in to the soil beneath. When the tank is filled with sludge it is manually opened and discharged in the open or in the garden. In case of pits, once it gets filled, another is dug and used.

xiii. Existing Institutional Arrangement in Water Supply and Sanitation

34. The main institutions involved in water supply and sanitation sector in the project area is Silichung Water Supply and Sanitation Committee (WUSC), Bhojpur and Water Supply and Sanitation Division office (WSSDO), Bhojpur has been actively supporting the WUSC to operate the existing water supply system and carry out different WASH activities in the project area. It has been providing both financial and technical support for large scale maintenance and providing pipes, bleaching powder and human resource as and when needed basis. DWSSM through WSSDO constructed and then rehabilitated the water supply systems. The WUSC has been managing the existing water supply systems. There is no particular institution involved in the sewerage system management. The municipality will be fully responsible for cost sharing and operation and maintenance after handover of the project. Municipality can take assistance from WUSC. Name list and position of the existing WUSC are given in the Table-13.

Table 13: Members of Bhojpur Water Supply and Sanitation Users Committee

S.N.	Name	Position
1	Mr. Prabin Suwal	Chairperson
2	Ms. Lila Maya Tamang	Vice Chairman
3	Mr. Binam Shrestha	Secretary
4	Mr. Sudeep Karki	Assistant Secretary
5	Ms. Krishna Kumari Tamang	Treasurer
6	Mr. Narayan Bhadur Karki	Member
7	Ms. Laxmi Kumari Khatri	Member
8	Ms. Kalpana Devi Tamang	Member
9	Mr. Tufan Kirat	Member

xiv. Communication & Electricity

35. There is provision of regular services of landline phone and mobile service within the project area. All kinds of modern telecommunication services are available at the reasonable price. Major national daily newspapers as well as local newspapers are

available within the project town. The project area is well connected to the national electricity grid provided by National Electricity Authority (NEA) and hence, 24 hours supply of electricity is available in this project town.

xv. Other Development Activities

36. **Industries:** There are various small-scale industries like Ply Industries, Rice Mills, Poultry Farming, Furniture Industries, Dairy Industries etc. There are various hotels, lodges, restaurants and cafe available within the project area that has been boosting the economic activities of the project town.

xvi. Agricultural Development

37. The survey report shows that around 46.30% population of the project area is dependent upon the agriculture.

xvii. Cultural & Religious Sites

38. There is Shidhikali Durga temple situated there near to WUSC office.

III. DESIGN CONCEPT AND PROJECT COMPONENTS

i. Sub-project DEWATS Components

39. The proposed project is a completely new system as there is no existing sewerage system. This project has been conceptualized as Decentralized Waste Water Treatment System (DEWATS). This type of system generally convey, treat and dispose or reuse wastewater from small communities, buildings and dwellings in remote areas, individual public or private properties. In this type of system, the treatment and disposal system is carried out in relatively close vicinity to its source of generation. The proposed system is a totally gravity system. Hence, there is no requirement of pumping due to which the operating cost will be also low.

40. DEWATS application is based on the principle of low-maintenance since most important part of the system works without technical energy inputs. It is used when the humane waste is transported through sewer line and includes grey water and storm water as well. DEWATS compliment conventional treatment system for suitable and effective service providing treatment of both domestic and industrial waste. Its application is reliable, long lasting and tolerant towards inflow fluctuation.

41. The subproject infrastructures are based on final Engineering design for a DEWATS System, with the following components:

- (i) Conveyance system or sewer network with length of 6,293.04 m that will serve about 771 households and 4370 population.
- (ii) Sewer Lines
- (iii) Manholes and Sewer Inlet Chamber
- (iv) Three DEWATS systems to be constructed in three locations, namely: Dhokale Kholsi ward no 8, Ramailoban ward no. 7 and Siddhikarne community forest area ward no 7 & 12.

42. The detailed descriptions of the project component are as follows:

ii. System Layout and Proposed Sewer Lines

43. The system comprises of two types of sewers, first the major drains and then the secondary drains. The major sewer has been proposed to consume the sewerage of secondary sewer and main sewer end up as outlets whereas the secondary ones are utilized mainly to reduce the size of the major sewer and have been proposed for alleviating the locality-based problems and future prospects of development of the town.

Major sewer lines for alleviating sanitary sewer problem in the town have been proposed as per need-based assessment and also in consultation with the local residents and stakeholders as per the physical relief of the area considered for the sewer lines.

44. There are three WWTP sites. The total length of the sewer lines required for the proposed system would be about 6,293.04 m. Out of total proposed sewer length, about 2,136.91 m belongs to WWTP-1, 2,272.49 m belongs to WWTP-2 site and 1,883.64 m belongs to WWTP-3 site. The treatment plant of WWTP-1 site is located at Ward no 8 (Dhokale Kholi), WWTP-2 at ward no 7 Ramailo Ban and WWTP-3 is at ward no 7 and 12 Siddhikarne Community Forest. The sewage lines have been planned in order to cover most of the densely filled bazaar areas of the Bhojpur Area so as to keep the length of the major lines to a minimum and utilize least cost for such purpose. The system layout plan containing for overall sewer system is shown in **Figure 3**.

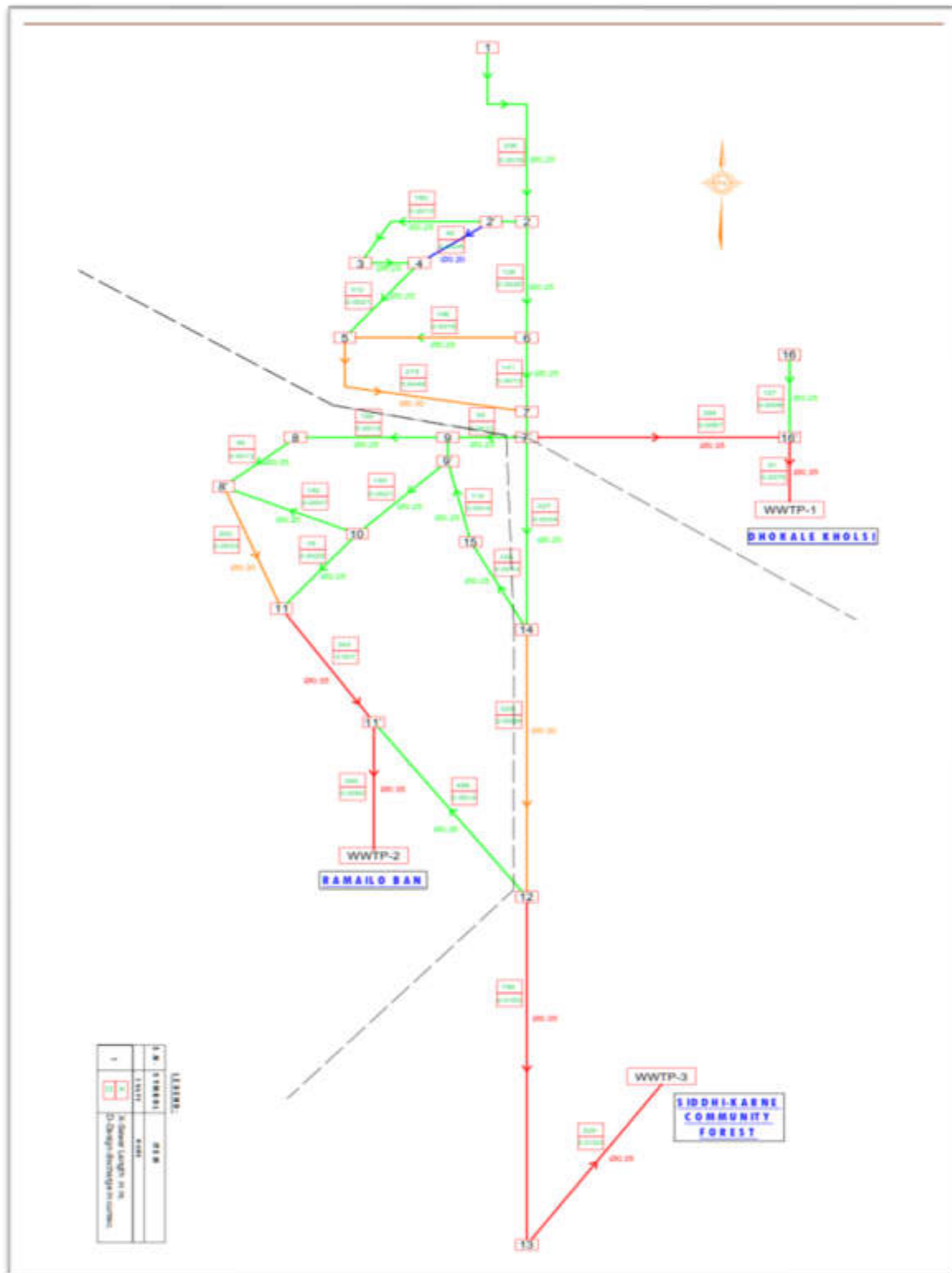


Figure 3: Schematic Diagram of Sewer System (for WWTP-1, 2 and 3)

45. Bottlenecks of the sewer lines would be with other infrastructure services such as storm water drain lines and telephone cable ducts at various locations. In order to avoid such bottlenecks, the crown of the sewer line should be laid below these interfering infrastructure lines.

46. It is necessary to specify a minimum sewer diameter because sewers transport wastewater that contains gross solids. There is no theoretical reason regarding selection of minimum sewer diameter. The discussion has been made with PMO, DRTAC, and PMQAC and followed the design guideline, the minimum size of the sewer has been taken as 200 mm. Because of the use of smaller diameter sewer pipes, it is envisaged that the sewer cleaning machine will be used for cleaning the sewerage line.
47. The sewerage system follows the road/ foot trail in all places. The road centre line is followed for the positioning of sewer lines. The RCC Hume pipes having spigot and socket of class NP- 3 of minimum 200mm size will be used for sewer. The minimum size is enough at farthest/ start of sewer and is gradually increased to 350mm to reach sewerage to WWTP inlet/ location.
48. The pipe size has been designed to allow the estimated dry weather sewage flow within pipe quarter full. The minimum cover of the pipe has been maintained 1.0 m. Due to field topography and ground nature the cover is more than that in most of the places. Depending upon the road site condition, the average cover of pipe is 2.83m. In individual case, it is ranging from 1 m to 8.6 m.

Table 14: Summary of proposed sewer network

S.N.	Node				Pipe Dia	Depth of pipe	Excavation Depth, (m)		Max. excavation width (m)	Pipe Length (m)	Involuntary Resettlement Impact	Width of RoW existing road (m)	
		Location	From	To	D (m)	UP(From)	Maximum(m)	Minimum(m)				Max. (m)	Min. (m)
	WWTP-1												
1	Line 1 -2		0+000.00	0+335.67	0.25	2.23	4.68	1.37	150mm +Pipe size+150mm	335.67	None	4	3
2	Line 2-3-4-5		0+000.00	0+351.56	0.25	2.23	4.68	1.37	150mm +Pipe size+150mm	351.56	None	4	3
3	line 2'-4		0+00	0+45	0.2	2.23	4.68	1.37	150mm +Pipe size+150mm	45	None	2	2
4	Line 2-6-5		0+000.00	0+334.16	0.25	2.23	4.68	1.37	150mm +Pipe size+150mm	334.16	None	3.5	3
5	Line 5-7		0+000.00	0+274.47	0.3	2.23	4.68	1.37	150mm +Pipe size+150mm	274.47	None	3.5	3
6	Line 5-7	Partikhola , Area	0+000.00	0+214.77	0.25	2.23	4.68	1.37	150mm +Pipe size+150mm	214.77	None	3.5	3
7	Line 6-7		0+000.00	0+140.1	0.25	2.23	4.68	1.37	150mm +Pipe size+150mm	140.1	None	2.5	2
8	7-7'		0+000.00	0+20	0.3	2.23	4.68	1.37	150mm +Pipe size+150mm	20	None	5	4
9	Line 7-16'		0+000.00	0+293.7	0.35	2.23	4.68	1.37	150mm +Pipe size+150mm	293.7	None	4	2.5
10	Line 16-16'		0+000.00	0+126.4	0.25	2.23	4.68	1.37	150mm +Pipe size+150mm	126.4	None	4	4.5
11	Line 16- WWTP-1'		0+000.00	0+91	0.35	2.23	4.68	1.37	150mm +Pipe size+150mm	91	None	3.5	3
12	1-1A		Short section		0.2	2.23	4.68	1.37	150mm +Pipe size+150mm	35.00	None	3.5	3
13	1-1B		Short section		0.2	2.23	4.68	1.37	150mm +Pipe size+150mm	10.00	None	3.5	3
14	1-1C		Short section		0.2	2.23	4.68	1.37	150mm +Pipe size+150mm	20.00	None	4	2.5
15	6-6A		Short section		0.2	2.23	4.68	1.37	150mm +Pipe size+150mm	40.00	None	4	2.5
16	6-6B		Short section		0.2	2.23	4.68	1.37	150mm +Pipe size+150mm	20.00	None	4	2.5
	WWTP-2												
17	Line 7'-9-8-8'	Bhojpur Bazar	0+000.00	0+285	0.25	2.23	6.68	1.37	150mm +Pipe size+150mm	285	None	3	2.5
18	Line 10-8'	Buspark Area	0+000.00	0+181.14	0.25	2.23	6.68	1.37	150mm +Pipe size+150mm	181.14	None	4.5	3.5

S.N.	Node				Pipe Dia	Depth of pipe	Excavation Depth, (m)			Pipe Length (m)	Involuntary Resettlement Impact	Width of RoW existing road (m)	
		Location	From	To	D (m)	UP(From)	Maximum(m)	Minimum(m)	Max. excavation width (m)			Max. (m)	Min. (m)
19	Line 8'-11	Buspark Area	0+000.00	0+201.3	0.3	1.87	6.68	1.37	150mm +Pipe size+150mm	201.3	None	5	4.5
20	Line 14-15-9'		0+000.00	0+209.67	0.25	2.23	6.68	1.37	150mm +Pipe size+150mm	209.67	None	4	3.5
21	Line 9-9'-10-11		0+000.00	0+217.66	0.25	2.23	6.68	1.37	150mm +Pipe size+150mm	217.66	None	4	3.5
22	Line11-11'		0+00	0+342.03	0.35	2.23	6.68	1.37	150mm +Pipe size+150mm	342.03	None	6	4
23	Line 12-11'-wwtp-2		0+000.00	0+0290	0.35	2.23	6.68	1.37	150mm +Pipe size+150mm	290	None	3	3
24	12-12A		Short section	20.00	0.20	2.23	6.68	1.37	150mm +Pipe size+150mm	20.00	None	3	3
25	11-11A		Short section	20.00	0.20	2.23	6.68	1.37	150mm +Pipe size+150mm	20.00	None	3	5
26	10-10A		Short section	20.00	0.20	2.23	6.68	1.37	150mm +Pipe size+150mm	20.00	None	3	5
WWTP-3													
27	Line7'-14-12-13		0+000.00	0+230	0.25	1.99	5	1.4	150mm +Pipe size+150mm	230	None	4.5	3.5
28	Line 7'-14-12-13		0+230	0+733.42	0.3	1.99	5	1.4	150mm +Pipe size+150mm	503.42	None	4	3.5
29	Line 7'-14-12-13		0+733.42	1+523.65	0.35	1.99	5	1.4	150mm +Pipe size+150mm	790.23	None	4.2	3.5
30	Line 13-wwtp-3		0+00	0+320	0.35	1.99	5	1.4	150mm +Pipe size+150mm	320	None	4	3.5
31	7-7A		Short section		0.20	1.99	5	1.4	150mm +Pipe size+150mm	20.00	None	4	3.5
32	12-12A		Short section		0.20	1.99	5	1.4	150mm +Pipe size+150mm	20.00	None	4	3.5
33	12-12B		Short section		0.20	1.99	5	1.4	150mm +Pipe size+150mm	20.00	None	4	3.5

Note: No IR impacts anticipated as the sewer line is designed within the existing road RoW and there are no structures or formal/informal users on the RoW.

iii. Manholes and Sewerage Inlet Chamber

49. The manhole is designed for heavy load and light load traffic/ pedestrian traffic condition. Circular brick masonry manholes with CI cover have been proposed which will have inside plaster to prevent the leakage and provide smooth flow. Depending upon the size of sewer 1.20 m dia brick manhole has been design for a depth upto 2.0 m and 1.50 m dia brick manhole has been designed for depth between 2.0m to 2.50 m. There will be about 59 brick masonry manholes in the whole system. The RCC rectangular manhole with CI cover and is designed for a depth 2.5m to 4.5m. The size of RCC manhole 1.4m x1.4m has been adopted for all depth. The size of manhole is taken some more to make ease for future operation and maintenance of the sewer system. The RCC manholes are designed for light load traffic. There will be about 111 number of RCC manhole in the whole system.
50. At the joint of brick masonry wall of manhole and pipe connection from house hold connection chamber, the water stops are not used in practice in our case. Hence, the cement mortar will be fully packed surrounding the HDPE pipe to avoid the water leakage from wall and pipe joint into sewer line.
51. The standard manhole covers are provisioned for sewer. The standard water tight manholes with proper frame avoid leaking the smell from sewer. For household collection chamber, the precast slab has been provisioned.
52. The spacing of manhole has been kept 30- 40 m apart, at each drop and each road junction. The two HH connection chamber has been provisioned at each side of road of each Manhole, depending upon the site requirement. There will be 3, 4 or 7 household sewer connection arrangement at each chamber. There will be one or two chambers on either side of the manhole depending upon the household number situated/ scattered at each side. These two to four chambers will be connected to the manhole to receive the household sewer. The HDPE pipe having pressure 10kgf of 200mm and 160mm diameter will be connected from each inlet/ collection chamber to the nearest manhole. This arrangement will decrease frequent road cutting to connect the household sewerage in to the manhole after completion of the project.
53. RCC inlets chamber will have precast cover slab. The size of chambers is 1.05m x0.75m x1.05m; 0.75mx 0.75m x 1.05m and 0.6m x 0.6m x 1.05m for light traffic road. This chamber will receive house sewerage and allow to main sewer. The slope of pipe from chamber to manhole shall be a range of 1in 40 to 1 in 80. Provision has been made to connect the individual household sewer. Each house shall connect the sewer pipe in the chamber at their own cost and make leak free from the joints. The position of road manholes has been arranged to ensure HDPE pipes connecting in the direction of the sewer flow to avoid water disturbance inside the manhole. The chamber will leave a hole of diameter 120 mm to insert the individual house sewer of 110 mm diameter. The new connection should be done after taking permission of the municipality.

iv. Sewer Connection Chamber

54. The depth of manhole is more than 4.5 to 5 m in some area. It would be difficult to construct the manhole for greater depth. To overcome such difficulties, two RCC chamber of each 0.65m x0.65mx1.05m will be constructed at top (ie outlet of sewer hume pipe) & bottom (ie inlet of sewer hume pipe) and HDPE having 6 kg pressure pipe will be connected in between instead of concrete hume pipe. This length would be short and care is not taken to maintain limiting velocity due to site situation. Hume pipe cannot be retained at its position due to weight and ground slope. There will be about 138 chambers in the system. The chamber has been designed for light traffic load.

v. Outfall/ Outlet

55. The outlet of the sewerage system will be the inlet of the WWTP. In total, there are 3 Outlets for the proposed sewerage system. Each WWTP site will have one outlet/ inlet chamber. Accordingly, WWTPs have been designed for 2.5, 2.8, 3.5 lps flow and treat the sewerage at WWTP 1, 2 and 3 respectively. After treatment, the treated water will allow to the natural drainage nearby. People can use the treated water to field as well.

vi. Black Top/ PCC/RCC Road Cutting and Reinstatement Works

56. Since, the sewerage line will be laid at the centreline of the road, frequent road surface cutting is required during implementation. The project has all types of roads such as black top, RCC, PCC, gravel based and earthen. The road is narrow and the width is about 4-6 m width. Hence, the full width of the road shall be reinstated to its original condition after laying the pipe. Hence, necessary cost estimation has been included in project scope. The asphalt road cutting will be about 2500 m, gravel road 700 m, RCC or PCC 1200 m, stone soling 1000 m and remaining length is earthen surface.

vii. Decentralized Wastewater Treatment System

57. In total, there are 3 WWTPs for the proposed sewer system that includes WWTP-1, WWTP-2 & WWTP-3. Here, as per the design report, WWTP-1, WWTP-2 & WWTP-3 will receive 2.5 lps, 2.8 lps & 3.5 lps flow respectively and treat the sewerage accordingly.

58. The arrangement of this treatment system is shown below:

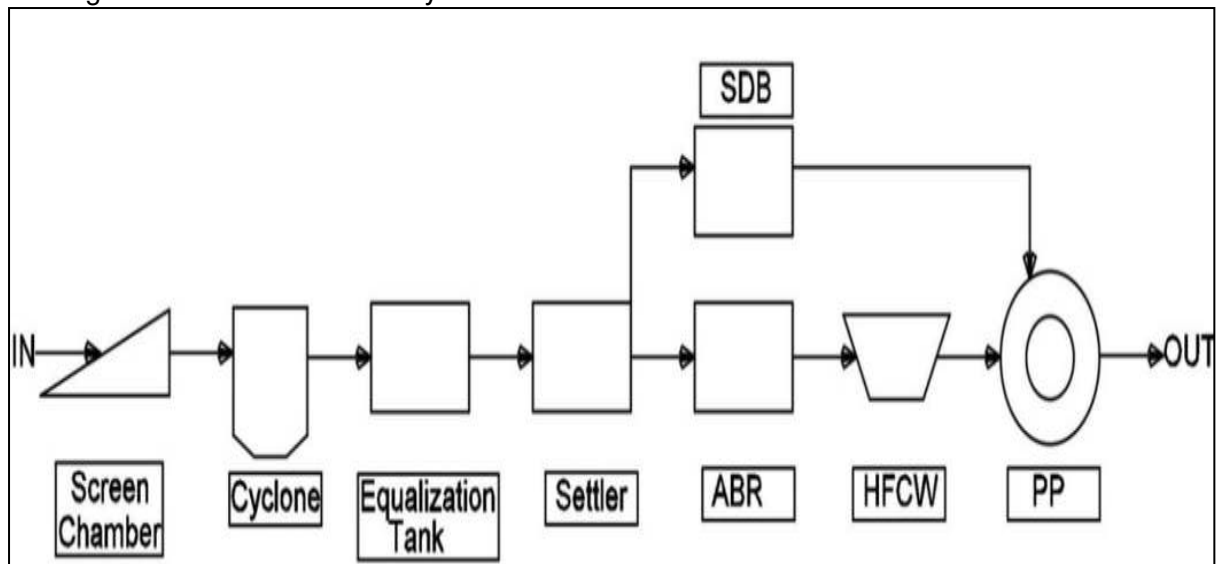


Figure 4: Treatment System

1. The system configuration for the proposed DEWAT is as shown in figure below:

System Configuration

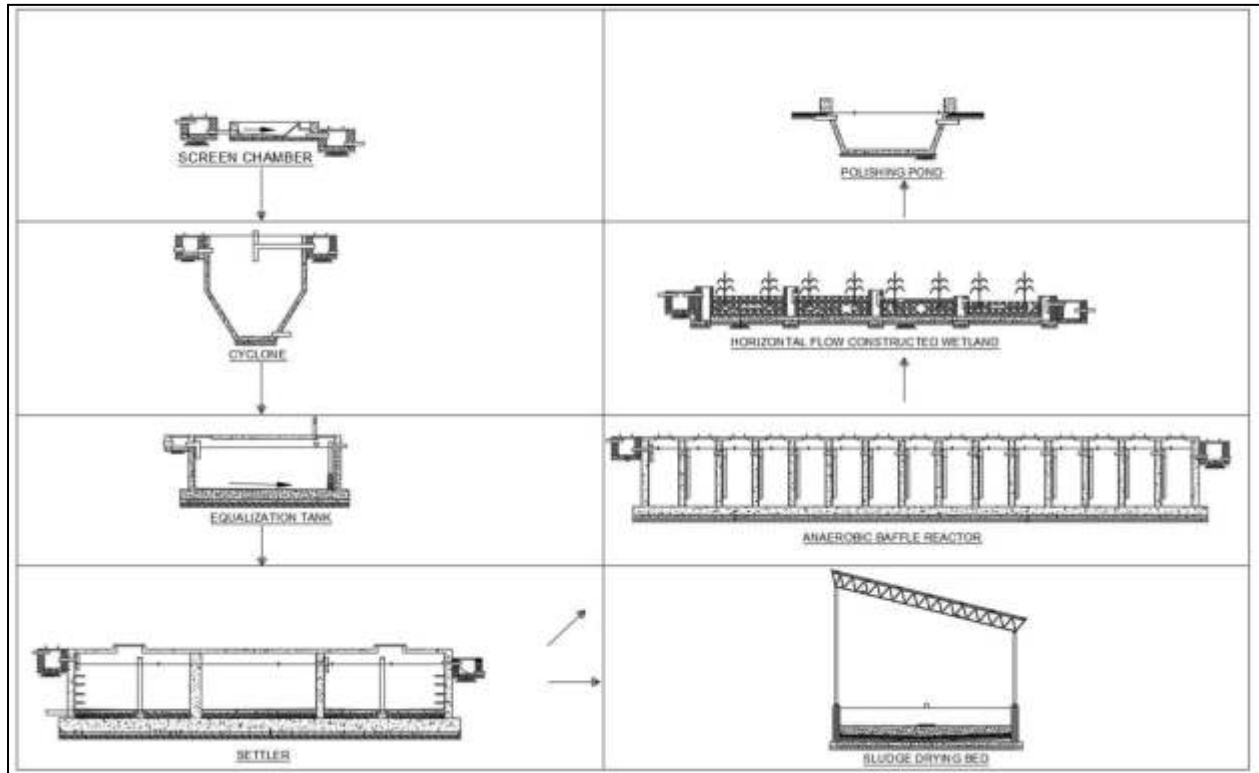


Figure 5: DEWATS System Configuration

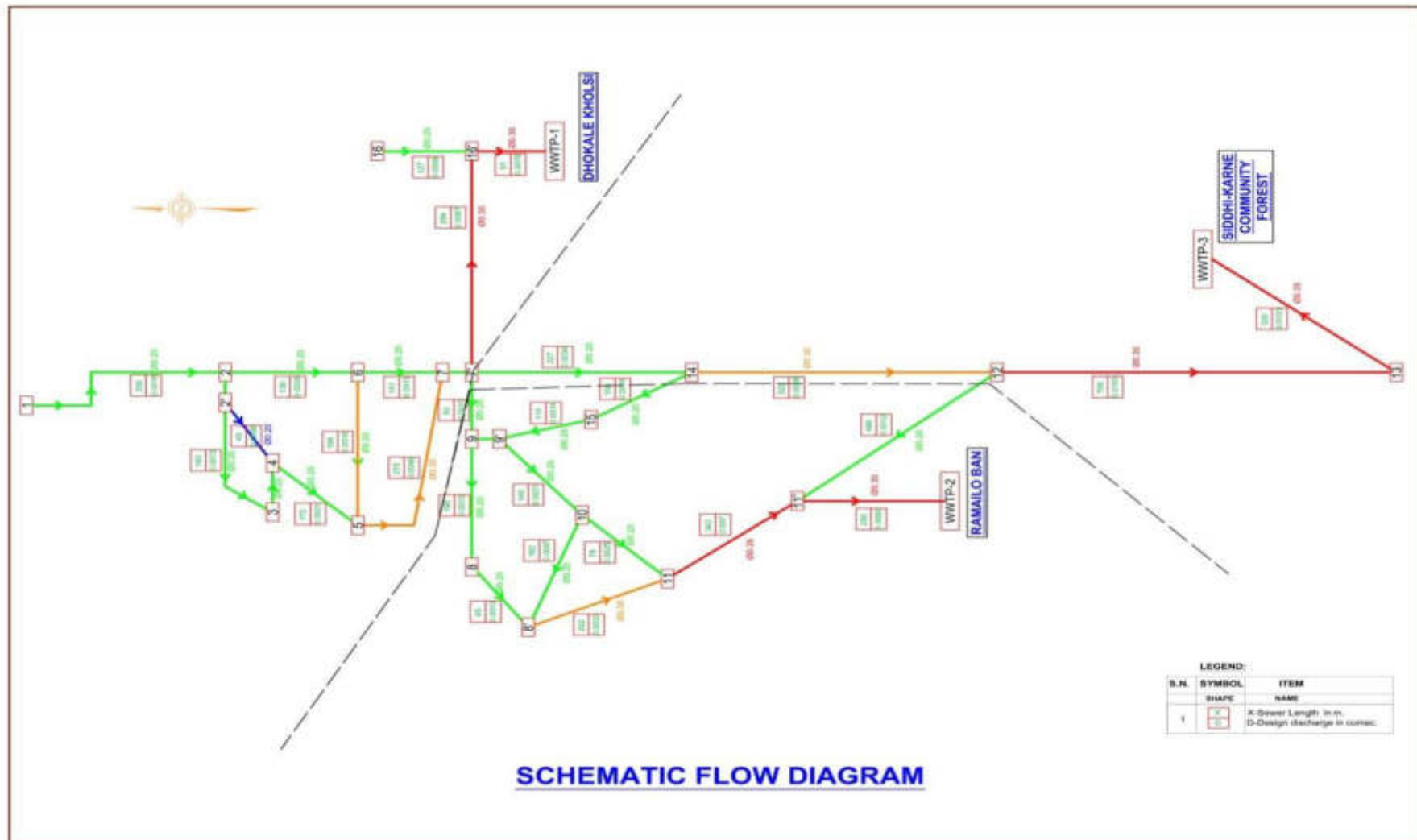


Figure 6: Schematic Layout of Bhojpur Sewerage (DEWATS) System

a) WWTP-1

59. The sludge storage yard is placed for storage of the dried sludge from SDB. The water in the polishing pond can be reused for gardening and flushing of water closet. Permissions for flushing the water in the polishing pond to the river/stream is not practiced till date. If the treated water complies Nepal Government standard, then there will not be problem in discharging the final effluent into govt. owned property ensuring any adverse impacts will not occur to the nearby community. This has been discussed at site and Municipality has given verbal permission on it. The river/ stream is under government jurisdiction. Local authority/ Municipality can take decision in it.
60. The net footprint area covered by the DEWATS structures and staff quarter (Guard house) for caretaker of the treatment plant is 906.18 m². Other area is assigned for pipe lines and landscaping works. The flow bypass pipeline is also provided for diverting excess inflow of waste water to treatment plant. The boundary of treatment plant is placed with barbed wire fence and there is separate entrance gate for vehicle and pedestrian to enter inside the treatment plant. The layout plan and flow diagram of the WWTP-1 is shown below:

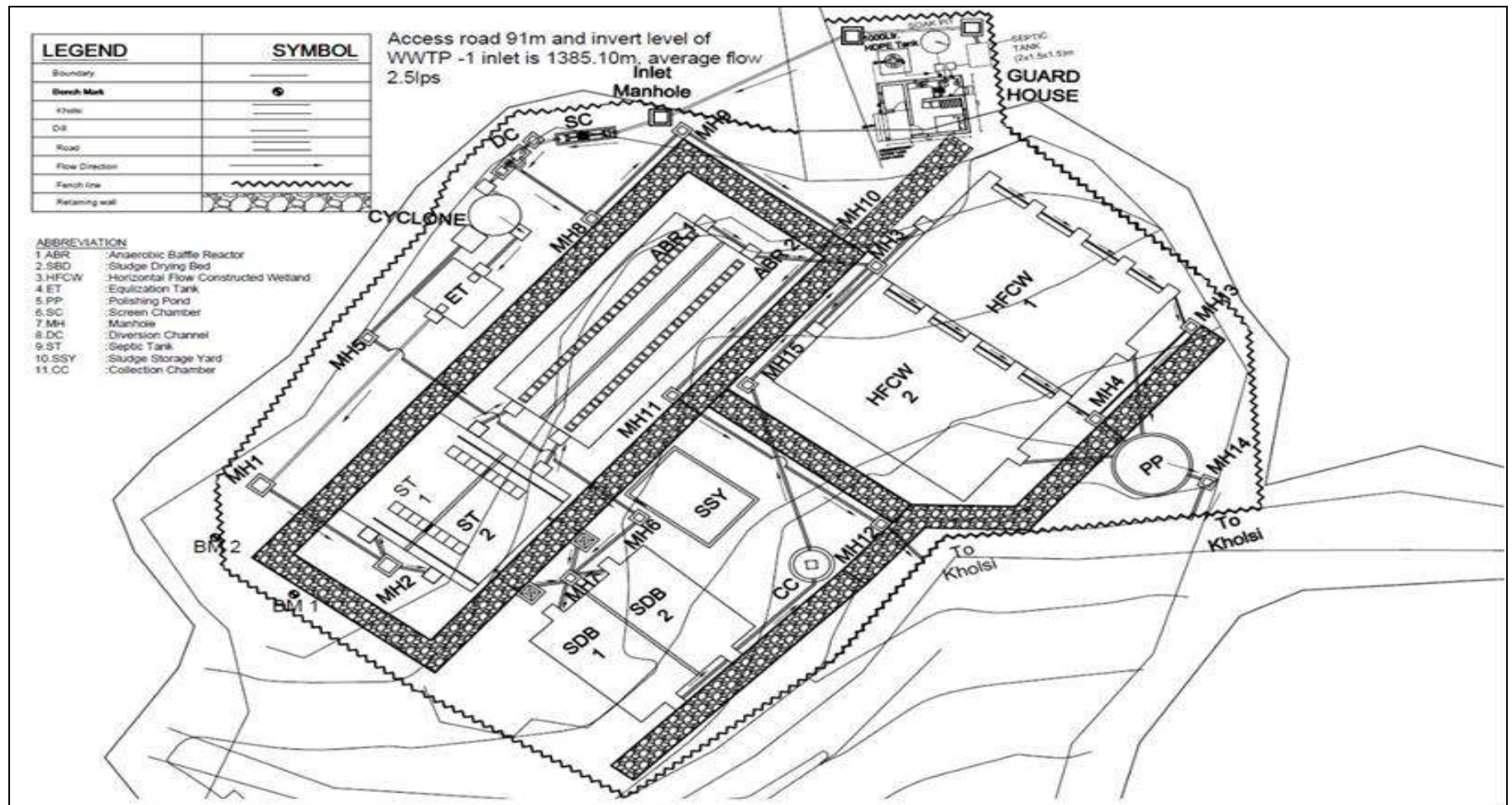


Figure 7: Layout plan of the Proposed WWTP-1 (2.5 lps)

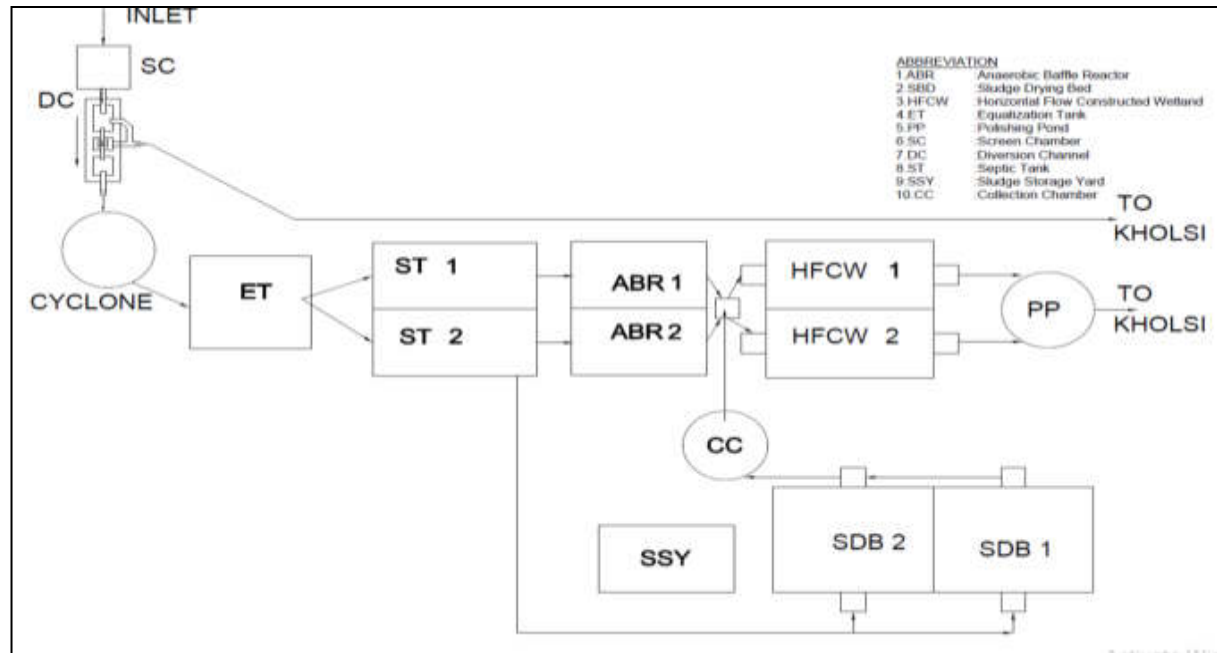


Figure 8: Flow Diagram of the Proposed WWTP-1 (2.5 Ips)

b) WWTP-2

61. The sludge storage yard is placed for storage of the dried sludge from SDB. There is 1 unit of polishing pond. The effluent from polishing pond is disposed to nearest natural drain. The net footprint area covered by the DEWATS structure and lab building is 938.41 m². Other area is assigned for pipe lines and landscaping works. The boundary of treatment plant is placed with barbed wire fence and there is separate entrance gate for vehicle and pedestrian to enter inside the treatment plant. The layout plan and flow diagram of WWTP-2 is shown below:

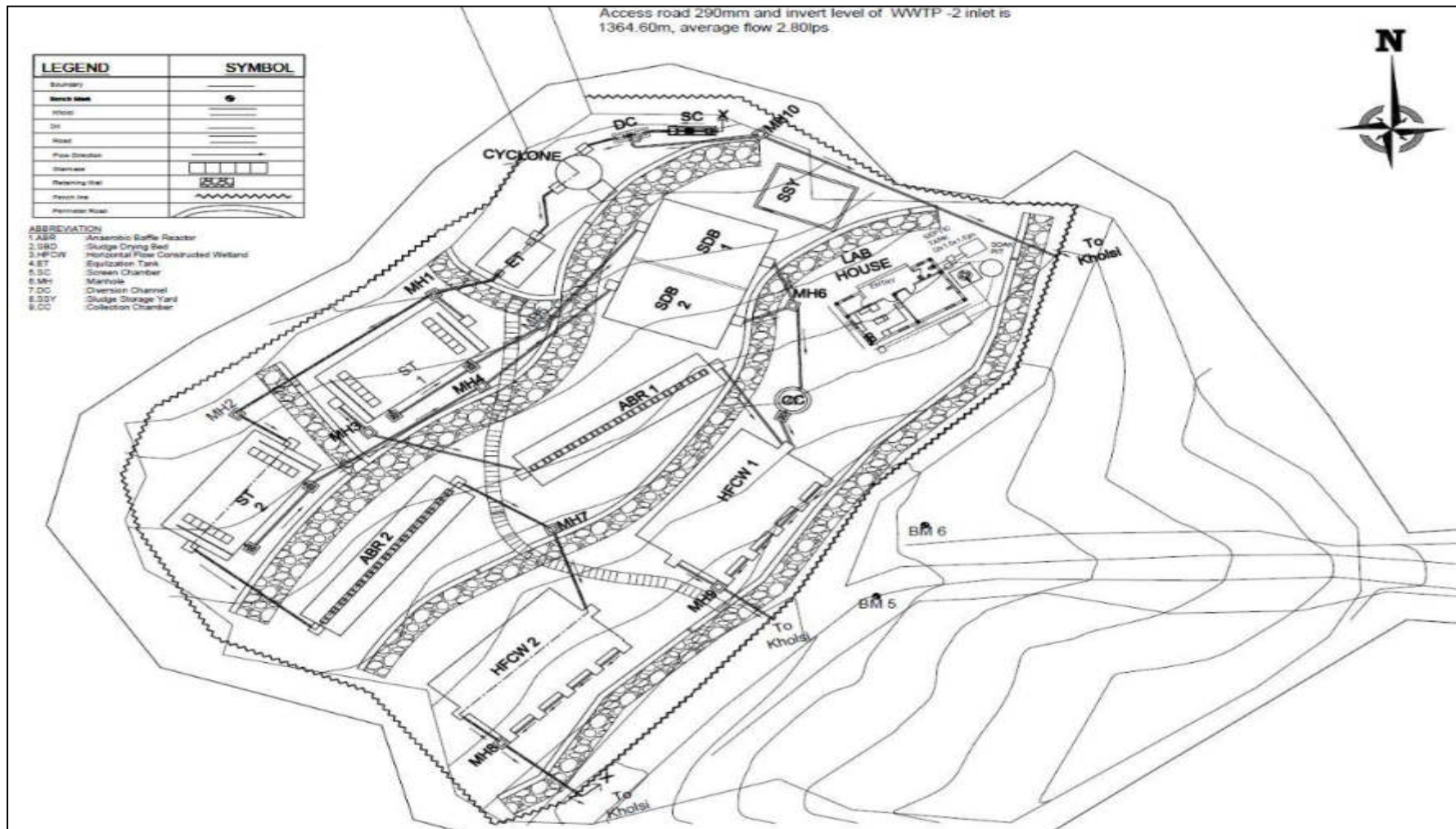


Figure 9: Layout plan of the Proposed WWTP-2 (2.8 lps)

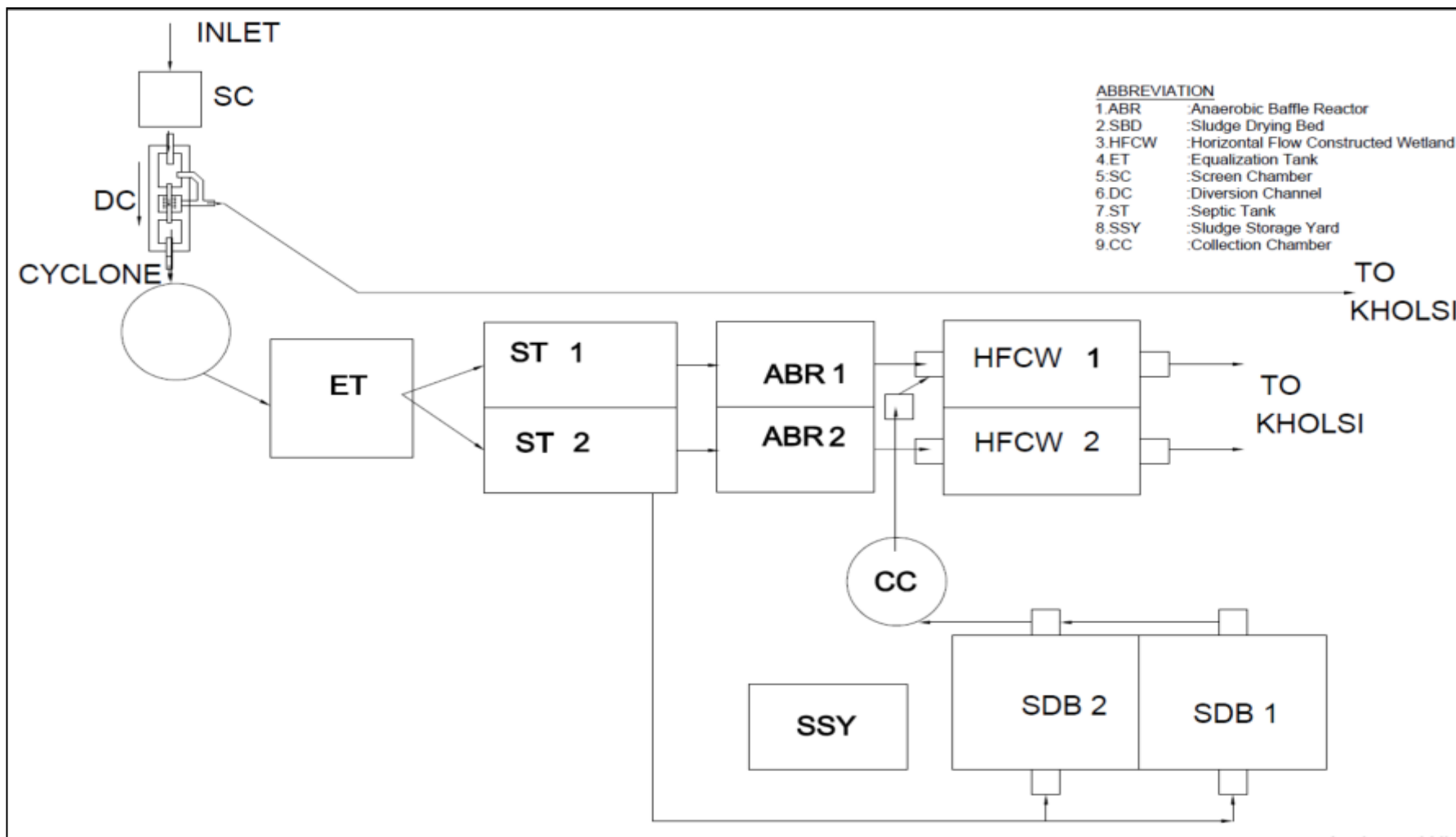


Figure 10: Flow Diagram of the Proposed WWTP-2 (2.8 Ips)

c) WWTP-3

62. The sludge storage yard is placed for storage of the dried sludge from SDB. There are two units of polishing pond. The effluent from polishing pond is disposed to nearest natural drain. The net footprint area covered by the DEWATS structure and lab building is 1285.35 m². Other area is assigned for pipe lines and landscaping works. The boundary of treatment plant is placed with barbed wire fence and there is separate entrance gate for vehicle and pedestrian to enter inside the treatment plant. The layout plan and flow diagram of WWTP-3 is shown below:

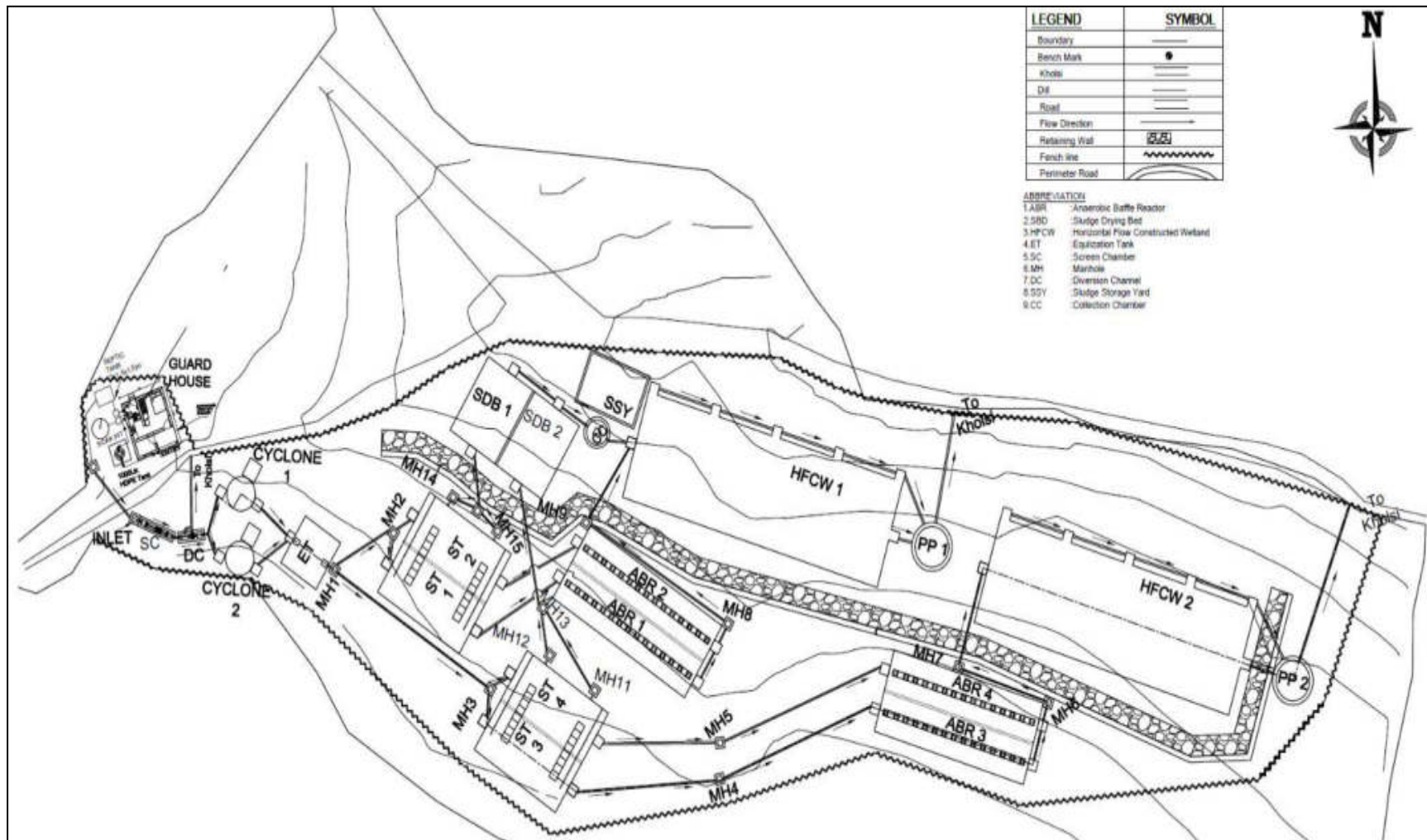


Figure 11: Layout plan of the Proposed WWTP-3 (3.5 Ips)

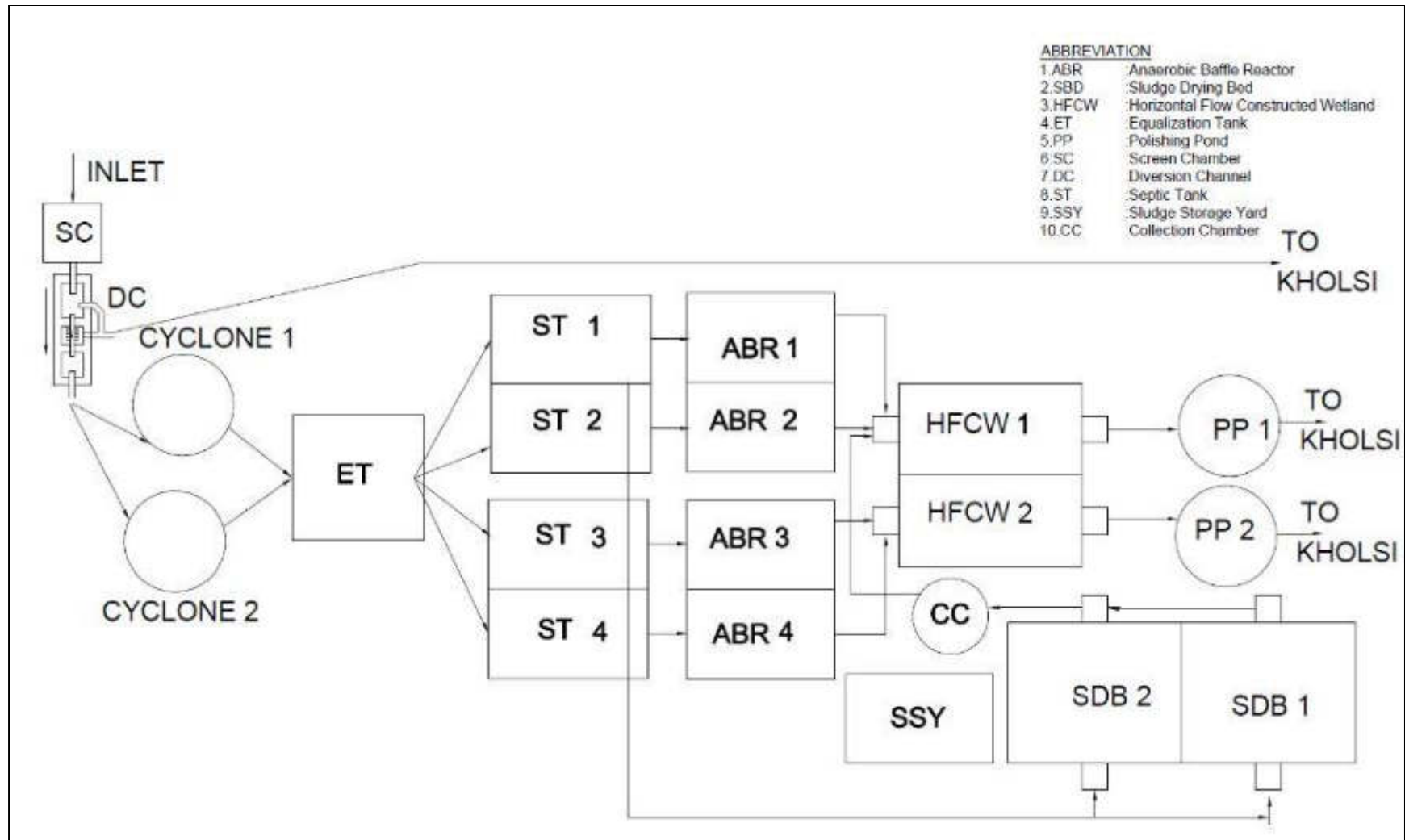


Figure 12: Flow Diagram of the Proposed WWTP-3 (3.5 Ips)

2. The overall sewerage networks along with the location of the proposed WWTPs are shown in the figure given below.

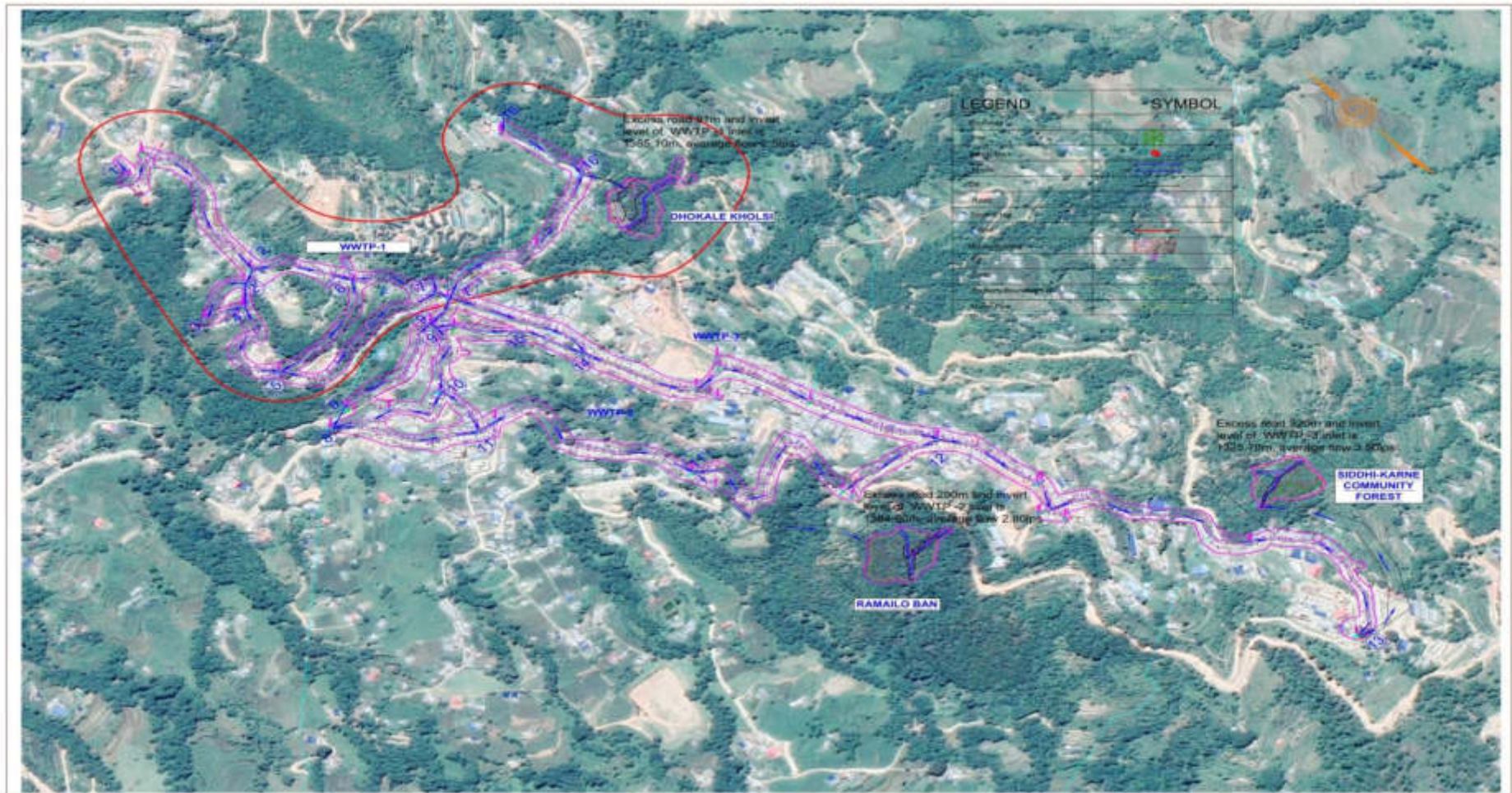


Figure 13: Overall Sewerage Network Plan

xviii. Basic Data Requirements for Conveyance System

63. For the purpose of detailed engineering design of wastewater system to be proposed some basic data are required such as design population in the service area, sewage quantity, sewage quality and required effluent quality besides wastewater temperature throughout the year, other parameters related to wastewater produced, sanitation habit of the people, road and drainage conditions, land availability for Wastewater Treatment Plant (WWTP) etc. some of them are discussed as follows:

a) Design Population

64. The design population for the wastewater system of the proposed service area has been calculated based upon the existing population, new households added in the proposed service area. Accordingly, total number of houses are determined and multiplied with household size to obtain the population of survey year, 2019. The average house hold size is based upon the social survey. The major area for DEWATS lies in the core bazaar system. Hence, the growth rate of 2.0% is taken same as water supply design for the determination of the design population of sewerage system and WWTP. The design year is taken, 2038 same as water supply because no water will be augmented in the new system in the near future.

65. The population estimation has been estimated for different DEWATS, waste water treatment plant systems i.e. WWTP-1 at Dhokale kholsi (sewer outlet for WWTP-1), WWTP-2 at Ramailoban (sewer outlet for WWTP-2) and WWTP-3 at Siddhikarne Community Forest (sewer outlet for WWTP-3). Each sub-system comprises single inlet for WWTP.

66. Domestic Demand: For the purpose of design, the per capita water consumption was assumed at each line with the design of the on-going implementation of Bhojpur Water Supply System under Third Small Town Water Supply and Sanitation Sector Project i.e. 100 lpcd.

67. Water demand of institutional/ Commercial Water Demand: This covers the water demand for the school, colleges, government and non-government offices etc comes under this category. The 10% of the domestic demand has been taken for the purpose of institutional demand.

68. Hotel Demand: The project area lies in district head quarter. Bhojpur town is trekking place due to hill station. Several numbers of hotels are being operated at the service area. During trekking season, almost all hotels will be occupied by guests. During that period, the sewage flow at the sewer will be high. The daily water consumption at the hotel bed is taken as 200 litres per bed and hotels staff is taken as 100 litres per capita, while calculating the flow. The beneficiary household and population of the sewerage (DEWATS) project are provided IN Table-15.

Table 26: Beneficiaries households

Site	Present Ward Number of Bhojpur Municipality	Former Ward Number of Bhojpur Municipality	HHs	Total Population, 2019
WWTP-1 (at Dhokale Kholsi)	Partial area of 7,8	Partial area of 6,7	241	1367
WWTP-2(Ramailo Ban)	Partial area of 7,9	Partial area of 7,5	239	1353
WWTP-3(at Siddhikarne Community Forest)	Partial area of 9, 12	Partial area of 5, 9	291	1650
		Total	771	4370

Source: Based on Socio economic survey 2016 and Google map verification

69. Due to site topography, there will be three WWTP sites for the treatment of the waste water. Each sub system will have its own service area. Based on this the independent

service area, the flow at each WWTP has been determined and the design of WWTP has been carried out accordingly. The Table-16 provides the designed flow at each WWTP.

Table 16: Summary of sewerage (DEWATS) designed discharge and population

S. N.	Description	HH Nos.	Pop ⁿ	Design Pop ⁿ	Total of Domestic, non-domestic & hotel demand, lpd	Infiltration 15% of dom, non-dom & hotel demand, lpd	Av. DWF 80% of Total, lps	Peak factor	Peak demand for Sewer design, lps	Sewer Designed discharge, cum sec	Designed discharge for WWTP, lps	Adopt design discharge of WWT, lps
1	WWTP-1 (Dhokale Kholsi-current ward)	241	1367	1993	226730	226730	2.41	3	7.24	0.0075	2.50	2..50
2	WWTP-2 (Ramailo Ban- current ward 7)	239	1353	1970	250200	250200	2.66	3	7.99	0.0082	2.73	2.80
3	WWTP-3 (Siddhikarne C.F current ward 7& 12)	291	1650	2404	322140	322140	3.43	3	10.29	0.0103	3.4333	3.50
	Total	771	4370	6367	799070	799070	8.50		25.52	0.026	8.66	8.80

Source: DEDR, Bhojpur DEWATS Project, 2021

b) Average Per Capita Water Consumption

70. For the purpose of design the per capita water consumption was assumed in line with that of the data taken for calculation and design of the under implementation Bhojpur Urban Water supply System under UWSSP i.e. 100 lpcd. Water demand of institutional/ Commercial Water Demand.
71. This covers the demand for school, colleges, government and non government offices etc. comes under this category. The 10% of the domestic water demand has been taken for the purpose of institutional demand.
72. Hotel Demand: Bhojpur town is a famous tourist destination. Several numbers of hotels are being operated at the service area. During tourist season, almost all hotels will be occupied by guests. During that period, the sewerage flow at the sewer will be high. The daily water consumption at the hotel bed is taken as 200 litre bed and hotels staff is taken as 100 litre per capita, while calculating the flow.

c) Return Factor

73. This defines the percentage of total water consumption that will be discharged as the wastewater. It is often assumed 80% or 85%, although there are indications that lower return factors may be appropriate in some areas. The wastewater flow from an area will be equal to the water consumption in the area multiplied by the return factor. The return factor for the proposed wastewater system has been taken as 80%. This flow is called dry weather flow (DWF).

d) Peak Wastewater Flow Factor

74. This is required elucidate variation of wastewater flow rate. During the daytime, when people get up in the morning, it reached the peak and fall to almost nothing during the night. The peak flow in any wastewater line can be taken as the average flow in that wastewater line multiplied by the peak factor. Peak factors tend to decrease as the population contributing to the flow increases. The peak factor of 3.0 has been taken for the design of the proposed wastewater system. This peak factor will cater the size of the sewer during maximum water consumption.

e) Allowance for Storm water

75. As the most of the major roads have roadside drain in the municipality and numerous natural river, stream and rivulets (Nalas) are readily found in the municipality, storm water drainage problem would not be that significant as wastewater. In addition to that, the cross gradient of land is steep enough to minimize storm water problem. Therefore, any allowance for storm water has not been allowed into the sewerage system. The sewerage system is designed as separate sewer system. It is envisaged that municipality will apply the rule and discourage the people to join the storm water into the sewerage system.

f) Groundwater Infiltration

76. This needs to be considered when some wastewater lines are laid below the groundwater-table. However, laying wastewater lines below the groundwater table should be avoided wherever possible.

77. During rainy season, the ground water table would be quite above in sewer laying area. Some water may enter into the sewer from where there is leakage in the sewerage system, household collection chamber or manhole. This should be considered in the design. Hence, 15% of the DWF has been added as infiltration to determine the final sewerage in respective drain. However, laying wastewater lines below the groundwater table may occur and is taken as 15% of the total of domestic and institutional demand as infiltration.

g) Quantity of Wastewater/ Sewage

78. The consumption of water has been taken, as per the discussion made above, to be 100 lpcd and 80% of it has been assumed as return factor. The layout system plan of wastewater coverage area has been separated into different zones in terms of wastewater lines, and the contribution of will have three major trunk wastewater lines.

- Water supply = 100 lpcd
- Institutional demand = 10% of domestic demand & Hotel demand additional added

79. Using the parameters mentioned above to sum up the sewage quantity, the design flow for the various lines have been as follows:

- WWTP – 1 = 2.50 lps (adopt 2.5lps)
- WWTP – 2 = 2.733 lps (adopt 2.80 lps)
- WWTP – 3 = 3.43 lps (adopt 3.50 lps)

80. The total 8.80 lps wastewater will be generated daily at Bhojpur town and will be treated at three different locations.

xix. Land Requirement for the proposed components of DEWATS

81. The land requirement for the proposed components of DEWATS is tabulated below:

Table 17: Land Requirement Details

S.No.	Description	WWTP-1		WWTP-2		WWTP-3	
		Nos.	Foot Print (Sq. m.)	Nos.	Foot Print (Sq. m.)	Nos.	Foot Print (Sq. m.)
1	Screen Chamber	1	4.15	1	4.15	1	4.31
2	Cyclone with DI valve chamber	1	8.13	1	14.35	2	17.51
3	Equalization Tank	1	19.36	1	23.40	1	26.46
	Septic Tank	2	125.31	2	191.10	4	122.01
5	Anaerobic Baffle Reactor (ABR)	2	170.34	2	168.69	4	214.17

S.No.	Description	WWTP-1		WWTP-2		WWTP-3	
		Nos.	Foot Print (Sq. m.)	Nos.	Foot Print (Sq. m.)	Nos.	Foot Print (Sq. m.)
6	Horizontal Flow Constructed Wetlands (HFCW)	2	345.18	2	272.18	2	673.55
7	Polishing Pond (PP)	1	27.79	-	-	2	36.17
8	Sludge Drying Bed (SDB)	2	123.90	2	156.14	2	110.31
9	Staff Quarter (Guard House)	1	29.29	-	-	1	29.29
10	Wastewater Lab	-	-	1	56.84	-	-
11	Bypass (Diversion channel)	1	3.30	1	3.30	1	3.31
12	Sludge Storage Yard	1	41.90	1	40.73	1	40.73
13	Collection Tank	1	7.53	1	7.53	1	7.53
Total Area			906.18		938.41		1285.35

Source: DEDR, Bhojpur DEWATS Project, 2020

IV. FIELD WORK: SURVEYS AND PUBLIC CONSULTATIONS

A. Outline of Field Work

82. The following methodologies were adopted for undertaking the Resettlement Due Diligence.

83. **Desk review:** This was an important step adopted for the study. Relevant reports and documents available at PMO/DWSSM, ERPMO, WUSC office and reports prepared by ERDSMC such as Detailed Engineering Design Report, Minutes of meeting and documents as well as ADB Safeguard Policy 2009 are the main reports and documents reviewed in order to assess the land acquisition requirement and level of likely impact. The following are the main reports and documents reviewed for the study.

- Detailed Engineering Design Report,
- WUSC minutes and documents
- ADB Safeguard Policy

84. **Field Visit:** Field visits to the project site and major settlements/clusters in the service area were made since initial stage of project preparation. Direct observations and interactions with local beneficiaries, likely affected people, WUSC members and the Municipality Mayor were carried out during field visits. Reconnaissance surveys were conducted along proposed/accessible sewer drainage alignments to identify the need for surveys and inventories. In December 2020, field inspection of proposed DEWATS locations and sewerage drainage pipeline alignments that had been identified was undertaken. This included field visit to the identified sites and alignments, and stakeholder consultations. Field visits to all proposed DEWATS sites and outlets area Dhokale Kholi, Ramailo Ban and Siddhikarne Ban area, manhole locations and consultations with stakeholders were conducted to confirm outlet area and ownership of public land and use, the need for surveys and further consultations. Consultations were conducted with local people and concerned stakeholders to get their views about the proposed DEWATS project and the outlets. Available no objection letter or land-related documents for land use from municipality/community forest user committee were also collected during fieldwork.

85. On 28 December 2020, field visit and meeting with municipality mayor, WUC chairman, local residents, ward chairpersons of ward no. 7 and ward no. 8, elected ward member of ward no. 9 & 12 was carried out for finalization of outlet area and its use. Transect walk was conducted along the main sewerage line alignments, outlet areas, Manholes & Sewer Inlet Chamber point and Sewer Connection Chamber construction point in Bazaar area together with WUSC chairman, members, local government representatives, committee member and engineer of municipal sanitation system of Bhojpur Municipality. DEWATS locations and documentation on use of public or natural kholsi (Rivulet) for outfall was verified. It is confirmed that main outlet of sewer line in DEWATS are located in ward no 7, 8 and 12 of Bhojpur municipality. Sewer line will be constructed within the Right of the Way (RoW) of Government roads, and DEWATS are proposed on public land which is under the jurisdiction of Bhojpur Municipality. The Municipality has given a consent letter for this work.

B. Public Consultation

86. Consultation meetings were undertaken with key stakeholders in line with ADB's requirements pertaining to the environment and social safeguard considerations during the planning, initiation and feasibility study phase. Tools used for consultation were stakeholder meetings and interviews. During project preparation, two formal stakeholder meetings or orientation were held with 78 persons in Bhojpur DEWATS project (Mayor/Deputy Mayor, Chief District officer, executive officer of Municipality and WUSC chairman and representative of main WUSC body). Discussions, interactions and

interviews of local beneficiaries were held within proposed project sites of Bhojpur Municipality to understand their key concerns related to the project. The approach, financial modality (contribution of 15% by local government/municipality and 85% grants by government), role and responsibility of stakeholders, were disseminated. The details of field visit and consultations are presented in Table-8.

Table 18: Summary of Public Consultations Carried Out by Consultants Team

S. N.	Date	Location	No. of Participants	Participants	Topics Discussed	Issues Raised
1	26th April, 2021	Bhojpur Municipality Meeting Hall	33 Male –27 Female -6	Mayor, RPMO, PMQAC, ERDSMC, WUSC and local user and other Government official.	Public hearing programme at field level. Discussion on environmental studies. Discussion on necessary land management plan and dried sludge management plan. Discussion on reuse of treated waste water. Discussion and Presentation on DEDR.	Business plan for selling by-product of waste material or sludge. Possibilities of Environmental Pollution. Use of processed water from Polishing Pond for irrigation purposes Possibilities of Odour Nuisance to the surrounding areas because of malfunctioning of WWTPs, if any. Responsibilities of O&M Minutes of meeting are attached in Appendix-2a
2	26th April, 2021	WUSC office Bhojpur	28 Male-20 Female-8	RPMO, WUSC , Ward chairman, local user, adviser/ member of community forest and user	Implementation of OBA, construction of BPT, In regard to tap connection at consumer's household, Design and environmental & social aspects and implementation of hSCADA.	The service area may extend on other wards. The processed water can be used by other ward as irrigation purposed except service area. Minutes of meeting are attached in Appendix-2b
3	Dec 28, 2020	Bhojpur Municipality meeting hall	21 (Male:20, Female:1)	Mayor, Chief District Officer, PMO, RPMO, PMQAC, ERDSMC, WUSC and local user.	Discussion regarding DEWATS including land requirement for the treatment systems, site visit. Discussions regarding the likely impacts on the environmental & social aspects from the land used for DEWATS and other project activities.	Land requirement and responsibility to make land available. Business plan for selling by-product of waste material or sludge. Possibilities of Environmental Pollution. Use of processed water from Polishing Pond for irrigation purposes Possibilities of Odour Nuisance to the surrounding areas because of malfunctioning of WWTPs, if any. Minutes of meeting are attached in Appendix-2c

4	17-18, June 2019	Bhojpur Bazar Chamber and commerce committee meeting hall.	57, Male:50, Female:7)	Mayor, Deputy Mayor, PMO, RPMO, PMQAC, ERDSMC, WUSC and local user.	Two days orientation and information dissemination about the Water supply and DEWATS project.	Overall discussion and Information sharing about the project role and responsibility of WUSC and Local user. Financial modality (contribution of 15% by local government/municipality and 85% grants by government), role and responsibility of stakeholders. Consultation participants name list is attached in Appendix-2d
---	------------------	--	------------------------	---	---	---

V. LAND AVAILABILITY, INVOLUNTARY RESETTLEMENT AND INDIGENOUS PEOPLE IMPACTS

A. Findings

87. Bhojpur DEWATS subproject has been conceptualized as an integrated and decentralised wastewater treatment system. The proposed sewer drainage will be constructed within encumbrance free right of way (ROW) centreline of the public (government or municipal) road. There is no requirement of acquisition of private land. Considering the topography, land use, settlement pattern and use of existing facilities; WWTP-1 is proposed on public barren land Dhokale kholsi at ward no 8 of Bhojpur Municipality, WWTP -2 is proposed on land under community forest (Ramailo Ban Community Forest) at Ramailo Ban area ward no. 7 of Bhojpur municipality and WWTP-3 has been proposed on Siddhikarne Ban area at ward no 7 and 12 boundary. No relocation impacts or impacts on structures are anticipated at any of the identified sites or alignments for drainage proposed in Bhojpur DEWATS. Potential temporary access disruptions for shops and residences will be avoided. The following components have been proposed for the entire Bhojpur DEWATS project. For the construction of different components/structures of the subproject lands are required at three different sites. Details of location and summary of resettlement impacts of proposed components are as shown in the Table-28.
88. The WWTP-1 treatment plant is proposed in vacant government land at Dhokale Kholsi (Rivulet), ward number 8. There are no structures, cultivation or in use by non-titleholders. No involuntary resettlement impacts are anticipated. There is no settlement near the proposed DEWAT treatment plant. The Municipality Ward office of Ward no. 8 has granted written permission to build the WWTP-1 at the proposed location. The Bhojpur Municipality has given consent letter to discharge treated water (effluent of DEWAT) in Dokale Kholsi (Rivulet). The consent letter is attached in **Appendix 1a and 1e**.
89. The proposed WWTP-2 plant land is located at Ramailo Ban Community Forest area in ward no 7 of Bhojpur Municipality. There are no permanent or temporary structures, agricultural cultivation or non-titled use at the site. Bhojpur Municipality has granted written permission to build the DEWAT treatment plant at Ramailo Ban area. There is no settlement near the proposed DEWAT plant. The treated effluent will be released into Dipeni Kholsi (Rivulet). The consent letter is attached in **Appendix 1a, 1d and 1f**.
90. Likewise, the proposed WWTP-3 plant land at Siddhikarne Ban Community Forest area is located in ward no 7 & 12 of Bhojpur Municipality. There are no permanent or temporary structures, agricultural cultivation or non-titled use at the site. Bhojpur Municipality has granted written permission to build the DEWAT treatment plant at Siddhikarne Ban area. There is no settlement near the proposed DEWAT plant. The treated effluent will be released into local Kholsi (Rivulet). The consent letter is attached in **Appendix 1c and 1g**.
91. Land available for construction of new components of the proposed DEWAT system is on government-owned land, community forest land and or right-of-way of the road thus, the project does not require additional land acquisition. The net footprint area covered by the DEWATS structures, office building and guardhouses for caretaker of the treatment plants are 906.18 sq. m at Dhokale Kholsi site, 938.41sq. m at Ramailo Ban area and 1285.35 sq. m at Siddhikarne Ban area. Remaining areas are will be used for pipelines and landscaping works. No livelihood and income related impacts are anticipated on DEWATS construction sites. Relocation or loss of structures or livelihood loss is not anticipated.
92. The sewerage is designed to lay the pipes at road centre and other associated structures within the right of way of the road. Mostly, main sewer will be laid at the centre of the road. There is about 1-1.5 m footpath on either side of road at some places and most of the

places have no footpaths. The sewer inlet chamber will be constructed at the foot path or close to the household to receive the house sewer. The house sewer collection chamber/collector are connected to manhole with 160 mm or 200 mm diameter HDPE pipe. This arrangement will minimise to damage or frequent road cutting in the future. All the demolished structures including footpath or ROW will be reinstated by project. The reinstatement work has been separately included in the cost estimate (Volume III).

93. The RCC Hume pipes having spigot and socket of class NP- 3 of minimum 200 mm size will be used for sewer. The minimum size is enough at farthest/ start of sewer and is gradually increased to 350 mm to reach sewerage to WWTP inlet/ location. Consent letter is attached in **Appendix-1**.
94. Available documents regarding land permissions or no objection letters and photographs of the proposed sites for DEWAT plants are appended to this due diligence report (**Appendix 1 and 3**).
95. The OBA program was launched in Bhojpur Urban Water Supply and Sanitation Project under UWSSP. All poor households have received the OBA grant through the OBA program.

Table 19: Details of Land Availability and Summary of Involuntary Resettlement impacts

S. N.	DEWATS Component	Required/Available land	Plot number and Ownership	Involuntary resettlement and Indigenous Peoples Impact	Compensation/ Mitigation Measures	Documents Details /Remarks
1	Wastewater Treatment Plant (WWTP-1) and guardhouse (5.05mx5.8m) at Dhokale Kholsi ward no 8.	Land required: 1.8 Ropani (906.18s.qm) Available land: 9 Ropani (4578.66s.qm)	Nepal Government land Plot number not available.	The proposed decentralized waste water treatment system (DEWAT) plant land is located in Dhokale Kholsi area at ward no 8 in Municipality/Government land. Vacant barren land. There is no permanent or temporary structures, cultivation or non-titled users. No involuntary resettlement and indigenous people's impacts anticipated.	Compensation not required. Vacant land under the ownership of Government. Any unanticipated impacts will be treated as per the Resettlement Framework and Entitlement Matrix for UWSSP, through a provisional sum included in the Bill of Quantity (BoQ)..	Consent letter received from Bhojpur Municipality Appendix 1a
2	WWTP-2 and guardhouse (5.05mx5.8m) and one office cum lab Building cum laboratory building at Ramailo Ban community forest area ward no 7.	Land required: 1.85 Ropani (938.41s.qm) Available land: 11 Ropani (5596.14s.qm)	Nepal Government land Plot number 3:	The proposed decentralized waste water treatment system (DEWAT) plant land is located in Ramailo Ban Community Forest area at ward no 7. The land required for the DEWAT plant is 1.85 Ropani (938.41sq. m) which is less than 2.66% of the total community forest land as indicated by the Mayor of the municipality. There are no permanent or temporary structures, cultivation or non-titled users. Adequate land will remain with the community forest users who will be able to continue to access the same. No involuntary resettlement and indigenous people's impacts anticipated.	Compensation not required. Any unanticipated impacts will be treated as per the Resettlement Framework and Entitlement Matrix for UWSSP, through a provisional sum included in the Bill of Quantity (BoQ).	Bhojpur Municipality and Community Forest User Committee has granted written permission to construct the proposed WWTP within this community forest area. Consent letter is attached in Appendix 1a.
3	WWTP-3 and guardhouse (5.05mx5.8m) at	Land required: 1.85 Ropani	Nepal Government land	The proposed decentralized waste water treatment system	Compensation not required. Any	Bhojpur Municipality and Community Forest

S. N.	DEWATS Component	Required/Available land	Plot number and Ownership	Involuntary resettlement and Indigenous Peoples Impact	Compensation/ Mitigation Measures	Documents Details /Remarks
	Siddhikarne Community forest area ward no 7&12	(938.41s.qm) Available land: 10 Ropani (5087.4s.qm)	Plot Number : 604,606 and 607	(DEWAT) plant land is located in Siddhikarne Community Forest area at ward no 7&12. The land required for the DEWAT plant is 2.53 Ropani (1285.35sq. m) which is less than 1.36% of the total community forest land as indicated by mayor of the municipality. There are no permanent or temporary structures, cultivation or non-titled users. Adequate land will remain with the community forest users who will be able to continue to access the same. No involuntary resettlement and indigenous people's impacts anticipated.	unanticipated impacts will be treated as per the Resettlement Framework and Entitlement Matrix for UWSSP, through a provisional sum included in the Bill of Quantity (BoQ).	User Committee has granted written permission to construct the proposed WWTP within this community forest area. Consent letter is attached in Appendix 1a.
4	Sewer pipe laying and Manhole construction	Within Road (ROW) centreline of the road. Government Land		Bhojpur bazaar area may be susceptible to traffic congestion during construction of sewerage line as the road of this area is a bit narrower that may provide discomfort to the passer-by and shopkeepers and may obstruct their normal daily routine activities. No involuntary resettlement impact is anticipated due to pipe laying and manhole construction works.	Compensation not required. Backfilling the trench immediately followed by compaction right after completion of pipe laying works. Provision of signage at appropriate locations indicating available alternate access routes to minimize traffic disruptions. Provision of simple wooden walkways to ensure access to shops and residences. Planks with handrails will be provided where width and depth of the excavation is >1m.	Bhojpur Municipality has given a consent letter for construction. Consent letter is attached in Appendix-1d.

S. N.	DEWATS Component	Required/Available land	Plot number and Ownership	Involuntary resettlement and Indigenous Peoples Impact	Compensation/ Mitigation Measures	Documents Details /Remarks
					The contractor shall follow the Traffic Management Plan.	
5	Sludge Drying Bed	Government Land		The periodic cleaning of settler is necessary for the smooth operation of WWTP. Bad odour is produced while cleaning the settler. This may spread nuisance to the neighbouring areas. Similarly, this nuisance may also be felt if there is leakage in sewer line. This type of impact is also felt at the time of drying of sludge as it releases foul smell to the environment due to formation of ammonia as well as methane gas. Clogging & Overloading of Sludge Drying Bed may occur if enough efforts are not made for sludge management. This in turn blocks the smooth operation of Sludge Drying Bed creating public discomfort. No involuntary resettlement impacts are anticipated at sludge disposal site.	Nuisance odour produced by cleaning the settler is temporary one and Cleaning of settler cannot be skipped either. Hence, instead of avoiding this, cleaning activities should be prompt without any delay. Regular inspection & maintenance of the sewer lines to avoid the nuisance that may be produced by the leakage. The location of sludge drying bed is far from the settlement area, thus, there will be no issue of discomfort to the surroundings due to release of foul smell at the time of drying of sludge. Emptying a single batch on the bed in each cycle to allow sludge to dry and be removed before the next load is received. Periodic Cleaning of Sludge Drying Bed. The Sludge disposal site for both WWTPs will be constructed in within the same compound of each WWTPs	Bhojpur Municipality has given a consent letter for construction. Consent letter is attached in Appendix-1a.

S. N.	DEWATS Component	Required/Available land	Plot number and Ownership	Involuntary resettlement and Indigenous Peoples Impact	Compensation/ Mitigation Measures	Documents Details /Remarks
					and do not required other additional land.	
6	Effluent Outfall-1,2 &3.	No Additional Land Required Government Land		As per the final detailed engineering design, there is provision of discharge of treated waste water into the nearby Rivulets. Effluent discharge from WWTP 1 is into Dokale Kholsi (Rivulet), Dhokale Kholsi ward no. 8, WWTP-2 is into Dipeni Kholsi (rivulet) and . WWTP-3 is into local Kholsi (rivulet) located near to WWTP-3.	As the design concept includes provision of polishing pond to which waste water is collected via HFCW where the pathogens existing in waste water are killed using ultra violet rays from the sunlight. The waste water discharged from the polishing pond may not contain harmful constituents as for assurance there is also provision of laboratory set up before the final discharge. Regular Inspection and maintenance will carried out.	Consent letter for outfalls has been attached in Appendix-1e, 1b&f and 1c&g.
7	Approach road	Not required		None	There is existing road to reach three WWTPs site.	Photographs attached in appendix 3.

B. Mitigation Measures

96. Impacts on structures are not anticipated at any of the identified sites or alignments for Decentralize Wastewater Treatment Plant proposed Project in Bhojpur. Temporary impacts of sewer line construction along rights of way of government road are limited to potential access disruptions for shops and residence, limited vehicular movement will be ensured and disturbances to pedestrians during construction period will be avoided through good engineering practices. The contractor will be accountable to provide signage at appropriate locations indicating road closure to minimize traffic disruptions. The contractor will undertake construction on one side of the road first and upon completion of the same, start work on the other side to minimize the impact on traffic. The contractor will have to ensure access to shops and residences using simple wooden walkways/planks where necessary and limit the excavation. Planks with handrails will be provided where width and depth of the excavation is >1m. Hence, loss of livelihood due to temporary loss of access is not envisaged.
97. The contractor will ensure to avoid the temporary impacts such as noise pollution, water pollution and dust during construction activities of DEWATS. The impacts of construction activities will be mitigated during the construction period by effectively implementing mitigation measures as recommended in Environmental Management Plan (EMP). Contractors are responsible for providing Personal Protective Equipment (PPE) to workers and respective consultant will monitor the proper use of it in the site. Construction contracts will include the above provisions.
98. The field study shows that the proposed project requires small area of land of Ramailo Ban and Siddhikarne Community Forest for which there is requirement of cutting down of about 10 trees. Around six trees of pine (*Pinus roxburghii*), and other few trees like Chilaine (*Schima wallichii*) and Uttis (*Alnus nepalensis*) are the tree species that might need to be felled. However, the project will avoid tree felling as far as possible. Similarly, the study also shows that there is requirement of clearing of some bushes and shrubs during the project construction. During sewer pipe laying works, some of the top soil may also be lost. Plantation of 100 tree saplings for the loss of 10 trees in and around the project area as EPR 2077 B.S. (2020 A.D.) obliges compensatory plantation in the ratio 1:10 for every tree felled. Compensatory greenery management/promotion/compensatory plantation budget is allocated in IEE (EMP Chapter- VIII). Proper operation of the DEWATS will be ensured by municipality, so that there is no odour menace.
99. The DEWATS will treat fecal sludge and the effluent will be within permissible limit as per government standards. Proper operation of the treatment plant will be ensured to avoid risk of pollution of water bodies.
100. Horizontal Flow Constructed Wetland has been designed as tertiary treatment unit to remove total nitrogen and total phosphorous from the influent by plant uptake. In the HFCW, the wastewater after the ABR is allowed to percolate from graded size of aggregate placed in layers. The wastewater flows in the horizontal direction through the pores of the gravel media preventing the undesirable odour to spread into the ambient environment. The nutrients in the wastewater are taken by the plant for its growth. Bacterial population living on the surface of gravel media also uses the nutrients for their metabolism and cell growth.
101. Polishing Pond has been proposed to improve the quality of effluent from Vertical Flow Constructed Wetland. It is also the part of tertiary treatment unit focused to kill the pathogens using ultra violet rays from the sunlight thus raising the hygienic quality of the effluent. Plantation of aromatic plants (e.g. *Murraya paniculata*, *Magnolia champaca*)

around the WWTP as green belt will be done for beautification and to minimize odour. The dried sludge from the SDB will be converted to briquette that will be used as cooking fuels and/or powder of dried sludge will be used as organic fertilizer. Byproduct of DEWATS will be managed by municipality along with its marketing which is not part of this project. Revenue can be collected by selling reeds and dried sludge. After the takeover of the project by the Municipality, the operation and maintenance of it will be done by the operator as per service level agreement which will be prepared before second stage.

C. Involuntary Resettlement

102. As mentioned in ADB's Safeguard Policy, the involuntary resettlement safeguards basically covers physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.
103. Nearly 3129.94 sq. m of land is required for construction of DEWATS in three locations. The municipality has provided consent to use required land at ward no. 8, 7 and 12 for construction of DEWATS. No private land needs to be acquired as available government land is sufficient. Municipality has given consent for use of the public land (Appendix 1). No settlement will be adversely affected and no need of physical displacement is envisaged. The impact of construction activities will be mitigated during the construction period following the mitigations measures as recommended in Environmental Management Plan (EMP).

D. Indigenous Peoples

104. According to ADB SPS, the Indigenous Peoples safeguards are activated 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 an ancestral domain or asset. The term Indigenous Peoples is used to refer to a distinct, vulnerable, social and cultural group possessing the characteristics such as self-identification as members of a distinct indigenous cultural group; geographically distinct habitats or ancestral territories; distinct customary cultural, economic, social, or political institutions; and a distinct language.
105. The Bhojpur DEWATS area is a mosaic of multi-caste/ethnic groups. The composition of community by caste/ethnic is heterogeneous in nature. Therefore, diversity of culture, custom, tradition, norms and values exist in the project area. The household survey of the sub-project area has also reflected the cross section of major ethnic groups of the country. The availability of district level government offices, educational, financial and health institutions and other services as well as business opportunity are attracting the people of different caste and ethnicity in this area.
106. Each caste and ethnicity is characterized by its own customs, traditions, culture and nature of occupation with which they are associated. The survey revealed that Janajati/ethnic (Newar, Rai, Magar, Tamang etc.) are the main ethnic group of the project area comprising of 63.7% (1395) of total household whereas Brahmin/Chhetri, Dalit and other cast (Madeshi, Musalman etc.) comprising 26.5% (580), 8.4% (184) and 1.4 % (31) respectively.

107. The field observation reveals that most of the settlements in the service area are heterogeneous in terms of caste/ethnicity and there is no traditional territory of indigenous peoples. However, as explained above, people belonging to Janajati communities form a significant proportion of the population and tend to live in clusters or enclaves (even though these are not ancestral lands). In the context of service area, belonging to an indigenous peoples group does not necessarily mean that they are underprivileged. The Municipality/WUSC policy and rules reflect that all are treated equally and there is no discrimination on receiving sanitation service based on ethnicity and caste. The impacts on indigenous people are anticipated to be positive, with enhanced access to sanitation facilities rather than adverse impacts. People from Janajati communities will benefit equally under the project. This will be ensured by the project's framework for inclusion of poor and vulnerable. No physical displacement and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) of indigenous people is anticipated as a result of land acquisition. Therefore, Indigenous People Plan is not required for this subproject.

108. **Specific Action Plan.** Further, to address any potential safeguards issues, a specific action plan for indigenous peoples is proposed for this subproject. The action plan includes the following specific activities: (i) a baseline survey⁸ will be conducted for identification and inclusion of indigenous peoples households within the project coverage area; (ii) proposed benefits (e.g. skill development training and employment opportunity outside the project, employment opportunity in the project, waste water management and solid waste management training and compost/manure making at home) to indigenous peoples households will be shared and monitored; (iii) IEC materials, information sharing, consultations and other activities⁹ will be culturally sensitive and appropriate (iv) in case of any indigenous peoples impacts in subproject, the Chief/representative of NEFIN (to ensure that project grievance redress systems are integrated) and an NGO working with indigenous peoples as arbitrator. GRC will also ensure that grievance redress established is gender inclusive in receiving and facilitating resolution of the indigenous peoples' concerns; (v) consultations with IP households will be conducted in all subproject stages which shall help in identifying any culture specific requirements and traditions like avoidance of any specific festival days, and/or other activities with cultural significance to the indigenous peoples communities during civil work; and any other indigenous peoples related issues and concerns that may be of importance to the community. An end-line sample survey¹⁰ will be conducted to document the views of IP households about subproject benefits. Such survey is in line with subproject internal monitoring. The proposed action plan with activities, timelines and responsibilities is attached in Appendix 5. This action plan will be used for project monitoring to ensure that indigenous peoples' activities are undertaken on a timely basis and reported in quarterly progress reports and semi-annually, in social safeguards monitoring reports, and to determine whether project objectives have been achieved.

⁸ Contractors will conduct connection campaigns across the project coverage area and will be responsible to ensure that IP households and localities are identified and included in the campaign. Data on exact number of IP households can be generated from the GESI baseline to be conducted by the EDSMC prior to start of civil work. Cost for such activity is already included in the contract document for the subproject.

⁹ PMQAC will be primarily responsible for planning implementing and monitoring the result of such activities.

¹⁰ Cost towards conducting end-line sample survey is included in the subproject IP Action Plan. Sample size may be decided by the Project in consultation with ADB.

VI. CONCLUSIONS

1. Summary and Conclusions

109. The Decentralise Wastewater Treatment Plant for Bhojpur Municipality is very essential to improve the environmental conditions of the municipality. The need for the scheme was keenly expressed by stakeholders. This DDR is based on desk review of the Final Detailed Engineering Design Report and other relevant documents as well as field assessment. The status of major resettlement due diligence activities and findings are summarized as below.
110. The impacts of project construction activities will be minimal and no physical displacement (relocation, loss of residential land, or loss of shelter) or economic displacement (loss of assets, access to assets, income sources, or means of livelihoods) is identified. Nearly 3129.94 sq. m land is required at three different sites for construction of project structures such as DEWATs treatment plant, guard house and office building. However, private land acquisition is not required as available land sites are municipal and community forest land. For the use of public/government or community forest land which falls within the municipal area, municipality, the concerned ward office and Community Forest Users Group have provided written consent which is appended to this report **Appendix-1 b and c**. As private land acquisition is not required for the subproject, and there are no structures at the sites, and only small part of community forest sites are proposed to be used and the remaining parts will remain accessible to the community forest users, no involuntary resettlement and Indigenous Peoples impacts are anticipated.
111. The service area is fairly heterogeneous in terms of caste/ethnicity, and no traditional territory of indigenous people has been reported. Bhojpur has a fairly large janajati population, who live in separate clusters/ enclaves. The project's framework for inclusion of poor and vulnerable will ensure that Janjati households benefit equally from the project. Therefore, the impact on janajati population is expected to be positive, by increasing the access to sanitation facilities. No adverse impact to such populations is anticipated.
112. Majority of the labour or workforce are from Tamang, Rai and Magar community (Indigenous People). Labour from Indigenous People community will be given preference during construction period. Indigenous people will also get priority during recruitment of personnel required in O&M period. The allocation of budget and required manpower of O&M period is mentioned in final DEDR (Section 5.6).
113. Temporary impacts during construction period can be anticipated in terms of disturbance to the people for a very short duration. The environmental impacts of project construction activities will be minimal. Such impacts will mitigate by effective implementation of EMP. Access disruptions will be avoided and all other potential impacts will be locally dealt with and mitigated. While the pipe laying works are ongoing, access will be ensured by providing temporary walkways or access planks as necessary. A plank with a rail will be provided where depth and width of excavation is >1m. The length of excavation will not be more than 50 meters for at a time and the excavated trench will be back-filled within a day. Grievance Redress Mechanism will be in place and emphasis shall be placed on information dissemination and frequent interaction with local people and dealing local issues using a participatory approach.
114. The DDR includes the consent letters from municipality for the use of all public and community forest land for three WWTP's sites. The consent letter and minutes of meeting of stakeholder consultation and decisions made during consultation with the community is also attached in this DDR.

2. Next Steps

115. Any resettlement issues identified through the RDSMC/DMS will be included in the updated social safeguards document and reported in semi-annual social safeguards monitoring reports as required along with adequate site photographs and consultations.
116. Prior to project implementation, if there will be changed in design sewer line alignment or any modification for the sub project the document will be prepared and submit to ADB and received 'no objection' prior to start of construction.
117. The plot number of WWTP -1 proposed land at Dhokhale Kholsi ward no 8 is not yet available. It will be provided after finalisation and verified in the land survey office. The plot number and total land area will be provided in the regular monitoring report QPR/SSMR.
118. All statutory clearance required from relevant agencies of GoN including approval of IEE by MOFE will be obtained prior to commencement of construction work.

Appendixes

Appendix-1: Consent Letters for Construction of Proposed Components and Discharge of Effluent

a. Consent letter from Bhojpur Municipality for land use.



भोजपुर नगरपालिका
नगर कार्यपालिकाको कार्यालय
भोजपुर

प.स. : ०७७/०७८
च.न. १०६१

१ नं. प्रदेश, नेपाल
मिति : २०७८/०१/२६

विषय : आवश्यक जग्गा उपलब्ध गराईने सम्बन्धमा ।

श्री खानेपानी तथा ढल निकास विभाग
तेस्रो साना शहरी खानेपानी तथा सरसफाई आयोजना
आयोजना व्यवस्थापन कार्यालय
पानीचौखरी, काठमाण्डौ ।

प्रस्तुत विषयमा यस नगर क्षेत्रमा निर्माण हुने ढल व्यवस्थापन कार्यको लागि प्रशोधन शाखा निर्माणको लागि देहाय बमोजिमको जग्गाहरु उपलब्ध गराईने व्यहोरा अनुरोध छ ।

देहाय

१. भोजपुर नगरपालिका बडा नं. ८ स्थित ढोकले खोल्सी (९ रोपनी)
२. भोजपुर नगरपालिका बडा नं. ७ र १२ स्थित सिद्धिकले सामुदायिक बन (१० रोपनी)
३. भोजपुर नगरपालिका बडा नं. ७ स्थित रमाइलो बन (११ रोपनी)

बोचार्प :

श्री तेस्रो साना शहरी खानेपानी तथा सरसफाई आयोजना,
क्षेत्रीय आयोजना व्यवस्थापन कार्यालय, ईटहरी सुनसरी ।


सुरेन्द्र राई
नि. प्रमुख प्रशासकीय अधिकृत

प्रमुख प्रशासकीय अधिकृत

Translation

English Translation
BHOJPUR MUNICIPALITY
MUNICIPALITY OFFICE
BHOJPUR

Province 1, Nepal
Date: 17 May, 2021

Letter No: 2077/078
Reference No: 1071

Subject: In regard to the provision of the required land

To,
Department of Water Supply & Sewerage Management,
Project Management Office,
Panipokhari, Kathmandu

With regard to the above-mentioned subject, this is to inform you that the following mentioned land will be provided for the construction of treatment plant for the sewerage management in this town area;

1. 9 Ropani land at Dhokle Kholsi located at Ward no.8 of Bhojpur Municipality
2. 10 Ropani land at Siddhikarne Community Forest located at Ward no. 7 & 12 of Bhojpur Municipality
3. 11 Ropani land at Ramailo Ban located at Ward no. 7 of Bhojpur Municipality

Cc:
Third Small Town Water Supply & Sanitation Project,
Regional Project Management Office, Itahari, Sunsari

Ram Prasad Dhungel
Chief Executive Officer

प. नं.:- 2066-67

9/06/65

कोशी अञ्चल (नेपाल)

मिति: 2065/212

विषय:- महमती सम्बन्धिता

प्रस्तुत विषय सहरी स्वा. पा. रत्ना सासकाई क्षेत्र गा.आ.को
जगा भोजपुर द्वारा पठाएके, य. १५ को पत्रागुहा यस सा. व. उ.
सम्बन्धक। सन्तुली को बैँक कसि उक्त विषयका दल कल गारि
सन्तुलीले गाँको बैँकको निर्णय प्र लिखिपी पुरा गारि यसैसाथ
सल्लाह राखि सहमती प्रदान गरिएका बेहोप अगोपधक

[Handwritten signature]

[Signature]

318184

3. 80 ^{अ. 1. 84} ~~प्रमाणित~~ ^{माला कदाचि} ~~माला~~ ^{माला}
" " 3. - ^{माला} ~~माला~~ ^{माला}
" " 80. " "

52

**Danda Bazaar Ramailo Ban Community Forest User's Group
Bhojpur-3(7)**

Koshi Zone (Nepal)

Date: May 17, 2021

Letter No: 2077/078

Reference No: 1/077-78

Subject: Regarding the consent provided

On the subject presented, as per the letter with number 5, provided by UWSSP, Bhojpur, meeting by this community forest user's group has been held and discussions has been done accordingly in the above mentioned subject. The decisions from this meeting has been copied and attached along with this letter and this is to inform you that the consent from this user's group has been conferred for the use of the land of this forest.

Plot no. 3; 40 Ropani Area.

Lal Bahadur Ale
Chairman

Meetings Conducted by Danda Bazaar Ramailo Smriti Community Forest Users Group

[illegible]

- (क) अष्टाक्षरी श्री लाल बहादुर शास्त्री माता ~~देवी~~ ~~माता~~
 (ख) उमा ॥ श्रीमती दुर्गा दुर्गा देवी माता
 (ग) सखी श्री गंगा बहादुर शास्त्री गंगा
 (घ) स ॥ ॥ मेधा राजा बहादुर
 (च) सदाय कोमल अष्टाक्षरी श्रीमती माता देवी बहादुर
 (छ) स ॥ श्रीमती कोमल बहादुर
 (ज) ॥ ॥ कमला बहादुर कमला
 (झ) ॥ ॥ दुर्गा देवी बहादुर
 (ञ) सदाय श्री लक्ष्मी बहादुर
 (ट) ॥ ॥ दान बहादुर बहादुर
 प्रस्ताव नं. १ डल नेवलमापन (समन्वय)

[illegible]

27/11/2019

English Translation

Today dated 15 May, 2021, under the chairmanship of Mr. Lal Bahadur Ale Magar, Chairman of the Danda Bazaar Ramailo Smriti Community Forest Users Committee, there was presence of the members of this group committee as per the details given below and a unanimous decision was made after discussion as follows:

Details

1. Chairman, Mr. Lal Bahadur Ale Magar
2. Vice Chairman, Ms. Uma Kumari Tamang
3. Secretary, Mr. Ganga Bahadur Shrestha
4. Assistant Secretary, Mr. Megh Raj Tamang
5. Treasurer, Ms. Maya Devi Tamang
6. Member, Ms. Champaa Tamang
7. Member, Ms. Kamala Tamang
8. Member, Ms. Durga Bishwokarma
9. Member, Mr. Laxman Tamang
10. Member, Mr. Dan Bahadur Tamang

Proposal No. 1: In regard to the Sewerage Management

Decision No. 1: In regard to the proposal no. 1 of Sewerage Management, according to the letter no. 5 received from UWSSP, as it has been informed that the waste water treatment plant will be constructed in the near future in the land that has been possessed by Ramailo Ban, located at ward no. 7 of Bhojpur Municipality, the consent from this CFUG has been given for the construction of WWTP. Also, this is to inform you that the consent from this CFUG has given consent for the discharge of the treated waste water evicted from this treatment plant to Dipeni Kholsi located at ward no. 7.

c. Shree Siddhikarne Ban Community Forest Users Group

सिद्धिकरणे सामुदायिक वन उपभोक्ता समिति
टक्सार, भोजपुर

प.सं. २०७७/७८
ब.नं. ८६

१ नं. प्रवेश, नेपाल
मिति: २०७८/०२/०३

विषय: सहमति दिएको बारे ।

प्रस्तुत विषयमा शहरी खानेपानी तथा सरसफाई क्षेत्रगत आयोजना UWSSP भोजपुरद्वारा भोजपुर नगरपालिका वडा नं ७ र १२ मा पर्ने सिद्धिकरणे वन भन्ने स्थानमा नेपाल सरकार खानेपानी मन्त्रालय, खानेपानी तथा ढल व्यवस्थापन विभाग र भोजपुर नगरपालिकाको सागत सहभागितामा निकट भविष्यमा निर्माण हुने (Decentralized wastewater Treatment Plant) ढल प्रशोधन केन्द्र यस वन उपभोक्ता समूहको जानकारीमा रहेको छ । उक्त स्थानको आवश्यक पर्ने जग्गा ढल प्रशोधन केन्द्र निर्माण गर्नको लागि यस सामुदायिक वन उपभोक्ताको तर्फबाट सहमति प्रदान गरिएको व्यहोरा अनुरोध छ ।

साथै उक्त केन्द्रबाट निष्काशन हुने प्रशोधित पानी यस नगरपालिका वडा नं ७ र १२ मा पर्ने खोल्सीबाट निष्काशन हुने गरी व्यवस्थापन गर्न यस सामुदायिक वन उपभोक्ताको तर्फबाट सहमति प्रदान गरिएको व्यहोरा अनुरोध छ ।

जग्गाको कित्ता नम्बरहरु यस प्रकार रहेका छन्:

कि.नं. ६०७	क्षेत्रफल २६-१-०-२
कि.नं. ६०८	क्षेत्रफल २६-६-३-१
कि.नं. ६०९	क्षेत्रफल १९-११-१-३


समिति अध्यक्ष

English Translation
Siddhikarne Community Forest User's Group
Taksar-6, Bhojpur

Letter No: 2077/078
Reference No: 40

Province No. 1,
Date: May 17, 2021

Subject: Regarding the consent provided

On the subject presented, this user group has been informed about the construction of Decentralized Wastewater Treatment Plant in the place called Siddhikarne Forest located in wards 7 & 12 of Bhojpur Municipality by UWSSP (Bhojpur) in the near future under the cost participation by DWSSM under GoN and Bhojpur Municipality. This is to inform you that the approval for the use of the required land of this place for the construction of the WWTP the has been provided by this community forest user's group.

Also, this is to inform you that the consent from this user's group has been conferred for the sewerage management by discharging the treated effluent released from this WWTP into the rivulet located at ward no. 7 & 12 of Bhojpur Municipality.

Land Plot Numbers are as follows:

- a) Plot no. 607 Areas: 26-01-00-02
- b) Plot no.604 Areas: 29-06-03-01
- c) Plot no.606 Areas: 19-11-01-03

Keshar Bahadur Shrestha
Siddhikarne CFUG,Chairman

d. Letter from Bhojpur Municipality regarding permission to construction of DEWATS

 **भोजपुर नगरपालिका**
नगर कार्यपालिकाको कार्यालय
भोजपुर

प.सं. २०७७/०७८
च.नं. ३२६

१ नं. प्रदेश, नेपाल
मिति २०७७/०६/१६

विषय:- सहमति प्रदान सम्बन्धमा ।

श्री शहरी खानेपानी तथा सरसफाई क्षेत्रगत परियोजना,
व्यवस्थापन कार्यालय, पानीपोखरी, काठमाण्डौ ।

प्रस्तुत विषयमा नेपाल सरकार खानेपानी मन्त्रालय, खानेपानी तथा ढल व्यवस्थापन विभाग शहरी खानेपानी तथा सरसफाई क्षेत्रगत परियोजना (Urban Water Supply and Sanitation Sector Project) अन्तरगत यस नगरपालिका वडा नम्बर ७, ८, ९ को मुख्य बजार एरियामा निर्माण हुने ढल निकास तथा वडा नम्बर ७, ८ र ९ मा निर्माण हुने प्रशोधन केन्द्र निर्माणको लागि नगरपालिकाको तर्फबाट सहमति प्रदान गरिएको बेहोरा अनुरोध छ ।


प्रकाश कुमार आले
नगर प्रमुख

फोन ०२९-४२०२२०, ७४० ईमेल: info.bhjmunicipality@gmail.com वेबसाइट: www.bhojpurmun.gov.np

**English Translation
BHOJPUR MUNICIPALITY
MUNICIPALITY OFFICE
BHOJPUR**

Province No.1, Nepal
Date: October 02, 2020

Subject: In regard to the Conferral of Consent

To,

The Urban Water Supply & Sanitation (Sector) Project
Project Management Office
Panipokhari, Kathmandu

In regard to the above-mentioned subject, this is to inform you that the consent from the municipality has been conferred for the construction of sewerage system in main bazaar area located in wards 7, 8 & 9 of Bhojpur Municipality and for the construction of treatment plant in wards 7, 8 & 12 under Urban Water Supply & Sanitation (Sector) Project, Department of Water Supply & Sewerage Management, Ministry of Water Supply.

Kailash Kumar Ale
Mayor

e. Consent letter from Bhojpur Municipality for discharging treated effluent/outfall in Dhokale Kholsi

 **भोजपुर नगर कार्यपालिका**
दनं. वडा नं. ८ कार्यालय

प.सं. २०७७/०७८
च.नं. : २२

प्रदेश नं. १ नेपाल
मिति २०७७/०६/२०

विषय: - सहमति प्रदान सम्बन्धमा ।

**श्री सिलिचुङ्ग खानेपानी तथा सरसफाई मूल उपभोक्ता समिति ,
भोजपुर ।**

प्रस्तुत विषयमा शहरी खानेपानी तथा सरसफाई क्षेत्रगत आयोजन u w s s p भोजपुरद्वारा भोजपुर नगरपालिकाको वडा नं. ८ ढोकले खोल्सीमा नेपाल सरकार खानेपानी मंत्रालय खानेपानी तथा ढल व्यवस्थापन विभाग र भोजपुर नगरपालिकाको लागत सहभातिमा निकट भविष्यमा निर्माण हुने Decentralized wastewater Treatment Plant ढल प्रशोधन केन्द्र निर्माण हुने कुरा यस भोजपुर नगरपालिका वडा नं. ८ को जानकारीमा रहेको छ । उक्त केन्द्रबाट निष्कासन हुने प्रशोधित पानी यस भोजपुर नगरपालिकाको वडा नं. ८ ढोकले खोल्सीबाट निष्कासन हुने गरी व्यवस्थापन गर्न वडाको तर्फबाट सहमति प्रदान गरिएको व्यहोरा अनुरोध छ ।


वडा अध्यक्ष
गोपाल कार्की
गोपाल कार्की
वडा अध्यक्ष

Phone No. 029-4201037 Fax No. 029-420740
Email: info.bhojpurmunicipality@gmail.com
"स्वच्छ पातान्तर, स्वस्थ रहनसहन, स्वस्थ जीवन- सुशिक्षित नगर विकास गर्छौ अभियान"

English Translation
BHOJPUR MUNICIPALITY
WARD NO – 8 OFFICE
BHOJPUR

Province No.1, Nepal
Date: October 02, 2020

Subject: In regard to the Conferral of Consent

To,
The Silingchung Water Supply & Sanitation User's Committee,
Bhojpur

In regard to the above-mentioned subject, this municipality is well informed about the construction of Decentralized Wastewater Treatment Plant at Dhokle Kholsi located in ward no. 8 of Bhojpur Municipality by UWSS (Bhojpur) in the near future under the cost participation by DWSSM under GoN and Bhojpur Municipality. This is to inform you that the consent from the municipality has been conferred for the sewerage management through the discharge of treated effluent released from this WWTP into the Dhokle Kholsi (Rivulet) located at ward no. 8 of Bhojpur Municipality.

Gopal Kark
Ward Chairman

-

च.नं. ३२६

मिति २०७७/०६/१६

प्रस्तुत विषयमा शहरी खानेपानी तथा सरसफाई क्षेत्रगत आयोजना UWSSP भोजपुरद्वारा भोजपुर नगरपालिकाको वडा नं. ७, रमाईलो बन भन्ने स्थानमा नेपाल सरकार खानेपानी मन्त्रालय, खानेपानी तथा ढल व्यवस्थापन विभाग र भोजपुर नगरपालिकाको लागत सहभागितामामा निकट भविष्यमा निर्माण हुने (Decentralized WasteWater Treatment Plant) ढल प्रशोधन केन्द्र निर्माण हुने कुरा यस नगरपालिकाको जानकारीमा रहेको छ । उक्त केन्द्रबाट निष्काशन हुने प्रशोधित पानी यस भोजपुर नगरपालिकाको वडा नं. ७, दिपेनी खोल्सीबाट निष्काशन हुने गरी व्यवस्थापन गर्न यस नगरपालिकाको तर्फबाट सहमति प्रदान गरिएको व्यहोरा अनुरोध छ ।

वैद्यनाथपुर आले
नगर प्रमुख

English Translation
BHOJPUR MUNICIPALITY
MUNICIPALITY OFFICE
BHOJPUR

Province No.1, Nepal
Date: October 02,
2020

Subject: In regard to the Conferral of Consent

To,
The Urban Water Supply & Sanitation (Sector) Project
Project Management Office
Panipokhari, Kathmandu

In regard to the above mentioned subject, this municipality is well informed about the construction of Decentralized Wastewater Treatment Plant in a place called Ramailo Ban located in ward no. 7 of Bhojpur Municipality by UWSSP (Bhojpur) in the near future under the cost participation by DWSSM under GoN and Bhojpur Municipality. This is to inform you that the consent from the municipality has been conferred for the sewerage management through the discharge of treated effluent released from this WWTP into the Dipeni Kholi (Rivulet) located at ward no. 7 of Bhojpur Municipality.

Kailash Kumar Ale
Mayor

- g. Consent letter from Bhojpur Municipality for discharging treated effluent/outfall in local Kholsi ward no 7 & 12

 **भोजपुर नगरपालिका**
नगर कार्यपालिकाको कार्यालय
भोजपुर

प.सं. २०७७/०७८
च.नं. ५२६

१ नं. प्रदेश, नेपाल
मिति २०७७/०६/१६

विषय:- सहमति प्रदान सम्बन्धमा ।

श्री शहरी खानेपानी तथा सरसफाई क्षेत्रगत परियोजना,
व्यवस्थापन कार्यालय, पानीपोखरी, काठमाण्डौ ।

प्रस्तुत विषयमा शहरी खानेपानी तथा सरसफाई क्षेत्रगत आयोजना UWSSP भोजपुरद्वारा भोजपुर नगरपालिकाको वडा नं. ७ र १२, मा पर्ने सिद्धिकणे वन भन्ने स्थानमा नेपाल सरकार खानेपानी मन्त्रालय, खानेपानी तथा ढल व्यवस्थापन विभाग र भोजपुर नगरपालिकाको लागत सहभागितामामा निकट भविष्यमा निर्माण हुने (Decentralized WasteWater Treatment Plant) ढल प्रशोधन केन्द्र निर्माण हुने कुरा यस नगरपालिकाको जानकारीमा रहेको छ । उक्त केन्द्रबाट निष्काशन हुने प्रशोधित पानी यस भोजपुर नगरपालिकाको वडा नं. ७ र १२, मा पर्ने खोल्सीबाट निष्काशन हुने गरी व्यवस्थापन गर्ने यस नगरपालिकाको तर्फबाट सहमति प्रदान गरिएको व्यहोरा अनुरोध छ ।


सहभागी नगर आले
नगर प्रमुख

फोन: ०२९-४२०२२०, ७४० ईमेल: info.bhjmunicipality@gmail.com वेबसाइट: www.bhojpurmun.gov.np

**BHOJPUR MUNICIPALITY
MUNICIPALITY OFFICE
BHOJPUR**

Province No.1, Nepal
Date: October 02,
2020

Subject: In regard to the Conferral of Consent

To,
The Urban Water Supply & Sanitation (Sector) Project
Project Management Office
Panipokhari, Kathmandu

In regard to the above mentioned subject, this municipality is well informed about the construction of Decentralized Wastewater Treatment Plant in a place called Siddhikarne Ban area located in ward no. 7 & 12 of Bhojpur Municipality by UWSSP (Bhojpur) in the near future under the cost participation by DWSSM under GoN and Bhojpur Municipality. This is to inform you that the consent from the municipality has been conferred for the sewerage management by discharging the treated effluent released from this WWTP into the rivulet located at ward no. 7 & 12 of Bhojpur Municipality.

Kailash Kumar Ale
Mayor

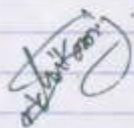
Appendix-2: Related Minutes of Meeting/Consultation and Participation

a. Minutes of meeting of public hearing

आज दिनांक 2068-9-13 गते कोनवारकायन मेको मोजपुर नगरपालिका वडा नं. 6, 6, 7, 8, 9 मा निर्माण हुने गर्दै रहेको मोजपुर मोजपुर टोल (गिडार्ड) आयोजनाको पारदर्शिक बालवर्णीय परिचण (IEE) को सार्वजनिक सुन्ने कार्यक्रम मस मोजपुर नगरपालिकाको नगर प्रमुख श्री केलाश कुमार झा जी जसको अध्यक्षता मस नगरपालिकाको महाप्रबन्धक देहाय वता निम्न अध्यक्षीयता बसु गर्दै देहाय वता निम्नको तथा निर्णयहरू गरियो:			
<u>अध्यक्षीयता:</u>			
नाम	पद	सम्पर्क नम्बर	देखाउनु
1. श्री केलाश कुमार झा	मेयर	मो. नं. 98	
2. श्री सुरेन्द्र बर्दे	नि.उ.प्र.अ.	9828282828	
3. श्री पदम रा	कुन	9828282828	
4. श्री प्रवेश कुमार सुवाल	अध्यक्षीयता	9828282828	
5. श्री अनन्तेश्वर रा	मो. नं.	9828282828	
6. श्री नविन कुमार कल्याण	मो. नं.	9828282828	
7. श्री प्रेम व. मण्डारी	मो. नं.	9828282828	
8. श्री अंगत काहा	मो. नं.	9828282828	
9. श्री रेनुका	मो. नं.	9828282828	
10. श्री लक्ष्मी	मो. नं.	9828282828	
11. श्री अमर	मो. नं.	9828282828	
12. श्री अमर	मो. नं.	9828282828	
13. श्री अमर	मो. नं.	9828282828	
14. श्री अमर	मो. नं.	9828282828	
15. श्री अमर	मो. नं.	9828282828	
16. श्री अमर	मो. नं.	9828282828	
17. श्री अमर	मो. नं.	9828282828	

1) प्रस्ताव: नौ 2 माथी चलमल गर्दा - लघारीमल खवाह को व्यवस्थापन गर्नको लागि आवश्यक गण्डारण कुरु निर्माण गर्नको लागि आ.व.अ.य.स.स.का नगरपालिकाको लागि लघारी उपलब्ध गराउने छ - साथै हाल भईरहेको सरसमाइ - जेठमा पानी निर्माण गर्न सकिने छ । कुनै प्रयोग कुरुवाट नुन्याएता लघारीमल खवाह वि.स. नगरको खवाहमा कुनै गल खवाह नगरपालिकाको Landfill ग्राम का कोर विनिर्माण गरी लघारीमल परिचालन गरिनेछ ।

2) प्रस्ताव: विद्युत्माथी चलमल गर्दा, यस छल प्रयोग कुरुवाट निस्कनु गुरुको प्रयोगित पानी प्रयोग कुरुवाट नुन्या तलको खेती माथी जमिनमा सिर्पाइ ला प्रयोग गर्ने सब निर्माणकारीमा । यदि सिर्पाइमा प्रयोग जमिनमा नजिको खेतीमा निस्कनु गरीनेछ जुन वातावरण मावड्ड किम्वदित गरिनेछ ।
(3) - डि.ई.डि.आर प्रस्तावित कुरुवाट चलमल गरिनेछ ।



माथी

जयम

इन्द्र कुमारी राई
डि.ई.डी. कुमारी



ENGLISH TRANSLATION

Today Monday dated 26th April, 2021 the public hearing program in regard to IEE of Bhojpur DEWATS Project that is proposed to be constructed in 7, 8, 9 & 12 wards, has been conducted under the chairmanship of Mr. Kailash Kumar Ale, Mayor of Bhojpur Municipality in the municipality meeting hall in the presence of the following mentioned participants and accordingly, the discussions & decisions were made as follows:

S. No.	Name-Surname	Designation/Address	Contact Number
1.	Mr. Kailash Kumar Ale	Mayor	-
2.	Mr. Surendra Rai	Chief Executive Officer	9842472427
3.	Mr. Padam Bahadur Kunwar	RPMO Chief, Itahari	9841484810
4.	Mr. Pravin Kumar Suwal	Chairman, Silingchung WUSC	9852068811
5.	Mr. Janasewak Bhandari	Huwasui/Kankai JV Representative	-
6.	Mr. Navin Kumar Kalyan	Project Engineer, Huwasui/Kankai JV Representative	-
7.	Mr. Prem Bahadur Bhandari	Ward no. 4 Chairman	9804322630
8.	Mr. Jagat Bahadur Tamang	Advisor, Bhojpur Municipality	9217342548
9.	Ms. Renuka Poudel	Social Mobilizer, UWSSP	9862762095
10.	Mr. Laxmi Prasad Chaudhary	ERDSMC, CSE	9851034275
11.	Mr. Amrendra Yadav	RPMO Engineer	9844584688
12.	Mr. Ankit Man Shrestha	RPMO Engineer, Itahari	9852056026
13.	Mr. Abinash Chaudhary	ERDSMC, Junior Engineer	9824702003
14.	Mr. Kaji Bahadur Karki	Advisor, Bhojpur Municipality	9842107459
15.	Ms. Lila Tamang	Vice Chairman, Silingchung WUSC	9842490298
16.	Ms. Kalpana Devi Tamang	Member, Silingchung WUSC	9812323217
17.	Mr. Hari Bahadur Mahat	Advisor, Bhojpur Municipality	029-420353
18.	Ms. Maya Shrestha	Bhojpur Municipality	9810503463
19.	Ms. Kaushila Bishwokarma	Bhojpur Municipality	9816342655
20.	Ms. Ram Kumari Pradhan	Bhojpur Municipality	9842226440
21.	Mr. Indra Kumar Poudyal	Team Leader, PEA/ BN JV	9849258117
22.	Mr. Ram Bahadur Tamang	Bhojpur Municipality-9	9842088316
23.	Mr. Fanindra Kattel	ERDSMC	9861076400
24.	Mr. Parshuram Tiwari	Nagarik Samaj	-
25.	Mr. Nawaraj Dhakal	Bhojpur Municipality-9	9852052375
26.	Mr. Jay Bahadur Tamang	Bhojpur Municipality-7	9842145549
27.	Ms. Nirala Kayastha	Environmental Expert/Engineer (TAEC ICON JV)	-
28.	Mr. Binod Chandra Devkota	MD, TAEC Consult P. Ltd.	-
29.	Mr. Binam Shrestha	Secretary, Silingchung WUSC	-
30.	Mr. Sunil Dahal	Bhojpur Municipality	-
31.	Mr. Ladochi Sherpa	Bhojpur Municipality	-
32.	Mr. Prakash Mahato	Bhojpur Municipality	-
33.	Mr. Shiva Adhikari	Social Safeguard Expert (TAEC ICON JV)	-

Topics of discussion:

1. Discussion on environmental studies
2. Discussion on necessary land management plan and dried sludge management plan
3. Discussion on reuse of treated waste water
4. Discussion and Presentation on DEDR

Decisions:

1. In the context of topic 1, it was decided to construct Bhojpur Sewerage (DEWATS) Project with low impact on the environment as possible after discussing with the dignitaries present in regard to the likely environmental impacts during construction & post construction phase and its mitigation measures. For the proposed project, the treatment plants will be constructed in a place called Dhokle Kholsi of Ward no.8, Ramailo Ban of Ward no. 7 and Siddhikarne of Ward no. 12.
2. While discussing the proposal 2, the municipality will provide the necessary land for the construction of storage yard for the management of treated sludge (prepared manure) and it can also be constructed in the existing waste management area. If the prepared manure (treated sludge) discharged from the treatment plant is not sold, the manure will be taken into the landfill site of the municipality and will be disposed after which it will be converted into the soil.
3. Discussing the above topic 3, it was decided to use the treated waste water discharged from the waste water treatment plant for irrigation on the cultivable land below the treatment plant area. If it is not used for irrigation, it will be directly discharged into the nearby rivulets which will be done within the environmental standards.
4. Discussion along with the presentation on DEDR were carried out.

b. Minutes of meeting at WUSC office

Date: 9/8/2

Meeting held on 26/6/2020 at 3:30 PM at WUSC office. The meeting was held to discuss the progress of the project and to take decisions on the matters discussed.

Sl. No.	Topic	Remarks	Decision
1.	Agenda	Sh. Pratik Kumar, Principal	Sh. Pratik Kumar
2.	Attendance	Sh. Nisha, Sh. Nisha, Sh. Nisha	Sh. Nisha
3.	Minutes	Sh. Nisha, Sh. Nisha	Sh. Nisha
4.	HR - Nisha	Sh. Nisha, Sh. Nisha	Sh. Nisha
5.	Accounting	Sh. Nisha, Sh. Nisha	Sh. Nisha
6.	Finance	Sh. Nisha, Sh. Nisha	Sh. Nisha
7.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
8.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
9.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
10.	General	Sh. Nisha, Sh. Nisha	Sh. Nisha
11.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
12.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
13.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
14.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
15.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
16.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
17.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
18.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
19.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
20.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
21.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
22.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
23.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
24.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
25.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
26.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
27.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
28.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
29.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha
30.	"	Sh. Nisha, Sh. Nisha	Sh. Nisha

~~प्रस्ताव~~

प्रस्ताव

१. OBA प्रस्तावना।
२. BPT प्रस्तावना।
३. उपमोडको धरना धारा अन्तर्गत गर्ने प्रस्तावना।
४. निर्माणधिन ढलको डिजाइन तथा कार्यान्वयन सामाजिक विषयको प्रस्तावना।
५. फिटर तालिम २ एकाइ प्रस्तावना।

निर्णय नं: १, प्रस्ताव नं: १ माथि इलफल गर्दा OBA अन्तर्गत धरना धारा उपमोडको अन्तर्गत प्रस्तावना निर्माण कार्य पूरा गरेकालाई आवश्यक इकाई पूरा गरि शुम्सी गर्ने तथा सोमनाथ उपमोडको अन्तर्गत उपमोडको अन्तर्गत निर्माण कार्य शुम्सी गर्नेको लागि आवश्यक कार्य अन्तर्गत लेकाउने निर्णय सर्वसम्मत बपना गरियो।

निर्णय नं: २, प्रस्ताव नं: २ माथि इलफल गर्दा सोमनाथ उपमोडको अन्तर्गत आवश्यक इकाई पूरा गरि शुम्सी गर्नेको लागि आवश्यक इकाई पूरा गरि शुम्सी गर्नेको लागि आवश्यक कार्य अन्तर्गत लेकाउने निर्णय सर्वसम्मत बपना गरियो।

निर्णय नं: ३, प्रस्ताव नं: ३ माथि इलफल गर्दा सोमनाथ उपमोडको अन्तर्गत उपमोडको धरना धारा अन्तर्गत निर्माण कार्य पूरा गरेकालाई आवश्यक इकाई पूरा गरि शुम्सी गर्नेको लागि आवश्यक कार्य अन्तर्गत लेकाउने निर्णय सर्वसम्मत बपना गरियो।

निर्णय नं: ४, प्रस्ताव नं: ४ माथि इलफल गर्दा सोमनाथ उपमोडको अन्तर्गत उपमोडको धरना धारा अन्तर्गत निर्माण कार्य पूरा गरेकालाई आवश्यक इकाई पूरा गरि शुम्सी गर्नेको लागि आवश्यक कार्य अन्तर्गत लेकाउने निर्णय सर्वसम्मत बपना गरियो।

~~प्रस्ताव~~

निम्न १, २, ३, ४ और ५ को हारा
आनेवाली आनेवाली आनेवाली आनेवाली आनेवाली
आनेवाली आनेवाली आनेवाली (५) आनेवाली
आनेवाली आनेवाली आनेवाली आनेवाली आनेवाली
आनेवाली आनेवाली आनेवाली आनेवाली आनेवाली
आनेवाली आनेवाली आनेवाली आनेवाली आनेवाली
आनेवाली आनेवाली आनेवाली आनेवाली आनेवाली

22/11/17

for

Radikano

Q

2/5

2020

BB *BB*

ENGLISH TRANSLATION

Today Monday dated 26th April, 2021, the following issues were discussed under the chairmanship of the chairman of this committee (Silingchung WUSC), Mr, Pravin Kumar Suwal:

S. No.	Designation	Name & Surname
A.	Silingchung WUSC Members	
1.	Chairman	Mr. Pravin Kumar Suwal
2.	Vice Chairman	Ms. Lila Maya Tamang
3.	Secretary	Mr. Binam Shrestha
4.	Assistant Secretary	Mr. Sudip Karki
5.	Treasurer	Ms. Krishna Maya Tamang
6.	Member	Mr. Narayan Bahadur Karki
7.	Member	Ms. Laxmi Kumari Khatri
8.	Member	Ms. Kalpana Devi Tamang
9.	Member	Mr. Tufan Kirat Bantawaa
B.	Invitees	
10.	Advisor	Mr. Jagat Bahadur Tamang
11.	Advisor	Mr. Hari Bahadur Mahat
12.	Advisor	Mr. Kaji Bahadur Karki
13.	Advisor	Ms. Devi Sundaas
14.	Advisor	Mr. Damber Bahadur Shrestha
15.	RPMO Chief, Itahari	Mr. Padam Bahadur Kunwar
16.	RPMO Engineer, Itahari	Mr. Ankit Man Shrestha
17.	Team Leader, PEA/ BN JV	Mr. Indra Poudel
18.	PCMS, PEA/ BN JV	Mr. Fanindra Kattel
19.	ERDSMC, CSE	Mr. Laxmi Prasad Chaudhary
20.	RPMO Engineer	Mr. Armendra Yadav
21.	Huwasui/ Kankai JV Representative	Mr. Jana Sewak Bhandari
22.	Huwasui/ Kankai JV Chief Engineer	Mr. Pravin Kalyan
23.	Social Mobilizer, UWSSP	Ms. Renuka Poudyal
24.	Social Mobilizer, ERDSMC	Mr. Gopal Tamrakar
25.	ERDSMC, Junior Engineer	Mr. Abhinash Chaudhary
26.	Design Engineer, TAEC/ICON	Mr. Binod Chandra Devkota
27.	Social Safeguard Specialist, TAEC/ICON JV	Mr. Shiva Adhikari
28.	Environmental Engineer, TAEC/ICON JV	Ms. Nirala Kayastha

Topics of discussion:

1. In regard to OBA
2. In regard to BPT
3. In regard to tap connection at consumer's household
4. In regard to the design and environmental & social aspects
5. In regard to filter media and SCADA

Decisions:

1. While discussing on topic 1, it was unanimously decided to clear the payment of the consumers selected for OBA, who have completed the construction of toilets by completing the required process and to proceed the required work for construction of toilet and for clearing the payment of those not constructing the toilets by the end of Jestha (Mid of June).

2. While discussing on topic 2, it was unanimously decided to coordinate with the concerned bodies, individuals, associations and institutions to manage the land for the construction of BPT for the required place under SSTWSSP, at suitable locations.
3. While discussing on topic 3, it was unanimously decided to pressurize and inform the contractors for the tap connections of each household of the consumers of SSTWSSP and for completing this work expeditiously by adopting effective process.
4. While discussing on topic 4, huge discussion has been made in regard to the issues of technical, environmental and social assessment for the construction of sewerage system in wards 7, 8, 9 & 12 of Bhojpur Municipality at the office of Bhojpur municipality under the chairmanship of Mayor of Bhojpur Municipality in the presence of chairman of the concerned wards, concerned officials and local consumers. And, it was unanimously decided that this committee (Silingchung WUSC) would coordinate and assist in the construction of this sewerage system.
5. While discussing on topic 5, for the required filter media and for the installation of SCADA system for the operation of water supply system under SSTWSSP, it was unanimously decided to urge the contractors to focus on expediting the proceedings of this work.

Today's meeting accomplished.

c. Minute of meeting of stakeholder's consultation on DEWATS treatment plant

अज मिहि अहदादावठ अह-सोमवा ओजपुर हन तवा
प्रमोशन केर (अजपुर डेपुटी (DEPUTY) के DEPR,
आमामिक लेन वातावरण अजमिल हन अजमिल-ओजपुर
अजमिल के अजमिल के अहदा वतावा अज अजमिल ओ अहदा
मुता अहदा अहदा के अहदावा वेहन अजमिल के अजमिल के
अहदा अहदा वेहन अजमिल के अजमिल के अहदा अहदा ।
अजमिल :-

१. अज अजमिल-ओ अहदा मुता अहदा (अज अजमिल)
२. अ. अ. अ. - ओ अहदा अजमिल के अहदा
३. अजमिल के अहदा - ओ अहदा अहदा अहदा (अजमिल के अहदा)
४. अजमिल के अहदा - ओ अजमिल अहदा अहदा
५. अजमिल के अहदा - ओ अजमिल अहदा अहदा
६. - ओ अजमिल अहदा अहदा
७. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
८. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
९. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
१०. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
११. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
१२. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
१३. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
१४. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
१५. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
१६. - ओ अहदा अहदा अहदा
१७. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
१८. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
१९. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा
२०. अहदा अजमिल के अहदा - ओ अहदा अहदा अहदा

४. अजमेर और पालिकाओ मुख्य काम-डोका निर्माण हुन गइल्ले
हल प्रणाली २ तीन छडेगा निर्माण हुने प्रसोधान लेइल्ले साफले
वधा। कालावर्ण सम्बन्धी अस्मोद प्रवेदन तथा गुं गरिम्मा
६। जसमा नेपाल रणकस्के २ अशिली किछा वैन डो प्रा-
धानता सेको सामाजिक सुरक्षण तिमि २ कालावर्ण सम्बन्ध
निम्नावलीलाई आंधार नानी सेही प्रावधान अनुसार प्रवेदन
करै अगडी पढाइको ह।

४, प्रशोधन के पत्रादेश द्वारा एक मिश्रण अणुगणना।
 रसेल के धर्म का दो-आधुनिक २ गाँव व्यवस्थापन गर्दा
 हुने वातावरण में अंतराल है यन्त्रिक व्यवस्थापन गरीब।
 ५, शरीर शक्तिगति के अंतराल में आधारित वातावरण में प्रतिवेदन
 ६ आयोजनार्थक अन्तः शक्तिगति प्रतिवेदन तथा गरीब
 आयोजनार्थक दिगोपनार्थक ध्यान। शरीर वातावरण में गरीब
 गरीब।

6. आजको रैत / इलफुल भुयंकामा भोजपुर छल तथा प्रबोधन हेतु Bhajpur Bhangpur DEWATS को विस्तृत अध्याय प्रतिवेदन (DEDR) प्रस्तुतकल भयो।

शायोजना प्राप्तुत नए अनुसार आयोजना व्यवस्थापन —
 प्रमो (PMO) र भोजपुर नगर पालिका को मध्य
 प्रमुख मध्ये किय आयोजना कार्यन्वयन सम्बन्धमा —
 सहमती पत्र memorandum of understanding (MOU)

મ. હસ્તખોર ગરિયો

[Handwritten signature]

~~Page 1~~

~~11/11/11~~

2066/05/93

English Translation of Minutes of Meeting

Today dated 28 December, 2020, Monday, discussion in regard to DEDR and Social & Environmental aspects of Bhojpur DEWATS has been carried out in the meeting hall of Bhojpur Municipality under the presidency of Mayor-Mr. Kailash Kumar Ale and the decisions were made as follows:

Attendees:

1. Mayor- Mr. Kailash Kumar Ale
2. Chief District Officer-Mr. Krishna Prasad Bhandari
3. Deputy Project Director-Mr. Tika Bahadur Chaudhary (PMO)
4. Chief Executive Officer-Mr. Ram Prasad Dhungel
5. Regional Project Director-Mr. Padam Kunwar
6. Design Review Expert (PMQAC)-Mr. Shyam Prasad Upadhyaya
7. Waste Water Expert (PMO)-Mr. Prajwol Shrestha
8. Ward no. 3 Chairman-Mr. Kushal Thulung
9. Ward no. 4 Chairman-Mr. Prem Bhandari
10. Ward no. 7 Chairman- Mr. Jay Bahadur Tamang
11. Ward no. 8 Chairman- Mr. Gopal Karki
12. Ward no. 9 Chairman- Mr. Ram Bahadur Tamang
13. Engineer, RPMO, Itahari- Mr. Ankit Man Shrestha
14. TL, ERDSMC, UWSSP- Mr. Indra Poudyal
15. Chairman, Silingchung WUSC-Mr. Pravin Kumar Suwal
16. Engineer, Mr. Laxmi Prasad Chaudhary
17. Engineer, Mr. Surendra Rai
18. Ward no. 11 Chairman- Mr. Ashok Rai
19. Ward no. 9 Member- Mr. Sudip Karki
20. Member, Silingchung WUSC - Ms. Kalpana Devi Tamang
21. Admin, Silingchung WUSC -Mr.Krishna Sagar Tamang

Discussions & Decisions:

1. The draft report on the social & environmental aspects of the sewerage system that will be constructed along the main market area of Bhojpur Municipality and of the treatment plant to be constructed in three locations, has been prepared. This report preparation is preceded based on the provision of Social Safeguard Policy and Environmental Protection Rules under GON & ADB.
2. During the construction phase, the laying works of sewer pipe along the center of the road, the household sewer connection works and the construction of household collection chamber shall be preceded with least effects on the environment. The stakeholders, local authority especially municipality plays important role in this regard.
3. As the locations of the proposed treatment plants are in sloped areas, there is requirement of lot of earthwork excavation works and the possible environmental impacts while managing this earthwork shall be mitigated as far as possible.
4. Based upon this public discussion, it is informed that the environmental report and other reports required for the project shall be prepared considering the sustainability of the project.
5. It has also been informed that the effluent from the treatment plant shall be either directed to nearby small water bodies (Kholi) or to the agricultural fields.
6. The presentation on DEDR of Bhojpur Sewerage (DEWATS) Project has been carried out in today's discussion program. Accordingly, the Memorandum of Understanding (MoU) in regard to the project implementation has been signed between PMO and Mayor of Bhojpur Municipality.

d. Stakeholders' consultation on DEWATS treatment plant and Water supply

Bhojpur			
	Date:-	June 17-18, 2019 (2076-03-02 & 03)	
S. N.	Name	Organization	Designation
1	Jagat Bd. Tamang	Member WUSC	Member
2	Aagan Bd. Rai	Silichung WUSC	Coordinator
3	Nabin Budathoki	Silichung WUSC	Coordinator
4	Nar Shrestha	Committee	Member
5	Ganesh Shrestha	Users' Right	Coordinator
6	Nar Bahadur Mahat	User	Member
7	Prabin Kumar Shuwal	Silichung WUSC	Chairman
8	Sudip Karki	Silichung WUSC	Secretary (s. Sachiva)
9	Kaji Bd. Karki	Silichung WUSC	Member
10	Gopal Karki		Ward Secretary
11	Tufal Kirat Bantawa		Member
12	Narayan Bd. Karki		Member
13	Lakshmi Kumari Rai		Member
14	Krishna Sagar Tamang	Silichung WUSC	Manager
15	Lila Maya Tamang	Ji. Kha.	Under- Secretary
16	Kalpana Devi Tamang		Member
17	Dhurba Tamang		Plumber
18	Hari Kaji Pradhan		Office Helper
19	Indra Pradhan		Office Helper
20	Siddha Bd. Tamang		Technician
21	Min Bd. Tamang		Plumber
22	Parshuman Tamang		
23	Mamita Rai	Bhojpur	
24	Krishna Maya Tamang		Treasurer
25	Min Bd. Shrestha	9. 11	Coordinator
26	Chajapati Nepal	12	ward Member
27	Susila Rai		Collector
28	Binaya Bora		
29	Ram Bd. Tamang	ward office	Ward Secretary
30	Chiing Sherpa		ward Secretary (Sachib)
31	Daya Pd. Ghimire		Coordinator
32	Punya Pd. Luitel	Bhojpur Municipality	
33	Nabin Kumar Kalyan	Husue Kakai J.V	Engineer
34	Shrenabik Majhi	Husur	
35	Jay Bd. Tamang	Bhojpur Municipality	Ward Secretary
36	Nanda mani Rai	Municipality	adviser

37	Parshuram Tiwari	civil	Coordinator
38	Lakshmi Pd. Pradhan	Siling Kha. Pa	
39	Nain Pradhan	Siling Kha. Pa	
40	Dhurbalal Shrestha	Bhojpur Chamber of commerce	Chairman
41	Shailendra Karki	Bhojpur Municipality-6	ward Chairman
42	Nimesh Karki	WUSC , Staff	
43	Birkha Bd. Tamang	WUSC , Staff	
44	Jash Bd. Rai		
45	Gopal Khatri	Bhojpur Municipality-5	ward Chairman
46	Birkha Bd. Tamang	WUSC	Vice -secretary
47	Purushottam Neupane	Bhojpur Municipality	Accountant
48	Ladorchi Sherpa	Bhojpur Municipality	Ass . Administrative, Staff
49	Rib Prakash Shah	Third Small Town	
50	Renuka Poudel	small town	Social mobilizar
51	Tanka Dahal	small town	Office assistants
52	Binam Shrestha	WUSC	Secretary
53	Tikaram Pradhan	Bhojpur -6	Local
54	Padam Karki	Human right association Bhojpur Chapter	
55	Lakshmi Pd. Chaudhary	TAEC-ICON J.V	
56	Jitendra Chaudhary		
57	Shreeram Chaudhary	Consultant	

सहरी समितिका तथा सरसपाई (भोजपुर) आयोजना
उपभोक्ता समिति तथा सरकारीवालाहरुको अभिमुखिकरण कार्यक्रम/ तालिम
२०७५/०३/०२ र ०३ गते, भोजपुर
सहभागीको हस्तिलि

क्र.सं.	नाम	सम्बन्ध	पद	२०७५/०३/०२ को हस्तिलि	२०७५/०३/०३ को हस्तिलि	संकेत
१	जगत बा. तामा	समिति सदस्य	सदस्य	जगत	८७७१९-९२०६२४२५	८८
२	अमर पञ्चरुवा	समिति सदस्य	सदस्य	अमर	८७७१९-९२०६२४२५	८९
३	रमेश पञ्चरुवा	समिति सदस्य	सदस्य	रमेश	९८५२०५५५७०	९०
४	जगत राई	समिति सदस्य	सदस्य	जगत	९८५२०५५५७०	९१
५	जितेन्द्र श्रेष्ठ	उपभोक्ता समिति अध्यक्ष	प्रमुख	जितेन्द्र	९८५२०५५५७०	९२
६	बिर्भा श्रेष्ठ	उपभोक्ता समिति सदस्य	सदस्य	बिर्भा	९८५२०५५५७०	९३
७	विष्णु श्रेष्ठ	उपभोक्ता समिति सदस्य	सदस्य	विष्णु	९८५२०५५५७०	९४
८	सुन्दर श्रेष्ठ	उपभोक्ता समिति सदस्य	सदस्य	सुन्दर	९८५२०५५५७०	९५
९	सुन्दर श्रेष्ठ	उपभोक्ता समिति सदस्य	सदस्य	सुन्दर	९८५२०५५५७०	९६
१०	सुन्दर श्रेष्ठ	उपभोक्ता समिति सदस्य	सदस्य	सुन्दर	९८५२०५५५७०	९७
११	सुन्दर श्रेष्ठ	उपभोक्ता समिति सदस्य	सदस्य	सुन्दर	९८५२०५५५७०	९८
१२	सुन्दर श्रेष्ठ	उपभोक्ता समिति सदस्य	सदस्य	सुन्दर	९८५२०५५५७०	९९
१३	सुन्दर श्रेष्ठ	उपभोक्ता समिति सदस्य	सदस्य	सुन्दर	९८५२०५५५७०	१००

सहरी खानेपानी तथा सरसफाई (क्षेत्रगत) आयोजना
उपभोक्ता समिति तथा सरोकारवालाहरूको अभिमुखिकरण कार्यक्रम/ तालिम
२०७६/०३/०२ र ०३ गते, भोजपुर
सहभागीको हस्तिलि

क्र.सं.	नाम	संस्था	पद	२०७६/०३/०२ को हस्तिलि	२०७६/०३/०३ को हस्तिलि	उपिधायन
१४	कृष्ण सागर तालाउ	सि.ख.न.ल.दुङ्ग्रे	अध्यक्ष			
१५	लिला मध्य तालाउ	वि.ख.न.ल.ले	उपाध्यक्ष			९८४४३०८८
१६	उल्फता देवी तालाउ	मो.ज.३	सचिव			९८१२३३२११
१७	चिउरे तालाउ	१) ९	सचिव			९८४४३०८८
१८	सिनाकानी प्रस्ताव	मो.३	उपाध्यक्ष			९८४४३०८८
१९	दुङ्ग्रे प्रस्ताव	मो.६	उपाध्यक्ष			९८४४३०८८
२०	सिद्धेश्वर तालाउ	मो.९	सचिव			९८४४३०८८
२१	सिद्धेश्वर तालाउ	मो.९	सचिव			९८४४३०८८
२२	पुर्णमा तालाउ	मो.९	सचिव			९८४४३०८८
२३	मोर्जा राई	मो.९	सचिव			९८४४३०८८
२४	कृष्ण सागर तालाउ	सि.ख.न.ल.दुङ्ग्रे	अध्यक्ष			९८४४३०८८
२५	भो.३	मो.३	सचिव			९८४४३०८८
२६	दुङ्ग्रे तालाउ	मो.३	सचिव			९८४४३०८८

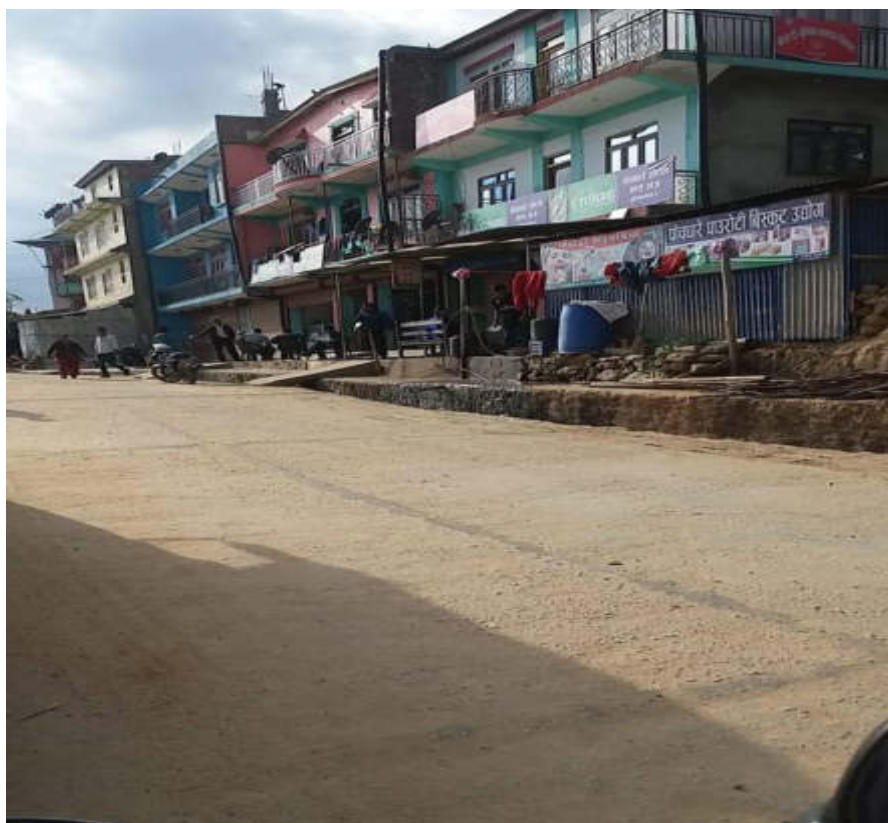
सहरी खानेपानी तथा सरसफाई (क्षेत्रगत) आयोजना
उपभोक्ता समिति तथा सरोकारवालाहरूको अभिमुखिकरण कार्यक्रम/ तालिम
२०७६/०३/०२ र ०३ गते, भोजपुर
सहभागीको हस्तिलि

क्र.सं.	नाम	संस्था	पद	२०७६/०३/०२ को हस्तिलि	२०७६/०३/०३ को हस्तिलि	उपिधायन
२७	सुर्खेत तालाउ	सि.ख.न.ल.दुङ्ग्रे	अध्यक्ष			९८४४३०८८
२८	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
२९	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
३०	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
३१	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
३२	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
३३	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
३४	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
३५	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
३६	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
३७	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
३८	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
३९	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
४०	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
४१	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
४२	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
४३	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
४४	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
४५	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
४६	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
४७	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
४८	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
४९	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८
५०	सिद्धेश्वर तालाउ	मो.३	सचिव			९८४४३०८८

[illegible]

क्र.सं.	नाम	पद	वर्ग	10/04/2019 को हस्ताक्षर	20/04/2019 को हस्ताक्षर	टीका
1.1	डिवायन प्रशासक	गौतम-6 प्रशासक				5/5/2019/2019
1.2	प्रमुख अधिकारी	प्रमुख अधिकारी (प्रशासक)	CA/प्रशासक			
1.3	प्रमुख अधिकारी	Table-1/प्रशासक	CSE			
1.4	प्रमुख अधिकारी	प्र. आ. व. का. प्रशासक	इ.स. प्र.			
1.5	प्रमुख अधिकारी	प्रशासक	इ.स. प्र.			
1.6						
1.7						
1.8						
1.9						
1.10						
1.11						
1.12						
1.13						
1.14						
1.15						

Appendix-3: Photographs



Main road in Core Bazaar area of Bhojpur Municipality where sewer pipe will be laid



Core Bazaar area of Bhojpur Municipality



Core Bazaar area of Bhojpur Municipality



View of Bhojpur Bazar Area



Proposed site for construction of WWTP -1 Dhokale Kholshi ward no 8



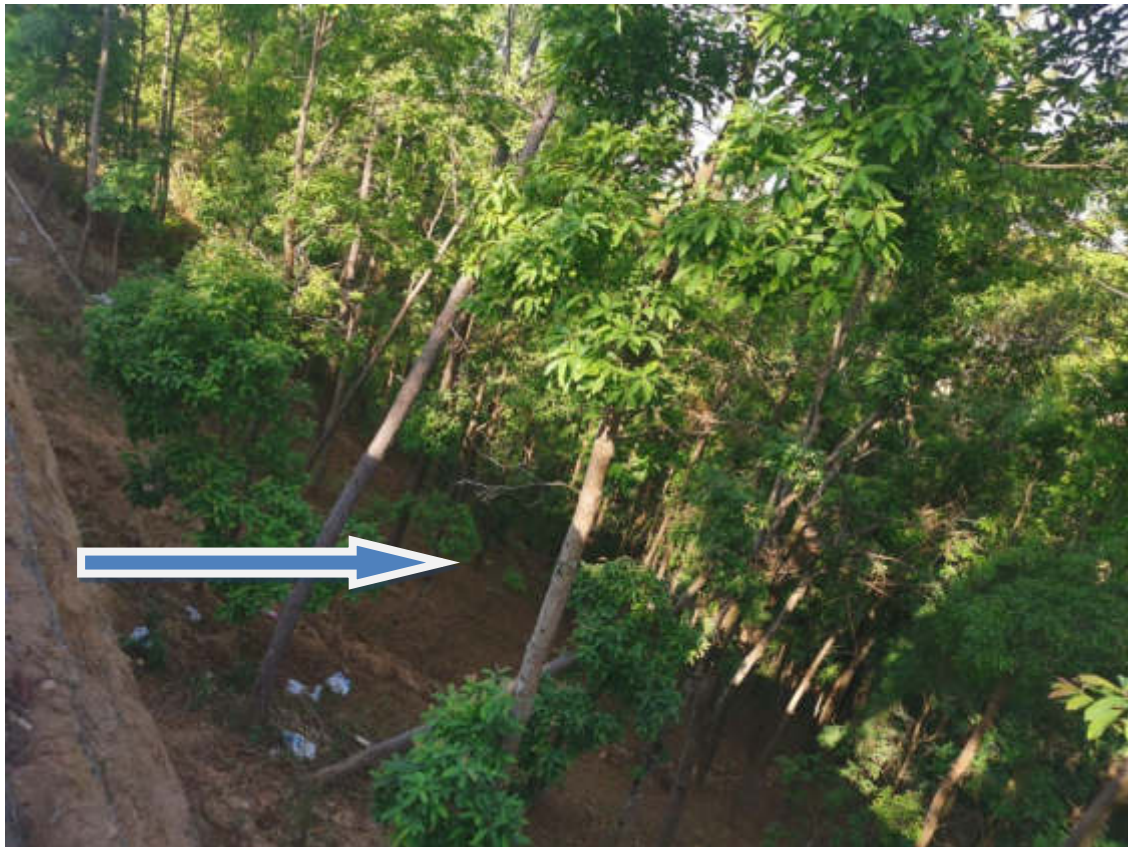
WWTP-1 at Ward no. 8-Dhokle Kholshi



Outfall of WWTP 1 - Dhokle Kholasi at Ward no. 8 – Dhokle Kholasi



Proposed site for construction of WWTP -2 at Ward no. 7-Ramailo Ban



Outfall of WWTP 2 – Dipeni Kholshi at Ward no. 7 – Ramailo Ban



Proposed site for construction of WWTP -3 at Ward no. 7 & 12-Siddhikane Community Forest



Outfall of WWTP -3

Outfall of WWTP 3 –at Ward no. 7 & 12 – Kholi in Siddhikane Community Forest



Consultation/ orientation program in Bhojpur June 18, 2019 for DEWATS project



Consultation meeting with the Mayor of Bhojpur Municipality 28 December 2020 for DEWATS project



Consultation meeting with WUSC and Ward Chairman 26 April 2021 for DEWATS Project



Consultation meeting with WUSC and Ward Chairman 26 April 2021 for DEWATS project



Consultation meeting with WUSC and Ward Chairman 26 April 2021 for DEWATS project



Consultation meeting with WUSC and Ward Chairman 26 April 2021 for DEWATS project



Bhojpur Bazaar Area where sewer pipe is proposed to be laid



Narrow width road at Bhojpur Bazar, near at district court area



Public hearing meeting in Bhojpur Municipality April 26 2021 for DEWATS project

Appendix-4: Social Safeguards Screening Checklists

Nepal

Decentralise Wastewater Treatment Plant (DEWAT), Bhojpur

January, 2021

I. Involuntary Resettlement Impact Screening Checklist (Note: Involuntary Land Acquisition is not required for the DEWATS project)

A. Probable Resettlement Effects	Yes	No	Known	Remarks
Acquisition of Land				
1. Will there be land acquisition?		√		Only government land and road ROW will be utilized for the project
2. Is the site for land acquisition known?				Not Applicable
3. Is the ownership status and current usage of land to be acquired known?				Not Applicable
4. Will easement be utilized within an existing Right of Way (ROW)?	√			Sewer line will be built on road ROW or centreline of the road
5. Will there be loss of shelter and residential land due to land acquisition?				Not Applicable
6. Will there be loss of agricultural and other productive assets due to land acquisition?				Not Applicable
7. Will there be losses of crops, trees, and fixed assets due to land acquisition?		√		There is requirement of cutting down of about 10 trees (Around 6 trees of pine <i>Pinus roxburghii</i> , 2 trees like Chilaine <i>Schima wallichii</i> and 2 trees of Uttis <i>Alnus nepalensis</i>). However, the project will avoid tree felling as far as possible. Similarly, for the construction of WWTP-2 and 3 at Ramailo Ban and Siddhikarne Community forest there is requirement of clearing of some bushes and shrubs only. Plantation of 100 tree saplings for the loss of 10 trees in and around the project area as EPR 2077 B.S. (2020 A.D.) obliges compensatory plantation in the ratio 1:10 for every tree felled. Compensatory

				greenery management/promotion/compensatory plantation budget is allocated in IEE (EMP Chapter VIII).
8. Will there be loss of businesses or enterprises due to land acquisition?				Not Applicable
9. Will there be loss of income sources and means of livelihoods due to land acquisition?				Not Applicable
Involuntary restrictions on land use or on access to legally designated parks and protected areas				
10. Will people lose access to natural resources, communal facilities and services?		√		
11. If land use is changed, will it have an adverse impact on social and economic activities?		√		
12. Will access to land and resources owned communally or by the state be restricted?		√		
Information on Displaced Persons: Any estimate of the likely number of persons that will be displaced by the Subproject? Not Applicable [] No [] Yes If yes, approximately how many? Are any of them poor, female-heads of households, or vulnerable to poverty risks? Not applicable [] No [] Yes Are any displaced persons from indigenous or ethnic minority groups? Not applicable [] No [] Yes				

II. Indigenous Peoples Impact Screening Checklist

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
Indigenous Peoples Identification				
1. Are there socio-cultural groups present in or use the project area who may be considered as "tribes" (hill tribes, scheduled tribes, tribal peoples), "minorities" (ethnic or national minorities), or "indigenous communities" in the project area?	√			Janajati communities form a large proportion of town population. No traditional lands of indigenous people have been observed. No adverse impacts to Janajati communities are anticipated. Such communities will be benefited under the project through its framework for inclusion of the poor and vulnerable. The project area has 63.7% indigenous people.
2. Are there national or local laws or policies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?	√			
3. Do such groups self-identify as being part of a distinct social and cultural group?	√			
4. Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?		√		
5. Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?	√			
6. Do such groups speak a distinct language or dialect?	√			The ethnic groups in the service area speak their own distinct languages among their members, but Nepali is spoken as common language.
7. Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?		√		The project area is populated by indigenous group (Newar, Rai, Magar, Tamang etc). They are economically, socially and politically privileged in the community. The municipality mayor represents from Magar community and Deputy mayor from Rai community.

8. Are such groups represented as "Indigenous Peoples" or as "ethnic minorities" or "scheduled tribes" or "tribal populations" in any formal decision-making bodies at the national or local levels?	√			The Janajati (IP) and Dalits are included in WUSC. Most of the community forest user committees and Community Irrigation Committees and Water Supply Committee are led by indigenous people.
B. Identification of Potential Impacts				
9. Will the project directly or indirectly benefit or target Indigenous Peoples?	√			The subproject directly benefits the indigenous peoples because all the beneficiaries will receive service irrespective of their ethnicity/caste and economic status. Therefore, the impact on Janajatis will be positive. The project's policy for inclusion of poor and vulnerable will ensure that Janajati households are included in project benefits. Labors from Indigenous Peoples community will be given preferences during construction period. Majority of the labor workforce will be from Tamang, Magar and Rai community (Indigenous People). Laboratory technician, operator, driver and helper will be recruited in O&M period from Indigenous Peoples community. The allocation of budget and required manpower of O&M period is mentioned in final DEDR (Section 5.6).
10. Will the project directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)		√		
11. Will the project affect the livelihood systems of Indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status)		√		
12. Will the project be in an area (land or territory) occupied, owned, or used by Indigenous Peoples, and/or claimed as ancestral domain?		√		
C. Identification of Special Requirements				
<i>Will the project activities include:</i>				

13. Commercial development of the cultural resources and knowledge of Indigenous Peoples?		√		
14. Physical displacement from traditional or customary lands?		√		
15. Commercial development of natural resources (such as minerals, hydrocarbons, forests, water, hunting or fishing grounds) within customary lands under use that would impact the livelihoods or the cultural, ceremonial, spiritual uses that define the identity and community of Indigenous Peoples?		√		
16. Establishing legal recognition of rights to lands and territories that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?		√		
17. Acquisition of lands that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?		√		

3. Anticipated project impacts on Indigenous Peoples

Project component/ activity/ output	Anticipated positive effect	Anticipated negative effect
1. Decentralise Wastewater Treatment Plants.	Improvement in environmental sanitation and personal hygiene. Employment opportunities.	No negative impact is anticipated for Indigenous people as personal hygiene of indigenous people will be enhanced, environmental sanitation of Indigenous community will be improved and employment opportunities in the project is ascertained.
2. Sewer Line	Improvement in environmental sanitation and personal hygiene. Employment opportunities during construction phase. Enhance aesthetic value of the area.	No negative impact is anticipated for Indigenous people as personal hygiene of indigenous people will be enhanced, environmental sanitation of Indigenous community will be improved, employment opportunities during construction and maintenance phase of project is ascertained and add aesthetic value in indigenous community.
3. Sludge Drying Bed	Improvement in environmental sanitation and personal hygiene. Employment opportunities and generate revenue.	No negative impact is anticipated for Indigenous people as personal hygiene of indigenous people will be enhanced, environmental sanitation of Indigenous community will be improved, employment

		opportunities in the project and enable to generate revenue from waste/sludge.
4. Effluent Outfalls	Improvement in environmental sanitation and personal hygiene. Enhancement of the irrigation system through discharge of treated water in streams.	No negative impact is anticipated for Indigenous people as personal hygiene of indigenous people will be enhanced, environmental sanitation of Indigenous community will be improved and access to treated waste water for irrigation purpose by the indigenous people.

Appendix-5: SPECIFIC ACTION PLAN FOR INDIGENOUS PEOPLE

S N	Activity	Targets and Indicators	Time frame	Financing Source	Lump sum Budget	Responsibility	Evidence
1	Project Information Dissemination and Consultation with IP in ward no. 7, 8 ,9 and 12 of Bhojpur Municipality (Service area of Bhojpur DEWATS)	Representatives of at least 400 households will participate in consultations	Every quarter of 1 st and 2 nd year	PMO/ERPMO Budget heading no. 31301108 UWSSP. Expenditure code no 22512 Resettlement/ Skill developments awareness, training and workshop	ERPMO/ ERDSMC NRs. 100000	PMO/ ERMPO ERDSMC/P MQAC/Municipality	Meeting Minutes and Photographs
2	GRC formation	Municipal level GRC formation with IP representation, including vulnerable IP groups.	1 st quarter of 1 st year	PMO/ERPMO Budget heading no. 31301108 UWSSP. Expenditure code no 22512 Resettlement/ Skill developments awareness, training and workshop	ERPMO/ ERDSMC 10000	PMO/ ERMPO ERDSMC/P MQAC/Municipality	Minutes of meetings Formal notice on GRC issued by Municipality Detail list of GRC membership
3	Brief Baseline Survey for Identification of IP household	Identification of IP households. Final name list of IP household: Poor, vulnerable single women headed households etc.	1 st year	PMO/ERPMO Budget heading no. 31301108 UWSSP. Expenditure code no 22512 Resettlement/ Skill developments awareness, training and workshop.	ERPMO/ ERDSMC This data will be taken from the baseline survey UWSSP prepared by ERDSMC or GESI Report.	PMO/ ERMPO ERDSMC/P MQAC/Municipality	Questionnaire, Output data, Final Name list of IP households

S N	Activity	Targets and Indicators	Time frame	Financing Source	Lump sum Budget	Responsibility	Evidence
4	Awareness program to IP community	500 IEC materials (Poster and Calendar) developed and distributed to IP community on WASH, Prevention and Control of COVID-19, Impact of open defecation and environmental pollution.	1 st quarter of 1 st year	PMO/ERPMO Budget heading no. 31301108 UWSSP. Expenditure code no 22512 Resettlement/ Skill developments awareness, training and workshop	NRs. 60000	PMO/ERMPO ERDSMC/PMQAC/Municipality	Copies of posters and calendar developed
5	Workshop/training on Waste Water Management and Solid Waste Management practices (Compost/manure making at home). Compost bin distribution to the participants.	4 wards (ward number 7, 8, 9 and 12) X 24 households (1 participant from each household); at least 50% Female). Total 96 IP households	1 st quarter of 2 nd year	PMO/ERPMO Budget heading no. 31301108 UWSSP. Expenditure code no 22512 Resettlement/ Skill developments awareness, training and workshop	NRs. 400000	PMO/ERMPO ERDSMC/PMQAC/Municipality	Minutes of meeting, attendance sheet, photographs of training etc.
6	Recruitment of IP as Laboratory technician, operator, driver and helper during O&M period.	Minimum 5 persons including male and female or 50% of total recruitment.	O&M period	The allocation of budget and required manpower of O&M period is mentioned in final DEDR (Section 5.6).	By the Project	PMO/ERMPO ERDSMC/PMQAC/Municipality	Appointment letter from the concerned office and attendance sheet.
7	Skill Development Training and Employment Opportunity for Trainees	Plumbing training: 5 additional participants-over and above GESI target-including women from IP community will be included in 90 hours Plumbing training.	Same as GESI action plan	PMO/ERPMO Budget heading no. 31301108 UWSSP. Expenditure code no 22512 Resettlement/ Skill developments awareness, training and workshop	NRs. 130,000 (for additional 5 person)	PMO/ERMPO ERDSMC/PMQAC/Municipality	Name list of Participants and copies of certificates.
8	End line Survey	Assessment of: i. WASH practices ii. Behavior change in Prevention and	End of 2 nd year (During O&M Period)	PMO/ERPMO Budget heading no. 31301108 UWSSP. Expenditure code no 22512 Resettlement/ Skill	NRs. 100000	PMO/ERMPO ERDSMC/PMQAC	Report of end line survey of IP households including involvement in

S N	Activity	Targets and Indicators	Time frame	Financing Source	Lump sum Budget	Responsibil ity	Evidence
		Control of COVID-19, iii. Defecation practice and environmental hygiene. iv. Waste Water Management Practices v. Solid Waste management practices vi. Employment of IP in the project, vii. Enhancement of plumbing skill of IP		developments awareness, training and workshop			income generation activities, socio-economic status, copies of certificates, case stories and photographs.
Total					NRs. 8,00000		